

NCC Slovenia Collaboration Milan Ojsteršek, Tadej Ojsteršek, University of Maribor, Faculty of Electrical Engineering and Computer Science milan.ojstersek@um.si, tadej.ojstersek1@um.si

SLING Days

EUROCC 2 PROJECT

- The role is to establish and run a network of more than 30 NCCs across the EuroHPC Participating States (currently 32),
- acts as single point of access in each country between stakeholders and national and EuroHPC systems,
- delivers training,
- interacts with industry, public administration, regional development agencies, DIHs, SRIPs, ...
- develops competence mapping and communication materials and activities,
- supports the adoption of HPC services in other related fields, such as quantum computing, artificial intelligence (AI), high performance data analytics (HPDA) to expand the HPC user base.

EUROCC 2 PARTICIPATING STATES



WORK PACKAGE 21: NCC SLOVENIA

(NATIONAL COMPETENCE CENTRE SLOVENIA)

Tasks

T21.1: NCC Management

T21.2: Training and Skills Development

T21.3: Services to and Interaction with Industry

T21.4: Services to and Interaction with Academia and Public

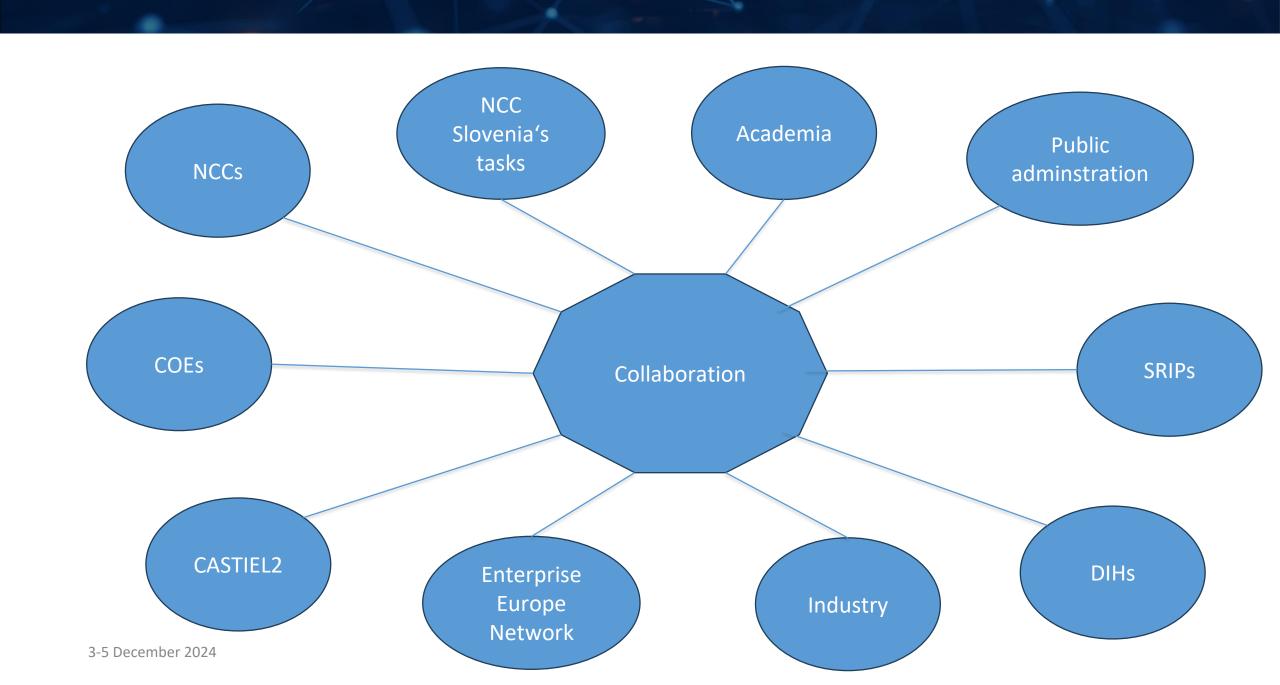
Administration

T21.5: Service Portfolio and Competence Management, Additional

Services

T21.6: Collaboration

T21.7: Awareness Creation and Communication



MAIN OBJECTIVES OF A COLLABORATION TASK

- Provide support to other tasks inside NCC Slovenia and binding, collaborating with other European NCCs in the EuroCC 2 project.
- Interactions with the EuroHPC ecosystem, e.g. the Centres of Excellence, the EDIHs, Strategic Research Partnerships (SRIPs), UNESCO IRCAI Center for Artificial Intelligence, Slovenian Digital Innovation Hubs, AI4SI and more.
- Enterprise Europe Network used as a vehicle to attract SMEs to cooperate.
- Interregional cooperation with PRACE and ETP4HPC and seeking common ground with EU projects EXCELLERAT P2, FocusCoE, ChEESE-2P, HiDALGO 2, Sodalite and POP3 to boost industrial competitiveness.

CENTRES OF EXCELLENCE (CoEs) — CASTIEL 2

- ChEESE-2P,
- BioExcel-3,
- HiDALGO2,
- MultiXscale,
- EXCELLERAT P2,
- POP 3,
- RAISE,
- CompBioMed,
- PerMedCoE,
- CoEC,

- ESIWACE3,
- MaX,
- SPACE,
- Plasma-PEPSC,
- CEEC,
- EoCoE-III,
- E-CAM,
- Nomad,
- TREX,































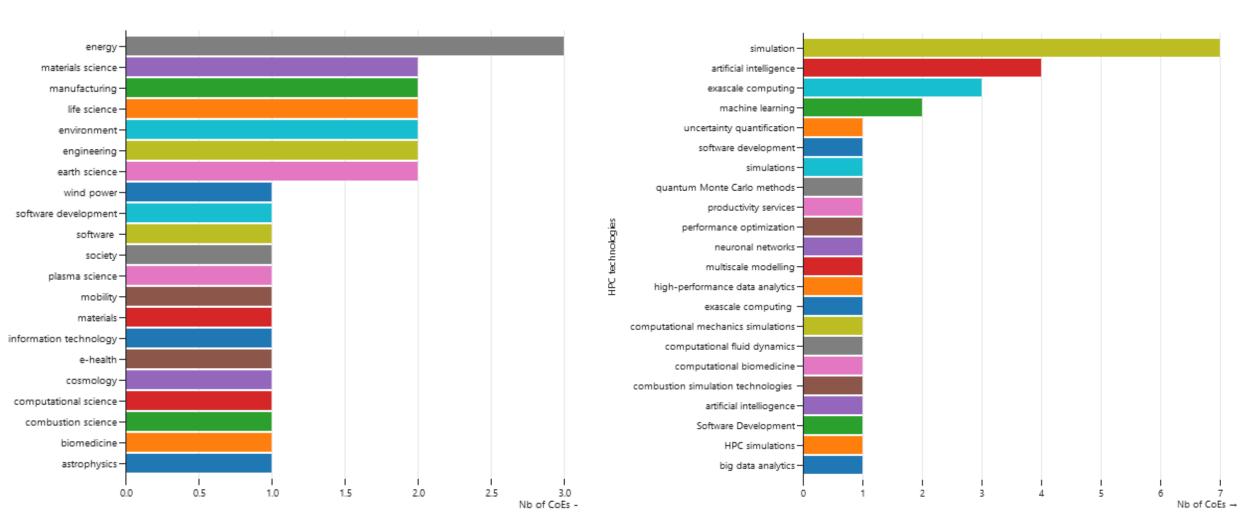








COE DOMAINS AND TECHNOLOGIES



CASTIEL 2

- Promotes interaction and exchange of expertise and competence across the NCC network,
- encourages collaboration, exchange of knowledge between HPC practitioners, expertise and best practices between Participating States and the mapping of skills and competences,
- additional role of providing similar coordination support to the EuroHPC Centres of Excellence (CoEs),
- strategic collaboration in HPC research and deployment of skills and in expertise in HPC technologies and applications between CoEs and NCCs.

EUROPEAN SUPPORT

EuroCC 2 and CASTIEL 2 projects, both funded by EuroHPC Joint Undertaking.









European Digital Innovation Hubs (EDIHs)

European Digital Innovation Hubs (EDIHs) are one-stop shops supporting companies and public sector organisations to respond to digital challenges and become more competitive.

EDIHs support companies to improve business/production processes, products, or services using digital technologies by:

- providing access to technical expertise and testing, as well as the possibility to 'test before invest',
- providing innovation services, such as financing advice, training, and skills development that are central to successful digital transformation,
- helping companies tackle environmental issues, in particular the use of digital technologies for sustainability and circularity.

Slovenian EDIHs

- 4PDIH
- DIGI-SI
- <u>Digital Innovation Hub Slovenia</u>
- DIH AGRIFOOD Digital Innovation Hub for Agriculture and Food production
- DIH for digital twins of logistics systems and manufacturing processes and systems (DIH_DiTMaPS)
- GreenPulse 5.0
- Healthwise Digital Innovation Hub
- HPC5 High Performance and Cloud Computing Cross-border Competence Consortium
- <u>JSI</u>
- SRC-EDIH

Slovenian Smart Specialisation Strategy

Slovenia's Smart Specialisation Strategy (S4) identifies national strategic development priorities and niches, which are, in practice, supported by a focused, comprehensive and tailored policy mix. The S4 introduces a new research and innovation cooperation model of key stakeholders. It enables Slovenia to integrate more successfully into European and international research and innovation networks, thematic platforms, and consortia. S4 implementation represents one of the main tools for strengthening and upgrading Slovenia's innovation ecosystem. The S4 also introduces economic development clusters – Strategic Research and Innovation Partnerships (SRIPs).

With S4 implementation, Slovenia has renewed its policy mix to support innovation, from start-ups and initiatives through all technology readiness levels (TRL) to pilot and demonstration projects and financial instruments for commercialisation. This has resulted in the consolidation of a comprehensive and coherent policy mix and instruments and — in terms of content and timing — has led to more successful coordination between ministries and agencies in implementing their policies.

Strategic development and innovation partnerships

- Smart cities and communities
- Smart buildings and home with wood chain
- Networks for the transition to a circular economy
- Sustainable food production
- Sustainable Tourism
- Factories of the Future
- Health Medicine
- Mobility
- Development of materials as end products

MAIN COLLABORATION IN 2024 – NCC SLOVENIA

- EXCELLERAT2,
- Plasma-PEPSC,
- MaX,
- TIPQC,
- MultiXscale,
- DIH SmartHealth,
- DIH Healthwise,
- Tovarna podjemov.

WHY IS COLLABORATION IMPORTANT?

- Transfer of knowledge between researchers at the European level,
- dissemination of this knowledge to domestic industry and public,
- possibilities for cooperation between domestic and foreign industry,
- development of new technologies in Slovenia, such as quantum computing, Al and other,
- enabling access to a common European HPC infrastructure,
- because of all of the above, an opportunity for a breakthrough in Slovenian innovation, national economy and technology.

ASHPC25 (AUSTRIAN-SLOVENIAN HPC MEETING 2025)

- At Rimske Terme in Slovenia, 19–22 May 2025,
- continuing the tradition of the annual Austrian HPC Meetings (2015–2020) and the Austrian-Slovenian HPC Meetings (2021–2024),
- brings together users and providers of large-scale computing resources for both academic and non-academic research and development from both countries and beyond.





Thank you!









REPUBLIC OF SLOVENIA

MINISTRY OF HIGHER EDUCATION,
SCIENCE AND INNOVATION

This project has received funding from the European High-Performance Computing Joint Undertaking (JU) under grant agreement No 101101903. The JU receives support from the Digital Europe Programme and Germany, Bulgaria, Austria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Hungary, Ireland, Italy, Lithuania, Latvia, Poland, Portugal, Romania, Slovenia, Spain, Sweden, France, Netherlands, Belgium, Luxembourg, Slovakia, Norway, Türkiye, Republic of North Macedonia, Iceland, Montenegro, Serbia.