

Source to sink: Sediment volume partitioning in time and space - Source to sink: Sediment volume partitioning in time and space - Biannual report 2011

by [Tor Oftedal Sømme](#) — last modified 2011-07-26 09:38

History

| Action | Performed by | Date and Time | Comment |
|----------------|-----------------------------------|------------------|--------------|
| Approve Report | Trine Gerlyng | 2011-07-26 09:38 | No comments. |
| Submit Report | Tor Oftedal Sømme | 2011-07-08 13:24 | No comments. |

Project title: Source to sink: Sediment volume partitioning in time and space

Project director: William Helland-Hansen, Department of Earth Science, UiB

Post-doc scholar: Tor Oftedal Sømme

Project duration: 2009-05-01 to 2012-04-01

Division head: Lasse Amundsen

Project number: 6256

Objective

Rock outcrops and subsurface sedimentary units will always be associated with many uncertainties in terms of paleo-morphology and lateral extent of depositional systems as the most proximal part of the sedimentary transport system rarely is preserved in the stratigraphic record. In addition, the remaining part of the system is commonly only partly preserved and lacking good 3D coverage. The objective for this work is to combine the use of modern analogues with forward stratigraphic modelling to get a better understanding on sediment transport and dispersal in ancient source-to-sink systems. Specifically, much of the work will concentrate along the Norwegian margin and focus on depocenters outside Hardangerfjorden, Sognefjorden and further north in the Trøndelag area. This work will also be integrated with landscape and sediment routing studies from modern rift basins in order to increase our understanding of the link between paleo-landscapes and the preserved stratigraphic record found in sedimentary basins.

Status

At this stage we are writing up a specific study of modern rift drainage which focuses on the organisation of river systems in rift basins around the world. We are also finishing the study on Late Cretaceous deep-sea fan systems off the Møre-Trøndelag coast that was initiated last year during my visits at Imperial College, London. The more regional seismic study covering the south Norwegian margin is also improving, and results are expected during the early fall (this is part of the Earth System Modelling project, at IFG). Forward stratigraphic modelling has been resumed although there are some delays due to software problems.