

# EnMAP airborne soil Greece campaign 2019

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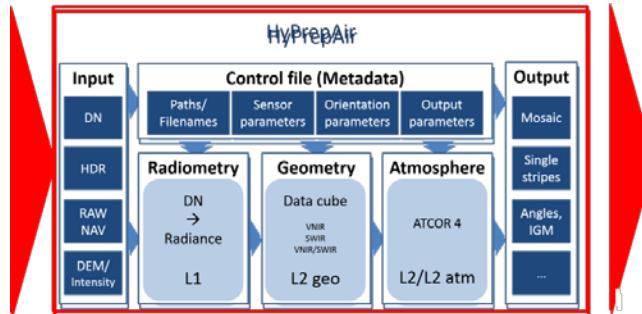
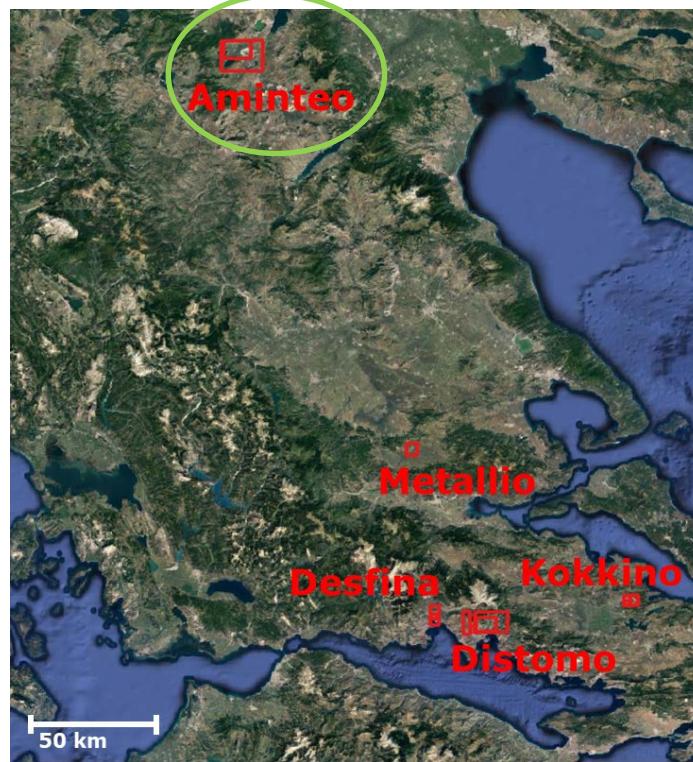
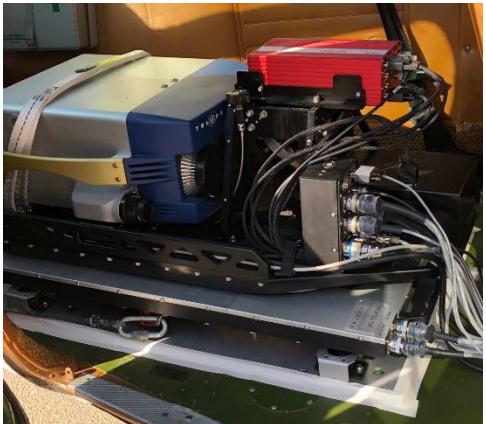
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# EnMAP Greece airborne campaign 2019

- Acquisitions: 12-17.09.2019
  - Airborne platform C-T207A Free Univ. Berlin
  - All AOI acquired under clear sky conditions
  - Successful demilitarization
  - 45 flight stripes for total areal coverage 300 km<sup>2</sup>
- VNIR/SWIR (HySpex) & TIR (HyperCam)
  - HySpex data processing HyPrepAir (Brell et al.)
  - HyperCam data processing Reveal toolbox/FLAASH-IR (TelOps)



# Aminto airbone data Preliminary processing

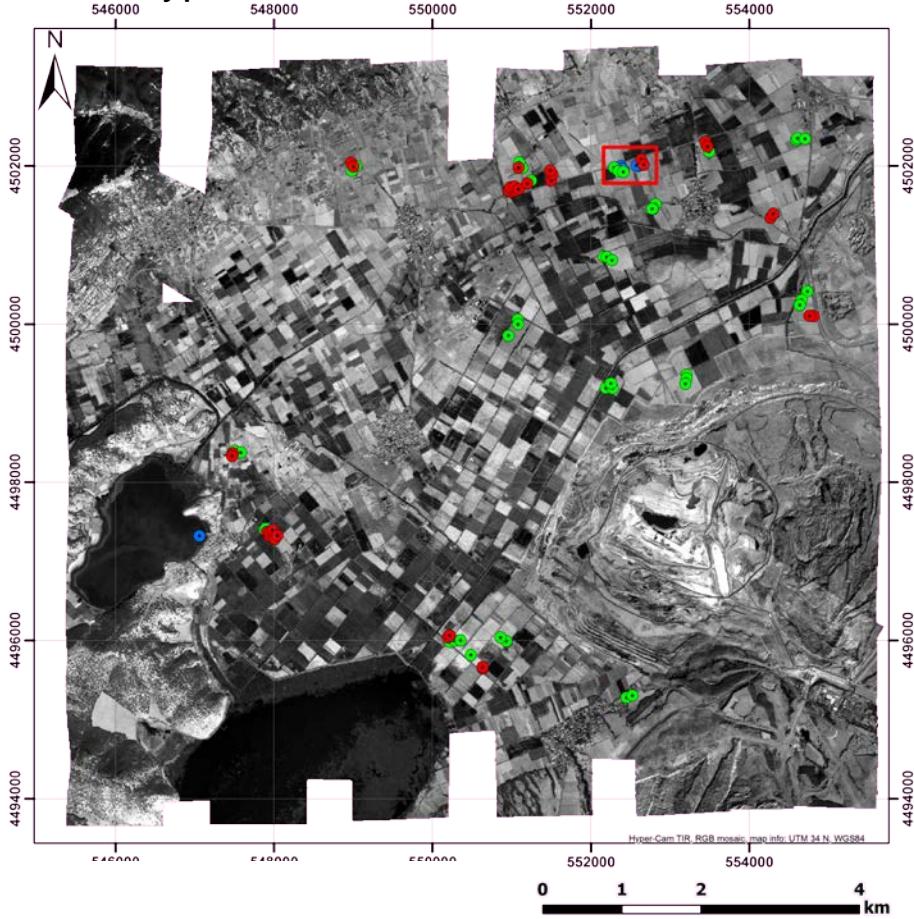


- Templogger
- Soil Samples/Spectra
- Fractional Cover plots
- Bare soil (cal/val) field

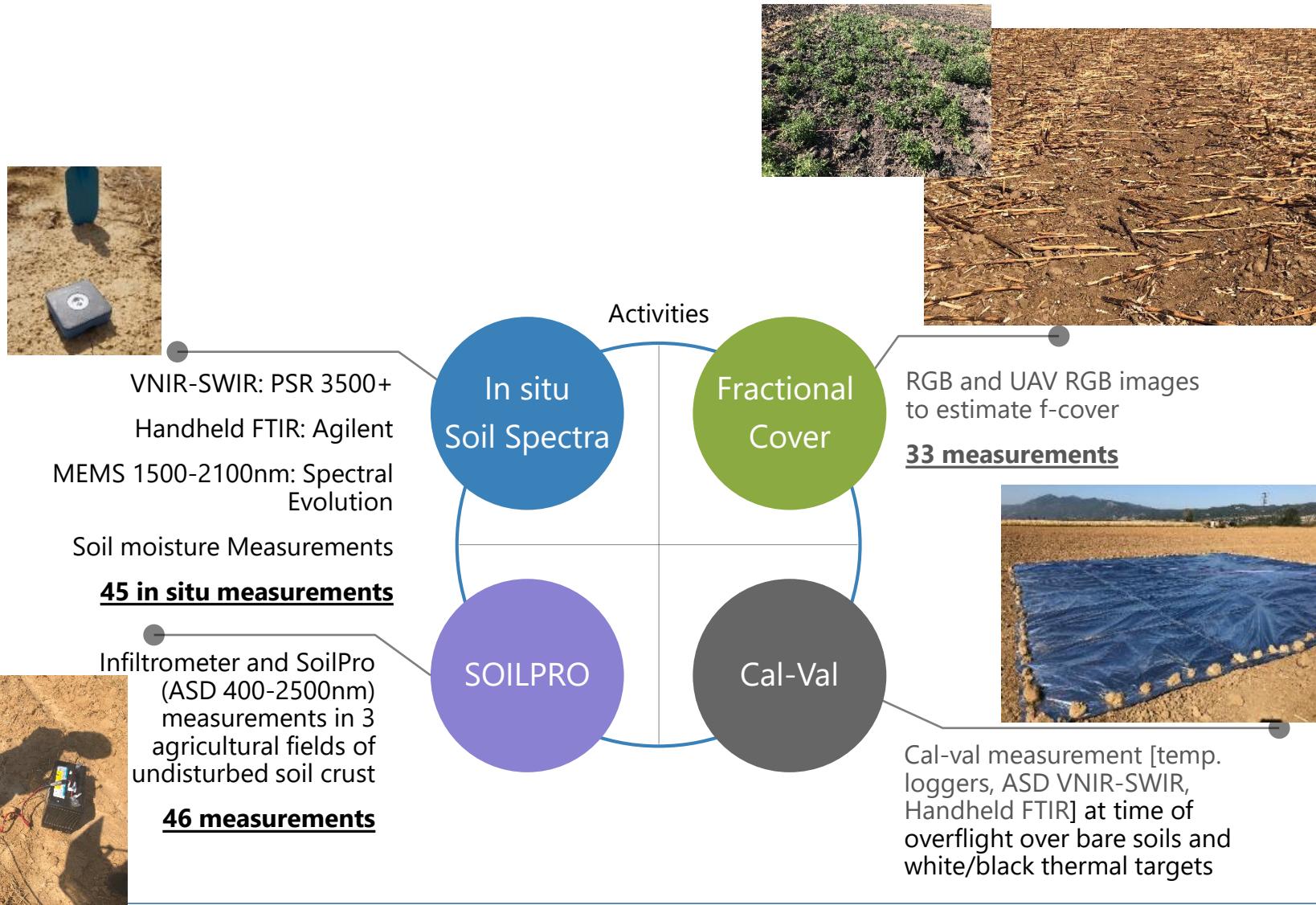
HySpex reflectance mosaic



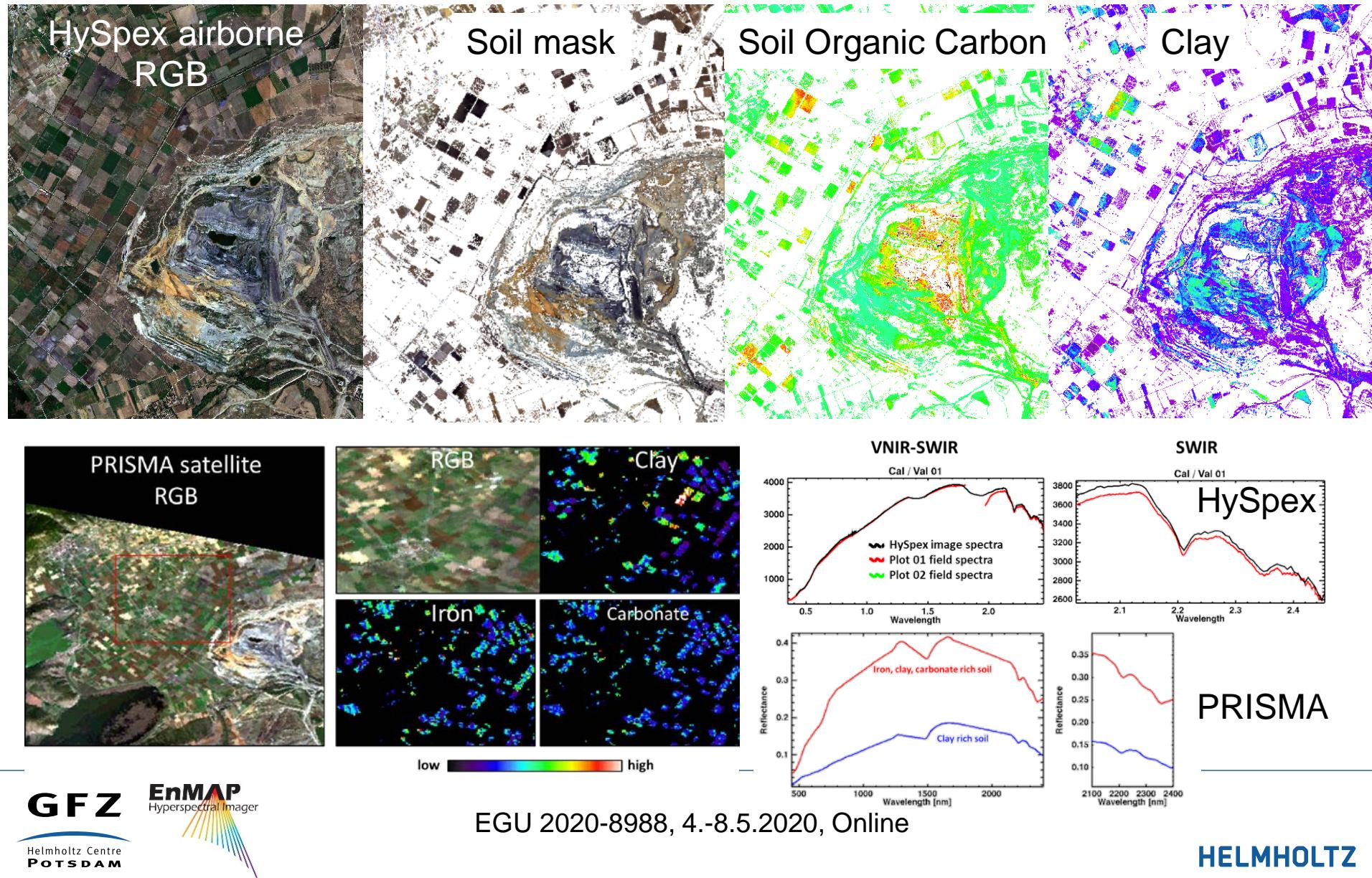
HyperCam radiance mosaic



# Aminteo field campaign at a glance



# First analyses: Soil mapping with EnSoMAP



# Outlook

- Science preparation activities for the upcoming German hyperspectral satellite mission EnMAP
  - Simulation of hyperspectral satellite imagery
  - Demonstration of the potential of upcoming spaceborne hyperspectral sensors (EnMAP, CHIME) for global soil mapping and monitoring
  - Test and validation for existing soil algorithms such as the HYSOMA / ENSOMAP software tools for the prediction of top-soil quantitative surface properties (vegetation cover, dry residues, soil organic carbon content, soil texture, ....)
  - Data validation and comparison of soil products with recent relevant satellite sensors (e.g. S2, PRISMA, ECOSTRESS)
  - Enlargement of global soil spectral libraries with harmonised standards and testbed for their use as calibration-validation data for soil spectral models

→ potential of multi hyperspectral airborne campaigns as a support for basic science developments and satellite mission preparations  
→ more sensor flexibility can bridge the gap from in-situ to satellite scale

