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Dr. Peter Bauer  
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Dear Peter

### **ExtremeEvents**

The vision of *ExtremeEarth* is to develop a wholly new class of models for more accurate prediction of extremes in our weather and climate systems, and to couple these to impacts in the food, water, health, energy and insurance sectors. *ExtremeEarth* will give unprecedented new insights into the processes and mechanisms responsible for weather extremes, and allow us to understand how the frequency and intensity of such events will alter in response to climate change, thereby leading to increased predictive skill. This will require the development of new models of the climate system at unprecedented resolution, and with the inclusion of new physics and numerical algorithms, which will be run on the next generation of High Performance Computing platforms.

*ExtremeEarth* will revolutionize Europe's capability to predict and monitor environmental extremes and their impacts on society enabled by the imaginative integration of edge and exascale computing and beyond, and the real-time exploitation of pervasive environmental data.

*ExtremeEarth* will develop the software needed for these systems and work with commercial partners towards their exploitation in the broader market. In that framework of an ambitious goal to create a unique production capability and to co-design the technological components required for its cost-effective operation, Capgemini therefore fully support the *ExtremeEarth* initiative, which will deliver critical advice to enable Europe to better plan for, and mitigate, the effects of high-impact weather events.

Yours sincerely

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