EuroHPC Joint Undertaking (JU) AI Factory Playground Access

**Final Report**

GENERAL INFORMATION

Type of project granted: AI Factory Playground Access

Proposal ID

Please fill in the information in the box below (e.g. EHPC-XXX-202XXXX-XXX).

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Awarded resources in GPU hours

Please fill in the information in the box below.

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AI technologies used

Click once in the box to select it, click again to unselect.

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| --- | --- | --- | --- |
|  | Machine Learning |  | Audio (speech recognition, speech synthesis, etc.) |
|  | Natural Language Processing |  | Robotic process automation |
|  | Generative Language Modeling |  | Virtual agents |
|  | Deep Learning |  | Decision management: Classified and statistical learning methods |
|  | Vision (image recognition, image generation, text recognition OCR, etc.) |  | Other\* |

\* Other - Specify the used AI technology:

Period of access to the EuroHPC JU facilities

Please fill in the information in the box below.

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| --- | --- |
| Overall duration of the project in months (1, 2, 3) |  |
| Start date of the allocation (DD/MM/YYYY) |  |
| End date of the allocation (DD/MM/YYYY) |  |

EuroHPC JU system assigned

Please click once in the box to select it, click again to unselect.

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| --- | --- | --- | --- |
|  | Leonardo Booster (CINECA) |  | MN5 ACC (BSC) |
|  | LUMI-G (CSC) |  | MeluXina GPU (LuxProvide) |
|  | Vega GPU (IZUM) |  | Discoverer GPU (SofiaTech) |
|  | JUPITER Booster (JSC) |

Project Lead and Organization

Please fill in the information in the table below.

|  |  |
| --- | --- |
| Title |  |
| First (Given) Name |  |
| Last (Family) Name |  |
| E-mail Address |  |
| Organization name |  |
| Organization type |  |

PROJECT INFORMATION

Project title

Please fill in the information in the box below.

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Main application domain(s)

Please click once in the box to select it, click again to unselect.

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| --- | --- | --- | --- |
|  | Biochemistry, Bioinformatics and Life sciences |  | Fundamental Constituents of Matter |
|  | Chemical Sciences and Materials |  | Linguistics, Cognition and Culture |
|  | Earth System Sciences |  | Mathematics and Computer Sciences |
|  | Economics, Finance and Management |  | Physiology and Medicine |
|  | Engineering |  | Universe Science |

Team members and organizations

Please list all team members and corresponding affiliations that were involved in the project. (additionally include any members that joined the team at a later stage of the project that were not included in the original application form).

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Summary of the project

Please fill in the field with the same text used in the application form.

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Description of AI Factory services used

Please fill in the information in the box below (maximum 500 words).

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Expected future work in the area

Please fill in the information in the box below.

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MAIN FEATURES OF THE CODE

Name of the code(s)

Please fill in the information in the box below.

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Type of the code distribution

Please fill in the information in the box below (e.g., open source, commercial, academic, etc.).

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Computational problem executed

Please fill in the information in the box below (e.g., N-body problem, Navier-stokes equation, etc.).

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Main libraries used, version and language. Usage of /usr/local libraries.

Please fill in the information in the box below: main libraries (e.g., FFTW, MKL, BLAS, LAPACK, etc.), language (e.g., Fortran, C, C++, etc.).

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Other software used on the EuroHPC JU systems. Usage of post-processing or pre-processing tools.

Please fill in the information in the box below.

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EXECUTION STEP

How is the program launched?

Please fill in the information in the box below.

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Difficulties met to launch the code, if any, and how they were tackled

Please fill in the information in the box below.

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DATA AND STORAGE

Total storage required and total storage received (GB)

Please fill in the information in the box below.

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Size of the data and/or the number of files

Please fill in the information in the box below (maximum 300 words).

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MAIN RESULTS

Description of the results obtained, future perspectives, benefits to the society and the benefits of using computer resources

Please fill in the information in the box below (maximum 1000 words).

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Conclusions about the project

*Please fill in the information in the box below.*

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Usability of the assigned EuroHPC JU AI Factory

*Please fill in the information in the box below.*

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FEEDBACK AND TECHNICAL DEPLOYMENT

Feedback on the AI Factory/EuroHPC JU access procedures

Please fill in the information in the box below (maximum 500 words).

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Explanation of how the computer time was used compared with the work plan presented in the proposal. Justification of discrepancies, especially if the computer time was not completely used.

Please fill in the information in the box below (maximum 500 words).

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Willingness to apply to EuroHPC JU Access Modes in the future

Please fill in the information in the box below (maximum 500 words).

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