Bayer CropScience

Prof. Jan Vanderborght
Forschungszentrum Jülich IBG-3
Wilhelm-Johnen-Straße
52428 Jülich
Germany

February 15th, 2018

Dr.-Ing. Ole Peters
Head BAG-CS-Df-TECH
Digital Farming

Bayer AG
Crop Science Division
40789 Monheim
Germany

Mobile: +491734025232
ole.peters@bayer.com
www.bayercropscience.com

Letter of endorsement for the Extreme Earth Flagship project proposal

Bayer Digital Farming's major objective is to make agriculture more sustainable and efficient.

Digital Farming Solutions are a key element to improve conventional agriculture while shaping the future of crop protection by avoiding yield losses and saving chemicals. xarvio™ Field-Manager empowers farmers to take smarter decisions through a sophisticated automated disease management as well as treatment planning. Data aggregation, data modeling and data analytics result in management recommendation considering crop protection, field specific timing and variable rate application maps.

High spatio temporal resolution weather data will have substantial added value for our customers and the environment. Leveraging Digital Farming crop growth models and disease risk estimations will result in even more optimized timing and planning, leading to a higher return-on-investment and less environmental pollution.

Weather and climate data in high resolution is a key driver for plant growth and health. Weather analytics are the back bone of Digital Farming's well validated and proven disease risk models. Field specific agronomic practice heavily depends on this critical data source. In cooperation with university research Bayer Digital Farming is tackling climate modeling aiming to generate weather data at high spatial resolution down to field level. Research aspects include scientific computing for environmental modeling and climate modeling in HPC environments. In addition to its value for agricultural issues, weather data also enables important services providing information for allergy sufferers.

Against this background, Bayer Digital Farming endorses the

--- ExtremeEarth Flagship project (FETFLAG-01-2018) ---

Great value is seen in the scaling up of supercomputing capacity for climate and weather modeling with beneficial value for applications in agriculture.

This endorsement does not imply any legal or financial commitments of the Bayer Group in view of the ExtremeEarth project.

With best regards,

Dr.-Ing. Ole Peters

Bayer CropScience AG
Digital Farming
Elisabeth-Selbert-Str. 4a
D-40764 Langenfeld