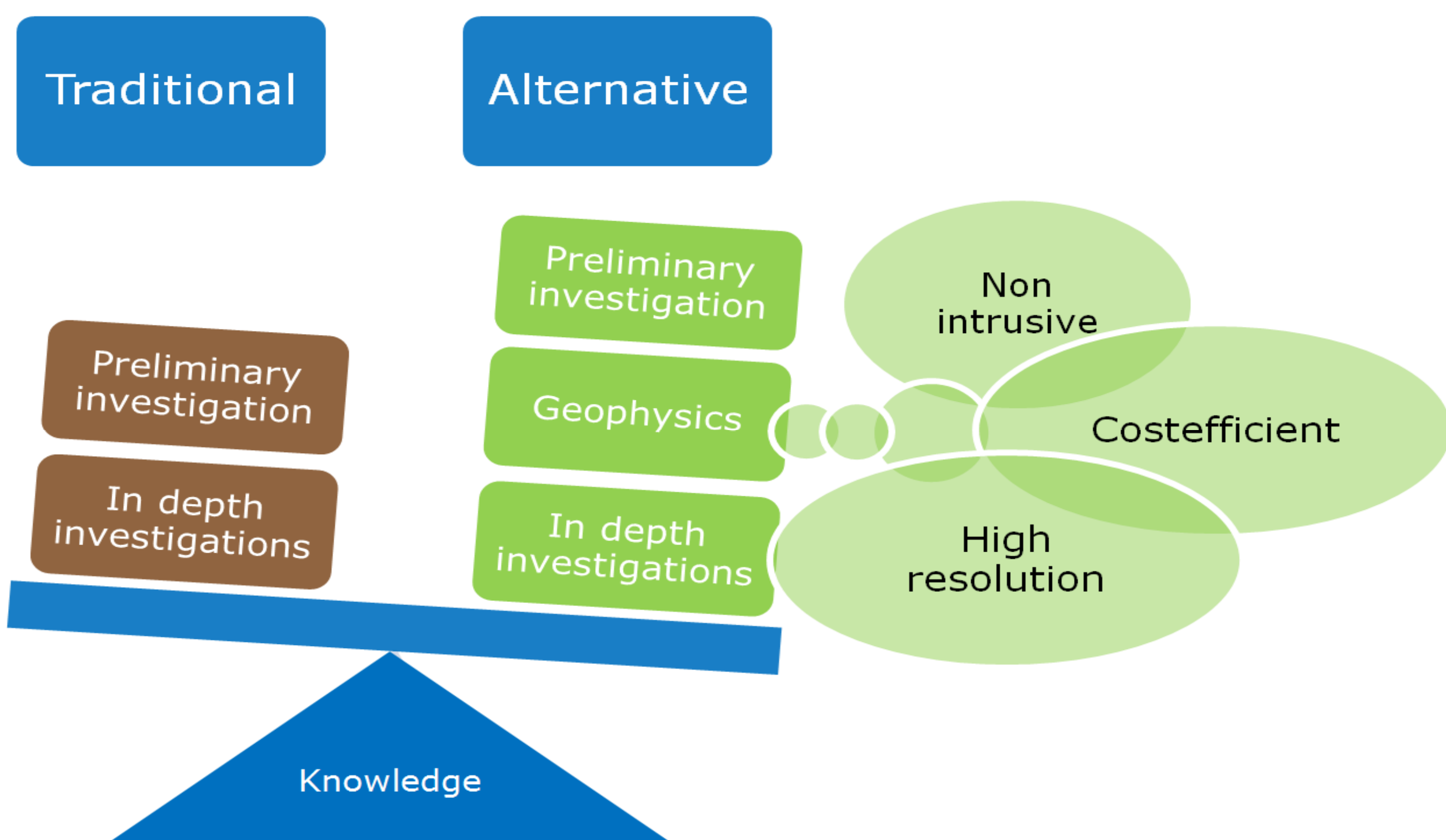


DK2B Soil Contamination

Improvement of traditional investigations by prior geophysical measurements

Objective:

To clarify if expenses and/or time can be reduced by adding geophysical measurements prior to the point approach. The trial is carried out on a former landfill and two agricultural contractors, where pollutions with leachate and pesticides have been proved. The final output should be recommendations and guidelines for a better integrated practice resulting in better risk management.



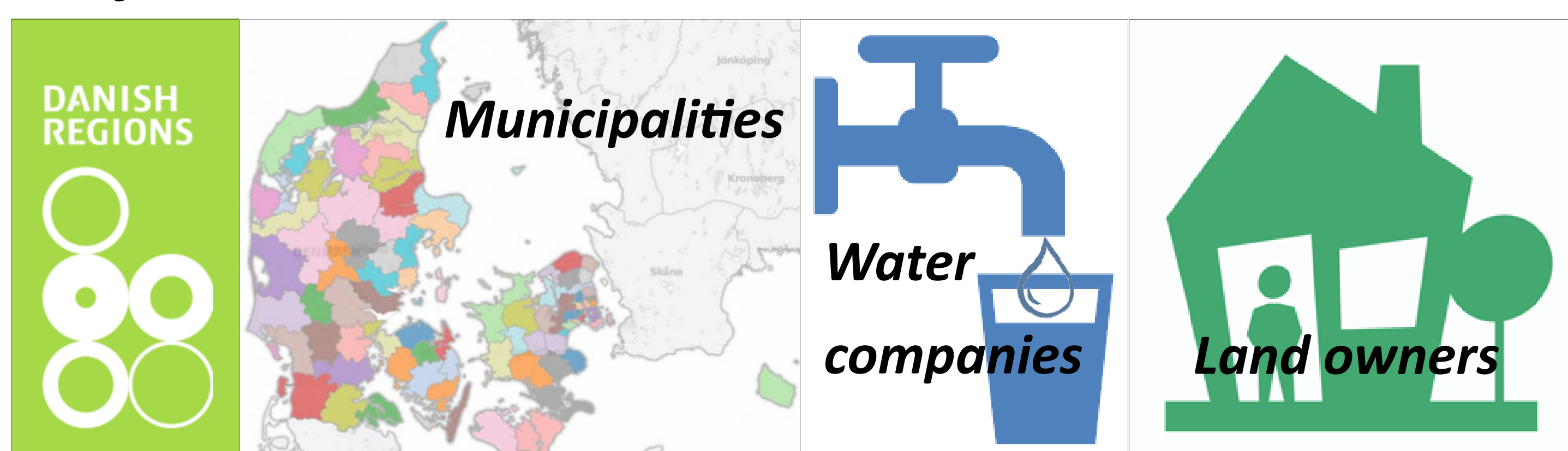
Expected impact of climate change

- ◆ Seasonal fluctuations will increase, investigations may be prolonged to include these measurements
- ◆ Seasonal variations in groundwater abstraction may lead to local variations in substance transport
- ◆ More frequent and heavy rainfall will increase leaching with a negative effect on groundwater quality
- ◆ Rising temperatures will intensify the decomposition of landfill waste and increase the generation of landfill gas

How can we improve break down capacity?

The aim is to replace part of intrusive methods with non-intrusive methods and also to improve the risk assessment based on the areal subsurface mapping data. Cost efficient investigations will increase the rate of site investigations.

Key stakeholders:



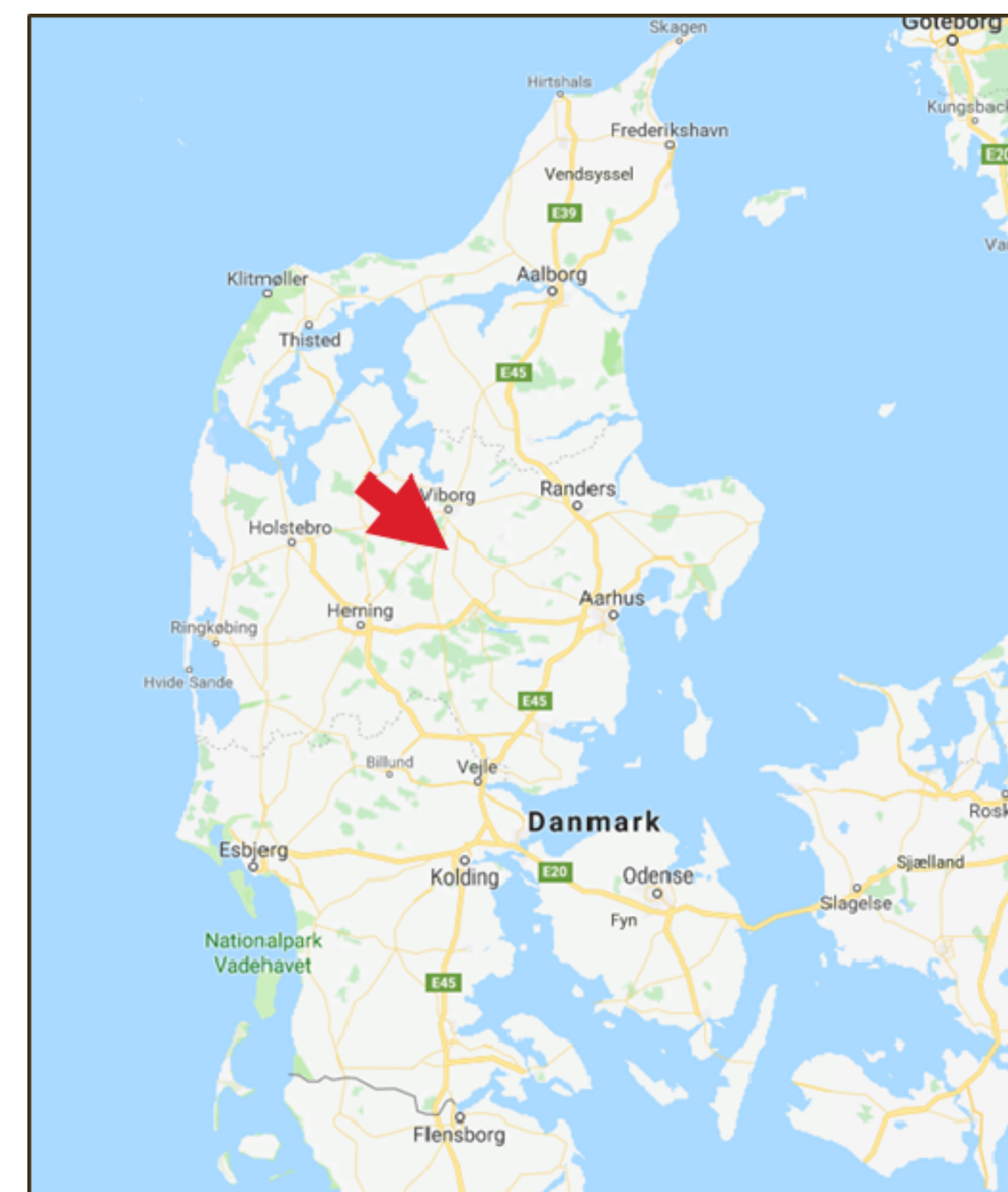
Results indicator:

Water quality: Optimized investigations will induce high productivity

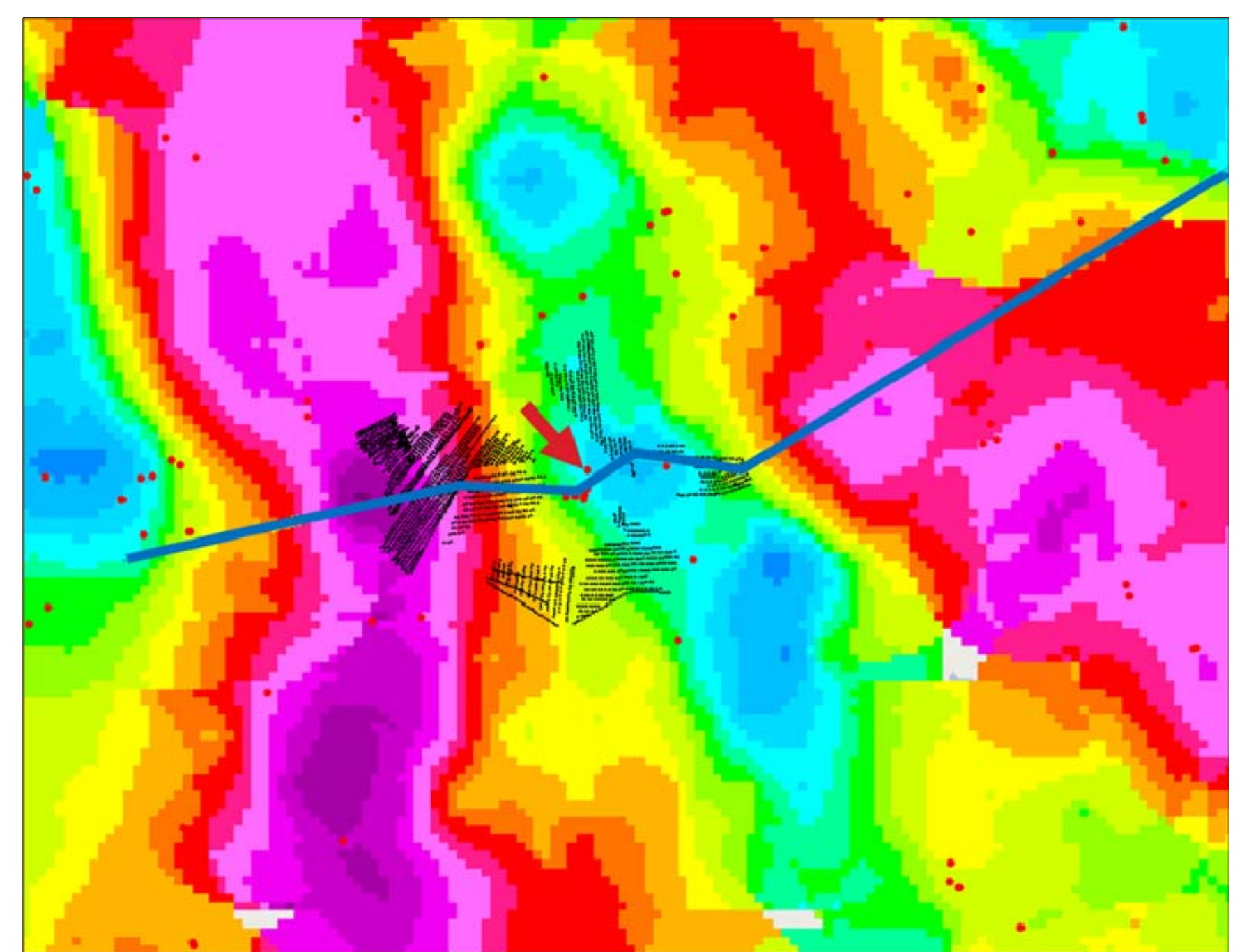
Target: 20 % cost reduction on traditional investigations of point source contamination.

TOPSOIL Challenges addressed:

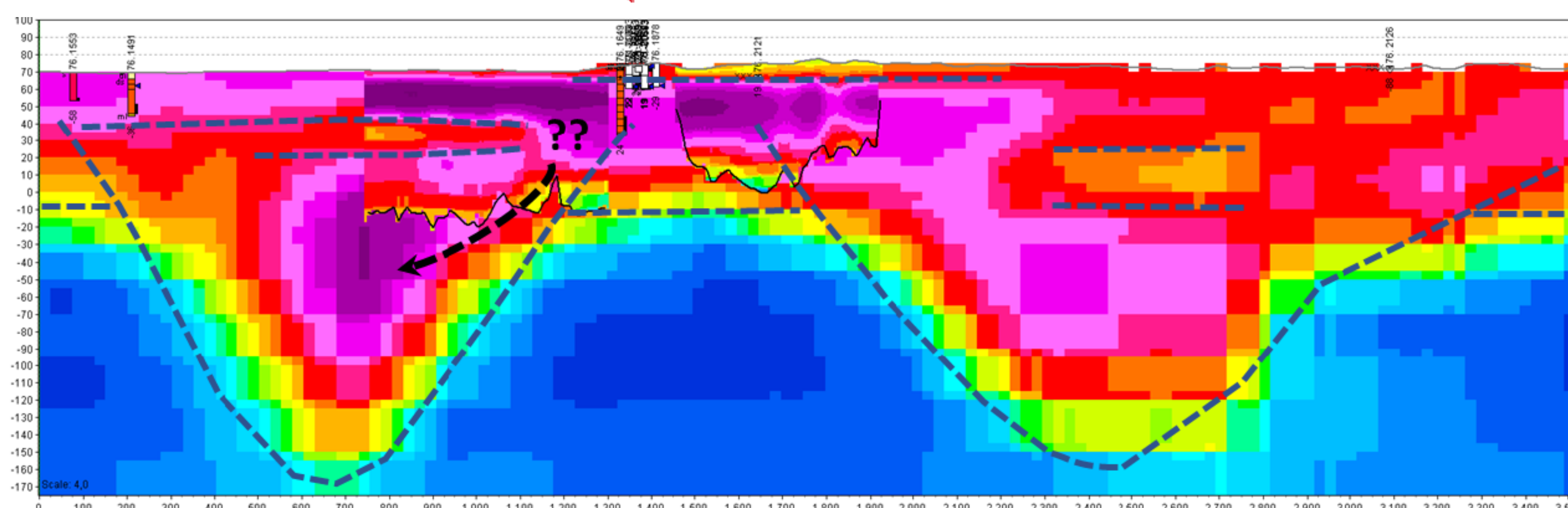
Breakdown capacity



In Denmark drinking water equals groundwater. Thus protecting groundwater resources from contamination is an important task. Regional authorities are responsible for investigations and remediation of contaminated sites. Traditionally, contaminated sites are investigated by drillings, soil- and water samples and soil gas measurements.



Point source
20 meters below sea level



Advantages

- ◆ **Costs**
Improved investigations
- ◆ **Risk management**
More robust risk evaluation
- ◆ **Spatial planning**
T-TEM data can be used for other purposes. All regional data will be released for free disposal for other interested parties.

Please leave your comments here: