



Fostering and Enabling AI, Data and Robotics Technologies for Supporting Human Workers in Harvesting Wild

Food

Paul Chippendale¹, Grilli Eleonora¹, Marjut Turtiainen² and Birgitta Partanen²

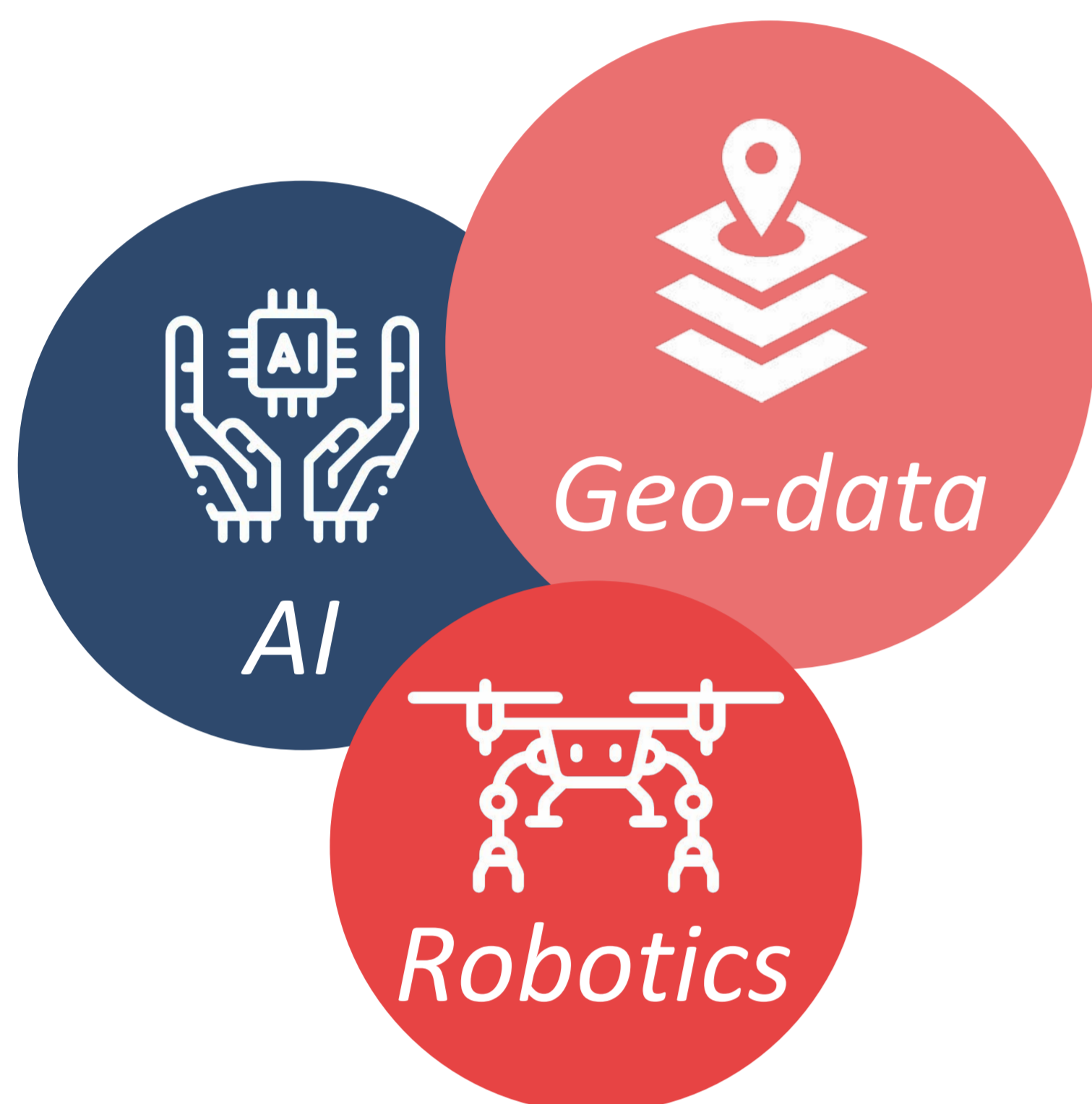
¹ Fondazione Bruno Kessler (FBK), Italy, ² Arktiset Aromit ry, Finland

Objectives

- **Improve wild-berry picking yields & working conditions** through AI, data, and drones
- **Optimize operations** and help workers to more easily locate and predict ripe berry harvests
- Demonstrate how we can **improve the wild berry business**



ferox.fbk.eu



Approach

- Generate detailed **3D models** of forests
- Produce **navigational advice** for pickers
- Provide **air-transportation** of harvests
- Create new **health support services** for remote locations



Challenges

- **Multi-sensor** system design and integration
- **Flying and coordinating** fleets of **drones** both **above** and **below** the **tree canopy**
- **Vegetation type** detection, classification and mapping
- **Berry localisation** with ripeness/yield estimates



Impact

- **Scientific:** Explore benefits and impact of AI technologies and drones for robot-human wilderness applications
- **Societal:** Improve the trust and acceptance of using AI, data-driven solutions and drones with an aim of encouraging locals to take up commercial berry harvesting activities
- **Economy:** Create new business opportunities for SMEs and citizens, increasing the utilization of wild berries; extending the EU's lead in the production of wild berries

Partners



Co-funded by
the European Union

The FEROX project has received funding from the European Union's Horizon 2020 Framework Programme for Research and Innovation under the Grant Agreement no 101070440 - call HORIZON-CL4-2021-DIGITAL-EMERGING-01-10: AI, Data and Robotics at work (IA)