

Barcelona Supercomputing Center Centro Nacional de Supercomputación



BSC AI Factory

Enhancing companies' readiness for an AI-driven future

Mariona Sanz, Head of Innovation and Business Development, BSC

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The BSC Artificial Intelligence Factory





Health
Agriculture and climate
Finance and legal
Policy-making / Public Administration
Communication and Media
Energy





The acquisition and operation of the EuroHPC supercomputer is funded jointly by the EuroHPC Joint Undertaking, through the European Union's Connecting Europe Facility and the Horizon 2020 research and innovation programme, as well as the Participating States Spain, Portugal, and Turkey



Targeted Industries

Health

Agriculture and climate

Finance and legal

Policy-making / Public Administration

Communication and Media

Energy



Industries summary, including datasets and services

Health	Agriculture	Energy	Finance	Policy	Communication
sector	and climate	sector	and Legal	Making	and Media
Subsectors: bolech pharma medical devices health services Datasets: EGA, UniProt. PMU/T EUCARM_MIDDE, PDBs Services: Genomics Platform, Sinuclural bioinformetics platform, Synthetic sata platform, spenbech for Al- modols. Sandbox for huture research any comments in health	Subsectors: Agriculture Forest Food, climate related industries Datasets: GHOST, Dust reanatyces, Bernsteinen Diist Regional Center, CALIOPE Air Quality, ICAP- MONARCH, EC Eath Gobal Climate Projections, EC-Eath Clobal Climate Predictoris: Agritus Services support of selectors of geophysical classets: now in best uses these datasets, usage of HPG for specific applications, selection and use of climate data and projections	Subsectors' energy production renewable and non romanable, distribution energy systems commentatization of energy Datesets: Energy Date space; Otherer Romanable Energy Systems Services: Support on designing and implementing runnencal models for combustion, histor, solid and distributions	Subsectors: Law Finns, LegalTech comparines: Darks, Financial Entitues; invostors Datasets: Banco España: World Bunir Eurontut, boeldoacleurian Services: Assectance on middal selection, data cutation and processing; and training for banking proteisms, assectance on data visualisation and dashacarding	Service: Assistance on mode selection, data	Subsectors communication agarcties media (press: TV) audiovisual, ratile), new agoncios ot: Deteseta: BSC Internet observatiory, GDELT, MediaClouc, Factive, TEMS European Deta Portal, ERU Databanes Services: Assistance on model soloction, data curation and processing, and training for media ob communication problems assistance on data visualization and dashboarding

Cross Field Support throough BSC Language Foundational Models

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Open Models

https://huggingline.co/collections/BSC-LT/salamanitra-658:171485944dt79469043a Aina Translation and speech models

Services

Continuous pretraing Find tuning for specific tasks (FAO) (Prompt Engineering Bonchmarking and evaluation



Potential outputs per Targeted Users

Researchers:

Ai Scientific Training; Access to Open Data Sets; Acess to Software Library, High Level support service 3 Access to MN5+ Al Annual Event



Training of GEN and AI Models

Start ups:

Ai Professional Training; Access to Open Data Sets; Acess to Software Library, User support 1,2,and 3 Access to MN5+ Al Start up Acceleration Programme Coworking Spaces Al Annual Event



Training of GEN and AI Models Finetuning Inference Development of new app

SMEs:

Ai Professional Training; Access to Open Data sets; Acess to Software Library, User support 1,2,3 and 4 Access to MN5+ Sectorial Hub Services Al Annual Event Talent Programme

Industry:

Ai Professional Training; Access to Open Data Lakes; Acess to Software Library, User support 1,2,3 and 4 Access to MN5+ Sectorial Hub Services Al Annual Event Talent Programme

Students:

Ai StudentTraining; User support 4 Access to MN5+(for training) Acess to Coworking Spaces Al Annual Event Talent Programme



Finetuning Inference Development of new app



Finetuning Inference Development of new app



Knowledge on Al Matching with Business Testing activites on Al

Flow of users to BSC AI Factory Services



Operations	0	perations	
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Innovation

- Infrastructure users will be potential users of BSC AI Factory services
- These users will be probably "high readiness"
- Al users coming from EuroHPC and RES will be informed of the Factory opportunities and invited to join the CRM

BSC AI Factory services

The BSC AI Factory is designed around 4 core services and 8 support mechanisms aimed at:

- Breaking AI innovation entry barriers (HPC capacity & technical expertise)
- Generating an Al-related innovation ecosystem (networking, funding, talent...)
- Training the workforce for Aldriven economies





Al support services (under development)



BSC AI Factory CUSTOMER JOURNEY

One-Stop Shop Access:

- Single entry point for startups, SMEs, public sector
- Guided by trained Account Managers
- 8x5 weekday service; next-business-day response

Four Phases of the Customer Journey:

- 1. Discovery:
 - Targeted outreach to attract users
- 2. Engagement:
 - Eligibility & maturity checks, access granted
- 3. Service Allocation & Use:
 - Tailored resources matched to user needs
- 4. Feedback & Improvement:
 - User input drives continuous service refinement

Scalability & Reach:

- Up to 2000 users expected by 2027
- Flexible design enables dynamic scaling

Innovation

Expected AI Factory users by readiness

(and services to be provided)

AI Factory users by readiness Low readiness Medium readiness **High readiness** Support (level 4) Access to AI optimised Access to AI optimised Traning (senior management, supercomputer supercomputer technical training, non- Software Software technical training) Datasets Datasets •

- Networking, coworking, etc.
- Support (levels 1-3)
- Training (senior management) & technical training)
- · Networking, coworking, etc.

- Support (levels 1-2)
- Networking, coworking, etc.





Access Modes

- **Playground access**, providing limited resources for entry-level users
- Fast Lane access, for users already familiar with HPC requiring up to 50,000 GPU hours
- Large Scale access, catering to AI models and applications requiring more than 50,000 GPU hours

https://eurohpc-ju.europa.eu/ai-factories/ai-factories-access-modes_en





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Thank you and stay tuned !



https://www.linkedin.com/company/bsc-ai-factory/

mariona.sanz@bsc.es