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Project Facts

Work programme:

Horizon Europe

Duration:

36 months / Starting from
1 July 2022

Total cost:

€ 5.949.747

Coordinator:

ACCELIGENCE LTD.

Consortium



Funded by the
European Union

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A Holistic Approach to Sustainable, Digital EU Agriculture, Forestry, Livestock and Rural Development based on Reconfigurable Aerial Enablers and Edge Artificial Intelligence-on-Demand Systems



The project

CHAMELEON is a Horizon Europe Project that aims to optimise production and identify potential problems in agriculture, livestock, forestry and rural areas.

To achieve this, the CHAMELEON Project will build a novel reconfigurable and multipurpose drone platform ecosystem featuring heterogeneous UV (Unmanned Vehicle) agent networks operating in air with its supporting communication protocols, navigation and control strategies and monitoring station, capable of autonomously operating on any area efficiently and cost-effectively.

Advanced Supporting Technologies

Able to support diverse functionality and cover the requirements of different operational missions in **agriculture**, **livestock**, **forestry** and **rural areas**.

Expandable and configurable UAVs

A highly novel UAV solution that is on demand and multi-purpose.

Three layered approach

Data from low altitude drones, high altitude fixed wing UAVs and satellites.

Universal support of aerial platform (UAVs, RPAs)

Through the implementation of the CHAMELEON App Store.

AI algorithms execution on board

Assisted by the on-board NVIDIA GPU delivering incredible AI performance.

Holistic agroforestry solution

Maximise the probability of potential problems identification across heterogeneous sources and networks.

Pilot Activities

CHAMELEON advances will be validated in three pilot use cases in Spain, Greece and Austria.

Pilot 1: Avila, Spain

Automate the generation of forest fires defence plans for rural areas, especially in those areas with high risk in their urban-forest interface.

Pilot 2: Crete, Greece

Validate the capacity of the CHAMELEON platform for tracking and health assessment of individual animals and assess its operational feasibility for a range of breeders, according to the size of their animal capital.

Pilot 3: Austria

Validate the capacity of the CHAMELEON platform ecosystem for tracking water status, health of plants, health assessment of vineyards, the potential to generate a range of ecosystem services at multiple scales including mitigation of greenhouse gas emissions through long-term carbon storage and intervention strategies.

