



Partnerships

Member State benefits

1. Through implementing international entities ESA, ECMWF, EUMETSAT

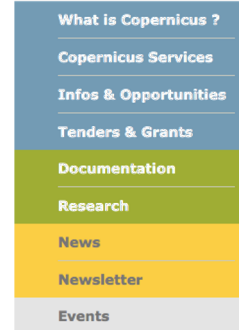
- Intergovernmental organisations
- Diverse national ministry representation
- Associated public/private user communities
- Licensing & data policy
- International data standards and governance

2. Through DestinE procurements

- ECMWF: Engine (DET), Climate DT, Extremes DT
- ESA: Core service platform (DESP)
- EUMETSAT: Data lake (DEDL)

3. Through DestinE partnership programme

- Copernicus services
- DestinE specific use case on-boarding
- Science-technology programmes
- DG DEFIS/RTD/JRC involvement



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Copernicus Services

Copernicus services address six main thematic areas:



Atmosphere
(CAMS)



Marine Environment
(CMEMS)



Land
(CLMS)



Climate Change
(C3S)



Emergency Management
(EMS)

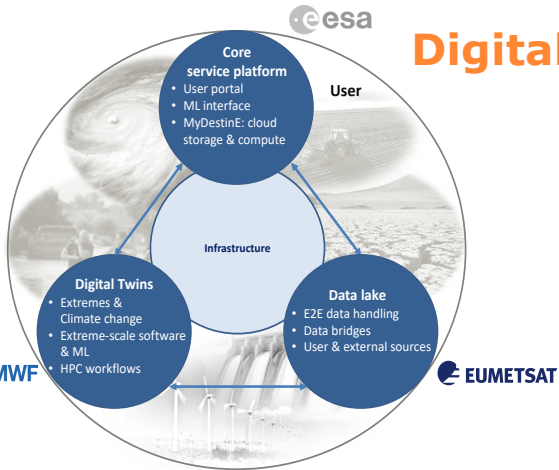


Security

Challenge no. 1: creating synergy across programmes



European Environment Agency



Digital twins/Platform/Lake

Services



Technology & infrastructures



Earth-system & impact science

Grand Challenge

Mission

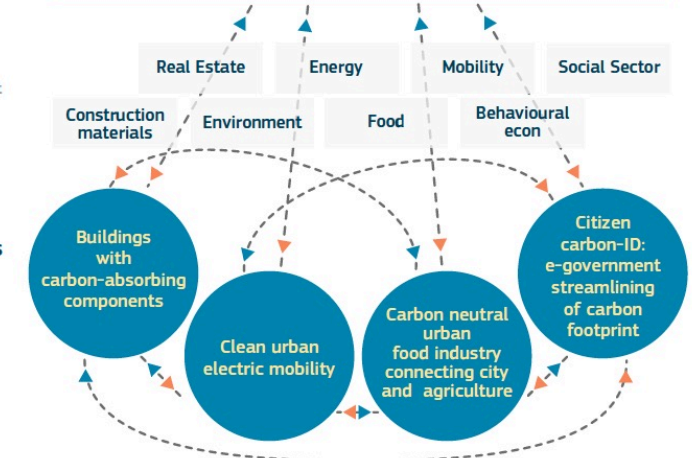
Areas of interest & cross-sector

R&I Projects

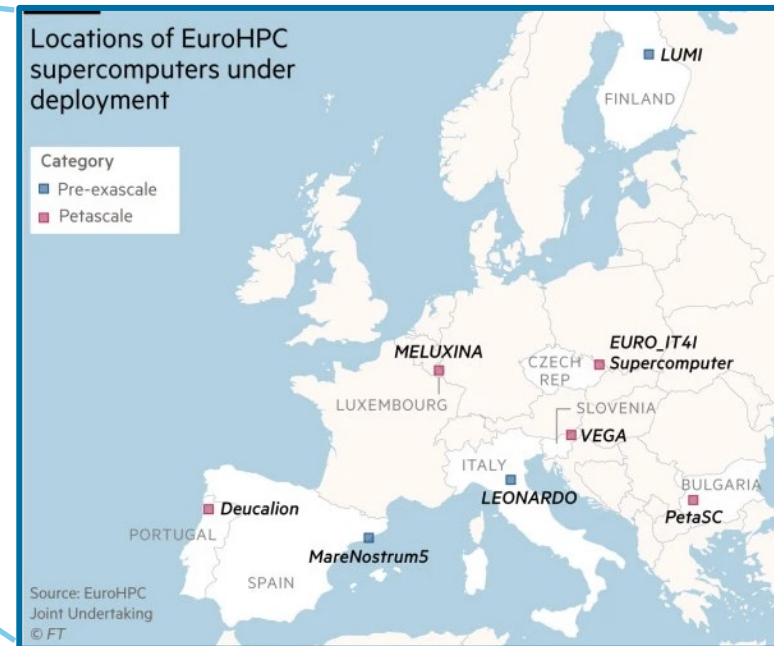
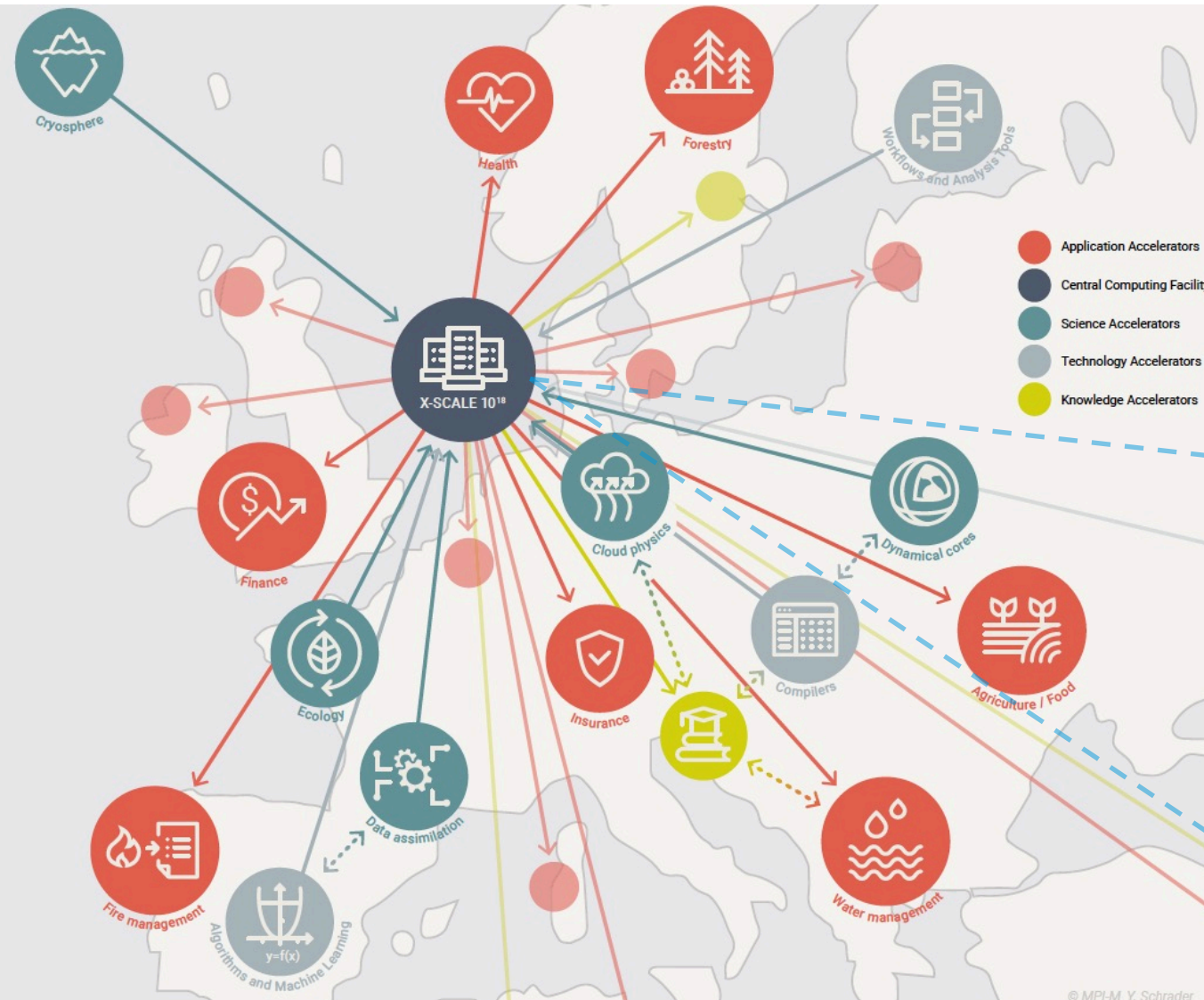
CLIMATE CHANGE

100 CARBON NEUTRAL CITIES BY 2030

Reach net zero greenhouse gas emissions balance of 100 European cities by 2030

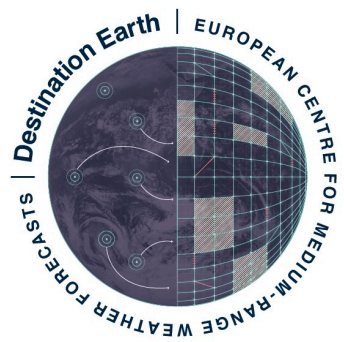


Challenge no. 2: resource management



Courtesy B. Stevens, MPI Hamburg

'Terms of reference'



1. Partnership process that:

- a. is **open, inclusive** and **dynamic - prioritise**
- b. creates **synergies** with existing science/technology/service ecosystems
- c. creates new DestinE **capabilities** early, and promotes uptake

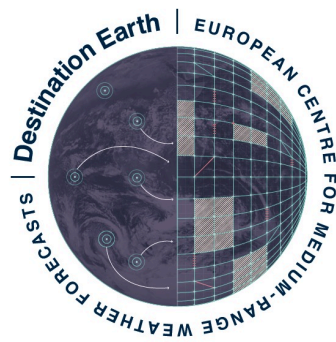
2. Partnership as bridge between:

- a. **science and technology**: step-change in ambition
- b. **capability and service provision**: step-change in innovation

3. Partnership to help implement European policies:

- a. **Green Deal** and **Missions**
- b. Digital Strategy, data spaces, distributed **infrastructures & resources**
- c. public and private **stakeholders**

Turning terms into practice



... **process** ... **bridge** ... **policies** ...

3 levels of co-design, creating a continuous innovation cycle throughout DestinE:

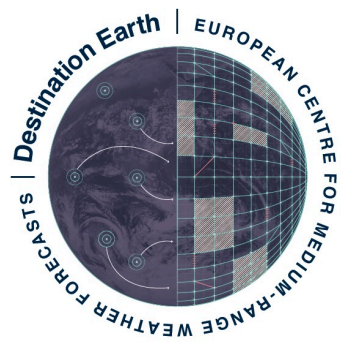
- A. technical co-design between applications and DestinE:
... where technical application components need to sit close to digital twin production workflow, DEDL and DESP
- B. individual application co-design:
... where specific user requirements are well defined, not covered by existing providers and potential solutions can be demonstrated
- C. strategic dialogue with established communities, providers and stakeholders:
... where gaps need to be identified/prioritised, individual/joint solutions be developed, future integration in evolving ecosystem be defined

→ **partnerships** build up community collaboration for all 3 levels of co-design

→ each level can trigger **use cases**, needed for demonstrating benefits and verifying functionality

Building on ...

- DG CNECT preparatory activities (DestinE engagement workshops, JRC survey)
- Horizon Europe Missions, research and innovation actions
- Copernicus and national hydro-meteorological services
- Earth-system and impact science, Earth observation communities
- Emerging Digital Twin communities (DTO, BioDT, InterTwin, GeoDT etc.)
- EuroHPC Joint Undertaking and partners (ETP4HPC, BDVA, etc.)
- Centres of Excellence and digital infrastructure research and innovation actions
- Technology providers (Atos, NVIDIA, etc.)
- Software and Cloud services providers
- International agencies (EEA, UNEP, WMO, etc.)
- Standards (OGC etc.)
- etc.





Q&A