



EuroHPC
Joint Undertaking

ANNUAL ACCOUNTS OF THE
EUROPEAN HIGH PERFORMANCE
COMPUTING JOINT UNDERTAKING.

FINANCIAL YEAR 2023

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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, in accordance with Article 52 of the Model Financial Regulation ('MFR')¹ and I hereby certify that the annual accounts of the European High Performance Computing JU for the year 2023 have been prepared in accordance with Chapter 8 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 European High Performance Computing Joint Undertaking's 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 European High-Performance Computing.

My assurance statement related to the Final Accounts 2023 will be transmitted to the Accounting Officer of the Commission. The Management Representation Letter, signed by the Authorising Officer and myself, will be sent to the European Court of Auditors for the audit of the Final Accounts.

Andrei Hretu
Accounting Officer

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). This Council Regulation was repealed in 2021 and replaced by Council Regulation (EU)2021/1173 of 13 July 2021 on establishing the European High Performance Computing Joint Undertaking and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

With Regulation 2021/1173 (in force since 08/08/2021), the mission of the Joint Undertaking is to 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.

The Joint Undertaking is still implementing actions under the H2020 and CEF1 programme as foreseen under Reg. 2018/1488.

Main operational activities

By pooling European and national resources together, the EuroHPC Joint Undertaking ensures that the EU and EuroHPC participating countries coordinate their investments with the objective of deploying, in Europe, world-class 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.

The Joint Undertaking supports two main (legacy) objectives which the JU continued to implement in 2023²:

- Developing a world-class supercomputing infrastructure: procuring and deploying in the EU three pre-exascale supercomputers (capable of at least 10¹⁷ calculations per second) and five petascale supercomputers (capable of at least 10¹⁵ 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 in 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.

In addition, since 2021, the Joint Undertaking has new objectives which are:

² Legacy activities as set out in Regulation 2018/1488

- 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 Change³
- 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 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 as users and technology suppliers.

³ 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, the Big Data Value Association - DAIRO / BDVA, and the European Quantum Industry Consortium – QuIC.

The Union financial contribution, from August 2021 onwards, 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 this 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. The appropriations are coming from the HE and the DEP programme.

2. Annual accounts

Basis for preparation

The legal framework and the deadlines for the preparation of the annual accounts are set by Model Financial Regulation (MFR)⁴. 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 preparing the annual accounts.

The Single Basic Act⁵ establishing the new generations of JUs required, within one year following the date of entry into force of the Regulation, the establishment of back-office arrangements, to provide horizontal support functions to the joint undertakings, by concluding service level agreements. The Accounting Back Office (Acco BOA) was established and took over the accounting services from Accounting Officer the European Commission from 1 December 2022.

Following the decision of the European High Performance Computing JU Governing Board of 25 November 2022, on behalf of the Acco BOA, as of 1 December 2022 Andrei Hretu acts as the Accounting Officer of European High Performance Computing 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 contracted by the JU. 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, the European Court of Auditors, the European Parliament, and the Council by 1 July of the following financial year. The ECA scrutinizes 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 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 the ECA.

⁴ 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 14 2, 29.5.2019, p. 16)

3. Operational highlights

Achievements of the year

In 2023, EuroHPC Joint Undertaking (JU) was in its 3rd full year of operation since its autonomy in September 2020. The JU launched significant actions to support the development of HPC applications and uptake of HPC by new user communities. Most notably, ten centres of excellence for HPC Applications are operational and will support the development and adaptation of HPC applications for exascale computing. The applications will enable research in climate and weather, drug development, astrophysics and engineering. EuroHPC JU has also launched an initiative to operate a European network of national HPC competence centres. The competence centres will coordinate HPC expertise at national level and ease access to European HPC resources for SMEs, researchers, public administrations and industry.

In 2023, the EuroHPC JU's third pre-exascale supercomputer MareNostrum5 (MN5) and the fifth petascale supercomputer (Deucalion) were inaugurated. MareNostrum5 was inaugurated on the 21 December 2023, and Deucalion on the 6 September 2023. In November 2023, MareNostrum5 entered the [TOP500 list](#) of the most powerful supercomputers in the world and was placed in 8th position. LUMI and Leonardo also remained ranked in the global Top 10, holding the fifth and sixth place, respectively.

Following the selection of a hosting entity to host the first EuroHPC high-end/exascale supercomputer in December 2022, the procurement procedure for JUPITER was launched in January 2023 and finalised in October 2023. The EuroHPC JU Governing Board approved the choice of the Jules Verne consortium to host and operate the second exascale supercomputer, which will be located in France, and selected Linköping University in Sweden as the Hosting Entity for Arrhenius, a new EuroHPC mid-range supercomputer. The EuroHPC JU also signed hosting agreements with the six Hosting Entities that will host the EuroHPC Quantum Computers (LUMIQ CZ, EUROQCS France, Euro-QExa Germany, EuroQCS Italy, EuroQCS Poland and EuroQCS Spain), and procurements were launched for the Polish quantum computer Euro-QCS-Poland, and the German quantum computer Euro-Q-Exa.

The EuroHPC JU continued to establish itself within the European and international HPC communities. In March 2023, the EuroHPC hosted and organized the first EuroHPC Summit. The Summit took place in Gothenburg, Sweden and was attended by over 500 participants from the HPC community, including researchers, vendors, representatives of the supercomputing centres and policy makers.

The EuroHPC JU team also continued to grow. By the end of 2023, it had 36 recruited staff and 3 interim agents supporting the work of the JU. The JU has developed financial processes to manage procurements, R&I actions / projects, reporting of in-kind contributions (IKOP).

Relations with other JUs have been excellent and the JU is having a successful Back-Office Arrangement (BOA) with EU-RAIL JU on accountancy services.

Operational Achievements

Operational EuroHPC Systems in 2023

In 2023, the following supercomputers were operational: Leonardo (IT), LUMI C&G (FI), Vega (SI), Meluxina (LUX), Karolina (CZ), and Discoverer (BG).

Mare Nostrum 5 (ES) and Deucalion PT were in pre-production stage in the second half of 2023, marking the maturation of the first wave of procurements of EuroHPC JU supercomputers. Leonardo received full acceptance, following its inauguration in November 2022.

All operational EuroHPC systems were ranked in the June and November editions of the TOP500 list.



NOV 2023	TOP500	Green500
LUMI	#5	#7
LEONARDO	#6	#18
MARENOSTRUM 5	#8	#6
MELUXINA	#71	#27
KAROLINA	#113	#25
DISCOVERER	#166	#258
VEGA	#198	#278

Source: [November 2023 | TOP500](#)

LUMI and Leonardo remained highly ranked among the world’s most powerful supercomputers, now sitting in fifth and sixth place. MareNostrum 5 entered the list for the first time at eighth place, making it the third Top10 EuroHPC system, while also receiving an impressive sixth place ranking on the Green500 list, making the greenest supercomputer in Europe.

All operational EuroHPC systems ranked among the world’s most powerful & energy efficient supercomputers and are accessible to users located in the European Union.

Access to EuroHPC Systems in 2023

In 2023, the JU organized a number of calls in order to provide European scientists and SMEs with 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. In 2023, 91 scientific projects were awarded in the fields of Biochemistry, Bioinformatics, Life Sciences, Physiology and Medicine, Chemical Sciences and Materials, Solid State Physics, Computational Physics: Universe Sciences, Fundamental Constituents of Matter and Engineering, Mathematics and Computer Sciences. From 2023 cut-offs of both Regular and Extreme Scale Access calls, 63 proposals are still under evaluation and will be awarded during 2024.

In 2023, almost 2 billion core hours of computing time were allocated to projects for Regular and Extreme Scale access.

2023 cut-offs - Awarded resources per call and system			
Call	System	Core hours	Node hours
Regular Access	Vega CPU	155,548,600	1,215,223
	Vega GPU	2,030,848	15,866
	MeluXina CPU	77,280,400	603,753
	MeluXina GPU	19,227,600	300,431
	Karolina CPU	71,038,720	554,990
	Karolina GPU	8,793,984	68,703
	Discoverer CPU	168,320,586	1,315,005
	LUMI-C	22,656,000	177,000
	LUMI-G	11,328,000	288,807
	Leonardo Booster	9,497,920	296,810
	Leonardo DCGP	5,955,824	53,177
	MareNostrum5 GPP	4,137,000	36,938
	Leonardo Booster	144,659,008	4,520,594
	Extreme Scale Access	LUMI-C	436,667,904
LUMI-G		505,024,000	7,891,000
MareNostrum5 ACC		83,740,000	2,616,875
TOTAL		1,725,906,394	23,366,640

Procurements

The installation of Mare Nostrum 5 is ongoing. Phases 1, 2 and 3 are expected to be completed in Q1 2024. Phase 4 acceptance is expected by the end of 2024. For Deucalion, the first (ARM) partition has been accepted in December 2023. The acceptance of second and last partition (x86) is expected to be completed in March 2024. Leonardo partitions have been accepted and are now operational. However, final system acceptance has been postponed to June 2024 pending results of benchmarks and their Energy to Solution (ETS) committed values, related to the projected system TCO. With the above, all 8 supercomputers purchased in the first round of EuroHPC procurements under Reg. 2018/1488 will be accepted and all systems will be operational and available to European Researchers.

The procurement process for JUPITER, the first EuroHPC high-end/exascale system, was launched in January 2023, and the procurement contract was signed with the selected vendor in October 2023.

In 2022, the EuroHPC JU selected Hosting Entities for a further four mid-range supercomputers to be located in Greece, Poland, Hungary and Ireland. Procurement for these systems will be launched once each Hosting Entity has secured funding. This process will be finalised in 2024.

Following a call launched in December 2022 to identify Hosting Entities for a second high-end/exascale supercomputer and one additional mid-range system, the EuroHPC Governing Board selected the Jules Verne consortium to host and operate the next exascale supercomputer in France, and Linköping University in Sweden to host the additional mid-range system.

In October 2023, a procurement call was launched for hardware and software to upgrade Discoverer with increased storage, a GPU partition, and an additional Uninterruptible Power Supply (UPS).

The EuroHPC JU also launched a call for tender for the deployment and operation of a platform for federating European HPC resources.

The hosting agreements for six quantum computers to be located in Czechia, France, Germany, Italy, Poland and Spain were signed in June 2023. Thereafter the EuroHPC JU launched the procurements for the German and Polish quantum computers at the end of 2023. The remaining procurements are in preparation and will be launched in 2024.

In December 2023, the EuroHPC JU launched a new call for expression of interest to identify hosting entities for acquisition, integration and operation of additional quantum computers.

Research and Innovation activities

Grant agreements in 2023

2023 kicked off with the launch of EuroCC 2 and Castiel 2 on 1 January. The two linked projects work to coordinate cooperation across Europe to ensure a consistent skills base and build on the achievements of EuroCC and Castiel to further support to European HPC ecosystem. EuroCC 2 establishes and runs a network of more than 30 National Competence Centres (NCCs), which act as single points of access in each country between stakeholders and national and European systems. The competence centres will coordinate HPC expertise locally and promote the use European EuroHPC systems for research, SMEs, industry and the public sector.

CASTIEL-2 promotes interaction and exchange across the NCC network, to encourage collaboration as well as exchanges of knowledge, expertise and best practices between NCCs. This next phase of the project gives CASTIEL-2 the additional role of providing similar coordination support to the new EuroHPC Centres of Excellence (CoEs).

Ten new Centres of Excellence (CoEs) for HPC Applications were launched in January 2023 to support the development and adaptation of HPC applications for exascale and post-exascale computing. The role of the CoEs is to gather HPC software development expertise for a particular sector or domain at European level.

To support the full exploitation of exascale and post-exascale supercomputers, EuroHPC launched the Inno4scale project in 2023. The consortium will finance the development of novel algorithms which demonstrate potential to address the exascale challenge in HPC applications.

New Calls launched in 2023

12 new Research & Innovation calls were launched throughout 2023.

Two calls for additional Centres of Excellence were launched to cover the development of additional HPC applications for exascale and post-exascale computing not already covered in former calls. The JU also launched a call for the development of quantum computing applications.

Three calls focused on training and education, targeting the development of a EuroHPC Training Platform and International HPC Summer School, the provision of Traineeships in Hosting Entities, CoEs, NCCs, SMEs and Industry, and the establishment of the EuroHPC Virtual Training Academy.

In line with the European Commission's Japan-EU Digital Partnership, the EuroHPC JU launched a call to strengthen cooperation in the field of HPC and facilitate access to resources between the EU and Japan.

A call was also launched to support the competitiveness and innovation potential of SMEs which supports the uptake of HPC to address business challenges.

The EuroHPC JU launched a call to support a Framework Partnership Agreement (FPA) with a consortium of industry, research organisations and HPC institutions to develop an innovative HPC ecosystem based on RISC-V.

The JU also launched a call to support innovation in low latency and high bandwidth interconnects, to develop innovative and competitive European HPC inter-node interconnect technology, to efficiently exploit exascale and post-exascale capabilities.

A call was launched to develop energy efficient HPC software tailored to exascale and post-exascale supercomputers, to address challenges associated with the energy efficient and energy constraint operation of heterogeneous and modular HPC systems. The main outcomes of the project funded under this call is a software stack including dynamic workload management and operational data analytics that will significantly improve improved energy efficiency of supercomputers at increased overall throughput and time to solution.

In November, the EuroHPC JU launched a call to establish a European support centre to assist European AI users in fully leveraging the innovation potential of supercomputers for advanced AI applications. In particular, the AI support centre will train and enable European AI communities to benefit from the use of advanced HPC capabilities for large-scale AI models. It will enable users and developers to scale up AI workflows using state of the art supercomputing resources, resulting in the development of complex models with significant impact in Europe such as foundation models for generative AI.

Other items:

Financial reporting to operational activities

In 2023, EuroHPC JU continued to improve the mandatory reporting process regarding the contributions of Participating States and the IKOP reporting by Private Members on their contribution made to the JU's activities. In-kind contributions to operational activities or IKOP are investments to operational activities from the Private Members and the Participating States consisting of the eligible costs incurred by them in implementing such actions, less the contributions by the Joint Undertaking, the Participating States or any other Union contribution to those costs.

Private Members have reported IKOP for 29 projects in 2023 under the Horizon 2020 programme, for an estimated amount of EUR 4M (thus a total collected from 2020 until 2023 of EUR 15M). Moreover, 2023 is the first year that the Private Members reported estimated IKOP for 13 projects under the Horizon Europe and Digital Europe Programmes, after the Corrigendum of the regulation 2021/1173 that was approved in April 2023. The estimated reported amount by the Private Members for those programmes in 2023 is EUR 526,000.

The Participating States have reported an estimated IKOP of EUR 14M for 2023, thus an accumulated total of EUR 52M for the operating costs incurred by the Hosting Entities.

Back Office Arrangement (BOA)

In 2023, the EuroHPC JU deepened its involvement and cooperation with all other Joint Undertakings by engaging in BOA agreements with its sister JUs. The cooperation is in the areas of administration, mainly HR, corporate ICT, Accounting services, and Procurement. For example, in 2023, the EuroHPC JU has established a new arrangement with its sister JUs on IT and Data Protection, it has also developed jointly with the other JUs a common ICT support ticketing service, and formalised further HR cooperation within the JUs.

Moreover, the EuroHPC JU continues to benefit from synergies with other EU agencies. In 2023, the main areas of cooperation with other EU agencies, apart from the many existing networks on which the JU actively participates, have been in recruitment and inter-institutional procurements.

Budget and budget implementation

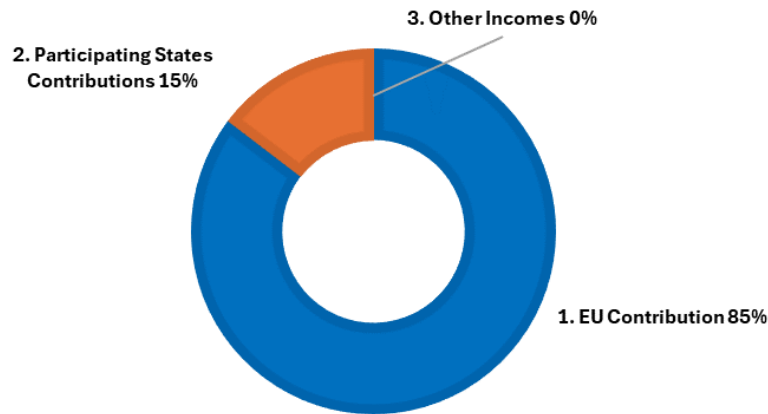
a) Revenue

The EuroHPC JU budget revenue according to the final voted budget for 2023 was EUR 582M. The cashed amount in 2023 is EUR 570M. Two debit notes for an amount of EUR 12M, were sent to Barcelona Super Computing Centre late in 2023 which explains the difference between the total budget revenue of EUR 582M and the cashed amount of EUR 570M.

- The financial contributions made by the Participating States to the procurements implemented by the JU amounted to a total of EUR 93M. They were collected from the Hosting Entities which act on behalf of the consortium of the Participating States. The JU has recovered the amounts indicated in the Administrative Agreements from the following Hosting Entities:
 - FCT – Deucalion Consortium (Petascale)
 - CSC – LUMI Consortium and Czech Republic (Pre-Exascale)
 - LUMI Q (Quantum)
 - FJZ – JUPITER Consortium (high-end-exascale)
- The EU contribution for the three funding programmes (DEP, HE and CEF2) and the legacy H2020 (Reg. 2018/1488) amounts to EUR 489M for 2023.
- Due to a reconciliation made with a vendor, an additional amount of EUR 1,477 is included in the revenue. Therefore, the total revenue amounts to EUR 582M.

The chart and table below show the contributions made in 2023 from the EU and the Participating States:

REPARTITION OF ENTITLEMENTS



Contributions from EU and Participating States 2023

EU Administrative Contribution	7,894,134 €
EU H2020 Administrative	1,691,352 €
EU HE Administrative	2,560,011 €
EU HE Administrative Experts Managed by REA	23,535 €
EU Recoveries from expenses	1,877 €
EU DEP Administrative	3,617,359 €
EU Operational Contribution	480,723,610 €
EU H2020 Operational	67,328,950 €
EU HE Operational	137,598,280 €
EU DEP Operational	225,796,380 €
EU CEF2 Operational	50,000,000 €
Total EU Contribution	488,617,744 €
DEUCALION Petascale Project	4,032,435 €
LUMI Pre-exascale Project	2,183,617 €
PS MareNostrum	11,920,023 €
JUPITER Exascale Project	73,250,000 €
LUMI Q Quantum Project	2,041,500 €
Total Participating States Contribution	93,427,575 €
EU + Participating States Contributions - Total Cashed	570,125,296 €
EU + Participating States Contributions - Total Not Cashed	11,920,023 €
Other Incomes	1,477 €
Total Revenue Cashed	570,126,773 €

b) Administrative expenditure (titles 1 and 2):

In compliance with the financial rules of the JU, and in particular of the n+3 guidelines of the Commission, the JU has not only used C1 (fresh 2023 credits) but also C2 (reactivated credits).

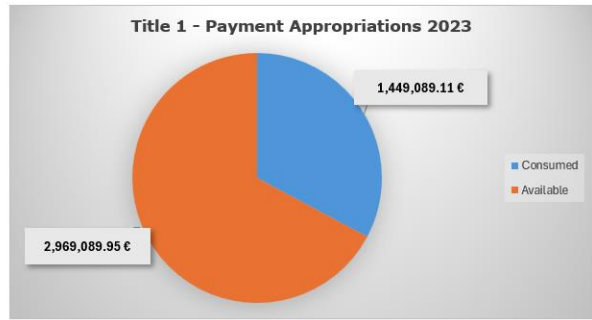
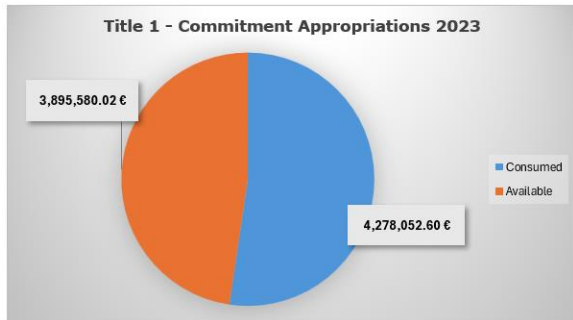
In 2023 the JU has paid to the EC PMO (Pay Master Office) the employer pension contribution, for an amount of 209,733.42 EUR.

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

Title	Commitment Appropriations (CA)			Payment Appropriations (PA)		
	Credits	Consumed	Available	Credits	Consumed	Available
Title 1	8,173,632.62 €	4,278,052.60 €	3,895,580.02 €	8,351,346.45 €	4,055,874.54 €	4,295,471.91 €
%		52%			49%	
Title 2	4,418,179.06 €	1,449,089.11 €	2,969,089.95 €	4,669,809.92 €	1,357,028.08 €	3,312,781.84 €
%		33%			29%	
Administrative Expenditure	12,591,811.68 €	5,727,141.71 €	6,864,669.97 €	13,021,156.37 €	5,412,902.62 €	7,608,253.75 €
%		45%			42%	

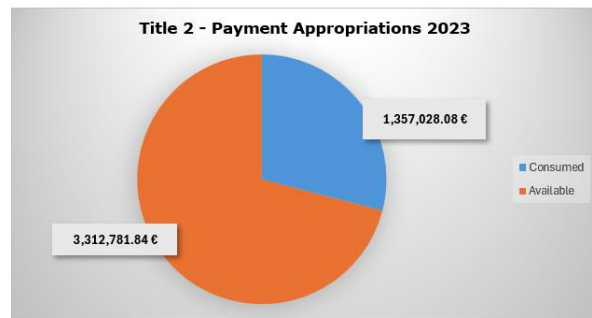
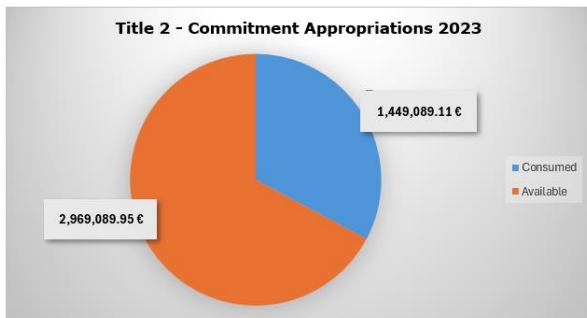
Situation of Commitment and Payment Appropriations - Title 1

Commitment Appropriations (CA)		Payment Appropriations (PA)	
Received	8,173,632.62 €	Received	8,351,346.45 €
Consumed	4,278,052.60 €	Consumed	4,055,874.54 €
	52%		49%



Situation of Commitment and Payment Appropriations - Title 2

Commitment Appropriations (CA)		Payment Appropriations (PA)	
Received	4,418,179.06 €	Received	4,669,809.92 €
Consumed	1,449,089.11 €	Consumed	1,357,028.08 €
	33%		29%



c) Operational expenditure (Title 3):

The situation in 2023 continued to be influenced by the relatively late adoption of the regulation 2021/1173 (August 2021), which means that the EuroHPC JU was not able to launch all calls foreseen in the WP 2022 and those had to be launched and implemented during 2023 in addition to the calls launched in 2023.

Regarding the CEF programme, the JU signed a contract regarding a study on Hyperconnectivity for HPC resources (EUR 775,083). The result will set the roadmap regarding the implementation of the hyperconnectivity for HPC resources. Conclusions of the report will be available in the 2nd half of 2024; therefore we are expecting the follow up procurement calls in 2024 and corresponding payments in the coming years (respecting the n+3 rule).

The full acceptance of the pre-exascale supercomputer Leonardo took place in December 2023. Following the procurement contract as amended, the final payment (EUR 16M) will take place in 2024 even though the computer was fully accepted in 2023. Also, the OPEX grant payments will be postponed to 2024 as the Hosting Entity can request payments only once the supercomputer is operational.

The delivery and acceptance of the phases 1-3 of MareNostrum5 were foreseen in 2023. However, in November 2023 after the benchmarking period (entering into the top 500 list) a new scenario for the deployment process was provided and the phases 1-4 will be fully delivered and accepted only in 2024. Therefore, the payments foreseen in 2023 have been postponed to 2024 (EUR 87M).

The payments related to the acquisition of the pre-exascale LUMI were concluded after the successful instalment of the phases 2 and 3 of the supercomputer. Also, the 2nd interim payment for the OPEX grant was performed during the year 2023.

At the end of 2023, the JU received some requests for interim payments for the R&I Grants. The JU will only finalise the payment procedure once the expert technical evaluations are delivered and accepted by the R&I team, at the beginning of 2024.

EuroHPC’s Governing Board awarded the RISC-V FPA to the DARE project at the end of 2023. The award for the FPA will be signed in 2024 and the SGA call will be launched in 2024. Therefore, the pre-financing payment foreseen under this action will take place in 2024.

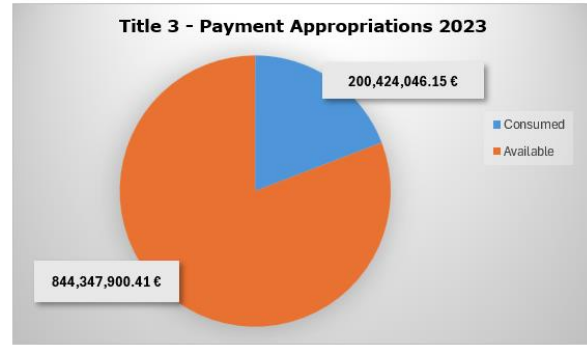
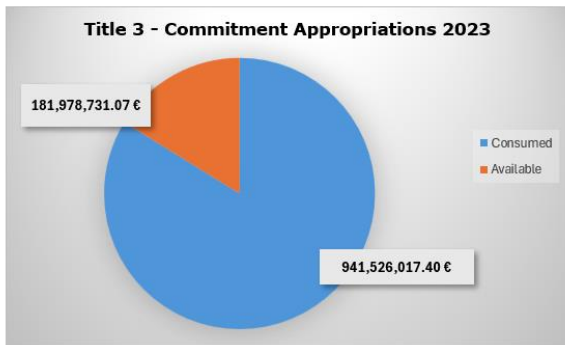
Some calls under the R&I (under HE and DEP) were launched in the last quarter of 2023, therefore the pre-financing payments foreseen (in 2023) will be paid in 2024.

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

Title 3	Commitment Appropriations (CA)			Payment Appropriations (PA)		
	Credits	Consumed	Available	Credits	Consumed	Available
R&I Activities	325,466,438.15 €	278,019,080.80 €	47,447,357.35 €	312,928,104.41 €	29,706,291.60 €	283,221,812.81 €
%		85%			9%	
Infrastructure Activities	798,038,310.32 €	663,506,936.60 €	134,531,373.72 €	731,843,842.15 €	170,717,754.55 €	561,126,087.60 €
%		83%			23%	
Operational Expenditure	1,123,504,748.47 €	941,526,017.40 €	181,978,731.07 €	1,044,771,946.56 €	200,424,046.15 €	844,347,900.41 €
%		84%			19%	

Situation of Commitment and Payment Appropriations - Title 3

Commitment Appropriations (CA)		Payment Appropriations (PA)	
Received	1,123,504,748.47 €	Received	1,044,771,946.56 €
Consumed	941,526,017.40 €	Consumed	200,424,046.15 €
	84%		19%



In line with the Joint Undertaking N+3 rule, unused appropriations will be carried over to 2024. The tables above show the C1 and C2 appropriations.

d) Global budget execution (titles 1, 2 and 3):

All titles considered, the total budget executed by the EuroHPC in 2023 was EUR 947M in terms of commitments, which represents an execution rate of 83% of the total credits activated and available during the 2023 financial year. Similarly for payments, the global execution rate for all titles was 19%, equivalent to EUR 206M. The reasons for the lower budget execution in payments than in commitments are explained in the chapter above (Operational expenditure).

The EuroHPC JU has taken additional budget control measures to progressively improve its budget execution rates in 2024 and forthcoming years.

JU Budget	Commitment Appropriations (CA)		Payment Appropriations (PA)	
	Credits	Consumed	Credits	Consumed
Title1	8,173,633 €	4,278,053 €	8,351,346 €	4,055,875 €
Title 2	4,418,179 €	1,449,089 €	4,669,810 €	1,357,028 €
Title 3	1,123,504,748 €	941,526,017 €	1,044,771,947 €	200,424,046 €
Total	1,136,096,560 €	947,253,159 €	1,057,793,103 €	205,836,949 €
Budget Implementation rate		83%		19%

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 JU Work programme and Budget 2023 was approved by the GB in December 2022. The budget set up the work programme for the third year under the 2021 EuroHPC Regulation and included a full staff establishment plan. Almost all calls were launched in 2023. The last amendment of the Work Programme 2023 was adopted in December 2023, which meant that some calls will only be launched in early 2024.

EUROPEAN HIGH PERFORMANCE COMPUTING JOINT UNDERTAKING
FINANCIAL YEAR 2023

**FINANCIAL STATEMENTS AND
EXPLANATORY NOTES**

BALANCE SHEET

	Note	31.12.2023	31.12.2022	Restated 31.12.2022
NON-CURRENT ASSETS				
<i>Intangible assets</i>	2.1	5.933,00	1.077,00	1.077,00
<i>Property, plant and equipment</i>	2.2	205.778.459,07	46.369.675,33	46.369.675,33
<i>Long term pre-financing</i>	2.3	158.478.456,56	143.182.907,91	143.182.907,91
		364.262.848,63	189.553.660,24	189.553.660,24
CURRENT ASSETS				
<i>Short term Pre-financing</i>	2.3	93.890.194,59	154.036.633,36	144.844.995,86
<i>Exchange receivables and non-exchange recoverable</i>	2.4	853.388.669,76	502.056.560,89	502.056.560,89
		947.278.864,35	656.093.194,25	646.901.556,75
TOTAL ASSETS		1.311.541.712,98	845.646.854,49	836.455.216,99
CURRENT LIABILITIES				
<i>Payables and other liabilities</i>	2.7	840.963.966,72	160.267.483,32	446.309.837,81
<i>Accrued charges and deferred income</i>	2.8	79.077.406,97	40.614.762,49	40.614.762,49
		920.041.373,69	200.882.245,81	486.924.600,30
TOTAL LIABILITIES		920.041.373,69	200.882.245,81	486.924.600,30
NET ASSETS				
<i>Contribution from Members</i>	2.9	712.002.890,92	824.201.776,45	528.967.784,46
<i>Accumulated deficit</i>		(179.437.167,77)	(91.255.052,37)	(91.255.052,37)
<i>Economic result of the year</i>		(141.065.383,86)	(88.182.115,40)	(88.182.115,40)
NET ASSETS		391.500.339,29	644.764.608,68	349.530.616,69
LIABILITIES AND NET ASSETS		1.311.541.712,98	845.646.854,49	836.455.216,99

STATEMENT OF FINANCIAL PERFORMANCE

	Note	2023	2022
REVENUE			
Revenue from non-exchange transactions			
<i>Recovery of operating expenses</i>	3.1	235,000.00	-
Revenue from exchange transactions			
<i>Financial revenues</i>	3.3	-	223,516.76
<i>Other exchange revenue</i>		9,820.05	1,034,526.68
Total revenue		244,820.05	1,258,043.44
EXPENSES			
<i>Operating costs</i>	3.4	(92,219,539.61)	(72,078,425.38)
<i>Staff costs</i>	3.5	(3,691,044.97)	(1,940,138.53)
<i>Financial expenses</i>	3.6	(19,737.90)	(240,775.80)
<i>Other expenses</i>	3.7	(45,379,881.43)	(15,180,819.13)
Total expenses		(141,310,203.91)	(89,440,158.84)
ECONOMIC RESULT OF THE YEAR		(141,065,383.86)	(88,182,115.40)

CASHFLOW STATEMENT

	2023	2022	Restated 2022
<i>Economic result of the year</i>	(141,065,383.86)	(88,182,115.40)	(88,182,115.40)
<u>Operating activities</u>			
<i>Depreciation and amortization</i>	38,661,156.21	10,523,422.97	10,523,422.97
<i>(Increase)/Decrease in pre-financing</i>	44,850,890.12	(60,223,292.83)	(51,031,655.33)
<i>(Increase)/Decrease in exchange receivables and non-exchange</i>	(351,332,108.87)	(340,209,193.43)	(340,209,193.43)
<i>Increase/(Decrease) in payables</i>	680,696,483.40	126,173,705.84	412,216,060.33
<i>Increase/(Decrease) in accrued charges & deferred income</i>	38,462,644.48	(1,641,271.94)	(1,641,271.94)
<i>Increase/(Decrease) in cash contributions</i>	(112,198,885.53)	396,909,600.21	101,675,608.22
<i>Other non-cash movements</i>			
<u>Investing activities</u>			
<i>(Increase)/Decrease in intangible assets and property, plant, equipment</i>	(198,074,795.95)	(43,350,855.42)	(43,350,855.42)
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>	-	-	-

STATEMENT OF CHANGES IN NET ASSETS

	Contribution from Members	Accumulated Surplus/(Deficit)	Economic result of the year	Net Assets
BALANCE AS AT 31.12.2021	427.292.176,24	(28.575.313,43)	(62.679.738,94)	336.037.123,87
<i>Allocation 2021 economic result</i>	-	(62.679.738,94)	62.679.738,94	-
<i>Cash contribution</i>	396.909.600,21	-	-	396.909.600,21
<i>Unpaid cash contributions</i>	-	-	-	-
<i>Economic result of the year</i>	-	-	(88.182.115,40)	(88.182.115,40)
BALANCE AS AT 31.12.2022	824.201.776,45	(91.255.052,37)	(88.182.115,40)	644.764.608,68
<i>Cash contribution adjustment 2022</i>	(295.233.991,99)	-	-	(295.233.991,99)
RESTATED BALANCE AS AT 31.12.2023	528.967.784,46	(91.255.052,37)	(88.182.115,40)	349.530.616,69
<i>Allocation 2022 economic result</i>	-	(88.182.115,40)	88.182.115,40	-
<i>Cash contribution</i>	171.115.083,39	-	-	171.115.083,39
<i>Unpaid cash contributions</i>	11.920.023,07	-	-	11.920.023,07
<i>Economic result of the year</i>	-	-	(141.065.383,86)	(141.065.383,86)
BALANCE AS AT 31.12.2023	712.002.890,92	(179.437.167,77)	(141.065.383,86)	391.500.339,29

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 cash flows 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 euros, the budget implementation tables 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	31.12.2023	31.12.2022	Currency	31.12.2023	31.12.2022
BGN	1.9558	1.9558	PLN	4.3395	4.6808
CZK	24.724	24.116	RON	4.9756	4.9495
DKK	7.4529	7.4365	SEK	11.096	11.1218
GBP	0.8869	0.8869	CHF	0.926	0.9847
NOK	11.2405	10.4812	JPY	156.33	140.66
HUF	382.80	400.87	USD	1.105	1.0666

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 IPSAS standards which have been issued, and are effective for annual periods beginning on or after 1 January 2025

The following IPSAS standards are effective as of January 1, 2025 (earlier application is permitted):

- **IPSAS 43 Leases:** IPSAS 43 introduces new or amended requirements with respect to lease accounting. It introduces significant changes to lessee accounting by removing the distinction between operating and finance lease and requiring the recognition of a right-of-use asset and a lease liability at commencement for all leases, except for short-term leases and leases of low value assets.
- **IPSAS 44 Non-current Assets Held for Sale and Discontinued Operations:** IPSAS 44 specifies the accounting for assets held for sale and the presentation and disclosure of discontinued operations. IPSAS 44 includes additional public sector requirements, in particular, the disclosure of the fair value of assets held for sale that are measured at their carrying amounts, when the carrying amount is materially lower than their fair value.

The Accounting Officer is assessing the impact of the above standards on the Annual Accounts and considering a possible revision of relevant EAR accordingly.

1.3. BALANCE SHEET

1.3.1. Intangible assets

An intangible asset is an identifiable non-monetary asset without physical substance. An asset is identifiable if it is either separable or arises from binding arrangements. Acquired intangible assets are stated at historical cost less accumulated amortisation and impairment losses. Internally developed intangible assets are capitalised when the relevant criteria of the EU accounting rules are met, and the expenses relate solely to the development phase of the asset. Intangible assets are amortised on a straight-line basis over their estimated useful lives (3 to 11 years).

1.3.2. 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. Repair 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>	<i>4 % to 10 %</i>
<i>Plant and equipment</i>	<i>10 % to 25 %</i>
<i>Furniture and vehicles</i>	<i>10 % to 25 %</i>
<i>Computer hardware</i>	<i>25 % to 33 %</i>
<i>Other</i>	<i>10 % to 33 %</i>

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.

1.3.3. 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.

1.3.4. 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 cashflows from the investments have expired or are waived, or and when the entity has transferred substantially all risks and rewards of ownership to another party.

1.3.5. 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.

1.3.6. 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.

1.3.7. Cash and cash equivalents

Cash and cash equivalents are financial assets at amortised cost and include cash at hand, deposits held at call or at short notice with banks, and other short-term highly liquid investments with original maturities of three months or less.

1.3.8. 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 **1.3.5**), or non-validated in-kind contributions to operational activities (see note **1.6.2**).

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 into the accounts when the supplies or services are delivered and accepted by the entity.

1.3.9. 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.

1.3.10. Provisions

Provisions are recognised when the entity has a present legal or constructive obligation towards third parties as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount can be reliably estimated. Provisions are not recognised for future operating losses. The amount of the provision is the best estimate of the expenditure expected to be required to settle the present obligation at the reporting date. Where the provision involves a large number of items, the obligation is estimated by weighting all possible outcomes by their associated probabilities ('expected value' method).

When the obligation whose existence will be confirmed by uncertain future events that are not wholly within the control of the entity, is possible, no provision is recognised, but a contingent liability is disclosed. Refer to note **1.5.2** for details.

1.3.11. Net assets

Net assets are the residual of assets and liabilities and comprise of accumulated contributions received from the members of the JU (EU and industry) less the accumulated contributions used. The contributions include financial contributions received by the JU and contributions provided by the members to the funded projects in-kind. The net assets also contain reserves, if applicable. Refer to note **1.6** for details.

1.4. STATEMENT OF FINANCIAL PERFORMANCE

1.4.1. Revenue

Revenue comprises gross inflows of economic benefits or service potential received and receivable by the entity, which represents an increase in net assets, other than increases relating to contributions from owners.

Depending on the nature of the underlying transactions in the statement of financial performance, revenue is distinguished between:

(i) Revenue from non-exchange transactions

Revenue from non-exchange transactions are taxes and transfers, because the transferor provides resources to the recipient entity, without the recipient entity providing approximately equal value directly in exchange. Transfers are inflows of future economic benefits or service potential from non-exchange transactions, other than taxes. For the EU entities, transfers mostly comprise funds received from the Commission (e.g. balancing subsidy to the traditional agencies, operating subsidy for the delegation agreements).

The entity shall recognise an asset in respect of transfers when the entity controls the resources as a result of a past event (the transfer) and expects to receive future economic benefits or service potential from those resources, and when the fair value can be reliably measured. An inflow of resources from a non-exchange transaction recognised as an asset (i.e. cash) is also recognised as revenue, except to the extent that the entity has a present obligation in respect of that transfer (condition), which needs to be satisfied before the revenue can be recognised. Until the condition is met the revenue is deferred and recognised as a liability.

(ii) Revenue from exchange transactions

Revenue from the sale of goods and services is recognised when the significant risk and rewards of ownership of the goods are transferred to the purchaser. Revenue associated with a transaction involving the provision of services is recognised by reference to the stage of completion of the transaction at the reporting date.

1.4.2. 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.

Horizon 2020 Programme:

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 recognized in net assets in the period in which the enforceable right to receive the payment was established.

Horizon Europe Programme:

- EU Contributions: In accordance with Article 19 of the Financial Framework Partnership Agreement (FFPA) 2020-2027, the JU received from the European Union a pre-financing payment for the implementation of the Horizon Europe Framework Programme.
- According to the Specific Guidance for the accounting of the EU cash contributions received by the Joint Undertakings under FFPA related to MFF 2021-2027, the contributions payments done by the EU for the Horizon Europe Programme are accounted as 'Contributions in cash to be validated'. During the provisional accounting closure, the JU should, on the basis of the payment's implementation report, determine the amount of operating and administrative expenditure that have been covered from the EU financial contributions to the Horizon Europe Programme. In the accounting of the JU the underlying amount should be, for the purpose of the preparation of the provisional financial statements, transferred from the provisional payments to the net assets of the JU (cut-off procedure). It will be qualified as final payments and formally transferred to the net assets once the Commission has accepted the Consolidated Annual Activity Report – AAR (Art. 19.2 FFPA)

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

As IKOP calculated from periodic cost claims of projects is not automatically recorded in the statement of financial performance, at year-end, this incurred IKOP as well as IKOP not yet reported (via received costs claims) is estimated and recorded as other liabilities ('Contributions of Members to be validated').

The EU makes available the cash contributions in advance (until the payments reach the 90%), providing the beneficiaries with sufficient level of funds to implement the program activities; while the in-kind contributions provided by the private members can be verified and recognised only after the activities are concluded, reported and certified.

The EU cash contributions are validated and recognised in the accounts of the JU when paid to the JU (or based on the payments processed by the JU, in case of Horizon Europe, see note 2.7) at the beginning of the project implementation, while members' in-kind contributions are only recognised after validation of the costs incurred and declared. Consequently, due to this time gap, during the program implementation the amounts of contributions recognised per member category (EU and private members) differ significantly from each other. This gap between the recognised amount of EU cash contributions on one hand and in-kind contributions on the other hand will be closed as the program is approaching the finalisation stage.

Due to major simplifications introduced in H2020 programme (which continue to be applied for Horizon Europe too), the certification for IKOP is based on the CFS certificate for the total eligible project costs. The certificates for IKOP are only due to be submitted to the JU after the end of the last project reporting period. This time difference is a cause of a major delay between the time when the IKOP balances are committed (upon signature of the grant) until they could be validated and recognised in net assets of the JU.

The IKAA relate to contributions linked to implementing additional activities, included in the annual additional activities plan annexed to the main part of the work programme, that does not receive financial support from the joint undertaking but contributes to its objectives.

Because the outflow of resources related to those activities is outside of the control of the JU, these contributions are not recognised in the financial statements of the JU. However, to provide a complete picture of the operational activities related to the JU they are still disclosed as additional information in the notes.

2. NOTES TO THE BALANCE SHEET

ASSETS

2.1. INTANGIBLE ASSETS

	TOTAL
<i>Gross carrying amount at 31.12.2022</i>	1.519,83
<i>Additions</i>	6.796,05
Gross carrying amount at 31.12.2023	8.315,88
<i>Accumulated depreciation at 31.12.2022</i>	(442,83)
<i>Depreciation charge for the year</i>	(1.940,05)
Accumulated depreciation at 31.12.2023	(2.382,88)
NET CARRYING AMOUNT AT 31.12.2023	5.933,00
<i>NET CARRYING AMOUNT AT 31.12.2022</i>	1.077,00

The additions of intangible assets during 2023 are in line with the asset acquisition policy of the Joint Undertaking.

2.2. 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.

	Plant and equipment	Computer hardware	Other	TOTAL
<i>Gross carrying amount at 31.12.2022</i>	3,365.46	58.706.218,65	17.479,92	58.727.064,03
<i>Additions</i>	7,663.85	198.032.218,19	28.117,86	198.067.999,90
Gross carrying amount at 31.12.2023	11,029.31	256.738.436,84	45.597,78	256.795.063,93
<i>Accumulated depreciation at 31.12.2022</i>	(1,376.41)	(12,351,179.70)	(4,832.59)	(12,357,388.70)
<i>Depreciation charge for the year</i>	(2,595.33)	(38,648,741.97)	(7,878.86)	(38,659,216.16)
Accumulated depreciation at 31.12.2023	(3,971.74)	(50,999,921.67)	(12,711.45)	(51,016,604.86)
NET CARRYING AMOUNT AT 31.12.2023	7,057.57	205,738,515.17	32,886.33	205,778,459.07
<i>NET CARRYING AMOUNT AT 31.12.2022</i>	1,989.05	46,355,038.95	12,647.33	46,369,675.33

The main increase in this heading stems from the capitalization of the builds completed during the year and brought into production for the supercomputers LUMI (approx. gross value 87.3m EUR) and Leonardo (approx. gross value 110.7m EUR).

2.3. 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.

	31.12.2023	31.12.2022	Restated 31.12.2022 ⁵
<i>Long-term pre-financing</i>	158,478,456.56	143,182,907.91	143,182,907.91
<i>Short-term pre-financing</i>	93,890,194.59	154,036,633.36	144,844,995.86
Total	252,368,651.15	297,219,541.27	288,027,903.77

The slight increase of the long-term pre-financing is the result of the combined effect of decreasing long-term advances for grants (approx. 45%) and the increase of long-term advances for assets (approx. 57%) following the first payment for the supercomputer Jupiter.

The decrease in the short-term pre-financing was mainly driven by the capitalization of the supercomputers that entered into production during 2023. 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 2023. The clearing of pre-financing with cut-off expenses amounted to kEUR 56 370. The remaining portion of the cut off expenses is recorded in accrued charges (see note **2.8**).

The short-term pre-financing is composed of pre-financing given for grants (approx. 40%) and advances given for two supercomputers (approx. 60%) which are expected to be finalized during the course of 2024.

The change in the value of the short-term pre-financing at the end of 2022 and the restated value at the end of 2022, represents a reduction of kEUR 9 191 related to the advances paid by the Joint Undertaking on behalf of the Participating State for the acquisition of the supercomputer Deucalion.

⁵ See note 4.10 for details on the restated values.

2.4. 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.

The amounts included under this heading are fully composed of current receivables from exchange transactions.

	31.12.2023	31.12.2022
Recoverables from non-exchange transactions		
<i>Accrued Income Non exchange</i>	235,000.00	-
<i>Central treasury liaison accounts</i>	840,716,028.23	502,048,231.08
<i>Cash Contributions to be paid by the Members</i>	11,920,053.07	-
<i>Other</i>	515,368.76	431.59
	853,386,450.06	502,048,662.67
Receivables from exchange transactions		
<i>Other</i>	2,219.70	7,898.22
	2,219.70	7,898.22
Total	853,388,669.76	502,056,560.89

The Central treasury liaison (intercompany) accounts with the Commission represent a virtual bank account of EuroHPC as 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 of kEUR 338 667 under Central treasury liaison accounts is mainly due to the receipt of advance funding for the purchases of the supercomputers.

The heading Cash Contributions to be paid by the Members comprises the receivables related to the funding for the supercomputers' acquisitions. At the time of drawing up the final accounts the amount 11 920 kEUR has already been received.

The section Other non-exchange comprises the recoverable VAT which was paid during 2023 on some purchases related to supercomputers.

2.5. CASH AND CASH EQUIVALENTS

The majority of payments and receipts are processed via the Commission's treasury system and registered on liaison accounts, which are presented under heading 'receivables from exchange transactions' (see **2.4**).

The Joint Undertaking does not hold any cash at hand or any other form of cash and cash equivalents.

LIABILITIES

2.6. Provisions

Provisions are recognised when the entity has a present legal or constructive obligation towards third parties as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount can be reliably estimated. Provisions are not recognised for future operating losses. The amount of the provision is the best estimate of the expenditure expected to be required to settle the present obligation at the reporting date. Where the provision involves a large number of items, the obligation is estimated by weighting all possible outcomes by their associated probabilities ('expected value' method).

At 31 December 2023 the Joint undertaking did not have any provisions.

2.7. 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)

	31.12.2023	31.12.2022	Restated 31.12.2022 ⁶
<i>Contributions in-kind to be validated</i>	71,106,445.05	49,037,389.91	49,037,389.91
<i>Cash contributions to be validated</i>	758,945,214.98	77,926,959.77	363,969,314.26
<i>Payables to Participant Guarantee Fund</i>	0.00	8,710,774.53	8,710,774.53
<i>Sundry payables</i>	10,912,306.69	24,592,359.11	24,592,359.11
Total	840,963,966.72	160,267,483.32	446,309,837.81

Under the 'contribution in-kind from Members to be validated' heading presented the in-kind contributions related to on-going projects without a validated contribution certificate at 31 December. The amount for the 2023 IKOP is recognised based on the estimates received from the members.

After validation of the contributions through the Governing Board, the amounts will be booked to Net Assets and presented as Contribution received from members (Notes 2.9).

The 'contributions in cash to be validated' represents the financing received from the EC under the new Financial Framework Partnership Agreement but unspent, in relation to the programmes Horizon Europe, Digital Europe and Connecting Europe Facility (Notes 1.6.1) as well as the co-funding received but unspent from the Participating States for the acquisition of supercomputers under the previously mentioned programmes. The doubling of the value under this heading stems mostly from the receipt of the advance funding required for the acquisition of the supercomputers. As the build of the supercomputers usually spans a few years and as most of the cash is received in advance, the increasing trend is expected to continue in the following periods.

The value presented under the Sundry payables relates mostly to cost claims received in respect of grant agreements that were received but not yet validated and paid at year-end, as well as the receipt of kEUR 1 791 for the last payments which the Joint Undertaking will execute in 2024 on behalf of the Participating State in relation to the supercomputer Deucalion.

Due to the nature of the activities of the Joint Undertaking approx. 99% of the total liabilities (in-kind and cash contributions to be validated) are liabilities towards the members of the Joint Undertaking. This makes the exposure of the Joint Undertaking to claims from external unrelated parties to be very low.

The difference of approx. 286m EUR between the 2022 closing balance and the restated closing balance for 2022 relates to funding received from the Union and the Participating States and which has not been yet implemented by payments.

2.8. 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.

	31.12.2023	31.12.2022
<i>Accrued charges</i>	79,077,406.97	40,614,762.49

The doubling of the accrued charges values stems mainly from the full reception of the supercomputer Leonardo for which the final payment will be executed in 2024 (approx. 16.601 kEUR) and the increase in the

⁶ See note 4.10 for the details on the restated values.

accrued liabilities related to grant agreements where no invoice or cost claim has been validated by 31 December 2023 (approx. 60.741 kEUR).

The heading also includes the estimated operational expenses not-grant related (approx. 1.167 kEUR) administrative expenses (approx. 425 kEUR) and accrued staff expenses for untaken leave (approx. 143 kEUR).

Net assets

2.9. CONTRIBUTIONS FROM MEMBERS

The JU is funded by contributions from its members. Given their funding nature these contributions, which comprise both cash contributions and contributions in kind, are recognised in the JU's net assets as 'Contributions from owners' once validated. The term 'owner' does not imply ownership of any shares of the JU (in fact no shares are issued) but reflects the specific governance of the JU where voting rights are allocated in accordance with the contributions made.

Programming period	2023			2022			Restated 2022 ⁷		
	Cash	In-Kind	Total	Cash	In-Kind	Total	Cash	In-Kind	Total
<i>Horizon 2020 & CEF 1</i>	574,687,621.81		574,687,621.81	500,755,317.13		500,755,317.13	491,563,679.63		491,563,679.63
<i>Horizon Europe</i>	28,997,081.87		28,997,081.87	18,836,751.26		18,836,751.26	18,836,751.26		18,836,751.26
<i>DEP</i>	108,318,187.24		108,318,187.24	274,609,708.06		274,609,708.06	18,567,353.57		18,567,353.57
<i>CEF 2</i>	-		-	30,000,000.00		30,000,000.00	-		-
Total	712,002,890.92	-	712,002,890.92	824,201,776.45	-	824,201,776.45	528,967,784.46	-	528,967,784.46

⁷ See note 4.10 for the details on the restated values.

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Horizon 2020 & CEF 1

Member	EU	Members other than the Union			Total	
	Cash	Cash	In kind	Total	Cash	In kind
<i>Running costs contributions at 31.12.2022</i>	7,191,196.52				7,191,196.52	
<i>Current year contributions</i>	1,691,352.11				1,691,352.11	
Running costs contributions at 31.12.2023	8,882,548.63	-	-	-	8,882,548.63	-
<i>Operating costs contributions at 31.12.2022</i>	368,832,286.41	124,731,834.20		124,731,834.20	493,564,120.61	
<i>Adjustment to Operating costs contributions at 31.12.2022</i>	-	(9,191,637.50)		(9,191,637.50)	(9,191,637.50)	
<i>Restated Operating costs contributions at 31.12.2022</i>	368,832,286.41	115,540,196.70		115,540,196.70	484,372,483.11	
<i>Current year contributions</i>	67,328,949.97	14,103,640.10		14,103,640.10	81,432,590.07	
Operating costs contributions at 31.12.2023	436,161,236.38	129,643,836.80	-	129,643,836.80	565,805,073.18	-
<i>TOTAL contributions at 31.12.2022</i>	376,023,482.93	124,731,834.20		124,731,834.20	500,755,317.13	
<i>Restated TOTAL contributions at 31.12.2022</i>	376,023,482.93	115,540,196.70		115,540,196.70	491,563,679.63	
TOTAL contributions at 31.12.2023	445,043,785.01	129,643,836.80	-	129,643,836.80	574,687,621.81	-
<i>% of total contributions (by type)</i>	77.44%	22.56%	0.00%		100.00%	100.00%
<i>Total contribution in %</i>	77.44%		22.56%		100.00%	
<i>Voting rights %</i>	50.00%		50.00%		100.00%	

The difference that can be observed between the total contribution of the Union and the total contribution from the Members other than the Union is due to the different methods of funding to the programme. The Union contributes only cash while the other Members provide cash and in-kind contributions.

The cash and in-kind contributions have a different pattern of recognition in the Net Assets. While the cash is recognized as a contribution in the same year when the amount receivable is established, the in-kind contributions are recognized in the net assets after the end of the project due to the reporting and certification requirements.

Only the in-kind contributions from the Members that are both certified by external auditors and validated by the Governing Board of the Joint Undertaking are considered in-kind contribution. Estimated in-kind contributions, i.e. contributions for which no certifications has been received and/or this certification has not been validated by the Governing Board are reported under "Contributions in-kind to be validated" (see note 2.7).

The amounts presented as cash from Members other than the Union include only the amounts which have been transferred to the Joint Undertaking for the purchase of supercomputers over which the Joint Undertaking has full ownership. The co-funding on grant agreements and the co-funding for the purchases of co-owned supercomputers are not included in the above cash contributions.

For a comprehensive view of all the contributions to the programme see note 4.6.

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Horizon Europe

Member	EU	Members other than the EU			Total	
	Cash	Cash	In kind	Total	Cash	In kind
<i>Running costs contributions at 31.12.2022</i>	335,697.00				335,697.00	
<i>Current year contributions</i>	1,362,057.61				1,362,057.61	
Running costs contributions at 31.12.2023	1,697,754.61	-	-	-	1,697,754.61	-
<i>Operating costs contributions at 31.12.2022</i>	18,501,054.26				18,501,054.26	
<i>Current year contributions</i>	8,798,273.00				8,798,273.00	
Operating costs contributions at 31.12.2023	27,299,327.26	-	-	-	27,299,327.26	-
<i>TOTAL contributions at 31.12.2022</i>	18,836,751.26				18,836,751.26	
TOTAL contributions at 31.12.2023	28,997,081.87	-	-	-	28,997,081.87	-
<i>% of total contributions (by type)</i>	100.00%		0.00%		100.00%	0.00%
<i>Total contribution in %</i>	100.00%		0.00%		100.00%	
<i>Voting rights %</i>	50.00%		50.00%		100.00%	

According to the specific guidance issued by the EC Accounting Officer⁸ for the accounting of the EU cash contributions received under Horizon Europe program, the accounting treatment of the EU contribution should align with Art. 19.1 of the Financial Framework Partnership Agreement (FFPA), defining that the Union contributions take form of provisional payments ("pre-financings"). Based on this new requirement, the JU determines, on the basis of the payment implementation report the amount of operating and administrative expenditure that have been covered from the EU financial contributions to the Horizon Europe Programme and enters only this amount into the net assets. The unspent funds are booked among the liabilities as "Contributions in cash to be validated" (see note **2.7**).

Only the in-kind contributions from the Members that are both certified by external auditors and validated by the Governing Board of the Joint Undertaking are considered in-kind contribution. Estimated in-kind contributions, i.e. contributions for which no certifications has been received and/or this certification has not been validated by the Governing Board are reported under "Contributions in-kind to be validated" (see note **2.7**).

The presentation only of the contribution from the Union is due to the different pattern of recognition in the Net Assets of the cash and in-kind contributions. While the cash is recognized as a contribution in the same year when the amount receivable is established, the in-kind contributions are recognized in the net assets after the end of the project due to the reporting and certification requirements. At the same time, the co-funding on grant agreements from the Participating States are not included in the Net Assets of the Joint Undertaking.

For a comprehensive view of all the contributions to the programme see note **4.6**.

⁸ Ares(2022)6810956 – 03/10/2022 : Specific Guidance: Accounting for EU cash contributions received by Joint Undertakings under the Financial Framework Partnership Agreement related to MFF 2021-2027

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<i>DEP</i>						
Member	EU	Members other than the EU			Total	
	Cash	Cash	In kind	Total	Cash	In kind
<i>Running costs contributions at 31.12.2022</i>	2,210,135.08			-	2,210,135.08	
<i>Adjustment to Running costs contributions at 31.12.2022</i>	(1,620,803.43)			-	(1,620,803.43)	
Restated Running costs contributions at 31.12.2022	589,331.65			-	589,331.65	
<i>Current year contributions</i>	2,085,102.02			-	2,085,102.02	
Running costs contributions at 31.12.2023	2,674,433.67	-	-	-	2,674,433.67	-
<i>Operating costs contributions at 31.12.2022</i>	209,149,572.98	63,250,000.00		63,250,000.00	272,399,572.98	
<i>Adjustment to Operating costs contributions at 31.12.2022</i>	(191,171,551.06)	(63,250,000.00)		(63,250,000.00)	(254,421,551.06)	
Restated Operating costs contributions at 31.12.2022	17,978,021.92	-		-	17,978,021.92	
<i>Current year contributions</i>	51,028,746.79	36,636,984.86		36,636,984.86	87,665,731.65	
Operating costs contributions at 31.12.2023	69,006,768.71	36,636,984.86	-	36,636,984.86	105,643,753.57	-
<i>TOTAL contributions at 31.12.2022</i>	211,359,708.06	63,250,000.00	-	63,250,000.00	274,609,708.06	-
<i>Restated TOTAL contributions at 31.12.2022</i>	18,567,353.57	-	-	-	18,567,353.57	
TOTAL contributions at 31.12.2023	71,681,202.38	36,636,984.86	-	36,636,984.86	108,318,187.24	-
<i>% of total contributions (by type)</i>	66.18%	33.82%	0.00%		100.00%	0.00%
<i>Total contribution in %</i>	66.18%		33.82%		100.00%	
<i>Voting rights %</i>	50.00%		50.00%		100.00%	

Based on the specific guidance issued by the EC Accounting Officer⁹ for the accounting of the EU cash contributions received under Digital Europe program, the accounting treatment of the EU contribution should align with Art. 19.1 of the Financial Framework Partnership Agreement (FFPA), defining that the Union contributions take form of provisional payments (“pre-financings”). Based on this new requirement, the JU determines, on the basis of the payment implementation report the amount of operating and administrative expenditure that have been covered from the EU financial contributions to the Digital Europe Programme and enters only this amount into the net assets. The unspent funds are booked among the liabilities as “Contributions in cash to be validated” (see note 2.7).

The difference that can be observed between the total contribution of the Union and the total contribution from the Members other than the Union is due to the different methods of funding to the programme. The Union contributes only cash while the other Members provide cash and in-kind contributions.

⁹ Ares(2022)6810956 – 03/10/2022 : Specific Guidance: Accounting for EU cash contributions received by Joint Undertakings under the Financial Framework Partnership Agreement related to MFF 2021-2027

Annual accounts of the European High Performance Computing Joint Undertaking 2023

The cash and in-kind contributions have a different pattern of recognition in the Net Assets. While the cash is recognized as a contribution in the same year when the amount receivable is established, the in-kind contributions are recognized in the net assets after the end of the project due to the reporting and certification requirements.

Only the in-kind contributions from the Members that are both certified by external auditors and validated by the Governing Board of the Joint Undertaking are considered in-kind contribution. Estimated in-kind contributions, i.e. contributions for which no certifications has been received and/or this certification has not been validated by the Governing Board are reported under "Contributions in-kind to be validated" (see note **2.7**).

The amounts presented as cash from Members other than the Union include only the amounts which have been transferred to the Joint Undertaking for the purchase of supercomputers over which the Joint Undertaking has full ownership. The co-funding on grant agreements and the co-funding for the purchases of co-owned supercomputers are not included in the above cash contributions.

For a comprehensive view of all the contributions to the programme see note **4.6**.

Member	EU		Members other than the EU		Total	
	Cash		Cash	In kind	Cash	In kind
<i>Running costs contributions at 31.12.2022</i>						
<i>Current year contributions</i>						
Running costs contributions at 31.12.2023	-		-	-	-	-
<i>Operating costs contributions at 31.12.2022</i>	30,000,000.00				30,000,000.00	
<i>Adjustment to Operating costs contributions at 31.12.2022</i>	(30,000,000.00)					
Restated Operating costs contributions at 31.12.2022	-					
<i>Current year contributions</i>	-					-
Operating costs contributions at 31.12.2023	-		-	-	-	-
<i>TOTAL contributions at 31.12.2022</i>	30,000,000.00		-	-	-	30,000,000.00
<i>Restated TOTAL contributions at 31.12.2022</i>	-					-
TOTAL contributions at 31.12.2023	-		-	-	-	-

Based on the specific guidance issued by the EC Accounting Officer¹⁰ for the accounting of the EU cash contributions received under the CEF program, the accounting treatment of the EU contribution should align with Art. 19.1 of the Financial Framework Partnership Agreement (FFPA), defining that the Union contributions take form of provisional payments ("pre-financings"). Based on this new requirement, the JU determines, on the basis of the payment implementation report the amount of operating and administrative expenditure that have been covered from the EU financial contributions to the CEF Programme and enters only this amount into the net assets. The unspent funds are booked among the liabilities as "Contributions in cash to be validated" (see note **2.7**).

All funding received from the Union by the end of 2023 for the CEF programme is treated as pre-financing received.

¹⁰ Ares(2022)6810956 – 03/10/2022 : Specific Guidance: Accounting for EU cash contributions received by Joint Undertakings under the Financial Framework Partnership Agreement related to MFF 2021-2027

3. NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE

REVENUE

NON-EXCHANGE REVENUE

Revenue from non-exchange transactions relates to transactions where the transferor provides resources to the recipient entity without the recipient entity providing approximately equal value directly in exchange. The heading mainly includes amounts received from the Commission during the year and recoveries of operational expenses.

3.1. RECOVERY OF EXPENSES

The revenue resulting from recovery of expenses refers to operational expenses recovered from beneficiaries during the year and adjustments coming from audits that will be collected in the following year.

	2023	2022
<i>Recovery of expenses</i>	235,000.00	-

The recovery relates to legal expenses incurred for litigation.

3.2. Other non-exchange revenue

The Joint Undertaking did not have any other non-exchange revenue during the 2023.

EXCHANGE REVENUE

3.3. Revenue from exchange transactions

The revenue from exchange transactions and events relates to following types of transactions: rendering of services; sales of goods; and the use by others of entity assets yielding interest, royalties and dividends.

	2023	2022
<i>Realised exchange rate gains</i>	6.465,53	-
<i>Miscellaneous income exchange</i>	3.354,52	1.034.526,68
<i>Financial revenue</i>	-	223.516,76
Total	9.820,05	1.258.043,44

EXPENSES

3.4. OPERATIONAL 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 on 31 December was estimated using the best information available at the time of preparation of the annual accounts. The estimation is based on the 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:

	2023	2022
<i>Operational costs: validated in-kind contributions</i>	-	-
<i>Operational costs: estimated in-kind contributions</i>	22,069,055.14	31,799,132.91
Total operational costs from in-kind contributions	22,069,055.14	31,799,132.91
<i>Operational costs: validated EU contributions</i>	35,214,575.00	18,166,775.20
<i>Operational costs: estimated EU contributions</i>	34,935,909.47	22,112,517.27
Total operational costs from EU contributions	70,150,484.47	40,279,292.47
Total	92,219,539.61	72,078,425.38

The increase of operational costs related to EU contributions stems mainly from the increase of costs related to projects funded through grant agreements and follow the standard pattern of cost increases when the majority of projects are reaching the later stages of implementation.

3.5. 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, the JU 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.

As per Article 83a (2) of the Staff Regulations, the part paid by the JU shall correspond to the percentage share between a) the JU's revenues without the subsidy from the general budget, and b) its total revenues. To avoid disruptive variations over time, the JUs employer's pension contribution is calculated with a single percentage share for the whole duration of the JU. This single percentage was established on the basis of the EU and non-EU members' respective contributions, as foreseen in the JU's legal basis, with a correction and regularisation in the last year of existence of the JU. The contribution of European High Performance Computing Joint Undertaking was set as 41.2 % of the total pension scheme contributions. This contribution is accounted within staff costs.

In view of implementation problems and the principle of good administration, it was agreed between the Commission and the JUs that the provisions of Article 83a(2) are applied only to the JUs set up by the SBA and Euro HPC and not to those established under the previous Regulations. Given the late entry into force of the SBA at the end of November 2021, the applicability started as from 2022.

	2023	2022
Staff costs	3,691,044.97	1,940,138.53

The increase in staff costs is mainly due to the increase in staffing numbers from 23 staff members at the end of 2022 to 36 staff members at the end of 2023, following the successful recruitments in 2023.

3.6. FINANCE EXPENSES

	2023	2022
Interest expense on late payment of charges	19,737.90	-
Other financial expenses	-	240,775.80
Total	19,737.90	240,775.80

3.7. 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.

	2023	2022
Property, plant and equipment related expenses	38,661,156.21	10,523,422.97
External non-IT services	412,591.74	441,045.44
Legal Expenses	59,265.00	128,323.50
Maintenance and security expenses	91,176.45	56,784.51
Office Supplies & maintenance	93,496.82	56,514.97
External IT services	5,191,341.91	3,507,807.24
Experts' expenses	478,840.36	285,366.14
Insurance building	4,086.76	2,325.28
Training costs	43,117.59	17,451.20
Recruitment costs	1,245.72	1,500.97
Missions	179,709.52	84,244.18
Communications & publications	162,078.67	74,258.05
IT operating lease	1,774.68	1,774.68
Total	45,379,881.43	15,180,819.13

The main increases under this heading are due to the increased depreciation charges and the increased maintenance costs for the supercomputers in operation. As the build for more supercomputers is finalized and the machines are being brought into use it is expected that the related expenses will continue to increase in the following periods.

The operating lease expenses relate to the Euro HPC headquarters building in Luxembourg and leasing contract related to IT materials and other equipment. The building has been made available to EuroHPC at 0 cost until 31 December 2026.

An overview of the amounts to be committed and paid during the remaining term of these lease contracts are as follow:

	Future amounts to be paid at 31 December 2023			Total
	< 1 year	1- 5 years	> 5 years	
Buildings	32.098,08	64.196,16	-	96.294,24
IT materials and other equipment	1.774,68	-	-	1.774,68
Total	33.872,76	64.196,16	-	98.068,92

4. OTHER SIGNIFICANT DISCLOSURES

4.1. CONTINGENT ASSETS

No contingent assets of material significance were identified by the Joint Undertaking at the time of drawing the annual accounts.

4.2. CONTINGENT LIABILITIES

Court case

In June 2023, RADICAL Consulting UG, SURF B.V. and Bayerische Akademie der Wissenschaften lodged a complaint before the European Court of Justice against EuroHPC JU Decision rejecting the request for evaluation review, concerning a call for proposal for Centres of Excellence under Horizon Europe Programme. In September 2023, EuroHPC JU lodged an action for inadmissibility of the complaint submitted by Radical and others. The decision of the Court is still pending.

At this stage the probability of cash outflows is not considered probable.

Supplier exposure assessment

Following the latest publication which was disclosed by the Atos Group ("the Group") on its financial situation, EuroHPC has performed a preliminary impact assessment on the exposure of the Joint Undertaking to the Group.

The assessment was conducted internally with the aim of identifying the potential effects stemming from the Group's uncertain ability to continue as a going concern, as expressed in their consolidated financial statements for the year 2023.

The analysis included a review of the values of all contractual relations between the JU and the Group, with particular focus on the advances (pre-financing) paid towards the Group's companies for procurement contracts and grant agreements, as well as an assessment of the potential spillover effect between projects. The JU has also assessed which major JU business disruptions would be caused in case of a potential interruption of all the Group's services and deliveries to the JU.

Following the review, the value of the open advances for on-going contracts is estimated at 88 mEUR. The open advances do not include the pre-financing covered by the Mutual Insurance Mechanism and pre-financings covered by deliverables which have been submitted and are under approval by the Joint Undertaking. Concurrently, a reliable estimate of the recoverable amounts pertaining to the on-going contracts with open pre-financing could not be established at this time, as it is dependent on future developments which are impossible to foresee, currently. Therefore, the assessment concluded that the financial exposure is better understood as a range of possible outcomes spanning from an estimated low impact of 0 EUR to an estimated maximum of 88 mEUR.

The assessment also concludes that other global HPC players could implement such projects in the EU and that the inter-relationships between projects are limited.

It is to be noted, that at the time when the annual accounts of the Joint Undertaking are being drawn up, the Atos Group continues to operate, and the Joint Undertaking has not identified any disruption in the service provided by the Group's companies.

It should also be noted, that all EuroHPC JU engagements with the ATOS Group are with the business units that have been publicly stated as profitable and are also of declared strategic interest by the French State.

Based on the current business relationships with the Group, and considering also the latest publicly available information, on the Group's decision to proceed with the proposal submitted by the Onepoint Consortium, the possibility of an outflow of resources or service potential is considered to be remote at this time.

4.3. 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.

	2023	2022
<i>Outstanding commitments not yet expensed</i>	1,842,010,260.53	1.205.389.551,14

The outstanding commitments not yet expensed represent the correction of the budgetary RAL with the estimated costs, which are determined by using an accrual-based principle not reflected in the budgetary result, where the cash-based principle is used. The high increase between the years is driven by the high increase of the outstanding commitments at the end of the year for multi-annual expenditure.

4.4. IN-KIND CONTRIBUTIONS

According to Council Regulation (EU) No 2021/1173 and to Council Regulation (EU) No 2018/1488, the members other than the Union shall provide in-kind contributions to the Joint Undertaking.

Under H2020 program, in-kind contributions by private members and their affiliated entities consist of the costs incurred by them in implementing indirect actions less the contribution of the joint undertaking and any other Union contribution to those costs. For the purpose of valuing these in-kind contributions, the cost is determined in accordance with the usual cost accounting practices of the entities concerned, to the applicable accounting standards of the country where the entity is established, and to the applicable International Accounting Standards and International Financial Reporting Standards. The costs shall be certified by an independent external auditor appointed by the entity concerned. The valuation method may be verified by the joint undertaking, should there be any uncertainty arising from the certification.

The in-kind contributions by the Participating State where the hosting entity is established or by the Participating States in a hosting consortium consist of the operating costs of the pre-exascale supercomputers owned by the Joint Undertaking, incurred by the hosting entities, less the contributions by the Joint Undertaking and any other Union contribution to those costs.

Further simplification was introduced with the Council Regulation (EU) No 2021/1173 for the programmes Horizon Europe, Digital Europe and Connecting Europe Facility. In that context, a simplified reporting mechanism was put in place for the members, who are no longer required to report on non-eligible costs for in-kind contributions to operational activities. Consequently, in-kind contributions to operational activities are accounted for solely on the basis of eligible costs and reported and audited in accordance with the mechanism applicable to the specific grant agreement. Such accounting on the basis of eligible costs allows for the automated calculation of in-kind contributions to operational activities via the Horizon Europe IT tools.

The Council Regulation (EU) No 2021/1173 distinguishes under Art.2 between:

- "in-kind contributions to indirect actions' funded from Horizon Europe means contributions by the Participating State or the Private Members of the Joint Undertaking or their constituent entities or their affiliated entities, consisting of the eligible costs incurred by them in implementing indirect actions less the contribution of that Joint Undertaking, of the Participating States of that Joint Undertaking and of any other Union contribution to those costs;"
- "in-kind contributions to actions' funded from the Digital Europe Programme or the Connecting Europe Facility means contributions by the Participating State or the Private Members of the Joint Undertaking or their constituent entities or their affiliated entities, consisting of the eligible costs incurred by them in implementing part of the activities of the Joint Undertaking less the contribution of that Joint Undertaking, of the Participating States of that Joint Undertaking and of any other Union contribution to those costs;"

4.5. IN-KIND IN ADDITIONAL ACTIVITIES (IKAA)

Most joint undertakings provide a systematic opportunity and incentive for members other than the Union to combine their research and innovation activities with those of the joint undertaking. Additional activities do not receive financial support from the joint undertaking. However, they are accounted for as members' in-kind contributions to additional activities when they contribute to the objectives of the joint undertaking and are directly linked to its activities, including non-eligible costs of indirect actions funded by the joint undertaking where this is provided for in the annual additional activities plan. That link can be established through the uptake of results from indirect actions funded by the joint undertaking or its preceding initiatives, or by demonstrating a significant Union added value. The respective costs should be certified by an independent audit body appointed by the entity concerned subject to the valuation method being open to verification by the joint undertaking in the event of uncertainty. Council Regulation (EU) No 2021/2085 laid down more specific provisions concerning the scope of additional activities for each joint undertaking, to the extent that it is necessary to achieve the desired directionality and impact.

"Additional activity" means an activity, included in the annual additional activities plan annexed to the main part of the work programme, that does not receive financial support from the joint undertaking but contributes to its objectives and is directly linked to the uptake of results from projects under that joint undertaking or its preceding initiatives or that has a significant Union added value.

In-kind contributions to additional activities mean contributions by the Private Members, constituent entities or the affiliated entities of either, and by international organisations, consisting of the costs incurred by them in implementing additional activities less any contribution to those costs from the Union and from the participating states of that joint undertaking.

However, as the EuroHPC Joint Undertaking's Council Regulation (EU) 2021/1173 does not provide for a legal base to collect IKAA from its private members, the Private members of the Joint Undertaking do not provide contributions in the form of IKAA.

4.6. CONTRIBUTIONS PER PROGRAMME

Programme	Members contributions (as per funding regulation)			
	EU	Participating States	Private members	Total
	(a)	(b)	(c)	(d)=(a)+(b)+(c)
H2020	536,000,000.00 ¹¹	476,000,000.00	420,000,000.00	1,432,000,000.00
HE	900,000,000.00	900,000,000.00	900,000,000.00	7,062,600,000.00
DEP	1,981,300,000.00 ¹²	1,981,300,000.00		
CEF	200,000,000.00	200,000,000.00		

Programme	Members contributions as of 31.12.2023								Achievement rate
	EU cash validated	EU cash not validated	Participating States cash validated	Participating States cash not validated	Participating States IKOP not validated	Participating States estimated financial contributions	Private Members IKOP not validated	Total	
H2020	445.043.785,01	-	129.643.836,80	-	51.932.160,67	356.779.378,82	18.405.785,69	1.001.804.946,99	70%
HE	28.997.081,87	207.948.455,16	-	-	-	40.905.491,31	360.847,46	278.211.875,80	17%
DEP	71.681.202,38	369.092.244,68	36.636.984,86	101.904.515,14	-	249.387.802,55	407.651,23	829.110.400,84	
CEF	-	80.000.000,00	-	-	-	-	-	80.000.000,00	

The EU and Participating States cash validated comprises the contributions of the Union received by the JU for the programme Horizon 2020 and the contribution implemented by the JU through payments for the programmes Horizon Europe, Digital Europe and Connecting Europe Facility.

The EU and Participating States cash not validated comprises the contributions of the Union received by the JU for the programmes Horizon Europe, Digital Europe and Connecting Europe Facility which have not been implemented through payments and are thus held as pre-financing received.

The Participating States and Private Members estimated IKOP category comprises the Joint Undertakings estimate of the in-kind contributions due in relation to the projects for which the necessary reporting and certification requirements were not met in order to allow for the validation of the contributions.

¹¹ This amount includes 50m EUR which were provided in addition to the 486m EUR indicated in the Council Regulation 2018/1488

¹² The amount is presented as per the Council Regulation 2021/1173 and does not reflect the changes introduced via the CHIPS act.

The Participating States estimated financial contributions comprises the total estimated commitments based on signed agreements for which the contributions have not yet been provided to the Joint Undertaking or are not provided directly to the Joint Undertaking. The amounts include the co-funding contribution of the Participating States to projects funded through grant agreements, the co-funding contributions for the purchase of supercomputers owned by the JU and co-owned with the JU and the co-funding of the operational costs of the supercomputers in operation.

Council Regulation 2018/1488 (Horizon 2020 & CEF 1 programmes)

Overall, the achievement rate for funding on the Council Regulation 2018/1488 is at a level expected from a programme approaching its sunset period. The EU funding has reached 83% of its Regulation target while the Participating States contributions (cash provided to the JU and estimated in-kind and financial contributions) is at an estimated maximum 113% of its Regulation target.

Council Regulation 2021/1173 (Horizon Europe, Digital Europe and Connecting Europe facility programmes)

The information presented for the Council Regulation 2021/1173 is in line with the financing expectations from a programme that started at the end of 2021 for the EHPC JU. The funding from the Union has reached 25% while the Participating States contributions (cash provided to the JU and estimated in-kind and financial contributions) is at an estimated maximum 14%. The difference in the pace of contributions between members in the beginning of the programme is expected as the Union's financing in the form of cash is required for the prefinancing of activities and must be provided before any other type of contribution.

4.7. RELATED PARTIES

The related parties 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.

4.8. KEY MANAGEMENT ENTITLEMENTS

The Director, or head of entity, is remunerated in accordance with the Staff Regulations of the European Union, which establish the rights and obligations of all officials of the EU. The Staff Regulations are published on the Europa website.

	31.12.2023	31.12.2022
<i>Executive Director</i>	AD14	AD14

4.9. OTHER EVENTS

Russia-Ukraine War

At the time of preparation of these financial statements, the management is not aware of any events linked to the war in Ukraine that should be disclosed as non-adjusting events or taken into account in these financial statements as adjusting events.

For subsequent reporting periods, the war may affect the recognition and measurement of some assets on the balance sheet and of some 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 cannot be reliably estimated.

BREXIT - United Kingdom joins Horizon Europe programme

As of 1 January 2024, the United Kingdom became an associated country to Horizon Europe. Its researchers are able to participate in this research and innovation programme of the EU on the same terms as researchers from other associated countries and have access to Horizon Europe funding.

4.10. OTHER INFORMATION

Following further clarifications received during the reporting year on the specific guidance issued by the EC Accounting Officer for the accounting of the EU cash contributions received under the Horizon Europe programme, the accounting treatment of the funding obtained by the Joint Undertaking under the new Financial Framework Partnership Agreement (FFPA) in 2022 was reconsidered.

The specific guidance indicates that the accounting treatment of the EU contribution should align with Art. 19.1 of the FFPA. In particular, the Union contributions are considered as provisional payments ("pre-financings") when received.

Furthermore, the guidance requires the JU to determine the amount of operating and administrative expenditure that have been covered by the EU financial contributions. In line with the new clarification, only this amount is eligible for being accounted as a contribution within the net assets.

The unspent funds are booked among the liabilities as "Contributions in cash to be validated".

As the FFPA does not make any distinction in the nature of the funding provided through different programmes, the same accounting treatment should be applied to: Horizon Europe, Digital Europe and Connecting Europe Facility.

At the same time, the funding provided by the Participating States for the acquisition of supercomputers co-funded by the Union under the new FFPA, is made for the sole explicit purpose of contributing to the purchase of a specific machine. Therefore, the funding provided is similar in nature to the funding provided by the Union under the new FFPA. To this end, the same accounting treatment is applied to the funding provided by the Participating States.

Based on the above considerations, the accounting treatment of the funding should be adjusted, applying the principles of IPSAS 3 – Accounting policies, changes in accounting estimates and errors. As required by the standard, the correction was applied retrospectively leading to the restatement of the comparative amounts as of 31 December 2022.

The application of the new accounting method has led to the reclassification of 286.042.354,49 EUR of funding received in 2022, from the Net Assets section where it was included as contributions from Members to the Liabilities section as advances received. That includes 30.000.000,00 EUR received from the Union in relation to the Connecting Europe Facility programme, 192.792.354,49 EUR received from the Union in relation to the Digital Europe programme and 63.250.000,00 received from Participating States in relation to the acquisition of one supercomputer.

The change was considered necessary in order to better reflect the nature of the funding received by the Joint Undertaking in line with the substance of the underlying transactions.

Furthermore, during 2023 it was discovered that the ownership ratio used by the Joint Undertaking to capitalise the purchase expenses of a co-owned supercomputer was not applied correctly.

The correction has led to the reclassification of 9.191.637,50 EUR received from the Participating State, from the Net Assets section where it was included as contributions from Members to the Liabilities section. In addition, as the Pre-financing balance at 31/12/2022 did not consider the co-ownership ratio, it was decreased accordingly with the counterpart entry in the Liabilities section.

The summary of the impact on the balance sheet at 31 December 2022 is as follows:

Balance sheet headings restated	31/12/2022 as reported	31/12/2022 restated	Impact restatement
Short term Pre-financing	154,036,633.36	144,844,995.86	(9,191,637.50)
Payables and other liabilities	160,267,483.32	446,309,837.81	286,042,354.49
Contribution from Members	824,201,776.45	528,967,784.46	(295,233,991.99)

The summary of the impact on the cash flow statement at 31 December 2022 is as follows:

Balance sheet headings restated	31/12/2022 as reported	31/12/2022 restated	Impact restatement
(Increase)/Decrease in pre-financing	(60,223,292.83)	(51,031,655.33)	(9,191,637.50)
(Increase)/Decrease in payables	126,173,705.84	412,216,060.33	(286,042,354.49)
(Increase)/Decrease in cash contributions	396,909,600.21	101,675,608.22	295,233,991.99

No impact on the statement of financial performance was identified.

The impact on the reconciliation between the economic result with the budget result is minimal as there is no change to the cash perspective (budget result) and no change to the statement of financial performance.

4.11. EVENTS AFTER REPORTING DATE

Not applicable.

4.12. OBSERVATIONS ON MANAGEMENT AND CONTROL SYSTEMS

Not applicable.

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 fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. This risk arises from the change in the price of a foreign currency against the functional currency of an entity.

(2) Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. As an example, higher interest rates will lead to lower prices of fixed rate bonds (other things equal), and vice versa. The entity does not have any securities thus it is not exposed to 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 quoted in EUR, the entity is thus not exposed to currency risk.

5.3. CREDIT RISK

At the end of the year, the financial assets comprise exchange receivables that are not past due for more than 30 days. As no credit loss is expected during the lifetime 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 a remaining contractual maturity of less than 1 year.

THE BUDGET IMPLEMENTATION REPORTS AND EXPLANATORY NOTES

1. BUDGETARY PRINCIPLES AND STRUCTURE

1.1. BUDGETARY PRINCIPLES

The establishment and implementation of the budget of European High Performance Computing is governed by the following basic principles set out in the Chapter 2 of the Financial Rules of the joint undertaking:

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 the Joint Undertaking. No expenditure may be committed or authorised in excess of the appropriations authorised by the budget. An appropriation may be entered into the budget only if it is for an item of expenditure 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.

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 euro and the accounts shall be presented in euro.

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 economy

The principle of economy requires that the resources used by the JU in the pursuit of its activities shall be made available in due time, in appropriate quantity and quality and at the best price.

Principle of efficiency

The principle of efficiency concerns the best relationship between resources employed and results achieved.

Principle of effectiveness

The principle of effectiveness concerns the attainment of the specific objectives set and the achievement of the intended results.

Principle of internal control

The principle of internal control of budget implementation means that the JU budget shall be implemented in compliance with effective and efficient internal control in order to provide reasonable assurance of achieving effectiveness, efficiency and economy of operations; reliability of reporting; safeguarding of assets and information; prevention, detection, correction and follow-up of fraud and irregularities; inadequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multi-annual character of the programmes as well as the nature of the payments concerned.

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 the internet site of the joint undertaking within four weeks of their adoption and shall be transmitted to the Commission and the Court of Auditor.

1.2. STRUCTURE AND PRESENTATION OF THE BUDGET

Since 1 January 2015, no distinction between non-dissociated and dissociated appropriations is made. All appropriations follow the dissociated logic.

Following the provisions of the financial rules of the Joint Undertaking, 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 relating to staff expenditure such as salaries and allowances for personnel working with the joint undertaking. It also includes recruitment expenses, staff missions, expenses for the socio-medical infrastructure and representation costs.

Title 2

Budget lines relating to all infrastructure, equipment and miscellaneous administrative expenditure.

Title 3

Budget lines providing for the implementation of the activities and tasks assigned to the joint undertaking in accordance with its establishing Council Regulation.

1.3. RESULT OF THE IMPLEMENTATION OF THE BUDGET

	Title	2023	2022
Revenue			
of which:		570 127	531 199
EU Contribution	2	488 616	407 136
Other contributions	4	81 508	123 037
Recoveries - R and I Calls	5	3	1 026
Expenditure		(205 837)	(154 139)
of which:			
Staff expenditure	1	(4 056)	(2 248)
Administrative expenditure	2	(1 357)	(765)
Operational expenditure	3	(200 424)	(151 127)
Exchange rate differences		6	
Budget result		364 296	377 060

1.4. RECONCILIATION OF ECONOMIC RESULT WITH BUDGET RESULT

	2023	2022
ECONOMIC RESULT OF THE YEAR	(141.065.383,86)	(88.182.115,40)
Adjustment for accrual items (items not in the budgetary result but included in the economic result)	116.720.709,47	79.693.120,69
<i>Adjustments for accrual cut-off (net)</i>	53.342.166,09	57.527.566,99
<i>Depreciation of intangible and tangible assets</i>	38.659.216,16	10.523.422,97
<i>Cancellations and Reversals of previous year revenues</i>		17.259,04
<i>Pre-financing given in previous year and cleared in the year</i>	24.704.456,08	11.628.072,63
<i>Other individually immaterial</i>	14.871,14	(3.200,94)
Adjustment for budgetary items (item included in the budgetary result but not in the economic result)	388.640.964,28	385.548.805,86
<i>Members' cash contributions collected in the year</i>	570.123.418,61	474.836.559,98
<i>Asset acquisitions (less unpaid amounts) and assets pre-financing</i>	(171.684.296,84)	(56.998.122,70)
<i>New pre-financing paid in the year and remaining open as at 31 Dec</i>	(9.798.157,49)	(87.626.802,09)
<i>Entitlements established in previous year and cashed in the year</i>		55.337.170,67
BUDGET RESULT OF THE YEAR	364.296.289,89	377.059.811,15

2. IMPLEMENTATION OF BUDGET REVENUE

	Item	Income appropriations		Entitlements established			Revenue				Out-standing
		Initial budget	Final budget	Current year	Carried over	Total	On entitlements of current year	On entitlements carried over	Total	%	
		1	2	3	4	5=3+4	6	7	8=6+7	9=8/2	10=5-8
20-0	Contribution from EU administrative	1 697	1 691	1 691	0	1 691	1 691	0	1 691	100 %	0
Total Chapter 20-0		1 697	1 691	1 691	0	1 691	1 691	0	1 691	100 %	0
21-0	HE EU Contr (A)	2 584	2 584	2 584	0	2 584	2 584	0	2 584	100 %	0
Total Chapter 21-0		2 584	2 584	2 584	0	2 584	2 584	0	2 584	100 %	0
22-0	DEP EU Contr (A)	3 617	3 617	3 617	0	3 617	3 617	0	3 617	100 %	0
Total Chapter 22-0		3 617	3 617	3 617	0	3 617	3 617	0	3 617	100 %	0
20-1	Contribution from EU operational	67 693	67 329	67 329	0	67 329	67 329	0	67 329	100 %	0
Total Chapter 20-1		67 693	67 329	67 329	0	67 329	67 329	0	67 329	100 %	0
21-0	HE EU Contr (O)	137 598	137 598	137 598	0	137 598	137 598	0	137 598	100 %	0
Total Chapter 21-0		137 598	137 598	137 598	0	137 598	137 598	0	137 598	100 %	0
22-0	DEP EU Contr (O)	225 796	225 796	225 796	0	225 796	225 796	0	225 796	100 %	0
Total Chapter 22-0		225 796	225 796	225 796	0	225 796	225 796	0	225 796	100 %	0
23-0	CEF2 EU Contr (O)	50 000	50 000	50 000	0	50 000	50 000	0	50 000	100 %	0
Total Chapter 23-0		50 000	50 000	50 000	0	50 000	50 000	0	50 000	100 %	0
Total Title 2		488 985	488 616	488 616	0	488 616	488 616	0	488 616	100%	0
40-0	Participating states contribution	60 555	18 136	18 136	0	18 136	6 216	0	6 216	34 %	11 920
Total Chapter 40-0		60 555	18 136	18 136	0	18 136	6 216	0	6 216	34 %	11 920
42-0	DEP PS Contr (O)	105 600	75 292	75 292	0	75 292	75 292	0	75 292	100 %	0
Total Chapter 42-0		105 600	75 292	75 292	0	75 292	75 292	0	75 292	100 %	0
Total Title 4		166 155	93 428	93 428	0	93 428	81 508	0	81 508	67%	
50-0	Recoveries - R and I Calls	0	2	3	0	3	3	0	3	179 %	0

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Total Chapter 50-0		0	2	3	0	3	3	0	3	179 %	0
70-0	Unused administrative appropriations from previous years	0	3 775							-	
Total Chapter 70-0		0	3 775							-	
71-0	EU Un (A) (n-2)	0	1 352							-	
Total Chapter 71-0		0	1 352							-	
70-0	Unused operational appropriations from previous years	0	18 280							-	
Total Chapter 70-0		0	18 280							-	
70-1	EU Legacy Un (O) (n-2)	0	83 198							-	
Total Chapter 70-1		0	83 198							-	
70-3	EU HE Un (O) (n-1)	0	77 004							-	
Total Chapter 70-3		0	77 004							-	
70-6	EU DEP Un (O) (n-1)	0	191 172							-	
Total Chapter 70-6		0	191 172							-	
70-9	EU CEF2 Un (O) (n-1)	0	30 000							-	
Total Chapter 70-9		0	30 000							-	
70-0	PS Legacy Un (O) (n-1)	0	2 184							-	
Total Chapter 70-0		0	2 184							-	
70-1	PS Legacy Un (O) (n-2)	0	5 534							-	
Total Chapter 70-1		0	5 534							-	
70-6	PS DEP Un (O) (n-1)	0	63 250							-	
Total Chapter 70-6		0	63 250							-	
Total Title 7		0	475 748	0	0	0	0	0	0	0	0

GRAND TOTAL		655 141	1 057 793	582 047	0	582 047	570 127	0	570 127	54 %	11 920
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3. IMPLEMENTATION OF BUDGET EXPENDITURE

Breakdown & changes in commitment appropriations

Breakdown & changes in commitment appropriations – Title 1

	Item	Budget appropriations				Additional appropriations			Total appropr. 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	8=4+7
10-0	Establishment plan posts	3 067	0	(25)	3 042	1 171	0	1 171	4 213
Total Chapter 10-0		3 067	0	(25)	3 042	1 171	0	1 171	4 213
11-0	External personnel	1 880	0	0	1 880	630	0	630	2 511
Total Chapter 11-0		1 880	0	0	1 880	630	0	630	2 511
12-0	Expenditure relating to recruitment	5	0	25	30	65	0	65	94
Total Chapter 12-0		5	0	25	30	65	0	65	94
13-0	Mission and travel expenses	91	2	0	93	128	0	128	221
Total Chapter 13-0		91	2	0	93	128	0	128	221
14-0	Socio-medical infrastructure and training	752	0	0	752	382	0	382	1 134
Total Chapter 14-0		752	0	0	752	382	0	382	1 134
Total Title 1		5 795	2	0	5 797	2 377	0	2 377	8 174

Breakdown & changes in commitment appropriations – Title 2

EUR '000

	Item	Budget appropriations				Additional appropriations			Total appropr. 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	8=4+7
20-0	Buildings and associated costs	146	0	0	146	251	0	251	397
Total Chapter 20-0		146	0	0	146	251	0	251	397
21-0	Information Technology	239	(0)	0	239	368	0	368	607
Total Chapter 20-0		239	(0)	0	239	368	0	368	607
22-0	Movable property and associated costs	16	0	0	16	17	0	17	33
Total Chapter 20-0		16	0	0	16	17	0	17	33
23-0	Current administrative expenditure	618	(6)	0	612	632	0	632	1 244
Total Chapter 20-0		618	(6)	0	612	632	0	632	1 244
24-0	Postage and Telecommunications	8	0	0	8	28	0	28	36
Total Chapter 20-0		8	0	0	8	28	0	28	36
25-0	Expenditure of formal and other meetings	81	0	0	81	469	0	469	550
Total Chapter 20-0		81	0	0	81	469	0	469	550
26-0	Running costs in connection with operational activities	120	0	0	120	194	0	194	315
Total Chapter 20-0		120	0	0	120	194	0	194	315
27-0	Information and Publishing	46	0	0	46	150	0	150	196
Total Chapter 20-0		46	0	0	46	150	0	150	196
28-0	Expert contracts and meetings	827	0	0	827	212	0	212	1 039
Total Chapter 20-0		827	0	0	827	212	0	212	1 039
Total Title 2		2 103	(6)	0	2 097	2 321	0	2 321	4 418

Breakdown & changes in commitment appropriations – Title 3

EUR '000

	Item	Budget appropriations				Additional appropriations			Total appropr. 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	8=4+7
30-0	Legacy R&I Action	0	0	0	0	33	0	33	33
Total Chapter 30-0		0	0	0	0	33	0	33	33
30-1	HE R&I Action	99 300	0	0	99 300	149 367	0	149 367	248 667
Total Chapter 31-0		99 300	0	0	99 300	149 367	0	149 367	248 667
32-0	DEP R&I Action	0	0	0	0	76 767	0	76 767	76 767
Total Chapter 32-0		0	0	0	0	76 767	0	76 767	76 767
31-0	HE Infra Action	24 044	0	0	24 044	52 867	0	52 867	76 911
Total Chapter 31-0		24 044	0	0	24 044	52 867	0	52 867	76 911
31-2	DEP Infra Action	653 561	0	0	653 561	67 566	0	67 566	721 127
Total Chapter 32-0		653 561	0	0	653 561	67 566	0	67 566	721 127
Total Title 3		776 905	0	0	776 905	346 600	0	346 600	1 123 505
GRAND TOTAL		784 803	(4)	0	784 799	351 297	0	351 297	1 136 097

Breakdown & changes in payment appropriations

Breakdown & changes in payment appropriations – Title 1

	Item	Budget appropriations				Additional appropriations			Total approp. available
		Initial budget adopted	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	8=4+7
10-0	Establishment plan posts	3 067	0	(25)	3 042	1 171	0	1 171	4 213
Total Chapter 10-0		3 067	0	(25)	3 042	1 171	0	1 171	4 213
11-1	External personnel	1 880	0	0	1 880	672	0	672	2 552
Total Chapter 11-0		1 880	0	0	1 880	672	0	672	2 552
12-0	Expenditure relating to recruitment	5	0	25	30	65	0	65	94
Total Chapter 10-0		5	0	25	30	65	0	65	94
13-0	Mission and travel expenses	91	2	0	93	176	0	176	269
Total Chapter 10-0		91	2	0	93	176	0	176	269
14-0	Socio-medical infrastructure and training	752	0	0	752	471	0	471	1 223
Total Chapter 10-0		752	0	0	752	471	0	471	1 223
Total Title 1		5 795	2	0	5 797	2 554	0	2 554	8 351

Breakdown & changes in payment appropriations – Title 2

	Item	Budget appropriations				Additional appropriations			Total approp. available
		Initial budget adopted	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	8=4+7
20-0	Buildings and associated costs	146	0	0	146	250	0	250	396
Total Chapter 20-0		146	0	0	146	250	0	250	396
21-0	Information Technology	239	(0)	0	239	474	0	474	713

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Total Chapter 21-0		239	(0)	0	239	474	0	474	713
22-0	Movable property and associated costs	16	0	0	16	17	0	17	33
Total Chapter 22-0		16	0	0	16	17	0	17	33
23-0	Current administrative expenditure	618	(6)	0	612	713	0	713	1 325
Total Chapter 23-0		618	(6)	0	612	713	0	713	1 325
24-0	Postage and Telecommunications	8	0	0	8	30	0	30	38
Total Chapter 24-0		8	0	0	8	30	0	30	38
25-0	Expenditure of formal and other meetings	81	0	0	81	216	0	216	297
Total Chapter 25-0		81	0	0	81	216	0	216	297
26-0	Running costs in connection with operational activities	120	0	0	120	228	0	228	349
Total Chapter 26-0		120	0	0	120	228	0	228	349
27-0	Information and Publishing	46	0	0	46	150	0	150	196
Total Chapter 27-0		46	0	0	46	150	0	150	196
28-0	Expert contracts and meetings	827	0	0	827	495	0	495	1 322
Total Chapter 28-0		827	0	0	827	495	0	495	1 322
Total Title 2		2 103	(6)	0	2 097	2 573	0	2 573	4 670

Breakdown & changes in payment appropriations – Title 3

	Item	Budget appropriations				Additional appropriations			Total appropri. available
		Initial budget adopted	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	8=4+7
30-0	Legacy R&I Action	19 868	0	0	19 868	34 961	0	34 961	54 829
Total Chapter 30-0		19 868	0	0	19 868	34 961	0	34 961	54 829
31-0	HE R&I Action	82 440	35 923	0	118 363	77 004	0	77 004	195 366
Total Chapter 31-0		82 440	35 923	0	118 363	77 004	0	77 004	195 366
32-0	DEP R&I Action	2 400	0	0	2 400	60 333	0	60 333	62 733
Total Chapter 32-0		2 400	0	0	2 400	60 333	0	60 333	62 733
31-0	Legacy Infra Action	108 380	(42 783)	0	65 597	74 235	0	74 235	139 832
Total Chapter 30-0		108 380	(42 783)	0	65 597	74 235	0	74 235	139 832
31-1	HE Infra Action	55 158	(35 923)	0	19 236	0	0	0	19 236
Total Chapter 31-0		55 158	(35 923)	0	19 236	0	0	0	19 236
32-0	DEP Infra Action	328 996	(30 309)	0	298 688	194 089	0	194 089	492 777
Total Chapter 32-0		328 996	(30 309)	0	298 688	194 089	0	194 089	492 777
33-0	CEF2 Infra Action	50 000	0	0	50 000	30 000	0	30 000	80 000
Total Chapter 33-0		50 000	0	0	50 000	30 000	0	30 000	80 000
Total Title 3		647 243	(73 091)	0	574 151	470 621	0	470 621	1 044 772
GRAND TOTAL		655 141	(73 095)	0	582 045	475 748	0	475 748	1 057 793

4. IMPLEMENTATION OF COMMITMENT APPROPRIATIONS

Implementation of commitment appropriations – Title 1

EUR '000

	Item	Total approp. available	Commitments made					Appropriations carried over to 2024			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
10-0	Establishment plan posts	4 213	1 392	914	0	2 306	55 %	0	0	0	1 650	257	0	1 907
Total Chapter 10-0		4 213	1 392	914	0	2 306	55 %	0	0	0	1 650	257	0	1 907
11-0	External personnel	2 511	802	620	0	1 423	57 %	0	0	0	1 078	10	0	1 088
Total Chapter 11-0		2 511	802	620	0	1 423	57 %	0	0	0	1 078	10	0	1 088
12-0	Expenditure relating to recruitment	94	26	0	0	26	27 %	0	0	0	4	65	0	69
Total Chapter 10-0		94	26	0	0	26	27 %	0	0	0	4	65	0	69
13-0	Mission and travel expenses	221	73	128	0	202	91 %	0	0	0	20	0	0	20
Total Chapter 13-0		221	73	128	0	202	91 %	0	0	0	20	0	0	20
14-0	Socio-medical infrastructure and training	1 134	125	198	0	323	28 %	0	0	0	628	184	0	812
Total Chapter 14-0		1 134	125	198	0	323	28 %	0	0	0	628	184	0	812
Total Title 1		8 174	2 418	1 860	0	4 278	52%	0	0	0	3 379	516	0	3 896

Implementation of commitment appropriations – Title 2

EUR '000

	Item	Total approp. available	Commitments made					Appropriations carried over to 2024			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
20-0	Buildings and associated costs	397	28	66	0	94	24 %	0	0	0	119	185	0	303
Total Chapter 20-0		397	28	66	0	94	24 %	0	0	0	119	185	0	303
21-0	Information Technology	607	92	242	0	333	55 %	0	0	0	148	126	0	274
Total Chapter 21-0		607	92	242	0	333	55 %	0	0	0	148	126	0	274
22-0	Movable property and associated costs	33	0	3	0	3	8 %	0	0	0	16	15	0	31
Total Chapter 22-0		33	0	3	0	3	8 %	0	0	0	16	15	0	31
23-0	Current administrative expenditure	1 244	47	74	0	120	10 %	0	0	0	566	559	0	1 124
Total Chapter 23-0		1 244	47	74	0	120	10 %	0	0	0	566	559	0	1 124
24-0	Postage and Telecommunications	36	2	4	0	5	14 %	0	0	0	7	24	0	31
Total Chapter 24-0		36	2	4	0	5	14 %	0	0	0	7	24	0	31
25-0	Expenditure of formal and other meetings	550	64	8	0	71	13 %	0	0	0	18	461	0	479
Total Chapter 25-0		550	64	8	0	71	13 %	0	0	0	18	461	0	479

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26-0	Running costs in connection with operational activities	315	113	194	0	307	98 %	0	0	0	8	0	0	8
Total Chapter 26-0		315	113	194	0	307	98 %	0	0	0	8	0	0	8
27-0	Information and Publishing	196	0	90	0	90	46 %	0	0	0	46	60	0	106
Total Chapter 27-0		196	0	90	0	90	46 %	0	0	0	46	60	0	106
28-0	Expert contracts and meetings	1 039	214	212	0	426	41 %	0	0	0	613	0	0	613
Total Chapter 28-0		1 039	214	212	0	426	41 %	0	0	0	613	0	0	613
Total Title 2		4 418	558	891	0	1 449	34%	0	0	0	1 539	1 430	0	2 969

Implementation of commitment appropriations – Title 3

EUR '000

	Item	Total approp. available	Commitments made					Appropriations carried over to 2024			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
30-0	Legacy R&I Action	33	0	19	0	19	59 %	0	0	0	0	14	0	14
Total Chapter 30-0		33	0	19	0	19	59 %	0	0	0	0	14	0	14
31-0	HE R&I Action	248 667	85 000	140 000	0	225 000	90 %	0	0	0	14 300	9 367	0	23 667
Total Chapter 31-0		248 667	85 000	140 000	0	225 000	90 %	0	0	0	14 300	9 367	0	23 667
32-0	DEP R&I Action	76 767	0	53 000	0	53 000	69 %	0	0	0	0	23 767	0	23 767
Total Chapter 32-0		76 767	0	53 000	0	53 000	69 %	0	0	0	0	23 767	0	23 767
31-1	HE Infra Action	76 911	24 044	0	0	24 044	31 %	0	0	0	0	52 867	0	52 867
Total Chapter 31-0		76 911	24 044	0	0	24 044	31 %	0	0	0	0	52 867	0	52 867
31-2	DEP Infra Action	721 127	574 805	64 658	0	639 462	89 %	0	0	0	78 756	2 908	0	81 664
Total Chapter 32-0		721 127	574 805	64 658	0	639 462	89 %	0	0	0	78 756	2 908	0	81 664
Total Title 3		1 123 505	683 849	257 677	0	941 526	68%	0	0	0	93 056	88 923	0	181 979
GRAND TOTAL		1 136 097	686 825	260 429	0	947 253	83 %	0	0	0	97 975	90 869	0	188 843

5. IMPLEMENTATION OF PAYMENT APPROPRIATIONS

Implementation of payment appropriations – Title 1

EUR
'000

	Item	Total approp. availab.	Payments made					Appropriations carried over to 2024				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
11-0	Establishment plan posts	4 213	1 134	1 171	0	2 306	55 %	0	0	0	0	1 907	0	0	1 907
Total Chapter 10-0		4 213	1 134	1 171	0	2 306	55 %	0	0	0	0	1 907	0	0	1 907
11-1	External personnel	2 552	686	672	0	1 359	53 %	0	0	0	0	1 194	0	0	1 194
Total Chapter 11-0		2 552	686	672	0	1 359	53 %	0	0	0	0	1 194	0	0	1 194
12-0	Expenditure relating to recruitment	94	7	10	0	17	18 %	0	0	0	0	23	55	0	78
Total Chapter 10-0		94	7	10	0	17	18 %	0	0	0	0	23	55	0	78
13-0	Mission and travel expenses	269	91	89	0	181	67 %	0	0	0	0	2	87	0	88
Total Chapter 10-0		269	91	89	0	181	67 %	0	0	0	0	2	87	0	88
14-0	Socio-medical infrastructure and training	1 223	89	105	0	195	16 %	0	0	0	0	663	366	0	1 028
Total Chapter 10-0		1 223	89	105	0	195	16 %	0	0	0	0	663	366	0	1 028
Total Title 1		8 351	2 008	2 047	0	4 056	42%	0	0	0	0	3 789	507	0	4 295

Implementation of payment appropriations – Title 2

EUR
'000

	Item	Total approp. availab.	Payments made					Appropriations carried over to 2024				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
20-0	Buildings and associated costs	396	67	16	0	84	21 %	0	0	0	0	79	233	0	312
Total Chapter 20-0		396	67	16	0	84	21 %	0	0	0	0	79	233	0	312
21-0	Information Technology	713	177	204	0	381	53 %	0	0	0	0	62	271	0	332
Total Chapter 21-0		713	177	204	0	381	53 %	0	0	0	0	62	271	0	332
22-0	Movable property and associated costs	33	0	3	0	3	8 %	0	0	0	0	16	15	0	31
Total Chapter 22-0		33	0	3	0	3	8 %	0	0	0	0	16	15	0	31
23-0	Current administrative expenditure	1 325	5	104	0	110	8 %	0	0	0	0	607	608	0	1 215
Total Chapter 23-0		1 325	5	104	0	110	8 %	0	0	0	0	607	608	0	1 215
24-0	Postage and Telecommunications	38	3	3	0	6	15 %	0	0	0	0	5	28	0	33
Total Chapter 24-0		38	3	3	0	6	15 %	0	0	0	0	5	28	0	33
25-0	Expenditure of formal and other meetings	297	22	32	0	54	18 %	0	0	0	0	60	183	0	243
Total Chapter 25-0		297	22	32	0	54	18 %	0	0	0	0	60	183	0	243
26-0	Running costs in connection with operational activities	349	120	72	0	192	55 %	0	0	0	0	0	157	0	157
Total Chapter 26-0		349	120	72	0	192	55 %	0	0	0	0	0	157	0	157
27-0	Information and Publishing	196	35	0	0	35	18 %	0	0	0	0	11	150	0	161
Total Chapter 27-0		196	35	0	0	35	18 %	0	0	0	0	11	150	0	161

Annual accounts of the European High Performance Computing Joint Undertaking 2023

28-0	Expert contracts and meetings	1 322	192	301	0	493	37 %	0	0	0	0	635	194	0	829
Total Chapter 28-0		1 322	192	301	0	493	37 %	0	0	0	0	635	194	0	829
Total Title 2		4 670	623	734	0	1 357	26%	0	0	0	0	1 474	1 839	0	3 313

Implementation of payment appropriations – Title 3

		EUR '000														
	Item	Total approp. availab.	Payments made					Appropriations carried over to 2024				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	
30-0	Legacy R&I Action	54 829	5 022	14 886	0	19 908	36 %	0	0	0	0	14 846	20 075	0	34 921	
Total Chapter 30-0		54 829	5 022	14 886	0	19 908	36 %	0	0	0	0	14 846	20 075	0	34 921	
31-0	HE R&I Action	195 366	4 798	4 000	0	8 798	5 %	0	0	0	0	113 564	73 004	0	186 568	
Total Chapter 31-0		195 366	4 798	4 000	0	8 798	5 %	0	0	0	0	113 564	73 004	0	186 568	
32-0	DEP R&I Action	62 733	1 000	0	0	1 000	2 %	0	0	0	0	1 400	60 333	0	61 733	
Total Chapter 32-0		62 733	1 000	0	0	1 000	2 %	0	0	0	0	1 400	60 333	0	61 733	
31-0	Legacy Infra Action	139 832	55 026	29 026	0	84 052	60 %	0	0	0	0	10 571	45 209	0	55 780	
Total Chapter 30-0		139 832	55 026	29 026	0	84 052	60 %	0	0	0	0	10 571	45 209	0	55 780	
31-1	HE Infra Action	19 236	0	0	0	0	0 %	0	0	0	0	19 236	0	0	19 236	
Total Chapter 31-0		19 236	0	0	0	0	0 %	0	0	0	0	19 236	0	0	19 236	
32-0	DEP Infra Action	492 777	0	86 666	0	86 666	18 %	0	0	0	0	298 688	107 423	0	406 111	
Total Chapter 32-0		492 777	0	86 666	0	86 666	18 %	0	0	0	0	298 688	107 423	0	406 111	
33-0	CEF2 Infra Action	80 000	0	0	0	0	0 %	0	0	0	0	50 000	30 000	0	80 000	
Total Chapter 33-0		80 000	0	0	0	0	0 %	0	0	0	0	50 000	30 000	0	80 000	
Title 3		1 044 772	65 846	134 578	0	200 424	17%	0	0	0	0	508 305	336 043	0	844 348	
GRAND TOTAL		1 057 793	68 478	137 359	0	205 837	19 %	0	0	0	0	513 568	338 389	0	851 956	

6. OUTSTANDING COMMITMENTS

Outstanding commitments – Title 1

EUR '000

		Commitments outstanding at the end of previous year				Commitments of the current year				Total commitm. outstanding at year-end
	Item	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 forward	Commit. outstand-ing at year-end	
		1	2	3	4=1+2-3	5	6	7	8=5-6-7	9=4+8
10-0	Establishment plan posts	0	0	0	0	2 306	2 306	0	0	0
Total Chapter 10-0		0	0	0	0	2 306	2 306	0	0	0
11-0	External personnel	71	(29)	38	3	1 423	1 320	0	102	106
Total Chapter 11-0		71	(29)	38	3	1 423	1 320	0	102	106
12-0	Expenditure relating to recruitment	0	0	0	0	26	17	0	9	9
Total Chapter 10-0		0	0	0	0	26	17	0	9	9
13-0	Mission and travel expenses	47	0	32	16	202	149	0	53	68
Total Chapter 10-0		47	0	32	16	202	149	0	53	68
14-0	Socio-medical infrastructure and training	169	(80)	47	42	323	148	0	175	217
Total Chapter 10-0		169	(80)	47	42	323	148	0	175	217
Total Title 1		287	(110)	117	61	4 278	3 939	0	339	400

Outstanding commitments – 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 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 forward	Commit. outstand-ing at year-end	
		1	2	3	4=1+2-3	5	6	7	8=5-6-7	9=4+8
20-0	Information Technology	111	(5)	95	11	333	286	0	47	58
Total Chapter 20-0		111	(5)	95	11	333	286	0	47	58
22-0	Movable property and associated costs	0	0	0	0	3	3	0	0	0
Total Chapter 20-0		0	0	0	0	3	3	0	0	0
23-0	Current administrative expenditure	53	0	24	28	120	86	0	34	63
Total Chapter 20-0		53	0	24	28	120	86	0	34	63
24-0	Postage and Telecommunications	11	(1)	3	7	5	3	0	2	9
Total Chapter 20-0		11	(1)	3	7	5	3	0	2	9
25-0	Expenditure of formal and other meetings	9	(5)	4	0	71	50	0	21	21
Total Chapter 20-0		9	(5)	4	0	71	50	0	21	21
26-0	Running costs in connection with operational activities	65	(1)	39	25	307	153	0	154	179
Total Chapter 20-0		65	(1)	39	25	307	153	0	154	179
27-0	Information and Publishing	0	0	0	0	90	35	0	55	55
Total Chapter 20-0		0	0	0	0	90	35	0	55	55
28-0	Expert contracts and meetings	352	(10)	186	157	426	307	0	118	275
Total Chapter 20-0		352	(10)	186	157	426	307	0	118	275
Total Title 2		600	(22)	350	228	1 355	923	0	432	660

Outstanding commitments – Title 3

EUR '000

		Commitments outstanding at the end of previous year				Commitments of the current year				Total commitm. outstanding at year-end
	Item	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
30-0	Legacy R&I Action	133 927	0	19 889	114 038	19	19	0	0	114 038
Total Chapter 30-0		133 927	0	19 889	114 038	19	19	0	0	114 038
30-1	HE R&I Action	21 407	0	4 000	17 407	225 000	4 798	0	220 202	237 608
Total Chapter 31-0		21 407	0	4 000	17 407	225 000	4 798	0	220 202	237 608
32-0	DEP R&I Action	33 959	0	0	33 959	53 000	1 000	0	52 000	85 959
Total Chapter 32-0		33 959	0	0	33 959	53 000	1 000	0	52 000	85 959
31-0	Legacy Infra Action	230 901	(735)	84 052	146 114	0	0	0	0	146 114
Total Chapter 30-0		230 901	(735)	84 052	146 114	0	0	0	0	146 114
31-1	HE Infra Action	64 597	(64 597)	0	0	24 044	0	0	24 044	24 044
Total Chapter 31-0		64 597	(64 597)	0	0	24 044	0	0	24 044	24 044
32-0	DEP Infra Action	668 435	0	86 647	581 788	639 462	19	0	639 443	1 221 231
Total Chapter 32-0		668 435	0	86 647	581 788	639 462	19	0	639 443	1 221 231
33-0	CEF2 Infra Action	100 000	0	0	100 000	0	0	0	0	100 000
Total Chapter 33-0		100 000	0	0	100 000	0	0	0	0	100 000
Total Title 3		1 253 225	(65 332)	194 587	993 306	941 526	5 837	0	935 689	1 928 995
GRAND TOTAL		1 254 112	(65 463)	195 054	993 595	947 253	10 783	0	936 470	1 930 065

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.