

# UC5a – LPIS: Update and Change Detection

## Description of the Use Case

The use case aims to minimize manual procedures related to the LPIS administration, and the CAP application. The method to reach the goal, is by providing algorithms to update LPIS automatically. More precisely to set up change detection processes using machine and/or deep learning based on orthophotos and other relevant data. The inputdata for the algorithms are orthophotos, thereby securing the updates will be delivered in the quality level expected by the European Commission.

## Innovation in the Use Case

By using machine and/or deep learning to update LPIS, the use case aims to be the first of its kind, to deliver algorithms in a quality that can be used for automatic updates of LPIS.

The output of other similar projects are markers/warnings, that has to be manually assessed afterwards, and thereby not providing automatization.

### **Benefits**

More cost-effective for:

Paying agencies  $\rightarrow$  Potentially the algorithmsLess retroactive recovery of payment and a higher quality of LPIS.

Farmers  $\rightarrow$  The quality of LPIS will increase, and thereby it will be easier to do more correct claims for each farmer.

### Involvement of stakeholders

LPIS is a fundamental element for the aid application, and it is updated by the paying agencies, making the paying agencies the primary stakeholders as the users of the updating of LPIS.

Therefor one of the first things conducted were a survey into similar projects in the paying agencies, with the focus of automization.

Later in the process different paying agencies within NIVA will test the results of the use case.