



Department of Geology  
The University Centre in Svalbard  
PO Box 156  
N-9171 Longyearbyen,  
Norway

E-mail: [Doug.Benn@unis.no](mailto:Doug.Benn@unis.no)

Phone: +47 79023367

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### Letter of Support

I am writing to express my support for the proposal 'Shared Frameworks for Next-Generation Ice Sheet Modelling'. The proposal is a very timely initiative, designed to ensure continued leadership by UK scientists in work of the highest importance to society. Robust and flexible coupling of ice sheet, atmosphere and ocean models is widely acknowledged to be key to developing reliable predictions of sea-level response to climate change. Achieving this goal will involve major inter-disciplinary collaboration, requiring precisely the kind of cross-community co-operation advocated in the present proposal.

Efficient progress in this urgent scientific problem depends crucially on community-wide communication and collaboration. Model developers and users need to identify and implement common approaches to interfacing models, so that solutions are not constantly reinvented on a case-by case basis.

I write as co-PI of SVALI (Stability and Variations of Arctic Land Ice), a major Nordic research initiative focusing on the response of Arctic ice masses (particularly the Greenland Ice Sheet) to climate change. Within SVALI, partners are using a range of modelling approaches, including the development of new model physics (particularly concerning calving, hydrology, and sliding) and improved methods of coupling ice-sheet and climate models. There is therefore a high degree of complementarity between SVALI and the proposed project, and I am sure that collaboration between the two projects will be highly beneficial to UK science and the wider community.

Two members of SVALI (Thomas Zwinger and Gudfinna Adalgeirsdottir) have agreed to be partners in the proposed project, and will be involved in discussing technical details of model development. My own role in SVALI is head of the team developing improved parameterizations of calving processes, and as such am concerned with many of the same

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The University Centre in Svalbard

P.O.Box. 156  
N - 9171 Longyearbyen

Phone: (47) 79 02 33 00  
Fax: (47) 79 02 33 01

Email: [post@unis.no](mailto:post@unis.no)  
[www.unis.no](http://www.unis.no)

Organisation number:  
985 204 454

model interfacing problems highlighted in the current project proposal. Meetings between SVALI partners and members of proposed project therefore promise to be of great benefit to all parties.

Yours sincerely,



Professor Doug Benn