

H2020 FLEXIGROBOTS

Flexible robots for intelligent automation of precision agriculture operations

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AGRICULTURE FOR LIFE, LIFE FOR AGRICULTURE



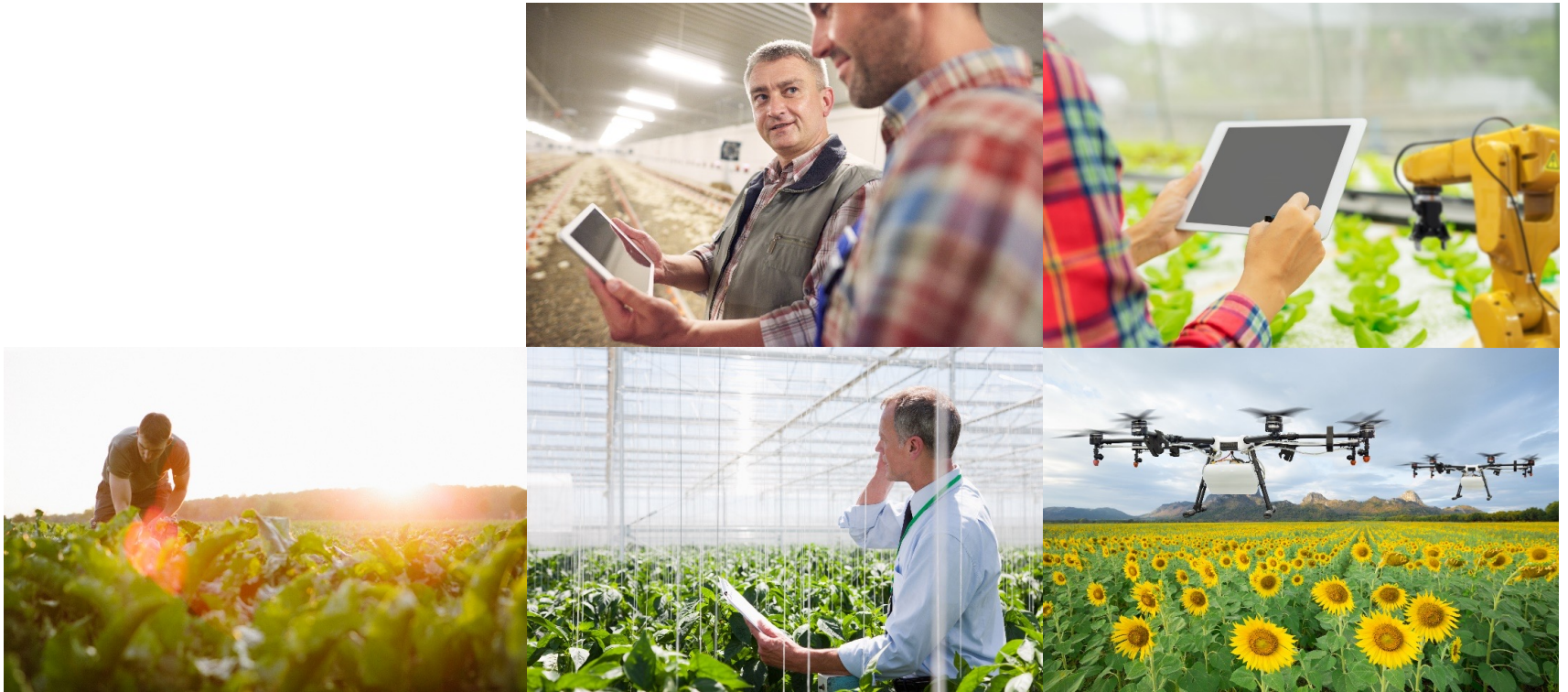
VIRAL Workshop

“The role and importance of ICT in Agriculture future development”

June 4th, 16:00-18:00, Bucharest time zone



Digitalising agriculture



Ambition and objectives

Challenges of current agriculture robotics systems

1. Design to automate only specific tasks.
2. Isolated from other systems and devices.
3. Higher safety risk and impact on the fields.
4. Specialised training for operation.
5. Low return of investment.

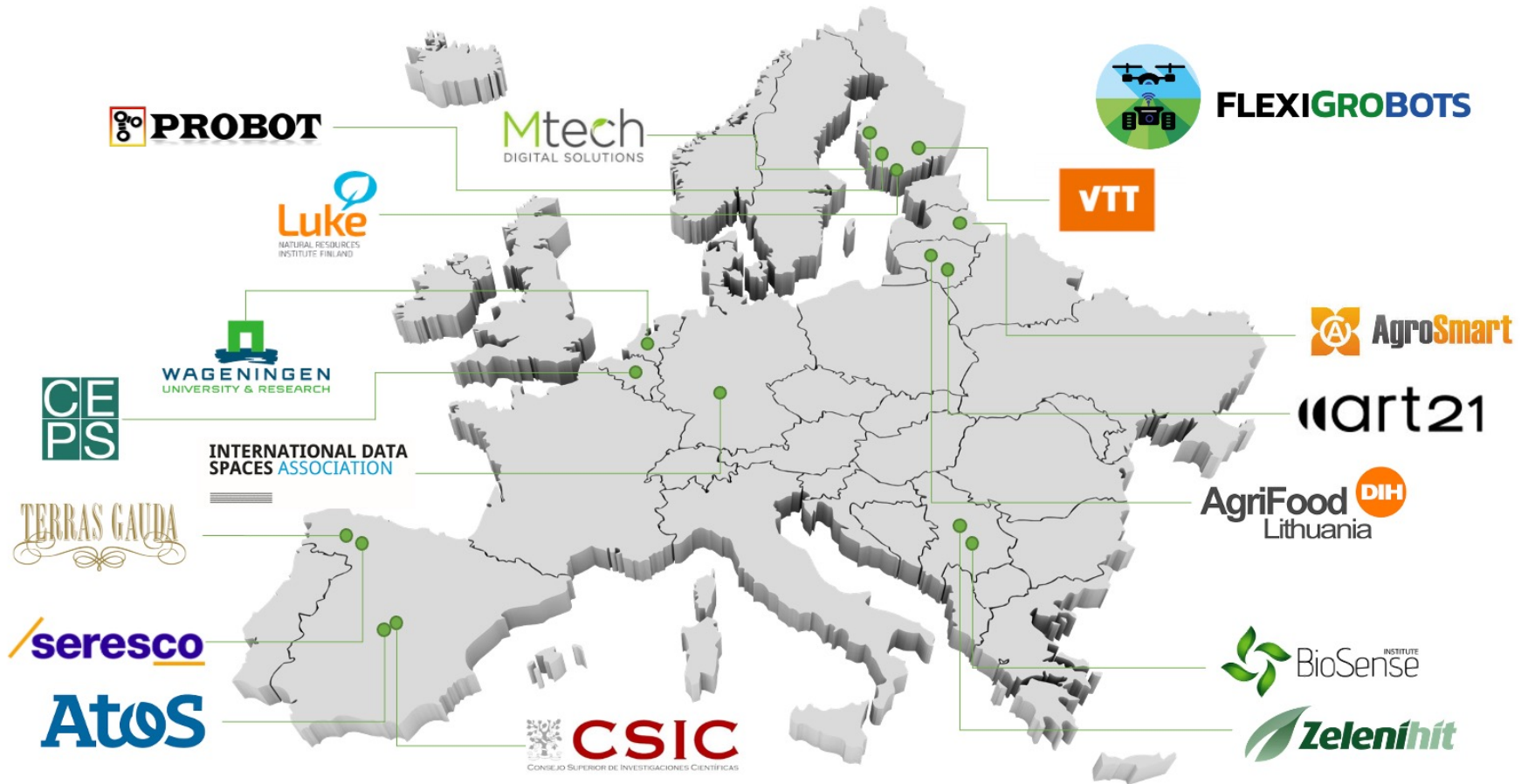


Vision

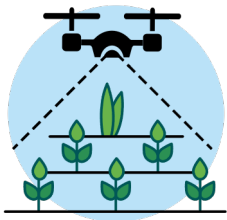
Cost-effective multi-robot systems for heterogeneous, safe and complex agricultural missions



Partners



Approach



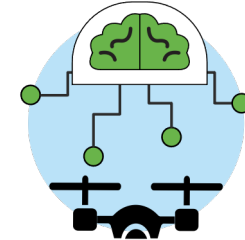
Reference architecture



Secure data exchange



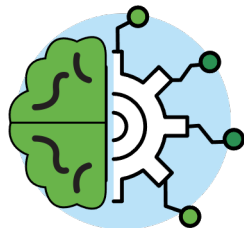
AI-driven robotics, services & analytics



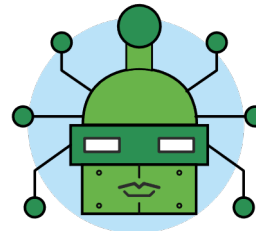
Trustworthy multi-robot systems



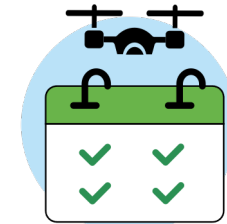
Large-scale industry validation



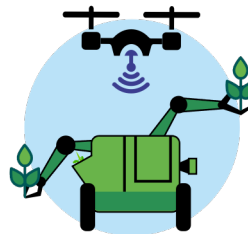
Business models for agriculture



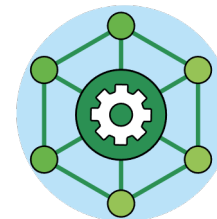
Reinforcement of AI4EU platform



ELSEC guidelines & requirements



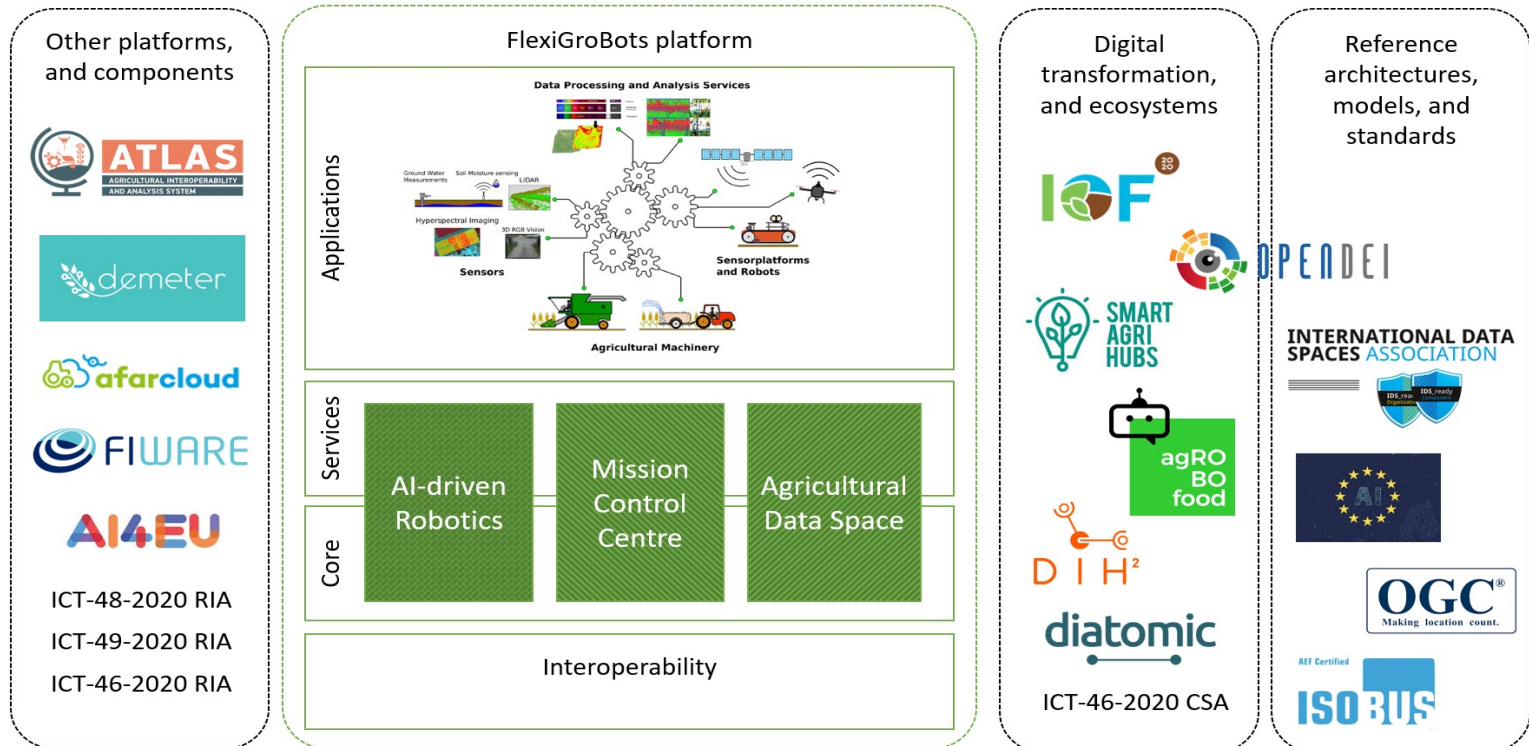
Heterogeneous multi-robots LSPs



Enlarge DIHs capabilities

FlexiGroBots platform

Open platform which integrates and leverages existent technology



Grapevines – Terras Gauda (Spain)

- 1 Early detection of Botrytis
- 2 Phytosanitary treatment
- 3 Grape transport robots



Pilots

Rapeseeds (Finland)

- 1 Rapeseed pest control
- 2 Rumex plant weeding in grasslands
- 3 Silage harvesting



Pilots

Blueberries (Lithuania & Serbia)

- 1 Blueberry monitoring
- 2 Automated field soil sampling and analysis
- 3 Early-stage blueberry disease detection
- 4 Targeted and autonomous agrichemical spraying



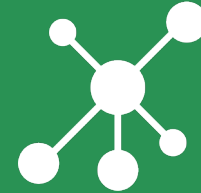
FlexiGroBots impact



**Demonstrate the
impact of robots
in the agri-food
sector**



**Reduction of
risks for large-
scale robotics
systems**



**Empower DIHs
with new
services and
capabilities**



**Contribute to
open, industry-
led or de-facto
standards**



**Competitiveness
of European
agricultural
market**



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