



## Creating quality in PhD education through a national research school network

**Anniken R. Birkelund** and Stephanie C. Werner

University of Oslo, Department of Geosciences, The Centre for Earth Evolution and Dynamics, OSLO, Norway  
(a.r.birkelund@geo.uio.no)

Norwegian geosciences institutes has as separate and spread entities had limited resources for teaching global, large-scale processes and changes related to the evolution of planetary interior and its interaction with the crust, atmosphere and hydrosphere. The institutes experienced that the courses offered locally were insufficient to educate young academics in fundamental and curiosity-driven Earth sciences. The PhD students also experienced to be alone within their field and without a network around them.

The quality of PhD education is highly relying on the supervisor's ability to give good supervision, but the entire setting that a PhD student is situated in will contribute to their success in science. The short duration of Norwegian PhD programs combined with a course requirement of 30 ECTS points, calls for well-planned and efficient research, good supervision and course work. For a PhD student to work efficient a good workplace, role models and a good network is also of great importance. Under difficult conditions, the universities see higher drop out and longer completion time numbers from the PhD program, especially for already vulnerable groups.

The national research school of Dynamics and Evolution of Earth and Planets (DEEP) aims to gather the Norwegian natural science expertise relevant for studying the Earth as part of the Solar System and promotes an environment that enables efficiency, at the same time as the scientific quality remains high. Since 2016 DEEP research school has offered specialised scientific courses and a bigger network for the PhD students and their supervisors. We see an increasing interest in joining the research school as part of the PhD program and increasing cooperation between PhD students within the network. With annual conferences and many smaller gatherings, we also ensure that the PhD students form a network amongst each other and find mentors that will strengthen them in their future careers.