Destination Earth

Building a highly accurate digital replica of the Earth system

Destination Earth (DestinE) is a flagship initiative of the European Commission that will support climate change adaptation and mitigation strategies by developing a full digital twin of the Earth. Users will be able to access models, simulations and forecasts of natural phenomena and the impact of human activities on our planet with groundbreaking accuracy, speed and interactivity.

Destination Earth System components

DestinE System

Service Platform: User's entry point to the DestinE system, offering evidence-based decision-making tools, applications and services, based on an open, flexible, and secure cloud-based computing infrastructure.

Data Lake: Data access harmonisation of Digital Twins data and federated providers such as ESA, EUMETSAT, ECMWF, Copernicus and many other sources. Big data processing capabilities provided to allow computing in proximity to the data.

Digital Twins and the Digital Twin Engine: Creation of the first two digital twins, on Weather-induced Extremes and Climate Change Adaptation, and the Digital Twin Engine, the extreme scale computing, data handling and data fusion software infrastructure behind the digital twins.

Features at a glance

- Tools to assess and predict environmental extremes
- Tools to support climate adaptation and mitigation policy-making at multi-decadal timescales, at regional and national levels
- Analysis and testing of scenarios.
- User space with dashboards, sandbox & support for workflows, visualisation, AI and ML
- Rich and advanced applications and services including support for external services
- Data access through distributed online processing – no need to download data.

...and more!

Who benefits

- Policy makers
- Private sector
- Research & academia
- Decision makers
- Technology providers
- Civil society and general public

Current opportunities

Visit the DestinE website to join the community and learn about the latest developments and opportunities such as:

- Co-design and requirements gathering initiatives
- Procurement or funding opportunities
- Webinars, workshops, hackathons, and the next DestinE User eXchange event

Funded by the European Union

Destination Earth

Implemented by ECMWF esa EUMETSAT

Scan QR Code for the website

destination-earth.eu