Science-driven E-infrastructure Innovation for Enabling Transnational Data Use in Interdisciplinary and Transdisciplinary Environmental Change Research: a New Belmont Forum Funding Collaborative Research Action.

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The impact of environmental change research and data it produces can be dramatically increased through transnational collaborations and transdisciplinary approach in order to accelerate scientific discoveries and socioeconomic innovation.

The Belmont Forum is launching 2018 a four-year funding Research Coordinated Research Action (CRA) on Science-driven e-Infrastructure Innovation (SEI) for the Enhancement of Transnational and Interdisciplinary Data Use in Environmental Change.

This new initiative is implementing a competitive call targeting science-driven initiatives that are well-positioned to bring together environmental, social and economic sciences with data science, computational sciences, and cyber-infrastructure developers and providers to solve one or more of the methodological, technological and procedural challenges currently facing interdisciplinary and transdisciplinary environmental change research working with large, complex and multi-source transnational data.

It will intimately link research thinking and technological innovation to deliver translatable pilots and demonstrators for accelerating the full-path of data use, through internationally federated data integration and analysis systems, which will path the way to open data and open science research practices and benefit to the broader scientific community.

In this presentation, we discuss how the SEI call will be implemented, in synergy with the e-I&DM informative action of the Belmont Forum, as a “task force” through regular steering workshop activities that will catalyse research efficiently with best practices, shared methods and their software implementation. The steering activity is expected to include international experts and representatives from other relevant initiatives, organisations, and private sectors. The information will be used to deliver research-driven recommendations to the Belmont Forum and relevant organisations, in terms of transnational federated data e-infrastructures and open data policies together with capacity building needs.

This will be illustrated by a number of research and organisational challenges: enable high-end data assimilation and broaden data model intercomparaison; accelerate multi-source data access and analysis for disaster monitoring and risk mitigation; enable science reproducibility and trust; transdisciplinary multi-source open data management; lower barriers to open science research practices.