



## Piloting of intelligent unmanned systems in Northern Ostrobothnia

The ÄlyPilot project strengthens regional expertise and innovation capacity in the field of unmanned systems. The project, co-funded by the European Union (ERDF), develops and pilots practical solutions based on regional needs and an end-user perspective. At the same time, it shares knowledge and experiences with regional stakeholders. In addition, it examines how the developed solutions could be utilised in other sectors and explores the opportunities they present from a commercialisation perspective.

Information:

<https://net.centria.fi/en/project/alyipilot/>



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## New opportunities with unmanned systems

Awareness of unmanned systems, such as drones (UAVs) and remotely operated ground vehicles (UGVs), has increased significantly in recent years, and their use has gradually moved from experimentation towards practical applications across various sectors. At the same time, interest in their utilisation has grown, and different fields have begun to consider how these electrically powered solutions could be integrated into daily operations. They are viewed both as complements to existing methods and as alternative solutions that can improve efficiency or enable entirely new business opportunities.

Although there are already many potential use cases, their adoption in business remains relatively limited. One key reason for this is a lack of knowledge. Not all companies have sufficient understanding of the technologies, their potential applications, or, for example, regulatory requirements. In addition, introducing new technologies requires time and resources, which are not always readily available, especially for smaller companies alongside their day-to-day operations.

As a result, many opportunities remain underutilised. Unmanned systems are often used only as part of other activities, and independent business models built around them are still relatively rare. Therefore, it is important to identify and develop solutions that are genuinely practical, economically viable, and feasible to implement.

Electrically powered drones and unmanned systems can, in many situations, provide an alternative to traditional solutions. They may be faster, produce fewer emissions, and in some cases also be safer to use. Due to these characteristics, they offer a wide range of potential applications across different sectors.

The aim of the ÄlyPilot project is to identify use cases for unmanned systems, particularly to meet the needs of agriculture, forestry, and industry in the North Ostrobothnia region. The work is carried out in collaboration with regional stakeholders, starting from practical, real-world needs.

### Piloting of intelligent unmanned systems in Northern Ostrobothnia (ÄlyPilot)

Group project, implementers and their project numbers at EURA:

A80787 / **Centria University of Applied Sciences**

A80789 / **Haapaveden-Siikalatvan seutukunnan kehittämiskeskus**

A80788 / **NIHAK**

Project duration: **1.5.2023 – 30.9.2026**

Funding: ERDF - Objective 1. Innovative Finland - 1.1 Enhancing research and innovation capacities and the uptake of advanced technologies

Total funding: **732 458 €**

Co-funded by the EU: **481 220 €**

## Nearly twenty pilot projects have been carried out

The ÄlyPilot pilots have mainly focused on needs arising from agriculture and forestry, but a few industrial use cases have also been included. In agriculture, particular interest was directed towards applications that examine field surface contours and moisture accumulation, as well as the detection and identification of harmful invasive species and plant diseases using drone technology.

In the forestry sector, the focus was especially on planning and optimising harvesting operations based on data collected by drones. However, one pilot also explored the transport of seedlings using a drone, and another examined the moisture levels of tree seedlings in a greenhouse using a thermal camera. Industrial pilots focused, among other things, on internal logistics and traffic management.

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