BIODT
biodiversitydigitaltwin

A Digital Twin prototype to help protect and restore biodiversity

The Biodiversity Digital Twin prototype provides advanced models for simulation and prediction capabilities, through practical use cases addressing critical issues related to global biodiversity dynamics.

BioDT exploits the LUMI Supercomputer and employs FAIR data combined with digital infrastructure, predictive modelling and AI solutions, facilitating evidence-based solutions for biodiversity protection and restoration.

The project responds to key EU and international policy initiatives, including the EU Biodiversity Strategy 2030, EU Green Deal, UN Sustainable Development Goals, Destination Earth.

BioDT Use Cases

Species response to environmental change

- Biodiversity dynamics
- Ecosystem services

Genetically detected biodiversity

- Crop wild relatives and genetic resources for food security
- DNA detected biodiversity, poorly known habitats

Dynamics and threats from and for species of policy concern

- Invasive species
- Endangered species

Species interactions with each other and with humans

- Disease outbreaks
- Pollinators

Funded by the European Union

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