



Center for Hydrology
H y d r o l o g i c a l O b s e r v a t o r y

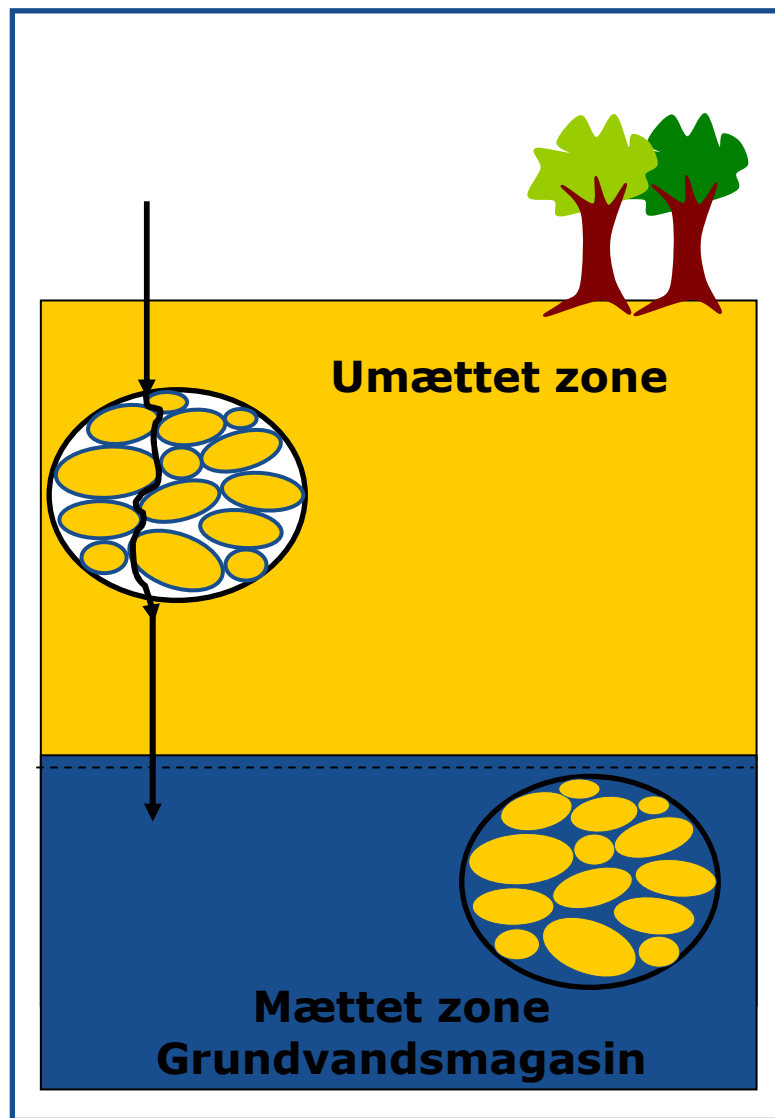
Nye hydrogeofysiske målemetoder

Majken Looms

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Voulund, HOBES landbrugslokalitet



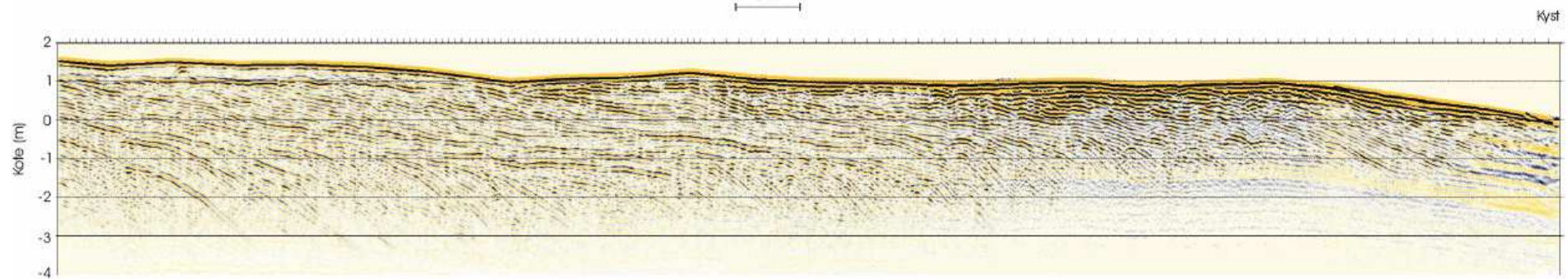
- Ønsker:
 - In situ
 - For et forholdsvis stort areal
 - Uden at forstyrre den naturlige geologi
- Metoder:
 - TDR-prober
 - Lysimetre
 - Massebalance betragtninger (= Nedbør – Fordampning)
 - Etc.

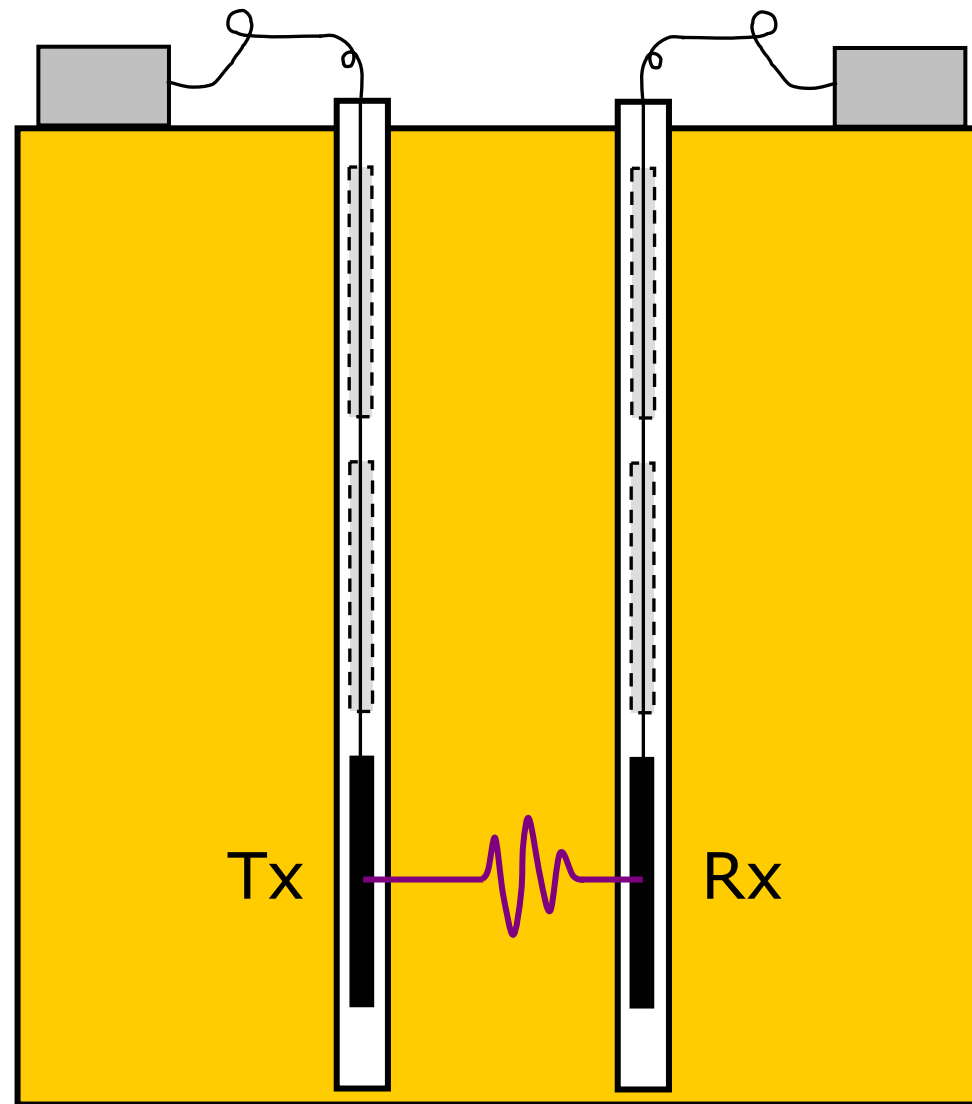
- Nye hydrogeofysiske målemetoder

- **Cross-borehole georadar**
- **Cross-borehole geoelektrik**



5 m

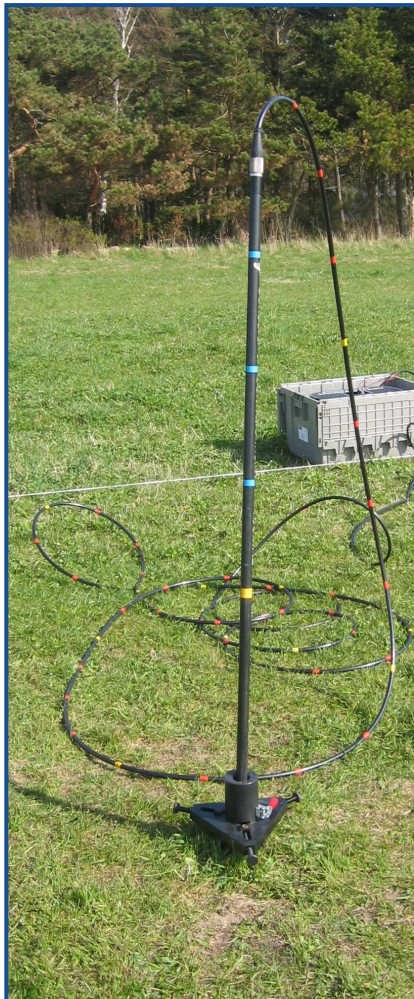




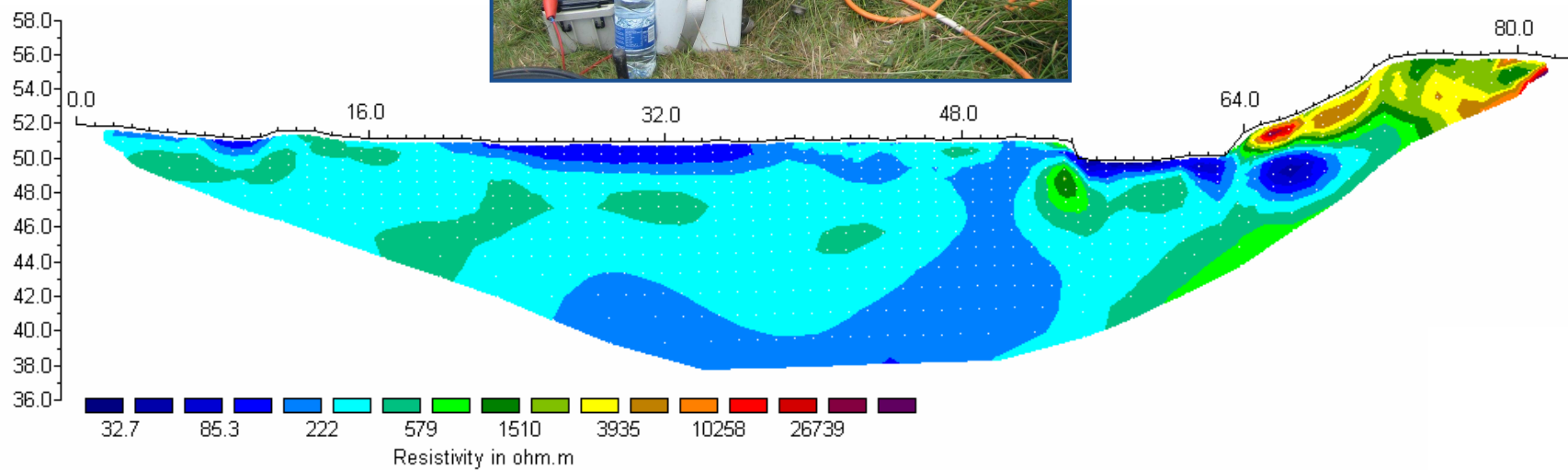
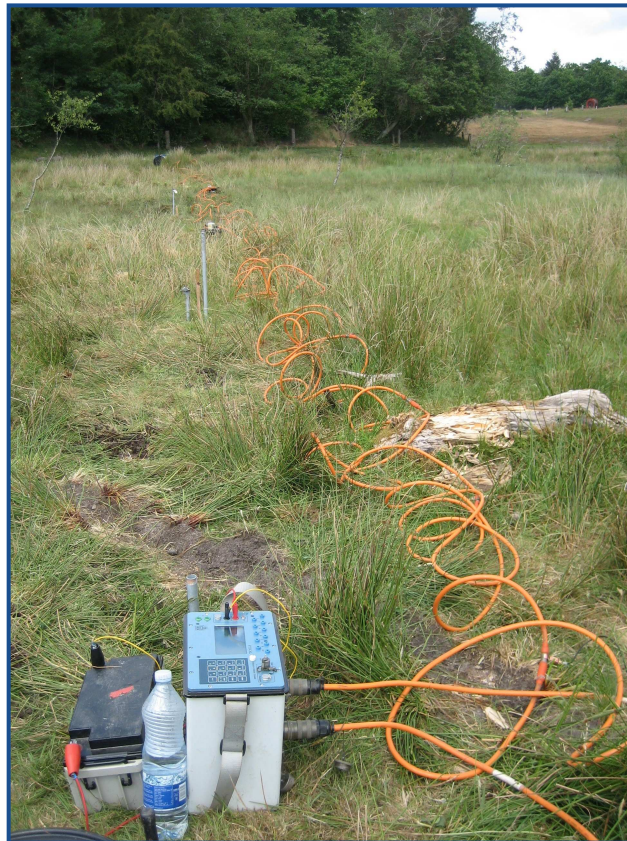
Måler vandindholdet

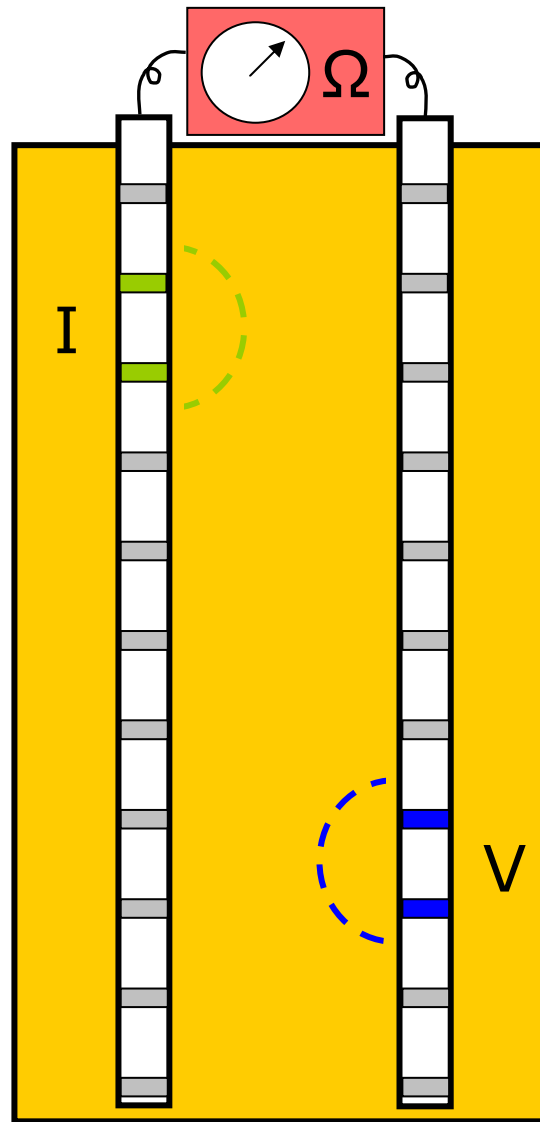
Cross-borehole georadar

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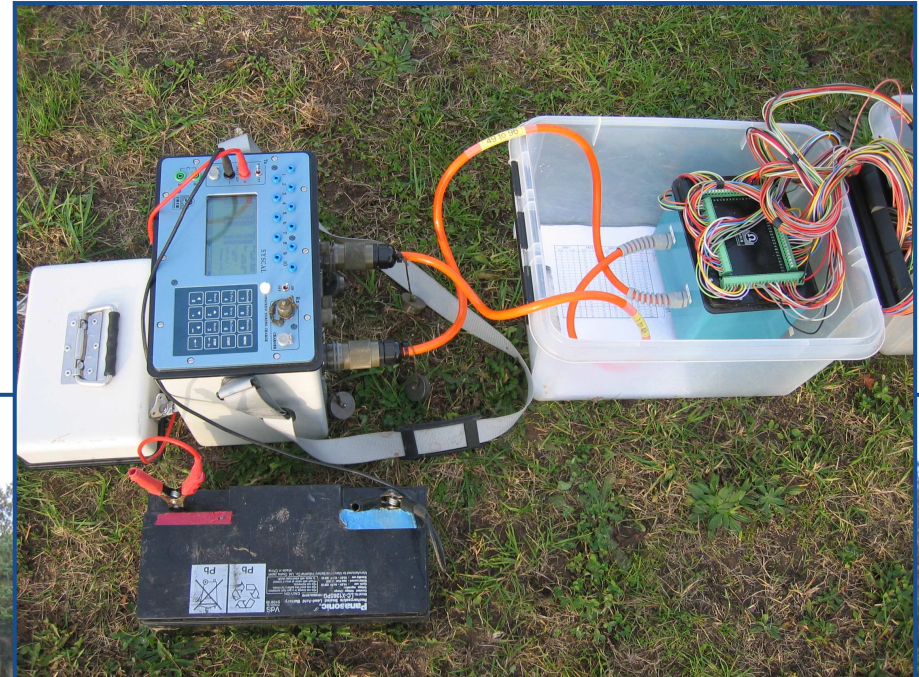
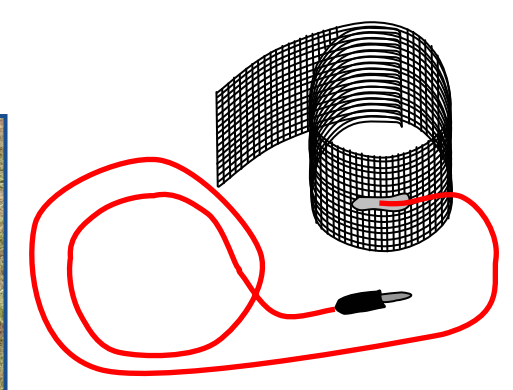
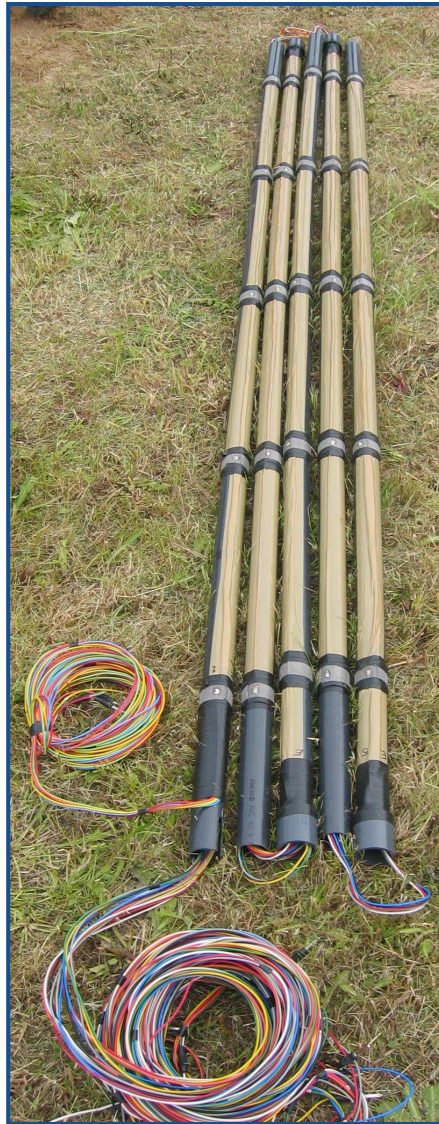
Multielektrodeprofilering (MEP)

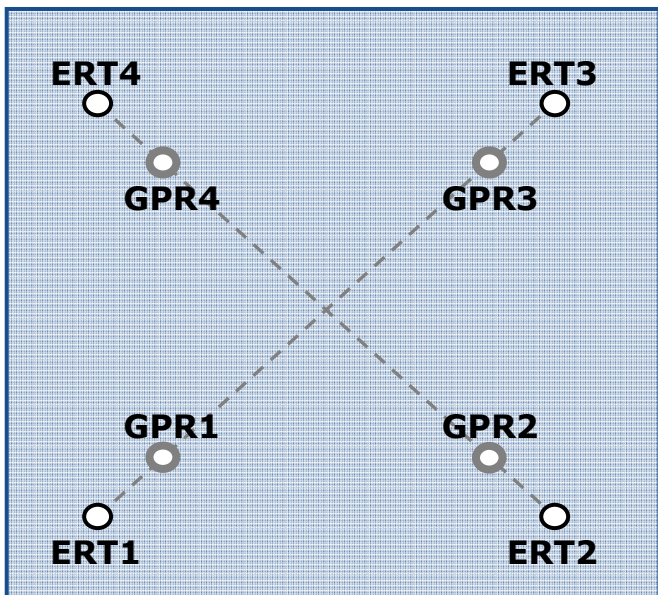
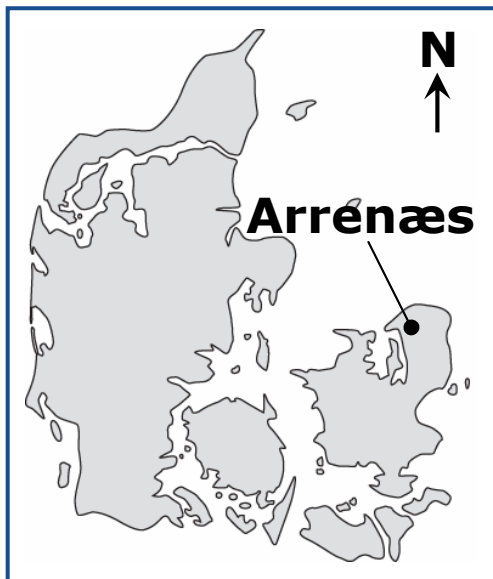




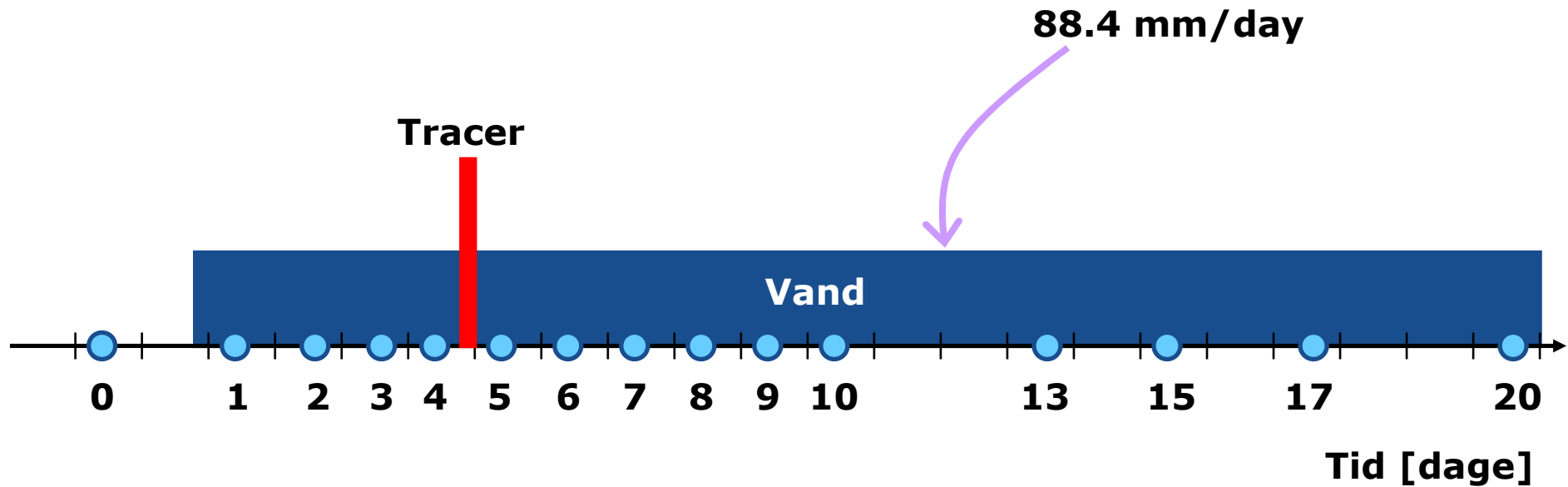
Måler modstanden

Cross-borehole geoelektrik



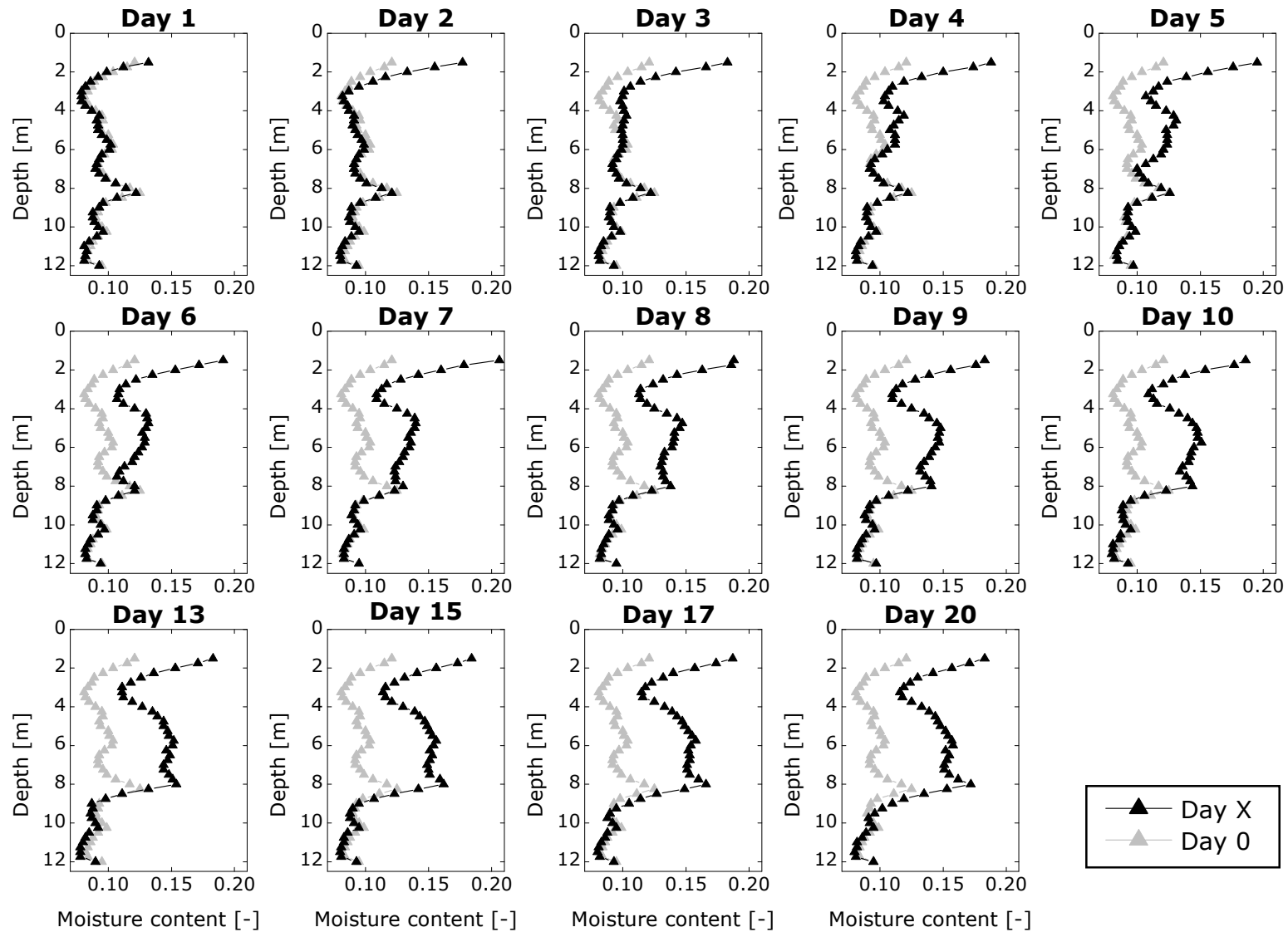


○ ERT Boreholes
● GPR Boreholes

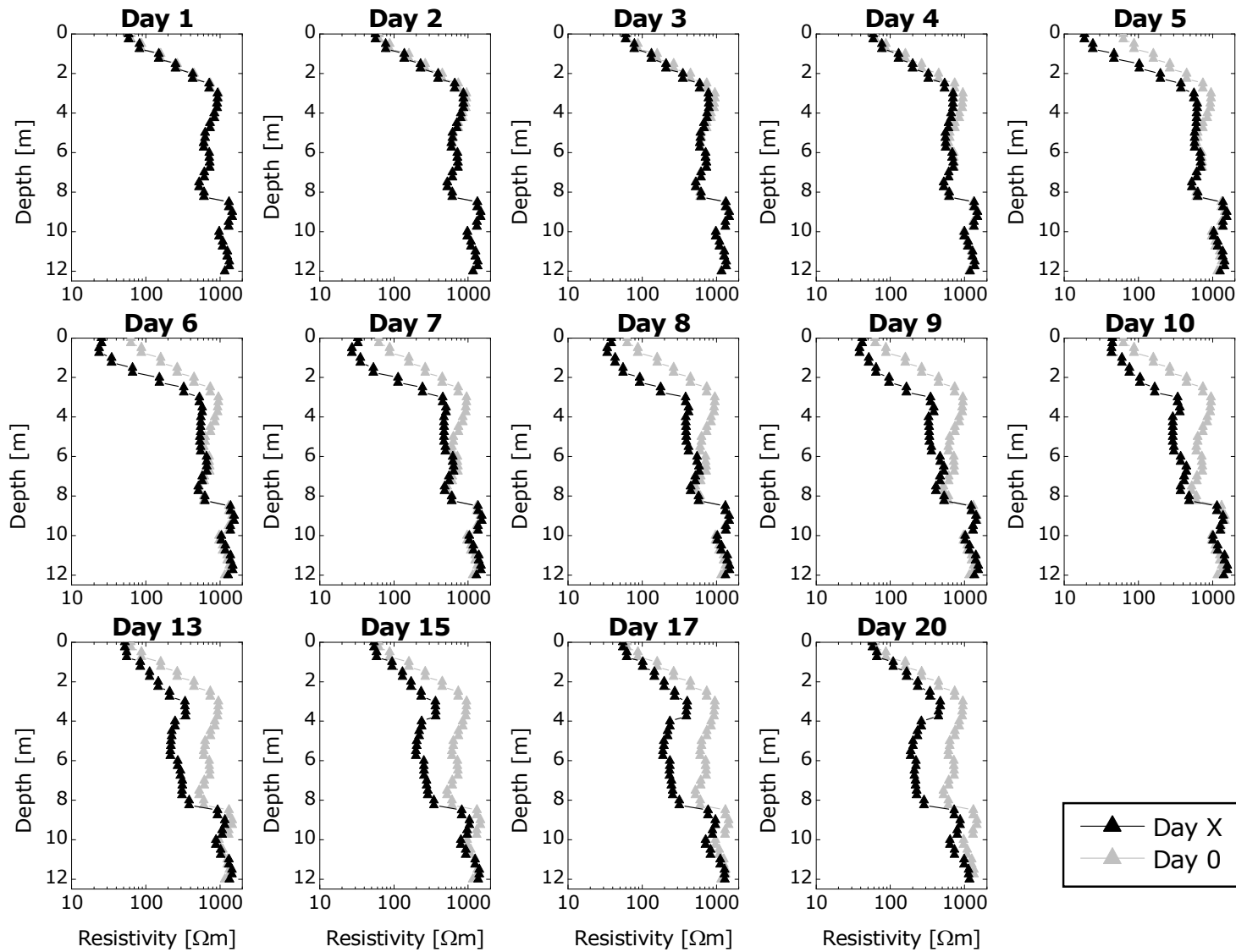


● Data indsamling

Cross-borehole georadar

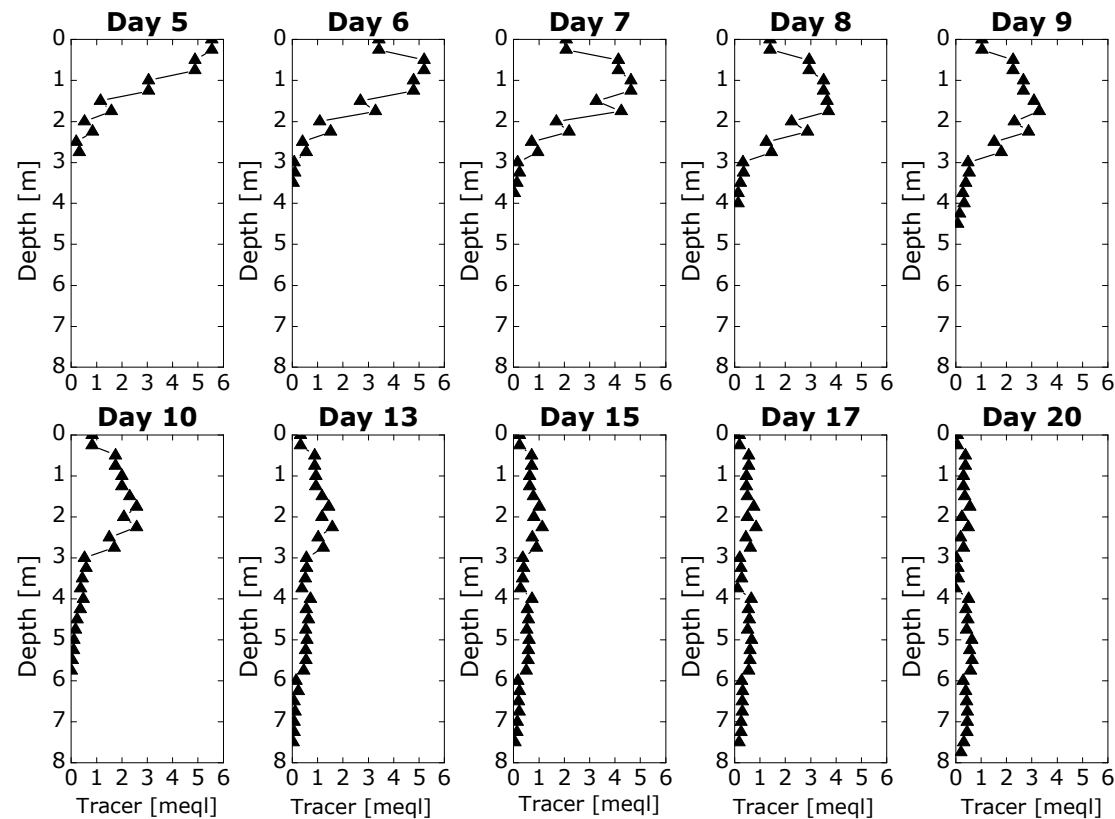


Cross-borehole geoelektrik



Georadar + Geoelektrik =
Vandindhold Resistivitet

Porevandsledningsevne (tracer koncentration)



- **Hydrogeofysiske målemetoder**
 - **Konsistente data for vandindhold og modstanden**
 - **Kombineret analyse kan bruges til at bestemme porevandshastigheden, og dermed nedsivningen**
 - **Resultere i 2D og 3D data → mål for variation**
- **Ulemper**
 - **Kræver specielt udstyr og specielt installerede borehuller**