

Norwegian Institute for Air Research
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**Partnership in the project THAW: “Trends and Hazards in Arctic Warming:
Climate change and greenhouse gas emissions from Arctic permafrost regions”**

Thank you for the invitation to participate as a partner in the proposed project **THAW** coordinated by Norwegian Institute for Air Research. I gladly accept this invitation and I am looking forward to collaboration.

Université Pierre et Marie Curie (UPMC, Paris) is among the largest universities of France and has a wide expertise on climate research, gas migration in sediments and ocean environment, and the geological controls in Arctic environments. The Earth Science (ISTeP) and Ocean Science (LOCEAN) laboratories are and have been involved in climate and arctic related research, e.g. as coordinating institute for the FP6 DAMOCLES project (Developing Arctic Modeling and Observing Capabilities for Long-term Environmental Studies).

For WP2 of THAW a contribution can be proposed for Task 2.7 and the modelling of methane emission scenarios from thawing permafrost and decomposing hydrates. In particular an expertise is available on marine heat flow acquisition and data evaluation (Jeffrey Poort, Frédérique Rolandone), modelling the behaviour of hydrate systems under changing conditions (Jeffrey Poort), the geochemical parameters constraining sediment gas and hydrate behaviour under climate forcing (Giovanni Aloisi, Catherine Pierre), and the crustal and geodynamical controls on the evolution of permafrost systems (Loic Labrousse). A few selected references are listed in annex.

We confirm that we will participate as a partner in the THAW project without being a contractor.

Best regards,



Jeffrey Poort

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Annex: selected references

Aloisi, G., I. Bouloubassi, et al., 2002. "CH₄-consuming microorganisms and the formation of carbonate crusts at cold seeps." *Earth and Planetary Science Letters* 203(1): 195-203.

Aloisi, G., C. Pierre, et al., 2000. "Methane-related authigenic carbonates of eastern Mediterranean Sea mud volcanoes and their possible relation to gas hydrate destabilisation." *Earth and Planetary Science Letters* 184(1): 321-338.

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Poort, J., Kutas, R., et al., 2007. Strong Heat Flow Variability in an Active Shallow Gas Environment, Paleo-Dnepr, Black Sea. *Geo-Marine Letters*, doi: 10.1007/s00367-007-0072-4.

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