ETP4HPC		
Nature of the Initiative	Association |European Project	
Mission	Guide the development of the European advanced computing ecosystem. Accelerate the strategic growth, adoption, and deployment of high-performance computing technologies in business, academia, research, and public sector applications to improve Europe's competitiveness, encourage innovation, and tackle societal issues. Establish Europe as a leader in the future of High-Performance Computing.	
Sector(s) addressed	Skills | Networking | Education | Innovation | Strategy development | HPC and Big Data | EOSC (Research).	
Leading organisation	PRACE (Partnership for Advanced Computing in Europe)	
Members (approx.)	More than 100 members Chairman Mr. Jean-Pierre Panzierra See here organisation ETP4HPC is managed by a board of 15 members representing research centres (5), European SMEs (3), European controlled corporations (5) and international companies with R&D in Europe (2)	
Founded (Year)	2012	
Web (URL)	https://www.etp4hpc.eu/	
Social Media Presence	LinkedIn | X | Youtube	
Relevance for Industry 4.0	ETP4HPC plays a relevant key role in advancing high-performance computing technologies that support Industry's 4.0 digital transformation. Using the potential of HPC European industries may gain more innovation, efficiency, competitiveness, and sustainability.	
Key Information	**Levels**	**Important Links**
Data Space Functional & Technical Specifications	★★★	Zenodo (open repository)
Data Space Governance	★★★★★	Document Library Link

Data Space Demonstration	★★★★★	Events
Data Space Adoption	★★★	Use cases (TransContinuum Initiative)
Connected Data Space 4.0 Initiatives	Quantum / 6GSNS / KDT JU / AIOTI / BDVA / ECSO / EU-MATHS-IN / 6G-IA / UGENT	
Additional Information		
Contact (Name/E-mail)	Email: contact@etp4hpc.eu	

Report

What is ETP4HPC?

The European Technology Platform for High Performance Computing (ETP4HPC) is an initiative that bring together academia, industry, research organisations & policymakers to grow the development and adoption of high-performance computing (HPC) technologies. Aims to shape the strategic agenda for HPC research & innovation in EU.

- Guiding the development of the European advanced computing ecosystem.
- Private, industry-led, and non-profit association.
- Advise, inform and influence advanced computing EU policy and decision makers

Membership

Any organisation interested in HPC technology research and use in Europe can become a member of ETP4HPC.

- Full members. Any organisation which carries out significant research & development activities in the field of HPC technology in Europe
- Associated members. Any organisation with activities related to HPC technology. Cannot vote/be elected to the board.

There are membership fees.

Mission

- Strategic Research Agenda **(**SRA**)**

One of the missions of the association is to create, maintain and share the European advanced computing technology roadmap, the ETP4HPC Strategic Research Agenda (SRA). It serves as a strategic guide for research, innovation, and development activities within the HPC ecosystem.

Hardware architectures, software environments, applications, and system integration are just a few of the disciplines in which the SRA finds significant issues, prospects, and research objectives. It seeks to overcome technological barriers, boost innovation, and foster collaboration among industry, academia, and research institutes.

The SRA outlines specific objectives and goals for advancing HPC capabilities in Europe. Enhancing the energy efficiency, scalability, and reliability of HPC systems; optimising software tools and programming models for performance and productivity; and advancing application domains ranging from scientific computing to emerging data-intensive applications like artificial intelligence (AI) and big data analytics are just a few.

By aligning research and innovation efforts with the ETP4HPC SRA, stakeholders can collectively work towards enhancing Europe's competitiveness in HPC, fostering technological leadership, and addressing societal challenges through advanced computing solutions. The SRA serves as a guiding framework for shaping the future of HPC in Europe and ensuring its relevance and impact across diverse sectors and industries.

- ETP4HPC's SRA 5 (European HPC Research Priorities 2023-2027) (the next SRA is currently on work, deadline of November 2024.

Key Assets

- Digital Continuum

The concept underscores the interconnected nature of digital technologies and workflows, where HPC plays a key role in enabling efficient and effective processing, analysis, and utilization of data to drive innovation, competitiveness, and societal impact. The digital continuum emphasizes several aspects, such as data generation and collection, simulation and modelling, and end-to-end integration, among others.

- **TransContinuum Initiative (TCI).** The ETP4HPC coordinates the TransContinuum Initiative (TCI), a collaboration between associations and projects involved in the IT technology, application and service provisioning for the Digital Continuum. The TCI focuses on various objectives, like generating and fostering an interdisciplinary network of experts in in sciency and industry and contributing to the 5 Horizon Europe missions.
- **Strategic Technology Agenda for DestinE**. DestinE is an initiative of the EC to create digital twins of our plane to better predict future effects and build resilience on the climate change.

The ETP4HPC provides Strategic Technology Agenda for DestinE. It leads the consortium involved in the TCI.

Interesting links/documents

- HPC importance for Europe
- Hand book of European HPC projects