

## European Space Agency – Future Earth joint activities call for proposals 2020: Research demonstrators for COP-26

### Overview

The European Space Agency (ESA) and Future Earth have partnered to facilitate the development and uptake of Earth observation data by Future Earth's research networks. There is seed funding to support the production of research demonstrators up to €25,000 per project to strengthen the impact of Future Earth science at the UNFCCC COP-26 meeting. The aim is show how research data can be used in a real-world situation by end users, to make an impact on policy and/or as a step towards commercial or operational uptake of the research. This is an open call to the Future Earth community.

### Scope of proposals

Future Earth members are encouraged to deepen the impact of their research through deep engagement with new users to produce a communication interface - a 'digital demonstrator' of their research findings. Proposed projects should support the science themes of their GRP or KAN and fall within the themes of the UNFCCC COP-26 meeting:

- Adaptation and resilience
- Nature and safeguarding of ecosystems
- Energy transition
- Zero carbon road transport

ESA is keen to demonstrate at COP-26 how the Climate Change Initiative (CCI) datasets can be used to derive user-relevant information. Proposals must include the use of ESA CCI data in the demonstrator, however use of ESA CCI data is not exclusive: proposals that link with other data (satellite-based and in-situ Earth observations, socio-economic, etc.) and models or assimilation techniques are encouraged. Demonstrators must be completed by November 2020.

Example proof-of-concept projects range from online dashboards, open-access apps, a tool tailored around a pre-existing online analysis platform, or another digital interface most appropriate to the identified user groups. Successful proposals will include:

- Engaging with stakeholders to understand user needs to stimulate research and innovation, particularly user organisations outside of academia, for example public health bodies, environment agencies, NGOs, finance or insurance sector, commercial sector, general public;
- Efforts to link Future Earth research to the wider climate policy landscape and convening organisations, working groups and data analysis platforms (e.g. national agencies, UN groups, GEO, regional initiatives, other GRPs and KANs etc);
- Support for Early Career Researcher participation and development.

On completion of the demonstrator, successful applicants must provide a 2-page report suitable for a public audience that describes its use, user feedback, and an impact summary, plus lessons learnt and opportunities going forward. A technical report that describes the work and engagement activities carried out, plus financial reporting, is required no later than February 2021.

### **Climate Change Initiative: Essential Climate Variable datasets**

ESA has been developing a number of Essential Climate Variable (ECV) data products, in response to the UNFCCC's need for systematic observations of the climate system. The products merge data from multiple satellites and sensors to create long time-series of climate data that are stable and consistent over time. They have primarily been developed for climate modellers but ESA would like to explore applications of the ECVs

in the wider climate and environmental science community, particularly for challenges that require multiple climate variables to understand and attribute change and user requirements.

ECV projects that have developed datasets as part of ESA's [Climate Change Initiative](#) (CCI) programme include: *Aerosol, Biomass, Cloud, Fire, Glaciers, Greenhouse gases (CO<sub>2</sub>, CH<sub>4</sub>), Ice Sheets, Land Cover, Ocean Colour, Ozone, Permafrost, Sea Ice, Sea Level, Sea Surface Salinity, Sea State, Sea Surface Temperature, and Soil Moisture*. To support access and use of these datasets, they are available for free through the CCI [Open Data Portal](#), and can be manipulated and analysed using the [CCI Toolbox](#) which will be launched as a supported online analysis platform from September 2020.

## Eligibility

Researchers and practitioners of any nationality affiliated with an academic, governmental agency, multilateral or not-for-profit institute or audited companies are eligible to apply. Lead applicants must demonstrate that they represent a Future Earth GRP or KAN through a letter of support from the International Project Office (IPO) of a GRP or KAN, and/or one of the Future Earth Regional or National Offices.<sup>[1][2]</sup>

## Submission information

1. Proposals should be a minimum of three and a maximum of four A4 pages (excluding CVs) in 11-point Times New Roman font.
2. The proposal should include the following sections: 250-word abstract, problem statement and an outline of how the project will support Future Earth's objectives and the GRP or KAN scientific themes, the target users and a user consultation plan for co-design of the demonstrator, an activity plan and expected functionality of the demonstrator (the final functionality should be guided by the user consultation), a summary of the expected impact of the project (metrics of success could, for example be inclusion of the demonstrator in a policy brief, consultation etc), list of participants and letters of support to include users and the IPO of the respective GRP or KAN, participant CVs, costed financial support required, and contact information for the lead applicant.
3. Proposals can request support of up to €25,000 for production of the demonstrator, which will be administered by the Future Earth Sweden hub on receipt of an invoice from the host organisation of the lead participant, and technical report. Participants in receipt of funding are responsible for the declaration of national taxes and social security and pension related to this funding.
4. Projects should minimise travel where possible. Additional funds for travel can be requested to support COP-26 attendance, dependent on COP-26 registration allowances for ESA and Future Earth and successful completion of the demonstrator.
5. Demonstrator assets should be branded with the ESA and Future Earth logos and acknowledge the relevant GRP or KAN.
6. The assets created as part of the work done should follow the Belmont Forum [open data policy and principles](#) and conform to GDPR and ESA's data protection policies.

## Deadline for proposals

All proposals must be submitted by **11th May 2020** via email to [sophie.hebden@esa.int](mailto:sophie.hebden@esa.int). The proposals will be reviewed and selected by a committee made up of the Future Earth secretariat and ESA's Science, Applications and Climate Office. Awarded projects will be notified by 22nd May 2020.

## Useful links

- ESA Climate Change Initiative [programme](#), [Data Access](#), and [CCI Toolbox](#)
- Future Earth Research [Networks](#)
- Local space agencies often promote business links and can help with linking to new users; ESA also supports an [ambassador programme](#).
- National networks can help with user connections in different sectors: e.g. the UK [Space4Climate network](#).
- [Satellite Earth Observations in Support of the Sustainable Development Goals](#) (CEOS EO Handbook Special 2018 edition)
- ESA's [EO Science for Society](#) projects, training and further ITTs
- ESA's [Earth observation for sustainable development initiative](#)
- NASA's [online datasets](#)

- [PREP](#), [WRI](#), [GEO](#) websites

### Questions?

If you have any questions please contact:

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