



Destination Earth

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Building a highly accurate digital replica of the Earth system

Progress

DestinE User Exchange #3

15th October 2024 - Darmstadt



Destination Earth

Funded by
the European Union



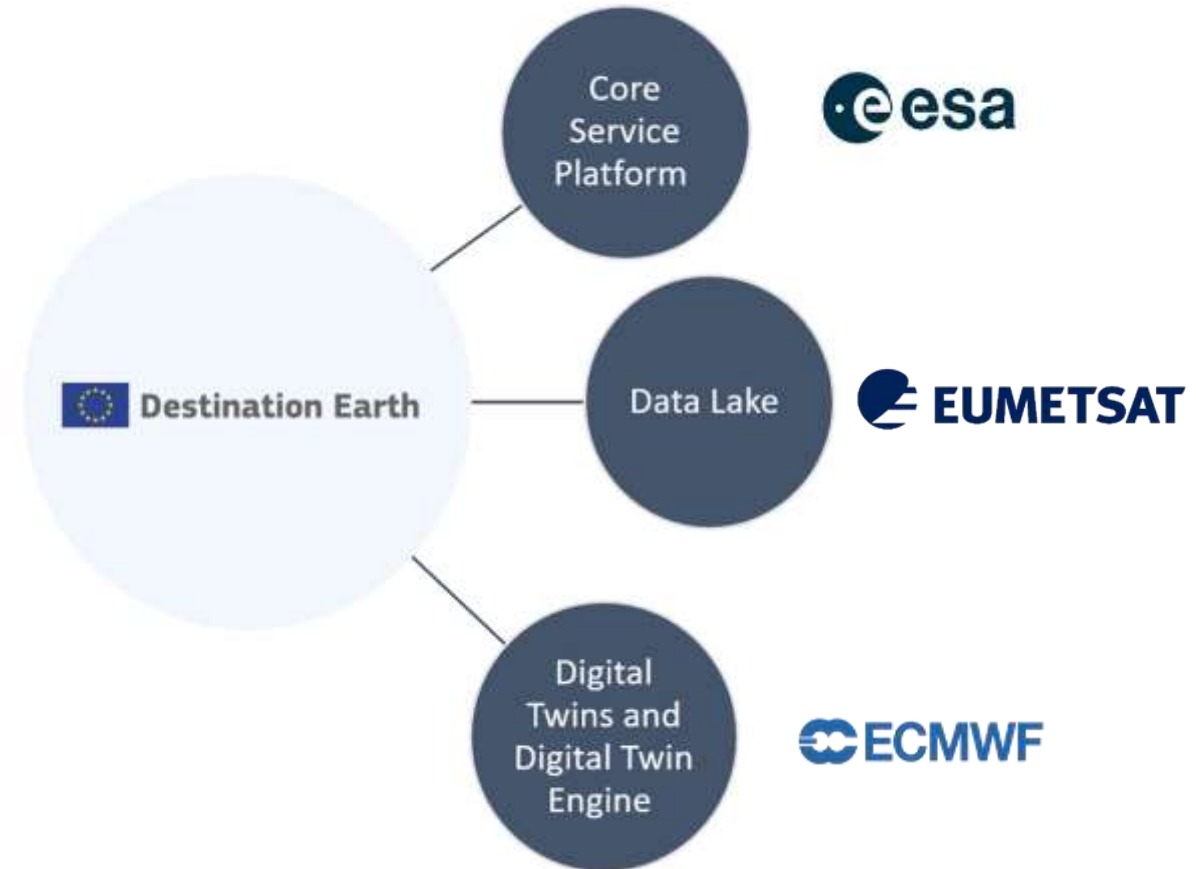
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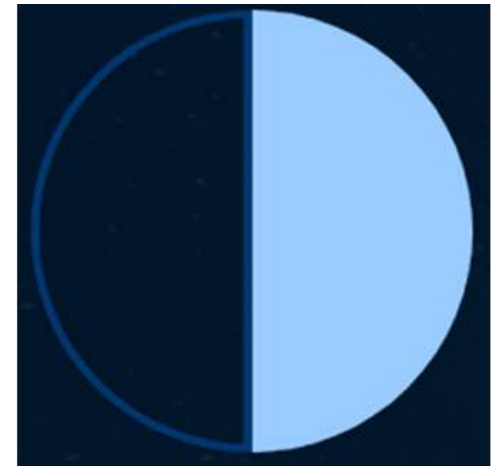
Destination Earth

- **DestinE** comprises digital twins of various Earth system components, designed to understand climate change adaptation and mitigation strategies, as well as improve extreme weather prediction.
- The system will provide information about natural phenomena and the impact of human activities on our planet through simulations and forecasts with enhanced accuracy, speed and interactivity.
- DestinE is an initiative funded by the European Commission and implemented by ECMWF, ESA and EUMETSAT.





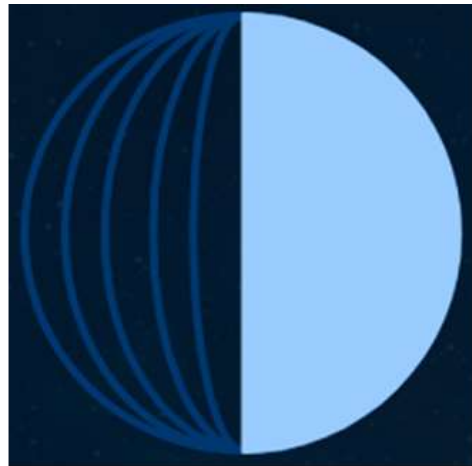
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OFFICIAL LAUNCH

2022

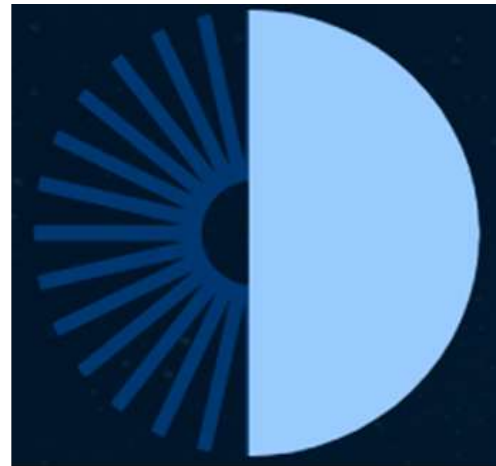
Official launch event of the initiative following the signing of the Contribution Agreements earlier in 2021.



DEVELOPMENT

2023

Development of the main components begins.



IMPLEMENTATION & OPERATIONS

2024

Core Service Platform, Data Lake and initial two Digital Twins have been developed (Weather-Induced Extremes and Climate Change Adaptation). Initial operations started.



ENHANCEMENT

By 2026

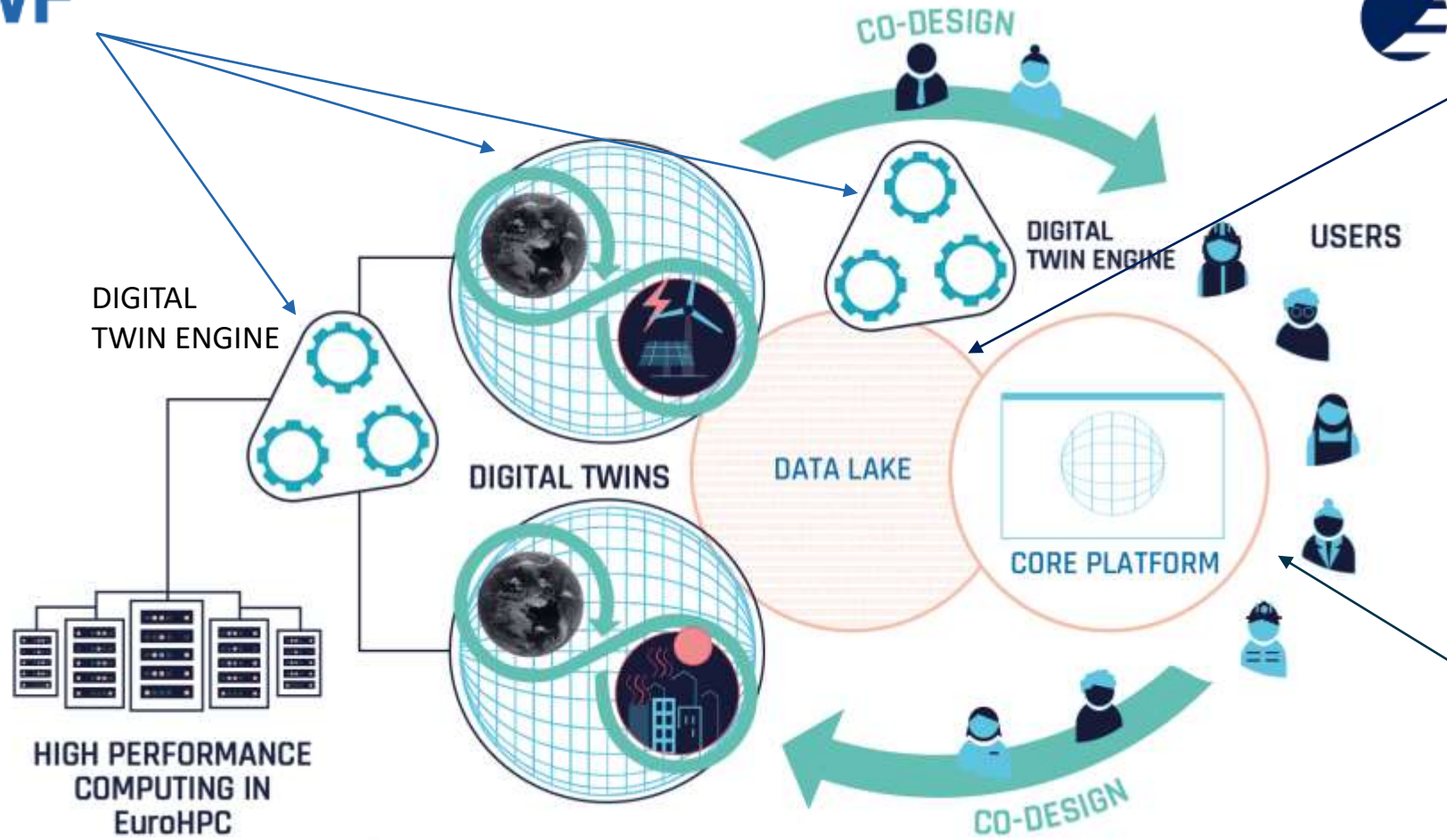
Further enhancement of DestinE. Integration of additional digital twins and related services (e.g. AI).



TRANSITION TO LONG-TERM OPERATIONS

By 2030

System operationalisation. Several thematic digital twins of the Earth system are developed.



(ECMWF, 2024)





Agenda

- 🌍 DestinE Services and Interfaces
- 🌍 DestinE Digital Twins and Digital Twin Engine
- 🌍 DestinE Data Lake, characteristics and services