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
Pilots

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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Thank you!
www.flexigrobots-h2020.eu

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