



**EuroHPC JOINT UNDERTAKING**

**DECISION OF THE GOVERNING BOARD OF THE EuroHPC JOINT  
UNDERTAKING No 31/2020**

**Adopting 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) 2018/1488 of 28 September 2018 establishing the European High Performance Computing Joint Undertaking (hereinafter "Regulation")<sup>1</sup>,

Having regard to the Statutes of the European High Performance Computing 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,

WHEREAS

- (1) 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.
- (2) The annual budget should provide the authorisation from the Governing Board for:
  - (a) the revenue and expenditure considered necessary for the EuroHPC JU to cover its activities including a summary statement of the schedule of payment for the subsequent financial years; and
  - (b) the staff establishment plan indicating the number of temporary posts by function group and by grade and complemented with the number of contract staff and seconded national experts.
- (3) In line with the Financial Rules of the EuroHPC JU, its annual work plan and budget constitutes authorisation by the Governing Board for the operational expenditure on the activities it covers, provided that the corresponding elements are clearly identified.
- (4) The Executive Director of the EuroHPC Joint Undertaking submitted the draft work plan to the Governing Board,

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<sup>1</sup> OJ L 252, 08.10.2018, p. 1-34

HAS ADOPTED THIS DECISION:

*Article 1*

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

*Article 2*

The Executive Director shall make the 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 23 December 2020.

For the Governing Board

[signed]

Herbert Zeisel

The Chair

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



**WORK PLAN and BUDGET**  
**EuroHPC JOINT UNDERTAKING (JU)**

2021

In accordance with the Statutes of the EuroHPC JU annexed to Council Regulation (EU) 2018/1488 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.

## Table of Contents

INTRODUCTION .....	2
<b>ANNUAL WORK PLAN YEAR 2021</b> .....	3
<b><u>Operations:</u></b> .....	3
1. <b>Research</b> .....	3
<b><u>EuroHPC-2020-03. Training and Education on High Performance Computing</u></b> .....	3
2. <b>Procurement</b> .....	4
3. <b><u>Access and PRACE</u></b> .....	4
4. <b><u>Commercial Access to EuroHPCs</u></b> .....	4
<b><u>Support to Operations</u></b> .....	4
1. <b>Communication and events</b> .....	4
<b>EuroHPC Summit week</b> .....	4
<b>Inauguration of EuroHPC JU office</b> .....	5
<b>Inauguration of the EuroHPC Supercomputers</b> .....	5
2. <b>IT and logistics</b> .....	5
3. <b>EuroHPC JU Team – HR matters</b> .....	5
4. <b>Administrative budget and finance</b> .....	5
5. <b>Governance</b> .....	6
<b>BUDGET YEAR 2021</b> .....	7
1. <b>Revenue</b> .....	7
2. <b>How is the budget organised?</b> .....	7
3. <b>Budget Expenditure</b> .....	10
4. <b>Details on the use of financial resources</b> .....	11
a) <b>Title 1: Staff Expenditure</b> .....	11
b) <b>Title 2: Building, Equipment and Operating Costs</b> .....	12
c) <b>Title 3: Operational Expenditure</b> .....	14
5. <b>Staff establishment plan</b> .....	16
6. <b>Details of the staff establishment plan for 2021</b> .....	17

## INTRODUCTION

The EuroHPC Joint Undertaking (hereinafter “EuroHPC JU”), established by the Council Regulation (EU) 2018/1488<sup>2</sup> (hereinafter “Regulation”), will contribute to the ambition of value creation 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. In particular, the overall objectives of the Joint Undertaking can be summarised as follows (Article 3 of the 2018 Regulation):

- to provide the research and scientific community, as well as the industry including SMEs, and the public sector from the Union or countries associated to Horizon 2020 with the best available and competitive High Performance Computing and data infrastructure and to support the development of its technologies and its applications across a wide range of fields;
- to provide a framework for the acquisition of an integrated, demand-oriented and user-driven world-class petascale and pre-exascale supercomputing and data infrastructure in the Union;
- to provide Union-level coordination and adequate financial resources to support the development and acquisition of such infrastructure, which will be accessible to users from the public and private sector primarily for research and innovation purposes;
- to support an ambitious research and innovation agenda to develop and maintain in the Union a world-class High Performance Computing ecosystem, exascale and beyond, covering all scientific and industrial value chain segments, including low-power processor and middleware technologies, algorithms and code design, applications and systems, services and engineering, interconnections, know-how and skills, for the next generation supercomputing era;
- to promote the uptake and systematic use of research and innovation results generated in the Union by users from science, industry, including SMEs, and the public sector.
- The support for a sustainable exascale HPC ecosystem in Europe requires action on the technology supply to develop extreme scale, power-efficient and highly resilient HPC and data technologies.

In September 2020, the Commission adopted a new draft Council Regulation which will, when agreed, provide the basis for the Work Plan of the Joint Undertaking for the period 2021-2027. The long-term objectives are unchanged with focus on the deployment and operation of a world-class High Performance Computing and data infrastructure, and the development and promotion of an excellent European HPC ecosystem.

When the new draft Council Regulation is agreed by the Council of Ministers, it will provide the basis for the Work Plan of the Joint Undertaking for the period 2021-2027. At this time, an amended work plan and budget will be put to the Governing Board in order to implement the

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<sup>2</sup> OJ L 252, 8.10.2018, p. 1-34.

new draft Regulation and the budget allocated. The updated work plan will include a strategy to update the governance structure of the JU – in line with the new Regulation.

## ANNUAL WORK PLAN YEAR 2021

### Operations:

#### 1. Research

In 2020 the EuroHPC JU implemented indirect actions based on the proposed research and innovation programme provided for by the Strategic Research and Innovation Agenda (SRA) and adopted by the Research and Innovation Advisory Group (RIAG) of the EuroHPC Joint Undertaking<sup>3</sup>.

For now<sup>4</sup>, there are no new R&D actions foreseen in 2021. The focus of the 2021 Work Plan will therefore be on the implementation of indirect actions initiated in 2019 and 2020.

The JU intends to conclude grant agreements for the proposals submitted to the two Calls<sup>5</sup> for proposals launched in 2020 and monitor the implementation. As a reminder, these are:

- H2020-JTI-EuroHPC-2020-01 – *Advanced pilots towards the European exascale supercomputers* for Research and Innovation Actions (EuroHPC-RIA). The winning consortia will begin work in Q1 2021.
- H2020-JTI-EuroHPC-2020-02 – *Framework Partnership Agreement in European low-power microprocessor technologies (Phase 2)* for Research and Innovation Actions (EuroHPC-SGA-RIA). The call will be awarded in early 2021 and the winning consortium will begin work in mid-2021.

With regards to the development of European supercomputing technology in Europe, the JU will continue to make this a priority and to ensure that the second generation of European low-power microprocessor technology is developed in Europe, in order to follow-up the work already achieved by the European Processor Initiative (EPI). The focus will be on the integration with a co-design approach of technology building blocks (developed in EPI and other previous European R&I actions) in advanced pilot systems aiming at exascale performance in operational environments.

### **EuroHPC-2020-03. Training and Education on High Performance Computing**

In 2021, the EuroHPC JU intends to launch a Call for proposals H2020-JTI-EuroHPC-2020-03 – *Training and Education on High Performance Computing* for Coordination and Support

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<sup>3</sup> [https://eurohpc-ju.europa.eu/documents/EuroHPC\\_RIAG\\_Strategic\\_Agenda\\_2019.pdf](https://eurohpc-ju.europa.eu/documents/EuroHPC_RIAG_Strategic_Agenda_2019.pdf)

<sup>4</sup> This will be subject to revision in 2021

Actions. This call was included in the Work Programme 2020 but had to be postponed in order to allow more time for consultation with the RIAG. The GB will be asked to approve the call in early 2021. The estimated EU expenditure for this call is EUR 7.000.000 and the EU contribution is based on the budget foreseen for 2020 in the general Union budget. As agreed in the third amendment to the 2020 Work Plan<sup>6</sup>, this budgetary commitment will be carried over from the 2020 budget and allocated to the 2021 budget.

## **2. Procurement**

For now, there are no plans for further acquisitions of supercomputers. In 2021, the JU will further work with the Hosting Entities to ensure that the procured supercomputers are delivered on schedule and on budget.

## **3. Access policy**

The JU will also seek to get approval from the GB Board on a Memorandum of Understanding (MoU) on ‘user access policy’ to be signed with PRACE. This MoU will set out the interaction between EuroHPC-JU and PRACE on the allocation of access time to EuroHPC supercomputers that are operational in 2021.

Furthermore, in order to allocate access time of EuroHPC supercomputers from 2022 and beyond, the JU will prepare a call for tender to develop an allocation system which is user friendly and tailored to all the existing and future user communities.

## **4. Commercial Access to EuroHPCs**

The JU will deliver in 2021 a policy document on commercial access of super computers. To do this, the JU will procure a study which will set out the market situation in Europe with regards to commercial use of supercomputing, market pricing for the use of access time including the supporting services provided. This study should also provide information comparing the market situation in third countries such the US, and China.

## **Support to Operations**

### **1. Communication and events**

In 2021, the EuroHPC JU plans to take advantage of press and social media activities as well as the following events to communicate the achievements of the EuroHPC JU or as a platform to engage with the public at large. Taking into account of the ongoing COVID-19 pandemic, all events are currently planned to take place virtually.

#### ***EuroHPC Summit week***

The EuroHPC Summit Week (EHPCSW) is the major HPC event that brings together relevant European supercomputing stakeholders and decision makers, allowing them to share the latest technological developments, define synergies, express their current and future needs, and participate in shaping the future of European supercomputing. EHPCSW is also a platform to

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<sup>6</sup> The amendment to the WP2020 will be adopted by the EuroHPC Governing Board in December 2020

present the latest developments of the EuroHPC Joint Undertaking, both from a political and from a technological point of view.

The 2020 edition of the event, due to take place on 23–27 March 2020 in Porto, Portugal was cancelled due to the COVID-19 pandemic. The 2021 edition of this event will take place on 22-26 March and will be co-organised by PRACE with the EuroHPC JU.

The JU will use the event to showcase progress on research and procurements. The event will take place virtually and will be an opportunity to bring together, through the series of panel discussions, with all relevant European HPC stakeholders, from technology suppliers and HPC infrastructures to scientific and industrial HPC users in Europe.

### ***Inauguration of EuroHPC JU office***

The EuroHPC JU office space was made available to EuroHPC staff by the Luxembourgish government in September 2020. It is located in the Drosbach building, which is in proximity of DG CNECT's offices in Luxembourg. Subject to the participation of the Luxembourg authorities, the office will be officially opened in early 2021.

### ***Inauguration of the EuroHPC Supercomputers***

In the course of 2020, the procurement of the three pre-exascale and the five petascale supercomputers was completed. In 2021, the beginning of the installation of the supercomputers at the hosting sites and their entry into service mark significant milestones for the achievement of an essential objective of the Joint Undertaking.

## **2. IT and logistics**

In 2021, work will be ongoing to ensure that all necessary equipment and infrastructure is operational and work can be done independently from the Commission.

## **3. EuroHPC JU Team – HR matters**

The Executive Director took up his post in September 2020. By the end of 2020, 11 out of the 15 posts (including the Executive Director) foreseen in the EuroHPC JU staff establishment plan were filled. Posts in legal, HR and accountancy are currently being filled.

In 2021, there will be a further recruitment for a programme assistant (bringing up the total staff to 16 FTEs). In addition, once the new Draft Regulation is adopted, an updated staff establishment plan will be presented to the Governing Board. It is expected to respond to the concern expressed by the Governing Board about the lack of staff to run all the programmes as well as back office functions supporting these.

In 2021, a staff training and wellness at work plan will be developed in order that the team can perform duties efficiently and professionally. Other issues like ensuring that all HR functions are managed well will be a priority as well as ensuring that all staff work in a safe, respectful and rewarding environment.

## **4. Administrative budget and finance**

The main objective for Finance and Budget is to ensure a sound financial management of the Programme Office resources.

This is mainly achieved through the alignment of planned activities with budgeted resources, the establishment of commitments for respecting legal obligations, the payment execution for

the grants, procurement contracts, goods and services delivered and the monitoring of the budget execution.

In 2021 activities will focus on the following:

- Continue to ensure the smooth transition of all budgetary activities since the JU got its autonomy in September 2020.
- Ensure efficient budget forecast and maintaining a high level of accuracy in budgetary forecasting for the grants and procurements. To this end, the spending pace of the grants and procurements will be closely monitored and checked against the forecast presented by the different consortia and hosting entities.
- Update 2021 budget in liaison with DG CNECT and DG BUDG, once the final MFF figures are known.
- Report on 2020 budget execution and financial management.
- Prepare reports containing key elements to budget execution and sound financial management (payment delays, budget execution).
- Work with DG BUDG to ensure transactions are financially and procedurally correct, that they are in conformity with the contracts and respecting the Financial Regulations and other relevant rules in operations; timely handling of all types of transactions.
- Work with the European Court of Auditors to ensure that all transactions and procedures are correctly undertaken and explained fully.
- Set up targeted KPIs to the EuroHPC JU as well as general ones such as budget execution and Time-To-Payment necessary to measure activities.
- Implement internal controls framework and ensure that the JU gets its first Budget Discharge in line with EU Financial Regulations.

## 5. Governance

For now, no changes to the governance structure of the JU are planned.

In 2021, membership of RIAG and INFRAG will be reviewed. In order to allow the current RIAG and INFRAG time to finalise the **Strategic Research and Innovation Agenda 2020 (SRIAG)**, the Governing Board will be asked to extend the mandate of the two groups for a 7 month period.

## 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:

- The European Union covering administrative and operational costs.
- The Participating States shall make a contribution to the administrative and operational costs of the Joint Undertaking that will be commensurate to the Union's financial contribution set out in Article 4(1) and Article 6 of Council Regulation (EU) 2018/1488 from 2024 .
- The Private Members shall make shall make a contribution to the administrative and operational costs of the Joint Undertaking that will be commensurate to the Union's financial contribution set out in Article 4(1) and Article 6 of Council Regulation (EU) 2018/1488 from 2024

The 2020 budget is based on known revenue and is therefore an interim budget. Once we receive confirmation of new revenues allocated to the JU by the new multiannual financial framework (MFF), 2021-2027 we will need to update this work plan and budget.

In addition we do not expect any revenues from fees and charges in 2021, as the first EuroHPC JU supercomputers would become operational in mid-year and it is unlikely they would already provide commercial services in 2021

Furthermore, as the projects funded by the EuroHPC JU will just have started, the EuroHPC JU will most probably not issue recovery orders before mid-2021. Therefore an updated Budget will be prepared in the course of 2021.

### 2. How is the budget organised?

**Title 1** and **Title 2**: The EuroHPC JU continues to work with Union funding received from the EU Budget for its administrative expenditure, as foreseen in the Regulation establishing the EuroHPC JU.

**Title 3**: In 2019-2020, the JU received the appropriations accruing from contributions from (non-European Economic Area) third parties to research and technological development. Nevertheless, they remain subject to availability of the EU budget. In 2021 these appropriations will be used up, subject to availability of the EU budget.

Furthermore, in line with the JU Regulation, the Participating States will contribute to the JU operational budget in 2021 for the acquisition of the three precursor to exascale supercomputers, as well as the petascale supercomputer hosted by Portugal.

For all titles, in accordance with the EEA Agreement<sup>7</sup>, the financial contributions of EFTA States are added to the JU budget, proportionally to the EU budget. Being additional to the

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<sup>7</sup> [Protocol 32 on financial modalities for implementation of Article 82](#)

general EU budget, they are represented separately from the EU contributions. The EFTA rate is the same for administrative and operational budgets

**Carry over:** Unspent administrative and operational expenditure in 2020 will be carried over into 2021. The JU will ensure that that all carried over budget from both administrative and operational budget is committed to ensure sound functioning of the JU and cost effective use of funds for operational activities described in the workplan. **The unspent administrative budget for 2020 is approximately EUR 2.000.000.** Any unspent operative budget will be determined in 2021 once we have finalised all 2020 expenses and ensured that the JU is operating on a sound financial basis after autonomy.

**Table 1: Commitment Appropriations**

REVENUE (EUR)	2019 (executed)	2020 (estimated)	2021 (estimated)
<b>1. REVENUE FROM FEES AND CHARGES</b>			
<b>2. EU CONTRIBUTION</b>			
- of which Administrative <sup>8</sup> (Title 1 and Title 2)	636.670	3.101.192	3.002.433
- of which Operations <sup>9</sup> (Title 3)	193.143.257	271.709.283	
<b>3. THIRD COUNTRIES CONTRIBUTION</b>			
- of which EEA/EFTA <sup>10</sup>	4.611.961	6.663.615	82.047
- of which non-EEA <sup>11</sup>	44.823.777	5.161.223	
<b>4. OTHER CONTRIBUTIONS</b>			
- Participating States		222.930.000 <sup>12</sup>	
<i>contribution to the procurement of the 3 pre-exascales</i>		209.705.000	
<i>PT contribution to procurement of petascales</i>		13.225.000	
- Private Members			
<b>TOTAL REVENUE</b> (EU + 3 <sup>rd</sup> Countries + <i>Participating States contributions</i> )	243.230.665	509.565.313	3.084.480

<sup>8</sup> i.e. Staff expenditure, building, equipment and costs for running the EuroHPC JU office

<sup>9</sup> i.e. procurement of the supercomputers, R&I calls for proposals

<sup>10</sup> 2019 EFTA rate – 2.38%, 2020 EFTA rate – 2.41%, 2021 EFTA rate – 2.66%

<sup>11</sup> Appropriations accruing from contributions from (non-European Economic Area) third parties to research and technological development. Additional budget made available by the Commission to fund the third pre-exascale supercomputer

<sup>12</sup> Only contributions for pre-exascale machines

**Table 2: Payment Appropriations**

REVENUE (EUR)	2019 (executed)	2020 (estimated)	2021 (estimated)
<b>1. REVENUE FROM FEES AND CHARGES</b>			
<b>2. EU CONTRIBUTION</b>			
- of which Administrative (Title 1 and Title 2)	323.183	3.101.192	3.084.480
- of which Operations (Title 3)	2.482.631	179.858.078 <sup>14</sup>	279.126.950
<b>3. THIRD COUNTRIES CONTRIBUTION</b>			
- of which EEA/EFTA <sup>15</sup>	1.690.746	4.308.436	7.627.600
- of which non-EEA		15.000	
<b>4. OTHER CONTRIBUTIONS</b>			
- Participating States		57.442.275 <sup>16</sup>	220.902.719, 27 <sup>17</sup>
- Private Members			
<b>TOTAL REVENUE</b>	<b>4.496.560</b>	<b>244.724.981</b>	<b>507.657.269,27</b>

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<sup>13</sup> These estimates will be updated at the end of 2020 when all payments have been made

<sup>14</sup> Pre-financing grants retained for funding from the 2019 calls for proposals, and pre-financing of the acquisition of the supercomputers – EU contribution

<sup>15</sup> 2019 EFTA rate – 2.38%, 2020 EFTA rate – 2.41%, 2021 EFTA rate – 2.66%

<sup>16</sup> Pre-financing of the acquisition of the supercomputers – Participating State's contribution 2020

<sup>17</sup> Financing of the acquisition of the supercomputers – Participating State's contribution 2021

### 3. Budget Expenditure

**Titles 1&2:** 100% of the commitment appropriations were committed. The EU funding share to these appropriations will be released according to the JU needs during the period of 2020–2023. It will add up to 10.000.000 € – the amount foreseen in the Regulation establishing the EuroHPC JU.

**Title 3:** 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**

COMMITMENTS	Commitment Appropriations (EUR)		
	2019 (executed)	2020 (estimated)	2021 (estimated)
<b>Title 1. Staff Expenditure</b>	<b>77.830</b>	<b>1.460.000</b>	<b>1 679 .880</b>
<b>11 Salaries and Allowances</b>	40.000	1.330.000	1 404 880
- of which establishment plan posts	20.000	552.000	552 000
- of which external personnel	20.000	778.000	852 880
<b>12 Expenditure relating to recruitment</b>	47.963	40.000	5 000
<b>13 Mission and travel expenses</b>		70.000	70 000
<b>14 Socio-medical infrastructure and training</b>		20.000	200 000
<b>Title 2. Building, Equipment and Operating Costs</b>	<b>612.217</b>	<b>1.715.931</b>	<b>1 404 600</b>
<b>20 Buildings and associated costs</b>		115.000	84 600
<b>21 Information Technology</b>	426.350	450.000	250 000
<b>22 Movable property and associated costs</b>		80.000	20 000
<b>23 Current administrative expenditure</b>	1.000	150.000	200 000
<b>24 Postage and Telecommunications</b>		10.000	10 000
<b>25 Expenditure of formal events and other meetings</b>	33.670	350.000	330 000
<b>26 Running costs in connection with operational activities</b>		150.931	150 000
<b>27 Information, Studies Publishing</b>	1.000	10.000	10 000
<b>28 Expert contracts and meetings</b>	150.197	400.000	350 000
<b>Title 3. Operational Expenditure</b>	<b>242.540.618</b>	<b>506.389.382</b>	<b>0</b>
<b>30 Grants, HPC Operations, R&amp;I Activities</b>	202.521.074	85.000.000	0
<b>31 HPC Infrastructure Activities</b>	40.019.544	421.389.382	0
<b>TOTAL</b>	<b>243.230.665</b>	<b>509.565.313</b>	<b>3.084.480</b>

**Table 4 Payment Appropriations**

PAYMENTS	Payment Appropriations (EUR)		
	2019 (executed)	2020 (estimated)	2021 (estimated)
<b>Title 1. Staff Expenditure</b>	54.992	1.460.000	1.679.880
<b>Title 2. Building, Equipment and Operating Costs</b>	321.568	1.715.931	1.404.600
<b>Title 3. Operational Expenditure</b>	4.120.000	241.549.050	283.670.069,81
<i>30 Grants, HPC Operations, R&amp;I Activities</i>			<i>112.000.000</i>
<i>31 HPC Infrastructure Activities</i>			<i>171.670.070</i>
<b>TOTAL</b>	<b>4.496.560</b>	<b>244.724.981</b>	<b>286.754.549,81</b>

#### 4. Details on the use of financial resources

##### a) Title 1: Staff Expenditure

###### Chapter 11 – Salaries and Allowances

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 Union<sup>19</sup>. This chapter also covers the costs for the SLA signed with PMO which is the Commission organisation that handles salaries and staff benefits.

###### Chapter 12 – Expenditure relating to recruitment

This appropriation is to 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

<sup>18</sup> These estimates will be updated at the end of 2020 when all payments have been made

<sup>19</sup> 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).

As part of its duties and 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. As the JU is growing, this line has been reinforced. 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.

#### Chapter 21 – Information Technology

To allow its staff to perform its work, the Joint Undertaking is equipped with state-of-the-art office equipment and networking facilities, allowing to use the standard IT toolchain of the EU programmes and 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 program 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 is to cover all correspondence, postage 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 are to finance meetings that are taking 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 possible 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 is also covering 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 is presented in the Work Plan.

#### Chapter 30 – Grants, HPC Operations, R&I Activities

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

**In 2021, a total of EUR 112.000.000 of EU funding will be used for pre-financing and interim payments on grants awarded in the 2019 and 2020 calls.**

R&I Calls 2019/ 2020 (EUR)	Budget Committed	2020 (Prefinancing )	2021 (estimate of Prefinancing )
<b>EuroHPC-01-2019 Extreme scale computing and data driven technologies</b>	25.000.000		20.000.000
<b>EuroHPC-02-2019 HPC and data driven application oriented platforms</b>	20.000.000		1600.000
<b>EuroHPC-03-2019 Industrial applications on extreme scale computing environments</b>	10.000.000		8.000.000
<b>EuroHPC-04-2019 HPC Competence Centres<sup>20</sup></b>	30.000.000	24.000.000	
<b>EuroHPC-05-2019 Stimulating the innovation potential of SMEs<sup>21</sup></b>	10.000.000	8.000.000	
<b>H2020-JTI-EuroHPC-2020-01-a Advanced pilots towards the European supercomputers</b>	37.000.000		29.600.000
<b>H2020-JTI-EuroHPC-2020-01-b Pilot on quantum simulator</b>	6.000.000		4.800.000
<b>H2020-JTI-EuroHPC-2020-02 FPA in EPI (phase II)</b>	35.000.000 <sup>22</sup>		28.000.000
<b>H2020-CSA-EuroHPC-2020-03 Training and Education on HPC</b>	7.000.000		5.600.000
<b>Total</b>	<b>180.000.000</b>	<b>32.000.000</b>	<b>112.000.000</b>

<sup>20</sup> No PF in 2021 as it has already been paid in 2020

<sup>21</sup> No PF in 2021 as it has already been paid in 2020

<sup>22</sup> EUR 180.000 has been committed by DG Connect in 2020 to REA to pay for expertise to undertake the evaluation after the close of the call on 12 Jan 2021. This commitment will be reassigned by CNECT to REA in 2021.

## Chapter 31 – HPC Infrastructure Activities

This appropriation is related to the acquisition of two exascale supercomputers (to be foreseen once the Council Regulation is adopted), the three precursor to exascale supercomputers and five petascale supercomputers.

### 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 beginning 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 early 2022.

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

Mare Nostrum 5: We expect a prefinancing of 30% of set-up planned in 2021, a delivery payment (20% of set-up) and an acceptance payments (50% of set-up) in 2021

Supercomputer maintenance will be paid annually from 2022.

Contributor to pre-exascale HPCs	Total amount (in EUR)	2020 payments (in EUR)	2021 payments (in EUR)
EU funds	206.205.000	53.153.107	139.994.624
Participating States	209.705.000	16.565.496	161.428.651
<i>Total</i>	<i>415.910.000</i>	<i>69.718.603,41</i>	<i>301.423.275</i>

### Petascale supercomputers

The installation of all five petascale supercomputers is planned to be completed by the end of 2021.

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

Following the explicit request of Portugal, this petascale supercomputer is being 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 (13.225.000 €). This sum will be recovered by the JU in 2021, after the contract and administrative agreement have been signed. The operating costs of this supercomputer will be covered by the Hosting Entity.

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<sup>23</sup> Payments of prefinancing for LUMI and Leonard

Breakdown of payment by country in 2021 of each Petascale computer:

Petascale HPCs	Country	Payment 2021 (EUR)
Meluxina	Luxembourg	19.906.153,50
EURO-IT4I	Czech Republic	9.725.000
Vega	Slovenia	11.356.577,70
Deucalion	Portugal	13.225.000 <sup>24</sup>
PetaSC	Bulgaria	5.261.337,27
<b>Total</b>		<b>59.474.068,47</b>

- Breakdown by Petascale HPC of JU contribution in 2021:

JU contribution to Petascale HPCs	Payment 2021 (EUR)
Meluxina	10.498.846,50
EURO-IT4I	5.130.000
Vega March 21	5.900.000
Deucalion (2020) <sup>25</sup>	5.514.982,50
Deucalion (2021)	1.410.017,50
PetaSC	3.221.599,31
<b>Total</b>	<b>31.675.445,81</b>

## 5. Staff establishment plan

The Staff establishment plan gives an overview and forecast of annual staff positions for 2021. This will be reviewed once the new Council Regulation on the EuroHPC JU has been adopted.

The estimation of the cost of human resources is based on the total average cost. Considering that the recruitment of the staff will be progressive over the year, 11 full-time equivalents now accounted at year end. A further 3 FTES will join the team in Q1 2021, 2 more FTES will be recruited in 2021 accounting for the 100% of the 2020 staff establishment plan.

In 2021, we will complete recruitment for all 16 posts that have been provided to the JU. As well as ongoing recruitments, a staff training and wellness at work plan will be developed in order that the team can perform duties efficiently and professionally. The JU leadership team will ensure that all HR functions are managed well and ensure that all staff work in a safe, respectful and rewarding environment.

Staff expenditure justification for 2020 with estimates for 2021

	2019	2020	2021 estimate
<b>Establishment plan posts: TA-AD</b>	4	4	4
<b>Establishment plan posts: TA-AST</b>			

<sup>24</sup> Deucalion total cost is € 20,149,072.00.

<sup>25</sup> As the Deucalion contract will only be signed in late December 2020, this sum will only be paid in 2021.

<b>Total establishment plan posts</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Contract Agents</b>	7	10	11
<b>Seconded National Experts</b>		1	1
<b>Total Staff</b>	<b>11</b>	<b>15</b>	<b>16</b>

Category and grade	2019		2020		2021 estimate	
	Officials	TA	Officials	TA	Officials	TA
<b>AD 16</b>						
<b>AD 15</b>						
<b>AD 14</b>				1		1
<b>AD 13</b>						
<b>AD 12</b>						
<b>AD 11</b>						
<b>AD 10</b>				1		1
<b>AD 9</b>						
<b>AD 8</b>		1		2		2
<b>AD 7</b>						
<b>AD 6</b>						
<b>AD 5</b>						
<b>Total AD</b>		<b>1</b>		<b>4</b>		<b>4</b>
<b>Total AST/SC</b>						
<b>TOTAL</b>		<b>4</b>		<b>4</b>		<b>4</b>

External Personnel – Contract Agents	2019	2020	2021 estimate
<b>Function Group IV</b>	1	4	5
<b>Function Group III</b>		4	4
<b>Function Group II</b>		2	2
<b>Function Group I</b>			
<b>Total Staff</b>	<b>1</b>	<b>10</b>	<b>11</b>

Staff Costs	2019	2020 (	2021 estimate
<b>Temporary Staff</b>	12.083	362.500	580.000
<b>Contract Staff</b>	18.650	431.900	766.480
<b>Seconded National Experts</b>		29.200	58.400
<b>Total</b>	<b>30.733</b>	<b>823.600</b>	<b>1.404.880</b>

## 6. Details of the staff establishment plan for 2021

### 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 he/she shall perform his/her tasks with independence and shall be accountable to the Governing Board

### Executive Secretary (CA-FGII)

The Executive Secretary provides the Secretariat of the Executive Director, planning the activities of the Executive Director's Office, provides administrative support in the relations

with EuroHPC JU Bodies, and does the general coordination of the document management within the JU.

#### **Office Secretary (CA-FGII)**

The Office Assistant provides the Secretariat of the JU staff, supports the communication activities and ensures the logistics for the call for proposals evaluations, technical project reviews and internal meetings.

#### **Senior Programme Officer (TA-AD10)**

The Senior Program Officer supports the Executive Director in all his work and decisions, upon request in his/her mission in respect of technical issues. This includes preparation of calls for proposals/tenders including their evaluation, expert assignment, grant agreement management, National points of contact and project coordinators. He/She also leads the functions of a Programme Officer Infrastructure and/or Programme Officer R&D.

#### **Programme Officer Infrastructure (TA-AD8)**

The Program 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 grant agreements, monitors the allocation of supercomputer access times and ensures compliance with the prevailing rules and regulations.

#### **Programme Officer R&I (TA-AD8)**

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. He/She works with the other programme officers and also negotiates strategic, scientific, managerial and financial aspects of research contracts and amendments.

#### **Programme Officer (SNE)**

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. He/She works with the other programme officers and also negotiates strategic, scientific, managerial and financial aspects of research contracts and amendments. This role is currently vacant. Recruitment is ongoing.

#### **Junior Project Officer (FGIII)**

The Junior Project Officer provides support to the implementation of the JUs program 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. He/she will also support the auditing activities including KPIs related to grants and procurement activities and ensures compliance with the prevailing rules and regulations. He/She works with the other programme and administrative officers and supports them. This role is currently vacant. Recruitment will take place in 2021.

#### **Accounting Officer (CA-FGIV)**

The Accounting 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. This role is currently vacant. Recruitment is ongoing.

#### **Financial Assistant (CA-FGIII)**

The Financial Assistant verifies 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, provides budget planning and reporting for operational and administrative expenditures.

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The Financial Assistant verifies 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, provides budget planning and reporting for operational and administrative expenditures.

#### **Legal Officer (CA-FGIV)**

The Legal Officer provides the Executive Director 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 the legal documents of the JU and is the JU's Data Protection Officer. This role is currently vacant. Recruitment is ongoing.

#### **Administrative Officer (CA-FGIV)**

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

#### **HR Officer (CA – FGIV)**

The HR Officer is responsible for HR personnel files, develops, with the Executive Director, a staff development plan and HR policies; assists in the implementation of the staff policy, manages SYSPER and is the contact point with PMO. This role is currently vacant. Recruitment is ongoing.

#### **Communication Officer (CA – FGIV)**

The Communication Officer is responsible for the JU's communication activities, including managing the JU website, developing and overseeing the execution of a communications activity plan implementing the Communications Strategy of the EuroHPC JU.

#### **IT Assistant (CA – FGIII)**

The IT Assistant is responsible for the management of IT and Telecommunication Systems, monitoring to correct operation of the systems, ensuring IT systems respond to business needs; ensuring the correct operation of the systems; ensuring information security requirements; and representing the JU in internal and external meetings in relation with the ICT domain.