

## Earth Sciences Department

### Project 21: Earth System Services Group (2)

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<https://www.bsc.es/discover-bsc/organisation/scientific-structure/earth-system-services>

Research project/ Research Group description

#### **Project 21:**

The ESS group ([www.bsc.es/ess](http://www.bsc.es/ess)) is seeking a specialist in applied economics to develop and implement a robust research to foster the intersection of economics, environmental science and climate services. ESS aims at developing tailored services on weather and atmospheric composition model simulations (focussing on short-term time scales) and climate predictions (focusing on the sub-seasonal, seasonal and decadal timescales). These services are developed in-house via private contracts with companies (e.g. seasonal hurricane prediction platform), funding agencies (e.g. RESILIENCE providing seasonal predictions for wind energy) and collaboration with public administrations. This is the case of the CALIOPE and AIRE CDMX air quality forecast systems, or the two WMO regional centers of sand and dust storms hosted by BSC-ES together with AEMET (the WMO Sand and Dust Storm WAS or the Barcelona Dust Forecast Center-BDFC). ESS also provides knowledge transfer to spin-off companies interested in exploiting operational opportunities. An interdisciplinary team including researchers, science communicators and user-engagement specialists collaborates closely with all the research groups within the department and the support teams at the BSC (technology transfer office, communication and design teams and data visualisation team) to ensure that users remain at the centre of the research process and the outcomes are both useful to and usable by them.

Successful candidates will have a dual passion for financial markets and sustainability as well as demonstrated expertise in quantitative research techniques, including knowledge of leading-edge approaches, sectorial data, climate information, statistical software and academic literature. The candidate will collaborate with the ESS team (postdocs in climate sciences and air quality, social scientist and communication specialists) and relevant stakeholders (energy companies, agricultural enterprises, public administrations, etc.) to bridge the gap between science and its end users in key sectors of society (energy, agriculture and urban development). Special interest in user-engagement processes and knowledge and technology transfer will be valued. Experience in conducting interviews, workshops, and other user-engagement activities to understand the value and the impact of climate and air quality services will be valued.

The proposed research will be managed through fortnightly meetings with the supervisor to ensure full coherence between the research planned and the general objectives of the department. Regular meetings will take place involving the rest of the department members, especially those in the Earth System Services group, to ensure an adequate integration of this research into the rest of the research carried out in the department. In this context, the applicant will be encouraged to participate in discussions and meetings involving the H2020-funded projects S2S4E and MED-GOLD.