

# Process consulting and implementation of the ALL-EMA database

**EBP has helped the Agroscope Research Institute to migrate its ALL-EMA project infrastructure to a comprehensive system with a central repository and efficient processes for data management and analysis.**

In the context of its ALL-EMA long-term study, Agroscope is gaining a better understanding of biodiversity in Switzerland by gathering field data on flora and habitat types. Before launching the first season of actual fieldwork, Agroscope wanted to inspect, consolidate and improve its ALL-EMA data-gathering, -storage and -analysis system including repositories, data flows and responsibilities.

During the first project phase, in a series of practical workshops EBP helped Agroscope to develop a clear structure for the ALL-EMA system landscape. The processes for collecting and updating data as well as the data models were defined and documented. The specifications that would have to be met by the future operational infrastructure (data import, export and processing tools) were compiled in a product backlog in the form of user stories in accordance with the latest agile software development methods.

During the second project phase, the collected user stories were prioritised and implemented in the context of 3 sprints. The scope of the development included Esri ArcGIS Python custom tools and toolboxes as well as other Python programs. These tools permit the import of field data, the derivation of baseline data for sampling design and the export of data in the relevant exchange formats.

Finally, the ALL-EMA architecture, the various data sources, workflows and questions relating to IT security and responsibilities were recorded in a system manual and data documentations.

## Client

Agroscope, Institute for Sustainability  
Sciences

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## Facts

Period 2014 - 2024

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Project Country Switzerland

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