

February 28<sup>th</sup> 2018

Dear Dr. Bauer,

On behalf of UMD and as Co-Chair of the GEOGLAM Executive Committee, I am writing to express my strong support for the ExtremeEarth flagship proposal to the European Union's Horizon2020 Programme. Extreme climate events are presenting a number of challenges to governments, businesses and farmers. This flagship proposal to dramatically improve climate modeling would require novel computational infrastructures, strategies, and algorithms and a scaling up of today's capabilities. To provide modeling and forecasting of extreme climate events will require much better physical representation of key processes, at finer spatial resolutions than are currently available.

From the GEOGLAM perspective, current climate models are insufficient to reliably predict or forecast extreme events beyond 10 - 15 days. Improved forecasting on a 2- 6 months basis would be extremely useful in the context of Food Security and Early Warning. Process-based crop models driven by input from climate models would also benefit from improved forecasts at finer spatial scales. A detailed accounting of uncertainties, would allow better-informed decision-making from farm-level to business and governmental organizations.

The GEOGLAM initiative represents the interests of the Agricultural Monitoring Community of Practice and as Co-Chair I would be very much interested in interacting with your proposed flagship, providing input from the community on requirements for agriculture and testing of some the products and model outputs that you would be developing.

I am familiar with the work of a number of the Coordination Team identified in your proposal, they represent the leaders in the field and I find it to be a very strong and competitive team. In my role as GEOGLAM Co-Chair, I would like to express strong support for your ExtremeEarth proposal, which will be an extremely relevant to the GEOGLAM initiative.

Yours Sincerely,



Chris Justice, GEOGLAM Co-Chair

Chair of the Department of Geographical Sciences