

EuroHPC JOINT UNDERTAKING

DECISION OF THE GOVERNING BOARD OF THE

EuroHPC JOINT UNDERTAKING No 22/2021

Amending the Joint Undertaking's Work Plan and Budget for the year 2021

THE GOVERNING BOARD OF THE EuroHPC JOINT UNDERTAKING,

Having regard to Council Regulation (EU) 2021/1173 of 13 July 2021 on establishing the European High Performance Computing Joint Undertaking and repealing Regulation (EU) 2018/1488 (hereinafter "Regulation")¹,

Having regard to the Statutes of the EuroHPC Joint Undertaking annexed to the Regulation (thereinafter "Statutes") and in particular to Articles 1(o), 7 (4) (b), 7 (5) (b) and 18 of thereof,

Having regard to the Governing Board Decision 17/2021 of 30 September approving the readoption of Governing Board Decisions adopted under the framework of Regulation (EU) 2018/1488 and its updated Rules of Procedure in the view of Regulation (EU) 2021/1173,

WHEREAS

- (1) Decision 17/2021 readopted Decision 11/2021 of 28 June 2021, amending the Joint Undertaking's Work Plan and Budget for the year 2021.
- (2) The Statutes of the EuroHPC JU confer on the Governing Board the powers to adopt the annual work plan and its annual budget including the staff establishment plan.
- (3) The annual Work Plan and Budget for the year 2021 adopted by Decision No 11/2021 of 28 June 2021 needs to be amended to include the new tasks for 2021 under the new Regulation (EU) 2021/1173 in the Work Plan and Budget 2021.
- (4) The Executive Director of the EuroHPC Joint Undertaking submitted the amended draft work plan to the Governing Board.
- (5) In the interest of legal certainty and clarity, an amended annual Work Plan and Budget of the EuroHPC Joint Undertaking for the year 2021 should be adopted by the Governing Board,

¹ OJ L 256, 19.7.2021, p. 3–51

HAS ADOPTED THIS DECISION:

Article 1

The amended annual Work Plan and Budget of the EuroHPC Joint Undertaking for the year 2021 annexed to this decision has adopted.

Article 2

The Executive Director shall make the amended Annual Work Plan and Budget 2021 publicly available on the website of the EuroHPC Joint Undertaking.

Article 3

This Decision shall enter into force on the date of its adoption.

Done at Luxembourg, on 12 November 2021.

For the Governing Board

[signed]

Herbert Zeisel

The Chair

Annex: European High Performance Computing Joint Undertaking Amended Annual Work Plan and Budget 2021



ANNEX

AMENDED WORK PROGRAMME and BUDGET EuroHPC JOINT UNDERTAKING (JU)

2021

In accordance with the Statutes of the EuroHPC JU annexed to Council Regulation (EU) 2021/1173 and with the Financial Rules of the EuroHPC JU.

The annual work plan will be made publicly available after its adoption by the Governing Board.

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INTRODUCTION

The EuroHPC Joint Undertaking (hereinafter "EuroHPC JU"), will contribute to creating value in the Union with the overall mission to develop, deploy, extend and maintain in the Union an integrated world class supercomputing and data infrastructure and to develop and support a highly competitive and innovative High Performance Computing (HPC) ecosystem, extreme scale, power-efficient and highly resilient HPC and data technologies.

In July 2021, Council Regulation 2021/1173 was adopted, repealing Council Regulation (EU) 2018/1488. It provides the basis of the Work Programme of the Joint Undertaking for the period 2021-2022. Furthermore, the Multi Annual Strategic Plan 2021-2027 sets out the long-term strategy for the work of the JU.

The long-term objectives as established by the Council Regulation (EU) 2018/1488 are unchanged. According to Article 38 of EU Council Regulation 2021/1173, all actions launched under the previous EuroHPC JU (established by the Council Regulation (EU) 2018/1488) which were not completed, are continued by the current JU..

The new mission of the Joint Undertaking (JU) will now extend and maintain in the Union a world leading federated, secure and hyper-connected supercomputing, quantum computing, service and data infrastructure ecosystem; support the development and uptake of demand-oriented and user-driven innovative and competitive supercomputing systems based on a supply chain that will ensure components, technologies and knowledge limiting the risk of disruptions and the development of a wide range of applications optimised for these systems; and, widen the use of this supercomputing infrastructure to a large number of public and private users, and support the twin transition and the development of key skills for European science and industry.

The Joint Undertaking shall have the following overall objectives:

(a)to contribute to the implementation of Regulation (EU) No 2021/695 establishing Horizon Europe² and in particular Article 3 thereof, to deliver scientific, economic, environmental, technological and societal impact from the Union's investments in research and innovation, so as to strengthen the scientific and technological bases of the Union, deliver on the Union strategic priorities, contribute to the realisation of EU objectives and policies, and contribute to tackling global challenges, including the Sustainable Development Goals by following the principles of the Agenda 2030 and the Paris Agreement, and to strengthen the European Research Area;

(b) to develop close cooperation and ensure coordination with other European Partnerships, including through joint calls, as well as seek synergies with relevant activities and programmes at Union, national, and regional level, in particular with those supporting the deployment of innovative solutions, education and regional development, where relevant;

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² OJ L 170, 12.5.2021, p. 1–68

- (c) to develop, deploy, extend and maintain in the Union an integrated, demand-oriented and user-driven hyper-connected world-class supercomputing and data infrastructure;
- (d) to federate the hyper-connected supercomputing and data infrastructure and interconnect it with the European data spaces and cloud ecosystem for providing computing and data services to a wide range of public and private users in Europe;
- (e) to promote scientific excellence and support the uptake and systematic use of research and innovation results generated in the Union.
- (f) to further develop and support a highly competitive and innovative supercomputing and data ecosystem broadly distributed in Europe contributing to the scientific and digital leadership of the Union, capable to autonomously produce computing technologies and architectures and their integration on leading computing systems, and advanced applications optimised for these systems;
- (g) to widen the use of supercomputing services and the development of key skills that European science and industry need.

The Joint Undertaking shall contribute to safeguarding the interests of the Union when procuring supercomputers and supporting the development and uptake of High Performance Computing technologies, systems and applications. It shall enable a co-design approach for the acquisition of world-class supercomputers, while safeguarding the security of the supply chain of procured technologies and systems. It shall contribute to the Union's strategic autonomy, support the development of technologies and applications reinforcing the European HPC supply chain and promote their integration in supercomputing systems that address a large number of scientific, societal, environmental and industrial needs.

The Annual Work Programme for 2021 is based on the recommendations made by INFRAG and RIAG and input to the Multi-Annual Strategic Workplan 2021-2027.

A) OPERATIONS

TECHNOLOGY

Research Calls -Horizon 2020

In 2021, the EuroHPC JU launched a pilot programme for the design and delivery of a European Master (MSc) programme in HPC. The JU will conclude grant agreements for this programme as well as the Framework Partnership Agreement in European low-power microprocessor technologies (Phase 2) for Research and Innovation Actions (EuroHPC-SGA-RIA). In addition, it will implement indirect actions approved by the EuroHPC JU in 2019 and 2020.

INFRASTRUCTURE

Installation and operations of EuroHPC supercomputers

In 2021, the JU will continue to work with the Hosting Entities to ensure that the procured supercomputers (LUMI, LEONARDO, VEGA, MELUXINA, KAROLINA, DISCOVERER and DEUCALION) are installed and put into service.

Procurement of the MareNostum 5 pre-exascale supercomputer

On 28 May 2021, the EuroHPC JU Governing Board, by means of Decision No 10/2021, approved the cancelation of the public procurement for the acquisition, delivery, installation and maintenance of Supercomputer MareNostrum 5 for Hosting Entity Barcelona Supercomputer Centre (SMART 2019/1084, Lot 2)

The justification provided was based on a change of needs (linked to the COVID 19 pandemic) to provide world-class supercomputing resources for applications that were not anticipated at the time when the procurement specifications of the supercomputer was originally published and an ambition to provide a more optimal and complementary portfolio across the three supercomputers.

The cancellation does not put into question the decision of the Governing Board to equip the Union with a 3rd pre-exascale supercomputer, when it approved the selection of the hosting entities.

As confirmed in GB Decision 11/2021 the JU will launch a new call for tender in November 2021, taking fully into account the experience of the previous tender, for the procurement of a state-of-art supercomputer for Hosting Entity Barcelona Supercomputer Centre. The technical specifications of the call for tender will take into account the changed needs.

Identification of Hosting Entities for new EuroHPC Supercomputers

The key objective of the EuroHPC is to further deploy and provide access in the Union to a world leading service and data infrastructure with high-end supercomputers which will run the most demanding and strategic applications, such as climate change, personalised medicine etc. This action builds on the previous infrastructure activities undertaken by the EuroHPC JU to date.

In 2021, the JU will organise calls for expression of interest for the acquisition and operation of one exascale supercomputer to be procured in 2022 and several midrange supercomputers to be procured in 2022.

The following section will provide a summary of these two calls.

1. Call for expression of interest for the acquisition and operation of the first EuroHPC Exascale supercomputer.

The EuroHPC JU will launch a Call for Expression of Interest for hosting one exascale EuroHPC supercomputer in December 2021. The evaluation of applications received will take place in 2022, with the support of independent external experts. The hosting entities will be selected by the Governing Board of the Joint Undertaking following the call for expression of interest.

This supercomputer will be hosted in a national Supercomputing Centre (as a hosting entity or as a support to the hosting entity, depending on the national organization) already established in a Member State that is

a Participating State of the JU. The launch of the procurement of the supercomputer is foreseen for 2022. The procurement should strive to incorporate, where possible, competitive European technology.

Pursuant to Article 10 of the Regulation 2021/1173, the EuroHPC JU will be the owner of this supercomputer. The Union's contribution should cover up to 50% of the acquisition costs plus up to 50% of the operating costs of the supercomputer. The operation of the supercomputer will be entrusted to the selected hosting entity.

The Specific Conditions of this Procurement will be defined in Work Programme 2022. The Governing Board may decide in the Work Programme, if duly justified for security reasons, to condition the participation of suppliers in the acquisition of the high-end supercomputers in accordance with Article 12(6) of Regulation (EU) 2021/694 or to limit the participation of suppliers for security reasons or actions directly related to the Union's strategic autonomy, in accordance with Article 18(4) of that Regulation. Applications to the call for expression of interest should therefore provide a first indication on whether the applicant would consider conditioning or limiting the participation of suppliers for security reasons and/or reasons related to the Union's strategic autonomy.

SPECIFIC CONDITIONS: CALL FOR EXPRESSION OF INTEREST FOR THE ACQUISITION AND OPERATION OF THE FIRST EUROHPC EXASCALE SUPERCOMPUTER. (CFEI 2021; PROCUREMENT 2022)							
Expected EuroHPC JU The EuroHPC JU estimates that an EU contribution of up to EUR 250 million and an equivalent EUR 250 million MS contribution would allow for the acquisition and operation of such supercomputer.							
Indicative budget	The total indicative budget for the topic is EUR 500 million.						
Type of Action	Call for expression of interest						
Eligibility conditions	The eligibility conditions are those established in the EuroHPC JU Council Regulation (EU) 2021/1173.						

2. Call for expression of interest for the acquisition and operation of mid-range supercomputers.

In addition to the acquisition of high end supercomputers, the acquisition and operation of mid-range supercomputers (petascale and pre-exascale) is foreseen in order to deploy and provide access in the Union to a world leading service and data infrastructure and boost national HPC capabilities in order to further support user needs that do not necessarily require exascale performance.

The EuroHPC JU will initiate in December 2021 a Call for Expression of Interest for hosting a mid-range supercomputer and evaluate in 2022 the applications received, with the support of independent external experts. The hosting entities will be selected by the Governing Board of the Joint Undertaking following the call for expression of interest.

These supercomputers will be hosted in national Supercomputing Centres (as a hosting entity or as a support to the hosting entity, depending on the national organization) already established in Member States that are

a Participating State of the Joint Undertaking. The procurement of these supercomputers is foreseen for 2022. The supercomputers should strive to incorporate to the maximum extent available European technology and a minimum of 15 Petaflops computing performance is expected for each installed supercomputer.

The JU EuroHPC JU and the Participation States will procure jointly the mid-range supercomputers. Pursuant to Article 13 of the EuroHPC Regulation, the EuroHPC JU will be the co-owner of these supercomputers it will acquire. The Union's contribution from DEP funds should cover up to 35% of the acquisition costs, plus up to 35% of the operating costs of these supercomputers.

The Specific Conditions of this Procurement will be defined in Work Programme 2022. The Governing Board may decide in the Work Programme, if duly justified for security reasons, to condition the participation of suppliers in the acquisition of the high-end supercomputers in accordance with Article 12(6) of Regulation (EU) 2021/694 or to limit the participation of suppliers for security reasons or actions directly related to the Union's strategic autonomy, in accordance with Article 18(4) of that Regulation. Applications to the call for expression of interest should therefore provide a first indication on whether the applicant would consider conditioning or limiting the participation of suppliers for security reasons and/or reasons related to the Union's strategic autonomy.

SPECIFIC CONDITIONS FOR THE CALL FOR EXPRESSION OF INTEREST FOR THE ACQUISITION AND OPERATION OF MID-RANGE SUPERCOMPUTERS (CFEI 2021; PROCUREMENT 2022)							
Expected EuroHPC JU contribution per project	The EuroHPC JU estimates that an EU contribution of between EUR 7 million and EUR 35 million matched by a MS contribution of between EUR 13 million and EUR 65 million per supercomputer would allow for the acquisition and operation of several mid-range supercomputers of various performance levels						
Indicative budget	The total indicative budget for the EU contributions to the topic is EUR 120 million.						
Type of Action	Call for expression of interest						
Eligibility conditions	The eligibility conditions are those established in the EuroHPC JU Council Regulation (EU) 2021/1173.						

CENTRES OF EXCELLENCE FOR HPC APPLICATIONS

The EuroHPC JU will launch one call to establish a new generation of Centres of Excellence (CoEs) for High Performance Computing (HPC). The new CoEs will continue and extend the support for the use of EuroHPC supercomputers and develop applications for the upcoming exascale and post-exascale computing capabilities. They will also scale up existing parallel codes currently under development towards exascale scaling performance.

The call will support CoEs to deliver a clear benefit to their user communities and push the boundaries in terms of scalability. However, not all HPC applications and user communities are ready to address the exascale challenge. In order to reinforce the CoEs mission, a new Exascale focussed CoE programme shall be established to shorten the transition period to exascale, and make European applications, researchers and industry more competitive. It will support the transition from peta to exascale systems by preparing applications for the exascale era. It is envisaged to fund a small number of exascale CoEs with clearly demonstrated exascale ambitions for flagship codes or crosscutting issues of importance to applications running on next generation systems whilst a second group of CoEs are tasked with supporting user communities and enhancing the participation of industry in the use, development and maintenance of HPC applications.

Proposals should clearly identify the targeted HPC applications and communities that will be the focus of their work and the challenges to be addressed. Only one application area per Centre of Excellence will be supported.

The call will be organised in two topics:

Topic 1: HORIZON-JTI-EuroHPC-2021-01-01: Centres of Excellence preparing applications in the Exascale era

Topic 2: HORIZON-JTI-EuroHPC-2021-01-02: Centres of Excellence for supporting Science and Innovation in supercomputing

Topic HORIZON-JTI-EuroHPC-2021-01-01: Centres of Excellence preparing applications in the Exascale era

Moving applications to exascale requires significant changes and in some cases current application codes cannot run on exascale or post-exascale systems without a complete rethink or substantial code rewrite. Action at European level is needed to support this transition in collaboration with the relevant communities that are key for the evolution of the codes. Changes to support the exascale transition have to take into consideration the heterogeneity of most architectures, code scalability and resilience, and the management of complex workflows at exascale.

Scope:

Proposals for Centres of Excellence in Topic HORIZON-JTI-EuroHPC-2021-01-01 must clearly identify the Exascale Lighthouse applications addressed, and must convincingly demonstrate their exascale capabilities and needs. Proposals should also be able to articulate clearly the scientific grand challenge(s) which will be addressed by the applications and why the exascale performance is needed. Targeted applications should be relevant for communities of HPC users as well as for future EuroHPC JU systems

to be acquired. Proposals should be inherently committed to co-design activities to ensure that future HPC architectures are well suited for the applications and their users.

Requirements for CoEs:

- Clear identification of the targeted applications and related codes, including their users basis and the global impact in their domain.
- Demonstrable advances of the targeted HPC applications towards highly scalable, optimised flagship codes and exascale performance (both computing and extreme data). This includes developing, maintaining, porting, optimising (if needed re-designing) and scaling HPC application codes, addressing the full scientific/industrial workflow, particularly covering data aspects; testing and validating codes and quality assurance
- Addressing the exascale and post exascale related technical challenges, such as load balancing; resilience; heterogeneity programming models, in particular accelerator-based architecture programming; run-time systems; workflow management tools; development environments and production environments.
- Involvement in co-design activities (hardware, software, codes), including the collaboration with HPC vendors and the identification of suitable applications relevant to the development of European HPC technologies towards exascale and collaboration with European initiatives (e.g. EPI, RISC- V, EuroHPC JU Pilots).
- Activities to improve the energy efficiency of applications, algorithms, methods, libraries and/or tools.
- Enlarging and expanding HPC applications development and use, in particular for new users communities in EU countries currently developing and advancing their HPC infrastructure and ecosystem.
- Federating capabilities and integrating communities around exascale computing in Europe.
- Include clear KPIs on the optimal employment of current and/or emerging HPC technologies, allowing the assessment of the progress towards the objectives, both in terms of outputs and ultimate impact.
- Coordinate within the European ecosystem, including Competence Centres, to address the skills
 gap in the targeted exascale applications and codes, by specialised training and capacity building
 measures to develop the human capital resources for increased adoption of exascale solutions.
- Coordinate with Competence Centres to ensure wider access to codes and foster their uptake by scientific user communities.
- Proposals should ensure the cooperation with complementary projects launched specifically in the
 area of the "EuroHPC-2020-01-a: Advanced Pilots towards the European Supercomputers"
 including also the need to establish from the beginning of this cooperation appropriate IP
 exploitation agreements and should provide preliminary benchmarking data on new and emerging
 HPC technologies.
- In addition, proposals to ensure collaboration with other Centres of Excellence for HPC applications, and other national and EU funded activities that focus on similar or complementary

objectives for HPC codes and applications, in order to maximise the synergies and optimise such codes and applications for current and future architectures of EuroHPC supercomputers.

Expected Outcome:

Advancing Lighthouse Exascale Applications, at the frontier of technology and relevant for the communities of HPC users, that enable and promote the use of upcoming exascale and post exascale computing capabilities in collaboration with other High Performance Computer (HPC) stakeholders. The goal is to develop or scale up existing parallel codes towards exascale performance, resulting into tangible benefits mainly for scientific challenges. Proposals for Exascale Lighthouse applications will exploit existing federated resources around Europe, developing available competences, and ensuring multidisciplinary (combining application domain and HPC system, software and algorithm expertise).

Topic HORIZON-JTI-EuroHPC-2021-01-02: Centres of Excellence for supporting supercomputing applications for Science and Innovation

The Centres of Excellence (CoE) address scientific and industrial applications and user communities that run world leading codes or ensembles that aggregate to pre-exascale workloads, and may require exascale resources in specific cases.

All CoEs should be user-driven and inherently committed to co-design activities to ensure that future HPC architectures are well suited for the applications and their users (both from academia and industry), providing a high performance and scalable application base.

CoEs should federate existing resources around Europe, exploiting available competences, and ensuring multidisciplinary (combining application domain and HPC system, software and algorithm expertise) and synergies with national/regional programmes.

CoEs should further enlarge and expand these capabilities all over Europe, in particular by including users communities from EU countries currently developing and advancing their HPC infrastructure and ecosystem (e.g. countries not currently hosting Tier 0 and/or Tier 1 supercomputing facilities).

Requirements for CoEs:

- The provision of services supporting different usage models for the community needs, including developing, maintaining, optimising (if needed re-designing) and scaling HPC application codes, addressing the full scientific/industrial workflow, particularly covering data aspects; testing and validating codes and quality assurance,
- Enhancing HPC applications and ensembles of coupled applications towards highly scalable, optimised codes.
- Streamline development, collaboration, automated testing and deployment processes throughout the application development and maintenance cycle, for example, by provisioning and using state-of-the-art development tools, platforms and software management models.

- Fostering pre-exascale-oriented codes and innovative algorithms that address societal challenges and/or are important for key scientific and industrial applications. Demonstration of clear societal, industrial, and/or scientific benefit is mandatory.
- Provision of codes aimed at capacity pre-exascale systems for ensemble workloads that might not need tight interconnection between runs. Proposals must convincingly demonstrate the ensemble pre-exascale capabilities and needs.
- Collaboration with EuroHPC JU systems and infrastructure federation initiatives to implement a robust and reliable automated deployment process for applications, in order to make novel developments timely available to the EuroHPC JU user communities.
- Involvement in co-design activities (hardware, software, codes), including the collaboration with HPC vendors and the identification of suitable applications relevant to the development of European HPC technologies towards exascale.
- Enlarging and expanding HPC applications development and use, in particular for new users communities in EU countries currently developing and advancing their HPC infrastructure and ecosystem.
- Ensure wider access to codes and foster their uptake by user communities, in particular industry and SMEs.
- Federating capabilities and integrating communities around exascale computing in Europe.
- Address the skills gap in the targeted domain by specialised training and capacity building measures
 to develop the human capital resources for increased adoption of advanced HPC in industry and
 academia.
- Complementarity and synergy with National HPC Competence Centres and EU projects.
- Include clear KPIs on the optimal employment of current and/or emerging HPC technologies, allowing the assessment of the progress towards the objectives, both in terms of outputs and ultimate impact.
- Proposals should ensure the cooperation with complementary projects launched by the EuroHPC
 JU including also the need to establish from the beginning of this cooperation appropriate IP
 exploitation agreements and should provide preliminary benchmarking data on new and emerging
 HPC technologies.

Expected Outcome:

Advancing the transition towards exascale capabilities by developing or scaling up existing parallel codes, resulting into effective applications to solve scientific, industrial or societal challenges and addressing the needs of the user communities.

SPECIFIC CONDITIONS: CENTRES OF EXCELLENCE FOR HPC APPLICATIONS

Expected EuroHPC JU Both topics will considered in one call. The EuroHPC JU estimates that a contribution per project total EU and PS contribution of EUR 90 Million.

Between 10-15 proposals are expected to be retained, of which at least 5 proposals will be allocated to Topic HORIZON-JTI-EuroHPC-2021-01-01.

The expected duration of this action is 4 years.

Indicative budget The total indicative budget for the topic is EUR 90 million. (EU contribution

EUR 45 million)

Type of Action Grant

Eligibility conditions The conditions are described in General Annexes A, B and C of the Horizon

Europe Work Programme 2021-2022.

Timing: Call will be launched when the new Horizon Europe MGA is approved.

INFRASTRUCTURE SERVICES

Access and allocation of EuroHPC computing resources and services

Scope: Access to a world-class pan-European High Performance Computing (HPC) and quantum computing infrastructure and to provide state-of-the-art services accessible by users independently of their location, by pooling, integrating and rationalising HPC resources at EU level.

The JU intends to procure international peer review process services to ensure open, fair, and unbiased access to the recently acquired petascale and pre-exascale Euro HPC supercomputers.

Considering the lack of competition existing in the market and in order for the access services to be operational by 1 January 2022, the service will be procured by means of a negotiated procedure without prior publication of a contract notice as provided prior in Points 11.1 (b) (C)11.4 of Annex attached to the Financial Regulation. The contract will be signed for the time strictly necessary (ie two years) to allow continuity and appropriate provision of the service.

To procure these access services, the Joint Undertaking will use a negotiation procedure without publication of a contract notice for the service to be provide by Partnership for Advanced Computing in Europe (PRACE).

This process is justifiable as it is a procedure where applicable in cases where there is lack of competition or if there is urgency. For reference purposes, the conditions are set out below:

a) Lack of competition:

- i. When the service can only be provided by a single economic operator as competition is absent for technical reasons.
- ii. Should be proved that there is no reasonable alternative and that the absence of competition is not the result of an artificial narrowing down of the parameters when defining the procurement.

b) <u>Urgency</u>::

- i. When strictly necessary, for reasons of extreme urgency.
- ii. Brought about by unforeseeable events.
- iii. It is impossible to comply with the time limits provided for other procurement procedures (37 days in the case of open procedure)
- iv. Justification of such extreme urgency is not attributable to the contracting authority.

The Joint Undertaking is not aware of any provider besides PRACE that have the required pan-European network of experts and committee structures ready to go (competition absent for technical reasons). Furthermore, the service must be in place by 1 January 2022 which is not possible through an open procurement procedure (urgency).

SPECIFIC CONDITIONS: ACCESS AND ALLOCATION OF EUROHPC COMPUTING RESOURCES AND SERVICES PROCUREMENT							
Expected EuroHPC JU contribution for the procurement	The EuroHPC JU estimates that an EU contribution of up to EUR 5 million would allow these outcomes to be addressed appropriately. Only one proposal will be retained. The expected duration of this action is 2 years.						
Indicative budget	The total indicative budget for the topic is EUR 5 million.						
Type of Action	Procurement						
Eligibility conditions	The conditions will be described in the Tender Document.						

B) ADMINISTRATION

Governance

The Rules of Procedures of the JU will be amended to ensure that they are 'fit for purpose' for the new EuroHPC Joint Undertaking set up under the new Regulation

Administrative Arrangements

Regulation 2021/1173 requires that the JU signs with each Participating State and administrative agreement on procedures for national contributions to Horizon Europe and Digital Europe Programme grants and

procurements. The JU will organise a process to agree on an Administrative agreement for PS to sign in early 2022.

ADVISORY COMMITTEES

Industrial and Scientific Advisory Board

The Industrial and Scientific Advisory Board consists of the (RIAG) and the Infrastructure Advisory Group (INFRAG) which provide independent advice to the Governing Board on the strategic research and innovation agenda and on the acquisition and operation of the supercomputers owned by the Joint Undertaking. EuroHPC JU will organise the process to appoint the new Advisory Boards (according Regulation 2021/1173 and it's Rules of Procedure) in order for them to be operational in first quarter 2022.

Scientific and Industrial Advisory Committee (SIAC)

As set out in the EuroHPC JU's Access Policy adopted in 2021, a Scientific and Industrial Advisory Committee (SIAC) will be set up. It will be composed of internationally recognized European leading scientists and industry representatives who will be asked to advise the Governing Board and INFRAG from a scientific and industrial impact of strategic topics relevant to the access and allocation policy of the Union's share of access time of the EuroHPC supercomputers. The JU will organise the process to set up the SIAC. Members of the SIAC can be proposed by Participating States, by INFRAG and by the Executive Director. Candidate members will be submitted by the Executive Director to the Governing Board for discussion and eventual appointment. The term of each member will be 2 years with the possibility of renewal.

Hosting Entity coordination group

An informal group (chaired by the JU) will be set up comprising of the leadership of each EuroHPC Hosting entities in order to share information and best practice concerning the operation of the EuroHPC supercomputers, and joint activities including events and communication.

Communication, stakeholder management and events

Inauguration of the EuroHPC Supercomputers activities: In the course of 2021, the inauguration of Vega (April 2021) and MeluXina (June 2021) marked significant milestones for the achievement of an essential objective of the Joint Undertaking. In October 2021, the inauguration of Karolina and Discoverer will take place. For LUMI, LEONARDO and DEUCALION, the JU will work with the Hosting Entities and consortium members (where relevant) as well as the Commission to organise these events.

IT and logistics

In 2021, work will be ongoing to ensure that all necessary equipment and infrastructure is available to support the work of the JU.

C) BUDGET YEAR 2021

1. Revenue

In accordance with the provisions of the legal framework applicable to the EuroHPC JU, the contributors to the budget of the JU are defined in article 5, 6, 7 and 8 of Council Regulation (EU) 2021/1173.

The 2021 budget presented below now includes revenues allocated under Horizon 2020 and the new Multi Annual Programme 2021-2027. It provides an indication of the credits spent up until 30 September 2021.

Table 1 Revenue Commitment Appropriations

REVENUE (EUR)	2019 (executed by CNECT)	Voted Budget 2020	01/01/2020 - 23/09/2020 by CNECT	23/09/2020 - 31/12/2020 (after autonomy)	Voted Budget 2021	Re-activated credits from previous year	Proposed Modification Budget 2021	Total Voted Budget 2021 (legacy + New Regulation)
1. Revenue from Fees and Charges			1					
2. EU Contribution								
* of which Administrative (Title 1 and Title 2)	636,670.00	3,101,192.00	490,775.40	2,610,416.60	3,002,433.00	2,122,279.83	- 4,217.00	2,998,216.00
* of which Operations (Title 3)	193,143,257.00	271,709,283.00		271,709,283.00		28,832,276.01		
3. Third Countris Contribution			-					
* of which EEA/EFTA	4,611,961.00	6,663,615.00	-	6,663,615.00	82,047.00	-		82,047.00
supplementing Title 1 & 2	53,377.00	74,739.00	2	74,739.00	82,047.00			82,047.00
supplementing Title 3	4,558,584.00	6,588,876.00	2	6,588,876.00				
* of which Non-EEA	44,823,777.00	5,161,223.00	-	5,161,223.00				
4. Other Contributions								
* Participating States		222,930,000.00		222,930,000.00	5	.=		-
contribution to the procurement of the 3 pre-exascale		209,705,000.00		209,705,000.00				-
PT contribution to procurement of petascale		13,225,000.00		13,225,000.00				
* Private Members								
Total REVENUE (EU + 3rd								
Countries + Participating States Contributions	243,215,665.00	509,565,313.00	490,775.40	509,074,537.60	3,084,480.00	30,954,555.84	- 4,217.00	3,080,263.00

Table 2 Revenue Payment Appropriations

		2020 (executed)			2021				
REVENUE (EUR)	2019 (executed by CNECT)	Voted Budget 2020	01/01/2020 - 23/09/2020 by CNECT	23/09/2020 - 31/12/2020 (after autonomy)	Voted Budget 2021	Re-activated credits from previus year	Proposed Modification Budget 2021	Total Voted Budget 2021 (legacy+ New Regulation)	
1. Revenue from Fees and Charges									
2. EU Contribution									
* of which Administrative (Title 1 and Title 2)	323,183.00	3,101,192.00	731,223.77	2,369,968.23	3,002,433.00	2,179,060.55	- 4,217.00	2,998,216.00	
* of which Operations (Title 3)	2,482,631.00	179,858,078.00	58,052,304.70	121,805,773.30	192,250,240.13	138,555,153.12			
3. Third Countris Contribution			-						
* of which EEA/EFTA	1,690,746.00	4,308,436.00	4,308,436.00	-	82,047.00	-		82,047.00	
supplementing Title 1 & 2	53,377.00	74,739.00	74,739.00		82,047.00			82,047.00	
supplementing Title 3	1,637,369.00	4,233,697.00	4,233,697.00						
* of which Non-EEA		15,000.00	15,000.00						
4. Other Contributions									
* Participating States		57,442,275.00		28,861,750.00	91,419,829.68	-		91,419,829.68	
contribution to the procurement of the 3 pre-exascale		57,442,275.00		28,861,750.00	84,494,829.68			91,419,829.68	
PT contribution to procurement of petascale					6,925,000.00			91,419,829.68	
* Private Members									
Total REVENUE (EU + 3rd									
Countries + Participating States Contributions	4,496,560.00	244,724,981.00	63,106,964.47	153,037,491.53	286,754,549.81	140,734,213.67	- 4,217.00	94,500,092.68	

Budget Expenditure

<u>Titles 1&2</u>:. The EU funding share to these appropriations will be released according to the JU needs during the period of 2020–2027. It will add up to $92.000.000 \in -$ the amount foreseen in the EuroHPC Council Regulation. The currently available (and unspent) commitment credits will be re-activated in 2022 and the following years.

<u>Title 3:</u> The operational expenditure will be used for grants and procurement of the EuroHPC JU supercomputers. More details of pre-financing and interim payments can be found below.

Table 3 Commitment Appropriations executed

		2	020 (executed)	2021		
COMMITMENTS Appropriations (EUR)	2019 (executed)	Voted Budget 2020	01/01/2020 - 23/09/2020	23/09/2020 - 31/12/2020	Voted Budget 2020	Re-activated credits from previous year
Title 1. Staff Expenditure	87,963.00	1,460,000.00	367,448.00	1,092,552.00	1,679,880.00	334,932.04
11 Salaries & Allowances	40,000.00	1,330,000.00	362,598.00	967,402.00	1,404,880.00	307,345.29
of which Establishment plan posts	20,000.00	552,000.00	181,298.00	370,702.00	552,000.00	193,948.73
of which External personnel	20,000.00	778,000.00	181,300.00	596,700.00	852,880.00	113,396.56
12 Expenditure relating to recruitment	47,963.00	40,000.00	2,460.00	37,540.00	5,000.00	2,540.00
13 Mission and travel expenses		70,000.00	2,390.00	67,610.00	70,000.00	7,610.00
14 Socio-medical infrastructure and training		20,000.00	-	20,000.00	200,000.00	17,436.75
Title 2. Building, Equipment and	612,217.00	1,715,931.00	123,747.00	1,592,184.00	1,404,600.00	344,298.97
Operating Costs	012,217.00	1,713,931.00	123,747.00	1,392,184.00	1,404,000.00	344,296.97
20 Buildings and associated costs		115,000.00	2,148.00	112,852.00	134,600.00	110,674.00
21 Information Technology	426,350.00	450,000.00	77,533.00	372,467.00	250,000.00	119,335.39
22 Movable property and associated costs		80,000.00	12,424.00	67,576.00	20,000.00	121.20
23 Current administrative expenditure	1,000.00	150,000.00	12,330.00	137,670.00	200,000.00	44,835.00
24 Postage and Telecommunications		10,000.00	-	10,000.00	10,000.00	6,344.00
25 Expenditure of formal and other meetings	33,670.00	350,000.00	2,692.00	347,308.00	280,000.00	9,323.70
26 Running costs in connection with operational activities		150,931.00	-	150,931.00	150,000.00	10,000.00
27 Information and Publishing	1,000.00	10,000.00	-	10,000.00	10,000.00	10,189.30
28 Expert contracts and meetings	150,197.00	400,000.00	16,620.00	383,380.00	350,000.00	33,476.38
Title 3. Operational Expenditure	242,540,618.00	506,389,382.00	-	506,389,382.00		28,832,276.01
30 Grants, HPC Operations, R&I Activities	202,521,074.00	85,000,000.00	-	85,000,000.00		15,772,276.18
31 HPC Infrastructure Activities	40,019,544.00	421,389,382.00	-	421,389,382.00		13,059,999.83
TOTAL	243,240,798.00	509,565,313.00	491,195.00	509,074,118.00	3,084,480.00	29,511,507.02

Table 4 Commitment appropriations implementation in 2021

							Implemented commi	tments 2021							
COMMITMENTS Appropriations (EUR)		Proposed Modification	Proposed transfer Proposed total from C8 to C2 Voted Budget 2021	Proposed amendment 1 to incorporate new	Total Voted Budget 2021 (legacy + New Regulation)		Implementited 01/01/2021 - 30/09/2021		Total	To be implemented until 31/12/2021 including after proposal Nov.2021		Total			
	C1 credits, C8 for operational	C2 credits	Budget 2021	Credits	(legacy)	Regulation (C1)	(tegacy + New Regulation)	C8 credits	C1 credits	C2 credits		C8 credits	C1 credits	C2 credits	
Title 1. Staff Expenditure	1,679,880.00	798,417.92	- 4,217.00		1,675,663.00		1,675,663.00		1,116,308.05	723,655.37	1,839,963.42		559,354.95	74,762.55	634,117.50
11 Salaries & Allowances	1,404,880.00	700,854.67			1,404,880.00		1,404,880.00		938,709.55	671,092.12	1,609,801.67		466,170.45	29,762.55	495,933.00
of which Establishment plan posts	552,000.00	197,152.33			552,000.00		552,000.00		544,209.55	197,152.33	741,361.88		7,790.45		7,790.45
of which External personnel	852,880.00	503,702.34			852,880.00		852,880.00		394,500.00	473,939.79	868,439.79		458,380.00	29,762.55	488,142.55
12 Expenditure relating to recruitment	5,000.00	35,000.00			5,000.00		5,000.00		2,500.00		2,500.00		2,500.00	35,000.00	37,500.00
13 Mission and travel expenses	70,000.00	60,000.00	- 4,217.00		65,783.00		65,783.00		10,000.00	50,000.00	60,000.00		55,783.00	10,000.00	65,783.00
14 Socio-medical infrastructure and training	200,000.00	2,563.25			200,000.00		200,000.00		165,098.50	2,563.25	167,661.75		34,901.50	-	34,901.50
Title 2. Building, Equipment and Operating Costs	1,404,600.00	1,323,861.87			1,404,600.00		1,404,600.00		441,186.19	291,547.89	732,734.08		963,413.81	1,032,313.98	1,995,727.79
20 Buildings and associated costs	134,600.00	2,178.00			134,600.00		134,600.00		90,674.00	-	90,674.00		43,926.00	2,178.00	46,104.00
21 Information Technology	250,000.00	293,495.29			250,000.00		250,000.00		67,091.91	41,189.34	108,281.25		182,908.09	252,305.95	435,214.04
22 Movable property and associated costs	20,000.00	67,454.80			20,000.00		20,000.00		-		-		20,000.00	67,454.80	87,454.80
23 Current administrative expenditure	200,000.00	94,835,00			200,000.00		200,000,00		136,421,28	15,771.55	152,192.83		63,578,72	79,063,45	142.642.17
24 Postage and Telecommunications	10,000.00	3,656.00			10,000.00		10,000.00		6,630.00	3,656.00	10,286.00		3,370.00		3,370.00
25 Expenditure of formal and other meetings	280,000.00	345,216.10			280,000.00		280,000.00		10,000.00		10,000.00		270,000.00	345,216.10	615,216.10
26 Running costs in connection with operational activ	150,000.00	140,931.00			150,000.00		150,000.00		118,569.00	140,931.00	259,500.00		31,431.00	-	31,431.00
27 Information and Publishing	10,000.00	189.30			10,000.00		10,000.00		10,000.00		10,000.00		-	189.30	189.30
28 Expert contracts and meetings	350,000.00	375,906.38			350,000.00		350,000.00		1,800.00	90,000.00	91,800.00		348,200.00	285,906.38	634,106.38
Title 3. Operational Expenditure (C8)		28,832,276.01	-	1,150,710.35	1,150,710.35	50,000,000.00	51,150,710.35			9,650,000.00	9,650,000.00	214,926,303.29	50,000,000.00	20,332,986.36	285,259,289.65
30 Grants, HPC Operations, R&I Activities		15,772,276.18								9,650,000.00	9,650,000.00	76,849,289.65		6,122,276.18	82,971,565.83
*1) additional needed amount for Training and Education Call (Hercules)				877,723.82	877,723.82		877,723.82							877,723.82	877,723.82
Estimated amount for Centres of Excellence Call (New Regulayion)						45,000,000.00	45,000,000.00				-		45,000,000.00		45,000,000.00
additional needed amount for MN call				272,986.53	272,986.53		272,986.53							272,986.53	272,986.53
31 HPC Infrastructure Activities		13,059,999.83										138,077,013.64		13,059,999.83	151,137,013.47
Access and allocation of EHPC computing resources and services call						5,000,000.00	5,000,000.00						5,000,000.00		5,000,000.00
(new regulation)															
TOTAL	3,084,480.00	30,954,555.80	- 4,217.00	1,150,710.35	4,230,973.35	50,000,000.00	54,230,973.35		1,557,494.24	10,665,203.26	12,222,697.50	214,926,303.29	51,522,768.76	21,440,062.89	287,889,134.94

Table 5: Expenditure payment appropriations executed

			2020 (executed)	203	21
PAYMENTS Appropriations (EUR)	2019 (executed)	Voted Budget 2020	01/01/2020 - 23/09/2020	23/09/2020 - 31/12/2020	Voted Budget 2021	Re-activated credits from previous year
Title 1. Staff Expenditure	54,992.00	1,460,000.00	367,447.92	1,092,552.08	1,679,880.00	803,169.02
11 Salaries & Allowances	54,992.00	1,330,000.00	362,597.92	967,402.08	1,404,880.00	680,455.77
of which Establishment plan posts	54,992.00	552,000.00	181,297.92	370,702.08	552,000.00	186,952.88
of which External personnel		778,000.00	181,300.00	596,700.00	852,880.00	493,502.89
12 Expenditure relating to recruitment		40,000.00	2,460.00	37,540.00	5,000.00	37,540.00
13 Mission and travel expenses		70,000.00	2,390.00	67,610.00	70,000.00	67,610.00
14 Socio-medical infrastructure and training		20,000.00	-	20,000.00	200,000.00	17,563.25
Title 2. Building, Equipment and Operating Costs	321,568.00	1,715,931.00	245,854.85	1,470,076.15	1,404,600.00	1,375,891.53
20 Buildings and associated costs		115,000.00	2,147.52	112,852.48	134,600.00	112,852.48
21 Information Technology	321,568.00	450,000.00	191,598.17	258,401.83	250,000.00	211,459.46
22 Movable property and associated costs		80,000.00	2,684.33	77,315.67	20,000.00	77,194.47
23 Current administrative expenditure		150,000.00	330.00	149,670.00	200,000.00	121,673.95
24 Postage and Telecommunications		10,000.00	9,740.11	259.89	10,000.00	259.89
25 Expenditure of formal and other meetings		350,000.00	5,736.10	344,263.90	280,000.00	344,263.90
26 Running costs in connection with operational activ		150,931.00	-	150,931.00	150,000.00	150,931.00
27 Information and Publishing		10,000.00	-	10,000.00	10,000.00	10,000.00
28 Expert contracts and meetings		400,000.00	33,618.62	366,381.38	350,000.00	347,256.38
Title 3. Operational Expenditure	4,120,000.00	241,549,050.00	62,623,028.55	39,285,542.65	283,670,069.81	138,555,153.12
30 Grants, HPC Operations, R&I Activities	4,120,000.00	106,675,000.00	62,623,028.55	6,083,240.24	112,000,000.00	37,968,731.21
31 HPC Infrastructure Activities		134,874,050.00		33,202,302.41	171,670,069.81	100,586,421.91
TOTAL	4,496,560.00	244,724,981.00	63,236,331.32	41,848,170.88	286,754,549.81	140,734,213.67

Table 6: Expenditure payment appropriations to be implemented in 2021:

					Implemented Pay	vments 2021				
PAYMENTS Appropriations (EUR)	Voted budget Decision December 2020	Re-activated Decision 2021	Proposed Modification	D	Implementited until 01/01/2021 - 30/09/2021		Total implemented paymment	To be implemented until 31/12/2021		Total to be
	C1 credits	C2 credits	Budget 2021	Budget 2021 (legacy)	C1 credits	C2 credits	appropriations	C1 credits	C2 credits	implemented
Title 1. Staff Expenditure	1,679,880.00	803,169.02	- 4,217.00	1,684,097.00	598,963.55	699,185.45	1,298,149.00	1,080,916.45	103,983.57	1,184,900.02
11 Salaries & Allowances	1,404,880.00	680,455.77		1,404,880.00	539,124.52	680,455.77	1,219,580.29	865,755.48	-	865,755.48
of which Establishment plan posts	552,000.00	186,952.88		552,000.00	427,241.68	186,952.88	614,194.56	124,758.32	-	124,758.32
of which External personnel	852,880.00	493,502.89		852,880.00	111,882.84	493,502.89	605,385.73	740,997.16	-	740,997.16
12 Expenditure relating to recruitment	5,000.00	37,540.00		5,000.00	-	-	-	5,000.00	37,540.00	42,540.00
13 Mission and travel expenses	70,000.00	67,610.00	- 4,217.00	74,217.00	-	1,166.43	1,166.43	70,000.00	66,443.57	136,443.57
14 Socio-medical infrastructure and training	200,000.00	17,563.25		200,000.00	59,839.03	17,563.25	77,402.28	140,160.97	-	140,160.97
Title 2. Building, Equipment and Operating Costs	1,404,600.00	1,375,891.53	-	1,404,600.00	130,271.33	420,171.61	550,442.94	1,274,328.67	955,719.92	2,230,048.59
20 Buildings and associated costs	134,600.00	112,852.48		134,600.00	43,111.20	25,435.64	68,546.84	91,488.80	87,416.84	178,905.64
21 Information Technology	250,000.00	211,459.46		250,000.00	330.00	142,824.42	143,154.42	249,670.00	68,635.04	318,305.04
22 Movable property and associated costs	20,000.00	77,194.47		20,000.00	240.00	-	240.00	19,760.00	77,194.47	96,954.47
23 Current administrative expenditure	200,000.00	121,673.95		200,000.00	6,519.63	121,673.95	128,193.58	193,480.37	-	193,480.37
24 Postage and Telecommunications	10,000.00	259.89		10,000.00	11,574.09	116.77	11,690.86	- 1,574.09	143.12	- 1,430.97
25 Expenditure of formal and other meetings	280,000.00	344,263.90		280,000.00	346.41	597.33	943.74	279,653.59	343,666.57	623,320.16
26 Running costs in connection with operational activ	150,000.00	150,931.00		150,000.00	65,000.00	129,523.50	194,523.50	85,000.00	21,407.50	106,407.50
27 Information and Publishing	10,000.00	10,000.00		10,000.00	-	-	-	10,000.00	10,000.00	20,000.00
28 Expert contracts and meetings	350,000.00	347,256.38		350,000.00	3,150.00	-	3,150.00	346,850.00	347,256.38	694,106.38
Title 3. Operational Expenditure	283,670,069.81	138,555,153.12	-	283,670,069.81	60,997,548.45	41,810,194.81	102,807,743.26	222,672,521.36	96,744,958.31	319,417,479.67
30 Grants, HPC Operations, R&I Activities	112,000,000.00	37,968,731.21		112,000,000.00	32,304,936.89	6,363,715.76	38,668,652.65	79,695,063.11	31,605,015.45	111,300,078.56
31 HPC Infrastructure Activities	171,670,069.81	100,586,421.91		171,670,069.81	28,692,611.56	35,446,479.05	64,139,090.61	142,977,458.25	65,139,942.86	208,117,401.11
TOTAL	286,754,549.81	140,734,213.67	- 4,217.00	286,758,766.81	61,726,783.33	42,929,551.87	104,656,335.20	225,027,766.48	97,804,661.80	322,832,428.28

2. Information of the use of EuroHPC JU financial resources

a) Title 1: Staff Expenditure

The Joint Undertaking will organise the recruitment of new staff and cover the salaries, social security and other related allowances of staff in place. This appropriation is to cover the remuneration cost of establishment plan posts (temporary staff) and external personnel (contract staff, Seconded National Experts, interim), in accordance with the Staff Regulations.

It includes the cost for basic salaries, promotions, family allowances, expatriation and foreign residence allowances. It is also intended to cover the employers' social security contributions, insurance against sickness, accidents and occupational disease, unemployment insurance, birth and death allowances, annual travel costs from the place of employment to the place of origin, in accordance with the Staff Regulations of Officials of the European Union and the Conditions of Employment of Other Servants of the Union³. This chapter also covers the costs for the SLA signed with PMO which is the Commission organisation that handles salaries and staff benefits.

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Chapter 12 – Expenditure relating to recruitment

This appropriation will cover the expenditure arising from the search for suitable candidates (publishing vacancies) and subsequent administration costs of the recruitment of new staff members (installation, resettlement and daily subsistence allowances, removal and travel expenses).

Chapter 13 – Mission and travel expenses

As part of its duties and once the sanitary situation permits, the staff of the Joint Undertaking will have to travel to various conferences, meetings and workshops related to the activities of the Joint Undertaking and to the actions funded. The mission appropriation is to cover travel expenses, daily subsistence allowances and ancillary or exceptional expenditure incurred by statutory staff in the interest of the service.

Chapter 14 – Socio-medical infrastructure and Training

This appropriation is intended to cover the costs of the annual medical check-up of staff and associated analyses required, complementary health insurance and schooling allowances. This chapter also covers the cost for training of staff and the SLAs signed with the Commission's DG HR.

b) Title 2: Building, Equipment and Operating Costs

Chapter 20 – Buildings and associated costs

The JU has to ensure that the working conditions of its staff comply with the standards of the EU institutions. The office premises are provided by the JU hosting country. This appropriation includes costs related to the infrastructure including insurance, water, electricity and heating, cleaning and maintenance, security and surveillance. The SLA from OIL is also covered in this chapter.

Regulation (EEC, Euratom, ECSC) No 259/68 of the Council of 29 February 1968 laying down the Staff Regulations of Officials and the Conditions of Employment of Other Servants of the European Communities and instituting special measures temporarily applicable to officials of the Commission (OJ L 56, 4.3.1968, p. 1).

Chapter 21 – Information Technology

To allow its staff to perform its work, especially now that activities will be undertaken both virtually and physically, the Joint Undertaking is equipped with state-of-the-art and where possible hybrid office equipment and networking facilities, allowing to use the standard IT toolchain of the EU programmes provided by the EU institutions. This appropriation is intended to cover the purchase of computing and other similar electronic office equipment and hardware as well as the installation, configuration and maintenance of this equipment. The procurement and maintenance of programme packages and software licences necessary for the normal operation of the JU, the expenditure on services contracts for analysis, programming and technical assistance necessary for the JU, the cost of external services contracts to manage and maintain the data and systems, training and other support activities.

It covers the cost of SLAs with a number of Commission departments, necessary for the provision of IT equipment/services (SLA with the Commission DGs: DIGIT, REA, RTD and/or CNECT) to allow for the smooth running of the JU. It also includes costs specific to the secure data communication needs of the JU and to access the JU's accounting and auditing systems.

Chapter 22 – Movable property and associated costs

This chapter includes the necessary resources to cover the costs of office organisation, archive spaces and meeting rooms.

Chapter 23 – Current administrative expenditure

This chapter includes costs of office supplies, stationery, badges, office material and other consumables necessary for the operation of the office as well as any costs incurred for any mandatory translations) In this chapter are covered the costs related to the SLAs signed with CdT and the costs for the SLA with signed DG BUDG.

Chapter 24 – Postage and Telecommunications

This chapter covers all correspondence, postage, delivery services and telecommunication (fixed, mobile telephony and videoconference equipment/licencing) costs of the JU.

Chapter 25 – Expenditure of formal events and other meetings

When the sanitary situation improves, and as part of the activities of the Joint Undertaking, some meetings (like Governing Board meetings and community workshops) are likely to require conference facilities that are not available at the JU premises. These appropriations will finance meetings that will take place inside or outside of the JU premises. Funds will also be used to prepare the 'access' policy implementation activities.

Chapter 26 – Running costs in connection with operational activities

Auditing and legal assistance are key elements to ensure that the JU complies with the legal framework. This appropriation is covering all audit related expenditure: the costs for internal audit capability, external auditors and ex-post audits.

In addition, the communication policy of the Joint Undertaking is an important element to ensure public awareness and understanding of the programme. This appropriation will also cover the activities related to communications and publications, and in particular:

- Communication material for conferences, info days and workshops,

- Website development and consolidation,
- General public relations and publicity.

Chapter 27 – Information, Studies and Publishing

This appropriation is intended to cover costs of the communication activities of the Joint Undertaking, to ensure public awareness and understanding of the scopes. It is also covering the activities related to production and printing the Annual Activity and other Reports. It will cover the costs of studies that the JU may wish to undertake.

Chapter 28 – Expert contracts and meetings

This chapter includes the costs related to the evaluation, selection and review of projects, as well as the costs incurred for evaluators and reviewers.

c) Title 3: Operational Expenditure

The main purpose of the Joint Undertaking is the indirect implementation of EU budget in the field of High Performance Computing. Detailed description of the operational activities undertaken in 2021 are presented in the Work Plan below.

Chapter 30 - Grants, R&I Activities

As a reminder, the calls for proposals published in 2019 by the EuroHPC JU foresaw a maximum total Union funding of EUR 95.000.000, while the 2020 calls for proposal foresee a maximum total Union funding of EUR 85.000.000.

Chapter 30 - Grants R&I Activities					
R&I Calls 2019-2020 (EUR)	Budget Committed	Paid by DG CNECT before Autonomy (Pre- financing)	2020 - 2021 (Pre-financing paid)	2021 (Pre-financing estimated for the new calls / IPs)	2022 - 2027 (Estimated of Pre-financing / IPs / FPs)
H2020-JTI-EuroHPC-2019-1 T1.1 Extreme scale computing and data driven technologies	55,939,866.13		44,751,892.88		11,187,973.25
H2020-JTI-EuroHPC-2019-1 T1.2.a HPC and data driven application oriented platforms					-
H2020-JTI-EuroHPC-2019-1 T1.2.b Industrial applications on extreme scale computing environments					-
H2020-JTI-EuroHPC-2019-2 T2.1 HPC Competence Centres	29,936,560.69	23,949,248.55		199,988.13	5,787,324.02
H2020-JTI-EuroHPC-2019-2 T2.2 Stimulating the innovation potential of SMEs	9,998,475.00	7,998,780.00			1,999,695.00
H2020-JTI-EuroHPC-2020-1 T1.a Advanced pilots towards the European supercomputers	35,380,776.75			28,304,621.40	7,076,155.35
H2020-JTI-EuroHPC-2020-1 T1.b Pilot on quantum simulator	6,000,000.00			4,800,000.00	1,200,000.00
H2020-JTI-EuroHPC-2020-2 T2. FPA in EPI (phase II)	35,000,000.00			28,000,000.00	7,000,000.00
H2020-JTI-EuroHPC-2020-3 T3. Training and Education on HPC	7,000,000.00			5,600,000.00	1,400,000.00
HE_Call 2021 _ Lot 1 Centres of Excellence preparing the exascale era and HE_Call 2021_Lot 2 Centres of Excellence for supporting Science and innovation in supercomputing	45,000,000.00				45,000,000.00
Total Grants R&I Activities	224,255,678.57	31,948,028.55	44,751,892.88	66,904,609.53	80,651,147.61

Chapter 31 – HPC Infrastructure Activities

In 2021, this appropriation is related to the acquisition of the three precursor to exascale supercomputers and five petascale supercomputers. Supercomputer maintenance are foreseen to be paid annually from 2022 (depending on final acceptance date).

Precursors to exascale supercomputers

As the EuroHPC JU will be the owner of the pre-exascale supercomputers it procures, the Participating States will transfer to the EuroHPC JU their share to match the financing paid by the EuroHPC JU. The installation of the precursor to exascale supercomputers is planned to start at the beginning of 2021 and the payment schedule is foreseen as follows.

LUMI: will be financed on the basis of several milestones in 2021 and final payment (50% of set-up) planned for 2022.

LEONARDO: prefinancing of 30% of set-up took place in 2020, a delivery payment (20% of set-up) in 2021 and acceptance payments (50% of set-up) are planned in 2022.

Mare Nostrum 5: The JU will launch a new open procurement procedure before the end of 2021. The award of the contract will take place in 2022 and we expect a prefinancing of 30% of set-up planned in 2022, a delivery payment (20% of set-up) and an acceptance payments (50% of set-up) in 2022

Petascale supercomputers

The installation of all five petascale supercomputers is planned to be completed by the end of 2022.

The JU will own 35% of the four other Petascale supercomputers (LU, BG, SI, CZ) and are run by the Hosting Entities who own up to 65% of these Petascale machines.

Following the explicit request of Portugal, this petascale supercomputer is was procured by the Joint Undertaking. As the EuroHPC JU will become the owner of this supercomputer, the appropriation includes not only EU funding but also the Participating State's share (13.224.072€). This sum will be recovered by the JU in 2021. The operating costs of this supercomputer will be covered by the Hosting Entity.

The tables below set out contributions made to HPC Infrastructure established under Regulation 2018/1488 in 2021:

Precursors to exascale supercomputers				
Contribution to pre- exascale HPs	Total Amount (in EUR)	2020 Payments (in Euro)	2021 Payments (in Euro)	2022 -2026 estimated Payments
EU Contribution	206.205.000,00	72.457.882,41	64.289.632,28	69.457.485,31
Participating States	209.705.000,00	28.861.750,00	84.494.829,68	96.348.420,32
Total	415.910.000,00	101.319.632,41	148.784.461,96	165.805.905,63

Petascale supercomputers

Contribution to petasale HPCs	Total Amount (in EUR)	2020 Payments (in Euro)	2021 Payments (in Euro)	2021 -2026 estimated Payments
EU Contribution	32.760.771,50	7.068.040,00	25.692.731,50	-
Portugal for Deucalion (ownership EU currently 100%)	13.224.072,00		6.925.000,00	6.299.072,00
Total	45.984.843,50	7.068.040,00	32.617.731,50	6.299.072,00

Breakdown of PS payments by Country in 2021 of each Petascale supercomputer

Petascale HPCs	Country	2020 Payments executed (in Euro)	•	2021 -2026 estimated Payments
Meluxina	Luxembourg		19.906.153,50	
EURO-IT4I	Czech Republic		9.725.000,00	
Vega	Slovenia		11.356.577,70	
Deucalion	Portugal		6.925.000,00	6.299.072,00
PetaSC	Bulgaria	2.015.604,84	4.013.905,22	

Total	2.015.604.84	51.926.636,42	6.299.072,00

		Paid by DG CNECT		2021 (Pre-financing	2022 - 2027
OPEX Grants - Hosting Entities _ H2020	Budget Committed	before Autonomy (Pre-	2020 - 2021 (Pre-financing paid)	estimated for the new calls	(Estimated of Pre-financing /
		financing)	(110 minuting parts)	/ IPs)	IPs / FPs)
MEEP - H2020-JTI-EUROHPC-2019-3	5,150,000.00	4,120,000.00		515,000.00	515,000.00
LUMI - CSC	28,600,000.00	8,580,000.00		5,005,000.00	15,015,000.00
LEONARDO - CINECA	47,950,000.00	14,385,000.00			33,565,000.00
MARE NOSTRUM - BSC	25,700,000.00	7,710,000.00		4,497,500.00	13,492,500.00
Total Operating Grants	107,400,000.00	34,795,000.00	-	10,017,500.00	62,587,500.00
Precursors to exascale supercomptures					
Contributor to pre-exascale HPCs	Total Amount (in EUR)	2020 Payments (in Euro)	2021 Payments (in Euro)	2022 -2026 estimated Payments	
EU Contribution	206,205,000.00	72,457,882.41	64,289.28	133,682,828.31	
Participating States	209,705,000.00	28,861,750.00	84,494,829.68	96,348,420.32	
Total	415,910,000.00	101,319,632.41	84,559,118.96	230,031,248.63	
Petascale supercomptures	Total Amount	2020 Payments (in	2021 Payments	2021 -2026 estimated	
Contributor to pre-exascale HPCs	(in EUR)	Euro) 🔻	(in Euro)		
EU Contribution	32,760,771.50	7,068,040.00	25,692,731.50	-	
Portugal for Deucalion (ownership EU currently 100%)	13,224,072.00		6,925,000.00	6,299,072.00	
Total	45,984,843.50	7,068,040.00	32,617,731.50	6,299,072.00	
Breakdown of PS payments by Country in 2	2021 of each Petascale si				
Petascale HPCs	Country	2020 Payments (in Euro)	2021 Payments (in Euro)	2022 -2026 estimated Payments	
Meluxina	Luxembourg		19,906,153.50		
EURO-IT4I	Czech Republic		9,725,000.00		
Vega	Slovenia		11,356,577.70		
Deucalion	Portugal		6,925,000.00	6,299,072.00	
PetaSC	Bulgaria	2,015,604.84	4,013,905.22		
Total		2,015,604.84	51,926,636.42	6,299,072.00	
Breakdown of Petascale HPC of JU contrib	aution 2021				
Petascale HPC of JU contrib	2020 Payments	2021 Payments estimated			
	executed (in Euro)	(in Euro)			
Meluxina		10,498,846.50			
EURO-IT4I		5,130,000.00			
Vega		5,900,000.00			
Deucalion		6,925,000.00			
PetaSC	1,085,325.68	3,221,599.32			
Total	1,085,325.68	31,675,445.82			

Chapter 31- HPC Infrastructure Activities (
OPEX Grants - Hosting Entities _ H2020	Budget Committed	2021 (Pre-financing estimated for the new calls / IPs)	2022 - 2027 (Estimated of Pre- financing / IPs / FPs)
Access and allocation of Euro HPC computing resources and services – Procurement under DEP	5,000,000.00		5,000,000.00
Total Services	5,000,000.00	-	5,000,000.00

New Regulation 2021/1173 Proposed Operational EU Budget 2021

The new projects identified in this Work Programme 2021 under the new Regulation are divided over the three new funding programmes which are Digital Europe Programme, Horizon Europe.

The breakdown of the different projects to be launched in 2021 are set out below:

Digital Europe Programme 2021

Programme	PILLAR	Action	2021 [EU M€]
DEP	Infrastructure	Call for expression of interest for the acquisition and operation of the first exascale EuroHPC supercomputer	CFEI
DEP	Infrastructure	Call for expression of interest for the acquisition and deployment of mid -range EuroHPC supercomputers	CFEI
DEP	Services	Access to and allocation of EuroHPC computing resources and services	5
Total DEP	INVESTMENTS		5

Horizon Europe 2021

			2021
Programme	PILLAR	Action	[EU M€]
HE	Applications	Centres of Excellence preparing the Exascale era	20
HE	Applications	Centres of Excellence for computational supporting Science	25
Total HE	INVESTMENTS		45

D) Staff establishment plan

The Staff establishment plan gives an overview and forecast of annual staff positions for 2021-2027, taking into account the new Council Regulation of 2021/1173 of 13 July 2021 stablishing EuroHPC JU and repealing the Regulation of 2018. The estimation of the cost of human resources is based on the total average cost.

Given that the establishment plan will only be adopted in October/November, new recruitment procedures will finalised in 2022. Moreover, even though the new regulation foresees the allocation of 34 posts to the JU, budgetary credits will only be available in 2022.

Based on the comments received from the European Court of Auditors and the needs assessment, priority will be given to posts ensuring business continuity of critical JU functions in each pillar of JU's activity. The first selections will therefore focus on the following posts: HR Assistant, Programme Officers, IT Officer, Internal Control & Audit, Financial Assistant and Procurement Officer.

Currently the JU employs 15 statutory staff and 3 Interim staff who assist the Finance and Communications team. As the SNE post allocation was discontinued under the new Regulation, the recruitment was put on hold and will be replaced by the recruitment of the Programme Officer in 2022.

With the entry into force of the new Regulation, the main focus of the Human Resources will be on the recruitment and integration of the newcomers in the team, as well as enhancing team cohesion within new re-organised JU. In view of the future growth, the organization needs a solid structure, in order to ensure both the efficiency and effectiveness of its operations. The implementation of the HR tools, policies and procedures, in line with the Implementing Rules adopted by the Governing Board will continue.

Effort will be made to strengthen the existing and develop new competencies. As the team grows, relevant training offer will be determined for different groups of staff. Efforts will also be made to stimulate interaction and knowledge sharing between colleagues, as well as maintain good team spirit.

Human resources planning for the period of 2021-2027, under the new Regulation:

	2021	2021/2022	2022	2023	2024	2025	2026	2027
	Reg 2018/1488	Reg 2021/1173						
Establishment plan posts: TA	4	14	22	27	27	27	27	27
Total establishment plan posts	4	14	22	27	27	27	27	27
Contract Agents	11	20	25	30	30	30	30	30

Seconded Experts	National	1	0	0	0	0	0	0	0	
Total Staff		16	34	47	57	57	57	57	57	

Breakdown of Temporary Staff by grade

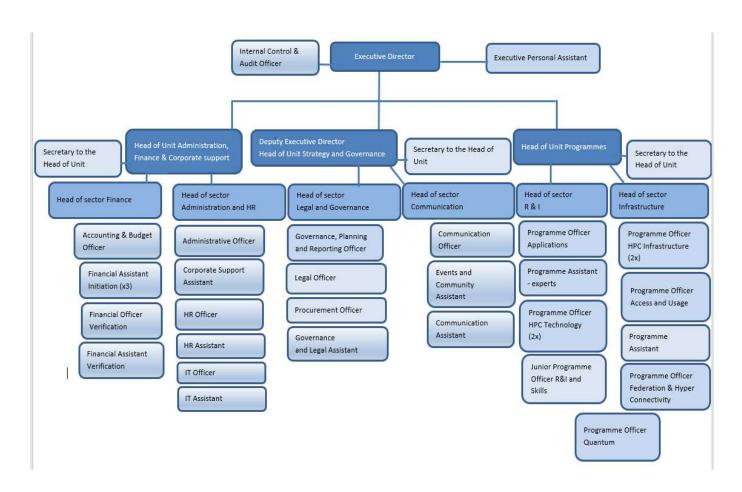
Category and 2021 grade		2022 i
	TA	TA
AD 16		
AD 15		
AD 14	1	1
AD 13		
AD 12		1
AD 11		
AD 10	1	2
AD 9		
AD 8	2	6
AD 7		10
AD 6		1
AD 5		
Total AD	4	21
A CTT 4		1
AST 4		1
Total AST/SC		1
TOTAL	4	22

Breakdown of external staff by Function Group

External Personnel – Contract Agents	2021	2022
Function Group IV	5	9
Function Group III	4	13

Function Group II	2	3
SNE	1	0
Total Staff	12	25

Organisation Chart of the EuropeHPC JU (2021-2022)



Details of the staff establishment plan for 2021/2022:

Executive Director (TA-AD14)

The Executive Director is the chief executive responsible for the day-to-day management of the EuroHPC Joint Undertaking, providing leadership at the strategic and operational level ensuring the achievement of the Joint Undertaking's objectives. The Executive Director is its legal representative and performs his tasks with independence. He is accountable to the Governing Board.

Executive Personal Assistant (TA-AST4) – VACANT

The Executive Secretary provides the secretarial support to the Executive Director, and the Deputy Executive Director. She/he organises the activities of the Executive Director's Office. She/he provides administrative support in relations with the ED and Deputy ED's external meetings. She/he does the general coordination with the JU Units of tasks which concern the whole JU such as meeting organisation, support to the Governing Board, document management etc. She/he registers and dispatches the incoming correspondence for the ED office.

Internal Control and Audit Officer (CA - FGIV)- VACANT

The Internal Control and Audit Officer provides advice on risk management and internal control and ensures that risks are appropriately and continuously identified and managed.

She/he maintains and keeps up to date the Internal Control System of the JU. She/he evaluates the effectiveness of the internal control strategy and related system and provides advice to the management on improving the sound financial management and compliance.

She/he acts as a coordinator of risk assessment process, provides advice and guidance on the implementation of corrective/preventive actions and contributes to defining, maintaining and improving of the JU's procedures, processes and systems, in collaboration with different units.

She/he acts as contact point and coordinator with regard to the implementation of the internal audit function. She/he coordinates of audit implementation with all the relevant actors, monitors the audit reporting and the implementation of audit plan in view of audit related KPIs and follows-up on the implementation of the audit/findings/Action plan.

She/he draws up the annual audit plan of the internal audit capability taking into consideration inter alia the Executive Director's assessment of risk in the JU.

Deputy Executive Director and Head of Unit Strategy and Governance (TA-AD12) - VACANT

The Deputy Executive Director supports the Executive Director in his work and decisions. She/he acts on behalf of the Executive Director during his absence. She/he supports the Executive Director in day-to-day management and overall coordination of the JU.

In his/her capacity as the Head of Unit, she/he oversees the governance, legal, strategic coordination, stakeholders relations and communication activities of the JU. She/he ensures supports the ED in the coordination of the Governing Board and other Advisory Committees, ensuring the optimal outreach of the JU messages, as well as the dissemination of results, in line with JU's objectives. She/he oversees the governance aspects of the JU and relations with stakeholders. The HoU oversees the planning and reporting of the JU, as well as the activities of the legal team which include procurement activities and support to the Operational teams in the JU. She/he coordinates the preparation of the Annual Strategic Plans and the Multi-Annual Strategic Plans.

Secretary to the Head of Unit (CA-FGII)

The Secretary to the Head of Unit provides the secretarial support to the Unit. He assists the Head of Unit with ensuring the follow-up and respect of deadlines in the Unit activities. He coordinates the document management of the Unit, assists in preparation of missions, prepares / copies documents for transmission and maintains files, provides administrative and logistical support for the organisation of internal and external events such as meetings, workshops, conferences and public events; participates in the planning of logistical needs of the unit.

Head of Sector Legal and Governance (TA-AD8)- VACANT

The Head of Sector Legal and Governance coordinates the day-to-day work of the team. She/he coordinates the legal advice in all aspects related to the functioning of the JU, such as procurement, HR, governance etc. She/he oversees the documentation related to the grants and procurement procedures, as well as governance of the JU. She/he contributes to JU reporting documents.

Governance, Planning and Reporting Officer (TA-AD6) - VACANT

The Governance, Planning and Reporting Officer manages the secretariat of the Governing Board of the JU. She/he plans and organizes meetings of the Governing Board, including all required documentation and voting procedures. She/he works with the legal team on all Decisions of the GB and other legal or procedural documents.

She/he coordinates drawing up of the key planning and reporting documents of the JU, such as the Annual Activity Reports. She/he provides input into the Annual Work Programmes.

She/he provides input into the definition of JU's objectives and performance monitoring tools. She/he monitors progress in planning and programming and reports on it. She/he ensures systematic monitoring and follow-up of strategic decisions and actions.

Legal Officer (CA-FGIV)

The Legal Officer provides the Executive Director and the JU Team with all relevant legal advice and support for the smooth operation of the activities of the JU, monitors the implementation of contractual obligations of the JU, drafts legal documents of the JU and is the JU's Data Protection Officer. She assists in the implementation of the staff policy and ensures compliance with EU and JU rules and regulations. She supports the Planning and Reporting Officer in preparing decisions for the Governing Board. She supports the Operational teams on legal aspects of procurement and grants. She provides liaises with external lawyers (where required) and provides input to the legal procedures and litigations.

Procurement Officer (CA-FGIV) - VACANT

The Procurement Officer provides advice on the legality and compliance of the grant agreements and procurement procedures. She/he supports Programme Officers and other units in drafting tender documents

(invitations to tender, technical specifications, contracts). She/he provides support for contract activities including drafting and reviews of contract and amendment templates.

She/he contributes to preparation of manuals, vade-mecums and internal procedures. She/he provides legal advice related to the implementation of procurement contracts and grant agreements.

Governance and Legal Assistant (CA-FGIII) - VACANT

Governance and Legal Assistant provides support with updating templates, checklists, and any other documents related to the procurement and Model Grant Agreement cycles. She/he supports the communication with the members of the JU's Governing Board, assist in preparation of the supporting documents, and oversees the correspondence, including invitations, voting etc.

She/he creates templates and repository of legal advice and supports the team with drafting replies to new requests. She/he supports Programme Officers in performing administrative verification of received offers.

Head of Sector Communication (TA-AD8) – VACANT

The Head of Sector coordinates the work of the sector. She/he supports the Head of Unit in defining effective communication policy and strategy, in order to increase the visibility and positioning of JU as an important actor in the HPC ecosystem. She/he will oversee the design and implementation of communication campaigns, press relations and events.

She/he oversees the production of online and offline materials to convey and disseminate key messages of the JU. She/he will support the Head of Unit in providing relevant KPIs and other data demonstrating that the objectives of the JU are reached. She/he ensures adequate outreach and dissemination of information related to the JU's initiatives and results.

Communication Officer (CA – FGIV)

The Communication Officer is responsible for the JU's communication, press activities, including managing the JU website, developing and overseeing the execution of a communications activity plan implementing the Communications Strategy of the JU. She is responsible for media relations. In collaboration with the Programme Officers and Director's Office, she/he reports on the HPC projects and procurement stories and best practice.

Events and Community Assistant (CA – FGIII) - VACANT

The Events and Community Assistant supports the organization of internal and external meetings and events and community-building activities of the JU. In collaboration with the Programme Officers and Director's Office, she/he identifies the speaking opportunities for the JU representatives at external events and coordinates JUs presence at such events.

She/he works closely with other units, in particular the Programmes Unit, in order to deliver on the stakeholder needs and position the JU as an important actor of the HPC community.

She/he assists other team members in providing the tools and platforms supporting effective communication and community building, such as newsletters, online discussion fora, expert groups, networking events etc.

Communication Assistant (CA – FGIII) - VACANT

The Communication Assistant supports the team in the implementation of the communication strategy, and in particular drafting texts, information gathering, press monitoring and dissemination of clippings, managing social media, providing input to newsletters etc., maintaining databases of press contacts, preparation of contracts for external support to organise events such as EuroHPC Summit. She/he supports the team in the organization of internal and external events.

Head of Unit Programmes (TA-AD10) - VACANT

The Head of Programmes is central to the implementation of the JU's Programmes, overseeing the work the procurement and R&I activities. She/he seeks to enhance the quality, efficiency and effectiveness of the programmes managed by the JU, overseeing the work performed within the projects implementing the JU Programme to achieve its objectives. She/he gives scientific and technical direction to the unit and coordinate the scientific input of the JU's Advisory Boards into the planning activities of the JU. She/he provides direction to the Programmes Unit and its staff including the HR management aspects.

Secretary to the Head of Unit (CA-FGII) - VACANT

The Secretary to the Head of Unit provides the secretarial support to the Unit. She/he assists the Head of Unit with ensuring the follow-up and respect of deadlines in the Unit activities. She/he coordinates the document management of the Unit, assists in preparation of missions, prepares / copies documents for transmission and maintains files, provides administrative and logistical support for the organisation of internal and external events such as meetings, workshops, conferences and public events; participates in the planning of logistical needs of the unit.

Head of Sector R & I (TA – AD8)

The Head of Sector coordinates the activities related to the R & I. He provides input to the yearly Work Programme. He coordinates the work of the team in the R&I sector.

He organises and is involved in the evaluation of proposals (selection of experts, logistics etc.), manages the process of selection of projects, monitors and reviews the execution of grant agreements, carries out project reviews and ensures compliance with the prevailing rules and regulations. He works with the other Programme Officers and also negotiates strategic, scientific, managerial and financial aspects of research contracts and amendments.

He liaises with relevant JU stakeholders and communities of experts.

Head of Sector Infrastructure (TA-AD8)

The Head of Sector coordinates the activities related to the Infrastructure. He provides input to the yearly Work Plan. He coordinates the work of the team in the Infrastructure sector.

He organises and is involved in the evaluation of public tenders (publication, opening, selection of experts, logistics etc.), manages the selection process, monitors and reviews the execution of associated contracts, monitors the allocation of supercomputer access times and ensures compliance with the prevailing rules and regulations. He liaises with relevant JU stakeholders and communities of experts.

Programme Officer HPC Infrastructure (TA-AD7) –VACANT

The Programme Officer organises and is involved in the evaluation of public tenders (publication, opening, selection of experts, logistics etc.), contributes to the development of tender and technical specifications, manages the selection process, monitors and reviews the execution of associated contracts, monitors the allocation of supercomputer access times and ensures compliance with the prevailing rules and regulations.

She/he liaises with relevant JU stakeholders and communities of experts.

Programme Officer HPC Infrastructure (TA-AD7) – VACANT

The Programme Officer organises and is involved in the evaluation of public tenders (publication, opening, selection of experts, logistics etc.), contributes to the development of tender and technical specifications, manages the selection process, monitors and reviews the execution of associated contracts, monitors the allocation of supercomputer access times and ensures compliance with the prevailing rules and regulations.

She/he liaises with relevant JU stakeholders and communities of experts.

Programme Officer Federation & Hyper connectivity (TA-AD7) - VACANT

The Programme Officer organises and is involved in the evaluation of public tenders (publication, opening, selection of experts, logistics etc.), manages the selection process, monitors and reviews the execution of associated contracts, monitors the allocation of supercomputer access times and ensures compliance with the prevailing rules and regulations.

The PO F&H contributes to the Federation and Hyperconnectivity pillar of the JU overviewing the implementation of actions and policies necessary to establish the relevant services within the pan-European HPC infrastructure deployed and operated by the JU.

Programme Officer Access and Usage (TA-AD7)- VACANT

The Programme Officer organises and is involved in the definition and implementation of the EuroHPC JU Access Policy. He aids in the definition of the various calls for Access published by the JU and the implementation of the various Peer-review processes and evaluations organized as part of the Access Policy implementation. She/he monitors the allocation of supercomputer access times, ensures compliance of the Hosting Entities activities in terms of access provision and user support as defined in the respective Hosting Agreements.

Programme Assistant (CA-FGIII) - VACANT

The Programme Assistant provides support to the implementation of the JUs programme management activities, such as evaluation of proposals for R&D grants and public tenders, grant preparation, monitoring

the technical execution of the grants and provides any technical support to the Programme Officers. She/he also supports the auditing activities including KPIs related to grants and procurement activities and ensures compliance with applicable rules and regulations.

She/he provides administrative support to the Programme Officers.

Programme Officer Quantum Computing (TA-AD7) - VACANT

The Programme Officer organises and is involved in the evaluation of public tenders (publication, opening, selection of experts, logistics etc.), and grants, manages the selection process, monitors and reviews the execution of associated contracts, monitors and reviews the execution of grant agreements, carries out project reviews and ensures compliance with the prevailing rules and regulations.

The PO Quantum contributes to the delivery of strategic goals and the implementation of mandate of the JU in what concerns the development of Quantum technologies and the procurement and deployment of Quantum computers in Europe.

Programme Officer HPC Applications (TA-AD7) - VACANT

The Programme Officer organises and is involved in the evaluation of proposals (selection of experts, logistics etc.), manages the process of selection of projects, with the prevailing rules and regulations. She/he works with the other Programme Officers and also negotiates strategic, scientific, managerial and financial aspects of research contracts and amendments.

Programme Officer HPC Technology (TA-AD7) - VACANT

The Programme Officer organises and is involved in the evaluation of proposals (selection of experts, logistics etc.), manages the process of selection of projects, monitors and reviews the execution of grant agreements, carries out project reviews and ensures compliance with the prevailing rules and regulations. She/he works with the other Programme Officers and also negotiates strategic, scientific, managerial and financial aspects of research contracts and amendments.

Programme Officer HPC Technology (TA-AD7) - VACANT

The Programme Officer organises and is involved in the evaluation of proposals (selection of experts, logistics etc.), manages the process of selection of projects, monitors and reviews the execution of grant agreements, carries out project reviews and ensures compliance with the prevailing rules and regulations. She/he works with the other Programme Officers and also negotiates strategic, scientific, managerial and financial aspects of research contracts and amendments.

Junior Project Officer (FGIII)

The Junior Project Officer organises and is involved in the evaluation of proposals (selection of experts, logistics etc.), manages the process of selection of projects, monitors and reviews the execution of grant agreements, carries out project reviews and ensures compliance with the prevailing rules and regulations.

She/he works with the other Programme Officers and also negotiates strategic, scientific, managerial and financial aspects of research contracts and amendments.

Programme Assistant – experts (CA-FGIII) – VACANT

The Programme Assistant – experts supports the team in all aspects related to experts' management: selection, communication and planning, contract preparation, reimbursement of costs, payments etc.

She/he supports the Programme Officers in the logistical aspects of the organization of evaluation panels.

Head of Unit Administration, Finance and HR (TA-AD10) - VACANT

The Head of Administration is responsible for managing the human and financial resources of the JU according to the principle of sound financial management and in compliance with underlining regulations. She/he will also be responsible for implementing internal controls aiming at providing reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance.

She/he contributes to the development of the budgetary and financial resource management procedures of the JU. She/he ensures the follow-up of recommendations issued by the IAS and the Court of Auditors. She/he ensures the effective management of the IT infrastructure and specific applications needed to support the activities of the JU

Secretary to the Head of Unit (CA-FGII)

The Secretary to the Head of Unit provides the secretarial support to the Unit. She assists the Head of Unit with ensuring the follow-up and respect of deadlines in the Unit activities. She coordinates the document management of the Unit, assists in preparation of missions, prepares / copies documents for transmission and maintains files, provides administrative and logistical support for the organisation of internal and external events such as meetings, workshops, conferences and public events; participates in the planning of logistical needs of the unit.

Head of Sector Administration and HR (TA-AD8) - VACANT

The Head of Sector Administration and HR coordinates the logistical, administrative, human resources and IT/infrastructure aspects of the JU operations. She/he coordinates the work of the team. She/he ensures that measures are in place to provide a safe working environment, tailored to the JU's business needs and compliant with applicable rules and requirements. She/he oversees the recruitment, training and wellbeing of JU staff, stimulating the collaborative working methods and team spirit.

She/he ensures that the adequate tools and procedures are in place, in order to guarantee the efficiency of administrative processes and effective functioning of the JU.

Administrative Officer (CA-FGIV)

The Administrative Officer maintains the Unit activity plans and ensures follow-up and respect of deadlines of the JU activities, provides support to the activities of the Governing Board, contributes to administrative quality checks on files for signature, participates in the planning of JU's infrastructure and logistics needs.

He implements relevant Service Level Agreements and framework and other procurement contracts, ensuring effective and efficient operations of the JU.

Corporate Support Assistant (CA-FGIII) – VACANT

Corporate Support Assistant supports the Administration and HR Unit in preparation and implementation of relevant contracts and agreements, such as SLAs and Framework and other procurement contracts with external service providers/suppliers.

She/he is involved in office supplies planning, in coordination with other units. She/he supports Unit in organization of internal events.

She/he will liaise with building administration and other internal and external services in order to ensure compliance with applicable Health & Safety rules. She/he provides support to the organization of the office move and preparation of the office space for newcomers.

HR Officer (CA – FGIV)

The HR Officer is responsible for the design and implementation of the Human Resources Management strategy and the HR policies and procedures of the JU, in line with applicable rules and regulations and JU's mission and objectives.

She implements the necessary IT tools, related to Human Resources Management. She organizes initiatives aiming at ensuring staff well-being.

HR Assistant (CA – FGIII) - VACANT

The HR Assistant supports the HR Officer in recruitment and selection procedures and day-to-day Human Resources Management, including HR personnel files, learning and development, SYSPER (leave manager).

She/he manages relevant HR functional mailboxes and ARES files.

IT Officer (CA – FGIV) - VACANT

The IT Officer provides appropriate definition of requirements, implementation of policy and maintenance of the ICT infrastructure and service of the JU. She/he contributes to the preparation of the budget and provides IT-related input into JU's activity reports.

The IT Officer oversees the management of the IT infrastructure of the JU, ensuring compliance with applicable rules and requirements. She/he monitors to correct operation of the systems, ensuring that the IT systems respond to business needs.

She/he plans the hardware and software needs of the JU and ensures their timely procurement.

IT Assistant (CA – FGIII)

IT Assistant is responsible for the day-to-day management of IT and Telecommunication Systems of the JU. He provides help-desk assistance to JU staff. He supports the IT Officer in preparation of contracts and purchase orders, in order to ensure that the JU's IT needs are met.

He provides input into the budgetary planning and reporting.

Head of Sector Finance (TA-AD8) – VACANT

She/he leads a team of financial officers and assistants, contributing to the sound implementation of the JU's administrative and operational budget, compliant with EC Financial Regulation and ensures overall coordination with the other actors of the financial circuits. She/he oversees the financial procedures and circuits and model documents.

She/he provides input to budgetary planning and contributes to the design, implementation and evaluation of the JU's control mechanisms and fraud prevention.

Accounting & Budget Officer (CA-FGIV)

The Accounting & Budget Officer monitors that the JU is complying with the applicable EU financial and accounting rules, is the interface with the EC Accountant (DG BUDG), provides advice and recommendations to improve the efficiency, effectiveness and financial management of the JU.

She prepares annual budgetary and financial accounts and monitors budget execution. She contributes to the preparation of the Annual Activity report, including the corresponding costs. She prepares and manages reporting on budgetary and general accounts. She contributes to the development and implementation of financial procedures and the elaboration and updating of model documents.

Financial Assistant Initiation (CA-FGIII) – 3 posts – 1 VACANT

The Financial Assistant is responsible for the financial initiation with regard to administrative and operational expenditure (budget, procurement and grants) of the JU. She/he ensures the financial and administrative compliance of the grants and contracts, performs the administrative quality checks on files for signature, monitors the operational and administrative expenditures.

She/he provides support in the preparation, planning, reporting, forecast and follow-up of the budget.

Financial Officer Verification (CA-FGIV) - VACANT

The Financial Officer verifies the financial and administrative compliance of the grants, contracts and procedures, performs the administrative quality checks on files for signature, monitors the operational and administrative expenditures. She/he performs ex-ante verification of commitments, payments and recovery orders. She/he ensures legality and regularity by verifying the respect of Financial Regulation and other related rules and budgetary dispositions.

She/he contributes to the JU's risk assessment annual exercises and the review of financial circuits, and works with the Audit Manager to ensure the implementation of the Internal audit and other activities linked to management of risk and prevention of fraud.

 $^{\mathrm{i}}$ The staff breakdown is only for 2021-2022 as we don't have the information for the following years yet