PhenoCube – Unleashing the potential of multi-source satellite data and archives for phenological land monitoring

Christian Hüttich ¹, Steven Hill ¹, Christopher Conrad ², Jonas Eberle ³, Sina Truckenbrodt ^{3,5}, Daniel Spengler ⁴, Erik Borg ⁵

¹ Julius-Maximilians-Universität Würzburg, ² Martin-Luther-University Halle-Wittenberg, ³ Friedrich-Schiller-Universität Jena, ⁴ German Research Center for Geo-Sciences, ⁵ German Aerospace Center

Motivation & Goals

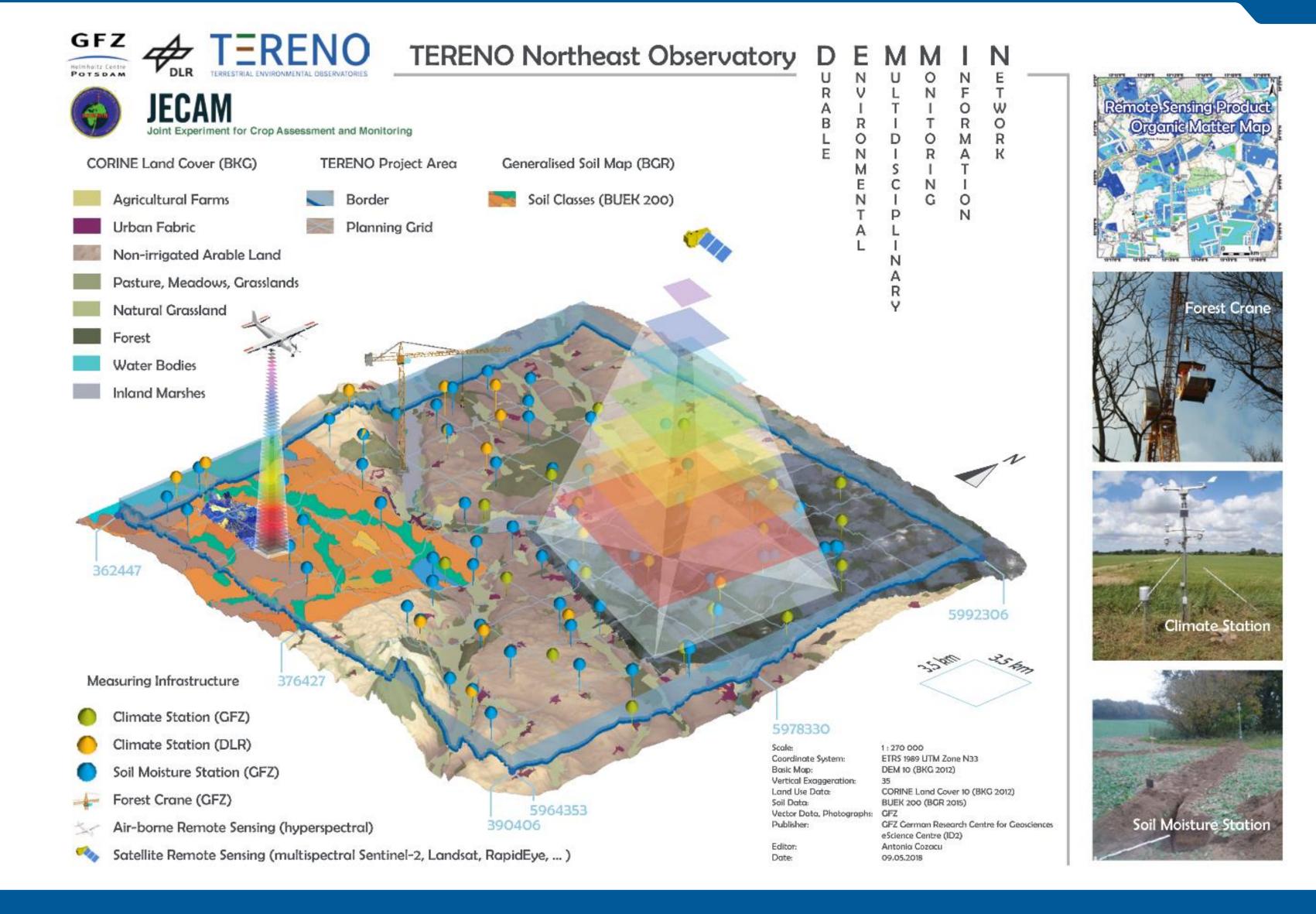
DEMMIN is a joint test field of DLR & GFZ for soil measurement and validation of remote sensing data. It is a nationally unique platform for integrated, multidisciplinary remote sensing research.

Goals of the DEMMIN experimental field

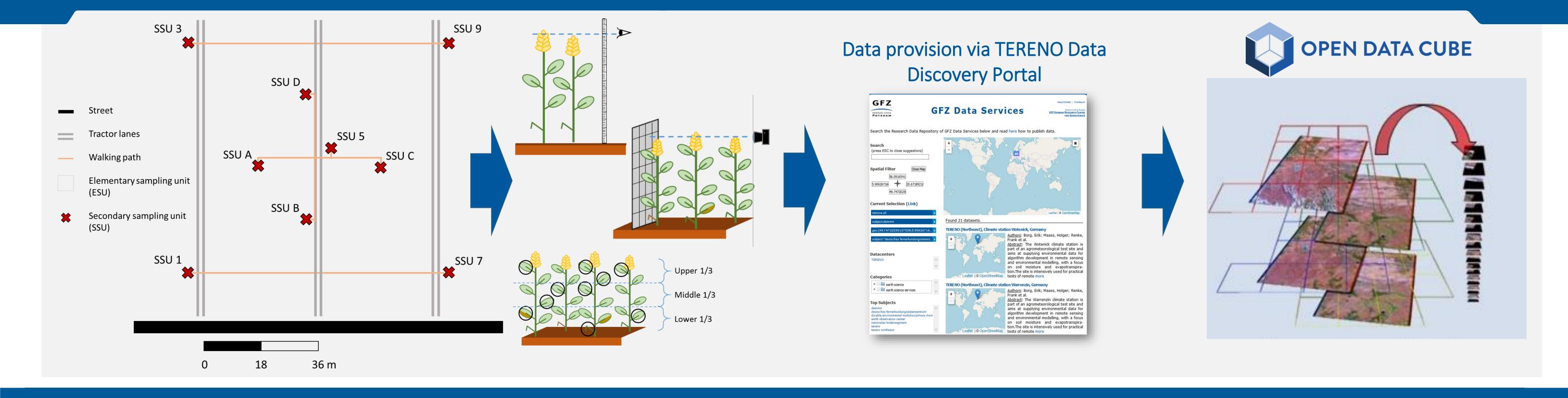
- Method development
- Remote sensing data validation
- Transfer of knowledge

The aim of the initiative is to create an infrastructure and cross-university platform for the generation of secure, tested and freely available research data.

The DEMMIN experimental site



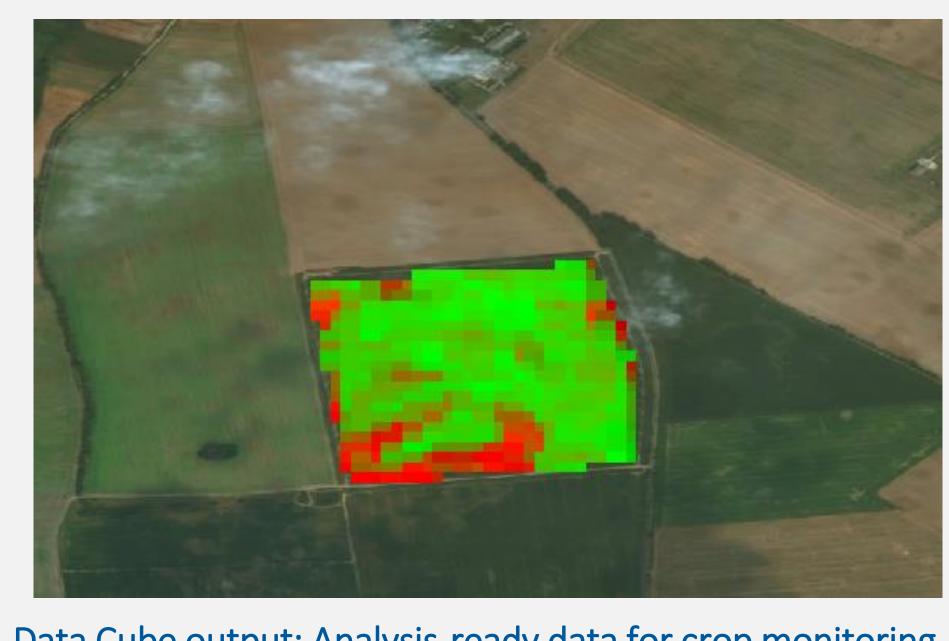
In-situ data for valid satellite-based agricultural monitoring



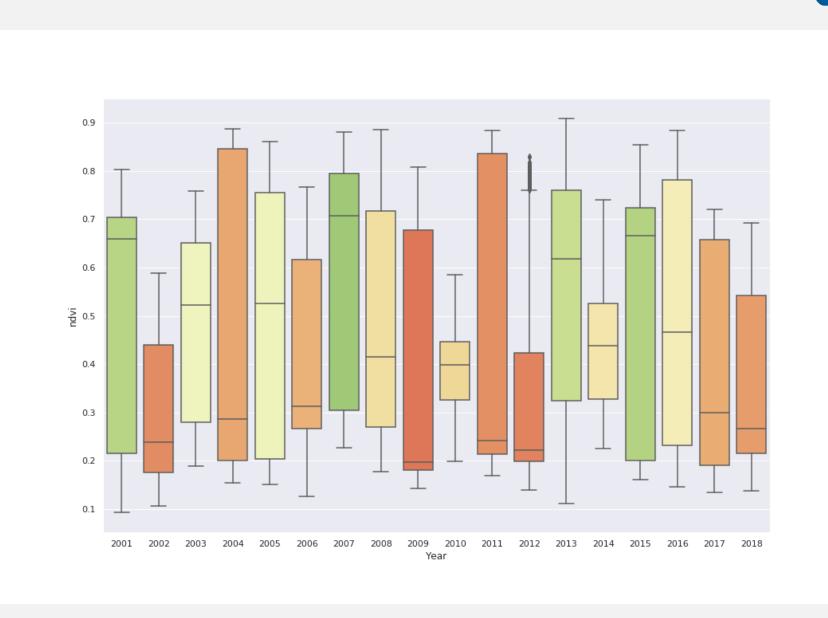
Connecting analysis-ready satellite data with high quality in-situ data

The **PhenoCube** is an Open Data Cube platform...

- fostering user-friendly in-situ and EO data interfaces for cropland monitoring
- connecting in-situ data flows with analysisready (ARD) EO data
- improving validated crop monitoring with standardized and interoperable EO data







Data Cube output: Inter-annual field statistics

DEMMIN is a nationally unique platform for integrated, multidisciplinary remote sensing research in Germany



















