



**Annual accounts of the
European High Performance
Computing Joint Undertaking**

Financial year 2021

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CERTIFICATION OF THE ACCOUNTS

I acknowledge my responsibility for the preparation and presentation of the annual accounts of the European High Performance Computing Joint Undertaking (EuroHPC JU) in accordance with Article 52 of the Model Financial Regulation ('MFR')¹ and I hereby certify that the annual accounts of the EuroHPC JU for the year 2021 have been prepared in accordance with Chapter 8 of the MFR and the accounting rules adopted by the Commission's Accounting Officer, as are to be applied by all the institutions and union bodies.

I have obtained from the Authorising Officer, who certified its reliability, all the information necessary for the production of the accounts that show the EuroHPC JU assets and liabilities and the budgetary implementation. Based on this information, and on such checks as I deemed necessary to sign off the accounts, I have a reasonable assurance that the accounts present fairly, in all material aspects, the financial position, the results of the operations and the cash-flow of the EuroHPC JU.

Rosa ALDEA BUSQUETS

**Accounting Officer of the
European High Performance Computing Joint Undertaking**

¹ COMMISSION DELEGATED REGULATION (EU) 2019/887 of 13 March 2019 on the model financial regulation for public-private partnership bodies referred to in Article 71 of Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council.

BACKGROUND INFORMATION NOTE

1. General background on the entity

Establishment

The European High Performance Computing Joint Undertaking (EuroHPC JU) was established in 2018 (Council Regulation (EU) N° 2018/1488 of 28/09/2018). It was repealed in 2021, and replaced by Council Regulation (EU)2021/1173 of 13 July 2021 on establishing the European High Performance Computing Joint Undertaking and repealing Regulation (EU) 2018/1488. This regulation defines the tasks that are entrusted to the EuroHPC Joint Undertaking under Horizon Europe (HE) programme, the Digital Europe Programme (DEP) and the Connecting Europe Facility (CEF).

The Joint Undertaking is the legal entity responsible for the implementation of research and technological development in European High Performance Computing. Between 2018 and the date when financial autonomy was achieved, on 23 September 2020, the EuroHPC JU operated under the auspices of the European Commission (DG CNECT). The Joint Undertaking is located in Luxembourg.

Mission

The EuroHPC JU's initial mission² was to provide, using Horizon 2020 and CEF funding, Europe with a world-leading hyper-connected supercomputing and quantum computing infrastructure, which will be easily and securely accessible from anywhere in Europe by procuring world leading supercomputers and supporting research and innovation activities to develop, create and maintain an innovative European supercomputing ecosystem. In addition, the EuroHPC JU's Research and Innovation Agenda so to strengthen the European knowledge base in HPC technologies and bridge the digital skills gap, notably through the creation of a network of national EURO HPC Centres of Excellence and Euro HPC Competence Centres.

With Regulation 2021/1173 (in force 8/08/2021), the mission of the Joint Undertaking will now develop, deploy, 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 and widen the use of the 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.

Main operational activities

By pooling European and national resources together, the EuroHPC Joint Undertaking ensures that the EU and EuroHPC participating countries (PS) coordinate their investments with the objective of deploying, in Europe, world-class exascale supercomputers and supporting world leading high performance computing (HPC). The EuroHPC JU seeks to support European excellence in computing solutions, improving cooperation in advanced scientific research, boosting industrial competitiveness, and ensuring European technological and digital autonomy.

In 2021, the Joint Undertaking supported two main (legacy) activities³:

- Developing a world-class supercomputing infrastructure: procuring and deploying by 2021 in the EU three pre-exascale supercomputers (capable of at least 10^{17} calculations per second) and five petascale supercomputers (capable of at least 10^{15} calculations per second). These new machines will be located across the European Union and will be available to Europe's private and public users, scientific and industrial users throughout Europe; and
- Supporting research and innovation activities: developing and maintaining an innovative European supercomputing ecosystem, stimulating a technology supply industry (from low-power processors to software and middleware, and their integration into supercomputing systems), and making supercomputing resources in many application areas available to a large number of public and private users, including small and medium-sized enterprises.

² Tasks set out in Regulation 2018/1488.

³ Legacy activities as set out in Regulation 2018/1488.

In addition, after August 2021 and the new regulation in force, the Joint Undertaking has new objectives which are:

- a) To contribute to the implementation of Regulation (EU) 2021/695 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 and contribute to the realisation of Union objectives and policies, and to contribute to tackling global challenges, including the Sustainable Development Goals by following the principles of the United Nations Agenda 2030 and the Paris Agreement adopted under the United Nations Framework Convention on Climate Change⁴
- b) To develop close cooperation and ensure coordination with other European Partnerships, including through joint calls, as well as to 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;
- 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 of autonomously producing computing technologies and architectures and their integration on leading computing systems, and advanced applications optimised for these systems; and
- g) To widen the use of supercomputing services and the development of key skills that European science and industry need.

The Joint Undertaking will procure supercomputers and support 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 High Performance Computing supply chain and promote their integration in supercomputing systems that address a large number of scientific, societal, environmental and industrial needs

Governance

The Joint Undertaking is headed by an Executive Director, who is the chief executive responsible for the Joint Undertaking's day-to-day management. He/she is appointed by the Governing Board, the main decision-making body of the JU. The Governing Board has the overall responsibility for the strategic orientation, funding decisions and supervision of the implementation of the JU's activities including all the public procurement activities. It is composed of representatives of the EU and Participating States. The Commission and each Participating State appoint one representative in the Governing Board. Each representative may be accompanied by one expert.

The Industrial and Scientific Advisory Board is made up of the Research and Innovation Advisory Group (RIAG) and the Infrastructure Advisory Group (INFRAG) provides 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. RIAG and INFRAG are made up of representatives of academia and industry.

⁴ OJ L 282, 19.10.2016, p. 4.

Sources of financing

The EuroHPC JU is funded by its members, i.e. the Union represented by the Commission, the Participating States and the Private Members (the European Technology Platform for High Performance Computing, ETP4HPC and the Big Data Value Association, BDVA, renamed to DAIRO – Data, artificial intelligence and robotics).

Between September 2020 and August 2021 the administrative costs were covered by financial contributions of the Commission, on behalf of the Union (Horizon 2020 and CEF1). According to regulation (EU) 2018/1844, the Participating States and Private Members were only required to contribute to the administrative costs from 2024 onwards. This was repealed under the new regulation (EU) 2021/1173 and since August 2021, the administrative costs are covered by the Union contribution.

The operational costs are covered by financial contributions of the EU and Participating States regarding the operational costs of the hosting entities of the pre-exascale supercomputers and in kind contributions in actions (grants) regarding infrastructure. The in kind contributions consist of the costs incurred by the Participating States and by the Private Members in implementing indirect actions that are not reimbursed by the EuroHPC JU.

The Union financial contribution, regarding the new regulation, in force since 08/08/2021, to the Joint Undertaking including EEA appropriations shall be up to EUR 3 081 300 000, including EUR 92 000 000 for administrative costs, on the condition that that amount is at least matched by the contribution of Participating States, distributed as follows:

- a) Up to EUR 900 000 000 from Horizon Europe;
- b) Up to EUR 1 981 300 000 from the Digital Europe Programme;
- c) Up to EUR 200 000 000 from the Connecting Europe Facility.

The Union contribution also covers the administrative costs of the Joint Undertaking.

2. Annual accounts

Basis for preparation

The legal framework and the deadlines for the preparation of the annual accounts are set by the Model Financial Regulation (MFR)⁵. As per this regulation, the annual accounts are prepared in accordance with the rules adopted by the Accounting Officer of the Commission (EU Accounting Rules, EAR), which are based on internationally accepted accounting standards for the public sector (IPSAS).

Accounting Officer

In accordance with the MFR, the Governing Board of the entity appoints the Accounting Officer who is, amongst other tasks, responsible for the preparation of the annual accounts.

Following the decision of the EuroHPC JU's Governing Board of 21 September 2020 (EuroHPC GB 2020.12), the Accounting Officer of the Commission shall act as the Accounting Officer of EuroHPC JU.

Composition of the annual accounts

The annual accounts cover the period from 1 January to 31 December and comprise the financial statements and the reports on the implementation of the budget. While the financial statements and the complementary notes are prepared on an accrual accounting basis, the budget implementation reports are primarily based on movements of cash.

Process from provisional accounts to discharge

The provisional annual accounts prepared by the Accounting Officer are transmitted, by 1 March of the following year, to the European Court of Auditors (ECA) and to the audit company selected by the entity.

⁵ Commission Delegated Regulation (EU) 2019/887 of 13 March 2019 on the model financial regulation for public-private partnership bodies referred to in Article 71 of Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council (OJ L 142, 29.5.2019, p. 16).

Following the audit, the Accounting Officer prepares the final annual accounts and submits them to the Governing Board for opinion.

The final annual accounts, together with the opinion of the Governing Board, are sent to the Accounting Officer of the Commission, ECA, the European Parliament and the Council by 1 July of the following financial year. ECA scrutinises the final annual accounts and includes any findings in the annual report for the European Parliament and the Council.

It falls to the Council to recommend, and then to the European Parliament to decide, whether to grant discharge to the Executive Director of EuroHPC JU in respect of the implementation of the budget for a given financial year. Amongst other elements, this decision is also based on a review of the accounts and the annual report of ECA.

3. Operational highlights

Achievements of the year

2021 was the first full year of operation for the EuroHPC Joint Undertaking since it became autonomous in September 2020. The JU launched new Research and Innovation (R&I) projects in education, microprocessors and a broad range of applications supporting greener computing, computer-aided drug design or better understanding of diseases.

In April 2021, the first supercomputer, VEGA, became fully operational. In May 2021, the EuroHPC JU offices in Luxembourg were inaugurated. On 8th of August 2021 Council Regulation (EU) 2021/1173 of 13 July 2021 establishing the European High Performance Computing Joint Undertaking and repealing Regulation (EU) 2018/1488 came into force. The Regulation gave EuroHPC JU new responsibilities in innovation and deployment of exascale and mid-range high performance computers, quantum computing and in hyperconnectivity.

The next chapter of the Joint Undertaking had begun. The JU has received new funding for the period 2021 – 2027 from the Horizon Europe Programme, the Digital Europe Programme and the Connecting Europe Facility. The new Regulation has also provided the JU with a strengthened Establishment Plan.

In December 2021, the first quantum computing initiative was launched and a new private member – the European Quantum Industry Consortium (QuIC) representing the European quantum industrial community – was welcomed.

Procurements

In 2021, the JU continued to work with the Hosting Entities to ensure that the procured supercomputers (LUMI, LEONARDO, VEGA, MELUXINA, KAROLINA, DISCOVERER and DEUCALION) were installed and put into service. At the end of 2021, the supercomputers VEGA, KAROLINA and DISCOVERER were fully operational. In November 2021, the JU launched the first call to provide access to the computing resources of the EuroHPC JU for large-scale European projects that have important needs in terms of compute time, data storage, and support resources. The call is open to all fields of science, industry, and the public sector. Due to changes in requirements, the initial procurement of the MareNostrum 5 Supercomputer was cancelled in May 2021, and the JU launched a tender in December 2021 for the procurement of a new state-of-art supercomputer which addresses the new requirements.

With the new Regulation, the JU was able to launch two calls for expression of interests in December 2021 to identify new hosting entities for the next generation of exascale and mid-range supercomputers which will be procured in 2022 and 2023.

Research and Innovation activities

The European Processor Initiative project was signed in 2021. The consortium includes 27 contributing beneficiaries from academia and the private sector who will work together to develop a European high performance low power processor.

A Training and Education Call (EU Masters 4HPC) was published in 2021 and the Governing Board approved the winning consortium which will be led by the University of Luxembourg. They will launch a HPC Masters programme in September 2022. Eight R&I grant agreements were signed in the field of

industrial aerodynamics, HPC applications, supercomputing systems as well as computational fluid dynamics, low-power microprocessor technologies and quantum computing.

Covid-19 consequences

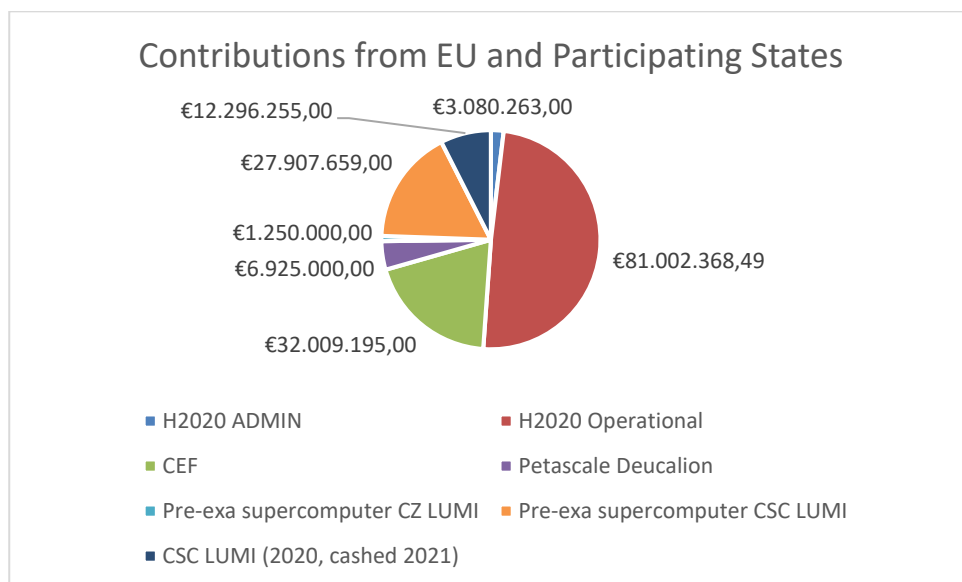
In line with the Commission guidance, EuroHPC JU took all possible precautions to ensure business continuity and to ensure the health and wellbeing of staff. The offices were open, but only critical staff were partially present. Most meetings (including most Governing Boards, events, evaluations, recruitment and expert meetings) were organised virtually. In line with Commission guidance, staff were provided with office equipment for their home office. The IT department ensured that all processes – including financial transactions – could be done virtually.

Budget and budget implementation

The EuroHPC JU budget revenue according to the final voted budget for 2021 was EUR 207.5 million. Total amount received in 2021 was EUR 164.5 million.

- The contributions received from CSC (Finland) and CINECA (Italy) Hosting Entities (HE) include the financial contributions made by the EuroHPC JU Participating States. This contribution amounted to EUR 48.4 million for the pre-exascale supercomputers. Recovery of these financial contributions is done through the Hosting Entities which, for these procurements, act on behalf the Participating States. One recovery order was launched in 2020 but the amount was only cashed in 2021 (LUMI: ca. EUR 12 million).
- The EU contribution received amounted to EUR 116.1 million.
- Due to contractual penalties because of the late delivery of EUROIT4I SUPERCOMPUTER (Karolina), an additional amount of kEUR 35 was included in revenue which was not foreseen and accounted for in the budget 2021. Therefore, the total revenue was EUR 164.5 million.
- The recovery order for Leonardo was launched at the end of 2021 and is not shown in the below table as it was not cashed in 2021.

The table below shows in detail the contributions cashed in 2021 from the EU and Participating States.



Contributions from EU and Participating States			
EU H2020 ADMIN	3.080.263,00 €		
EU H2020 Operational	81.002.368,49 €		
EU CEF	32.009.195,00 €	116.091.826,49 €	70,59%
PS Petascale Deucalion	6.925.000,00 €		
PS Pre-exa supercomputer CZ LUMI	1.250.000,00 €		
PS Pre-exa supercomputer CSC LUMI	27.907.659,00 €		
PS CSC LUMI (2020, cashed 2021)	12.296.255,00 €	48.378.914,00 €	29,41%
	164.470.740,49 €		

Expenditure under Title 1 and 2:

The EuroHPC JU did not use all commitment and payment appropriations available on administrative lines.

- Staff costs increased during 2021 thanks to the newly recruited staff (15 at the end of 2021 plus interim agents). Due to the COVID pandemic, only limited staff missions were permitted, which explains the under consumption of this budget line.
- Due to the COVID pandemic only one hybrid meeting of the Governing Board was organised in Luxembourg. As a result, only 29.04 % under Title 2 was committed. The outstanding credits will be reactivated in 2022.
- 64.91 % of payment appropriations under Title 1 were consumed and 24.21 % under Title 2. This underspending is clearly linked to the COVID pandemic. The remaining funds will be reactivated in 2022.
- The JU has given priority to spending the C2 (reactivated credits), therefore the implementing rate of the C1 credits is a bit lower.

Budget implementation under title 1 and 2 (Administrative Expenses C1 and C2 appropriations) is as follows:

Description	Comm.Credits	Comm.Cons.	Comm.Credits Avail.	Pay.Credits	Pay.Cons.	Pay.Credits Avail.
title 1	2.478.297,92 €	1.840.902,97 €	637.394,95 €	2.483.049,02 €	1.611.644,65 €	871.404,37 €
		74,28%			64,91%	
title 2	2.724.244,91 €	791.147,40 €	1.933.097,51 €	2.776.274,53 €	672.185,56 €	2.104.088,97 €
		29,04%			24,21%	
total Title 1 and 2	5.202.542,83 €	2.632.050,37 €	2.570.492,46 €	5.259.323,55 €	2.283.830,21 €	2.975.493,34 €
		50,59%			43,42%	

Situation of commitment and payment appropriations Title 1

Commitment appropriations		Payment appropriations	
CA received	2.478.297,92 €	PA received	2.483.049,02 €
CA consumed	1.840.902,97 €	PA consumed	1.611.644,65 €
	74,28%		64,91%



Situation of commitment and payment appropriations Title 2

Commitment appropriations		Payment appropriations	
CA received	2.724.244,91 €	PA received	2.776.274,53 €
CA consumed	791.147,40 €	PA consumed	672.185,56 €
	29,04%		24,21%



In line with the Joint Undertaking N+3 rule, unused appropriations will be carried over to 2022. The tables above show the C1 and C2 appropriations.

Expenditure under Title 3:

EuroHPC JU signed almost all legal commitments foreseen in the Work Plan 2021. The JU spent most of the year managing the delivery of procured supercomputers with the JU's partners. This has been challenging both because of the pandemic and supply chain issues. However, three supercomputers (Vega, Discoverer and Karolina) have been delivered and are fully operational.

The JU is now working with its partners to finalise delivery of the following supercomputers:

- The procurement of the Mare Nostrum 5 (MN5) supercomputer, which was cancelled due to changes in requirements linked to the pandemic, has been relaunched in December 2021, with the same commitment;
- Due to the delays in the global supply chain, Meluxina, which is not fully operational, only received a partial acceptance, the JU only paid for the completed work. Once this supply issue is resolved, the rest of the payments will be made;
- For LUMI, the JU has paid the acquisition in part and has recovered the respective contributions from the hosting entity. Due to the delay in the global supply of chips, the JU only paid for completed work. Again, a further payment is planned when the system is fully operational; and
- Lastly for Leonardo, substantial delays occurred in the supply of the system and the building of the data centre, therefore the payment was only partially executed. With regards to the petascale

supercomputer Deucalion, the system is ready to be installed and awaiting the completion of the data centre which is expected in 2022 (when final payment will also take place).

The EU Masters 4HPC Grant Agreement is still being finalised and will be signed in early 2022.

Regarding the underspending of payment appropriations on the R1I calls in 2021, the pre-financing payments executed for the grants under the calls launched in 2020 were lower than first estimated in the early days of the JU in 2020, because more reporting periods were foreseen for those grants. In addition, the interim payment request MN 5 Operating Grant was delayed due to the relaunch of the Mare Nostrum 5 Supercomputer procurement (see above). Lastly, the interim payments foreseen for Castiel, EuroCC and Meep were delayed due to various IT issues linked to Compass/ABAC and will only be executed at the beginning of 2022.

At the end of 2021, the Work Programme 2021 was amended to include tasks introduced by the new regulation with additional commitment credits amounting to EUR 719.4 million. These appropriations will only be consumed in 2022 (procurement of exascale and mid-range HPCs, hyperconnectivity infrastructure and quantum computing).

Budget implementation under title 3 (Grants and Infrastructure C1 and C2 appropriations) is as follows:

Situation of commitment and payment appropriations Title 3 in 2021

Commitment appropriations		Payment appropriations	
CA received	748.199.276,01 €	PA received	342.986.546,29 €
CA consumed	9.647.177,98 €	PA consumed	162.330.830,75 €
	1,29%		47,33%



Summary of the voted budget of the year (general explanation on the size and structure of the budget as compared to last year's budget)

The first JU Work plan and Budget 2021 was voted and approved by the Governing Board in December 2020, three months after autonomy in September 2020. This budget took into account all calls that had not been launched before autonomy and were further delayed due to lack of staff and of course the COVID pandemic. The Budget 2021 was amended in December 2021 to take into account new tasks and associated commitments that arose with the adoption of the new EuroHPC Regulation in August 2021 (see above).

Impact of the activities in the financial statements

In the financial statements, the impact of the above mentioned activities can be noted in the:

Pre-financing: The overall pre-financing increased by kEUR 133 165 due to the increase of payments made for the supercomputers acquisitions and also the increase of pre-financing paid for the new projects signed for Research and Innovation (R&I) projects started in the year (see note **2.2**).

Increase of exchange receivables: The increase of this heading by kEUR 49 184 is mainly driven by the increase of customers representing recovery orders for contributions issued to the participating states which were not paid at the year end. Furthermore, the Central treasury liaison account, representing the virtual bank account of the joint undertaking, increased by kEUR 6 117 as a result of distortion in global supply of chips due to which completion of the computers and consequently the payments for which had to be delayed to 2022 (see note **2.3**).

Member's contribution: An increase of Members contributions recognised under net assets (2021: kEUR 427 292 versus 2020: 219 781) that can be attributed to higher cash contributions from participating states and the Commission so as to cover increasing operating and administrative activities of the JU in 2021 (see note **2.6**).

Operating costs: The increase of the total operating costs by 111% (2021: kEUR 58 811 versus 2020: 27 855) was driven by the estimated part of the expenses connected with the grants (R&I) projects signed and started in 2021 (see note **3.2**).

Staff costs and other expenses: the increase of the items by kEUR 3 212 (kEUR 1 144 for staff costs and kEUR 2 068 for other expenses) is due to the higher of level of activities of EuroHPC in 2021, which led to an increase in the number of staff and their support expenses (see notes **3.3** and **3.4**).

It should be noted that the financial year 2020 only contains transactions since the JU's autonomy (23 September 2020), which resulted in much lower amounts of revenue and expenses compared to 2021.

THE EUROPEAN HIGH PERFORMANCE COMPUTING JOINT UNDERTAKING
FINANCIAL YEAR 2021

FINANCIAL STATEMENTS AND EXPLANATORY NOTES

It should be noted that due to the rounding of figures into thousands of euros (kEUR), some financial data in the tables below may appear not to add-up.

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BALANCE SHEET

EUR '000

	Note	31.12.2021	31.12.2020
NON-CURRENT ASSETS			
<i>Intangible assets</i>		1	-
<i>Property, plant and equipment</i>	2.1	13 542	14
<i>Pre-financing</i>	2.2	196 977	82 013
		210 521	82 027
CURRENT ASSETS			
<i>Pre-financing</i>	2.2	40 019	21 818
<i>Exchange receivables and non-exchange recoverables</i>	2.3	161 847	112 663
		201 866	134 481
TOTAL ASSETS		412 387	216 509
CURRENT LIABILITIES			
<i>Payables and other liabilities</i>	2.4	(34 094)	(402)
<i>Accrued charges</i>	2.5	(42 256)	(24 902)
		(76 350)	(25 303)
TOTAL LIABILITIES		(76 350)	(25 303)
NET ASSETS		336 037	191 205
<i>Contribution from Members</i>	2.6	427 292	219 781
<i>Accumulated deficit</i>		(28 575)	-
<i>Economic result of the year</i>		(62 680)	(28 575)
NET ASSETS		336 037	191 205

STATEMENT OF FINANCIAL PERFORMANCE

EUR '000

	Note	2021	2020
REVENUE			
Revenue from exchange transactions	3.1		
<i>Financial revenue</i>		17	-
<i>Other</i>		47	-
		65	-
Total revenue		65	-
EXPENSES			
<i>Operating costs</i>	3.2	(58 811)	(27 855)
<i>Staff costs</i>	3.3	(1 485)	(341)
<i>Other expenses</i>	3.4	(2 448)	(380)
Total expenses		(62 744)	(28 575)
ECONOMIC RESULT OF THE YEAR		(62 680)	(28 575)

CASHFLOW STATEMENT⁶

	EUR '000	
	2021	2020
<i>Economic result of the year</i>	(62 680)	(28 575)
Operating activities		
<i>Depreciation and amortization</i>	1 834	1
<i>(Increase)/decrease in pre-financing</i>	(133 165)	(103 831)
<i>(Increase)/decrease in exchange receivables and non-exchange recoverables</i>	(49 184)	(112 663)
<i>Increase/(decrease) in payables</i>	33 692	402
<i>Increase/(decrease) in accrued charges</i>	17 355	24 902
<i>Increase/(decrease) in cash contributions</i>	207 512	219 781
Investing activities		
<i>(Increase)/decrease in intangible assets and property, plant and equipment</i>	(15 363)	(15)
NET CASHFLOW	-	-
<i>Net increase/(decrease) in cash and cash equivalents</i>	-	-
<i>Cash and cash equivalents at the beginning of the year</i>	-	-
<i>Cash and cash equivalents at year-end</i>	-	-

⁶ Following the appointment of the Accounting Officer of the Commission as the Accounting Officer of EHPC JU, the treasury of EHPC JU was integrated into the Commission's treasury system. Because of this, EHPC JU does not have any bank accounts of its own. All payments and receipts are processed via the Commission's treasury system and registered on intercompany accounts, which are presented under the heading exchange receivables.

STATEMENT OF CHANGES IN NET ASSETS

EUR '000

	Contribution from Members	Accumulated Surplus/ (Deficit)	Economic result of the year	Net Assets
<i>Cash contribution</i>	207 484	-	-	207 484
<i>Unpaid cash contributions</i>	12 296	-	-	12 296
<i>Contribution in-kind</i>	-	-	-	-
<i>Economic result of the year</i>	-	-	(28 575)	(28 575)
BALANCE AS AT 31.12.2020	219 781	-	(28 575)	191 205
<i>Allocation 2020 economic result</i>	-	(28 575)	28 575	-
<i>Cash contribution</i>	164 471	-	-	164 471
<i>Unpaid cash contributions</i>	43 041	-	-	43 041
<i>Contribution in-kind</i>	-	-	-	-
<i>Economic result of the year</i>	-	-	(62 680)	(62 680)
BALANCE AS AT 31.12.2021	427 292	(28 575)	(62 680)	336 037

NOTES TO THE FINANCIAL STATEMENTS

1. SIGNIFICANT ACCOUNTING POLICIES

1.1. ACCOUNTING PRINCIPLES

The objective of financial statements is to provide information about the financial position, performance and cashflows of an entity that is useful to a wide range of stakeholders.

The overall considerations (or accounting principles) to be followed when preparing the financial statements are laid down in EU Accounting Rule 1 'Financial Statements' and are the same as those described in IPSAS 1: fair presentation, accrual basis, going concern, consistency of presentation, materiality, aggregation, offsetting and comparative information. The qualitative characteristics of financial reporting are relevance, faithful representation (reliability), understandability, timeliness, comparability and verifiability.

1.2. BASIS OF PREPARATION

1.2.1. Reporting period

Financial statements are presented annually. The accounting year begins on 1 January and ends on 31 December.

1.2.2. Currency and basis for conversion

The annual accounts are presented in thousands of euros, the euro being the EU's functional currency. Foreign currency transactions are translated into euros using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of foreign currency transactions and from the re-translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the statement of financial performance. Different conversion methods apply to property, plant and equipment and intangible assets, which retain their value in euros at the date when they were purchased.

Year-end balances of monetary assets and liabilities denominated in foreign currencies are translated into euros on the basis of the European Central Bank (ECB) exchange rates applying on 31 December.

Euro exchange rates

Currency	31.12.2021	31.12.2020	Currency	31.12.2021	31.12.2020
BGN	1.9558	1.9558	PLN	4.5969	4.5597
CZK	26.8580	26.2420	RON	4.9490	4.8683
DKK	7.4364	7.4409	SEK	10.2503	10.0343
GBP	0.84028	0.8990	CHF	1.0331	1.0802
HRK	7.5156	7.5519	JPY	130.3800	126.4900
HUF	369.1900	363.8900	USD	1.1326	1.2271

1.2.3. Use of estimates

In accordance with IPSAS and generally accepted accounting principles, the financial statements necessarily include amounts based on estimates and assumptions by management based on the most reliable information available. Significant estimates include, but are not limited to: amounts for employee benefit liabilities, financial risk of accounts receivable and the amounts disclosed in the notes concerning financial instruments, impairment allowance for financial assets at amortised cost and for financial guarantee contract liabilities, accrued revenue and charges, provisions, degree of impairment of intangible assets and property, plant and equipment, net realisable value of inventories, contingent assets and liabilities. Actual results could differ from those estimates.

Reasonable estimates are an essential part of the preparation of financial statements and do not undermine their reliability. An estimate may need revision if changes occur in the circumstances on which the estimate was based or as a result of new information or more experience. By its nature, the revision of an estimate does not relate to prior periods and is not the correction of an error. The effect of a change in accounting estimate shall be recognised in the surplus or deficit in the periods in which it becomes known.

1.2.4. Application of new and revised European Union Accounting Rules (EAR)

Revised EAR which is effective for annual periods beginning on or after 1 January 2021

In 2020, the Accounting Officer adopted the revised EAR 11 'Financial Instruments', which is mandatorily effective as of 1 January 2021. The revised EAR 11 is based on the new IPSAS 41 'Financial Instruments', the amended IPSAS 28 'Financial Instruments: Presentation' and the amended IPSAS 30 'Financial Instruments: Disclosures' which were issued in August 2018. It establishes the financial reporting principles for financial assets and financial liabilities. In accordance with the transition provisions of the revised EAR 11, the entity accounts for any changes from the initial application, on 1 January 2021. The revised EAR 11 does not require the restatement of prior periods.

Changes from the application of the revised EAR 11

The only financial instruments of the entity, are the receivables from exchange transactions. In accordance with the revised EAR 11 requirements, the entity has classified these receivables as 'financial assets at amortised cost' ('loans and receivables' in prior periods). The entity has applied the impairment requirements of the revised EAR 11 to the receivables, but no recognition of loss allowance in the accumulated surplus or deficit on 1 January 2021 was needed.

1.3. BALANCE SHEET

1.3.1. Property, plant and equipment

All property, plant and equipment are stated at historical cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition, construction or transfer of the asset. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits or service potential associated with the item will flow to the entity and its cost can be measured reliably. Repairs and maintenance costs are charged to the statement of financial performance during the financial period in which they are incurred. Land is not depreciated, as it is deemed to have an indefinite useful life. Assets under construction are not depreciated as these assets are not yet available for use. Depreciation on other assets is calculated using the straight-line method to allocate their cost less their residual values over their estimated useful lives, as follows:

Type of asset	Straight line depreciation rate
<i>Buildings</i>	4 % to 10 %
<i>Plant and equipment</i>	10 % to 25 %
<i>Furniture and vehicles</i>	10 % to 25 %
<i>Computer hardware</i>	25 % to 33 %
<i>Other</i>	10 % to 33 %

Gains or losses on disposals are determined by comparing proceeds less selling expenses with the carrying amount of the disposed asset and are included in the statement of financial performance.

Leases

A lease is an agreement whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. Leases are classified as either finance leases or operating leases.

Finance leases are leases where substantially all the risks and rewards incidental to ownership are transferred to the lessee.

An operating lease is a lease other than a finance lease, i.e. a lease where the lessor retains substantially all the risks and rewards incidental to ownership of an asset. When entering an operating lease as a lessee, the operating lease payments are recognised as an expense in the statement of financial performance on a straight-line basis over the lease term with neither an asset nor a liability recognised in the balance sheet.

1.3.2. Impairment of non-financial assets

Assets that have an indefinite useful life are not subject to amortisation/depreciation and are tested annually for impairment. Assets that are subject to amortisation/depreciation are tested for impairment whenever there is an indication at the reporting date that an asset may be impaired. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable (service) amount. The recoverable (service) amount is the higher of an asset's fair value less costs to sell and its value in use.

Intangible assets and property, plant and equipment residual values and useful lives are reviewed, and adjusted if appropriate, at least once per year. If the reasons for impairments recognised in previous years no longer apply, the impairment losses are reversed accordingly.

1.3.3. Financial assets

The classification of the financial instruments is determined at initial recognition. Based on the management model and the asset contractual cash-flow characteristics the financial assets can be classified in three categories: Financial assets at amortised cost ('AC'), financial assets at fair value through net assets/equity ('FVNA') or financial assets at fair value through surplus or deficit ('FVSD'). Based on this classification, the entity has only 'financial assets at amortised cost', which are exchange receivables.

Financial assets at amortised cost are non-derivative financial assets that meet two conditions: 1) The entity holds them in order to collect the contractual cash flows. 2) On specified days, there are contractual cash flows that are solely payments of the principal and interest on the outstanding principal.

Financial assets at amortised cost are included in current assets, except for those with maturity of more than 12 months from the balance sheet reporting date.

Initial recognition and measurement

Financial assets at amortised cost are initially recognised at their fair value plus the transaction costs.

Subsequent measurement

Financial assets at amortised cost are carried at amortised cost, which is the amount initially recognised minus the principal repayments, plus or minus the cumulative amortisation of the interests using the effective interest method. In addition, the entity recognises a loss allowance for expected credit losses over the lifetime of the financial assets. At each reporting date, the annual movement in the loss allowance adjusts the carrying amount of the financial asset. In the statement of financial performance, the entity recognises an impairment gain or loss for the adjustment of the loss allowance.

Derecognition

Financial assets at amortised cost are derecognised either when the rights to receive cash flows from the investments have expired or are waived, or when the entity has transferred substantially all risks and rewards of ownership to another party.

1.3.4. Pre-financing amounts

Pre-financing is a payment intended to provide the beneficiary with a cash advance, i.e. a float. It may be split into a number of payments over a period defined in the particular contract, decision, agreement or basic legal act. The float or advance is either used for the purpose for which it was provided during the period defined in the agreement or it is repaid. If the beneficiary does not incur eligible expenditure, he has the obligation to return the pre-financing advance to the entity. Thus, as the entity retains control over the pre-financing and is entitled to a refund for the ineligible part, the amount is recognised as an asset.

Pre-financing is initially recognised on the balance sheet when cash is transferred to the recipient. It is measured at the amount of the consideration given. In subsequent periods pre-financing is measured at the amount initially recognised on the balance sheet less eligible expenses (including estimated amounts where necessary) incurred during the period.

1.3.5. Receivables and recoverables

The EU accounting rules require separate presentation of exchange and non-exchange transactions. To distinguish between the two categories, the term 'receivable' is reserved for exchange transactions, whereas for non-exchange transactions, i.e. when the EU receives value from another entity without directly giving approximately equal value in exchange, the term 'recoverables' is used (e.g. recoverables from Member States related to own resources).

Receivables from exchange transactions meet the definition of financial instruments. The entity classified them as financial assets at amortised cost and measured them accordingly.

Recoverables from non-exchange transactions are carried at fair value as at the date of acquisition less write-down for impairment. A write-down for impairment is established when there is objective evidence that the entity will not be able to collect all amounts due according to the original terms of the recoverables. The amount of the write-down is the difference between the asset's carrying amount and the recoverable amount. The amount of the write-down is recognised in the statement of financial performance.

1.3.6. Payables

Included under accounts payable are both amounts related to exchange transactions such as the purchase of goods and services, and to non-exchange transactions e.g. to cost claims from beneficiaries, grants or other EU funding, or pre-financing received (see note **1.4.1**).

Where grants or other funding are provided to the beneficiaries, the cost claims are recorded as payables for the requested amount, at the moment when the cost claim is received. Upon verification and acceptance of the eligible costs, the payables are valued at the accepted and eligible amount.

Payables arising from the purchase of goods and services are recognised at invoice reception for the original amount. The corresponding expenses are entered in the accounts when the supplies or services are delivered and accepted by the entity.

1.3.7. Accrued and deferred revenue and charges

Transactions and events are recognised in the financial statements in the period to which they relate. At year-end, if an invoice is not yet issued but the service has been rendered, or the supplies have been delivered by the entity or a contractual agreement exists (e.g. by reference to a contract), an accrued revenue will be recognised in the financial statements. In addition, at year-end, if an invoice is issued but the services have not yet been rendered or the goods supplied have not yet been delivered, the revenue will be deferred and recognised in the subsequent accounting period.

Expenses are also accounted for in the period to which they relate. At the end of the accounting period, accrued expenses are recognised based on an estimated amount of the transfer obligation of the period. The calculation of accrued expenses is done in accordance with detailed operational and practical guidelines issued by the Accounting Officer. These aim at ensuring that the financial statements provide a faithful representation of the economic and other phenomena they purport to represent. By analogy, if a payment has been made in advance for services or goods that have not yet been received, the expense will be deferred and recognised in the subsequent accounting period.

1.4. STATEMENT OF FINANCIAL PERFORMANCE

1.4.1. Expenses

Expenses are decreases in economic benefits or service potential during the reporting period in the form of outflows or consumption of assets or the incurring of liabilities that result in decreases in net assets. They include both the expenses from exchange transactions and expenses from non-exchange transactions.

Expenses from exchange transactions arising from the purchase of goods and services are recognised when the supplies are delivered and accepted by the entity. They are valued at the original invoice amount. Furthermore, at the balance sheet date expenses related to the service delivered during the period for which an invoice has not yet been received or accepted are recognised in the statement of financial performance.

Expenses from non-exchange transactions relate to transfers to beneficiaries and can be of three types: entitlements, transfers under agreement and discretionary grants, contributions and donations. Transfers are recognised as expenses in the period during which the events giving rise to the transfer occurred, as long as the nature of the transfer is allowed by regulation or an agreement has been signed authorising the transfer; any eligibility criteria have been met by the beneficiary; and a reasonable estimate of the amount can be made.

When a request for payment or cost claim is received and meets the recognition criteria, it is recognised as an expense for the eligible amount. At year-end, incurred eligible expenses due to the beneficiaries but not yet reported are estimated and recorded as accrued expense.

1.5. CONTINGENT ASSETS AND LIABILITIES

1.5.1. Contingent assets

A contingent asset is a possible asset that arises from past events and of which the existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity. A contingent asset is disclosed when an inflow of economic benefits or service potential is probable.

1.5.2. Contingent liabilities

A contingent liability is either a possible obligation of which the existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or a present obligation where it is not probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation.

A contingent liability also arises in the rare circumstances where a present obligation exists but cannot be measured with sufficient reliability.

Contingent liabilities are not recognised in the accounts. They are disclosed unless the possibility of an outflow of resources embodying economic benefits or service potential is remote.

1.6. CONTRIBUTIONS FROM MEMBERS

The contributions from the Members of the Joint Undertakings (JU) form the funding of the JU and are treated as contributions from owners. An owner in this context does not mean an owner in the sense of owning shares of the JU (no shares are issued) but rather in the sense of political interest and governance of the JU by exercising the voting rights linked to these contributions.

1.6.1. Financial contributions

Financial contributions are contributions of Members made in cash in order to provide funding of the operational or administrative needs of the JU. These financial contributions are recognised in net assets in the period in which the enforceable right to receive the payment was established.

1.6.2. In-kind contributions

Members other than the EU (i.e. 'Private Members') can also contribute resources other than cash, e.g. laboratory equipment, specialised staff, etc. These in-kind contributions consist of the costs incurred by Private Members in implementing indirect actions.

The Regulation distinguishes between two types of in-kind contributions: (1) In-kind contributions to operational activities (IKOP) and (2) in-kind contributions to additional activities (IKAA). The EuroHPC however only has IKOP.

The IKOP represents in-kind contributions made to the JU linked to its work plan and co-financed by the EU. The IKOP are recognised in net assets of the JU in the period when the conditions for Members' contributions stipulated by the Regulation are met.

The expenses related to the IKOP incurred in the financial year are recognised in the statement of financial performance. At year-end, incurred IKOP not yet reported are estimated and recorded as other liabilities ('Contributions of Members to be validated').

2. NOTES TO THE BALANCE SHEET

ASSETS

2.1. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are tangible assets that are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes, and are expected to be used during more than one reporting period.

	EUR '000		
	Computer hardware	Other	TOTAL
<i>Gross carrying amount at 31.12.2020</i>	–	15	15
<i>Additions</i>	15 361	1	15 362
Gross carrying amount at 31.12.2021	15 361	16	15 377
<i>Accumulated depreciation at 31.12.2020</i>	–	(1)	(1)
<i>Depreciation charge for the year</i>	(1 833)	(1)	(1 834)
Accumulated depreciation at 31.12.2021	(1 833)	(2)	(1 835)
NET CARRYING AMOUNT AT 31.12.2021	13 528	14	13 542
<i>NET CARRYING AMOUNT AT 31.12.2020</i>	–	14	14

The increase in this heading is related to the fact that at the end of 2021 three supercomputers, VEGA, KAROLINA and DISCOVERER, were operational.

2.2. PRE-FINANCING

Pre-financing is a payment intended to provide the beneficiary with a cash advance, i.e. a float. It may be split into a number of payments over a period defined in the particular underlying contract, decision, agreement or basic legal act.

	EUR '000	
	31.12.2021	31.12.2020
<i>Non-current pre-financing</i>	196 977	82 013
<i>Current pre-financing</i>	40 019	21 818
Total	236 996	103 831

The non-current pre-financing includes kEUR 113 930 of advanced payments for the purchase of supercomputers. The remaining kEUR 83 047 relates to pre-financing paid to beneficiaries of grant agreements, which increased by kEUR 35 322 due to new projects signed and started in 2021.

The high amount of the open pre-financing related to grants can be explained by the fact that according to the Horizon 2020 rules, the incurred costs (both actual and estimated) are cleared against pre-financing only when the total amounts paid to the beneficiary reach 90% of the grant agreement amount. In addition, only the amount exceeding this threshold is cleared. Consequently, in the first years of a project's life there is significant open pre-financing that will only be cleared in later years.

The outstanding pre-financing presented under this heading is net of estimated (cut-off) expenses for on-going projects without validated cost claims on 31 December 2021. The clearing of pre-financing with cut off expenses amounted to kEUR 17 112. The remaining portion of the cut off expenses is recorded in accrued charges (see note 2.5).

2.3. EXCHANGE RECEIVABLES & NON-EXCHANGE RECOVERABLES

Exchange transactions are transactions in which the entity receives assets or services, or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of goods, services or use of assets) to the other party in exchange. Non-exchange transactions are transactions in which an entity either receives value from another entity without directly giving approximately equal value in exchange, or gives value to another entity without directly receiving approximately equal value in exchange.

All the amounts under this heading are of current, by non-exchange and exchange nature and can be broken down as follows:

	EUR '000	
	31.12.2021	31.12.2020
Recoverables from non-exchange transactions		
<i>Other</i>	17	-
	17	-
Receivables from exchange transactions		
<i>Central treasury liaison accounts</i>	106 484	100 367
<i>Customers</i>	55 337	12 296
<i>Other</i>	9	-
	161 830	112 663
Total	161 847	112 663

The Central treasury liaison (intercompany) accounts with the Commission represent a virtual bank account of EuroHPC. Following the appointment of the Accounting Officer of the Commission as the Accounting Officer of EuroHPC, the treasury of the joint undertaking was integrated into the Commission's treasury system. Because of this, EuroHPC JU does not have any bank accounts of its own. All payments and receipts are processed via the Commission's treasury system and registered on intercompany accounts, which are presented under this heading. The result of the incoming and outgoing payments represents the cash balance available to EuroHPC.

The increase by kEUR 6 117 under Central treasury liaison accounts is a combined effect of lower amount of payments due to the suspended and postponed activities due to the pandemic and also increase of the cash contributions for operational activities that has not been fully spent due to these delays.

The amount kEUR 55 337 under the Customers heading are the cash contributions due from CINECA (Italy) related to the Leonardo pre-exascale supercomputer that were not received by the year-end.

LIABILITIES

2.4. PAYABLES AND OTHER LIABILITIES

Payables are liabilities to pay for goods or services that have been received or supplied and - unlike accrued charges - have already been invoiced or formally agreed with the supplier. Payables can relate to both exchange transactions (such as the purchase of goods and services) and non-exchange transactions (e.g. cost claims from beneficiaries of grants, pre-financing or other EU funding).

	EUR '000	
	31.12.2021	31.12.2020
<i>Contribution in kind to be validated</i>	17 238	-
<i>Payables to Participant Guarantee Fund</i>	6 615	380
<i>Payables to EU entities</i>	17	22
<i>Sundry payables</i>	10 223	-
Total	34 094	402

Included under the sub-heading 'Contribution in-kind to be validated' are the in kind contributions from Members related to on-going or ended projects without a validated cost statement at 31 December 2021. The increase of this item is a combined effect: 2021 was the first year in which the participating states declared in-kind contributions relating to the operation of the supercomputers, and it was also the first year in which in-kind contributions were declared by private members in respect of the operational grant agreements under H2020.

The amounts under Sundry payables relate to cost claims received in respect of grant agreements that were received but not yet validated and paid at year-end. It also relate to an invoice from ATOS Italy concerning the 1st interim payment for the Leonardo Supercomputer that was received but not yet validated and paid at the year end. Once validation and payment are processed, the underlying amount of kEUR 11 067 will be transferred to pre-financing (see note 2.2).

For all H2020 grant agreements signed, there is an automatic guarantee retention of 5% from the pre financing payment made to beneficiaries. The guarantee is transferred to the Participant Guarantee Fund and paid back to the beneficiary only when the project is successfully accomplished. This mechanism arises from EU Regulation 2013/1290 laying down the rules for participation and dissemination in "Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020)".

The Commission is responsible for initiating the procedure by which EuroHPC transfers the retained guarantee to the Participants Guarantee Fund. The payable at end of the year represents automatically retained amounts from the pre financing of Horizon 2020 projects, which have not yet been transferred to the Fund.

2.5. ACCRUED CHARGES

Accruals are liabilities to pay for goods or services that have been received or supplied but - unlike payables - have not yet been invoiced or formally agreed with the supplier. They include amounts due to employees (e.g. accruals for untaken holidays). The calculation of accruals is based on the open amount of budgetary commitments at year-end. The portion of the estimated accrued charges relating to pre-financing paid has been recorded as a reduction of the pre-financing amounts.

EUR '000

	31.12.2021	31.12.2020
Accrued charges	42 256	24 902

Accrued charges are primarily composed of estimated operational expenses of kEUR 42 080 related to grant agreements where no invoice or cost claim has been validated by 31 December 2021. The increase of the title is driven by the increased number of projects without a validated cost claim at the end of 2021.

Accrued charges also include estimated administrative expenses kEUR 131 and kEUR 45 related to the accrued staff expenses for untaken leave.

NET ASSETS

2.6. CONTRIBUTIONS FROM MEMBERS

Following the EuroHPC establishing regulation, the JU member contribute to both the operational and the administrative cost of the JU. While the contributions to the administrative cost are financial contributions, the contributions to the operating cost can be both financial and in-kind.

In line with the Horizon 2020 rules, only contributions from the members certified by an external auditor and validated by the Executive Director of the JU are considered in-kind contributions to the net assets. Estimated in-kind contributions, i.e. contributions for which no certifications have been received and/or this certification has not been validated by the Executive Director, are reported under other liabilities.

At 31 December there were no validated in kind contributions. All the JU contributions comprised financial contributions and can be split as follows:

EUR '000

Member	EU	Participating States	Total
<i>Running costs contributions at 31.12.2020</i>	2 370	–	2 370
<i>Current year contributions</i>	3 080	–	3 080
Running costs contributions at 31.12.2021	5 450	–	5 450
<i>Operating costs contributions</i>	188 549	28 862	217 411
<i>Current year contributions</i>	113 012	91 420	204 431
Operating costs contributions at 31.12.2021	301 561	120 282	421 842
<i>TOTAL contributions at 31.12.2020</i>	190 919	28 862	219 781
TOTAL contributions at 31.12.2021	307 011	120 282	427 292
<i>Voting rights %</i>	50.00%	50.00%	100.00%

It should be noted that the cash contributions to operating costs include also kEUR 55 337 of uncashed contributions from participating states related to 2021 contributions for which the recovery orders were issued but not yet cashed at year end (see note **2.3**).

3. NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE

REVENUE

3.1. REVENUE FROM EXCHANGE TRANSACTIONS

	EUR '000	
	2021	2020
<i>Financial revenue</i>	17	-
<i>Other</i>	47	-
Total	65	-

The heading comprises mainly of kEUR 35 of other revenue recognised due to a contractual penalty for the late delivery of EUROIT4I SUPERCOMPUTER (Karolina) and kEUR 17 representing the accrued income for the late cashing for Deucalion and Leonardo.

EXPENSES

3.2. OPERATING COSTS

Included under this heading are operational expenses related to projects that were carried out in the current year. The part of the operational costs related to on-going projects without any validated cost claims (or equivalent) available at 31 December was estimated using the best information available at the time of preparation of the annual accounts. The estimation is based on case-by-case assessment of completion which ensures that only costs that reflect the services or work performed by 31 December are included in the operational costs of the year. Depending on the availability of information at the time of preparation of the annual accounts, the estimates are based on costs incurred to date as a proportion of the estimated total costs of the projects ("pro-rata temporis").

The break-down of the operational costs between operational costs incurred on the basis of validated cost claims (or equivalent) and estimated operational costs is given in the table below:

		EUR '000	
	Note	2021	2020
<i>Operational costs: estimated in-kind contributions</i>	2.4	17 238	-
<i>Operational costs: estimated EU contributions</i>	2.5	41 573	27 855
Total		58 811	27 855

The overall increase of the operational costs by is a combined effect: Firstly, the operational costs increased due to recognition of estimated costs from in-kind from the Participating states for operating the supercomputers, and, the inclusion of the projects launched in 2021 pro rata temporis calculation led to an increase of estimated operational costs from EU contributions.

3.3. STAFF COSTS

This heading includes the expenses for salaries, allowances and other employment-related benefits. Based on the service level agreement between the JU and the Commission, the calculations of staff-related costs is carried out by the Commission's Office for Administration and Payment of Individual Entitlements (also known as the Paymaster's Office - PMO). The pensions of the JU staff members are covered by the Pension Scheme of European Officials. This pension scheme is a defined benefit plan, i.e. the amount of benefit an employee will receive on retirement depends on several factors, the most important of which is years of service. Both the JU staff and the EU budget contribute to the pension scheme, with the contribution percentage being revised annually in line with the changes in the Staff Regulation governing the scheme. The cost to the EU Budget is not reflected in the JU accounts. Similarly, no provision related to the future pension payments is recognised in the annual accounts of the

JU, as the obligation falls to the Commission. Consequently, both the annual cost to the EU budget, and the future benefits payable to the JU staff, are accounted for in the Commission's annual accounts as part of its provision for pensions and other post-employment benefits. The pension costs included in the Commission's Statement of Financial Performance represent current service cost (rights accrued during the year due to service) and interest cost (unwinding of the liability discounting) which have arisen following the year-end actuarial valuation of the employee benefits liabilities.

EUR '000

	2021	2020
<i>Staff costs</i>	1 485	341

The increase under this heading is driven by the combined effect of the increase of number of staff necessary so as to cope with the increase in activities, and also the fact that in 2020 the staff costs were paid only for three months (after autonomy on 23 September 2020).

3.4. OTHER EXPENSES

Included under this heading are expenses of administrative nature such as external non IT services, operating leasing expenses, communications and publications, training costs etc.

EUR '000

	2021	2020
<i>Property, plant and equipment related expenses</i>	1 834	1
<i>External non IT services</i>	200	175
<i>Legal Expenses</i>	165	-
<i>Maintenance and security of buildings</i>	131	30
<i>Office supplies and maintenance</i>	36	58
<i>External IT services</i>	44	56
<i>Experts expenses</i>	36	20
<i>Training costs</i>	20	2
<i>Missions</i>	6	8
<i>Communications & publications</i>	(15)	20
<i>Operating leasing expenses</i>	(8)	10
Total	2 448	380

The overall amounts of expenses increased because 2020 included only three months of activities (after autonomy on 23 September 2020). The increase of Property, plant and equipment expenses relates almost entirely to depreciation the 3 supercomputers that became operational in 2021.

The increase of legal expenses is linked to the extended use of external legal advisers in operational areas contracted regarding the on-going legal case concerning the procedure for the 'Acquisition, delivery, and hardware and software maintenance of Precursors to Exascale Supercomputers for the European High Performance Computing Joint Undertaking (EuroHPC JU) - SMART 2019/1084 - Lot 3: 'Leonardo'.

The operating lease expenses relate to the Euro HPC headquarters building in Luxembourg and leasing contract related to IT materials and other equipment. An overview of the amounts to be committed and paid during the remaining term of these lease contracts are as follow:

EUR '000

	Future amounts to be paid			Total
	< 1 year	1- 5 years	> 5 years	
<i>Buildings</i>	19	74	-	93
<i>IT materials and other equipment</i>	1	5	-	6
Total	20	79	-	99

4. OTHER SIGNIFICANT DISCLOSURES

4.1. OUTSTANDING COMMITMENTS NOT YET EXPENSED

The outstanding commitments not yet expensed comprise the budgetary RAL ('Reste à Liquider') less related amounts that have been included as expenses in the current year's statement of financial performance. The RAL represents the open budgetary commitments for which payments and/or de-commitments have not yet been made. This is the normal consequence of the existence of multi-annual programmes.

	<i>EUR '000</i>	
	31.12.2021	31.12.2020
<i>Outstanding commitments not yet expensed</i>	278 926	592 194

The outstanding commitments not yet expensed represent the correction of the budgetary RAL with the estimated costs, which are determined by using accrual based principle not reflected in the budgetary result, where the cash based principle is used. The large decrease between the years is driven by the decrease in the budgetary RAL by kEUR 292 202, which is seen the budget implementation reports.

4.2. RELATED PARTIES

The related parties of the JU are the participants of the JU and the key management personnel of these entities. As transactions between the JU and these parties take place as part of the normal operations of the JU and on terms and conditions that are normal for such transactions, no specific disclosures are required.

4.3. KEY MANAGEMENT ENTITLEMENTS

The highest ranked civil servant of EuroHPC is the Executive Director, who executes the role of the Authorising Officer.

	31.12.2021	31.12.2020
<i>Executive Director</i>	<i>AD 14</i>	<i>AD 14</i>

The Executive Director is remunerated in accordance with the Staff Regulation of the European Union that is published on the Europa website and which is the official document describing the rights and the obligation of all officials of the EU. The Executive Director has not received any preferential loans from EHPC JU.

4.4. OTHER EVENTS

Court case

On 26 January 2021, the Euro HPC was formally notified that a participant has appealed to the European Court of Justice for the annulment of the decision of the European High Performance Computing Joint Undertaking of 29 September 2020, concerning the procedure for the 'Acquisition, delivery, and hardware and software maintenance of Precursors to Exascale Supercomputers for the European High Performance Computing Joint Undertaking (EuroHPC JU) - SMART 2019/1084 - Lot 3: 'Leonardo'.

The process of engaging a legal firm for the defence of the JU started immediately. Due to the solid expectation that EuroHPC will succeed, no provision nor contingent liabilities have been booked.

Pension contribution of Participating States and Industry partners

Based on analysis undertaken in 2021 it has been determined that the entity, in line with Article 83a (2) of the Staff Regulations, should pay into the general budget of the European Union the part of the employers' contributions which corresponds to the proportion between the entity's revenues without the subsidy from the general budget of the European Union and its total revenues.

In the case of EuroHPC JU, the applicable proportion should be calculated based on the specific percentage of the administrative costs funded by the Participating States and Private members. The Commission is working on guidance for calculating and collection the employer contributions which has not been finalised and approved at the time of signature of these annual accounts. Due to the administrative limitations of applying Art. 83a (2) of the Staff Regulations retroactively, that EuroHPC JU is not subject to Council Regulation (EU) 2021/2085, that EuroHPC JU's founding Regulation (EU) 2018/1488 states that private members shall only contribute EUR 2 million to the JU's administrative costs as of 2024 and that new Regulation (EU) 2021/1173 states that all administrative costs will be covered by the EU contributions to the JU the new guidance will be applied as of the financial year 2022 only.

4.5. EVENTS AFTER REPORTING DATE

In accordance with EU accounting rule 19, Events after Reporting Date, the war in Ukraine that began in February 2022 is a non adjusting event, thus not requiring any adjustments to the figures reported in these financial statements at 31 December 2021. For subsequent reporting periods, the war may affect the recognition and measurement of some assets and liabilities on the balance sheet and of some revenue and expenses recognised in the statement of financial performance. Based on the facts and circumstances at the time of preparation of these financial statements, in particular the evolving situation, the financial effect of the war in Ukraine on the EuroHPC JU cannot be reliably estimated.

5. FINANCIAL RISK MANAGEMENT

5.1. TYPES OF RISK

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate, because of variations in market prices. Market risk embodies not only the potential for loss, but also the potential for gain. It comprises currency risk, interest rate risk and other price risk (the entity has no significant interest rate risk and other price risk).

(1) *Currency risk* is the risk that the entity operations will be affected by changes in exchange rates. This risk arises from the change in the price of one currency against another.

(2) *Interest rate risk* is the possibility of a reduction in the value of a security, especially a bond, resulting from an increase in interest rates. In general, higher interest rates will lead to lower prices of fixed rate bonds, and vice versa. The entity does not have any securities thus it is not exposed to the interest rate risk.

Credit risk is the risk of loss due to a debtor's non-payment or other failure to meet a contractual obligation. The default events include a delay in repayments, and bankruptcy.

Liquidity risk is the risk that an EU entity will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset.

5.2. CURRENCY RISKS

At the end of the year, the financial assets are composed of exchange receivables. The financial liabilities are composed of accounts payable. Their ending balances are mainly quoted in EUR, the entity is thus not exposed to currency risk.

5.3. CREDIT RISK

The financial assets comprise exchange receivables that are not past due for more than 30 days. As no credit loss is expected during the life time of those receivables the entity is not exposed to any significant credit risk.

5.4. LIQUIDITY RISK

The financial liabilities are mainly composed of accounts payable. All the accounts payable have remaining contractual maturity of less than 1 year.

THE EUROPEAN HIGH PERFORMANCE COMPUTING JOINT UNDERTAKING
FINANCIAL YEAR 2021

**THE BUDGET IMPLEMENTATION REPORTS AND
EXPLANATORY NOTES**

It should be noted that due to the rounding of figures into thousands of euros (kEUR), some financial data in the tables below may appear not to add-up.

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1. BUDGETARY PRINCIPLES AND STRUCTURE

1.1. BUDGETARY PRINCIPLES

The establishment and implementation of the budget of EuroHPC JU is governed by the following basic principles set out in the Chapter 2 of the Financial Rules of EuroHPC JU:

Principles of unity and budget accuracy

This principle means that no revenue shall be collected and no expenditure effected unless booked to a line in the budget of EuroHPC JU. No expenditure may be committed or authorised in excess of the appropriations authorised by the budget. An appropriation may be entered in the budget only if it is for an item of expenditure which is considered necessary.

Principle of annuality

The appropriations entered in the budget shall be authorised for a financial year which shall run from 1 January to 31 December. As specified in its Financial Rules, EuroHPC JU is subject to an exception to the annuality principle, specific only to the joint undertakings (the "N+3" rule), whereby any unused appropriations may be entered in the estimate of revenue and expenditure of up to the following three financial years. These appropriations must be used first.

Principle of equilibrium

Revenue and payment appropriations shall be in balance.

Principle of unit of account

The budget shall be drawn up and implemented in euros and the accounts shall be presented in euros.

Principle of universality

Total revenue shall cover total payment appropriations and all revenue and expenditure shall be entered in full without any adjustment against each other.

Principle of specification

Appropriations shall be earmarked for specific purposes at least by title and chapter.

Principle of sound financial management

Appropriations shall be used in accordance with the principle of sound financial management, namely in accordance with the principles of economy, efficiency and effectiveness.

Principle of transparency

The budget shall be established and implemented and the accounts presented in accordance with the principle of transparency. The budget and any amending budgets shall be published on EuroHPC JU's internet site within four weeks of adoption and shall be transmitted to the Commission and the Court of Auditors.

1.2. STRUCTURE AND PRESENTATION OF THE BUDGET

EuroHPC JU makes use of differentiated appropriations for its administrative expenditure and operational expenditure.

Following the provisions of the Financial rules of EuroHPC JU, the budget accounts shall consist of a statement of revenue and a statement of expenditure. The budget is distributed in the following titles:

Title 1 budget lines are related to staff expenditure such as salaries and allowances for persons working with EuroHPC2 JU. It also includes recruitment expenses, staff missions, expenses for the socio-medical infrastructure and representation costs.

Title 2 budget lines relate to all infrastructure, equipment, meetings, experts, studies, ex-post audits and miscellaneous administrative expenditure.

Title 3 budget lines provide for the implementation of the activities and tasks assigned to EuroHPC JU in accordance with its establishing Council Regulation (EU) 2021/1173 and repealing EU No 2018/1488.

2. RESULT OF THE IMPLEMENTATION OF THE BUDGET

		<i>EUR '000</i>	
	Title	2021	2020
Revenue		164 505	140 741
of which:			
EU Contribution	2	116 092	124 176
Other contributions	4	48 379	16 565
Recoveries - R and I Calls	5	35	-
Expenditure		(164 615)	(40 754)
of which:			
Staff expenditure	1	(1 612)	(289)
Administrative expenditure	2	(672)	(94)
Operational expenditure	3	(162 331)	(40 371)
Exchange rate differences		-	-
Budget result		(109)	99 987

3. RECONCILIATION OF ECONOMIC RESULT WITH BUDGET RESULT

EUR '000

	2021	2020
ECONOMIC RESULT OF THE YEAR	(62 680)	(28 575)
Adjustment for accrual items (items not in the budgetary result but included in the economic result)		
<i>Adjustments for accrual cut-off (net)</i>	13 977	28 184
<i>Unpaid invoices at year end but booked in expenses</i>	1	22
<i>Depreciation, amortization and impairment of intangible and tangible assets</i>	1 834	1
<i>Pre-financing given in previous year and cleared in the year</i>	12 664	-
<i>Payments made from carry-over of payment appropriations</i>	108 275	-
Adjustment for budgetary items (item included in the budgetary result but not in the economic result)		
<i>Members' cash contributions collected in the year</i>	164 471	140 741
<i>Asset acquisitions (less unpaid amounts)</i>	-	(15)
<i>New pre-financing paid in the year and remaining open as at 31</i>	(67 351)	
<i>Entitlements established in previous year and cashed in the year</i>	12 296	(40 371)
<i>Entitlements established on balance sheet accounts and cashed in</i>	35	-
<i>Payment appropriations carried over to next year</i>	(183 631)	-
<i>Adjustment for carry-over of assigned revenue appropriations from previous year</i>	-	-
BUDGET RESULT OF THE YEAR	(109)	99 987

4. IMPLEMENTATION OF BUDGET REVENUE

4.1. Implementation of budget revenue – Title 2

EUR '000

Item	Income appropriations		Entitlements established			Revenue		Total	%	Out-standing
	Initial budget	Final budget	Current year	Carried over	Total	On entitlements of current year	On entitlements carried over			
	1	2	3	4	5=3+4	6	7			
2000 Contribution from EU administrative	3 002	3 080	3 080	–	3 080	3 080	–	3 080	100 %	–
Total Chapter 20	3 002	3 080	3 080	–	3 080	3 080	–	3 080	100 %	–
2100 Contribution from EU operational	283 670	113 012	113 012	–	113 012	113 012	–	113 012	55 %	–
Total Chapter 21	283 670	113 012	113 012	–	113 012	113 012	–	113 012	55 %	–
Total Title 2	286 673	116 092	116 092	–	116 092	116 092	–	116 092	56 %	–
3000 EEA/EFTA contribution	82	–	–	–	–	–	–	–	–	–
Total Chapter 30	82	–	–	–	–	–	–	–	–	–
Total Title 3	82	–	–	–	–	–	–	–	–	–
4000 Participating states contribution	0*	91 420	91 420	12 296	103 716	36 083	12 296	48 379	–	55 337
Total Chapter 40	0	91 420	91 420	12 296	103 716	36 083	12 296	48 379	–	55 337
Total Title 4	0	91 420	91 420	12 296	103 716	36 083	12 296	48 379	–	55 337
5000 Recoveries - R and I Calls	0	0	35	–	35	35	–	35	–	–
Total Chapter 50	0	0	35	–	35	35	–	35	–	–
Total Title 5	0	0	35	–	35	35	–	35	–	–
GRAND TOTAL	286 755	207 512	207 546	12 296	219 843	152 209	12 296	164 505	79 %	55 337

* Due to a clerical error the PS contribution in the initial voted budget inscribed (in the revenue payment appropriation table) was included under the EU contribution. However this was corrected in the final budget.

5. IMPLEMENTATION OF BUDGET EXPENDITURE

5.1. Breakdown & changes in commitment appropriations

5.1.1. Breakdown & changes in commitment appropriations – Title 1

EUR '000

Item	Budget appropriations				Additional appropriations			Total appropriations available
	Initial adopted budget	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
	1	2	3	4=1+2+3	5	6	7=5+6	
1100 Establishment plan posts	552	-	-	552	197	-	197	749
1110 External personnel	853	-	-	853	504	-	504	1 357
Total Chapter 11	1 405	-	-	1 405	701	-	701	2 106
1200 Expenditure relating to recruitment	5	-	-	5	35	-	35	40
Total Chapter 12	5	-	-	5	35	-	35	40
1300 Mission and travel expenses	70	-	-	70	60	-	60	130
Total Chapter 13	70	-	-	70	60	-	60	130
1400 Socio-medical infrastructure and training	200	-	-	200	3	-	3	203
Total Chapter 14	200	-	-	200	3	-	3	203
Total Title 1	1 680	-	-	1 680	798	-	798	2 478

5.1.2. Breakdown & changes in commitment appropriations – Title 2

EUR '000

Item	Budget appropriations			Final adopted budget 4=1+2+3	Additional appropriations			Total approp. available 8=4+7
	Initial adopted budget 1	Amending budgets 2	Transfers 3		Reactivated appropriations 5	Assigned revenue 6	Total 7=5+6	
2000 Buildings and associated costs	85	(4)	50	130	2	–	2	133
Total Chapter 20	85	(4)	50	130	2	–	2	133
2100 Information Technology	250	–	–	250	293	–	293	543
Total Chapter 21	250	–	–	250	293	–	293	543
2200 Movable property and associated costs	20	–	–	20	67	–	67	87
Total Chapter 22	20	–	–	20	67	–	67	87
2300 Current administrative expenditure	200	–	–	200	95	–	95	295
Total Chapter 23	200	–	–	200	95	–	95	295
2400 Postage and Telecommunications	10	–	–	10	4	–	4	14
Total Chapter 24	10	–	–	10	4	–	4	14
2500 Expenditure of formal and other meetings	330	–	(50)	280	345	–	345	625
Total Chapter 25	330	–	(50)	280	345	–	345	625
2600 Running costs in connection with operational activities	150	–	–	150	141	–	141	291
Total Chapter 26	150	–	–	150	141	–	141	291
2700 Information and Publishing	10	–	–	10	0	–	0	10
Total Chapter 27	10	–	–	10	0	–	0	10
2800 Expert contracts and meetings	350	–	–	350	376	–	376	726
Total Chapter 28	350	–	–	350	376	–	376	726
Total Title 2	1 405	(4)	–	1 400	1 324	–	1 324	2 724

5.1.3. Breakdown & changes in commitment appropriations – Title 3

EUR '000

Item	Budget appropriations				Additional appropriations			Total	Total approp. available
	Initial adopted budget	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue			
	1	2	3	4=1+2+3	5	6	7=5+6	8=4+7	
3000 Grants, HPC Operations, R&I Activities	-	-	-	-	16 650	-	16 650	16 650	
Total Chapter 30	-	-	-	-	16 650	-	16 650	16 650	
3100 HPC Infrastructure Activities	-	719 367	-	719 367	12 182	-	12 182	731 549	
Total Chapter 31	-	719 367	-	719 367	12 182	-	12 182	731 549	
Total Title 3	-	719 367	-	719 367	28 832	-	28 832	748 199	
GRAND TOTAL	3 084	719 363	-	722 447	30 955	-	30 955	753 402	

5.2. Breakdown & changes in payment appropriations

5.2.1. Breakdown & changes in payment appropriations – Title 1

EUR '000

Item	Initial budget adopted	Budget appropriations			Final adopted budget	Additional appropriations			Total	Total appopr. available
		Amending budgets	Transfers			Reactivated appropriations	Assigned revenue			
	1	2	3	4=1+2+3	5	6	7=5+6	8=4+7		
1100 Establishment plan posts	552	-	-	552	187	-	187	739		
1110 External personnel	853	-	-	853	494	-	494	1 346		
Total Chapter 11	1 405	-	-	1 405	680	-	680	2 085		
1200 Expenditure relating to recruitment	5	-	-	5	38	-	38	43		
Total Chapter 12	5	-	-	5	38	-	38	43		
1300 Mission and travel expenses	70	-	-	70	68	-	68	138		
Total Chapter 13	70	-	-	70	68	-	68	138		
1400 Socio-medical infrastructure and training	200	-	-	200	18	-	18	218		
Total Chapter 14	200	-	-	200	18	-	18	218		
Total Title 1	1 680	-	-	1 680	803	-	803	2 483		

5.2.2. Breakdown & changes in payment appropriations – Title 2

EUR '000

Item	Budget appropriations			Final adopted budget 4=1+2+3	Additional appropriations			Total 7=5+6	Total approp. available 8=4+7
	Initial budget adopted 1	Amending budgets 2	Transfers 3		Reactivated appropriations 5	Assigned revenue 6			
2000 Buildings and associated costs	85	(4)	50	130	113	–	113	243	
Total Chapter 20	85	(4)	50	130	113	–	113	243	
2100 Information Technology	250	–	–	250	211	–	211	461	
Total Chapter 21	250	–	–	250	211	–	211	461	
2200 Movable property and associated costs	20	–	(3)	17	77	–	77	94	
Total Chapter 22	20	–	(3)	17	77	–	77	94	
2300 Current administrative expenditure	200	–	–	200	122	–	122	322	
Total Chapter 23	200	–	–	200	122	–	122	322	
2400 Postage and Telecommunications	10	–	3	13	0	–	0	14	
Total Chapter 24	10	–	3	13	0	–	0	14	
2500 Expenditure of formal and other meetings	330	–	(50)	280	344	–	344	624	
Total Chapter 25	330	–	(50)	280	344	–	344	624	
2600 Running costs in connection with operational activities	150	–	–	150	151	–	151	301	
Total Chapter 26	150	–	–	150	151	–	151	301	
2700 Information and Publishing	10	–	–	10	10	–	10	20	
Total Chapter 27	10	–	–	10	10	–	10	20	
2800 Expert contracts and meetings	350	–	–	350	347	–	347	697	
Total Chapter 28	350	–	–	350	347	–	347	697	
Total Title 2	1 405	(4)	–	1 400	1 376	–	1 376	2 776	

5.2.3. Breakdown & changes in payment appropriations – Title 3

EUR '000

Item	Initial budget adopted	Budget appropriations			Additional appropriations			Total	Total appropr. available
		Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue			
	1	2	3	4=1+2+3	5	6	7=5+6	8=4+7	
3000 Grants, HPC Operations, R&I Activities	112 000	(49 625)	–	62 375	37 969	–	37 969	100 343	
Total Chapter 30	112 000	(49 625)	–	62 375	37 969	–	37 969	100 343	
3100 HPC Infrastructure Activities	171 670	(29 613)	–	142 057	100 586	–	100 586	242 643	
Total Chapter 31	171 670	(29 613)	–	142 057	100 586	–	100 586	242 643	
Total Title 3	283 670	(79 239)	–	204 431	138 555	–	138 555	342 987	
GRAND TOTAL	286 755	(79 243)	–	207 512	140 734	–	140 734	348 246	

5.3. IMPLEMENTATION OF COMMITMENT APPROPRIATIONS

5.3.1. Implementation of commitment appropriations - Title 1

EUR '000

Item	Total approp. available	Commitments made					Appropriations carried over to 2022			Appropriations lapsing			
		from final adopt. budget	from re-activations	from assign. revenue	Total	%	Assign. revenue	By decision	Total	from final adopt. budget	from re-activations	from assign. revenue	Total
	1	2	3	4	5=2+3+4	6=5/1	7	8	9=7+8	10	11	12	13=10+11+12
1100 Establishment plan posts	749	531	197	-	728	97 %	-	-	-	21	-	-	21
1110 External personnel	1 357	395	489	-	883	65 %	-	-	-	458	15	-	474
Total Chapter 11	2 106	925	686	-	1 611	76 %	-	-	-	480	15	-	495
1200 Expenditure relating to recruitment	40	3	-	-	3	6 %	-	-	-	3	35	-	38
Total Chapter 12	40	3	-	-	3	6 %	-	-	-	3	35	-	38
1300 Mission and travel expenses	130	10	50	-	60	46 %	-	-	-	60	10	-	70
Total Chapter 13	130	10	50	-	60	46 %	-	-	-	60	10	-	70
1400 Socio-medical infrastructure and training	203	165	3	-	168	83 %	-	-	-	35	-	-	35
Total Chapter 14	203	165	3	-	168	83 %	-	-	-	35	-	-	35
Total Title 1	2 478	1 103	738	-	1 841	74 %	-	-	-	577	60	-	637

5.3.2. Implementation of commitment appropriations - Title 2

EUR '000

Item	Total approp. available	Commitments made					Appropriations carried over to 2022			Appropriations lapsing			
		from final adopt. budget	from re-activations	from assign. revenue	Total	%	Assign. revenue	By decision	Total	from final adopt. budget	from re-activations	from assign. revenue	Total
	1	2	3	4	5=2+3+4	6=5/1	7	8	9=7+8	10	11	12	13=10+11+12
2000 Buildings and associated costs	133	91	-	-	91	68 %	-	-	-	40	2	-	42
Total Chapter 20	133	91	-	-	91	68 %	-	-	-	40	2	-	42
2100 Information Technology	543	67	98	-	165	30 %	-	-	-	183	195	-	378
Total Chapter 21	543	67	98	-	165	30 %	-	-	-	183	195	-	378
2200 Movable property and associated costs	87	-	-	-	-	0 %	-	-	-	20	67	-	87
Total Chapter 22	87	-	-	-	-	0 %	-	-	-	20	67	-	87
2300 Current administrative expenditure	295	136	16	-	152	52 %	-	-	-	64	79	-	143
Total Chapter 23	295	136	16	-	152	52 %	-	-	-	64	79	-	143
2400 Postage and Telecommunications	14	8	4	-	11	82 %	-	-	-	2	-	-	2
Total Chapter 24	14	8	4	-	11	82 %	-	-	-	2	-	-	2
2500 Expenditure of formal and other meetings	625	10	-	-	10	2 %	-	-	-	270	345	-	615
Total Chapter 25	625	10	-	-	10	2 %	-	-	-	270	345	-	615
2600 Running costs in connection with operational activities	291	119	141	-	260	89 %	-	-	-	31	-	-	31
Total Chapter 26	291	119	141	-	260	89 %	-	-	-	31	-	-	31
2700 Information and Publishing	10	10	-	-	10	98 %	-	-	-	-	0	-	0
Total Chapter 27	10	10	-	-	10	98 %	-	-	-	-	0	-	0
2800 Expert contracts and meetings	726	2	90	-	92	13 %	-	-	-	348	286	-	634
Total Chapter 28	726	2	90	-	92	13 %	-	-	-	348	286	-	634
Total Title 2	2 724	443	349	-	791	29 %	-	-	-	958	975	-	1 933

5.3.3. Implementation of commitment appropriations - Title 3

EUR '000

Item	Total approp. available	Commitments made					Appropriations carried over to 2022			Appropriations lapsing			
		from final adopt. budget	from re- activations	from assign. revenue	Total	%	Assign. revenue	By decision	Total	from final adopt. budget	from re- activa- tions	from assign. revenue	Total
	1	2	3	4	5=2+3+4	6=5/1	7	8	9=7+8	10	11	12	13=10+ 11+12
3000 Grants, HPC Operations, R&I Activities	16 650	-	9 647	-	9 647	58 %	-	-	-	-	7 003	-	7 003
Total Chapter 30	16 650	-	9 647	-	9 647	58 %	-	-	-	-	7 003	-	7 003
3100 HPC Infrastructure Activities	731 549	-	-	-	-	0 %	-	-	-	719 367	12 182	-	731 549
Total Chapter 31	731 549	-	-	-	-	0 %	-	-	-	719 367	12 182	-	731 549
Total Title 3	748 199	-	9 647	-	9 647	1 %	-	-	-	719 367	19 185	-	738 552
GRAND TOTAL	753 402	1 545	10 734	-	12 279	2 %	-	-	-	720 902	20 221	-	741 123

5.4. IMPLEMENTATION OF PAYMENT APPROPRIATIONS

5.4.1. Implementation of payment appropriations - Title 1

EUR '000

Item	Total approp. availab.	Payments made					Appropriations carried over to 2022				Appropriations lapsing			
		from final adopt. budget	from re-activations	from assign. revenue	Total	%	Autom. carry-overs	By decision	Assigned rev.	Total	from final adopt. budget	from re-activations	from assign. rev.	Total
	1	2	3	4	5=2+3+4	6=5/1	7	8	9	10=7+8+9	11	12	13	14=11+12+13
1100 Establishment plan posts	739	541	187	-	728	98 %	-	-	-	-	11	-	-	11
1110 External personnel	1 346	305	494	-	798	59 %	-	-	-	-	548	-	-	548
Total Chapter 11	2 085	845	680	-	1 526	73 %	-	-	-	-	559	-	-	559
1200 Expenditure relating to recruitment	43	-	-	-	-	0 %	-	-	-	-	5	38	-	43
Total Chapter 12	43	-	-	-	-	0 %	-	-	-	-	5	38	-	43
1300 Mission and travel expenses	138	-	4	-	4	3 %	-	-	-	-	70	64	-	134
Total Chapter 13	138	-	4	-	4	3 %	-	-	-	-	70	64	-	134
1400 Socio-medical infrastructure and training	218	65	18	-	82	38 %	-	-	-	-	135	-	-	135
Total Chapter 14	218	65	18	-	82	38 %	-	-	-	-	135	-	-	135
Total Title 1	2 483	910	702	-	1 612	65 %	-	-	-	-	770	102	-	871

5.4.2. Implementation of payment appropriations - Title 2

EUR '000

Item	Total approp. availab.	Payments made					Appropriations carried over to 2022					Appropriations lapsing			
		from final adopt. budget	from re-activations	from assign. revenue	Total	%	Autom. carry-overs	By decision	Assigned rev.	Total	from final adopt. budget	from re-activations	from assign. rev.	Total	
	1	2	3	4	5=2+3+4	6=5/1	7	8	9	10=7+8+9	11	12	13	14=11+12+13	
2000 Buildings and associated costs	243	43	30	-	73	30 %	-	-	-	-	87	83	-	170	
Total Chapter 20	243	43	30	-	73	30 %	-	-	-	-	87	83	-	170	
2100 Information Technology	461	4	211	-	216	47 %	-	-	-	-	246	0	-	246	
Total Chapter 21	461	4	211	-	216	47 %	-	-	-	-	246	0	-	246	
2200 Movable property and associated costs	94	0	-	-	0	0 %	-	-	-	-	16	77	-	94	
Total Chapter 22	94	0	-	-	0	0 %	-	-	-	-	16	77	-	94	
2300 Current administrative expenditure	322	19	122	-	141	44 %	-	-	-	-	181	-	-	181	
Total Chapter 23	322	19	122	-	141	44 %	-	-	-	-	181	-	-	181	
2400 Postage and Telecommunications	14	12	0	-	13	93 %	-	-	-	-	1	0	-	1	
Total Chapter 24	14	12	0	-	13	93 %	-	-	-	-	1	0	-	1	
2500 Expenditure of formal and other meetings	624	0	2	-	3	0 %	-	-	-	-	280	342	-	622	
Total Chapter 25	624	0	2	-	3	0 %	-	-	-	-	280	342	-	622	
2600 Running costs in connection with operational activities	301	65	130	-	195	65 %	-	-	-	-	85	21	-	106	
Total Chapter 26	301	65	130	-	195	65 %	-	-	-	-	85	21	-	106	
2700 Information and Publishing	20	-	-	-	-	0 %	-	-	-	-	10	10	-	20	
Total Chapter 27	20	-	-	-	-	0 %	-	-	-	-	10	10	-	20	
2800 Expert contracts and meetings	697	5	26	-	32	5 %	-	-	-	-	345	321	-	666	
Total Chapter 28	697	5	26	-	32	5 %	-	-	-	-	345	321	-	666	
Total Title 2	2 776	150	522	-	672	24 %	-	-	-	-	1 250	854	-	2 104	

5.4.3. Implementation of payment appropriations - Title 3

EUR '000

Item	Total approp. availab.	Payments made					Appropriations carried over to 2022				Appropriations lapsing			
		from final adopt. budget	from re-activations	from assign. revenue	Total	%	Autom. carry-overs	By decision	Assigned rev.	Total	from final adopt. budget	from re-activations	from assign. rev.	Total
	1	2	3	4	5=2+3+4	6=5/1	7	8	9	10=7+8+9	11	12	13	14=11+12+13
3000 Grants, HPC Operations, R&I Activities	100 343	32 305	35 046	-	67 351	67 %	-	-	-	-	30 070	2 923	-	32 993
Total Chapter 30	100 343	32 305	35 046	-	67 351	67 %	-	-	-	-	30 070	2 923	-	32 993
3100 HPC Infrastructure Activities	242 643	22 974	72 006	-	94 980	39 %	-	-	-	-	119 083	28 581	-	147 663
Total Chapter 31	242 643	22 974	72 006	-	94 980	39 %	-	-	-	-	119 083	28 581	-	147 663
Total Title 3	342 987	55 279	107 052	-	162 331	47 %	-	-	-	-	149 152	31 503	-	180 656
GRAND TOTAL	348 246	56 340	108 275	-	164 615	47 %	-	-	-	-	151 172	32 459	-	183 631

6. COMMITMENTS OUTSTANDING

6.1. Commitments outstanding – Title 1

EUR '000

Item	Commitments outstanding at the end of previous year				Commitments of the current year				Total commitm. outstanding at year-end
	Commitm. carried for- ward from pre- vious year	Decommit. Revaluation Cancel- lations	Pay- ments	Total	Commit- ments made during the year	Pay- ments	Cancel- lation of commit. which cannot be carried forward	Commit. outstand- ing at year-end	
	1	2	3	4=1+2-3	5	6	7	8=5-6-7	9=4+8
1100 Establishment plan posts	-	-	-	-	728	728	-	-	-
1110 External personnel	-	-	-	-	883	798	-	85	85
Total Chapter 11	-	-	-	-	1 611	1 526	-	85	85
1200 Expenditure relating to recruitment	3	(3)	-	-	3	-	-	3	3
Total Chapter 12	3	(3)	-	-	3	-	-	3	3
1300 Mission and travel expenses	8	(8)	-	-	60	4	-	56	56
Total Chapter 13	8	(8)	-	-	60	4	-	56	56
1400 Socio-medical infrastructure and training	15	(15)	-	-	168	82	-	85	85
Total Chapter 14	15	(15)	-	-	168	82	-	85	85
Total Title 1	25	(25)	-	-	1 841	1 612	-	229	229

6.2. Commitments outstanding – Title 2

EUR '000

Item	Commitments outstanding at the end of previous year				Commitments of the current year				Total commitm. outstanding at year-end
	Commitm. carried for- ward from pre- vious year	Decommit. Revaluation Cancel- lations	Pay- ments	Total	Commit- ments made during the year	Pay- ments	Cancel- lation of commit. which cannot be carried forward	Commit. outstand- ing at year-end	
	1	2	3	4=1+2-3	5	6	7	8=5-6-7	
2000 Buildings and associated costs	111	(99)	12	-	91	61	-	29	29
Total Chapter 20	111	(99)	12	-	91	61	-	29	29
2100 Information Technology	180	-	111	69	165	105	-	60	130
Total Chapter 21	180	-	111	69	165	105	-	60	130
2200 Movable property and associated costs	0	(0)	0	-	-	-	-	-	-
Total Chapter 22	0	(0)	0	-	-	-	-	-	-
2300 Current administrative expenditure	16	(8)	8	-	152	133	-	19	19
Total Chapter 23	16	(8)	8	-	152	133	-	19	19
2400 Postage and Telecommunications	11	(0)	11	-	11	1	-	10	10
Total Chapter 24	11	(0)	11	-	11	1	-	10	10
2500 Expenditure of formal and other meetings	6	(6)	-	-	10	3	-	7	7
Total Chapter 25	6	(6)	-	-	10	3	-	7	7
2600 Running costs in connection with operational activities	10	(10)	-	-	260	195	-	65	65
Total Chapter 26	10	(10)	-	-	260	195	-	65	65
2700 Information and Publishing	10	(10)	-	-	10	-	-	10	10
Total Chapter 27	10	(10)	-	-	10	-	-	10	10
2800 Expert contracts and meetings	1	-	1	-	92	30	-	62	62
Total Chapter 28	1	-	1	-	92	30	-	62	62
Total Title 2	345	(133)	143	69	791	529	-	262	331

6.3. Commitments outstanding – Title 3

EUR '000

Item	Commitments outstanding at the end of previous year				Commitments of the current year				Total commitm. outstanding at year-end
	Commitm. carried forward from previous year	Decommit. Revaluation Cancellations	Pay-ments	Total	Commit-ments made during the year	Pay-ments	Cancel-lation of commit. which cannot be carried	Commit. outstand-ing at year-end	
	1	2	3	4=1+2-3	5	6	7	8=5-6-7	9=4+8
3000 Grants, HPC Operations, R&I Activities	198 801	(1 632)	59 633	137 536	9 647	7 718	–	1 929	139 466
Total Chapter 30	198 801	(1 632)	59 633	137 536	9 647	7 718	–	1 929	139 466
3100 HPC Infrastructure Activities	414 167	(138 077)	94 980	181 110	–	–	–	–	181 110
Total Chapter 31	414 167	(138 077)	94 980	181 110	–	–	–	–	181 110
Total Title 3	612 969	(139 709)	154 613	318 647	9 647	7 718	–	1 929	320 576
GRAND TOTAL	613 339	(139 867)	154 756	318 716	12 279	9 858	–	2 421	321 137

7. GLOSSARY

Administrative appropriations

Appropriations to cover the running costs of the entities (staff, buildings, office equipment).

Adopted budget

Draft budget becomes the adopted budget as soon as approved by the budgetary authority.

Amending budget

Decision adopted during the budget year to amend (increase, decrease, transfer) aspects of the adopted budget of that year.

Appropriations

Budget funding.

The budget forecasts both commitments (legal pledges to provide finance) and payments (cash or bank transfers to the beneficiaries). Appropriations for commitments and payments often differ — differentiated appropriations — because multiannual programmes and projects are usually fully committed in the year they are decided and are paid over the years as the implementation of the programme and project progresses.

Assigned revenue

Revenue dedicated to finance specific items of expenditure.

Budget result

The difference between income received and amounts paid, including adjustments for carry-overs, cancellations and exchange rate differences.

For agencies, the resulting amount will have to be reimbursed to the funding authority.

Budget implementation

Consumption of the budget through expenditure and revenue operations.

Budget item / Budget line / Budget position

Revenue and expenditure are shown in the budget structure in accordance with a binding nomenclature, which reflects the nature and purpose of each item, as imposed by the budgetary authority. The individual headings (title, chapter, article or item) provide a formal description of the nomenclature.

Budgetary commitment

Operation by which the authorising officer responsible reserves the budget appropriations necessary to cover for subsequent payments to honour legal commitments.

Cancellation of appropriations

Appropriations which have not been used by the end of the financial year and which cannot be carried over, shall be cancelled.

Carryover of appropriations

Exception to the principle of annuality in so far as appropriations that could not be used in a given budget year may, under strict conditions, be exceptionally carried over for use during the following year.

Commitment appropriations

Commitment appropriations cover the total value of legal obligations (contracts, grant agreements or decisions) that could be signed in the current financial year.

De-commitment

Operation whereby the authorising officer responsible cancels wholly or partly the reservation of appropriations previously made by means of a budgetary commitment.

Differentiated appropriations

Differentiated appropriations are used to finance multiannual operations; they cover, for the current financial year, the total cost of the legal obligations entered into for operations whose implementation extends over more than one financial year.

Economic result

Impact on the balance sheet of expenditure and revenue based on accrual accounting rules.

Entitlements established

Right to collect income from a debtor as recognised through the issuing of a recovery order.

Exchange rate difference

The difference resulting from currency exchange rates applied to the transactions concerning countries outside the euro area, or from the revaluation of assets and liabilities in foreign currencies at the date of the accounts.

Expenditure

Term used to describe spending the budget from all types of funds sources.

Grants

Direct financial contributions from the budget to third-party beneficiaries, engaged in activities that serve Union policies.

Lapsing appropriations

Unused appropriations to be cancelled at the end of the financial year. Lapsing means the cancellation of all or part of the authorisation to make expenditures and/or incur liabilities, as represented by an appropriation.

For joint undertakings (and EIT), as specified in their Financial Rules, any unused appropriations may be entered in the estimate of revenue and expenditure of up to the following three financial years (the so-called "N+3" rule). Hence, lapsing appropriations for JUs can be re-activated until financial year "N+3".

Legal basis / basic act

The legal act adopted by the legislative authority (usually the Council and European Parliament) specifying the objective of a Union spending programme, the purpose of the appropriations, the rules for intervention, expiry date and the relevant financial rules to serve as a legal basis for the implementation of the spending programme.

Legal commitment

The act whereby the Authorising Officer enters into an obligation towards third parties which results in a charge for the Union budget.

Common forms of legal commitments are contracts in the case of procurement, grant agreements and grant decisions.

Non-differentiated appropriations

Appropriations which meet annual needs and must therefore be committed during the budget year. Only amounts qualifying for automatic carryover can be disbursed in the following year. Non-differentiated appropriations which have not been used, i.e. committed, by the end of the year, are cancelled (unless, exceptionally, permission is given by a Commission decision for a non-automatic carryover). Non-differentiated appropriations apply to administrative expenditure and commitment appropriations equal payment appropriations.

Operational appropriations

Operational appropriations finance the different policies, mainly in the form of grants or procurement.

Outstanding commitments

Outstanding commitments (or RAL, from the French 'reste à liquider') are defined as the amount of appropriations committed that have not yet been paid. They stem directly from the existence of multiannual programmes and the dissociation between commitment and payment appropriations.

Payment appropriations

Payment appropriations cover expenditure due in the current year, arising from legal commitments entered in the current year and/or earlier years.

RAL (Reste à liquider)

Amount remaining to be paid on a budgetary commitment at a given moment. Cf. Outstanding commitments

Surplus

Positive difference between revenue and expenditure, which has to be returned to the funding authority. Cf. Budget result

Transfer between budget lines

Transfers between budget lines imply the relocation of appropriations from one budget line to another, in the course of the financial year, and thereby they constitute an exception to the budgetary principle of specification.