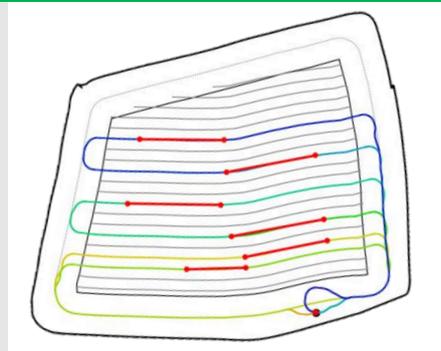


DFKI Competence Center - Smart Agriculture Technologies (CC-SaAT)

AI-Innovations for agriculture



agriculture robotics



assistent systems for agriculture machinery



knowledge management and mobile services

AI-Innovations for agriculture

The DFKI competence center Smart Agriculture Technologies (CC-SaAT) synergizes the competences of the German Research Center for Artificial Intelligence in the field of agriculture.

Agriculture is an ideal application area for AI technology: Many processes (such as field processing) rely on the collaboration of multiple agents, regarding spatial and temporal restrictions. Plants, animals and soil are components that are not technically controllable and require processing of knowledge that is both incomplete and changes over time. The special demands of large-scale, outdoor and potentially harsh environments offer an ideal opportunity to transfer and apply classic AI research topics, e.g., M2X communication, network technologies, autonomous control of mobile machines, robotics, as well as sensor-based semantic environment perception. Further areas of research include geocoded smart services, big data analysis and deep learning.

Particularly the increasingly important combination of farm management and information systems together with agricultural machines, external knowledge databases and other agents (farming 4.0) facilitates the integration of technologies from the area of distributed, semantic knowledge management.

As a primarily application-oriented competence center, CC-SaAT brings together different agricultural technologies developed at DFKI. For that purpose, it can rely on the collective expertise of the world's largest research center for artificial intelligence.

The area of application considers agriculture in a broad

sense and covers a wide range of topics, including arable and livestock farming, horticulture, forestry, viticulture and fishery. Together with industrial partners and other research institutes, CC-SaAT develops and applies innovative AI technologies in these fields. It is the central point of contact for partners from industry and research, and coordinates the corresponding activities within DFKI in these fields of application.

As a competence center of a non-profit, manufacturer-independent research institute, CC-SaAT's strength lies in addressing pre-competitive research topics and standardisation initiatives. Our innovation strength roots in interdisciplinary expert knowledge, based on broad cooperation of computer scientists, engineers, computer linguists, physicists, neurobiologists and psychologists – with practical application always being the main focus.

CC-SaAT is financed by national and European research projects as well as industrial projects. Our business activities – targeted towards regional mid-sized companies up to global industry leaders, organizations and stakeholders – include the individual development of intelligent software solutions, technology transfer of internationally awarded research results, innovation consulting, scientific support, market surveys and feasibility studies.



Kontakt:
DFKI GmbH

Dr. Stefan Stiene
Telefon: 0541 386050 2252

Dr. Ansgar Bernardi
0631 20575 1050

E-Mail: Cc-saat@dfki.de
Internet: <http://saat.dfki.de>