

MISSION EARTH

Improving the knowledge of our oceans and seas
and bringing them closer to citizens

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Accessible and interoperable data are at the heart of data-driven innovation. This data, combined with digital infrastructure (e.g. supercomputers, cloud, ultra-fast networks) and artificial intelligence solutions, facilitate evidence-based decisions and expand the capacity to understand and tackle environmental challenges.

The Commission will support work to unlock the full benefits of the digital transformation to support the **ecological transition**. An immediate priority will be to boost the EU's ability to **predict and manage environmental disasters**. To do this, the Commission will bring together European scientific and industrial excellence **to develop a very high precision digital model of the Earth**.

*The European Green Deal, COM(2019) 640 final,
Brussels, 11.12.2019*

Concept

- The Mission Earth initiative aims to develop a very **high precision digital model of the Earth.**
- It will be a multi-dimensional representation of our planet that makes enables users to interact in a holistic manner with the vast amounts of **natural and socioeconomic information** gathered about the Earth.
- Users will not be limited to moving through space, but can also travel through time, thus become **capable to assess not only the impact of challenges, but also the efficiency of proposed solutions.**
- Mission Earth will be a comprehensive geographic **knowledge organisation/analysis** system, with a global atlas as the principal user interface.

Digital Twins

Climate change

- Polar changes
- Sea level rise
- Urban resilience
- Public health resilience
- Migration flows
- Marine resilience
- Freshwater availability

Climate resilience

- Food security
- Planetary greening and forest growth

Biodiversity

- Protecting vulnerable ecosystems

Civil protection

- Natural disasters
- Extreme events
- Chemical, biological, radiological and nuclear (CBRN) hazards

Thank you