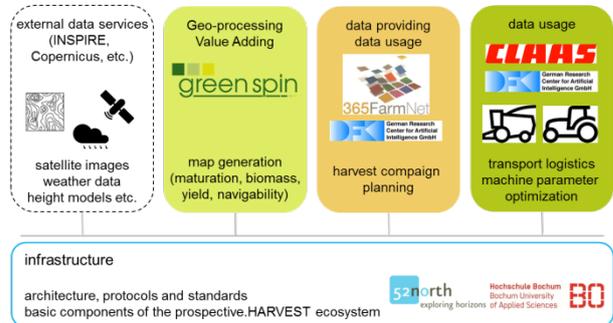


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Methods and technologies to provide proactive planning and controlling of cooperative agriculture processes, exemplified by silage maize harvesting



Proactive planning for silage maize harvesting
(Source: CLAAS KGaA mbH)



Cooperation of the partners within the project prospective.HARVEST

The aim of this joint project is the realization of an infrastructure to provide proactive support for agriculture processes, taking silage maize harvesting as an example of use.

The key component is the integration of data from sources that are already available, yet unused in this application scenario so far. The data comes from farm management systems, as well as the machines themselves, public geo-information infrastructures (such as Copernicus) and other external sources (e.g., harvest forecasts).

This data is made accessible and provided to the users as complementary services:

- One service takes over the semi-automated planning of a harvesting campaign, based on information such as yield and soil trafficability.
- Another service performs the dynamic planning of all machines, based on current machine data and spatially differentiated yield prediction.
- A third service provides means for a proactive adjustment of the harvester, based on the integration of environment information, the spatial distribution of the yield and the current machine data.

The developed services are provided by an open, service orientated software architecture, which is specified and implemented in this project. It heeds national and international standards from agricultural and geoinformation technology, as well as general IT standards.

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