

SQAT

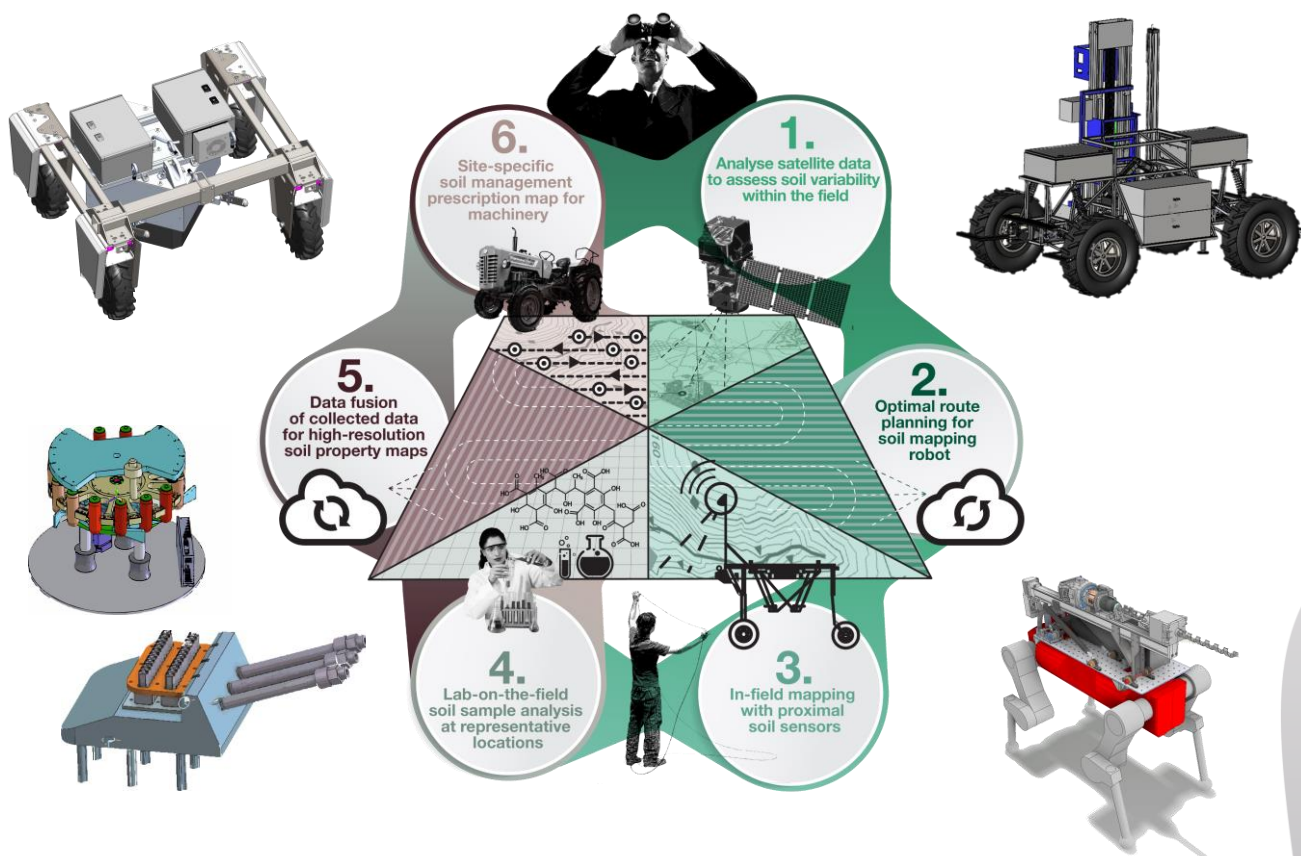
SOIL QUALITY ANALYSIS TOOL

Invitation to Field Demonstration

The project **SQAT (Soil Quality Analysis Tool)** [<https://sqat.farm/>] aims at developing integrated **smart farming solutions** for high-resolution soil mapping by combining **Earth Observation**, in-situ **soil sensors**, and **robotics**.

Satellite images will be used to assess **soil variability within the field** and to identify soil sampling locations and a route map for a proximal **soil sensing robot** doing high-resolution soil mapping. Then **soil sampling robots** will navigate to these points and sample the soil autonomously. Finally, a **lab-at-the-field** will do parts of the **reference analysis** for sensor calibration **directly on the site**. This aims at improving high-resolution soil mapping for **precision agriculture**.

We would like to cordially invite you to **present our current state of development on October 1, 2026, 10:00 – 16:00** at the **Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB)** in Potsdam.



Date: Thursday, 1 October, 2026
Time: 10:00 – 16:00
Location: ATB Fieldlab for Digital Agriculture, Hauptstr. 36b
14476 Potsdam - Marquardt
Language: English
Costs: Free of charge, including lunch and beverages
Registration: <https://www.eventbrite.de/e/sqat-field-demonstration-tickets-1997671831223>

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Research and Innovation SERI

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Agenda

09:30 – 10:00	Registration & coffee, tea, water
10:00 – 11:30	SQAT – Soil Quality Analysis Tool (Machine hall) [90 min, 10+5 min each] https://sqat.farm/ - SQAT general introduction & overall workflow (ABE, ATB) - Field campaign preparation, earth observation data & soil sampling locations (Aerovision) - Proximal soil sensing with NIRS robot (ATB, exobotic) - Soil profile sampling and penetrometer robot (ILVO) - Topsoil sampling robot (OST) - Lab-at-the-field reference analysis (Hahn-Schickard)
11:30 – 11:45	Coffee and bio break
11:45 – 12:10	HASHTAG [20+5 min] https://hashtag-project.eu/partners/
12:10 – 13:30	Lunchbreak (MRQ – Conference room) Soup and rolls (covered by ATB)
13:30 – 15:30	SQAT field demonstration (MRQ – test field 4)
15:30 – 16:00	Final feedback and discussion (MRQ – Machine hall)
16:00	End of workshop



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