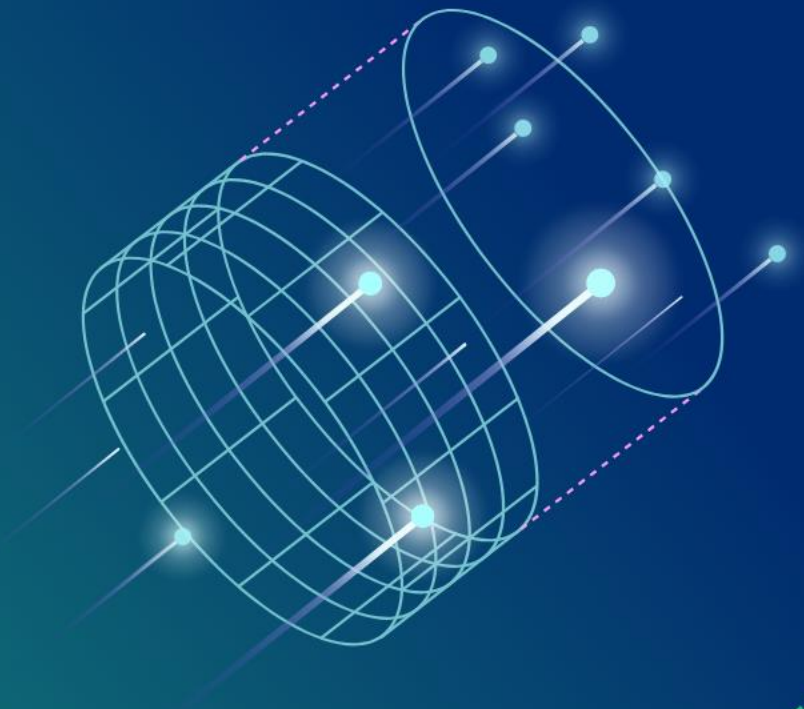
EUROPEAN BIG DATA VALUE FORUM

Technology, Platforms, and impact TRACK

Digital Twins and Standards

November 22, 2022 - 14:00 - 15:30

Ceremony room



ORGANISED BY:

BDV BIG DATA VALUE ASSOCIATION

IN COLLABORATION WITH:

European Commission

Plan4all

VSB TECHNICAL UNIVERSITY OF OSTRAVA | IT4INNOVATIONS NATIONAL SUPERCOMPUTING CENTER

UNDER THE AUSPICES OF:

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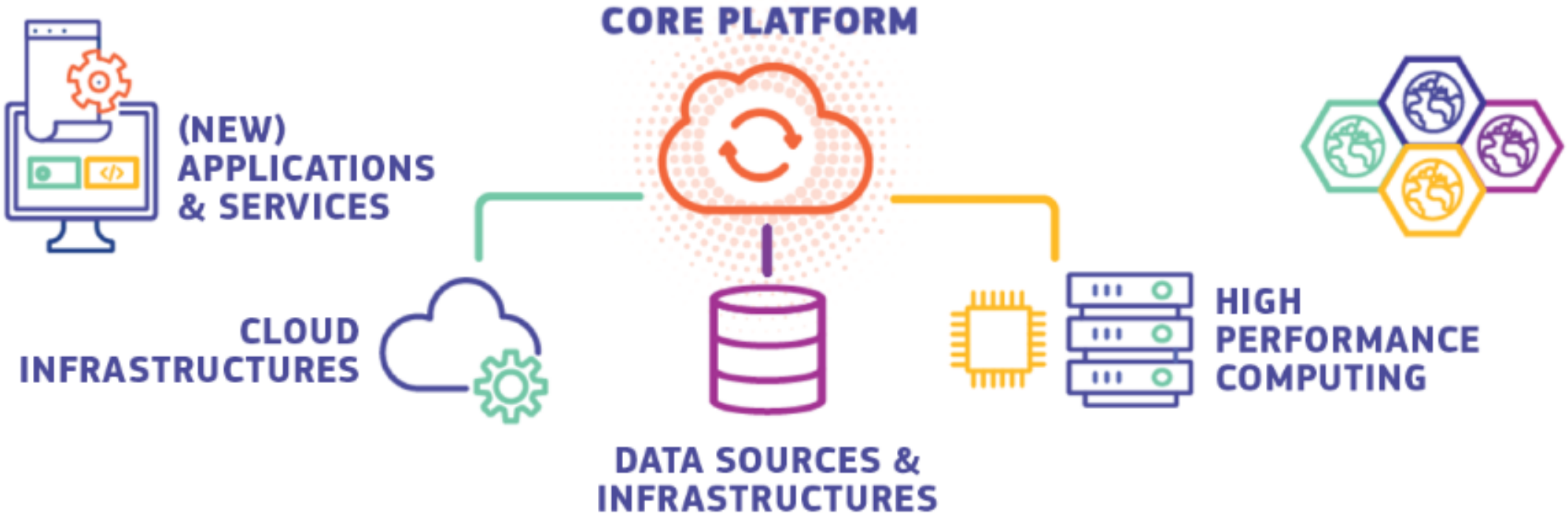
DESTINATION EARTH INITATIVE TRANS CONTINUUM INITIATIVE BDVA AND STA4DESTINE

Destination Earth Initiative

- DestinE - key pillar to achieve the EC *Green Deal* and *Digital Strategy* objectives
- Scope - develop a “very high precision digital model of the Earth” (Digital Twin)
- In coordination mainly with the EC, the MSs, and the scientific communities, 3 entrusted entities will implement the 3 key DestinE system components:
  - European Space Agency (ESA),
  - European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT),
  - European Centre for Medium-Range Weather Forecasts (ECMWF)

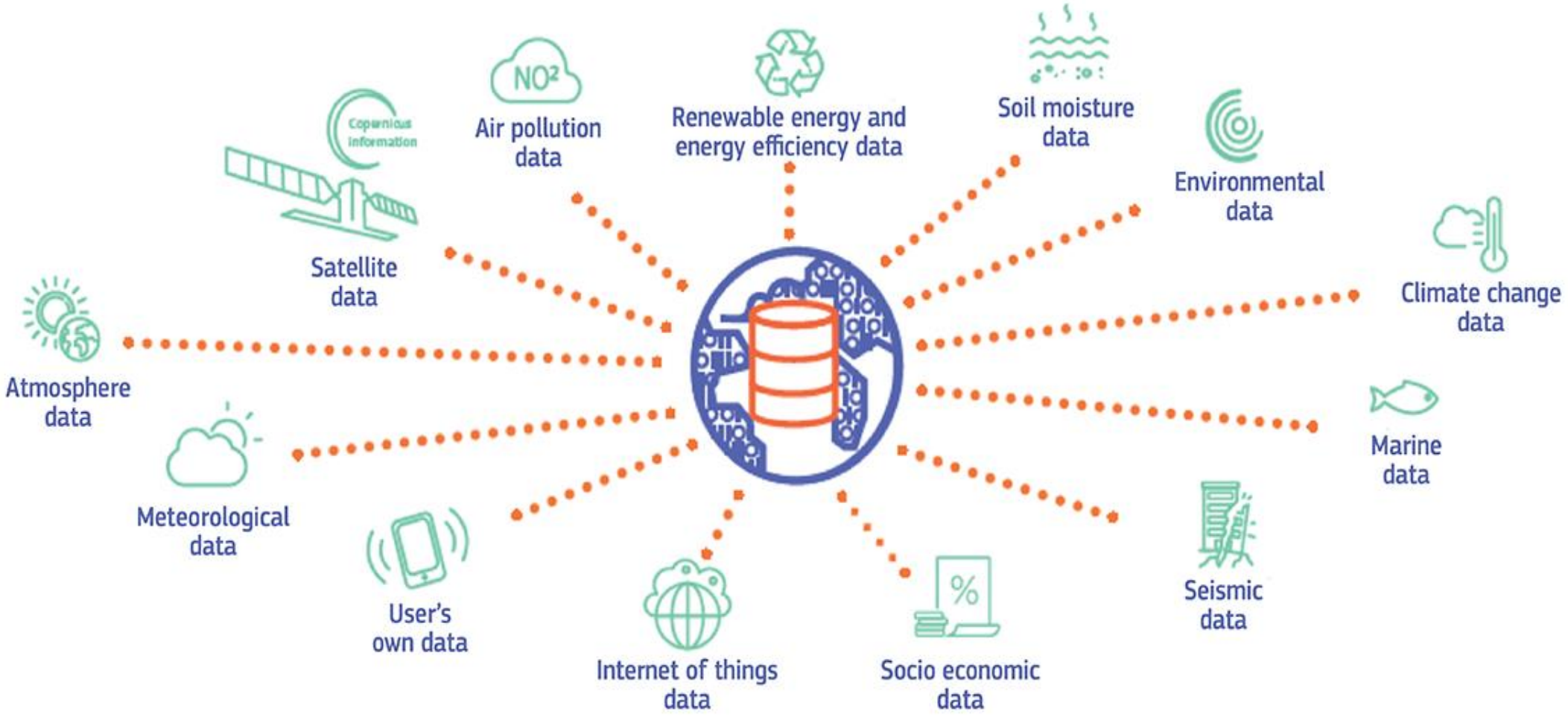
DestinE – System Component 1

1. ***Core Service Platform***, a cloud-based digital modelling and open simulation platform, led by ESA



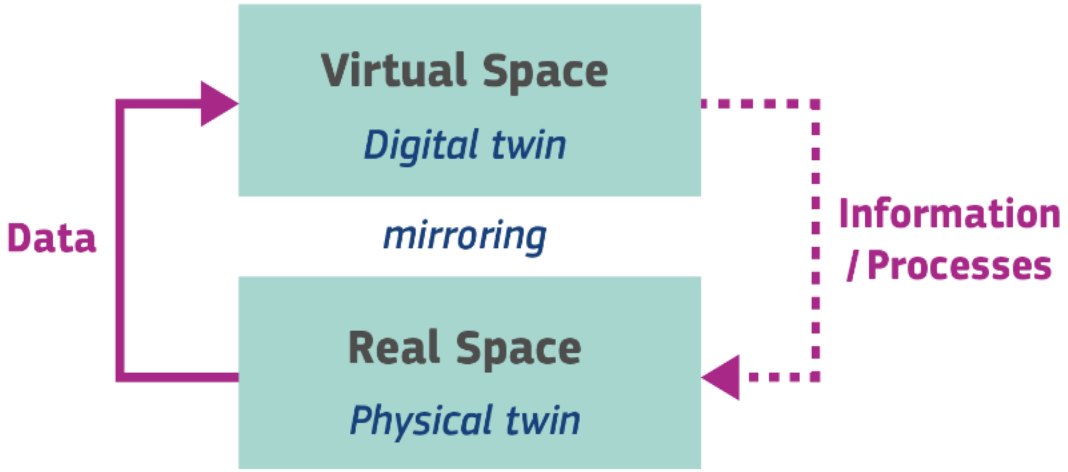
DestinE – System Component 2

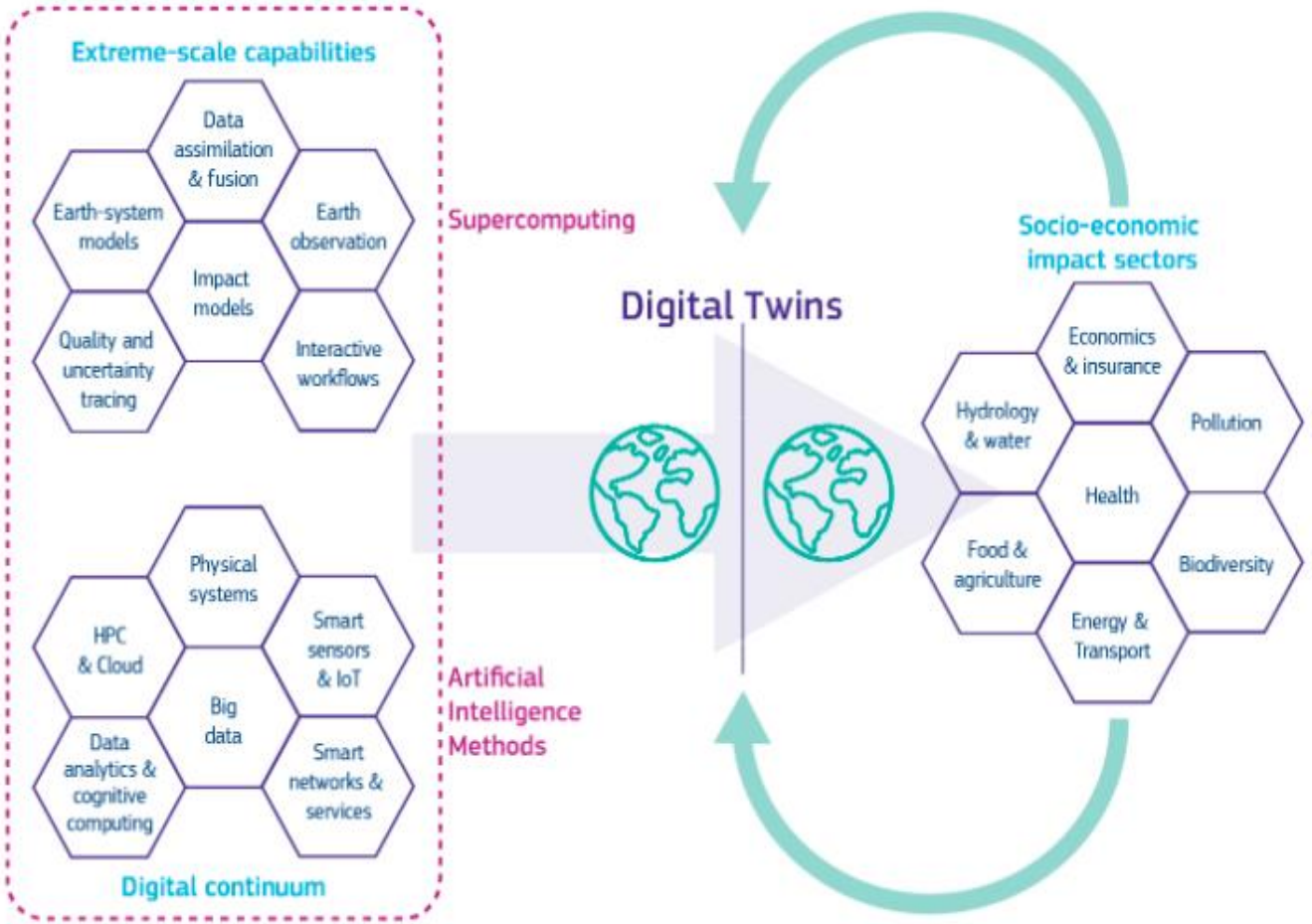
2. ***Data Lake***, to effectively manage and offer various data sources, led by EUMETSAT



DestinE – System Component 3

3. **Digital Twins**: start with *Extreme natural disasters* and *Climate change adaptation*, (more will follow), led by ECMWF



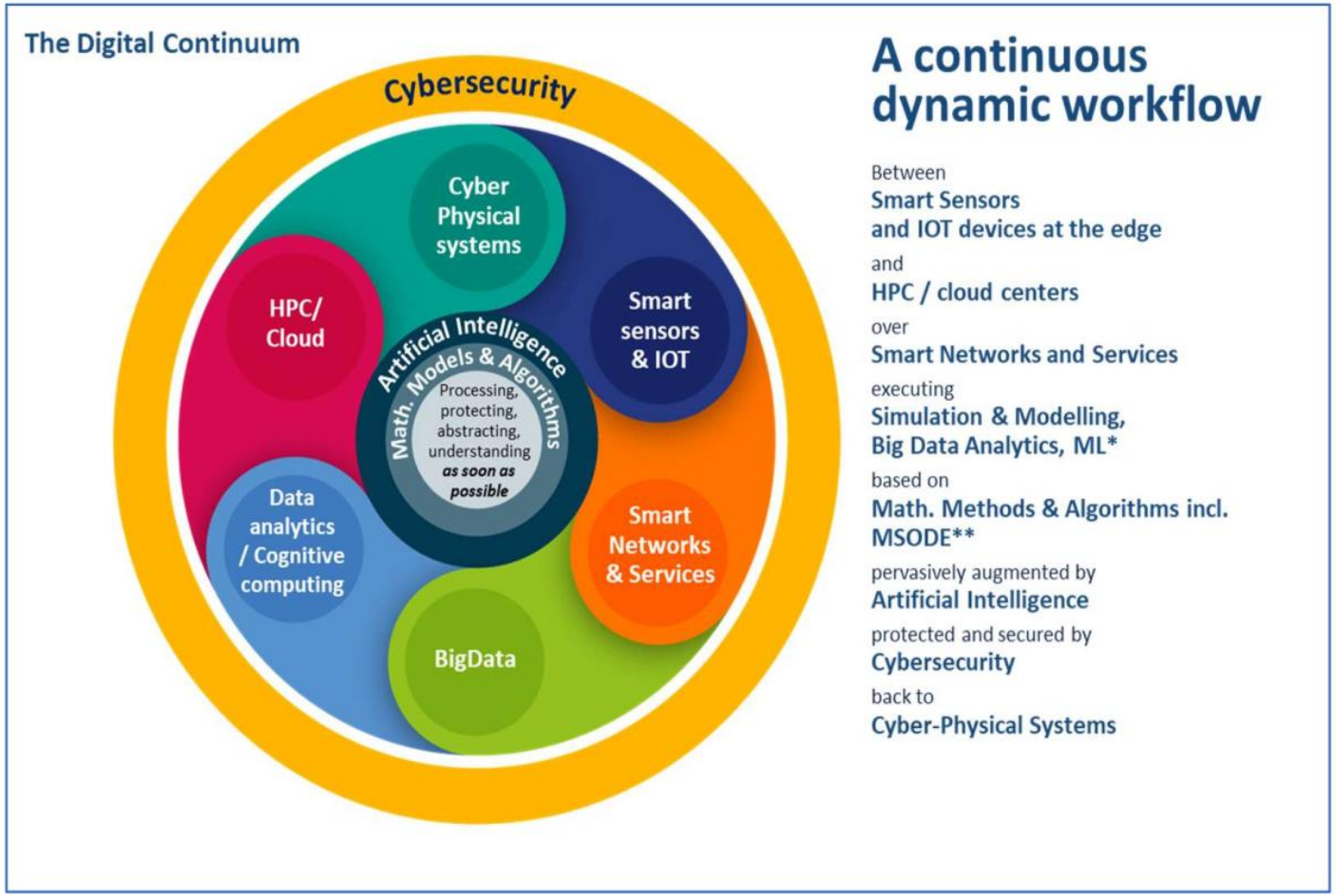


Trans Continuum Initiative

- "TCI–NE" - a network of networks of experts, coordinated by **ETP4HPC**:
- 5G IA, the 5G Infrastructure Association,
- AIOTI, the Alliance of Internet Of Things Innovation,
- BDVA, the Big Data Value Association,
- ECSO, the European Cybersecurity Organisation,
- EPoSS, the European Technology Platform on Smart Systems Integration,
- ETP4HPC, the European Technology Platform for High-Performance Computing,
- EU-Maths-In, the European Service Network of Mathematics for Industry and Innovation,
- HiPEAC project (High Performance Embedded Architecture and Compilation).

Trans Continuum Initiative

- The “TCI Wheel“ concept and method were successfully assessed via the creation of a set of White Papers
- **ETP4HPC** won the tender issued by ECMWF and runs the STA4DESTINE project to contribute to DT-enabling activities for DestinE
- **TCI-NE** as supporting consulting resource for DestinE
- **BDVA** key player in TCI-NE as DATA and AI are at the core of the DestinE initiative



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Thank you!

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