

Bideford, 13<sup>th</sup> February 2017

**Object:**

***Work plan for the STSM at Geomar Helmholtz Center for Ocean Research Kiel: Noble and hydrocarbon gas insights into deep fluid migration in Gulf of Cadiz (manuscript) & Heat and Fluid flow modelling***

To whom it may concern,

I am submitting a proposal for a STSM to travel to Kiel (Germany) to work at Geomar with Ewa Burwicz-Galerne from Geomar (Kiel), Heiner Villinger (Bremen University) and Christian Hensen (Geomar).

The work plan includes joint work on modelling of heat flow (Heiner Villinger), fluid flow (Ewa Burwicz-Galerne) and thermal degradation of organic matter as a preparation step toward the construction of modelling teaching material. The teaching material is destined primarily to the training school that I am organising in North Devon as part of the Flows project, but not only as it will be used in different circumstances.

Secondly, the purpose of my visit to Kiel is the finalisation of a paper of which I am first author and Christian Hensen a co-author on the hydrocarbon and noble gas geochemistry of mud volcano fluids in the Gulf of Cadiz (SW Iberia), one of the areas of investigation of the FLOWS project. It will also involve planning further collaborative work to publish data acquired as part of research cruises in the Gulf of Cadiz and offshore Costa Rica.

The STSM has a duration of 6 days, starting on the 20<sup>th</sup> February and finishing on the 25<sup>th</sup> February 2017, and it involves:

- Travelling to Kiel on the 20<sup>th</sup> February;
- Leaving Kiel and returning home on Saturday 25<sup>th</sup> February.

The total amount required for this STSM is 700 euros :

- 450 euros for transport (plane return ticket and train and buses for connections to/from airports);
- 250 euros for meals.