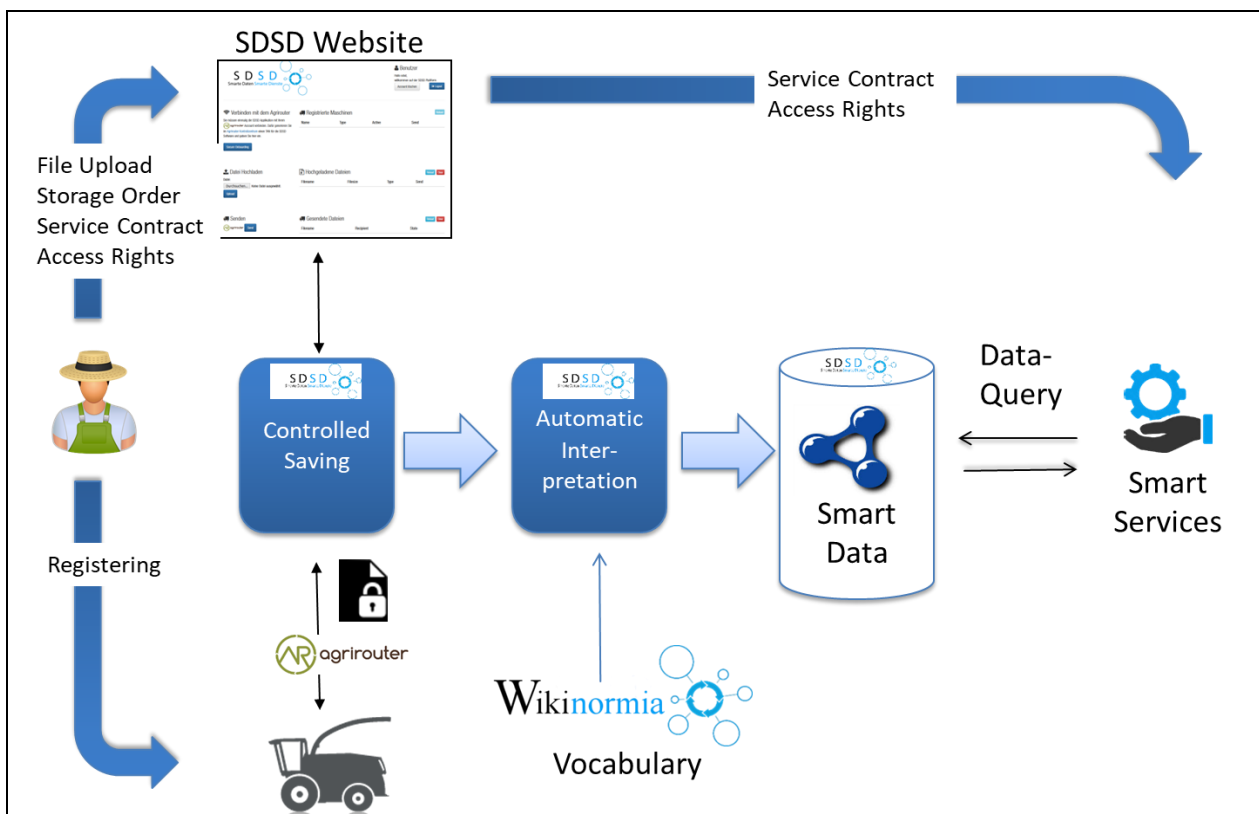


SDSD as contribution to the digital transformation in agriculture

Project duration: 20.06.2017 – 19.06.2020

As part of the research project SDSD - Smart Data, **Smart Services**, a mixed consortium of research institutions, agricultural technology manufacturers and software providers is working on the development of a comprehensive system landscape for the digitization of agricultural processes. The goal is to create a way to bring together agricultural relevant data from different sources and to make it accessible for processing by various services. The SDSD platform connects to the agrirouter of DKE-Data GmbH & Co.KG. Based on this cross-machine and cross-manufacturer data exchange platform, the SDSD platform is used to implement storage concepts that provide farming data in an understandable form for a variety of services. All manufacturers involved in the agricultural production process have recognized that production improvements, resource minimization and traceability of crop products can be achieved through Smart Data and **Smart Services**. Data protection, data security and, above all, data sovereignty (self-determination) are the most important requirements of farmers and contractors. These aspects are given high priority in the course of the project. The following figure shows schematically the structure of the SDSD platform.

How the SDSD platform works



Once the farmer has *registered* his machine, the farmer can exchange data via the *agri-router* with the SDS platform. The concrete data transmission takes place in the form of messages / message formats (ISOBUS / ISOXML data, EFDI and other data formats). With *storage orders*, the farmer can specify what data should be stored in the SDS platform (in a *controlled manner*) for how long. Accordingly, important operational information is then available for retrieval by the farmer. *Wikinormia* supports the formulation and discussion of shared terms. As a result, SDS has computer-readable *vocabularies* that allow *automatic interpretation* of the original data. The original documents are used to create computer-readable structured entries in a database (*Smart Data*). The *services* of many providers can *query* these structured data and thus receive information in the appropriate format, if *commissioned* by the farmer and equipped with *appropriate access rights*. Thus, smart services can be realized, which can provide the farmer with information and recommendations for the optimization of his processes by evaluating even complex data stocks, such as optimization of the sowing strength or targeted plant protection. Farmers, contractors, consultants and even the agricultural engineering industry see a clear potential for optimization through new and extensive linking and networking of information to smart data.

The Smart Data - **Smart Services** project forms the core of an open system consisting of several software components that enable cross-vendor and multi-service data exchange and data evaluation on the SDS platform. Openness to all interested parties ensures rapid and diverse development, strict neutrality and broad application within an increasing digitizing agriculture. SDS is designed for an introduction in Germany. Expendability for Western Europe, North America and other regions is included.

Projekt partners



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Gefördert durch:

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aufgrund eines Beschlusses des Deutschen Bundestages

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