



European High Performance Computing Joint Undertaking

Hosting Agreement

No XX/2023

[name] Hosting Entity for High End Supercomputers

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Hosting Agreement

The present Hosting Agreement is concluded between the following parties:

The European High Performance Computing Joint Undertaking (hereinafter 'EuroHPC Joint Undertaking'), represented for the purposes of signature of this agreement by its Executive Director, Anders Dam Jensen on the one part, and

the "Hosting Entity", [name]

[hosting entity details]

duly represented for the signature of this agreement by [name].

on the other part,

HAVE AGREED

to the **terms and conditions** set out below and the following annexes:

Annex I. Minimum requirements of the Hosting Site

Annex II. Service Level Agreement

Annex III. Key Performance Indicators (KPIs)

Annex IV. Associated Deliverables and Milestones

Annex V. Application of the Hosting Entity ([reference to application]) submitted to the Call for Expression of Interest for the selection of Hosting Entities for High End Supercomputers (REF: EUROHPC-2022-CEI-EXA-01)

which form an integral part of the present Hosting Agreement (hereinafter referred to as "Agreement").

General Framework

Council Regulation (EU) 2021/1173 of 13 July September 2021¹ (hereinafter 'Regulation') establishes the European High Performance Computing Joint Undertaking (hereinafter 'EuroHPC Joint Undertaking').

The EuroHPC Joint Undertaking shall acquire one 'high-end' exascale supercomputer (hereinafter *EuroHPC supercomputers*) and shall own it. In accordance with Article 11.2 of the Regulation, the Union's contribution from the Digital Europe Programme should cover up to 50 % of the acquisition costs plus up to 50 % of the operating costs of the high-end supercomputer.

In accordance with Article 9 of the Regulation, the EuroHPC launched a call for expression of interest for the selection of the hosting entities for high-end supercomputers². On the basis of the criteria and process specified in the Regulation and above mentioned call for expression of interest, the Governing Board has selected [identification of the selected Hosting Entity or Hosting Consortium to be included accordingly] referred to above as the Hosting Entity.

¹ OJ L 256, 19.7.2021,p.3-51,

² REF: EUROHPC-2021-CEI-EXA-01.

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The competent authorities of the Participating States to the hosting consortium will cover the share of the total cost of ownership of the EuroHPC supercomputer that is not covered by the Union contribution, either until its ownership is transferred by the EuroHPC Joint Undertaking to that hosting entity or until the supercomputer is sold or decommissioned in case there is no transfer of ownership.

The purpose of this Hosting Agreement is to lay down the terms and conditions under which the Hosting Entity, will host the EuroHPC supercomputer in the name and on behalf of the EuroHPC Joint Undertaking, including by providing data storage equipment and associated services for the fulfilment and implementation of the EuroHPC Joint Undertaking tasks and activities as these are defined in the Regulation and the Statutes of the EuroHPC Joint Undertaking annexed thereto. The Hosting Entity will operate the EuroHPC supercomputer on behalf of the EuroHPC Joint Undertaking. The operating costs of the supercomputer to be covered by Union contribution will be reimbursed through a grant agreement to be signed in that regard ("grant agreement"). The grant agreement will also define the rules and conditions for the operation of the supercomputer.

I. CHAPTER 1

I.1 *Subject matter*

1. The subject matter of the Agreement is to define the roles and responsibilities between the EuroHPC Joint Undertaking and the Hosting Entity regarding the provision of the facilities to host and operate the EuroHPC supercomputer and the provision of the hosting services, which are entrusted by the EuroHPC Joint Undertaking, being the sole owner of the EuroHPC supercomputer, to the Hosting Entity and define the relevant terms and conditions for the long term collaboration between the Hosting Entity and the EuroHPC Joint Undertaking.
2. The Hosting Entity will execute the tasks assigned to it in accordance with the Agreement, its Annexes and the grant agreement to be signed for the operating costs of the EuroHPC supercomputers.

I.2 *Definitions*

1. For the purposes of this Agreement the following definitions apply:
 - a) "acquisition costs" means the cost of acquiring the system and includes shipping as well as the costs of installation and testing of the supercomputer.
 - b) "access rights" means the right of a user or group of users to access a EuroHPC supercomputer in order to consume the allocated access time.
 - c) "acceptance test" means a test conducted to determine if the requirements of the system specification of the supercomputing system are met.
 - d) "access time" means the computing time of a EuroHPC supercomputer that is made available to a user or a group of users to execute their programmes.
 - e) "Call for Expression of Interest (CEI)" means the procedure followed to select the Hosting Entities of the EuroHPC supercomputer.
 - f) "Confidential information or document" means any information or document received by either party from the other or accessed by either party in the context of the performance of the Agreement that any of the parties has identified in writing as confidential. It may not include information that is publicly available.

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- g) "Conflict of interest" means a situation where the impartial and objective implementation of the agreement by the hosting entity is compromised for reasons involving family, emotional life, political or national affinity, economic interest, any other direct or indirect personal interest.
- h) "Force majeure" means any unforeseeable, exceptional situation or event beyond the control of the parties that prevents either of them from fulfilling any of their obligations under the Agreement which is not attributable to error or negligence on their part or on the part of the subcontractors affiliated entities or third parties in receipt of financial support and which proves to be inevitable despite their exercising due diligence. Such force majeure events can include, if not proven otherwise, inter alia, terrorist attacks, war or insurrection, natural catastrophes, interruptions in general traffic or data communication. The situation or event must not be attributable to error or negligence on the part of the parties or on the part of the subcontractors and must prove to be inevitable despite their exercising due diligence. Defaults, defects in equipment or material or delays in making them available, labour disputes, strikes and financial difficulties may not be invoked as force majeure, unless they stem directly from a relevant case of force majeure as set out above.
- i) "Formal notification" means a form of communication between the parties made in writing by mail or email, which provides the sender with concrete evidence that the message was delivered to the specified recipient.
- j) "Fraud" means any intentional act or omission by the Hosting Entity or the Hosting Consortium affecting the Union's or the Joint Undertaking's financial interests relating to the use or presentation of false, incorrect or incomplete statements or documents, to non-disclosure of information in violation of a specific obligation;
- k) "hosting consortium" means a group of Participating States that have agreed to contribute to the acquisition and operation of a EuroHPC supercomputer and any organisations representing these Participating States, as enumerated in Annex V. Application of the Hosting Entity which parties shall be deemed Linked Third Parties under the grant agreement.
- l) "hosting entity" means the legal entity established in a Participating State to the EuroHPC Joint Undertaking that is a Member State which provides facilities to host and operate a EuroHPC supercomputer and which has been selected in accordance with the CEI.
- m) "hosting site" means the physical facilities at which Hosting Entity will host and operate the EuroHPC supercomputer and which is established in a Participating State that is a Member State.
- n) "Grave professional misconduct" means a violation of applicable laws or regulations or ethical standards of the profession to which a person or entity belongs, or any wrongful conduct of a person or entity which has an impact on its professional credibility where such conduct denotes wrongful intent or gross negligence;
- o) "Irregularity" means any infringement of a provision of Union law resulting from an act or omission by the hosting entity or an organisation representing the Participating States in the hosting consortium, if any, which has or would have the effect of prejudicing the Union's or the Joint Undertaking's financial interests;
- p) "IT infrastructure" means the set of IT equipment needed for hosting and operating the EuroHPC supercomputer. It includes storage for home directories, long term storage, back-up and various auxiliary servers as required for the purposes of hosting the supercomputers.

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- q) 'EuroHPC supercomputer' means any computing system fully owned by the Joint Undertaking or co-owned with other Participating States or a consortium of private partners; it can be a classical supercomputer (high-end supercomputer, industrial-grade supercomputer, or mid-range supercomputer), a hybrid classical-quantum computer, a quantum computer or a quantum simulator;
- r) 'exascale' means a performance level capable of executing ten to the power of eighteen operations per second (or 1 Exaflop)
- s) 'high-end supercomputer' means a world-class computing system developed with the most advanced technology available at a given point in time and achieving at least exascale levels of performance or beyond (i.e. post-exascale) for applications addressing problems of greater complexity;
- t) "Related person" means any natural or legal person who is a member of the administrative, management or supervisory body of the hosting entity or its partners, if any, or an economic operator, or who has powers of representation, decision or control with regard to that person;
- u) 'Regulation' means the Council Regulation (EU) No 2021/1173 of 13 July 2021 on establishing the European High Performance Computing Joint Undertaking and repealing Regulation (EU) 2018/1488, and the statutes of the Euro HPC Joint Undertaking ('Statutes') annexed thereto;
- v) "Subcontract" means a procurement contract within the meaning of Article II.8 of this Agreement, which covers the implementation by a third party of tasks forming part of the Agreement;
- w) "Substantial error" means any infringement of a provision of the Agreement resulting from an act or omission, which causes or might cause a loss to the Union's financial contribution to the EuroHPC Joint Undertaking or damage the Union's or the JU's financial interests;
- x) "Technical infrastructure" means the set of infrastructure equipment needed for hosting and operating the EuroHPC supercomputer and the relevant IT infrastructure. It includes equipment related to cooling, power supply and distribution, fire security and physical security.
- y) 'total cost of ownership' of a EuroHPC supercomputer means the acquisition costs plus the operating costs, including maintenance;
- z) "user" or "users" means any natural or legal person, entity or international organisation that has been granted access time to use a EuroHPC supercomputer;
- aa) "vendor" refers to the person(s) with whom the EuroHPC Joint Undertaking has a procurement contract for the acquisition and maintenance of the EuroHPC supercomputer or parts thereof.

2. Terms not defined herein will have the same meaning as in the Regulation.

II. CHAPTER 2

II.1 *General Obligations of the Hosting Entity*

1. The Hosting Entity must execute the Agreement to the highest professional standards respecting deadlines mutually agreed by the Parties.
2. All activities and services will be carried out by the Hosting Entity in compliance with the applicable health and safety laws and regulations.
3. The Hosting Entity must ensure the functional separation, and to the extent possible, the physical separation of the EuroHPC supercomputer and any national or regional computing systems it operates.

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4. The Hosting Entity must ensure that the personnel performing the Agreement possesses the professional qualifications and experience required for the execution of the tasks assigned to it. The Hosting Entity will be solely responsible for the personnel who executes the tasks assigned to it.
5. The Hosting Entity will:
 - a) ensure the proper operation of the EuroHPC supercomputer and the IT infrastructure within the scope of its responsibilities (as listed in II.1 6.) to enable users to access the resources and services for the total duration of the Agreement;
 - b) ensure the security of the EuroHPC supercomputer, the technical and IT infrastructure and of the Hosting Entity itself.
 - c) report to the EuroHPC Joint Undertaking through the submission of documents and completion of KPIs defined in Annex III Key performance indicators (KPIs). The KPIs can be modified by the Hosting Entity and the EuroHPC Joint Undertaking by express written agreement of the Parties.
 - d) apply the access-time conditions and rules set up by the EuroHPC Joint Undertaking to the Union's access time to the EuroHPC supercomputer and to its IT infrastructure on the basis of the relevant decision of its Governing Board.
 - e) inform the EuroHPC Joint Undertaking and users without delay about the incidents impacting the use of the EuroHPC supercomputer or the IT infrastructure.
 - f) provide any information to the EuroHPC Joint Undertaking that is relevant for the Joint Undertaking to perform its duties under the present Agreement and the Regulation.
 - g) fulfil its financial obligations as defined in the Agreement, the Regulation and the grant agreement.
 - h) Implement the energy efficiency and environmental sustainability measures defined as part of the Technical Specifications of the Hosting site on the basis of the application of the selected hosting entity.
6. The Hosting Entity will ensure the functionality of the EuroHPC supercomputer, but it will not be liable for incidents or damage attributable to: a) hardware failures or faults of the EuroHPC supercomputer where their origin lies outside the action of the Hosting Entity, b) software failures or faults where their origin lies outside the action of the Hosting Entity, c) misuse of the EuroHPC supercomputer or software by users or by vendor's personnel operating the maintenance contract, d) negligence or failure of users to follow the instructions for use of the EuroHPC supercomputer or software or breach of the end user license terms, e) instructions or specifications given by EuroHPC Joint Undertaking, or f) force majeure events in accordance with Article IV.6 . In all cases, including the above, the Hosting Entity will inform the EuroHPC Joint Undertaking and will take without delay all appropriate measures to restore the functionality of the EuroHPC supercomputer to minimise costs and prevent financial loss or damage to the EuroHPC Joint Undertaking and to the EuroHPC supercomputer.
7. In relation to the action funded under the grant agreement, the rules in the grant agreement apply.

II.2 ***General Obligations of the EuroHPC Joint Undertaking***

1. The EuroHPC Joint Undertaking will:
 - a) Be the sole owner of the EuroHPC supercomputer and the sole contractor with the vendor for the acquisition and maintenance of the EuroHPC supercomputer.

- b) Provide any information to the Hosting Entity that is relevant for the latter to perform its duties under the Regulation and the Agreement within the deadlines agreed by the parties.
- c) Fulfil its financial obligations as defined in the Regulation, the Agreement and the grant agreement.

II.3 *Obligations of the Parties during the acquisition procedure*

1. The EuroHPC Joint Undertaking, supported by the Hosting Entity, will launch the process for the acquisition of the EuroHPC supercomputer in accordance with the financial rules of the EuroHPC Joint Undertaking.
2. Throughout the acquisition process of the EuroHPC supercomputer, including the preparatory phase, the Parties will work together in a spirit of collaboration for achieving the objective of acquiring the EuroHPC supercomputer.
3. For that purpose, the Parties will have the following responsibilities:
 - a. The EuroHPC Joint Undertaking and the Hosting Entity will work together in order to define (design) the main technical specifications of the EuroHPC supercomputer to be acquired.
 - b. The Hosting Entity will identify and implement the hosting site requirements, including but not limited to the infrastructure, security rules and site regulation, for the proper installation and operation of the EuroHPC supercomputer. It is the responsibility of the Hosting Entity to prepare the hosting site on time for the installation of the EuroHPC supercomputer. Annex IV. Associated deliverables and milestones defines the milestones (M2 "Site preparation according to the acquisition procedures of the EuroHPC supercomputer", M3 "Site adaptation to host the EuroHPC supercomputer") required for the installation of the supercomputer. For considering the two abovementioned milestones met in accordance with Annex IV. Associated deliverables and milestones and within the deadlines set therein, the Hosting Entity will provide to the EuroHPC Joint Undertaking:
 - i. Evidence of compliance with each requirement and specification as included in Annex I. Minimum requirements of the Hosting Site and Annex V. Application of the Hosting Entity ;
 - ii. Evidence of readiness to provide the required services defined in this Agreement;
 - iii. Evidence of successful testing of all requirements defined in this Agreement;
 - iv. Demonstration of resilience of systems and components.
4. The EuroHPC Joint Undertaking or any mandated entity of the Joint Undertaking will have the right to inspect the hosting site, data centre, documentation, certifications and test reports, where relevant, in order to sign off acceptance of the relevant milestones.

II.4 *Obligations of the Parties during the performance of the Agreement*

1. Unless otherwise indicated, the Hosting Entity, will be mandated to act in the name and on behalf of the EuroHPC Joint Undertaking during the installation, the maintenance and, if necessary, the dismantling of the EuroHPC supercomputer. For the purpose of these technical operations, the Hosting Entity will be the single point of contact of the vendor in the framework of the procurement contract to be signed between the EuroHPC Joint Undertaking and the vendor.

II.4.1 Delivery and installation of the EuroHPC supercomputer

1. The Hosting Entity will monitor and supervise the proper delivery and installation of the EuroHPC supercomputer by the vendor, in cooperation with the vendor.
2. The Hosting Entity will provide a report to the EuroHPC Joint Undertaking in that regard, and will respond to any questions relevant to its delivery and installation in a timely manner.

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3. The Hosting Entity will collaborate with the vendor during the installation to make sure that the installation of the EuroHPC supercomputer is done in time and according to the specified supercomputer requirements of the contract between the EuroHPC Joint Undertaking and the vendor of the supercomputer. The vendor will be solely liable for the proper installation of the supercomputer.
4. The Hosting Entity will supervise, monitor and check the compliance of the equipment/supplies provided by the vendor during the delivery and installation of the EuroHPC supercomputer with the requirements of the aforementioned contract between the EuroHPC Joint Undertaking and the vendor.

II.4.2 Acceptance of the EuroHPC supercomputer

1. The Hosting Entity will check the compliance of the EuroHPC supercomputer with the requirements of the contract between the EuroHPC Joint Undertaking and the vendor of the supercomputer and perform the acceptance test in. Once the contract is signed by EuroHPC Joint Undertaking and the vendor, it will be provided to the Hosting Entity.
2. The Hosting Entity will perform the acceptance test of the supercomputer in accordance with the testing procedure which shall be jointly agreed between the parties and defined in the EuroHPC Joint Undertaking's contract with the vendor.
3. In case of compliance, the Hosting Entity will inform the EuroHPC Joint Undertaking accordingly, so that the Executive Director of the EuroHPC Joint Undertaking can proceed with the authorisation of the payments to the vendor.
4. In case of non-compliance, the Hosting Entity will inform the EuroHPC Joint Undertaking in writing of all defects or errors detected in the delivery and installation, will identify such defects or errors in sufficient detail and support the EuroHPC Joint Undertaking in notifying the vendor about same and/or suggest to the EuroHPC Joint Undertaking technical solutions identified following a risk management process. The Hosting Entity shall have the primary role in interacting with the vendor in order to choose the most appropriate solution to be implemented, in consultation with the EuroHPC Joint Undertaking, while keeping it informed throughout the process.

II.4.3 Operations

1. The Hosting Entity must provide the hosting services defined in Required Hosting Activities in Annex II Service Level Agreement (SLA) and shall be responsible for the operation of the EuroHPC supercomputer in accordance with the grant agreement.
2. The Hosting Entity must provide the EuroHPC Joint Undertaking regular Service, Utilisation and Performance reports as defined in Annex IV. Associated deliverables and milestones. The Hosting Entity must implement the allocation of the EuroHPC Joint Undertaking's share of access time to the EuroHPC Supercomputer in accordance with the relevant Decision of the Governing Board as communicated to the Hosting Entity and in accordance with Article II.11 of this Agreement.
3. The Hosting Entity must meet the KPIs defined in Annex III Key performance indicators (KPIs).

II.5 ***End of the operations of the EuroHPC supercomputer***

1. At the earliest five years after the successful acceptance test by the EuroHPC Joint Undertaking of the EuroHPC supercomputer installed in the Hosting Entity, the EuroHPC Joint Undertaking, upon mutual agreement of the parties and subject to decision of the Governing Board may decide to transfer the ownership of the EuroHPC supercomputer to the Hosting Entity, or, sell it to another entity or decommission it, in whole or in part.

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2. If the EuroHPC Joint Undertaking, with the agreement of the Hosting Entity, decides to transfer the ownership of the EuroHPC supercomputer at the end of its operation, the associated costs will be calculated at that moment in accordance with standard accounting practices for such assets in force at that time. Linear depreciation using a period of 5 years will be applied.
3. In the case of transfer of ownership to the Hosting Entity in accordance with paragraph 1 before full depreciation of the EuroHPC supercomputer, the Hosting Entity will reimburse the EuroHPC Joint Undertaking the residual value of the EuroHPC supercomputer that is transferred. The residual value of the Union's share of the acquisition of the supercomputer will be calculated taking into account the depreciation in accordance with standard accounting practices for such assets in force at that time. In the absence of commonly agreed standards, linear depreciation using a period of 5 years will be applied.
4. If there is no transfer of ownership to the Hosting Entity but a decision for decommissioning, the relevant costs will be shared equally by the EuroHPC Joint Undertaking and the Hosting Entity. The relevant costs shall be eligible to be included as a provision in the overall budget of operating costs of the supercomputer.
5. In case of decommissioning of the EuroHPC supercomputer:
 - a) The Hosting Entity will be responsible for the dismantling process, which will be performed by the vendor in accordance with the relevant contract.

This process will notably include:

 - i) The electrical and hydraulic disconnections of the equipment;
 - ii) The removal and evacuation of electrical wiring of the equipment;
 - iii) The removal and evacuation of network cables from the configuration;
 - iv) The disassembly of the disks;
 - v) The handling and evacuation of the equipment outside the Hosting site;
 - vi) The replacement of raised floor slabs.
 - b) The EuroHPC Joint Undertaking will have the right to decide how to use the dismantled equipment.
6. The EuroHPC Joint Undertaking will not be liable for any costs incurred after the transfer of ownership of the EuroHPC supercomputer or after its sale to the Hosting Entity or its decommissioning.

II.6 ***Conflict of Interest***

1. The Hosting Entity must take all measures to prevent any situation where the impartial and objective implementation of the tasks is compromised for reasons involving economic interest, political or national affinity, family or emotional ties or any other shared interest ("conflict of interest").
2. The Hosting Entity must formally notify to the EuroHPC Joint Undertaking without delay any situation constituting or likely to lead to a conflict of interest and immediately take all the necessary steps to rectify this situation.
3. The EuroHPC Joint Undertaking may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.
4. In relation to the action funded under the grant agreement, the conflict of interest rules in the grant agreement will apply.

II.7 Confidentiality obligation and non-disclosure

1. The EuroHPC Joint Undertaking and the Hosting Entity undertake to preserve the confidentiality of any document, information or other material directly related to the subject of the Agreement that is duly classified as confidential.
2. The Parties will not use confidential information and documents for any reason other than fulfilling the obligations under the Agreement or the grant agreement, unless otherwise foreseen in writing.
3. A receiving party will notify the disclosing party if it is legally required to disclose any confidential information, or learns of any unauthorized disclosure of confidential information.
4. The parties will be bound by the obligation referred to in the above paragraphs during the implementation of the Agreement and for as long as the EuroHPC supercomputer remains in the Hosting Entity under the ownership of the EuroHPC Joint Undertaking and for a period of ten (10) years starting from the date of its termination, unless:
 - a) the concerned party agrees to release the other party from the confidentiality obligations earlier;
 - b) the confidential information becomes public through other means than in breach of the confidentiality obligation through disclosure by the party bound by that obligation;
 - c) the disclosure of the confidential information is required by law, regulation or binding order of competent authorities.
5. In relation to the action funded under the grant agreement, the confidentiality rules in the grant agreement will apply.

II.8 Processing of Personal data

II.8.1 Processing of personal data by the EuroHPC Joint Undertaking

1. The EuroHPC Joint Undertaking will process any personal data under the Agreement in accordance with Regulation (EU) 2018/1725.³
2. Where Joint Undertaking is the data controller under Regulation (EU) 2018/1725, such data will be processed by the 'data controller' solely for the purposes of the implementation, management and monitoring of the Agreement or to protect the Union's or the Joint Undertaking's financial interests, including checks, audits and investigations, without prejudice to possible transmission to the bodies charged with the monitoring or inspection tasks in application of the applicable rules.
3. The persons whose personal data are processed have the right to access, rectify or erase their own personal data and the right to restrict or, where applicable, the right to data portability or the right to object to data processing in accordance with Regulation (EU) No 2018/1725. For this purpose, they must send any queries about the processing of its personal data to the data controller, via the contact point indicated in the privacy statement(s) that are published on the JU and Commission website.
4. The persons whose personal data are processed may have recourse at any time to the European Data Protection Supervisor.

³ Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data, and repealing Regulation (EC) No 45/2001 and Decision No 1247/2002, OJ L 295, 21.11.2018, p. 39–98.

II.8.2 Processing of personal data by the Hosting Entity

1. The Hosting Entity must process personal data under the Agreement in compliance with applicable EU and national law on data protection (including authorisations or notification requirements).
2. The Hosting Entity may grant its personnel access only to data that is strictly necessary for implementing, managing and monitoring the Agreement. The Hosting Entity must ensure that the personnel authorised to process personal data has committed itself to confidentiality or is under appropriate statutory obligation of confidentiality.
3. The Hosting Entity must adopt appropriate technical and organisational security measures having regard to the risks inherent in the processing and to the nature, scope, context and purposes of processing of the personal data concerned. This is in order to ensure, as appropriate:
 - a) the pseudonymisation and encryption of personal data;
 - b) the ability to ensure the ongoing confidentiality, integrity, availability and resilience of processing systems and services;
 - c) the ability to restore the availability and access to personal data in a timely manner in the event of a physical or technical incident;
 - d) a process for regularly testing, assessing and evaluating the effectiveness of technical and organisational measures for ensuring the security of the processing;
 - e) measures to protect personal data from accidental or unlawful destruction, loss, alteration, unauthorised disclosure of or access to personal data transmitted, stored or otherwise processed.
4. In relation to the action funded under the grant agreement, the confidentiality rules in the grant agreement will apply.

II.9 ***VISIBILITY OF UNION FUNDING AND SUPPORT FROM PARTICIPATING STATES***

II.9.1 Information on JU funding and support from Participating States – Obligation and right to use the EuroHPC JU logo and the EU emblem

1. Unless the EuroHPC Joint Undertaking requests or agrees otherwise, any communication or publication made by the Hosting Entity that relates to the EuroHPC supercomputer, including at conferences, seminars or in any information or promotional materials (such as brochures, leaflets, posters, presentations, in electronic form, etc.), must:
 - a. display the EuroHPC Joint Undertaking logo,
 - b. display the EU emblem, and
 - c. include the following text: “The acquisition and operation of the EuroHPC supercomputer is funded jointly by the EuroHPC Joint Undertaking, through the European Union’s Digital Europe programme, as well as by the Participating States [countries to be added]”.
2. When displayed together with another logo, the EuroHPC Joint Undertaking logo and the EU emblem must have appropriate prominence.
3. The obligation to display the EuroHPC Joint Undertaking logo and the European Union emblem does not confer to the Hosting Entity a right of exclusive use. The Hosting Entity may not appropriate the EuroHPC Joint Undertaking logo and the EU emblem or any similar trademark or logo, either by registration or by any other means.

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4. For the purposes of the first, second and third subparagraphs and under the conditions specified therein, the Hosting Entity may use the EuroHPC Joint Undertaking logo and the EU emblem without first obtaining permission from the Joint Undertaking or the Commission.
5. In relation to the action funded under the grant agreement, the visibility rules in the grant agreement will apply.

II.9.2 Disclaimer

1. Any communication or publication that relates to the EuroHPC supercomputer, made by the Hosting Entity in any form and using any means, must indicate:
 - a) that it reflects only the author's view; and
 - b) that the EuroHPC Joint Undertaking is not responsible for any use that may be made of the information it contains.

II.9.3 Information on support from Participating States

1. Unless the parties agree otherwise, any communication or publication made by the Joint Undertaking that relates to the EuroHPC supercomputer, shall together with the EuroHPC Joint Undertaking logo and the EU emblem, display:
 - a) the flag of the Participating States in the Hosting Consortium
 - b) the logo of the Hosting Entity,
 - c) include the following text: "The acquisition and operation of the EuroHPC supercomputer is funded jointly by the EuroHPC Joint Undertaking, through the European Union's Digital Europe Programme , as well as by the Participating States.
2. For the purposes of the paragraph 1 and under the conditions specified therein, the EuroHPC Joint Undertaking may use the logo of the Hosting Entity without first obtaining its permission.

II.10 **Security**

1. The Hosting Entity will provide access to the EuroHPC supercomputer, while ensuring the security of this supercomputer and prevent unauthorised use by all reasonable means. These should include as a minimum the physical and IT security measures described in Annex I. Minimum requirements of the Hosting Site.
2. The Hosting Entity must adopt appropriate technical and organisational security measures having regard to the risks inherent to the hosting and operations of such machines. This will include the functional separation, and to the extent possible, the physical separation of the EuroHPC supercomputer and any national or regional computing systems the Hosting Entity operates.
3. The Hosting Entity will provide access in a secure manner to the hosting site and allow for external visitors to visit the EuroHPC supercomputer.
4. The security requirements will be those defined in in Annex V. Application of the Hosting Entity to this Agreement.

II.11 **Allocation of access time to the EuroHPC supercomputer**

1. The share of the Union's access time to the EuroHPC supercomputer will be directly proportional to the financial contribution of the Union referred to in Article 5(1) of the Regulation to the total cost of ownership of the supercomputer and will not exceed 50 % of the total access time of the EuroHPC supercomputer.

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2. The Governing Board of the EuroHPC Joint Undertaking will define the access rights to the Union's share of access time to the EuroHPC supercomputer and the EuroHPC Joint Undertaking will inform the Hosting Entity of the relevant decision of the Governing Board in due course to allow the Hosting Entity to implement the necessary requirements, processes and arrangements. This will apply also to the specific conditions for industrial users applying for the Union's access time to the EuroHPC supercomputer for commercial purposes.
3. The Participating State where the Hosting Entity is established or each Participating State in a hosting consortium will be allocated a share of the remaining access time to the EuroHPC supercomputer. In the case of a hosting consortium, the Participating States will agree among themselves the distribution of access time to the EuroHPC supercomputer and will inform the EuroHPC Joint Undertaking accordingly.
4. The Hosting Entity must comply with the conditions of allocation of access time defined in Articles 17 and 18 of the Regulation and will make all necessary arrangements to implement the decision of the EuroHPC Joint Undertaking's Governing Board regarding the Union's access time.
5. The Parties may agree that the implementation of the access rights to the Union's share of access time to the EuroHPC supercomputer may be implemented by a third party.
6. The EuroHPC Joint Undertaking will inform the Hosting Entity of the changes to the access rights to the Union's share of access time to the EuroHPC supercomputer decided by the EuroHPC Joint Undertaking's Governing Board at least 15 working days before the start of the use period.
7. The Hosting Entity will ensure the quality of the service and that the quality of service is the same for all users in accordance with the relevant SLAs.
8. In accordance with Article 18 of the Regulation, in case the Union's access time to supercomputers is used for commercial purposes, the fees generated directly by the commercial use of the Union's access time will constitute revenue to the EuroHPC Joint Undertaking's budget and will be used to cover operational costs of the Joint Undertaking.
9. The Hosting Entity will provide access to the EuroHPC supercomputer, while ensuring the security of the supercomputer and the protection of personal data in accordance with Regulation (EU) 2016/679⁴, the protection of privacy of electronic communications in accordance with Directive 2002/58/EC⁵, the protection of trade secrets in accordance with Directive (EU) 2016/943⁶ and the protection of confidentiality of other data covered by the obligation of professional secrecy.
10. The use of the EuroHPC supercomputer will be subject to a reasonable and non-discriminatory user- terms and conditions and data processing agreement, drafted jointly by the Hosting Entity and the EuroHPC Joint Undertaking, designed to ensure compliance with applicable security and data protection requirements, in conformity with any access conditions as defined pursuant to Article 16,17 and 18 of the Regulation while appropriately excluding the hosting entity's liability for indirect damages such lost profits, revenues, or user data in accordance with industry practise. Any such user terms and data processing agreement cannot impose any condition to the EuroHPC Joint Undertaking less favourable than any other user. Any such user terms and data processing agreement will not improperly limit the access of the EuroHPC Joint Undertaking to the EuroHPC supercomputer.

⁴ OJ L 119, 4.5.2016, p. 1.

⁵ OJ L 201, 31.7.2002, p. 37.

⁶ OJ L 157, 15.6.2016, p. 1.

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11. The Participating State where the Hosting Entity is established defines and implements the allocation process for its share of access time.

II.11.1 Accounting of Access time

1. The Hosting Entity must ensure that the access time and resource usage is collected and stored in a traceable and auditable way and provides an appropriate overview of the system utilisation.. The Hosting Entity must provide regular information of access time allocation and usage as part of the reports indicated in Annex IV.
2. The EuroHPC Joint Undertaking has the right to audit the allocation and usage of the EuroHPC supercomputer resources in accordance with Article II.13.

II.12 *Financial obligations*

II.12.1 Acquisition costs of the EuroHPC supercomputer

1. The budget for the acquisition of the EuroHPC supercomputer is set at maximum EUR 600,000,000. The Union's financial contribution to the acquisition and operation of the EuroHPC supercomputer is set at a maximum EUR 300,000,000. The Union's financial contribution will cover up to 50 % of the acquisition costs and up to 50% of the operating costs up to the maximum budget.
2. The remaining 50% of acquisition costs of the EuroHPC supercomputer will be covered by the Participating State where the Hosting Entity is established or by the Participating States in the hosting consortium.
3. The contribution by the Participating State where the Hosting Entity is established or by the Participating States in the hosting consortium must be transferred to the EuroHPC Joint Undertaking at least 2 months ahead of the respective payments to the vendor as agreed in the relevant Administrative Agreement.
4. EuroHPC Joint Undertaking is not subject to Value Added Tax (VAT) linked to the procurement of the Supercomputer, however depending on applicable national VAT rules where the supercomputer is to be located, VAT contributions may still have to be paid by EuroHPC JU to the supplier and later recovered from the relevant national VAT authorities. In this event, the Hosting Entity shall transfer the full VAT contributions to the EuroHPC Joint Undertaking a month in advance the submission of the invoice by the relevant supplier, in order for EuroHPC JU to finalise payments of the supercomputer with the supplier. The advance VAT contribution amount will only be returned to the Hosting Entity after EuroHPC Joint Undertaking has recovered that amount from the national VAT authorities.
5. Within the budget agreed, the EuroHPC Joint Undertaking will send at any time it deems necessary a payment request to the competent authorities of the Participating States in the Hosting Consortium (the "Payment Request") to cover the commitments for the acquisition of the EuroHPC supercomputer taking into account the schedule of payments agreed between the EuroHPC Joint Undertaking and the vendor.

II.12.2 Operating costs of the EuroHPC supercomputer

1. The Union financial contribution will cover up to 50 % of the operating costs of the EuroHPC supercomputer within the limits of the overall available budget envelop for the EuroHPC supercomputer.
2. The reimbursement of operating costs of the EuroHPC supercomputer from the Union contribution will be calculated on the basis of the unit cost of operating hours allocated to the EuroHPC Joint Undertaking up to the agreed ceiling for the Union financial contribution on the basis of the grant agreement to be signed in that regard.

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3. The remaining operating costs of the EuroHPC supercomputer will be covered by the Participating State where the Hosting Entity is established or by the Participating States in the hosting consortium. The EuroHPC Joint Undertaking will bear no responsibility for the remaining operating costs.
4. The specific terms and conditions for the eligibility and reimbursement of the part of the operating costs of the EuroHPC supercomputer to be covered by the Union financial contribution shall be subject to the grant agreement.

II.13 *Checks and Audits*

II.13.1 General obligations

1. The EuroHPC Joint Undertaking may, during the implementation of the Agreement or afterwards, carry out technical and financial checks and audits to determine that the Hosting Entity is implementing the Agreement properly and is complying with the obligations under the Agreement, including assessing deliverables and reports. For that purpose, the Hosting Entity must provide any information, including information in electronic format, requested by the EuroHPC Joint Undertaking or by any other outside body authorised by the EuroHPC Joint Undertaking. Information provided must be accurate, precise and complete and in the format requested, including electronic format.
2. The specific terms and conditions including audit regarding the operating costs of the EuroHPC supercomputer from Union financial contribution will be defined in the grant agreement to be signed between the Parties for that purpose on the basis of the applicable legal framework.
3. Upon request from the EuroHPC Joint Undertaking, the Hosting Entity must put in place an audit procedure covering the access of the users and allocation of access time managed by EuroHPC JU in accordance with Article 17 of the Regulation. The controls must address but not be limited to all user access and user identification linked to any changes to the system and data.
4. The Hosting Entity must submit by 31 March of each year to the EuroHPC Joint Undertaking's Governing Board an audit report and data on the use of access time in the previous financial year. This is indicated as a deliverable in Annex IV. Associated deliverables and milestones.
5. The checks and audit data must be protected, non-repudiated and restricted to authorized staff. Retention of the relevant records will be retained online for at least ninety (90) days and further preserve offline for a period of the agreement or required by the EuroHPC Joint Undertaking.
6. Information and documents provided as part of checks or audits must be treated on a confidential basis.
7. The above checks and audits may be carried out either directly by the EuroHPC Joint Undertaking's own staff or by any other outside body authorised to do so on its behalf.
8. In addition to the EuroHPC Joint Undertaking, the European Commission, the European Anti-Fraud Office (OLAF) and the Court of Auditors may carry out checks and audits in accordance with their respective competences and the applicable legal framework.
9. For actions funded from the Digital Europe Programme, audits of recipients of Union funds under this Regulation should be carried out in compliance with Regulation (EU) 2021/694.
10. In relation to the action funded under the grant agreement, the rules on checks and audits in the grant agreement apply.

II.13.2 On-the-spot visits

1. The EuroHPC Joint Undertaking has the right to perform on-the-spot visits to the hosting site and the premises of the Hosting Entity.
2. During an on-the-spot visit, the Hosting Entity will allow the staff of the EuroHPC Joint Undertaking and any external personnel authorised by the EuroHPC Joint Undertaking to have access to the hosting site and premises of the EuroHPC supercomputer, and to all the necessary information related to the hosting and operation of the EuroHPC supercomputer for the assessment of the fulfilment of this hosting Agreement, including information in electronic format.
3. The Hosting Entity must ensure that the information is readily available at the moment of the on-the-spot visit and that information requested is handed over in an appropriate form. Visits agreed herein will be notified at least seven (7) calendar days beforehand and be carried out in a way that causes minimal disruption to safety and operation of services under the Hosting Entity's responsibilities.
4. In relation to the action funded under the grant agreement, the rules in the grant agreement apply.

III. **CHAPTER 3**

III.1 ***Subcontracting and third parties***

1. The Hosting Entity is allowed to subcontract certain activities to be performed to third parties. However, the Hosting Entity must ensure that the percentage of subcontracting activities is proportionate and justifiable in accordance with the objective of the Agreement. The Hosting Entity will remain bound by its obligations under the Agreement and will be solely responsible for the proper performance of this agreement, including by third parties acting in their capacity as subcontractors.
2. The Hosting Entity will make sure that the subcontract does not affect rights and guarantees granted to the EuroHPC Joint Undertaking by virtue of this Agreement.
3. In relation to the action funded under the grant agreement, the rules concerning subcontracting in the grant agreement will apply.

IV. **CHAPTER 4**

IV.1 ***Consequences of non-compliance with obligations***

1. The Hosting Entity will use its best endeavours to fulfil its obligations under this Agreement and provide the hosting site services under the highest professional standards and in a timely manner, within the deadlines agreed between the Parties.
2. The EuroHPC Joint Undertaking will use its best endeavours to fulfil its obligations under this Agreement in a timely manner, within the deadlines agreed between the Parties.
3. The EuroHPC Joint Undertaking and the Hosting Entity will use their best efforts to solve any non-compliance issue amicably, taking into account the best interests of the Union, the interests of the Hosting Entity and the Hosting Consortium and the shared objectives of the EuroHPC Joint Undertaking and the Hosting Entity.
4. In case one of the Parties is not in position to fulfil its obligations under this Agreement on time for whichever reason, it will notify the other party without delay, stating the nature of the circumstances, their likely duration and effects and the measures taken to limit or mitigate any damage.

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5. In case a status report shows that the services provided by the Hosting Entity are not fully compliant with this Agreement, the EuroHPC Joint Undertaking will evaluate the severity of the problem and its consequences, and discuss the conclusions of this evaluation with the Hosting Entity.
6. If the obligations of the Hosting Entity included in this Agreement have not been implemented accordingly or if any obligation under the Agreement has been breached by the Hosting Entity, the EuroHPC Joint Undertaking will send a formal notification to the Hosting Entity requesting the Hosting Entity to rectify that situation or provide explanations and intended rectification or remedial actions. The Hosting Entity will respond to this notification within ten (10) calendar days following the date of receipt.
7. If the Hosting Entity does not respond within the abovementioned timeframe, the EuroHPC Joint Undertaking will send a reminder by way of a second formal notification to the Hosting Entity, specifying the measures it intends to take if the Hosting Entity does not respond to its request or does not take appropriate and reasonable measures to rectify the situation. The Hosting Entity must respond to this second formal notification within ten (10) calendar days following the date of receipt. If the Hosting Entity does not respond to this reminder, the EuroHPC Joint Undertaking will have the right to take the measures described in paragraph 8 and in Article IV.2, notwithstanding any other legal rights of the EuroHPC Joint Undertaking taking into account, the principle of proportionality the seriousness of the breach or non-compliance.
8. In all cases, including cases of force majeure, the EuroHPC Joint Undertaking will have the right to request from the Hosting Entity to comply with the Agreement, take remedial measures and/or proportionally reduce or recover amounts unduly paid to the Hosting Entity, as appropriate and in accordance with the principle of proportionality and the seriousness of the breach or non-compliance and after using its best endeavours to allow the hosting entity to exercise its right to be heard.
9. Before the EuroHPC Joint Undertaking proceeds as described in paragraph 8 of this Article, it will send a formal notification to the Hosting Entity which will include the following information:
 - a. the measures it intends to take and the start date of their application;
 - b. the EuroHPC Joint Undertaking's intention to reduce any amount to be paid and the corresponding amount;
 - c. the reasons for reduction and/or other measures; and
 - d. invitation to the Hosting Entity to submit observations within ten (10) calendar days following the date of receipt of the formal notification.
10. In all cases, where the fault, situation or event is attributable to error or negligence on the part of the vendor the Hosting Entity and in cases referred to in II.1 paragraph 6 shall be not be considered as non-compliant, in breach of its obligations or liable.
11. In relation to the action funded under the grant agreement, the rules regarding non-compliance in the grant agreement apply.

IV.2 Liquidated Damages

1. If the Hosting Entity fails to perform its obligations within the applicable time limits as set out in this Agreement, and such cases constitute significant and/or recurring and/or persistent non-compliance or breach of the obligations under the Agreement, the EuroHPC Joint Undertaking, taking the principle of proportionality into account, may claim liquidated damages for each day or hour of delay using the following formula:

$$0,20 * (CH * h)$$

Where CH is the cost of the Computational Hour as defined in the grant agreement.

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And h is the duration in hours of the non-compliance or breach of the obligations under the Agreement. The maximum amount of liquidated damages payable per each calendar year will be limited to one million euro (1.000.000 €).

2. The amount of such liquidated damages that results from the application of the formula above may be reduced by the Joint Undertaking if it is considered justified by the seriousness of the breach and the specific character and circumstances of the non-compliance or breach, taking the principle of proportionality into account.
3. Liquidated damages may be imposed in addition with other reductions in the Union's financial contribution.
4. The EuroHPC Joint Undertaking must formally notify the Hosting Entity of its intention to apply liquidated damages and the corresponding calculated amount.
5. The Hosting Entity will have thirty (30) calendar days following the date of receipt to submit observations. Failing that, the decision of the EuroHPC Joint Undertaking becomes enforceable the day after the deadline for submitting observations has elapsed.
6. If the Hosting Entity submits observations, the EuroHPC Joint Undertaking, taking into account the relevant observations, must notify the Hosting Entity:
 - a. of the withdrawal of its intention to apply liquidated damages; or
 - b. of its decision to reduce the amount of the liquidated damages as appropriate; or
 - c. of its final decision to apply liquidated damages and the corresponding amount.
7. The parties expressly acknowledge and agree that any amount payable under this Article is not a penalty and represents a reasonable estimate of fair compensation for the damage incurred due to failure to provide the services within the agreed time limits set out in this Agreement.
8. Any claim for liquidated damages does not affect the Hosting Entity's actual or potential liability that exceeds the amount of damages provided for herein paid by Hosting Entity for the breach of the EuroHPC Joint Undertaking's rights under other articles in this Agreement, and the grant agreement.
9. In relation to the action funded under the grant agreement, the rules in the grant agreement apply in addition to the provisions of this Article.

IV.3 *Liability*

1. The EuroHPC Joint Undertaking will not be liable for any damage or loss caused by the Hosting Entity, including any damage or loss to third parties during or as a consequence of performance of the Agreement, and the operation of the EuroHPC supercomputer on its behalf, unless the loss or damage was caused by wilful misconduct or gross negligence by the EuroHPC Joint Undertaking.
2. The Hosting Entity will assume full liability towards the EuroHPC Joint Undertaking for the performance of its obligations under this Agreement as a whole, including financial and operational liability. In case of a hosting consortium, only the Hosting Entity will be fully liable towards the EuroHPC Joint Undertaking for the performance of the Agreement.
3. When determining the liability of the Hosting Entity under the Agreement the principle of proportionality shall be applied and the seriousness of the breach or non-compliance shall be taken into account.
4. The Hosting Entity will be liable for any loss or damage caused to the EuroHPC Joint Undertaking during or as a consequence of the performance of the Agreement. The aggregate maximum liability for damages of the hosting entity based on the Agreement will not exceed the residual value of the supercomputer,

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including possible liquidated damages, or other reduction in accordance with the grant agreement. However, if the damage or loss is caused by the gross negligence or wilful misconduct of the Hosting Entity or of its personnel or subcontractors, as well as in the case of an action brought against the EuroHPC Joint Undertaking by a third party, the Hosting Entity will be liable for the whole amount of the damage or loss.

5. If a third party brings any action against the EuroHPC Joint Undertaking in connection with the performance of the Agreement, the Hosting Entity must closely collaborate and assist the EuroHPC Joint Undertaking in the legal proceedings, including by intervening in support of the EuroHPC Joint Undertaking upon request.
6. If the liability of the EuroHPC Joint Undertaking towards the third party is established and such liability is caused by the Hosting Entity during or as a consequence of the performance of the agreement, paragraphs 2 and 3 apply.
7. In relation to the action funded under the grant agreement, the rules on liability for damages in the grant agreement apply.

IV.4 *Insurance*

1. The Hosting Entity must take out an insurance policy to cover the operation of their hosting site and of the EuroHPC supercomputer and against risks and damage or loss relating to the performance of the EuroHPC supercomputer. It must also take out supplementary insurance as reasonably required by standard practice in the industry. Upon request, the Hosting Entity must provide evidence of insurance coverage to the EuroHPC Joint Undertaking.

IV.5 *Termination of the Agreement*

1. The Agreement may be terminated by mutual consent of the parties in case the subject matter of this contract has been fulfilled or becomes impossible to fulfil.
2. The Agreement may be terminated in case the grant agreement has been terminated either by the EuroHPC Joint Undertaking or by the Hosting Entity.

IV.5.1 Termination by the EuroHPC Joint Undertaking of the Agreement for specific reasons

1. The EuroHPC Joint Undertaking may terminate the Agreement, if the Hosting Entity does not remedy within sixty (60) calendar days from written notification any material or serious breach or non-compliance issue falling under its responsibility concerning the following situations, unless manifestly such breach or non-compliance cannot by its nature be remedied:
 - a) if the Hosting Entity is unable, through its own fault, to obtain any permit or licence required for performance of the agreement;
 - b) the Hosting Entity or any person that assumes unlimited liability for the debts of the Hosting Entity is in one of the situations provided for in points (a) and (b) of Article 136(1) of the EU Financial Regulation⁷;
 - c) the Hosting Entity is subject to any of the situations provided for in points (c) to (f) of Article 136(1) or to Article 136(2) of the EU Financial Regulation;
 - d) the procedure for selecting the Hosting Entity proves to have been subject to Hosting Entity's substantial errors, irregularities or fraud;
 - e) the Hosting Entity does not comply with applicable obligations under environmental, social and labour law established by Union and Community law, national law, collective agreements or by the

⁷ Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012, OJ L 193, 30.7.2018, p. 1–222

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international environmental, social and labour law provisions listed in Annex X to Directive 2014/24/EU⁸;

- f) the Hosting Entity is in a situation that constitutes a conflict of interest or a professional conflicting interest as referred to in Article II.5;
- g) a change to the Hosting Entity's legal, financial, technical, organisational or ownership situation is likely to substantially affect the implementation of the Agreement in an adverse manner.
- h) the Hosting Entity does not comply with or is in serious breach of its obligations under this Agreement.
- i) If the EuroHPC Joint Undertaking has terminated the grant agreement.

IV.5.2 Procedure and effect of termination

1. One party must formally notify the other party of its intention to terminate the Agreement and the grounds for termination. The termination will become effective on the date on which the EuroHPC supercomputer will no longer be hosted in the Hosting Entity's premises, unless otherwise agreed by the parties, taking into account the grounds for termination.
2. In such case, at the request of the EuroHPC Joint Undertaking and regardless of the grounds for termination, the Hosting Entity must provide all necessary assistance, including information, documents and files, to allow the EuroHPC Joint Undertaking to complete, continue or transfer the EuroHPC supercomputer to a new Hosting Entity, with minimum interruption or adverse effect on the quality or continuity of the operation of the supercomputers. The parties may agree to draw up a transition plan detailing the transfer of the EuroHPC supercomputer.
3. In cases where the Agreement has been terminated on the grounds that the Hosting Entity does not comply with its obligations under this Agreement, the Hosting Entity must provide such assistance at no additional cost, except if it can demonstrate that it requires substantial additional resources or means or otherwise causes additional expenses, in which case it must provide an estimate of the costs involved; the parties will negotiate a relevant arrangement in good faith.
4. If the Agreement has been terminated on the basis of Article IV.5.1, the Hosting Entity will be liable for direct damages incurred by the EuroHPC Joint Undertaking as a result of the termination of the Agreement, including the cost of selecting another Hosting Entity, unless the damage was caused by force majeure.
5. In any case, the Parties must take all appropriate measures to minimise costs and prevent damage to the other party and to the EuroHPC supercomputer.

IV.6 *Force majeure*

1. If a party is affected by force majeure, it must immediately notify the other party, stating the nature of the circumstances, their likely duration and the foreseeable effects.
2. The party faced with force majeure may not be considered in breach of its obligations under the Agreement if it has been prevented from fulfilling them by force majeure. The parties must take all reasonable measures to limit any damage due to force majeure. They must do their best to resume the implementation of the action as soon as possible.
3. In relation to the action funded under the grant agreement, the rules on force majeure in the grant agreement will apply.

⁸ OJ L 94 of 28.03.2014, p. 65.

V. CHAPTER 5

V.1 *Entry into force and duration*

1. The Agreement shall enter into force on the date on which it is signed by the last party and will remain in force until either the ownership of the EuroHPC supercomputer is transferred by the Joint Undertaking to the Hosting Entity or until the EuroHPC supercomputer is sold or decommissioned in case there is no transfer of ownership, and at the latest until 31.12.2028.
2. The extension of the duration of the present Agreement is subject to the express written agreement of both parties.

V.2 *Amendments*

1. Any amendment to the Agreement must be made by mutual agreement of the parties in writing.
2. Any amendment must not make changes to the Agreement that might alter its purpose.
3. Any request for amendment must be duly justified and must be sent to the other party in due time before it is due to take effect, except in cases duly substantiated by the party requesting the amendment and accepted by the other party.
4. Amendments will enter into force on a date agreed by the parties or, in the absence of such an agreed date, on the date on which the last party signs the amendment.

V.3 *Severability*

1. Each provision of this Agreement is severable and distinct from the others. If a provision is or becomes illegal, invalid or unenforceable to any extent, it must be severed from the remainder of the Agreement. This does not affect the legality, validity or enforceability of any other provisions of the Agreement, which continue in full force and effect. The illegal, invalid or unenforceable provision must be replaced by a legal, valid and enforceable substitute provision which corresponds as closely as possible to the real intent of the parties. The replacement of such a provision must be made in accordance with Article II.6. The Agreement must be interpreted as if it had contained the substitute provision as from its entry into force.

V.4 *Applicable law and settlement of disputes*

1. The Agreement is governed by Union law, supplemented for any matter not covered by the Regulation or by other Union legal acts by the law of the Member State where the Hosting Entity is located.
2. The parties will endeavour to settle amicably any dispute or complaint relating to the interpretation, application or validity of the Agreement. Any dispute which cannot be settled amicably must be submitted to the jurisdiction of the General Court or, on appeal, the Court of Justice of the European Union
3. Nothing in the Agreement will be interpreted as a waiver of any privileges or immunities which are accorded to EuroHPC Joint Undertaking by its constituent act.

V.5 *Communication between the parties*

V.5.1 Communication Details

1. For the purpose of this Agreement, communications must be sent to the following addresses:
 1. EuroHPC JU:

European High Performance Computing Joint Undertaking

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Drosbach Building (DRB) - Wing E – 1st floor
12E rue Guillaume Kroll
L-2920 Luxembourg

2. Hosting Entity:

[hosting entity details]

V.5.2 Form and means of communication

1. Any communication of information, notices or documents under the agreement must:
 - a. be made in writing in paper or electronic format in the language of the Agreement;
 - b. bear the Agreement number;
 - c. be made using the relevant communication details set out above; and
 - d. be sent by mail or email.
2. If a party requests written confirmation of an email within a reasonable time, the other party must provide an original signed paper version of the communication as soon as possible.

V.5.3 Date of communications by mail and electronic mail (email)

1. Any communication is deemed to have been made when the receiving party receives it, unless this Agreement refers to the date when the communication was sent.
2. Email is deemed to have been received on the day of dispatch of that email, provided that it is sent to the email address indicated in ArticleV.5.1. The sending party must be able to prove the date of dispatch. In the event that the sending party receives a non-delivery report, it must make every effort to ensure that the other party actually receives the communication by email or mail. In such a case, the sending party is not held in breach of its obligation to send such communication within a specified deadline.
3. Mail sent to the EuroHPC JU is deemed to have been received by the latter on the date on which the EuroHPC JU registers it.
4. Formal notifications are considered to have been received on the date of receipt indicated in the proof received by the sending party that the message was delivered to the specified recipient.

VI. SIGNATURES

IN WITNESS WHEREOF the undersigned, being duly authorized, have signed this Hosting Agreement.

For the Hosting Entity
[name]

For the JU
Anders Dam Jensen, Executive Director

Done in English
In _____, on the date of _____

Done in English,
in Luxembourg, on the date of _____

Annex I. Minimum requirements of the Hosting Site

The following list provides the minimum requirements for the Hosting Entity to host a EuroHPC supercomputer. The hosting site must be able to guarantee the following within the timeline for the installation of the EuroHPC supercomputer:

1. Power capacity and power quality for hosting a system in the range of 20 to 25 MW total consumption for the exascale supercomputer.
2. UPS power available to cover the critical systems including storage and access to data of the JU system.
3. Enough capacity of air or liquid cooling for hosting the system of the EuroHPC Joint Undertaking
4. At least 700 m² of floor space available for the hosting of the EuroHPC supercomputer and its auxiliary systems
5. Raised floor able to bear at least 2200 kg/m² distributed load
6. Minimal requirements for physical access security:
 - i. Operated reception and ability to limit or restrict physical access to the EuroHPC supercomputer.
 - ii. badge access with differentiated access areas (Layered security zones)
 - iii. video surveillance
 - iv. intrusion detection
7. Minimal requirements regarding fire mitigation:
 - v. fire detection
 - vi. fire extinguishing mechanism
 - vii. operational procedures to deal with fire and minimize damage to equipment and persons
8. Minimum requirements regarding IT access security:
 - viii. intrusion detection
 - ix. firewalling
 - x. network segmentation
 - xi. activity / traffic monitoring and traceability
 - xii. user authentication and user authorisation
 - xiii. vulnerability scanning and monitoring
 - xiv. security awareness and training
9. Ability to perform at least a Level 1 measurement quality for a Top500 submission
10. Existence of a dedicated on-call service team for IT issues
11. Existence of a dedicated on-call service team for facilities issues
12. At least 100 Gbit/s connectivity towards the rest of the GEANT Network (link capacity)
13. A mechanism to regularly measure the satisfaction of your users with your service via a user survey (at least every year)

Annex II Service Level Agreement (SLA) - Required Hosting Activities

The Hosting Entity is required to provide the following services relevant to the hosting of the EuroHPC supercomputer:

- a) Provide the Technical Infrastructure including all facility management necessary to the operation of the EuroHPC supercomputer according to the technical specifications of the supercomputer to be acquired.
- b) Supervise, monitor and check the performance of the commitments and obligations of the vendor that relate to the delivery, installation and maintenance of the EuroHPC supercomputer in full respect of the mandate given by the EuroHPC Joint Undertaking to the Hosting Entity.
- c) In accordance with the grant agreement, ensure the operation of the EuroHPC supercomputer and the IT environment to enable users to access the resources and services for the duration of the Agreement. Allowing users to execute code in the EuroHPC supercomputer, monitor its evolution and retrieve the results.
- d) The Hosting Entity undertakes to provide at least the following user services:
 - a. Hotline/helpdesk and support services, to provide users with a contact point in order to get help for the use of the system and IT environment. This support should be organized as follows:
 - i) A single point of a two-level support at least in English which can be contacted by phone and email should be set-up.
 - ii) This hotline/helpdesk should answer to requests about difficulties/issues dealing with the use of the EuroHPC supercomputer and any information about this EuroHPC supercomputer.
 - iii) The unresolved incidents/requests by the hotline/helpdesk should be forwarded to a more experienced technical level through a ticketing management tool. This advanced technical level should address system and user applications (porting and optimization until five person days per case)⁹.
 - iv) Access to EuroHPC supercomputer resources by the users;
 - b. User documentation (preferable in the form of an online knowledge base), including manuals and other information and tools that are required by the users;
 - c. Incident management;
 - d. User account management ;
 - e. Data storage services (scratch and related temporary storage services);
 - f. Data post-processing, including software tools to post-process data;
 - g. User support for code porting and optimization (under the terms agreed separately with the EuroHPC Joint Undertaking);

⁹ in the case that porting and optimization exceeds five person days, the service is considered as a specific development request.

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- h. Data processing and visualization services (under the terms agreed separately with the EuroHPC Joint Undertaking), including remote visualisation services when relevant;
 - i. Visualization services, including remote visualisation services when relevant;
 - j. Information to users and the EuroHPC Joint Undertaking about incidents impacting the use of the EuroHPC supercomputer or the IT environment;
 - k. At least yearly measurement of user satisfaction with the service offered by the Hosting Entity via user surveys;
- e) The Hosting Entity undertakes to provide support related to the EuroHPC supercomputer. This must include:
- a) On call service support teams for IT issues available to users;
 - b) Dedicated on-call service team for facilities issues available to users;
 - c) The Hosting Entity must have in place an escalation process (both functional and hierarchical) designed to bring appropriate authority and expertise rapidly into play to resolve issues and problems in accordance with agreed service levels;
 - d) Once an incident has been raised, the Hosting Entity support team will do the utmost to resolve, repair and restore services to full operation within the defined Service Level Agreement time limits.
 - f) The Hosting Entity undertakes to report to the EuroHPC Joint Undertaking through the production of documents and KPIs reports defined in Annex IV (Associated deliverables and milestones).
 - g) The Hosting Entity undertakes to monitor the IT infrastructure and technical infrastructure and equipment, including power electrical systems
 - h) The Hosting Entity undertakes to monitor the capacity and operational load of the hosting site infrastructure providing services to the EuroHPC supercomputer.
 - i) Cooling and other infrastructure services related to the operation of the EuroHPC supercomputer, such as fire detection, monitoring, security, at the hosting site of the EuroHPC supercomputer.
 - j) Provision of electricity consumption of the EuroHPC supercomputer and other IT equipment and by the facility (cooling, heating losses ...) related to the operation of the EuroHPC supercomputer, taking into account the Power Usage Effectiveness (PUE).
 - k) Provision of the hosting site infrastructure, including equipment required for operating the EuroHPC supercomputer. This involves network at the data centre level, different storage subsystems (e.g. high-performance and short-term storage tiers, backup systems and other IT equipment like licence servers etc.).
 - l) Provision of External Network Connectivity: Connectivity for the EuroHPC supercomputer to any external site, including the rest of the Union will require access to an adequate physical networking infrastructure in conformity with the requirements of this hosting agreement.
 - m) Provision of power back up for critical systems and distribution items related to providing power to the EuroHPC supercomputer installed inside the data centre technical area according to the requirements of this hosting agreement.

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- n) Provision of long term data storage to fulfil the requirements of the EuroHPC supercomputer during the duration of this hosting agreement.
- o) Ensure the security of the Hosting Entity, the Technical and IT Environments and the EuroHPC supercomputer. As a minimum, the IT security must include the security measures defined in Annex I "Minimum requirements of the Hosting Site"
- p) Facilitate user access to the EuroHPC supercomputer and to its IT environment according to the Access Policy of the EuroHPC Joint Undertaking.
- q) Put in place a certified audit procedure covering the operational expenses of the EuroHPC supercomputer and the access-times of the users and to submit an audit report and data on access time once a year to the EuroHPC Joint Undertaking's Governing Board.

Annex III Key performance indicators (KPIs)

The following KPIs apply for the services provided by the Hosting Entity to the EuroHPC Joint Undertaking and defined in this Agreement and in the grant agreement:

No	KPI	Description	Target value	Period for computing of figure	Resp. when operation
1.	Availability of the EuroHPC supercomputer	Fraction of time the system is fully usable (able to operate in normal performance) and available to users Includes: files systems, home directories, login nodes, access network.	>95 % (monthly basis) for the first 3 months of operation >97% (monthly basis) for the remaining of the operational period	Monthly	Hosting Entity (HE)
2.	Unscheduled outages and maintenance.	Maintenance is considered as scheduled if users are warned at least 1 week in advance, otherwise it is considered unscheduled outage or maintenance.e	not more than 7 days per year	Monthly	HE
3.	Stability of performances of the EuroHPC supercomputer	Regular execution of a set of benchmarks	> 90 % of the performances measured after the installation of the supercomputer	Every two years	HE
4.	Availability of the critical auxiliary IT equipment	IT equipment necessary for the usage of the EuroHPC supercomputer (example: network access, homes...)	> 95 % (monthly basis) for the first 3 months of operation >97% (monthly basis) for the remaining of the operational period	Monthly	HE
5.	Usage of the EuroHPC Supercomputer	(excluding unavailability and scheduled maintenance periods) In order to identify reasons for low usage (possibly bad tuning of queues for example), statistics on cumulated number of nodes of jobs in wait queue ready for execution are necessary	> 75 % of the demand within capacity on a monthly basis (% of core hours consumed)	Weekly	EuroHPC Joint Undertaking (JU)+HE
6.	Available access time to the EuroHPC Joint Undertaking	Percentage of the total available access time.	50% of available access time dedicated to run the Joint Undertaking's access time.	Monthly	HE
7.	Handling of tickets	A ticket is considered as solved only once the user agrees or has failed to respond to two requests to close the ticket. Providing workaround is acceptable if the workaround has no major negative consequence	70% should be solved in less than 2 working days, 20% in less than 5 working days, the remaining 10% in less than 1 month	Monthly	HE

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		Help desk on duty all business days from 8:00 to 18:00 ((Hosting Entity time zone)	(if the number of ticket is less than 10 per month)		
8.	Availability of the facility	Cooling, power supply, fire security.	> 99 % on a monthly basis No more than 5 days of maintenance per year	Monthly	HE
9.	Availability of external connectivity	External connectivity (GÉANT).	> 99 % on a monthly basis No more than 5 days of maintenance per year	Monthly	HE
10.	Average number of critical Incidents affecting users (per type of active user)	This KPI will be measured during the first year of operation without committed SLA. After one year, based on the experience gathered, the target SLA could be reviewed.	Average must be lower than 0.5 per month. Based on the number of active users per month. 1 incident affecting several users is only accounted for 1	Monthly	HE
11.	User Satisfaction	Measure of user satisfaction via user survey. The Survey will be jointly defined by the EuroHPC Joint Undertaking and the Hosting Entity.	Overall user satisfaction must be over 3 in a scale 0-5. Value 3 indicates an acceptable degree of satisfaction; users are reasonably happy with the environment and services, and no changes are required although there might still be room for improvement. Values below 3 indicate dissatisfaction; improvements or other actions are desirable. Values above 3 indicate level of exceptional appreciation and satisfaction.	Yearly	HE

Table 1. KPIs

When reported, along with the KPI values, the KPIs must indicate as a minimum:

1. number of problems reported and scheduled or planned downtime experienced;
2. any incidents or changes to the resources such as power failures, security incidents and network performance; and
3. any other impact on normal operations of the resources

If a KPI is not met, the Hosting Entity has to provide an explanation of the reason/justification together with the corrective action as part of the KPI report to the EuroHPC Joint Undertaking.

1. Service Hours

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The EuroHPC supercomputer services provided to users must be available 24 hours, 7 days per week, except when there is maintenance. A service can be requested during support hours.

The Hosting Entity must provide support to users in accordance with point 5 below.

2. Service Availability

1. For the provision of the Service covered by the Hosting Entity, availability is determined by the percentage of fully usable time (able to operate in normal performance) and available to users. It must include at least the compute nodes, login nodes, network access, file systems and access to home directories.
2. The Hosting Entity will seek 100 % availability, and meeting the availability defined in the KPIs.
3. The Hosting Entity will calculate "Service Unavailability" in a calendar month. "Service Unavailability" consists of the number of minutes that the service was not available to Users, and includes unavailability associated with any maintenance at the hosting site other than Scheduled Maintenance. Outages will be counted as Service Unavailability even if users do not open an incident with support during or after the outage. Service unavailability will not include Scheduled Maintenance, or any unavailability resulting from:
 - a) acts or omissions of the EuroHPC Joint Undertaking or any use or user of the service authorised by the Joint Undertaking;
 - b) deliberate acts or gross negligence of a User or an End User or reasons of Force Majeure.
4. In the case of a malfunction involving a total unavailability exceeding 24 hours of the EuroHPC supercomputer or its IT environment, the Hosting Entity must inform the EuroHPC Joint Undertaking no later than 48 hours after the commence of the incident and a crisis unit would be set up between Hosting Entity and the EuroHPC Joint Undertaking.

- Availability of external connectivity

1. The Hosting Entity must ensure the EuroHPC supercomputer's external connectivity through the GÉANT pan-European academic and research network to the point of outermost router under the Hosting Entity's control. The Hosting Entity will seek 100 % availability for external connectivity and meet the availability defined in the KPIs.
2. The Hosting Entity must ensure that there are not more than 5 days of maintenance per year.

3. Performance Testing

1. The Hosting Entity must take all necessary measures to ensure the performance of the EuroHPC supercomputer. In order to test and review it a set of benchmarks¹⁰ must be executed regularly (at least every 2 years) in the EuroHPC supercomputer, trying to minimise its service availability. Every time the set of benchmarks is executed, the benchmarks must achieve at least a 90 % of the performances measured after the installation of the EuroHPC supercomputer. These will be reviewed as part of the yearly reports. Potential issues not attributable to the Hosting Entity shall be resolved by the vendor of the supercomputer or other relevant support providers.

4. Regression testing

¹⁰ benchmarks measured using linpack benchmark, unless otherwise agreed between the EuroHPC JU and the Hosting Entity

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1. The Hosting Entity must provide when possible regression testing. The regression testing should be applied when significant changes have been applied to the EuroHPC supercomputer to verify that previous applications still work with the new changes.

5. Support Hours

1. Support must be available from 8:00 AM to 6:00 PM (CET), Monday through Friday, except when the facilities are closed due to holidays, administrative closings, or inclement weather. A service can be requested or an Incident reported by telephone during working hours, or by mail or by a Web Portal at any time. Incidents reported or services requested outside the working hours will be served at the next scheduled working day, unless a special procedure for Major Incident is invoked.

6. Incident Escalation

1. In case of operational issues affecting the availability of the services provided to users:
 - a) The Hosting Entity will inform without delay the EuroHPC Joint Undertaking's responsible and propose corrective actions.
 - b) The Hosting Entity will assess the severity of the issue and its impact on the users of the EuroHPC Joint Undertaking.
 - c) The EuroHPC Joint Undertaking and the Hosting Entity will agree on the actions to be implemented.
 - d) The Hosting Entity will monitor their implementation and provide feedback to the EuroHPC Joint Undertaking.

7. Usage of the EuroHPC supercomputer

1. The Hosting Entity must measure the usage of the EuroHPC supercomputer and provide the information in a monthly basis. The purpose is to ensure the maximum possible utilisation of the access time of the supercomputer. The usage does not include unavailability and scheduled maintenance periods and performance tests when executed. This is measured as part of the monthly KPIs.

8. Backups

1. The Hosting Entity must ensure that they have a properly backup policy that has been approved by the EuroHPC Joint Undertaking with onsite and offsite backup solutions that ensures that the functioning of the EuroHPC supercomputer can be restored to a state that can provide back service to customers in case of user or system error. The Hosting Entity must ensure a backup retention policy of at least 1 month to the users. However, the users shall be responsible for taking their own backups and HE shall not be liable for any adverse effects of any data loss, unless otherwise specified in the relevant user terms and data processing agreement. In such case, the Hosting Entity shall make available to the JU and its users an amount of access time equal to processing hours lost without extra cost.

9. Monitoring

1. To verify the EuroHPC supercomputer and services availability, the Hosting Entity must have proper monitoring systems (active or passive or combination of both) that provide regularly feedback about the status of the EuroHPC supercomputer and related equipment and services. The monitoring system must be used to provide statistics about the service availability and downtimes.

10. Maintenance

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2. Scheduled Maintenance means any maintenance at the EuroHPC supercomputer that affects the users and that is notified at least one (1) week in advance. Notice of Scheduled Maintenance will be provided to users and the EuroHPC Joint Undertaking's designated point of contact via email and other communication systems (e.g. portal).
3. The maintenance program including their maintenance windows should be available to all users and the EuroHPC Joint Undertaking.
4. The Hosting Entity will use reasonable efforts to coordinate with possible impacted users when planning any maintenance to minimise impact to users.
5. "Emergency Maintenance" means any maintenance by the Hosting Entity, its subcontractors or service providers that does not meet the definition of Scheduled Maintenance. No notice will be required or provided for Emergency Maintenance.

11. Reporting

1. The Hosting Entity must provide regular reports as deliverables. The list of deliverables is indicated in Annex IV. Associated deliverables and milestones. The Status Reports must be submitted to the EuroHPC Joint Undertaking no later than the 15th of the subsequent month. The due dates for delivery of the Reports are indicated in the same Annex IV. Associated deliverables and milestones .
2. Status reports will allow assessing if the services provided by the Hosting Entity are compliant with the specifications listed in Annex IV. Associated deliverables and milestones and with the KPIs listed in Annex III Key performance indicators (KPIs). Each quarterly status report will contain, broken down per month, at least the information requested in Annex IV. Associated deliverables and milestones.
3. This report must include KPIs and status of shared resources used by the EuroHPC supercomputer and its users. In case a KPI is not met, the reason should be documented, together with the actions implemented to solve it.
4. The annual report must summarise at least the information above for one entire year.

Annex IV. Associated deliverables and milestones

The services provided by the Hosting Entity to the EuroHPC Joint Undertaking and the achievement of milestones (see the table below) will be reviewed based on monthly status reports provided by the Hosting Entity to the EuroHPC Joint Undertaking.

Service Reporting must include at least:

- a) Performance against service targets (Including SLAs)
- b) Relevant information about significant events including at least major incidents, deployment of new or changed services.
- c) Access time allocation
- d) Detected non-conformities against the requirements of this Agreement
- e) Customer satisfaction measurements, service complaints and results of the analysis of satisfaction measurements and complaints.
- f) Workload characteristics including volumes and periodic changes in workload.
- g) Trend Information on the performance and utilisation indicators described below.
- h) Information on commercial use of the supercomputer
- i) Performance and utilisation of the Supercomputer, including at least:

Indicator	Description	Period
Number of submitted Jobs	# per queue	Monthly
Number of completed jobs	# per queue	Monthly
Number of failed jobs	# per queue	Monthly
Number of jobs submitted per user (PIs)	# per queue per user	Monthly
Average job size	Cores per job	Monthly
Average job waiting time	Hrs per queue	Monthly
Average job completion time	Hrs per queue	Monthly
Core hours offered (available capacity)	Total core Hrs per month	Yearly
Core hours requested	Total core Hrs per month	Yearly

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Project application requested vs Awarded	Number of projects	Yearly
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Table 2. Performance and utilisation Reporting values of the Supercomputer

The Hosting Entity must provide the following periodic deliverables:

Ref.	Periodicity	Title of deliverable	Due date
KPI_month	Monthly	Monthly KPI report for previous month	15th of the next month
PR_month	Monthly	Monthly Performance and utilisation report for the previous month (Table 2. Performance and utilisation Reporting values of the Supercomputer)	15th of the next month
AR_year	Yearly	Audit report and data on the use of access time in the previous financial year	31st March
CR_year	Yearly	Audit report and data on the operation costs in the previous financial year. (Using agreed calculation method)	31st March

Table 3. Periodic deliverables

In addition to the deliverables stated above, the Hosting Entity has to meet the following milestones:

Ref.	Milestone	Due date
M1	Nomination by the Hosting Entity of the team for collaboration with the EuroHPC Joint Undertaking on the acquisition process	(To be filled)
M2	Site preparation accordingly to the acquisition procedures of the EuroHPC supercomputer	31 March 202X
M3	Site adaptation to host the EuroHPC supercomputer	31 May 202X

Table 4. Milestones

In case a milestone is not reached on time, the Euro HPC JU will have the right to reject further deliverables.

***Annex V. Application of the Hosting Entity (Application Ref:
Ares(2023)XXXX)***