

## Kees Weemstra Early Stage Researcher

Host Institution: ETH Zurich / Spectraseis AG

Place of Origin: The Netherlands

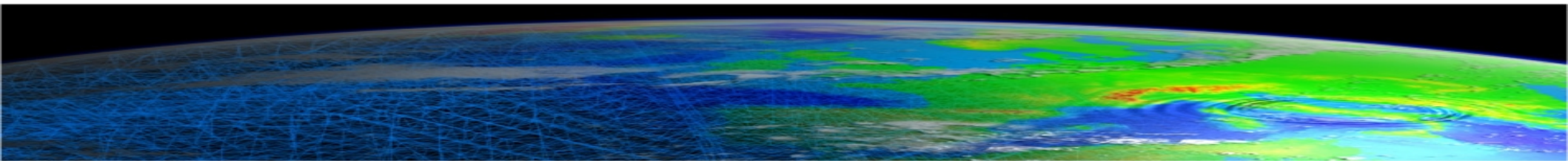
Appointment Time: 01-07-2010

Project: Inversion of dispersion effects from passive seismic data.

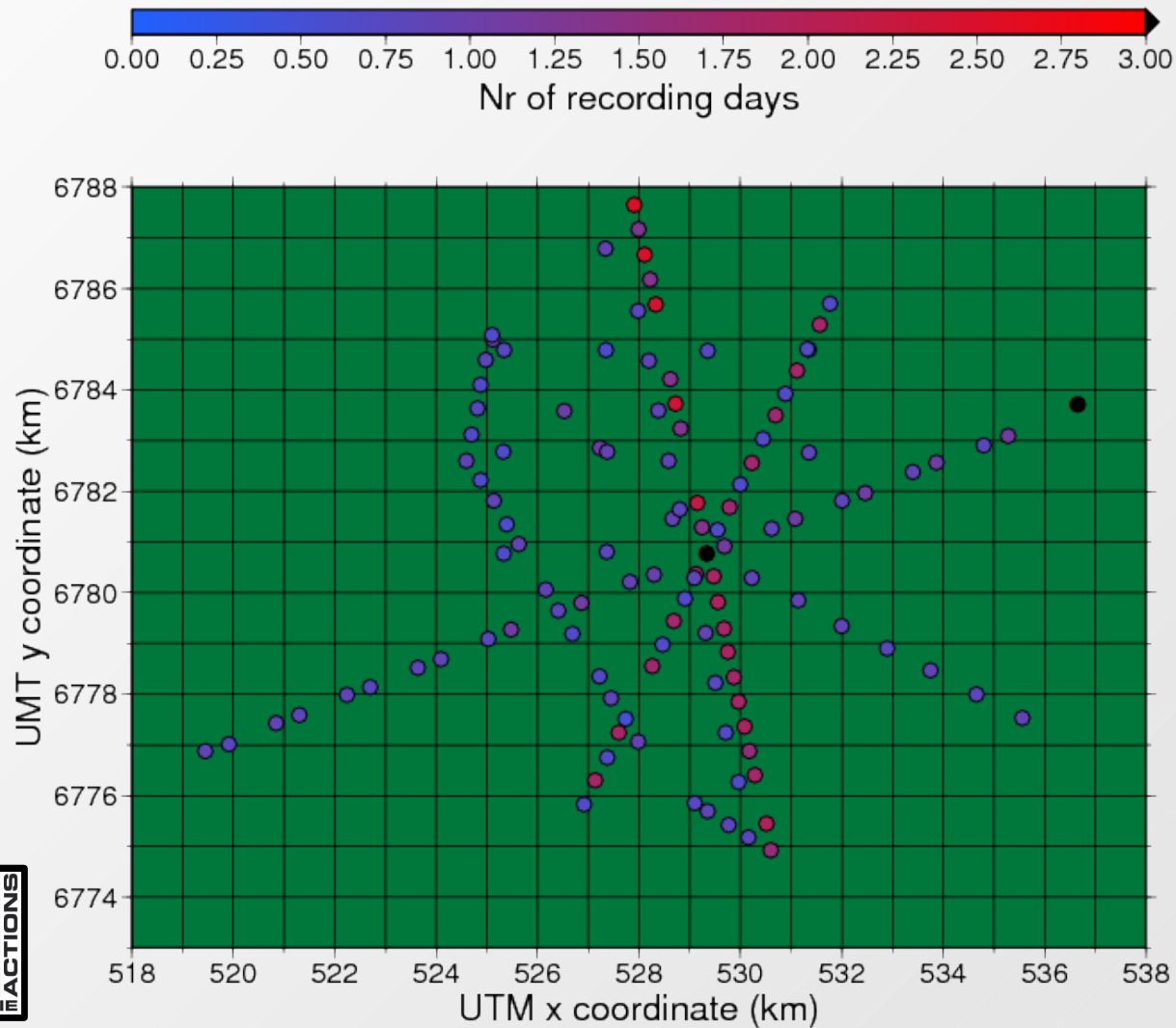
Project definition: Explore the ability to solve for subsurface velocity & attenuation structure with arrays of receivers recording the ambient seismic wave field between 40s and 50 Hz.

Task Groups: WP4 & WP5

Cooperation: UJF, Grenoble

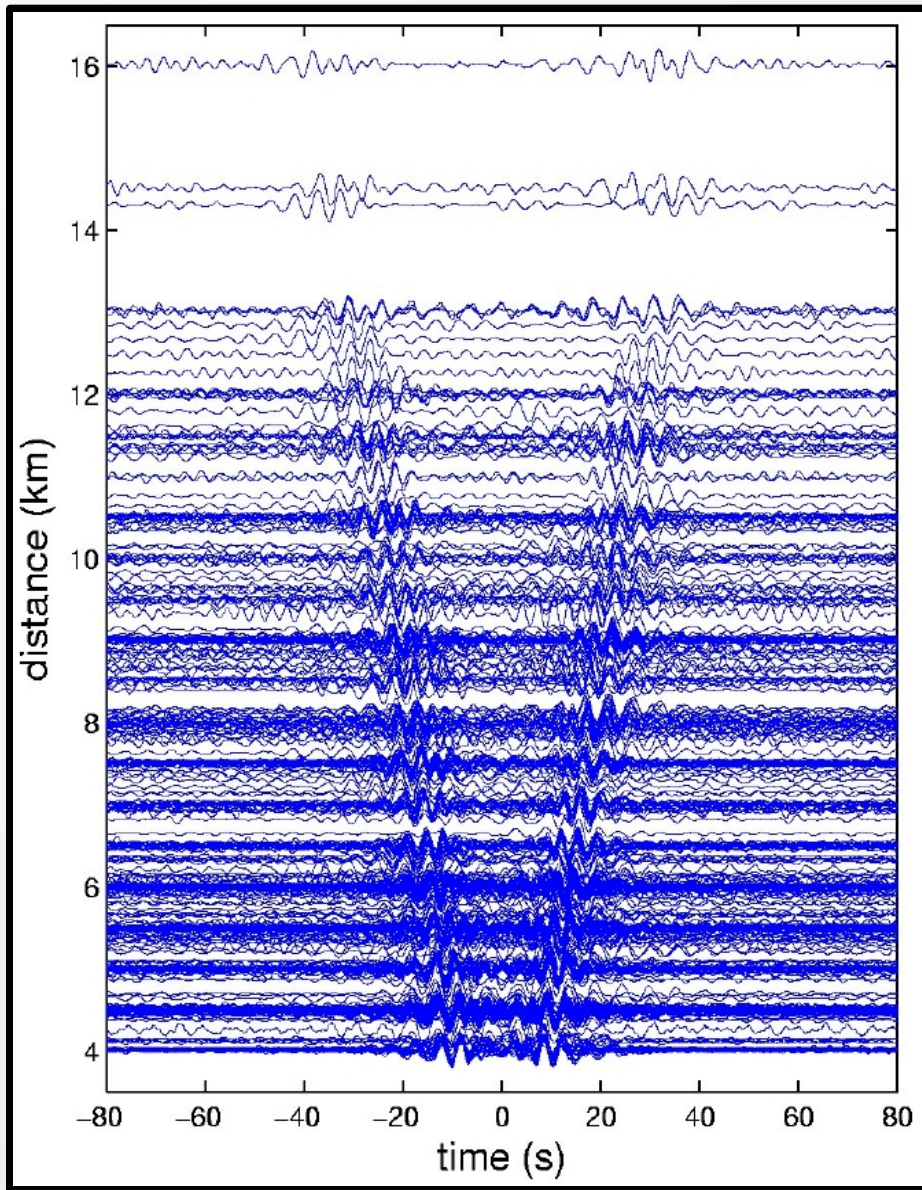


# Data set



- Passive seismic data recorded April/May 2007.
- ~220 km<sup>2</sup> survey area.
- Average depth of 360 m.
- 117 seabed locations by 16 ocean-bottom seismometers (OBS).
- Sampling rate of 125 Hz.
- Main energy in the data below 5 Hz stems from swell noise, ocean microseisms and Scholte waves traveling along the seabed.

# Green's function gathers



- Green's function gathers of Bussat & Kugler (2009).
- Produce these gathers for the three seismic components as well.
- Ambient noise surface wave tomography can also be extended for the inversion of attenuation (Prieto et al., 2009).
- Reservoirs exhibit an abnormally strong attenuation contrast.