EuroHPC JU	→	EuroCC	→	EuroCC Austria

EuroHPC Joint Undertaking

- ⊙ Governing board: EU-representatives and participating member states

EuroCC

- ⊙ EU-funded international initiative aimed to support the uptake of High-Performance Computung (HPC) in Europe

- ⊙ Aim: development and expansion of the services of national competence centres (NCCs) in 33 participating member states

EuroCC Austria

- ⊙ National competence centre for supercomputing, Big Data and Artificial Intelligence in Austria

- ⊙ Funded by the EU and BMBWF Federal Ministry of Education, Science and Research

- ⊙ Collaborative initiative of six Austrian partners

https://eurohpc-ju.europa.eu   https://www.eurocc-access.eu   https://eurocc-austria.at

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EuroHPC Joint Undertaking – Support for HPC users based in the EU
→ AIM: Establishment of a European HPC ecosystem

- Financial support

- Provision of research and innovation grants

- European "low-energy processor" initiative

- Exascale supercomputers featuring European technology

- Developing a world-class supercomputing infrastructure in Europe (procurement and deployment of three pre-exascale and five petascale-systems)

- Establishment of national Competence Centres →EuroCC

- Establishment of an academic HPC Master programme
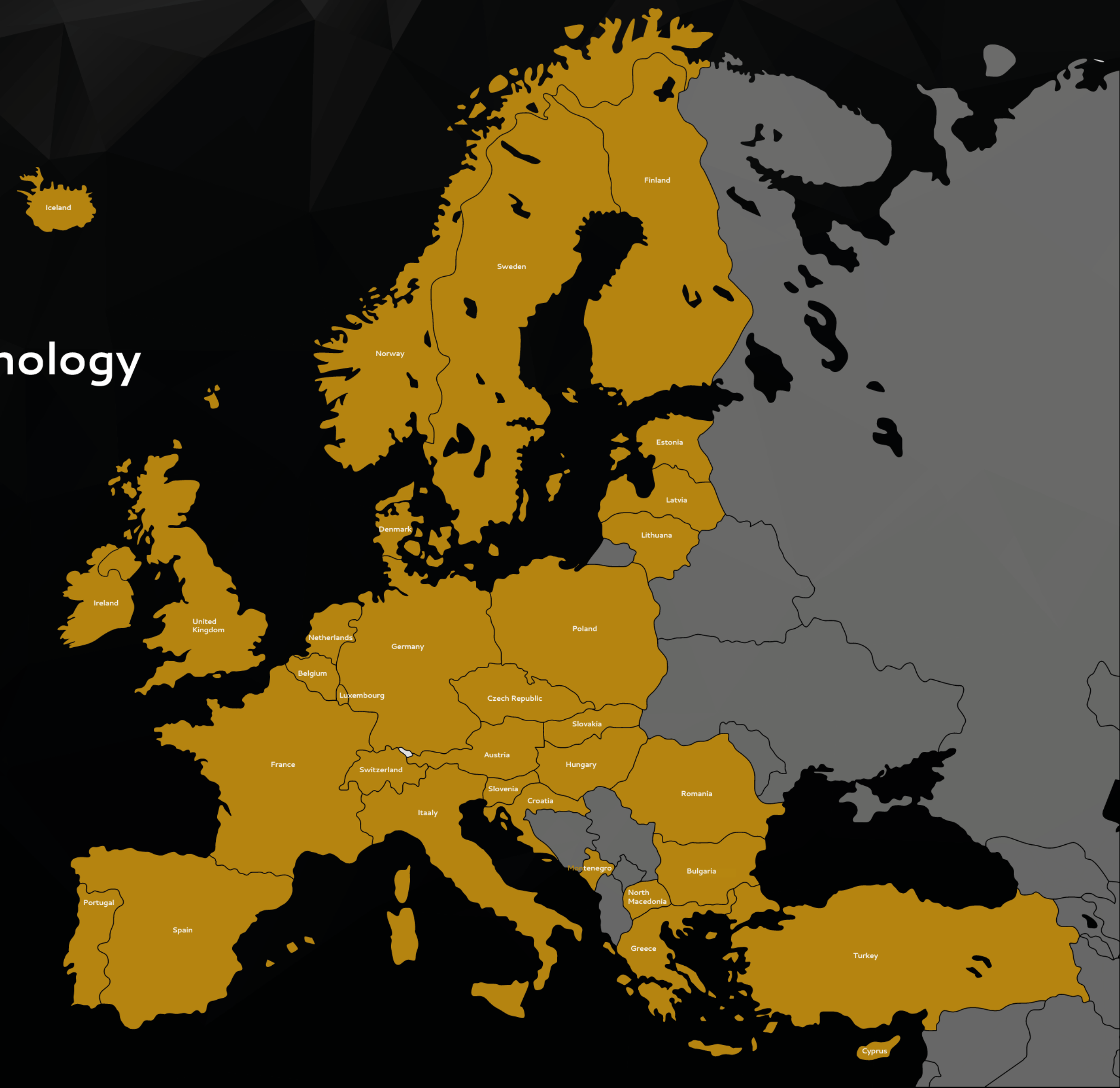
EuroCC
→ AIM: Establishment of 33 national competence centres (NCCs) in Europe

TARGET GROUPS

- Academia

- Industry

- Public Administration

SERVICES

- Networking of the entire national HPC ecosystem

- Joint external appearance and coordination by EuroCC
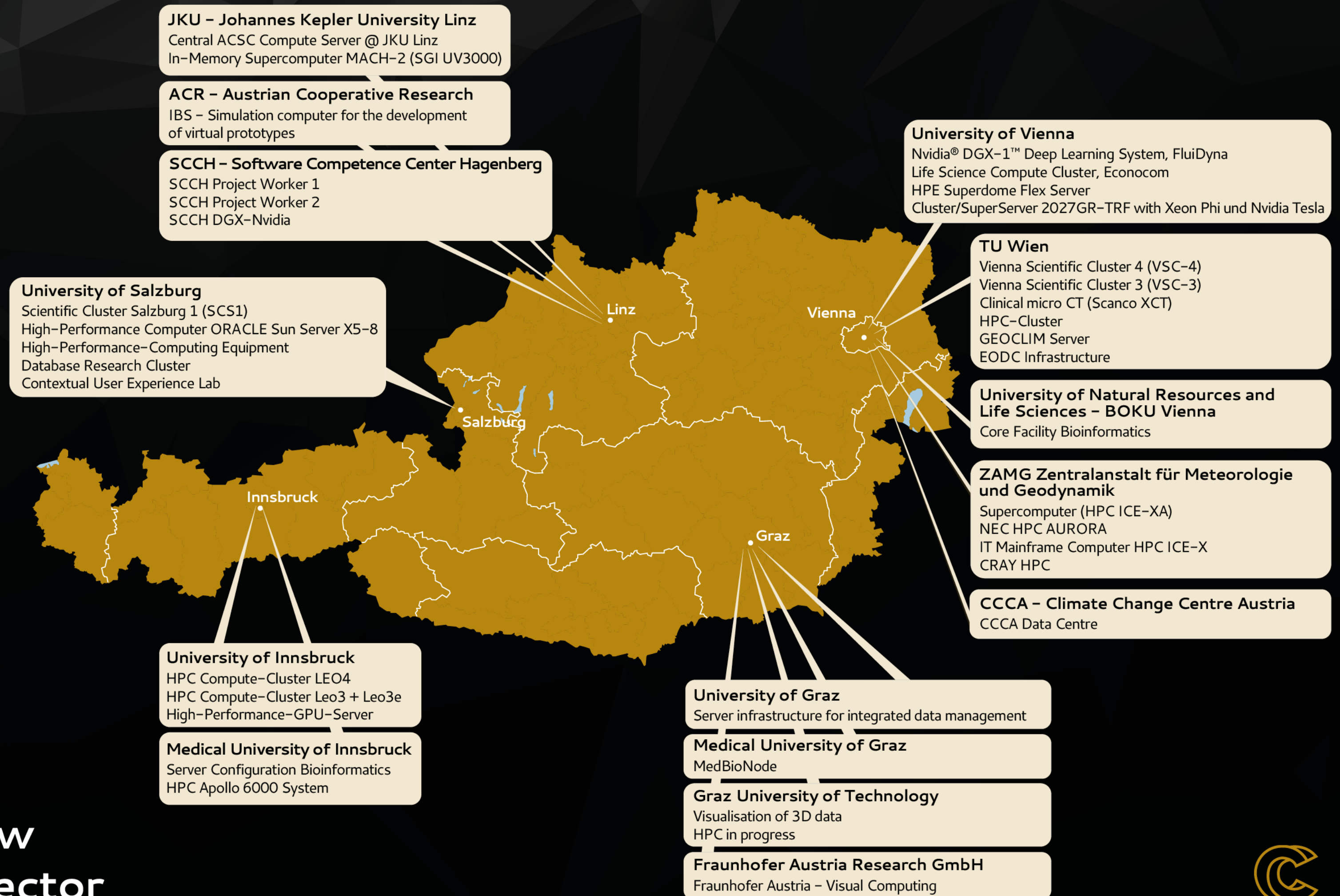
- Identify and close systemic gaps

EuroCC AUSTRIA
→ AIM: Installation of the Austrian EuroCC network

EXISTING INFRASTRUCTURE

- Universities
- Private research facilities

TASKS

- Collection, documentation and coordination of core activities and competencies in HPC, Big Data and Artificial Intelligence on a national level

- HPC/BD/AI expertise and know-how for science, industry and the public sector

JKU – Johannes Kepler University Linz
Central ACSC Compute Server @ JKU Linz
In–Memory Supercomputer MACH–2 (SGI UV3000)

ACR – Austrian Cooperative Research
IBS – Simulation computer for the development of virtual prototypes

SCCH – Software Competence Center Hagenberg
SCCH Project Worker 1
SCCH Project Worker 2
SCCH DGX–Nvidia

University of Vienna
Nvidia® DGX–1™ Deep Learning System, FluiDyna
Life Science Compute Cluster, Econocom
HPE Superdome Flex Server
Cluster/SuperServer 2027GR–TRF with Xeon Phi und Nvidia Tesla

TU Wien
Vienna Scientific Cluster 4 (VSC–4)
Vienna Scientific Cluster 3 (VSC–3)
Clinical micro CT (Scanco XCT)
HPC–Cluster
GEOCLIM Server
EODC Infrastructure

University of Salzburg
Scientific Cluster Salzburg 1 (SCS1)
High–Performance Computer ORACLE Sun Server X5–8
High–Performance–Computing Equipment
Database Research Cluster
Contextual User Experience Lab

University of Natural Resources and Life Sciences – BOKU Vienna
Core Facility Bioinformatics

ZAMG Zentralanstalt für Meteorologie und Geodynamik
Supercomputer (HPC ICE–XA)
NEC HPC AURORA
IT Mainframe Computer HPC ICE–X
CRAY HPC

CCCA – Climate Change Centre Austria
CCCA Data Centre

University of Innsbruck
HPC Compute–Cluster LEO4
HPC Compute–Cluster Leo3 + Leo3e
High–Performance–GPU–Server

Medical University of Innsbruck
Server Configuration Bioinformatics
HPC Apollo 6000 System

University of Graz
Server infrastructure for integrated data management

Medical University of Graz
MedBioNode

Graz University of Technology
Visualisation of 3D data
HPC in progress

Fraunhofer Austria Research GmbH
Fraunhofer Austria – Visual Computing

Linz

Vienna

Salzburg

Innsbruck

Graz

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EuroCC AUSTRIA
→ SERVICES

AREAS OF APPLICATION

- Modelling and simulation
- Training of algorithms
- Visualisation, evaluation of large amounts of data
- Code- and software-optimisation
- Solving of complex problems and acceleration of proccesses

ACTIVITIES

- Access to computing time and software on high-performance computers in Austria & EU
- Networking with experts and providers in the field of HPC / Big Data / Artificial Intelligence
- Training and courses
- Project support
- Support with public funding

BENEFITS

- High computing power and storage capacity
- Data security: data processing on local servers, usual legal framework
- Time and cost efficiency through:
  - Simulation instead of iterative, physical prototype development
  - Less "time to market/result"

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