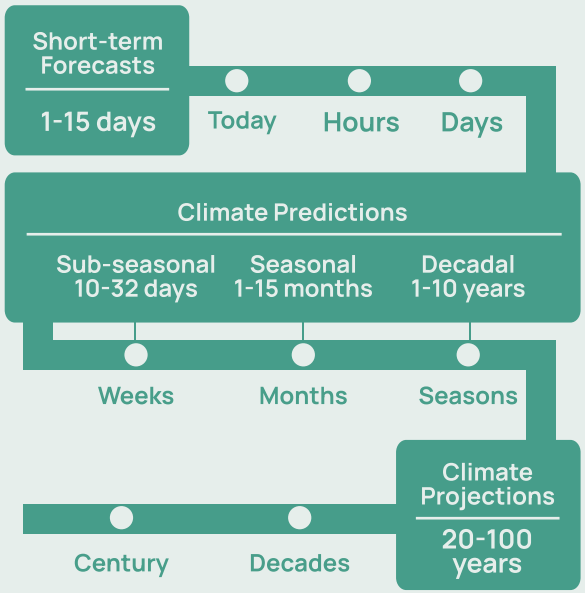
Earth System Services

In the **Earth System Services** group of the Earth Sciences Department at the Barcelona Supercomputing Center-Centro Nacional de Supercomputación (BSC-CNS), we contribute to the transformation towards a better-prepared, equitable, resilient, sustainable, and healthy society. Putting the users' needs at the core of the research, we work on the co-production of demand-driven climate and air quality services that can benefit stakeholders from different socio-economic sectors.



BSC is a public consortium made up of:

Generalitat de Catalunya
Departament de Recerca i Universitats

UNIVERSITAT POLITÈCNICA DE CATALUNYA BARCELONATECH

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Contact us:

earth-communication@bsc.es

www.bsc.es

EARTH SYSTEM SERVICES

Working for a more resilient and sustainable society

Barcelona Supercomputing Center
Centro Nacional de Supercomputación

Context

Scientists are constantly developing new and cutting-edge knowledge, which too often remains in the scientific sphere without reaching society. Transferring and sharing this knowledge with society is essential to make science actionable and fit for purpose.

Who we are

We are an interdisciplinary team of experienced scientists, emerging researchers, and professionals working together to close the gap between science and society by exchanging knowledge and tools with stakeholders in key sectors to prepare the society of the future.

What we do

We develop tailored climate and air quality services to integrate scientific knowledge in key socio-economic sectors such as renewable energy, agriculture, urban development or health, through a co-production process that involves scientists and stakeholders, where we co-explore future risk and impact indicators and co-develop solutions.

Why we do it

We aim to demonstrate the lasting value of climate prediction services, atmospheric composition, and weather forecasting to society and key economic sectors such as renewable energy, infrastructure, health, and agriculture, and to help users make better decisions to mitigate and adapt to climate change.

How we do it

We use a transdisciplinary approach, collaborating with other researchers at BSC and beyond, as well as with policy, industry and third-sector stakeholders interested in climate and air quality. This allows us to meet real needs at local, national and international scales, providing forecasts that support decisions from the next few hours to the end of the century.