

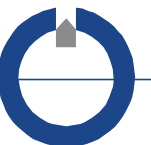
TREX – Geophysics AP2 – M2.1

**Léa Lévy, Mikkel Toftdal, Jesper B. Pedersen
& Anders Vest Christiansen**

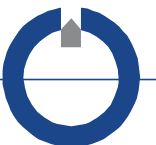
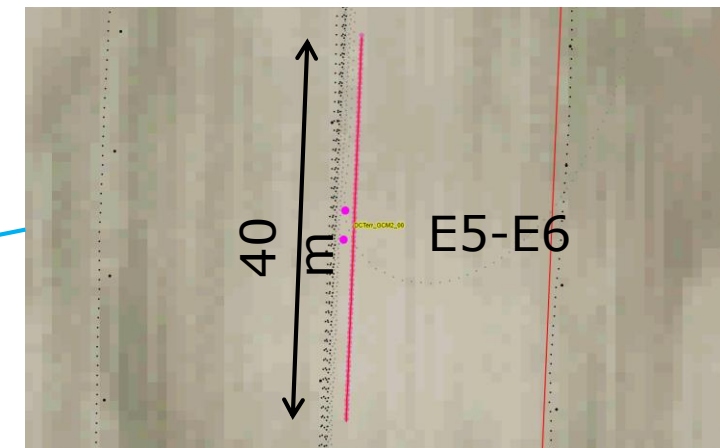
HydroGeophysics Group, Department of Geoscience, Aarhus University, Denmark

Work package AP2 – Geophysics M2.1

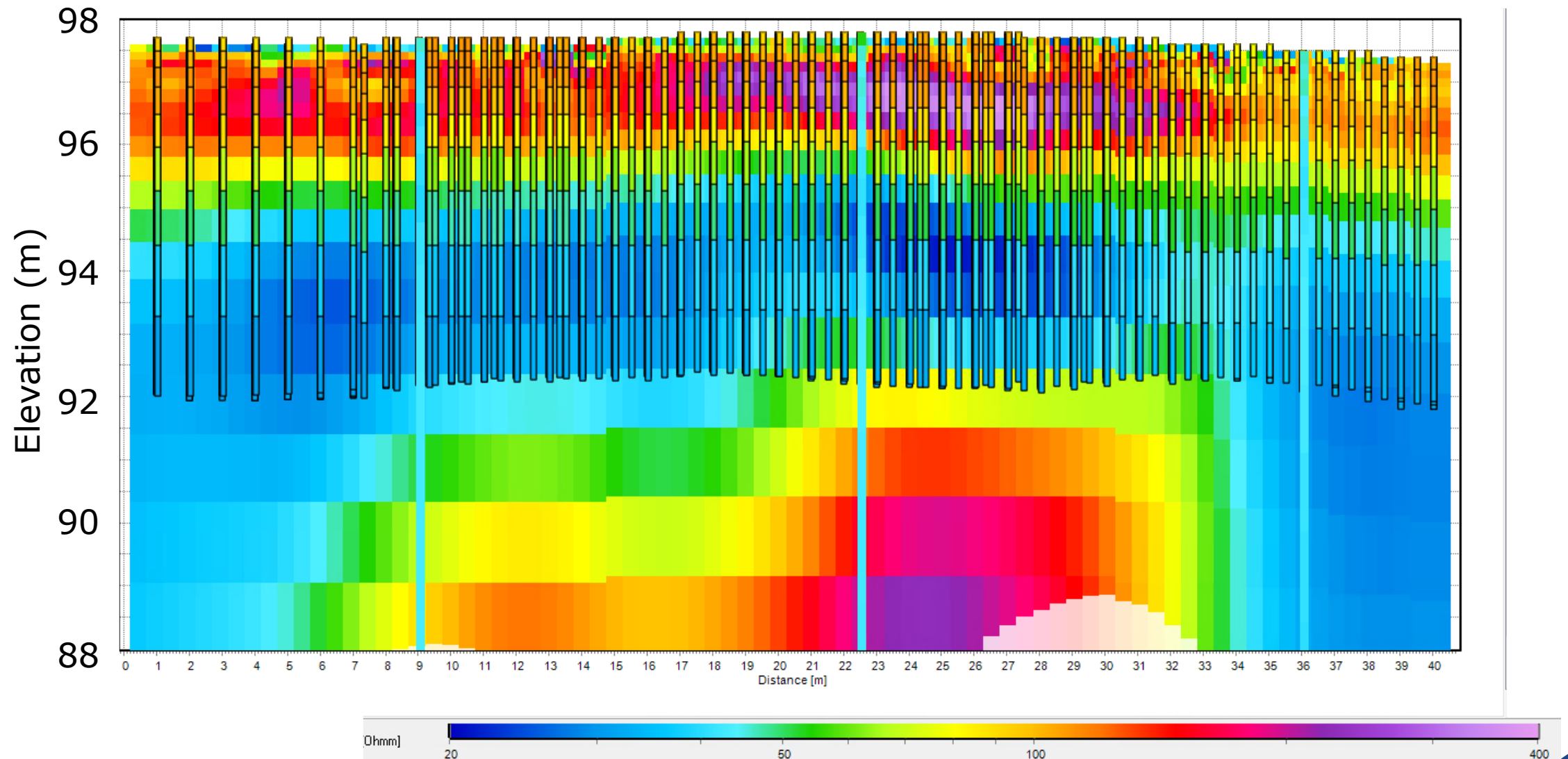
- **M2.11: Geophysical mapping for hydrogeological models**
 - Models delivered to hydro
- **M2.12: Monthly geophysical monitoring**
 - Measuring done
 - Time-lapse data analysis on-going



Fensholt: GCM, tTEM, DC line and DC wells



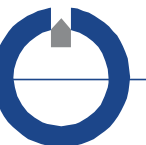
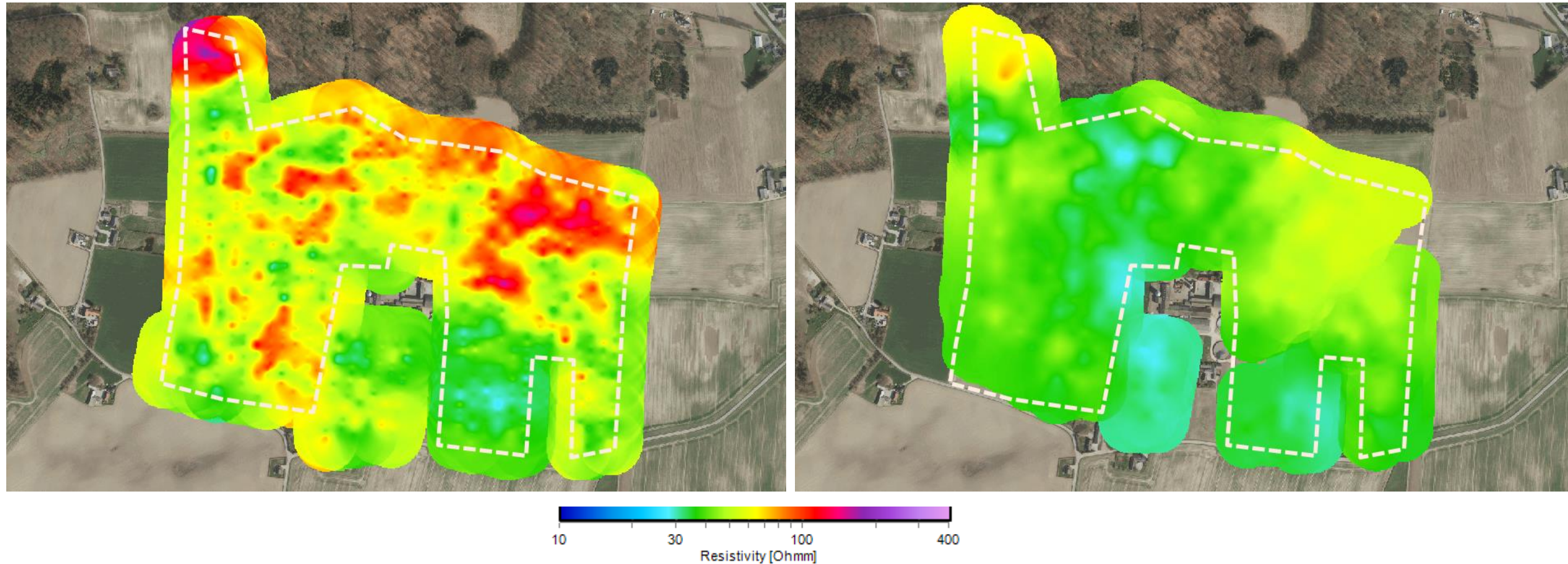
Comparison GCM, tTEM, DC



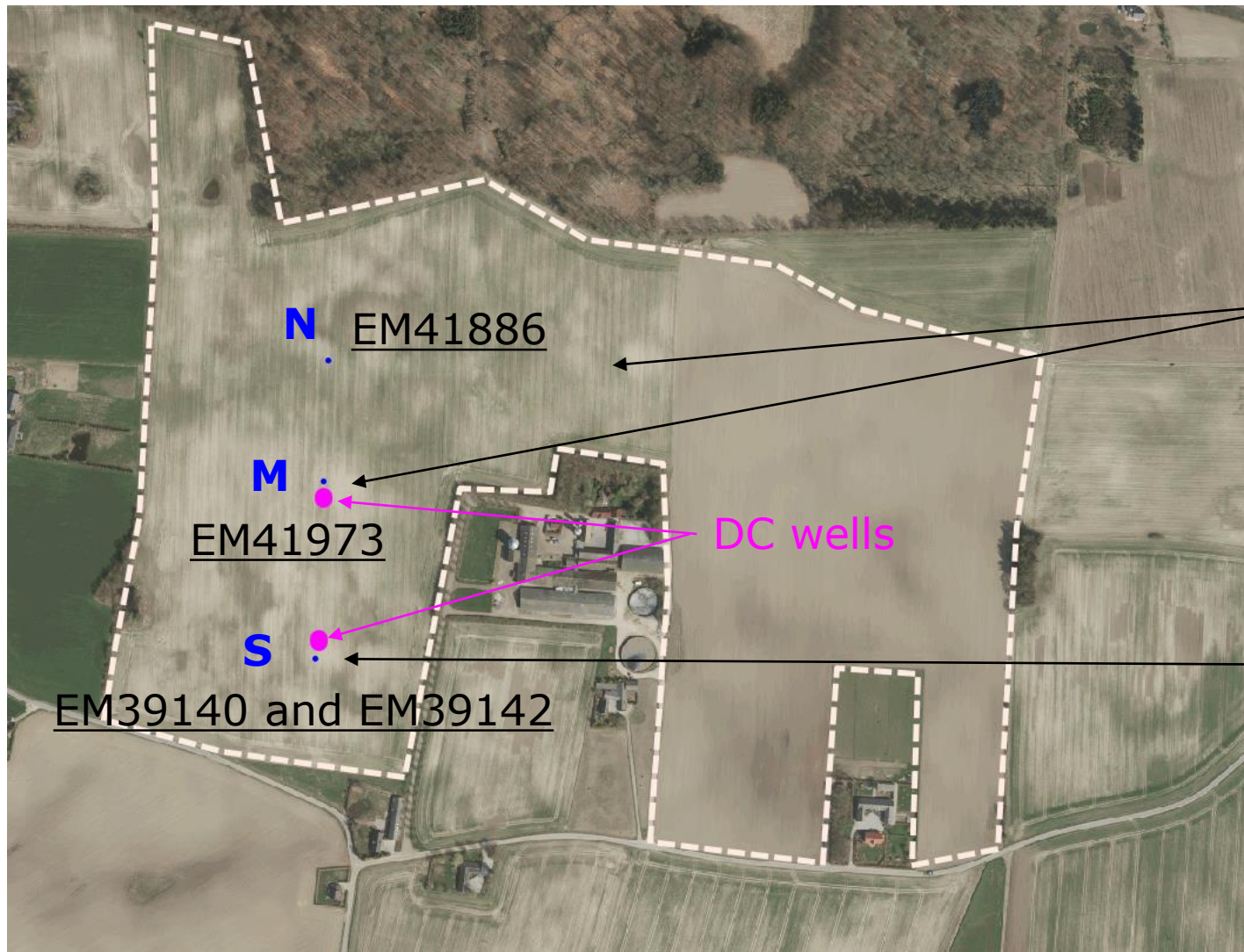
Comparison GCM and tTEM (august 2020)

GCM 0-2 m

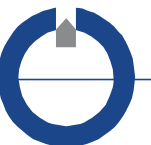
tTEM 0-2 m



Fensholt: moisture sensors

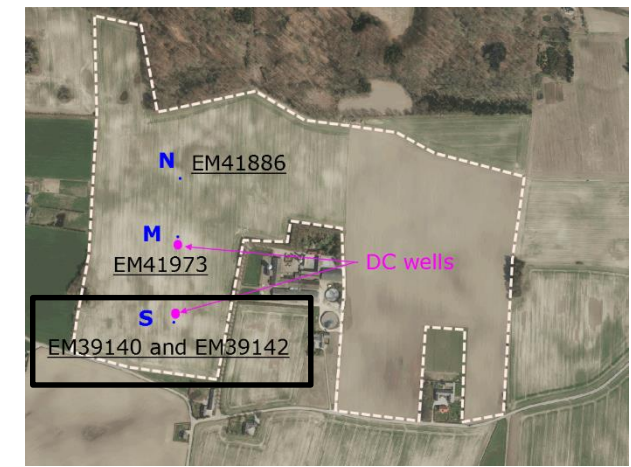
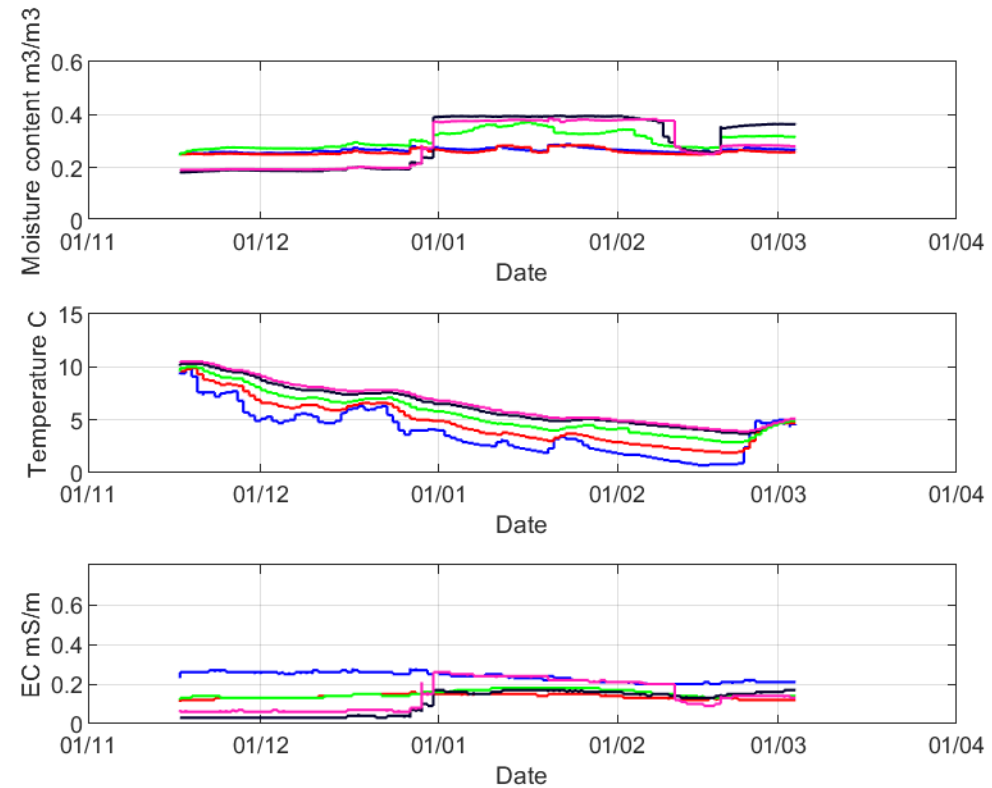
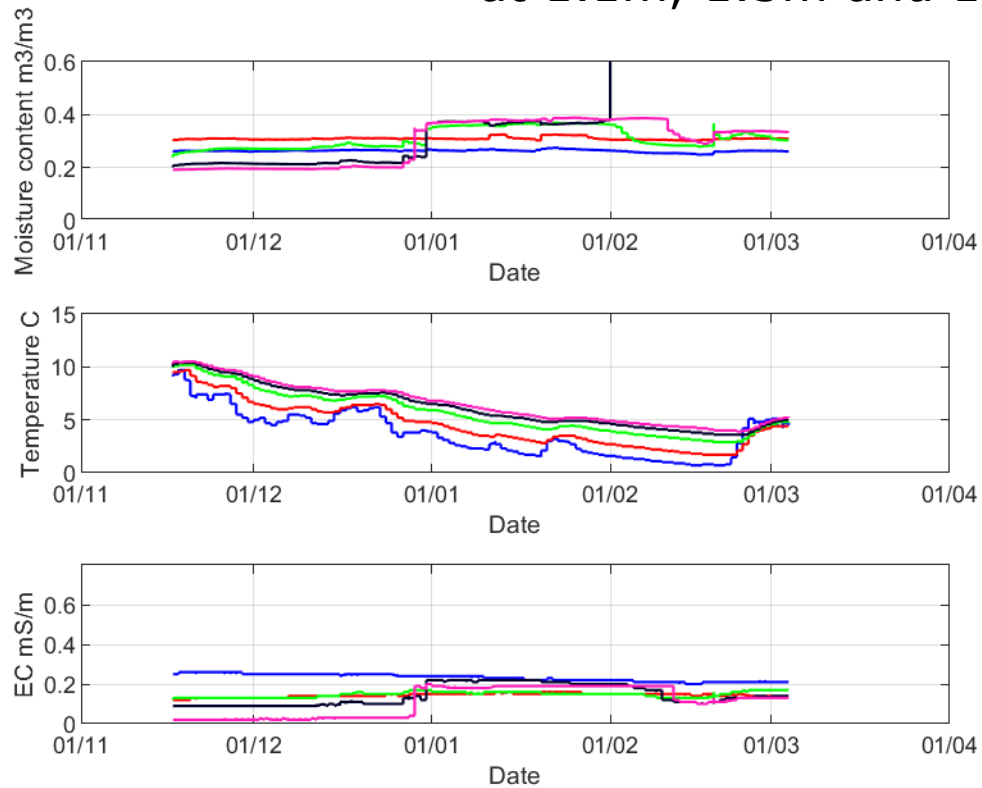


M2.12 Moisture sensors from Nov. 2020 to March 2021

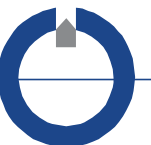


EM39140 and EM39142 (south, near E5-E6)

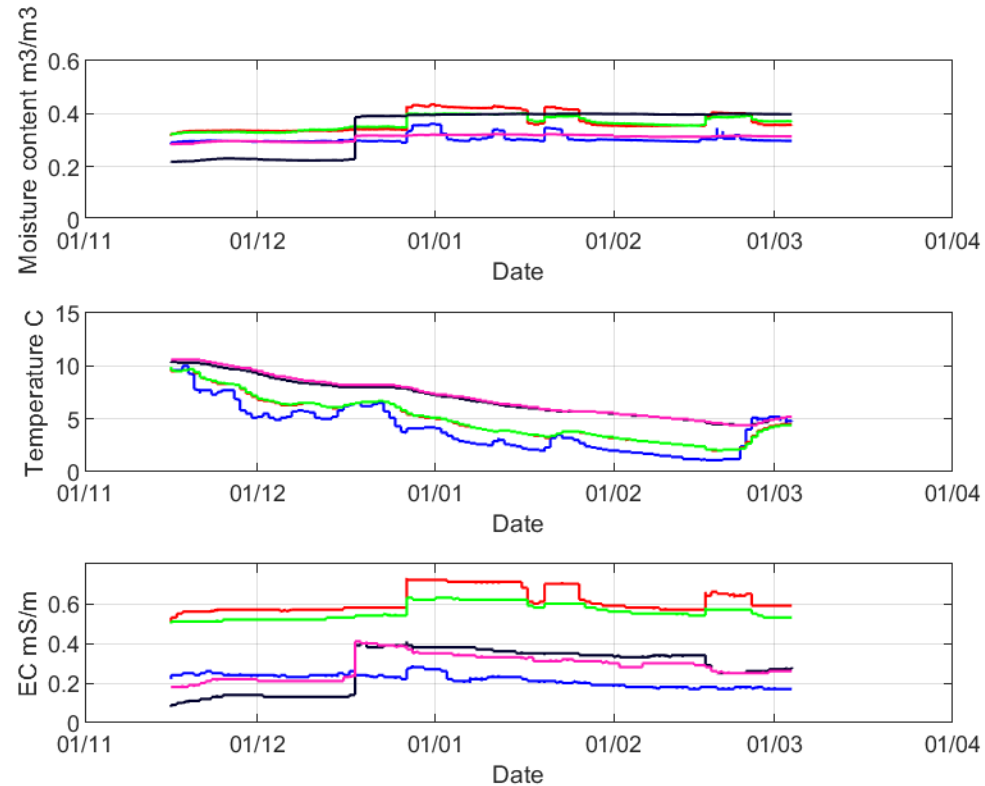
Increase of moisture content and EC
at 1.1m, 1.3m and 1.5m



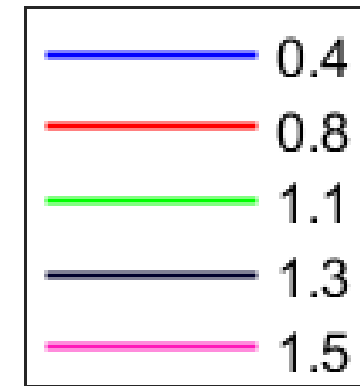
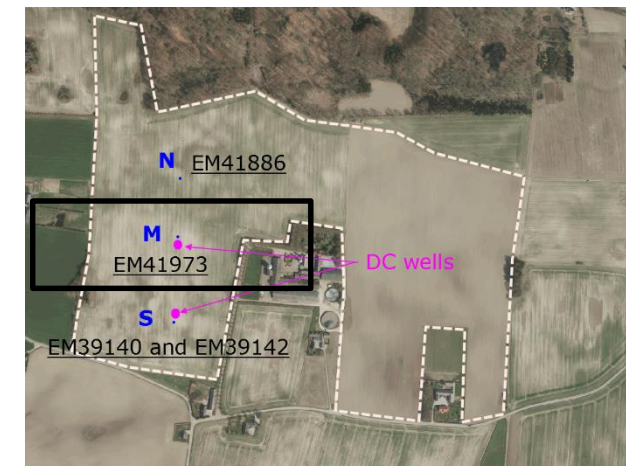
M2.12 Moisture sensors from Nov. 2020 to March 2021



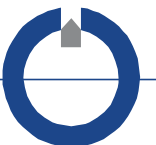
EM41973 (middle, near E7-E8)



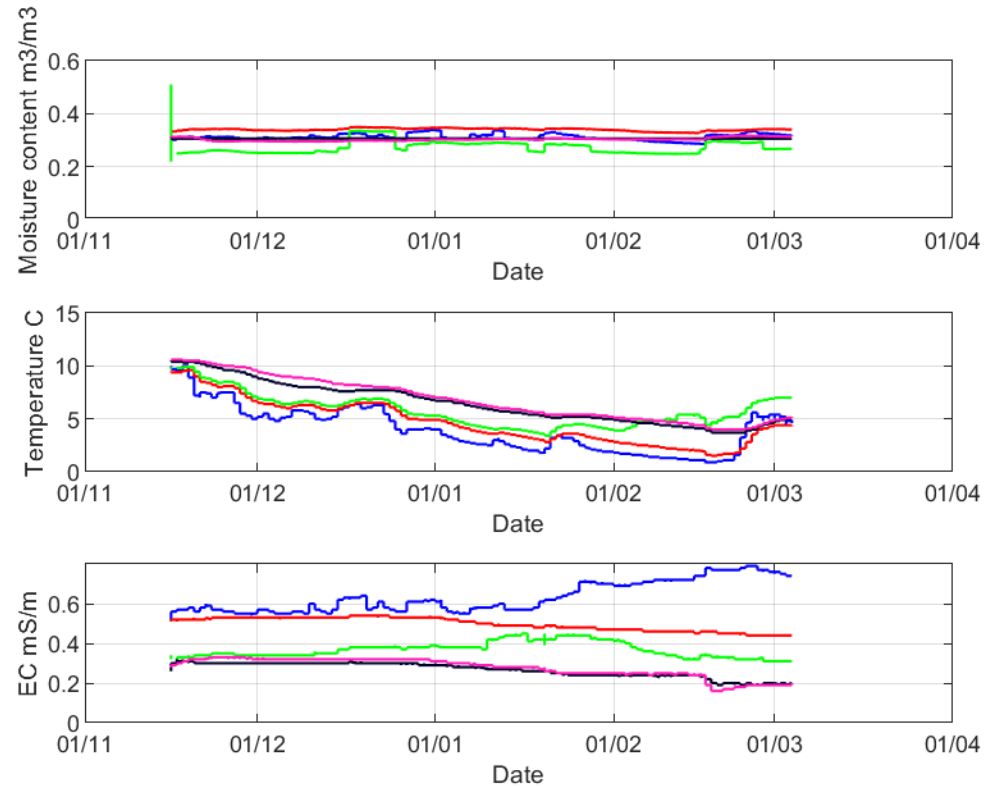
Increase of moisture content at 1.3m



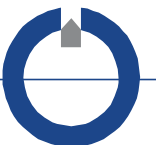
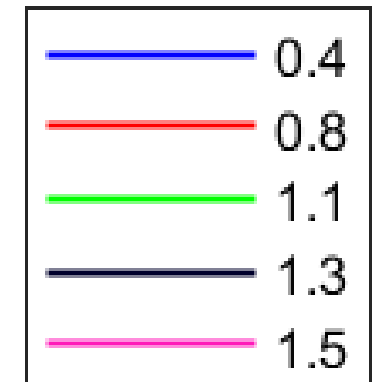
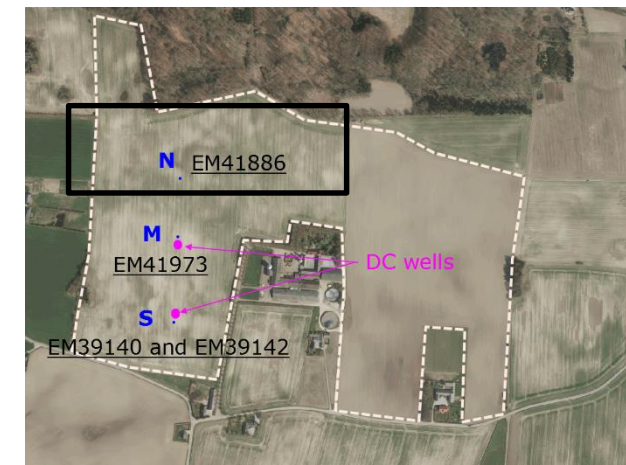
M2.12 Moisture sensors from Nov. 2020 to March 2021



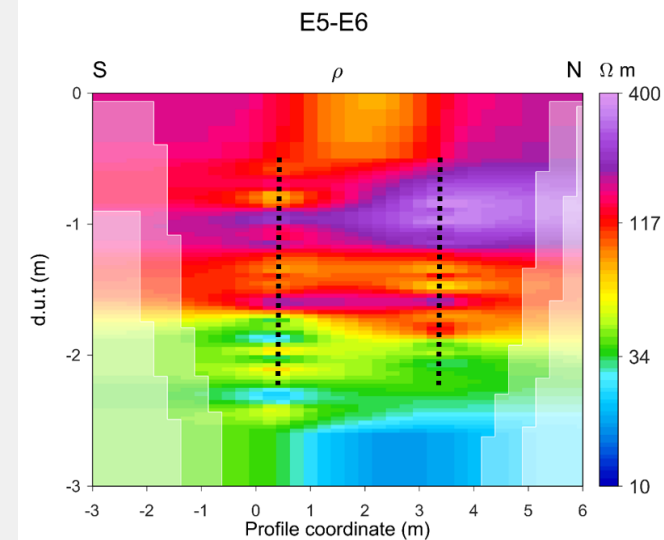
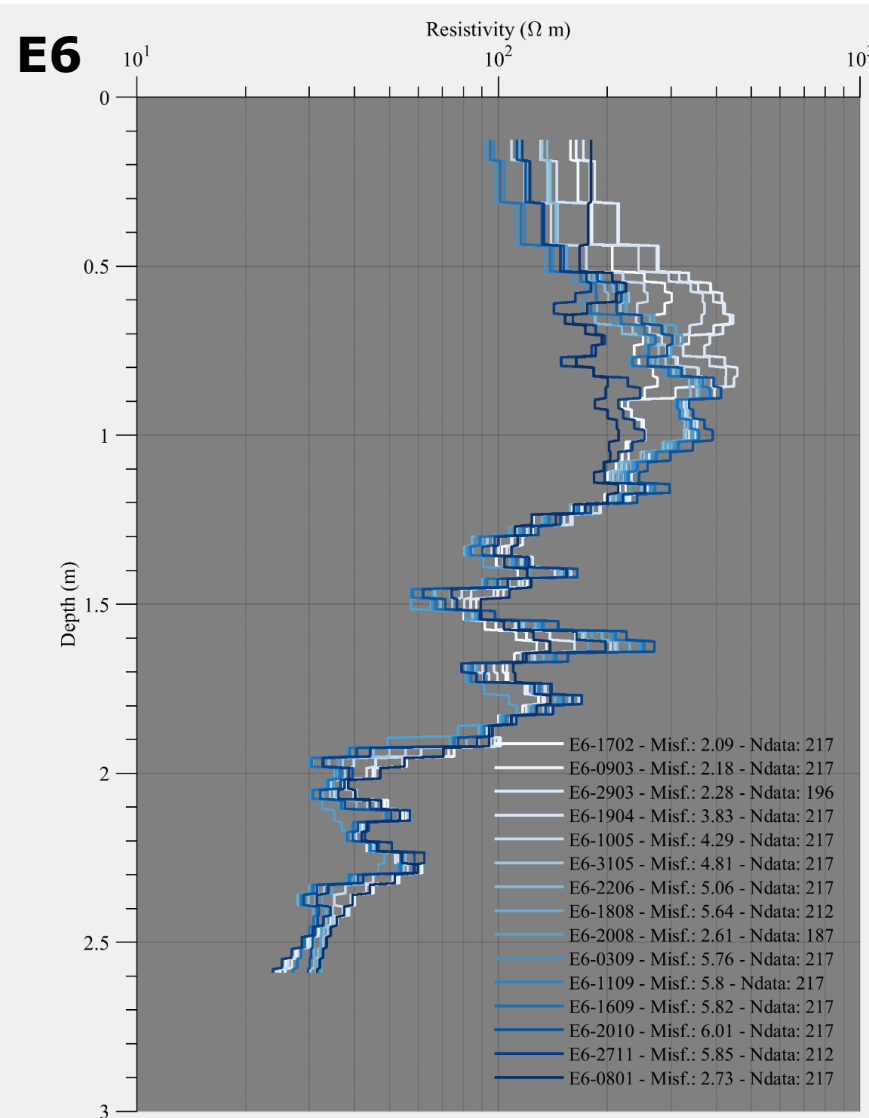
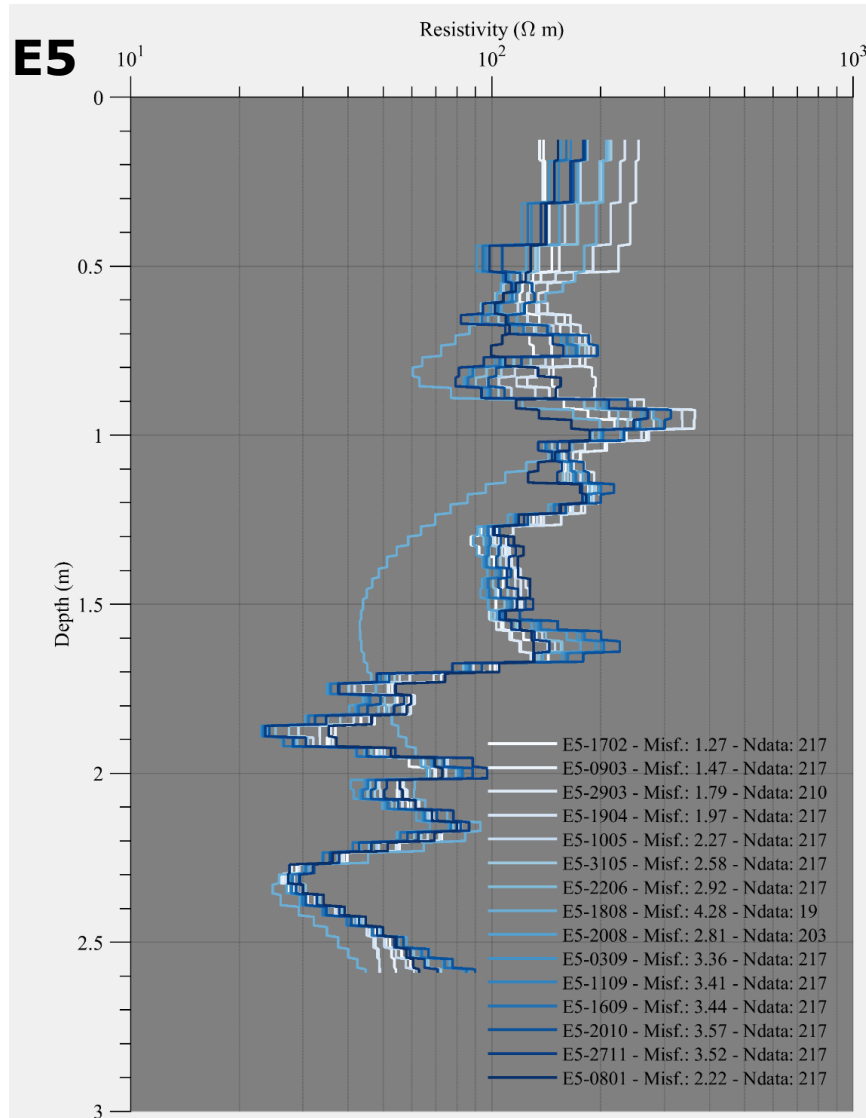
EM41886 (north)



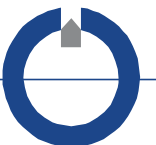
No change in moisture content here



Fensholt: DC wells



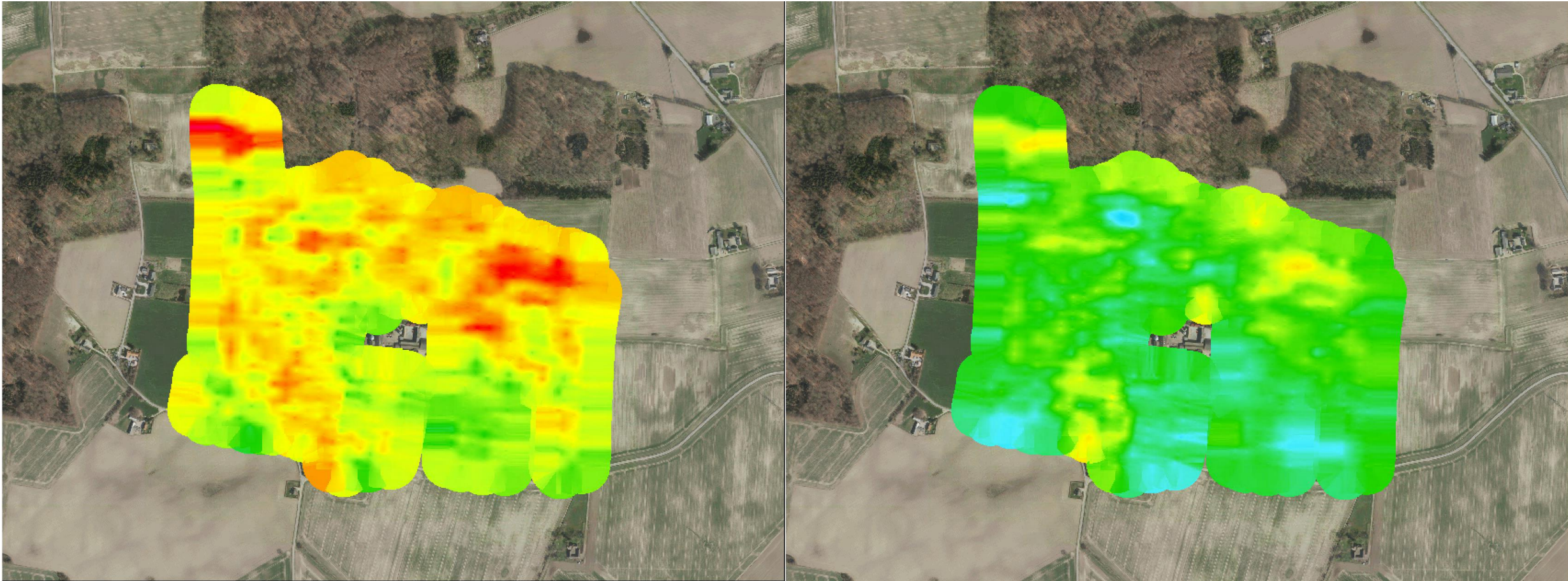
M2.12 DC monitoring from Feb. 2020 to March 2021



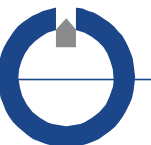
Fensholt: Aug. 2020

0-2 m

2-4 m



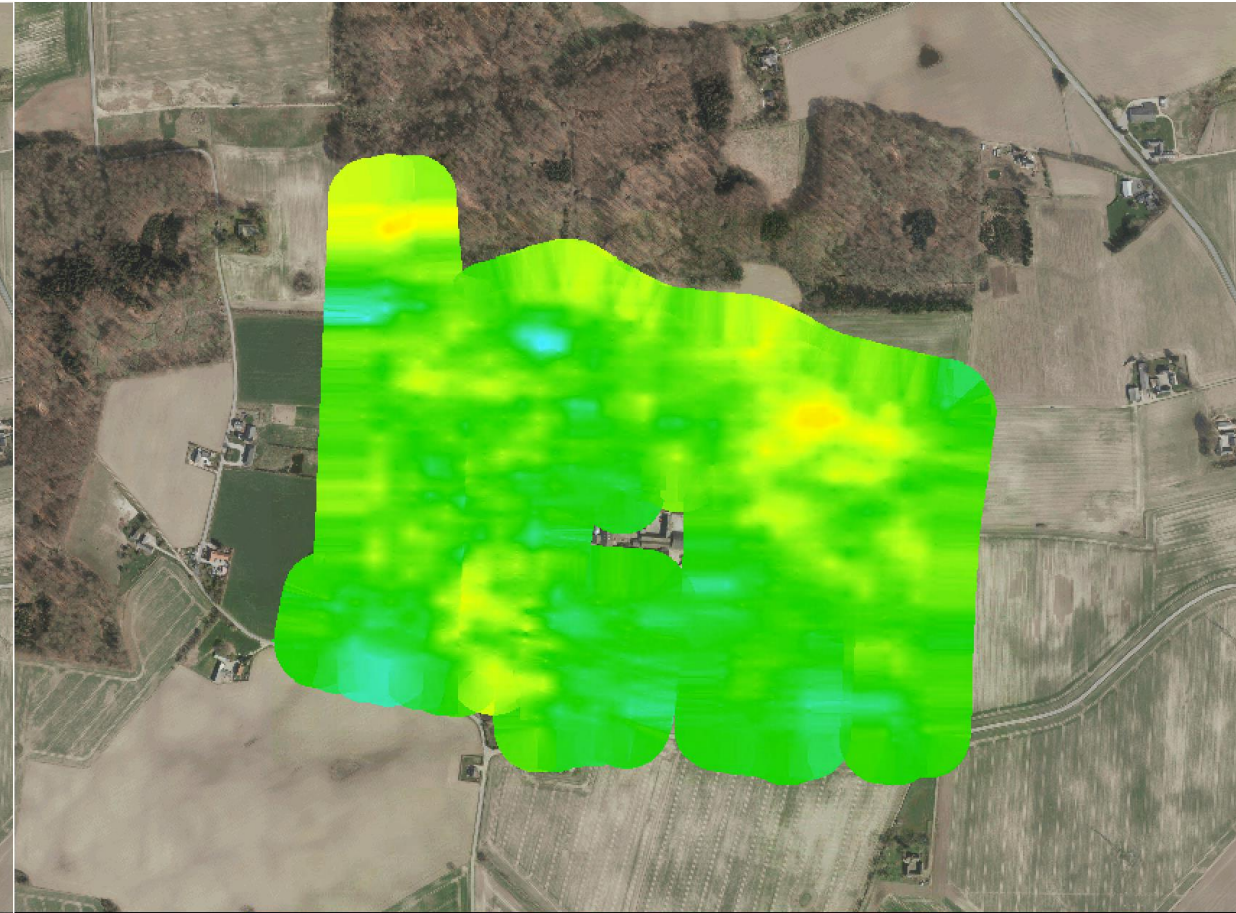
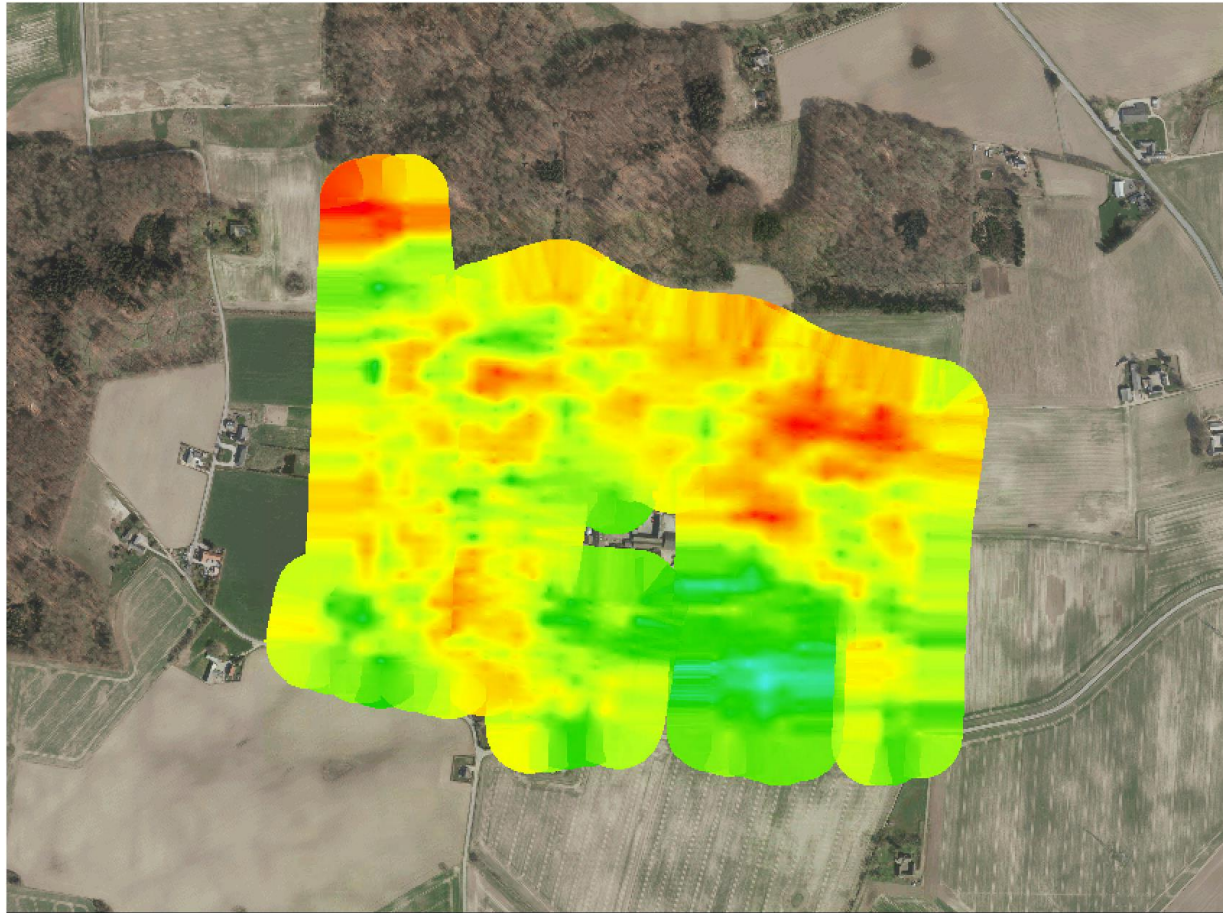
M2.12 GCM monitoring from Aug. 2020 to March 2021



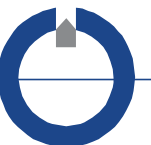
Fensholt: Sep. 2020

0-2 m

2-4 m

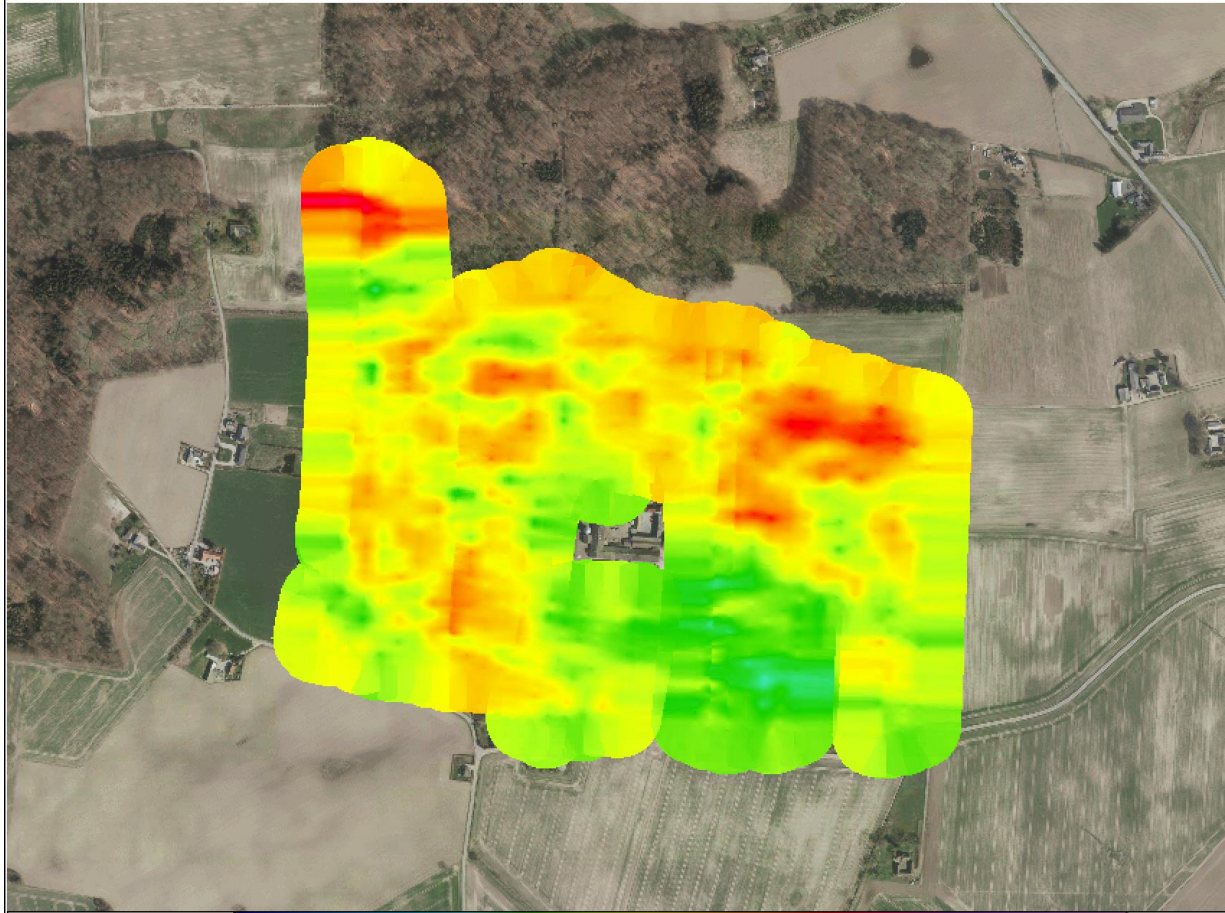


M2.12 GCM monitoring from Aug. 2020 to March 2021

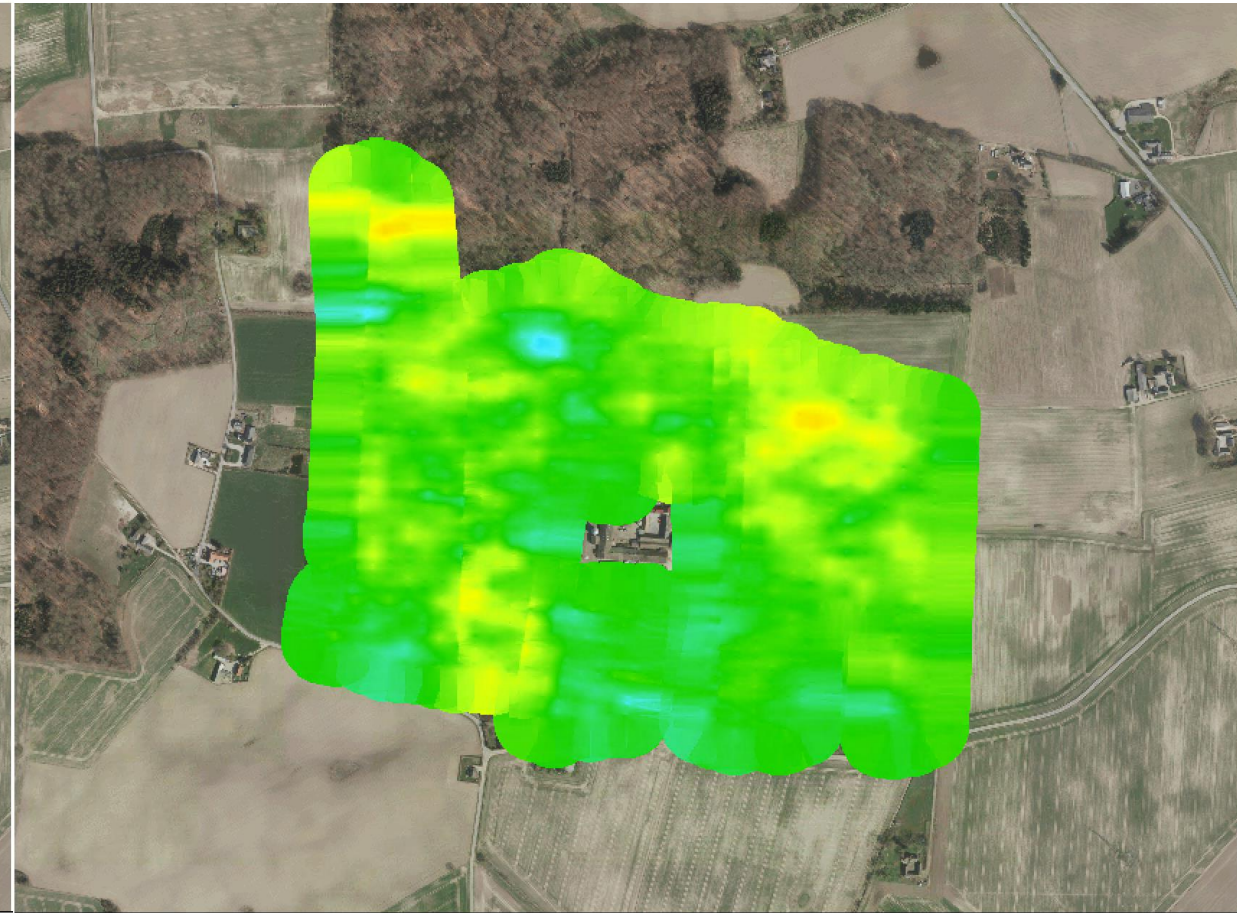


Fensholt: Oct. 2020

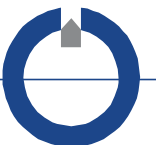
0-2 m



2-4 m



M2.12 GCM monitoring from Aug. 2020 to March 2021



Conclusions

- **M2.11 Geophysical mapping done**
 - Two instruments tested and compared in August 2020
 - GCM chosen for resolving 0-3 m
 - tTEM used for deeper information
- **M2.12 Time-lapse analysis of geophysical data**
 - GCM: Aug 2020 - March 2021
 - DC wells: Feb 2020 - March 2021
 - Comparison to moisture, temperature and water EC: Nov 2020 - March 2021
 - Time-lapse data analysis on-going

