

# 2024

## Annual report on EU joint undertakings for the 2024 financial year



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OF AUDITORS

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## Chapter 1

### **The EU joint undertakings and the ECA's audit**

# Introduction

**1.1.** The European Court of Auditors (ECA) is the external auditor of the EU's finances<sup>1</sup>. In this capacity, as the independent guardian of the financial interests of EU citizens, we help to improve the EU's financial management. More information on our work can be found in our activity reports, our annual reports on the implementation of the EU budget, our special reports, our reviews, and our opinions on new or updated EU laws or other decisions with financial management implications.

**1.2.** Part of our mandate is to examine the annual accounts and the underlying transactions of the EU research and innovation joint undertakings, the European joint undertaking for ITER and the Development of Fusion Energy (F4E), and the European Cybersecurity Competence Centre (ECCC) (collectively referred to as 'JUs'). These are twelve EU bodies set up by Articles 187 to 188 of the [Treaty on the Functioning of the European Union \(TFEU\)](#) and, in the case of F4E, Articles 45 to 51 of the [Treaty establishing the European Atomic Energy Community](#). The ECCC was established under [Articles 173 and 188 of the TFEU](#), mainly to foster innovation together with members states.

**1.3.** This report presents the results of our audit of the JUs for the 2024 financial year. The report is structured as follows:

- Chapter 1 describes the JUs and our audit approach.
- Chapter 2 presents an overview of the results of our annual audit of the JUs for the 2024 financial year and of other cross-JU work we carried out during the year. Based on these audit results, we make recommendations and set deadlines for their implementation.
- Chapter 3 contains a statement of assurance, for each of the twelve JUs, on the reliability of their annual accounts and the legality and regularity of the underlying revenue and payments. We also highlight areas of importance to the reader and make observations identifying specific area for improvement.

**1.4.** Overall, our audit of the JUs for the financial year ended 31 December 2024 gave results similar to those of previous years. In our statements of assurance, we issued:

- unqualified audit opinions on the reliability of the accounts of all JUs;
- unqualified audit opinions on the legality and regularity of the transactions underlying the accounts of all JUs.

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<sup>1</sup> [Articles 285 to 287 of the Treaty on the Functioning of the European Union \(TFEU\)](#).

# The EU joint undertakings

## JUs are public-private partnerships set up to foster marketable innovation

**1.5.** The JUs (except for the ECCC) are partnerships between the EU (represented by the Commission) and private members from industry and research. Any private or public organisation interested in supporting a JU's objectives can apply to become an associated member or contributing partner without full membership status. In some cases, the members include intergovernmental organisations and participating states. JUs are set up as EU bodies with separate legal personalities under the EU's multiannual financial framework (MFF) programmes.

**1.6.** Their primary mission is to foster the transformation of scientific knowledge into marketable breakthrough innovations within a shared strategic vision. They should also respond to social challenges where these are as yet poorly served by industry.

**1.7.** In doing this, they promote collaboration between the EU, industry and research organisations and/or participating states to create high-quality research and innovation and accelerate the market uptake of innovative digital, green and societal solutions in strategic sectors. Each JU adopts its own specific research and innovation agenda in a strategic area – such as transport, energy, health, circular bio-based ecosystems, semi-conductors, supercomputing, network systems or cybersecurity – and implements it through calls for proposals or procurement.

**1.8.** The ECCC was set up to promote cooperation between the EU and member states, rather than as a public-private partnership with non-state members from industry and research. The ECCC therefore combines the characteristics of a JU with those of a decentralised agency. This is also reflected in its governance and budget structure and its operational model.

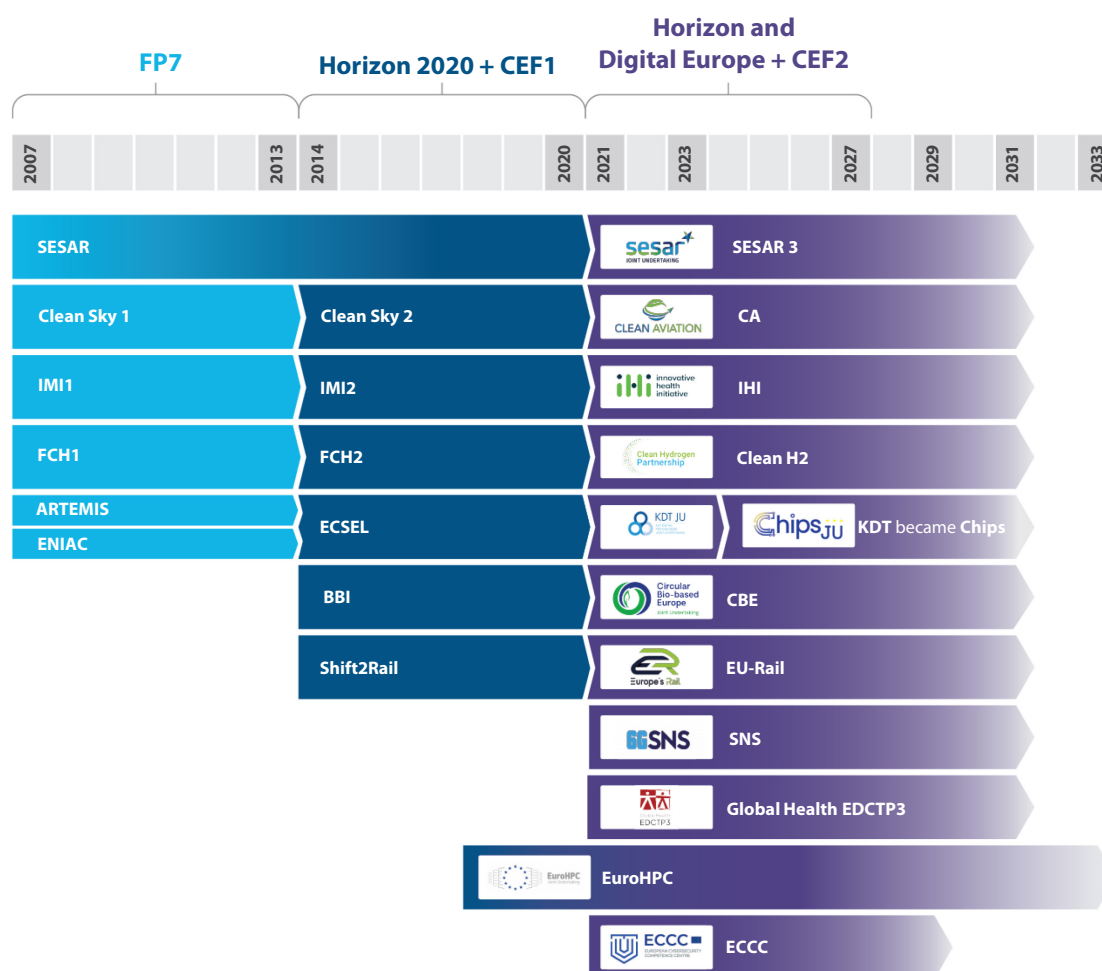
## The number of research and innovation JUs has increased under the last three MFFs

**1.9.** *Figure 1.1* shows the progression of research and innovation JUs under the last three multiannual research framework programmes. The first six JUs were set up under the Seventh Framework Programme for Research and Technological Development (FP7) during the 2007-2013 period. The number increased to seven under the [Horizon 2020](#) and [Connecting Europe Facility \(CEF 1\)](#) programmes during the 2014-2020 period. Under the current 2021-2027 MFF,



there are 11 research and innovation JUs operating under the [Horizon Europe](#), [Digital Europe](#) and [CEF2](#) programmes.

**Figure 1.1 – Research and innovation JUs under the last three framework programmes**



Source: ECA, based on the Council regulations establishing the JUs.

**1.10.** [Table 1.1](#) at the end of this chapter provides more detailed information on the legal basis, duration, specific objectives and tasks of each of the 11 research and innovation JUs operating under the 2021-2027 MFF.

## The research and innovation JUs' activities are jointly funded by the EU and other members

### Members' contributions to the research and innovation JUs

**1.11.** All members of a JU contribute to funding its research and innovation activities. In each case, the Commission provides cash contributions funded from the EU's research and

innovation programmes to co-finance the JU's specific research and innovation agenda. In addition, private members from industry and national research organisations are required to provide a minimum level of "in-kind contributions to the JU's operational activities" (IKOP) and "in-kind contributions to additional activities" (IKAA). The JU itself is responsible for achieving the minimum contribution targets set in its founding regulation. IKAA is outside the JU's budget and call procedures but contributes to reaching its project-related or programme-related objectives. For more detailed information, see [Box 1.1](#).

### Box 1.1

#### Private members' in-kind contributions to the JUs' operational activities (IKOP)

As provided for in the JUs' founding regulations, all private members must contribute a minimum amount to the costs of the JUs' research and innovation projects. Under Horizon 2020, IKOP is the total costs incurred by private members in implementing the JU's research and innovation actions, less the contribution of the other members of the JU (EU co-financing, contribution of participating states or intergovernmental organisations), as well as any other EU contribution to those costs. Under the Horizon Europe and Digital Europe programmes, IKOP are consisting of the eligible costs incurred by private members in implementing the JU's actions, less the contributions by the JU, the participating states or any other EU contribution to those costs. The total amount of certified and validated IKOP is recognised in the JU's annual accounts.

#### Private members' in-kind contributions to additional activities (IKAA)

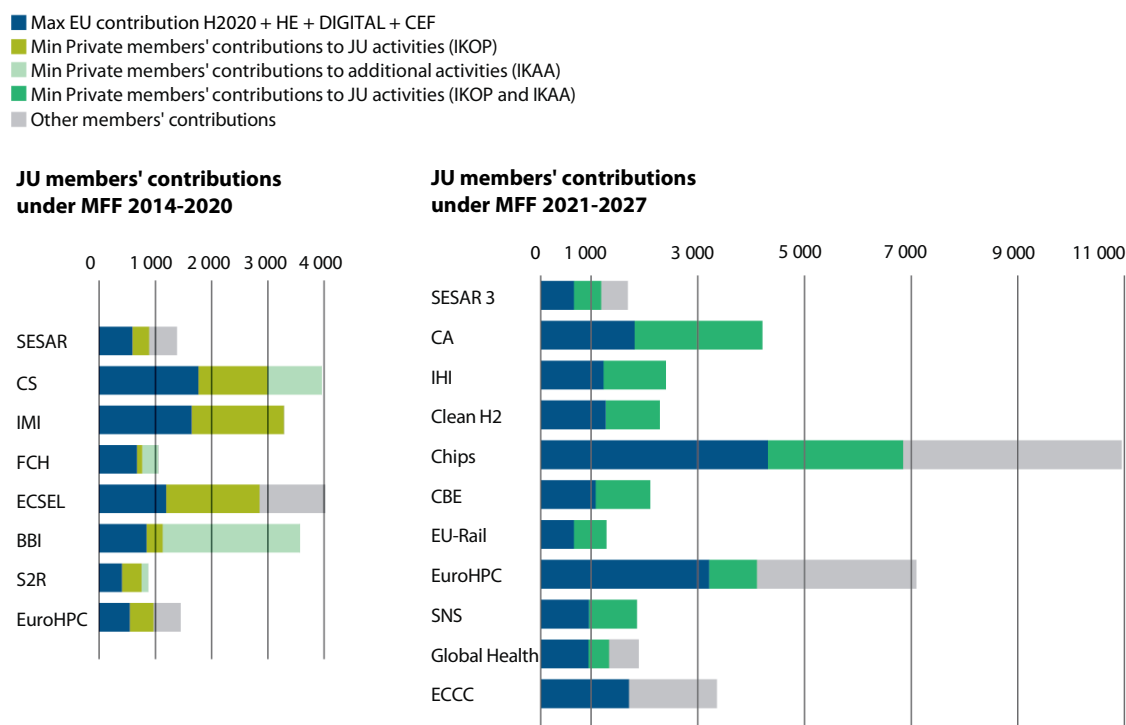
Under Horizon 2020, private members of some JUs (CA, CleanH2, CBE, EU-Rail) must also provide a minimum amount of in-kind contributions in respect of costs incurred for "additional activities" outside the JU's work programme and budget, but falling within the scope of the JU's general objectives. Under Horizon Europe, private members of JUs under the Single Basic Act can contribute IKAA. These IKAA include non-eligible costs of activities directly funded by these JUs, less any other EU contribution to those costs. JU's private members have to provide IKAA in addition to IKOP to match EU contributions. IKAA amounts are set out in the JUs' annual additional activities plan. The total amount of certified and validated IKAA is disclosed in the notes to the JU's annual accounts. Therefore, IKAA are not subject to audit by the ECA. Contrary to IKOP and project related IKAA, programme related IKAA is not bound by the same rules on competitive evaluation as those channelled through calls. Therefore, they may be less effective in achieving the JU's programme objectives.

**1.12.** In the case of four JUs, participating states (Chips JU, EuroHPC, ECCC) or intergovernmental organisations (SESAR 3) also contribute financially or in-kind to activities. In the case of Global Health EDCTP3, the only other member besides the EU is the EDCTP Association, a private association of European and African states, which contributes financially and in-kind. In the case of ECCC, the member states' contributions to its joint actions are voluntary.

**1.13.** Finally, the EU bears all the administrative costs for two JUs (EuroHPC and Global Health EDCTP3). For all other JUs, both the EU and other members contribute to financing administrative costs.

**1.14.** *Figure 1.2* shows all JU members' contribution targets under the 2014-2020 and 2021-2027 MFFs, as set in the respective founding regulations. The most significant budget increases for the 2021-2027 MFF concerned EuroHPC and KDT (which became the Chips JU in 2024).

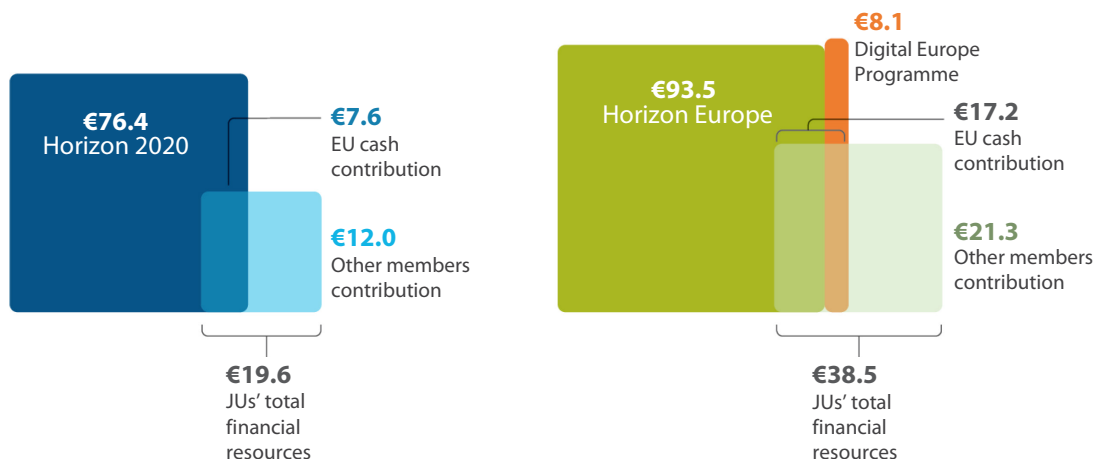
**Figure 1.2 – Members' contribution targets to the research and innovation JUs (in € million)**



Source: ECA, based on the Council regulations establishing the JUs.

**1.15.** As shown in *Figure 1.3*, the JUs' budget for co-financing their research and innovation activities amounts to around €17.2 billion under the 2021-2027 MFF. This is more than twice the EU's contributions under the previous MFF (€7.6 billion). In particular, the JUs can use up to €11.6 billion of the total Horizon Europe budget of €93.5 billion (around 12 %). In addition, EuroHPC, the Chips JU and the ECCC receive a combined €5.1 billion from Digital Europe (around 63 % of the total budget of €8.1 billion) to implement large capacity-building, deployment and investment projects relating to the [European Digital Single Market strategy](#) and the [Chips Act](#).

**1.16.** Taken together, under the 2021-2027 MFF, the 11 research and innovation JUs will have financial resources of around €38.5 billion at their disposal (see *Figure 1.3*). This amount also considers the financial effect of €0.4 billion resulting for several JUs, from the United Kingdom contributions and the Horizon Europe mid-term review reductions. This is nearly double the amount under the previous MFF (around €19.6 billion). This is, however, consistent with the increase from eight to 11 JUs and the significant expansion of the mandates of several JUs, compared to the 2014-2020 MFF (in particular of EuroHPC and the Chips JU).

**Figure 1.3 – Total EU and non-EU contributions to JUs***(billion euros)***MFF 2014-2020****MFF 2021-2027**

Source: ECA, based on the Council regulations establishing the JUs.

**1.17.** However, the planned share of non-EU contributions to JU activities has decreased compared to the previous MFF. The objective for 2014-2020 was for the EU's funding of €7.6 billion to leverage an additional €12.0 billion (158 %) in contributions from private members, participating states and international organisations, making a total of about €19.6 billion (see [Table 2.2](#)). The plan for 2021-2027 is that the EU's funding of €17.2 billion will leverage an additional €21.3 billion (123 %) in other contributions (see [Figure 1.3](#)).

## Governance models of the research and innovation JUs

**1.18.** The governance structure of most JUs comprises a governing board, a scientific advisory body, a group of states' representatives, and stakeholder groups active in the JU's specific research and innovation area. Most JUs take a bipartite approach, where the Commission and private members (including associated members) from industry and research are represented on the governing board (CA, IHI, CleanH2, CBE, EU Rail, SNS). In the case of Global Health EDCTP3, the only member of the governing board, besides the EU, is the EDCTP Association, representing the European and African states participating in the JU's programme. Some JUs apply a tripartite model, in which either participating states (Chips JU, and EuroHPC) or a leading intergovernmental organisation (SESAR 3) are also represented on the governing board.

## F4E manages EU contributions to the ITER project

**1.19.** The International Thermonuclear Experimental Reactor (ITER) Agreement entered into force on 24 October 2007, when the ITER International Fusion Energy Organisation (ITER-

IO) legally came into existence. The ITER-IO oversees the implementation of the ITER project, which focuses on the construction of fusion facilities at Cadarache (France).

**1.20.** The ITER project involves seven global partners: the EU (represented by the European Atomic Energy Community (Euratom) on behalf of the EU member states), the United States, Russia, Japan, China, South Korea and India. The EU covers around 45 % of the construction costs, and the other ITER members contribute around 9 % each. The contribution ratios will change at the operational fusion testing phase, when Euratom will cover 34 % of the operating costs.

**1.21.** Through their domestic agencies, the members of the ITER-IO mainly contribute to the project in kind, delivering components, equipment, materials, buildings and services directly to the ITER-IO. They also provide cash contributions to the ITER-IO budget. ITER members share responsibility for manufacturing key reactor components – the allocation of manufacturing tasks is based on each member’s interests and technical and industrial capacity<sup>2</sup>.

**1.22.** The European JU for ITER and the Development of Fusion for Energy (F4E) was set up in April 2007, as a “domestic agency” of the EU, for a period of 35 years. One of its main tasks is to manage the EU’s contribution to the ITER project. It coordinates activities and carries out the necessary procurement in connection with the construction of a demonstration fusion reactor and facilities. F4E is mainly financed by Euratom (about 80 %) and France, the ITER host state (about 20 %).

**1.23.** In 2017, the Commission estimated that the EU’s total outlay for its obligations under the ITER Agreement and the associated activities up to 2035 (start of the operating phase) would be €18.2 billion (in 2017 values). This was to be financed by a total Euratom budget of €15 billion, with France and the other Euratom member states providing an additional €3.2 billion (all in 2017 values). Estimates are detailed in the [Commission Communication COM\(2017\) 319](#) and the related [staff working paper SWD\(2017\) 232, table 4](#).

**1.24.** Since September 2023, the United Kingdom participates in Euratom as associated state, though it remains outside the Euratom’s fusion programme.

## **In 2024, there were significant changes in JUs’ budget and staff**

**1.25.** [Figure 1.4](#) gives an overview of the JUs’ payments budgets and human resources for the 2023 and 2024 financial years. In 2024, the research and innovation JUs implemented a total payments budget of €2.5 billion (2023: €3.3 billion). The decrease in 2024 is explained by

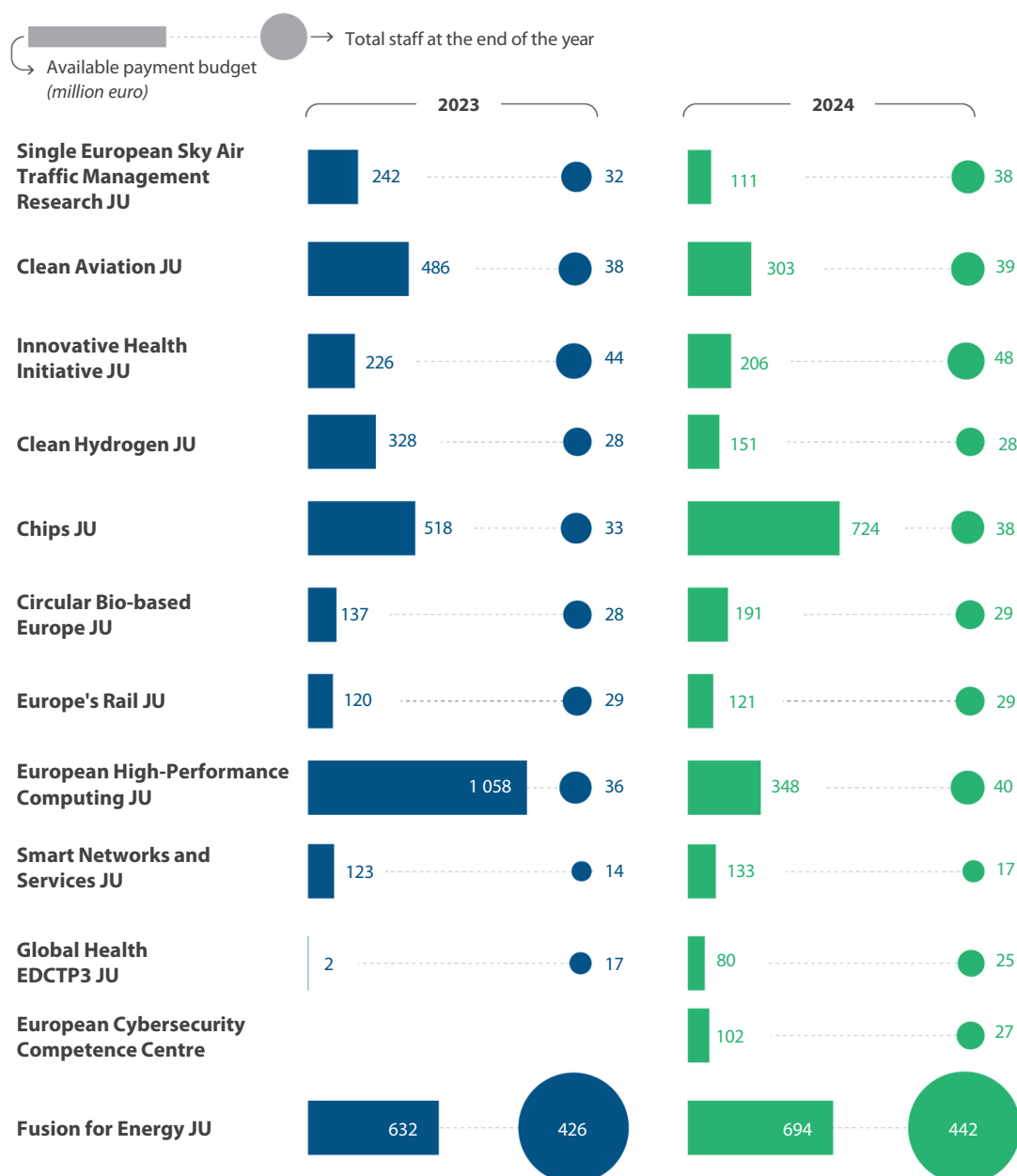
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<sup>2</sup> [ITER.org](https://www.iter.org).

the fact that, in 2023, most JUs made large pre-financing payments for grant agreements under the first Horizon Europe and Digital Europe calls for proposals. In contrast, F4E's total payments budget for 2024 increased marginally to €0.7 billion (2023: €0.6 billion).

**1.26.** By the end of 2024, staff numbers at the research and innovation JUs had increased by 20 % to 358. The bulk of this increase related to the recruitment of new staff by the JUs set up under the current MFF (SNS, Global Health EDCTP3, ECCC), as well as by SESAR 3, EuroHPC and IHI, which continued to fill the remaining vacant posts of their establishment plans. In 2024, F4E employed 442 staff (2023: 426) – an increase due primarily to the JU's organisational restructuring to meet new requirements in the revised ITER baselines. All figures include officials, temporary and contract staff, and seconded national experts (see [Figure 1.4](#)).

**Figure 1.4 – JU payments budgets and human resources (2023 and 2024)**

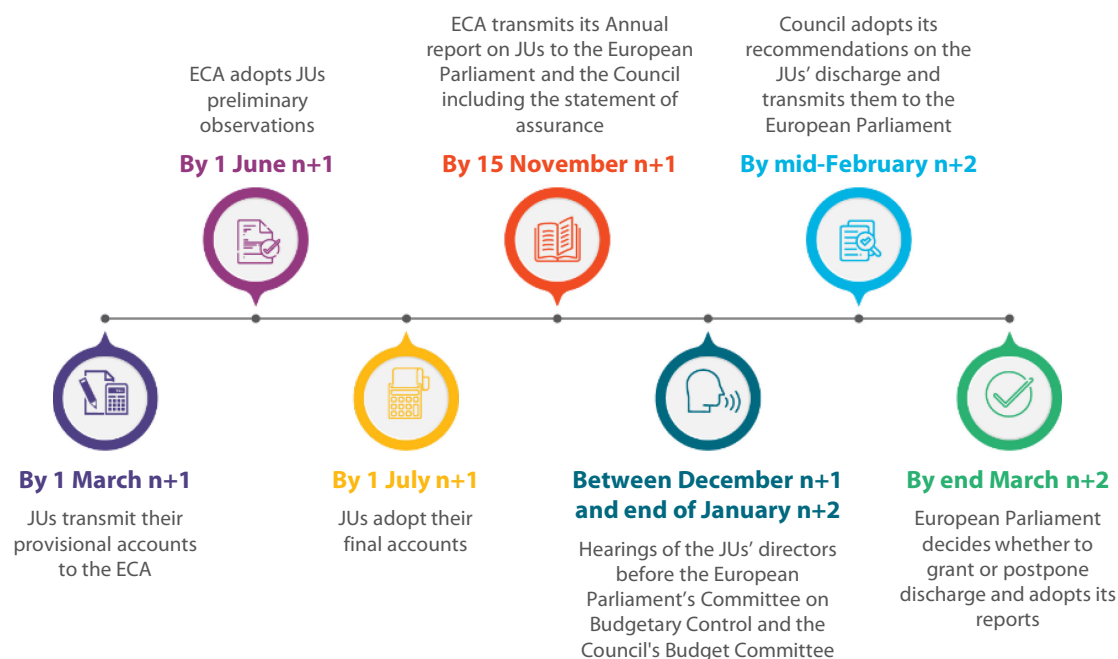


Source: ECA, based on JU data.

## The European Parliament and the Council play a critical part in the JUs' budgetary and discharge arrangements

**1.27.** The European Parliament and the Council are responsible for the JUs' annual budgetary and discharge procedures. The timeline of the discharge procedure is shown in *Figure 1.5*.

**Figure 1.5 – Annual discharge procedure**



Source: ECA, based on the JU's founding and financial regulations.

# Our audit

## A statement of assurance for each JU

**1.28.** As required by Article 287 TFEU, we have audited:

- (a) the annual accounts of the twelve JUs for the financial year ended 31 December 2024; and
- (b) the legality and regularity of the transactions (revenue and payments) underlying those accounts.

**1.29.** Based on the results of our audit, for each JU we provide the European Parliament and the Council with a statement of assurance on the reliability of the accounts and the legality and regularity of the underlying transactions. Where appropriate and relevant, we supplement the statements of assurance with other observations (see [Chapter 3](#)). These observations do not call our audit opinions into question.

**1.30.** This is the first year in which we have audited the European Cybersecurity Competence Centre (ECCC), which achieved financial autonomy on 24 September 2024.

## Key risks

**1.31.** Our audit of the JUs' annual accounts and underlying transactions was designed to address the key risks we identified in our risk assessment for 2024, which is summarised in [Figure 1.6](#).



Figure 1.6 – Assessment of key risks

	<b>HIGH risk</b> <b>MEDIUM risk</b> <b>LOW risk</b>
	<b>Reliability of accounts</b> <p>All JUs engaged an external audit firm for the audit of the reliability of its annual accounts. The external audit firms' audit, which we subsequently review, has confirmed the quality of their work. We therefore considered the risk to the reliability of the accounts to be low for all JUs.</p>
	<b>Legality and regularity of revenue</b> <p>As the JUs' revenue in 2024 mainly consisted of financial contributions from the Commission's research funds (Horizon Europe and Horizon 2020) and the Euratom budget, we considered the risk to the legality and regularity of revenue to be overall low.</p>
	<b>Legality and regularity of administrative expenditure</b> <p>Administrative expenditure mainly consists of salaries and routine payments.</p> <ul style="list-style-type: none"> <li>Salaries are administered by the Commission's Office for the Administration and Payment of Individual Entitlements, which we audit as part of our specific assessment of the annual report on spending for administration.</li> <li>Regarding procurement procedures for other administrative services, and the related contractual payments, previous audits have shown that the overall risk is low as JUs use to a large extent existing Commission's framework contracts.</li> </ul>
	<b>Legality and regularity of operational expenditure</b> <p><b>Grant payments</b>  We assessed the risk to the JUs' interim and final grant payments and clearings as high overall because the beneficiaries' cost declarations are usually complex for all research and innovation programmes, and our previous audits have revealed weaknesses both in certification of financial statements serving as <i>ex ante</i> control and the Common Audit Service <i>ex post</i> audits.</p>
	<p><b>Contract payments</b>  We consider the risk to the operational contract expenditure to be low. In 2024, this mainly affected F4E and EuroHPC. Despite the complexity of their procurement procedures, we did not find material errors in their operational contract payments and related procurement procedures since 2018.</p>
	<b>Budget management and programme implementation</b> <p>We assessed the risk to budget management and resulting programme implementation as low for all JUs, except for two JUs:</p> <ul style="list-style-type: none"> <li>EuroHPC: raised to medium because of the risk that private members may not achieve the significantly increased contribution target under the new founding regulation.</li> <li>F4E: raised to medium because delays and cost increases resulting from the planned new baseline and other important factors beyond the JU's control may result on lower budget implementation rates.</li> </ul>

Source: ECA.

## Audit approach and use of other independent auditors' work

**1.32.** Taking account of the risks described above, we performed appropriate substantive testing, used the audit work of other independent auditors, and assessed the performance of control systems.

**1.33.** Article 70(6) of the [EU Financial Regulation](#) states that an independent external auditor must verify the JUs' annual accounts. While all the JUs outsourced the audit of the reliability of the accounts to private firms, all aspects of that audit and the resulting specific reports (including a statement of assurance for each JU) remain under the full responsibility of the ECA. We reviewed the quality of the work done by the external audit firms in accordance with international audit standards, and obtained sufficient assurance that we could rely on their work when drafting our own audit opinions on the reliability of the JUs' 2024 annual accounts.

**1.34.** For our opinions on the operational expenditure, through grants, of the research and innovation JUs, we audited a sample of 33 randomly selected transactions (interim/final payments and clearings of advances) from 2024, at the level of the final beneficiaries. Our opinion on F4E was based on substantive testing of a sample of 30 randomly selected transactions (clearings of advances, and interim/final payments relating to administrative and operational expenditure) from 2024.

**1.35.** In the case of final grant payments, beneficiaries must have the financial statements certified. This is done in the form of a factual report, produced by an independent auditor or public officer, that gives assurance to the Commission or a grant-awarding EU body that the costs declared in the final financial statements are eligible. Moreover, the Common Audit Service (CAS) in the Commission's DG RTD performs *ex post* audits of random and risk-based samples of interim and final grant payments made by the JUs in implementing their research and innovation activities, previously under Horizon 2020 and now under Horizon Europe.

**1.36.** When drafting our audit opinions on the legality and regularity of the underlying payments, we take account of the results of the CAS audits.

- (a) With regard to the JUs' grant expenditure under Horizon 2020, the Commission's *ex post* audit strategy required the CAS to generate a separate representative (random) sample for each JU. These were used to calculate JU-specific representative and residual error rates. The residual error rate reflects the potential cleaning effect of beneficiaries' correcting all errors detected in grant payments audited *ex post*, plus systematic errors that also affected their grant payments that were not audited. According to the [Commission's proposal for a Horizon 2020 regulation](#), the objective was to achieve a residual error rate of less than 2 % of total expenditure over the programme's lifetime.

- (b) With regard to grant expenditure under Horizon Europe, the CAS is still responsible for *ex post* audits but has changed to a risk-based audit approach. For Digital Europe, the European Health and Digital Executive Agency (HaDEA) takes a similar *ex post* audit approach. The change to a risk-based approach for this part of operational expenditure means that JU-specific representative and residual error rates are no longer available.

**1.37.** The final aspect of our audit was to examine a sample of recruitment, procurement and grant call procedures and assess key elements of management and control systems. We also reviewed what the latest reports by the Commission's Internal Audit Service (IAS), based on regular risk assessments, have said regarding the effectiveness of the JUs' internal controls on key administrative procedures.

### **We report suspected fraud to the relevant EU bodies**

**1.38.** We cooperate with the European Anti-Fraud Office (OLAF) in matters relating to suspected fraud and other illegal activity affecting the EU's financial interests, and with the European Public Prosecutor's Office (EPPO) in matters relating to suspected crimes against the EU's financial interests. We notify OLAF and/or the EPPO about any suspicion that arises in the course of our work, even though our audits are not designed specifically to identify fraud. None of our findings for the 2024 financial year required a notification to OLAF or EPPO.

**Table 1.1 – Research and innovation JUs’ legal basis, duration, specific objectives, and tasks**

Name of the JU under MFF 2021-2027	Acronym	Legal basis	Life span	Research and innovation programmes	Specific research and innovation objectives and tasks
<b>Single European Sky ATM Research Joint Undertaking</b>	<b>SESAR 3</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act)	10 years to 31 December 2031	Horizon 2020; Horizon Europe	<ul style="list-style-type: none"> <li>— Advance European research and innovation capacity for air traffic management, making it more sustainable and scalable.</li> <li>— Speed up the market uptake of innovative solutions to establish the single Digital European Sky as the world’s most efficient airspace.</li> <li>— Strengthen the competitiveness and sustainability of European air transport.</li> </ul>
<b>Clean Aviation Joint Undertaking</b>	<b>CA</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act)	10 years to 31 December 2031	Horizon 2020; Horizon Europe	<ul style="list-style-type: none"> <li>— Advance the research and innovation capacity of the European aviation industry for climate-neutral aviation technologies to reduce the carbon footprint of aviation.</li> <li>— Strengthen, through aeronautic innovation, the competitiveness of the European aviation industry, including both the traditional and emerging aviation sectors.</li> </ul>
<b>Innovative Health Initiative Joint Undertaking</b>	<b>IHI</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act)	10 years to 31 December 2031	Horizon 2020; Horizon Europe	<ul style="list-style-type: none"> <li>— Advance European health research and innovation and translate scientific health knowledge into safe and cost-effective innovations in Europe.</li> <li>— Develop an innovation-driven industrial and pharmaceutical strategy for Europe addressing critical but unmet public health needs.</li> <li>— Strengthen the competitiveness of the European health industry.</li> </ul>

Name of the JU under MFF 2021-2027	Acronym	Legal basis	Life span	Research and innovation programmes	Specific research and innovation objectives and tasks
<b>Clean Hydrogen Joint Undertaking</b>	<b>Clean H2</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act)	10 years to 31 December 2031	Horizon 2020; Horizon Europe	<ul style="list-style-type: none"> <li>— Advance European research and innovation capacity to reduce greenhouse gas emissions through the 2020 hydrogen strategy for a climate-neutral Europe.</li> <li>— Speed up the market uptake of hydrogen-based technologies to establish a clean hydrogen value chain for a decarbonised energy system.</li> <li>— Strengthen the competitiveness of the European clean hydrogen industry.</li> </ul>
<b>Chips Joint Undertaking</b>	<b>KDT/ Chips</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act), amended by Council Regulation (EU) 2023/1782 renaming the Key Digital Technologies (KDT) JU as the Chips JU	10 years to 31 December 2031	Horizon 2020; Horizon Europe; Digital Europe	<ul style="list-style-type: none"> <li>— Advance European research and innovation capacity for the design and development of cutting-edge next-generation semiconductor technologies.</li> <li>— Create engineering capacities for cutting-edge quantum chips and associated semiconductor technologies across Europe.</li> <li>— Facilitate access to debt financing and equity under the InvestEU Fund and the European Innovation Council, in particular for start-ups in the semiconductor value chain.</li> </ul>

Name of the JU under MFF 2021-2027	Acronym	Legal basis	Life span	Research and innovation programmes	Specific research and innovation objectives and tasks
<b>Circular Bio-based Europe Joint Undertaking</b>	<b>CBE</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act)	10 years to 31 December 2031	Horizon 2020; Horizon Europe	<ul style="list-style-type: none"> <li>— Advance European research and innovation capacity for bio-based solutions, and speed up their market uptake to reduce reliance on fossil-based materials in Europe.</li> <li>— Strengthen the sustainability and resource efficiency of the circular bio-based industry in Europe.</li> </ul>
<b>Europe's Rail Joint Undertaking</b>	<b>EU-Rail</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act)	10 years to 31 December 2031	Horizon 2020; Horizon Europe	<ul style="list-style-type: none"> <li>— Advance European research and innovation capacities to achieve a Single European Railway Area.</li> <li>— Speed up the market uptake of innovative technologies for an integrated, sustainable, multimodal and high-capacity European railway system.</li> <li>— Strengthen the competitiveness of the European railway industry.</li> </ul>
<b>Smart Networks and Services Joint Undertaking</b>	<b>SNS</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act)	10 years to 31 December 2031	Horizon Europe	<ul style="list-style-type: none"> <li>— Advance European research and innovation to achieve scientific leadership for 6G systems, advanced digital infrastructure and smart network solutions in Europe.</li> <li>— Speed up the market uptake of cutting-edge connectivity solutions to support Europe's digital and green transition.</li> </ul>
<b>Global Health EDCTP3 Joint Undertaking</b>	<b>Global Health EDCTP3</b>	Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe (Single Basic Act)	10 years to 31 December 2031	Horizon Europe	<ul style="list-style-type: none"> <li>— Promote innovative and accessible health technologies for infectious disease prevention and treatment to reduce the socioeconomic burden of infectious diseases in sub-Saharan Africa.</li> <li>— Strengthen preparedness and the response to infectious diseases in Europe and globally.</li> </ul>

Name of the JU under MFF 2021-2027	Acronym	Legal basis	Life span	Research and innovation programmes	Specific research and innovation objectives and tasks
<b>European High Performance Computing Joint Undertaking</b>	<b>EuroHPC</b>	Council Regulation (EU) 2021/1173 establishing the European High Performance Computing JU and repealing Regulation (EU) 2018/1488, amended by Council regulation (EU) 2024/1732 to include an 'artificial intelligence' pillar.	12 years to 31 December 2033	Horizon Europe; Digital Europe; Connecting Europe Facility	<ul style="list-style-type: none"> <li>— Develop world-leading secure and hyper-connected supercomputing, quantum computing, cutting-edge AI solutions through a European system of AI factories and data infrastructure.</li> <li>— Strengthen the competitiveness and skills of the European supercomputing and AI industry.</li> <li>— Speed up the market uptake of advanced and competitive supercomputing and quantum computing systems and AI solutions in Europe.</li> <li>— Open the supercomputing infrastructure to a broad spectrum of public and private users to develop digital skills for European science and industry.</li> </ul>
<b>European Cybersecurity Competence Centre</b>	<b>ECCC</b>	Regulation (EU) 2021/887 establishing the European Cybersecurity Industrial, Technology and Research Competence Centre and the Network of National Coordination Centres	8 years to 31 December 2029	Digital Europe; Horizon Europe	<ul style="list-style-type: none"> <li>— Advance European research and innovation capacity and skills to enhance the resilience and security of the Digital Single Market infrastructure through cutting-edge cybersecurity technologies.</li> <li>— Develop a strong cybersecurity community in Europe to foster collaboration, knowledge-sharing and high security standards across Europe.</li> <li>— Turn cybersecurity into a competitive advantage for European industries.</li> </ul>



EUROPEAN  
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## Chapter 2

### Overview of audit results



# Introduction

**2.1.** This chapter presents an overview of the results of our annual audit of the JUs for the 2024 financial year, including our assessment of the JUs' system of risk-based controls on the implementation of grants, and the results of other cross-JU work we carried out during the year. Based on these audit results, we make recommendations and set deadlines for their implementation.

# Audit opinions

## Opinions on the reliability of the accounts

### Unqualified opinions on the reliability of the accounts of all JUs

**2.2.** We issue unqualified audit opinions on the reliability of the annual accounts of the twelve JUs. In our opinion, their accounts for the year ended 31 December 2024 present fairly, in all material respects, their financial position, the results of their operations and cash flows, and changes in their net assets, in accordance with their financial regulations and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

### Emphasis of matters relating to F4E's annual accounts

**2.3.** We draw attention to two issues in F4E's 2024 annual accounts.

- F4E assesses the total cost for completing its delivery obligations for the ITER project ("estimate at completion") at €25.8 billion (at 2024 values). This estimate reflects a cost increase resulting from the revised ITER baselines, which were proposed by ITER-IO in July 2024 but have not yet been formally adopted by the ITER Council.
- F4E estimates that the inflationary impact on its operations of supply chain issues and price increases following the COVID-19 crisis and the Russian invasion of Ukraine will be €246 million (at 2008 values).

### Emphasis of matter relating to EuroHPC's annual accounts

**2.4.** We draw attention to EuroHPC's assessment of risks in connection with advances paid to a significant supplier facing financial difficulties, where the potential financial impact for the JU is estimated to be as much as €88.4 million.

### Emphasis of matters relating to the ECCC's annual accounts

**2.5.** We draw attention to the fact that the ECCC did not achieve financial autonomy until September 2024. Prior to that date, the Commission was responsible for the ECCC's establishment and initial operation. Of the total of €276.2 million in pre-financing payments for operational activities, therefore, around €195.6 million was authorised by the Commission before the ECCC achieved financial autonomy.

**2.6.** We also draw attention to the fact that by 31 December 2024, the member states have not yet made the voluntary contributions to the ECCC's joint actions and administrative budget.

### **Emphasis of matter relating to the CA's annual accounts**

**2.7.** We draw attention to the fact that the CA is migrating to a new budgetary, accounting, and financial system (SUMMA) as a pilot for the Commission's development and testing of this system. Some functions in SUMMA are still under development and require manual processing and reliability checks to ensure data correctness.

### **Other matters relating to Global Health EDCTP3's annual accounts**

**2.8.** We draw attention to important events that have occurred since the reporting period and may have a significant impact on the JU's activities. In particular, these events refer to the rapid escalation of the conflict in the east of the Democratic Republic of Congo (DRC) that could threaten several projects financed by the JU in the region, including the organisation of the twelfth EDCTP Forum in Rwanda , as well as the cancellation of most programmes funded by the US Agency for International Development (USAID), in a move which could adversely affect some JU beneficiaries that are highly dependent on this funding.

### **Opinions on the legality and regularity of the revenue underlying the accounts**

**2.9.** We issue unqualified audit opinions for all JUs on the legality and regularity of the revenue underlying their annual accounts for the year ended 31 December 2024. In our opinion, their revenue transactions were legal and regular in all material respects.

### **Opinions on the legality and regularity of the payments underlying the accounts**

**2.10.** Our audit this year covered a sample of 33 final and interim payments and clearings of advances by the research and innovation JUs under Horizon 2020, Horizon Europe and Digital Europe (see [Table 2.1](#) for an overview of the payment population).

**Table 2.1 – Final/interim payments and clearings of advances in 2024 (in € million)**

Joint Undertaking	Horizon 2020 (a)	% (a)/(e)	Horizon Europe and Digital Europe (b)	% (b)/(e)	Total Operational (c) = (a)+(b)	% (c)/(e)	Administration (d)	% (d)/(e)	Total (e) = (c)+(d)
SESAR	5	21 %	9	40 %	13	61 %	9	39 %	22
CA	164	59 %	103	37 %	267	97 %	10	3 %	276
IHI	173	90 %	10	5 %	183	95 %	9	5 %	192
Clean H2	48	53 %	36	40 %	83	93 %	6	7 %	89
Chips JU	75	48 %	75	48 %	151	96 %	7	4 %	158
CBE	84	94 %	0	0 %	84	94 %	6	6 %	90
EU-Rail	96	92 %	4	3 %	100	95 %	5	5 %	105
EuroHPC	151	80 %	31	17 %	183	96 %	7	4 %	190
SNS	N/A	N/A	83	97 %	83	97 %	3	3 %	85
Global health EDCTP3	N/A	N/A	1	21 %	1	21 %	4	79 %	5
ECCC	N/A	N/A	1	55 %	1	55 %	1	45 %	2
<b>Total R&amp;I Jus</b>	<b>796</b>	<b>66 %</b>	<b>353</b>	<b>29 %</b>	<b>66</b>	<b>5 %</b>	<b>66</b>	<b>5 %</b>	<b>1 215</b>
<b>F4E</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>566</b>	<b>88 %</b>	<b>76</b>	<b>12 %</b>	<b>642</b>
<b>Total</b>	<b>796</b>		<b>353</b>		<b>632</b>	<b>34 %</b>	<b>142</b>	<b>8 %</b>	<b>1 858</b>

Source: ECA, based on JU data.

**2.11.** As in previous years, our audit revealed errors that showed weaknesses in the JUs' management and control systems in respect of the legality and regularity of operational expenditure. These errors mainly related to incorrect declarations of staff costs in grant transactions by the JUs' beneficiaries:

- incorrect calculation of hourly or daily rates;
- inclusion of indirect costs in the calculation of hourly/daily rates based on unit costs;
- incorrect reporting of the staff costs of SMEs or external staff seconded to the JU;
- declaration of subcontracting costs as staff costs;
- ineligible costs for equipment.

**2.12.** Regarding Horizon 2020 grant payments, the residual error rates calculated by the Commission's Common Audit Service, based on the results of JU-specific *ex post* audits, were below the materiality threshold. The only *ex post* audit results so far available for Horizon Europe and Digital Europe payments concern the Clean Aviation JU.

**2.13.** We also audited a sample of 30 operational expenditure transactions authorised by F4E, and found one error with a financial impact resulting from a substantial modification to two building contracts that was not addressed by a new procurement procedure.

**2.14.** Based on our audit results, we issue unqualified audit opinions for all JUs on the legality and regularity of the payments underlying their annual accounts for the year ended 31 December 2024. In our opinion, their payment transactions were legal and regular in all material respects.

## Other observations

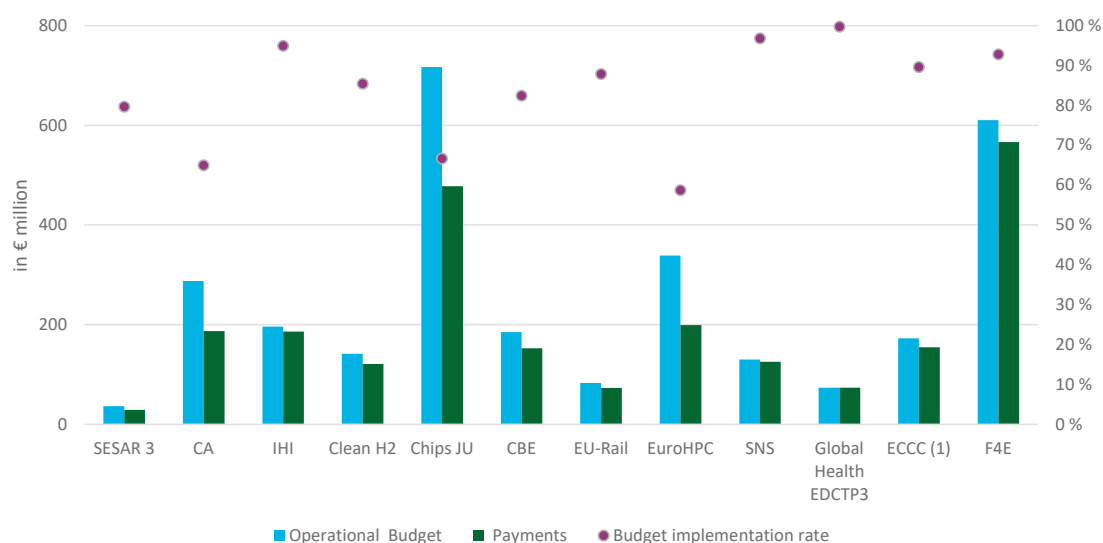
**2.15.** Without calling our opinions into question, we make observations highlighting areas for improvement in programme and budget implementation, the management of controls on payments, major risks and human resources. A summary of these observations, which are detailed in [Chapter 3](#), is presented below.

### Issues relating to the JUs' 2024 budget management

Some JUs had difficulty implementing their operational budgets in 2024

**2.16.** [Figure 2.1](#) shows, for each JU, the payments budget for operational expenditure (in € million) and the related implementation rates.

**Figure 2.1 – Implementation rates for 2024 operational payments budgets**



*Note:* (1) Includes operational budget and expenditure by the Commission before the ECCC's financial autonomy in September 2024.

*Source:* ECA, based on JU data.

**2.17.** We note that three JUs had particular difficulties in implementing their operational payments budgets related to the 2021-2027 programmes.

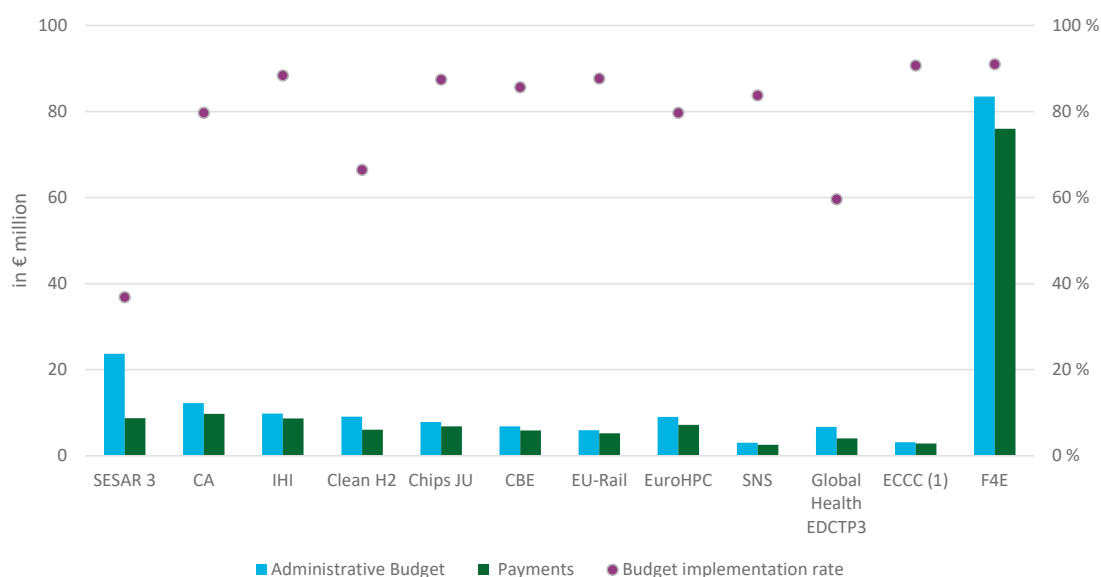
- At the Chips JU, this was due to the low implementation rate for the Digital Europe budget (around 6 %) caused by delays in signing hosting and joint procurement agreements, which meant that contracting for the purchase of assets was postponed to 2025.

- At EuroHPC, this was due to the low implementation rate for the Digital Europe budget (around 19 %) caused by the redeployment of available resources towards the crucial new artificial intelligence pillar in 2024. This meant that the JU had either to cancel several other planned investment activities (mainly under Digital Europe), or postpone them to the 2025-2027 period. This situation also delayed the JU's processing of *ex ante* controls of technical and financial reports submitted by beneficiaries in 2024 for the purposes of JU co-financing for ongoing Horizon 2020 activities.
- At CA, this was due to the low implementation rate for Horizon Europe budget (around 52 %) caused by the slow implementation of the 2023 call projects (see [2023 annual report on EU joint undertakings](#), paragraph 3.3.4).

## Several JUs showed weaknesses in the planning and implementation of administrative expenditure

**2.18.** *Figure 2.2* shows, for each JU, the payments budget for administrative expenditure (in € million) and the related implementation rates. In 2024, the administrative costs of research and innovation JUs represented, on average, only 4 % of their 2024 payments budgets.

**Figure 2.2 – Implementation rates for 2024 administrative payments budgets**



*Note:* (1) The Commission bore the administrative costs before the ECCC's financial autonomy in September 2024.

*Source:* ECA, based on JU data.

**2.19.** We found that three JUs (SESAR, CleanH2, Global Health EDCTP3) had particular difficulties in implementing their administrative budgets, as they could only use less than 70 %

of the available appropriations in 2024 (see [Figure 2.2](#)). The implementation rate of these JUs was particularly low for the infrastructure and operating expenditure budget (Title 2).

**2.20.** The JUs attributed this to delays in recruitment procedures (CleanH2, Global Health EDCTP3), the delayed implementation of refurbishment contracts, and/or the late submission of invoices included in the planning of expenditure for 2024 (SESAR 3, CleanH2, Global Health EDCTP3).

**2.21.** However, this only partially explains the implementation shortfall at these JUs in 2024. Moreover, repeatedly low implementation rates in recent years have resulted in a significant accumulation of unused administrative payment appropriations, which may indicate structural issues with the three JUs' budget planning and/or implementation.

### **Recommendation 1**

When planning their administrative payments budget for 2027, the SESAR 3, CleanH2 and Global Health EDCTP3 JUs should proactively take account of the volume of unused administrative appropriations they had already accumulated by the end of 2024.

Deadline for implementation: end 2026 (submission of budgets for the 2027 financial year).

## **Issues relating to human resource management**

### **EuroHPC had not met its recruitment objective by the end of 2024**

**2.22.** In 2021, the Commission granted 39 additional staff positions towards EuroHPC's full complement of 54 staff<sup>3</sup>. Thirty of the new posts were to be filled by the end of 2022, the remaining nine by the end of 2023. At the end of 2024, 14 of the 39 posts were still vacant. This may prevent EuroHPC from implementing its activities as planned.

<sup>3</sup> Commission's proposal for the new EuroHPC founding regulation, [COM\(2020\) 569](#).



## Issues relating to other members' contributions to the JUs' research and innovation programmes

### Some JUs will not achieve their contribution targets within the Horizon 2020 timeframe

**2.23.** Under the 2014-2020 MFF, the JUs' founding regulations set contribution targets which each member category (EU, private members, participating states and international organisations) must reach for JU-specific research and innovation activities under Horizon 2020. These targets, and the corresponding rates of achievement by the end of 2024, are shown in [Table 2.2](#). The EU's contributions come from Horizon 2020, apart from €100 million in CEF1 funding for EuroHPC.

**Table 2.2 – Members' contributions to Horizon 2020 and CEF1 (in € million)**

Members' contribution targets (as per founding regulation and legal decisions)				JUs under Horizon 2020	Members' contributions (as at 31.12.2023)					
EU cash (a)	Other members' IKOP and cash (1) (b)	Other members' IKAA (2) (c)	Total (d)= (a)+(b)+(c)		EU cash (e)	Other members' IKOP validated and cash (1) (f)	Other members' IKOP reported not validated (1) (g)	IKAA (h)	Total (i) = (e)+(f)+(g)+(h)	Achievement rate (j) = (i) / (d)
585.0	790.5	N/A	1 375.5	<b>SESAR</b>	566.0	647.7	0.0	N/A	1 213.7	88 %
1 755.0	1 228.6	965.3	3 948.9	<b>CS2 - CA</b>	1 748.1	1 097.8	0.0	1 344.6	4 190.5	106 %
1 638.0	1 638.0	N/A	3 276.0	<b>IMI2 - IHI</b>	1 211.7	1 282.6	145.5	N/A	2 639.8	81 %
665.0	95.0	285.0	1 045.0	<b>FCH2 - Clean H2</b>	654.9	97.9	48.5	1 039.1	1 840.4	176 %
1 185.0	2 827.5	N/A	4 012.5	<b>ECSEL - Chips</b>	1 173.0	1 487.0	1 145.0	N/A	3 805.0	95 %
835.0	285.5	2 444.5	3 565.0	<b>BBI - CBE (4)</b>	783.5	126.2	44.2	2 353.6	3 307.5	93 %
398.0	350.0	120.0	868.0	<b>S2R - EU-RAIL</b>	398.0	375.6	0.0	267.6	1 041.2	120 %
536.0	896.0	N/A	1 432.0	<b>EuroHPC (3)</b>	477.4	179.6	71.9	N/A	728.9	51 %
<b>7 597.0</b>	<b>8 111.1</b>	<b>3 814.8</b>	<b>19 522.8</b>	<b>Total</b>	<b>7 012.6</b>	<b>5 294.4</b>	<b>1 455.1</b>	<b>5 004.9</b>	<b>18 767.0</b>	<b>96 %</b>

(1) Include IKOP and cash contributions from participating states (Chips, EuroHPC) and international organisations (SESAR).

(2) In-kind contributions to additional activities outside of the JU's work plan.

(3) For EuroHPC, the EU contribution includes €100 million from the CEF programme.

(4) For CBE, EU and private members' cash contribution targets as reduced by €140 million. Private members' in-kind contribution targets as set in the JU's annual work programmes.

Source: ECA, based on JU data.

**2.24.** Overall, by the end of 2024, the final stage of the Horizon 2020 and CEF1 programmes, the JUs' members had achieved an average of 96 % of the contribution targets set by their respective founding regulations. However, achievement rates varied considerably. In particular, we noted a shortfall in contributions for SESAR 3, IHI and EuroHPC.

- At SESAR 3, Eurocontrol had provided only 70 % of its expected contributions. The JU completed the implementation of Horizon 2020 in 2024.
- At IHI, the successful implementation of research projects is dependent on long term project duration required by the nature of the JU-specific research area and the large-scale of global consortia implementing projects.

- o At EuroHPC, the main issue has been the low level of private members' contributions (around €19.8 million) compared with the minimum target of €420 million. As we have observed in previous reports<sup>4</sup>, private members can only generate in-kind contributions for innovation grants (which account for around 30 % of the JU's total grant activities). Another issue has been the lower rate of contributions by participating states, reflecting the fact that they only recognise their costs and report them to the JU when the corresponding Horizon 2020 and CEF1 projects have been completed.

### **Some JUs exceeded their Horizon 2020 targets because of their private members' additional activities**

**2.25.** Under the Horizon 2020 founding regulations, only private members of the CA, CleanH2, the CBE and EU-Rail are allowed to report in-kind contributions to additional activities (IKAA) not directly related to the JU-funded projects (see paragraph 1.11). [Table 2.2](#) shows that in the case of three of these four JUs (CA, CleanH2 and EU-Rail) the private members' contributions exceeded targets because of IKAA.

### **At some JUs, the slow start of 2021-2027 programmes delayed the achievement of private members' contribution targets**

**2.26.** Under the 2021-2027 programmes, the JUs' founding regulations allow the targets for private members to be achieved by means of IKOP and/or IKAA. In the case of ECCC, the member states' contributions to its joint actions are voluntary. [Table 2.3](#) shows that, by the end of 2024, the JUs had reached an average of 26 % of their member contribution targets for the new research and innovation programmes.

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<sup>4</sup> [2023 annual report on EU joint undertakings](#), paragraph 3.9.16.

**Table 2.3 – Members’ contributions to Horizon Europe, Digital Europe and CEF2 (in € million)**

Members' contributions (as per founding regulation and legal decisions)					Members' contributions (as at 31.12.2024)							
EU cash	Private members' contributions (1)	Other members' contributions (2)	Total	JUs under Horizon and Digital Europe	EU cash validated	EU cash not validated	Private members' contributions validated	Private members' contributions reported not validated	Other members' contributions validated	Other members' contributions reported not validated	Total	Achievement rate
615.0	529.0	500.0	1 644.0	SESAR 3	183.4	59.0	90.8	98.4	51.5	27.1	510.2	31 %
1 755.0	2 400.0	N/A	4 155.0	CA	482.2	94.7	273.5	302.6	N/A	N/A	1 153.0	28 %
1 200.0	1 200.0	N/A	2 400.0	IHI	155.6	11.4	11.1	51.9	N/A	N/A	230.0	10 %
1 215.0	1 015.0	N/A	2 230.0	Clean H2	369.1	60.5	1 438.0	719.9	N/A	N/A	2 587.5	116 %
4 255.0	2 537.4	4 101.2	10 893.6	Chips	729.3	325.4	3.6	312.0	104.4	684.5	2 159.2	20 %
1 026.0	1 026.0	N/A	2 052.0	CBE	214.8	31.9	3.4	120.7	N/A	N/A	370.8	18 %
615.0	615.0	N/A	1 230.0	EU-RAIL	215.7	45.2	171.5	95.3	N/A	N/A	527.7	43 %
3 151.3	900.0	2 989.3	7 040.6	EuroHPC 2	190.3	724.9	0.0	2.8	36.6	103.2	1 057.8	15 %
900.0	900.0	N/A	1 800.0	SNS	416.8	19.1	339.0	24.7	N/A	N/A	799.6	44 %
890.1	400.0	550.0	1 840.1	Global Health EDCTP3 <sup>(3)</sup>	120.9	4.0	0.0	15.6	5.3	394.5	540.3	29 %
1 649.6	N/A	1 649.6	3 299.2	ECCC <sup>(4)</sup>	0.0	0.0	N/A	N/A	0.0	0.0	0.0	0 %
17 272.0	11 522.4	9 790.1	38 584.5	Total	3 078.1	1 376.1	2 330.9	1 743.8	197.8	1 209.3	9 936.0	26 %

(1) Include private members' IKOP, IKAA and cash contributions.

(2) Include cash contributions from participating states (Chips, EuroHPC2) and international organisations (SESAR 3).

(3) Include cash contributions from private contributing partners.

(4) Member states' contributions are linked to voluntary participations to the ECCC joint actions of up to €1 649.6 million for Digital Europe. No targets set for Horizon Europe.

Source: ECA, based on JU data.

## EuroHPC may not achieve its private members’ contribution targets for Horizon Europe and Digital Europe

**2.27.** As of the end of 2024, EuroHPC’s private members’ contributions stood at only 0.3 % of the 2021-2027 target of €900 million. As we already observed in 2022 and 2023<sup>5</sup>, as long as EuroHPC’s financing arrangements and/or contribution target for private members remain unchanged, it will not achieve the significant higher private members' contribution target under the 2021-2027 MFF. This threatens the achievement of its overall programme objectives to have a strong cooperation with the private partners. For the follow-up given to our relevant recommendation in 2023, see [Table 2.4](#) (1/2023).

## Eurocontrol’s contributions to SESAR 3 were also below the Horizon Europe target at the end of 2024

**2.28.** At the end of 2024, Eurocontrol’s contributions to SESAR 3 stood at only 16 % of the Horizon Europe target of €500 million. We reported on a similar situation during the previous MFF.

<sup>5</sup> 2022 annual report on EU joint undertakings (paragraph 3.9.17) and 2023 annual report on EU joint undertakings (paragraph 3.9.19).

### Recommendation 2

SESAR 3 should cooperate with Eurocontrol to increase their contributions and monitor progress on a yearly basis to ensure Eurocontrol's 2021-2027 MFF target can be achieved.

Deadline for implementation: mid-2026.

## Global Health EDCTP3 is still significantly behind target in engaging contributing partners

**2.29.** As of the end of 2024, the third year of programme implementation, the level of contributing partners' cash contributions to Global Health EDCTP3 was still very low, at €15.6 million (4 % of the target of €400 million). In 2024, the JU took on just two additional partners, whose contributions of some €2.2 million will materialise in 2025 and 2026. This contributions shortfall may significantly reduce the leverage effect of the JU's activities and therefore presents a risk to its programme objectives.

### Recommendation 3

Global Health EDCTP3 should draw up an action plan for identifying and attracting additional contributing partners from Europe and around the world to strengthen its research and innovation capacity, generate additional financial contributions and ensure it can achieve its programme objectives.

Deadline for implementation: end 2026.

## The ECCC lacks information on its members' cumulative contributions received before its financial autonomy

**2.30.** The ECCC achieved financial autonomy in September 2024. However, it did not disclose in its 2024 annual accounts any information about the cumulative contributions made by its members before its financial autonomy at Horizon Europe and Digital Europe programme level nor compared the contributions it had received from all sources by the end of the year with the contribution targets set for each programme.

#### Recommendation 4

To ensure full end-of-year disclosure in the annual accounts on its achievements, the ECCC should collect data, monitor and report on the member states' voluntary financial and in-kind contributions to its joint actions, as well as their related financial contributions to its administrative costs.

Deadline for implementation: mid-2026.

### Weaknesses in management and control systems

#### Some JUs with significant Horizon Europe grant payments in 2024 have not yet implemented a risk-based control framework

**2.31.** Due to the changed CAS audit strategy for the Horizon Europe and Digital Europe programmes (see paragraph 1.36), and its implications for internal controls by the research and innovation JUs, we reviewed the level of implementation of a risk-based control framework for Horizon Europe and Digital Europe grant payments.

**2.32.** Applying a risk-based control framework should enable JUs to ensure that potentially risky beneficiaries and projects are subject to intensified *ex ante* controls or CAS *ex post* audits, and that the latter results are duly considered in the risk assessment for future *ex ante* controls. Systematic and centralised controls should be a key feature of the executive director's declaration of assurance on the legality and regularity of payment transactions, which is part of each JU's annual activity report (AAR).

**2.33.** The implementation by all JUs of a sound risk-based control framework is also important in the light of the future increase in grant payments from Horizon Europe and Digital Europe (see Table 2.1). By the end of 2024, however, only four JUs (EU-Rail, CA, IHI, and the Chips JU) finalised a risk-based control framework for Horizon Europe grant payments (see follow-up of recommendation 7/2022 in Table 2.4). Moreover, last year the CA was the first JU to present an "error rate at risk" for its Horizon Europe expenditure, which it estimated at 1.3 %. To do this, the CA applied guidance given by DG BUDG, in the instructions for AARs, on the calculation of detected and residual error rates, financial exposure as an amount at risk, the materiality criteria for reservations and the impact on the executive director's declaration. It based the estimate on CAS data on its beneficiaries' most recent error rate.

## **F4E's risk management system did not take sufficient account of risks relating to the 2024 revision of the ITER baselines or to human resources**

**2.34.** In June 2024, ITER-IO proposed a revised project plan to the ITER Council, with a new set of baselines to replace those agreed in 2016. The revised plan postpones the end of the ITER assembly phase from 2025 (first plasma) to 2035 (operational start) and the end of the whole project from 2042 to 2059 (17 years later than the current end date). The 2024 baselines also include several important technical changes to the ITER project which may significantly affect the scope for in-kind contributions to F4E and cash contributions to ITER-IO.

**2.35.** According to F4E's annual accounts, the estimated financial impact of the 2024 baselines is the main driver for the significant increase in the JU's delivery obligations for the ITER project ("estimate at completion") from €21.2 billion (end 2023; €21.6 billion in 2024 values) to €25.8 billion (end 2024). This will mean an increase of around €4.2 billion (in 2024 values) in the contributions by Euratom and France to the JU's operational budgets.

**2.36.** The proposed new baselines have increased the sustainability, legal, technical and economic, and financial risks to the ITER project. These risks are not adequately reflected in the JU's latest risk register. Instead, and as in previous years, F4E's risk identification process mainly focuses on risks to the project's operational implementation. It does not address horizontal risks – such as the need to restructure the JU and reallocate human resources to adjust to the 2024 baselines, the disproportionate use of external service providers, topics of resource planning and management, and non-compliance with the [EU Staff Regulations](#) or the JU's ethical framework – in a similar manner. Moreover, the JU's IT tool for risk management does not provide complete information on relevant key risks, such as their actual and likely incidence and up-to-date financial impact.

### **Recommendation 5**

The F4E should further improve the effectiveness of its risk management system, and in particular:

- (a) take adequate account, when identifying risks, of the horizontal risks relating to the revised 2024 baselines and matters of human resources;
- (b) enhance its IT tool for risk management so as to have complete information on relevant key risks.

Deadline for implementation: mid-2026.

## The ECCC had partly implemented its internal control framework

**2.37.** At the end of 2024, the ECCC had partly implemented its [internal control framework](#). In particular, it had not yet completed work to ensure the effective functioning of its business continuity and disaster recovery plans, establish a policy on the management of sensitive functions, or implement the control principles relating to risk assessment, risk-based control and monitoring activities.

### Recommendation 6

The ECCC should complete implementation of its internal control framework to ensure the effectiveness of its management and control systems.

Deadline for implementation: mid-2026.

## Follow-up of previous years' observations and recommendations

**2.38.** In this section, we provide an overview of the JUs' follow-up to our previous years' observations – described in detail in the follow-up tables in [Chapter 3](#) – and to the recommendations in chapter 2 of previous years' annual reports.

### The JUs have addressed fewer than half of our previous years' observations

**2.39.** Overall, by the end of 2024, we consider that corrective action has been taken in response to fewer than half of our observations in previous annual reports on JUs. Of the 44 observations that had not been sufficiently addressed by the end of 2023, 18 (41 %) were closed in 2024 because the JUs took corrective action, or because the observation was no longer applicable. This would be the case if, for example, a contract awarded in an irregular manner had expired or, due to a change of circumstances, addressing the issue would not be cost-effective.

**2.40.** However, 26 observations (59 %) remained open at the end of 2024. Details can be found in the annexes to [Chapter 3](#).

### The JUs have implemented most of our recommendations

**2.41.** In 2024, we continued to assess whether the actions we recommended in chapter 2 of our most recent annual reports on the JUs (starting with the 2021 report) had been implemented. We based our assessment on interviews with JU staff involved in operational and financial project monitoring, internal control and human resource management. We also examined supporting documents provided by the JUs.

**2.42.** [Table 2.4](#) shows the results of our follow-up review of the six recommendations in our 2023 annual report, as well as the six in our 2021 and 2022 annual reports which had not yet been fully implemented at the end of 2023.

**2.43.** Of these 12 recommendations, four had a target implementation date of end 2024. By the end of 2024, we consider that:

- two, on monitoring of the finalisation of projects approved under previous MFFs and the achievement of private members' contribution targets for the 2021-2027 MFF, had been fully implemented by all the JUs concerned;








- the third recommendation, on the implementation of a risk-based control approach for Horizon Europe and Digital Europe grant payments, had been fully implemented by four JUs (EU-Rail, CA, IHI, and the Chips JU) but only implemented in some respects by the other JUs concerned;
- the fourth recommendation, on EuroHPC's human resources, had been implemented in some respects as regards achieving the JU's recruitment target under the 2021-2027 MFF, but fully implemented as regards increased transparency of recruitment procedures.



**2.44.** Of the other eight recommendations with a target implementation date lying beyond 2024, one was fully implemented (on the adoption of guidance on presenting the first annual accounts of new JUs), and six were implemented in some respects. They relate to F4E's use of external service providers and risk management, delays to EuroHPC's private members' contribution targets under the 2021-2027 MFF, and a significant cash surplus at both EuroHPC and the Chips JU. The recommendation that has not yet been implemented at all concerns the adoption of guidance on estimating JUs' human resources needs. We note that the JUs are heavily dependent on the Commission for this recommendation.




**Table 2.4 – Follow-up to our previous years' recommendations**





Level of implementation:  fully;  in most respects;  in some respects;  not implemented.


Number and year	JUs	ECA recommendation	ECA analysis of progress made	
			Level of implementation	Remarks
6/2021	All JUs except F4E	JUs should implement a time-recording system to obtain objective data on staff time spent on each activity.		<p>In 2024, under the JUs' back-office arrangement, human resources departments continued to harmonise and optimise the IT tools made available to all JUs (Sysper and Systal). In 2024, the Commission started implementing a new integrated human resource platform (HRT) to replace previous tools. In 2025, however, the Commission confirmed that the new tool would not include an activity-based time management system. The development of a separate system by the JUs would be very resource intensive and cause problems of integration into the common HR tool.</p> <p><b>Target implementation date: end 2025.</b></p>
7/2021	All JUs except F4E	JUs should develop a formalised model or guidance on how to estimate staff needs (including essential competences) for each activity and unit, with the objective of optimising the use of staff resources.		<p>Implementation of this recommendation needs to be fully supported by the Commission (the partner DGs and DG BUDG in particular), which takes the final decisions on future resource allocations to JUs. For this reason, it may not be implemented until the budget negotiations on the new MFF (around the end of 2026).</p> <p><b>Target implementation date: end 2027.</b></p>

Number and year	JUs	ECA recommendation	ECA analysis of progress made	
			Level of implementation	Remarks
8/2021	F4E	F4E's management should strengthen the measures already undertaken to mitigate the risks related to the use of external staff, in particular the risk of inefficient management due to the unclear division of responsibilities between statutory and external staff.		<p>A working group was set up in 2022 to assess the high degree of reliance on external resources with the objective of better planning and justifying their use. The working group subsequently drew up a policy on the use of external service providers (ESPs), which was approved by the director in 2024. However, this policy does not provide for the centralised coordination and management of ESPs.</p> <p>In 2023, an IAS audit on F4E's human resources management and ethics revealed serious issues with the coordination and management of ESPs. Implementation of the agreed action plan is still ongoing, and should be complete by the end of 2025.</p> <p><b>Target implementation date: end 2025.</b></p>
1/2022	EuroHPC, IHI, CBE, the Chips JU	The JUs should establish a time-scheduled action plan for finalising the implementation of projects approved under previous MFFs.		<p>The updated eGrant system (Compass) includes new reporting and monitoring tools which the JUs used to monitor the phasing-out of Horizon 2020 grant projects and assess requests for extensions and payment suspensions.</p> <p><b>Target implementation date: end 2024.</b></p>
2/2022	EuroHPC, CBE	To ensure the achievement of their private members' contribution targets for the 2021-2027 MFF, EuroHPC and CBE should, based on a strategic programme implementation plan, monitor the private members' individual contribution achievements on an annual basis.		<p>Both JUs have drawn up a multiannual work programme and budget for their activities under the 2021-2027 MFF so as to allow multiannual planning estimates for their members' contributions.</p> <p><b>Target implementation date: end 2024.</b></p>

Number and year	JUs	ECA recommendation	ECA analysis of progress made	
			Level of implementation	Remarks
7/2022	EU-Rail, CA, IHI, the Chips JU	<p>Under Horizon Europe, all JUs should implement a risk-based approach to grant management that covers the main grant management phases from preparation to payment. In this context, JUs should in particular ensure that:</p> <p>(a) potentially risky beneficiaries and projects are subject to intensified <i>ex ante</i> controls or <i>ex post</i> audits; and</p> <p>(b) important <i>ex post</i> audit results are duly considered in the risk assessment for future <i>ex ante</i> controls.</p>		<p>EU-Rail only uses lumpsum grants under Horizon Europe. The JU already finalised a risk- based control framework in 2023 and updated its Horizon Europe control strategy in December 2024 to align it with the latest Commission guideline on ex-post technical reviews in Horizon Europe lump-sum grants.</p> <p>In 2024 the CA, IHI and the Chips JU finalised their risk-based control frameworks for Horizon Europe and Digital Europe grant payments.</p> <p><b>Target implementation date: end 2024.</b></p>
7/2022	All JUs except F4E, EU-Rail, CA, IHI, the Chips JU	<p>Under Horizon Europe, all JUs should implement a risk-based approach to grant management that covers the main grant management phases from preparation to payment. In this context, JUs should in particular ensure that:</p> <p>(a) potentially risky beneficiaries and projects are subject to intensified <i>ex ante</i> controls or <i>ex post</i> audits; and</p> <p>(b) important <i>ex post</i> audit results are duly considered in the risk assessment for future <i>ex ante</i> controls.</p>		<p>In February 2024, the research and innovation JUs developed a common implementation approach and guidance on the CAS's Horizon Europe control strategy that provides for alternative assurance mechanisms and indicators to compensate for the fact that there will be no <i>ex post</i> audits of a representative sample of beneficiaries and no error rate for each JU.</p> <p>The SNS made a large volume of Horizon Europe grant payments (some €83 million) in 2024, but has not yet implemented its risk-based control framework for such expenditure. We note that setting up an effective risk-based control framework is a time-consuming task.</p> <p><b>Target implementation date: end 2024.</b></p>

Number and year	JUs	ECA recommendation	ECA analysis of progress made	
			Level of implementation	Remarks
1/2023	EuroHPC	EuroHPC should support the Commission's re-assessment of the private members' contribution target for 2021-2027 programmes (Horizon Europe and Digital Europe).		<p>In 2024, EuroHPC informed its governing board, which also includes the Commission, of the reasons why the current contribution target for private members cannot be achieved and needs to be revised. The JU also approached an external audit firm for additional advice on how to maximise its IKOP monitoring and reporting capabilities within the current constraints.</p> <p><b>Target implementation date: mid 2025.</b></p>
2/2023	CA	The CA should, first, develop corrective mechanisms to reduce its cash surpluses to reasonable levels, and second, in coordination with the Commission, align its cash request(s) for each financial year with its estimated spending needs.		<p>The CA significantly lowered its cumulative cash surplus from €237 million at the end of 2023 to €105 million at the end of 2024 (a reduction of 56 %). The remaining surplus was needed to cover payments in the first four months of 2025.</p> <p><b>Target implementation date: end 2025.</b></p>
2/2023	Chips, EuroHPC	The Chips JU and EuroHPC should, first, develop corrective mechanisms to reduce their cash surpluses to reasonable levels, and second, in coordination with the Commission, align their cash requests for each financial year with their estimated spending needs.		<p>The Chips JU's cash surplus increased during 2024. At the end of the year it was €479 million, compared with €438 million at the end of 2023. In 2025, based on a reassessment of its operational payment budget needs, the JU reduced the initial Digital Europe budget by €100 million. The Commission, however, only accepts such amendments provided that the freed funding is needed by other EU bodies.</p> <p>EuroHPC's cash surplus also increased during 2024, to €904.7 million at the end of 2024 compared with €840.7 million at the end of 2023. The JU started to implement corrective mechanisms in 2024, which will only have an impact on the 2026 budget implementation.</p> <p><b>Target implementation date: end 2025.</b></p>

Number and year	JUs	ECA recommendation	ECA analysis of progress made	
			Level of implementation	Remarks
3/2023	EuroHPC	EuroHPC should use its increased staff to endeavour to achieve its recruitment target by the end of 2024.		By the end of 2023, EuroHPC should have recruited 39 new staff towards the full complement of 54 that it needed to implement its activities under the 2021-2027 MFF. By end 2024, however, 14 of the 39 new posts were still vacant.
		To increase the transparency of its recruitment procedures, and to substantiate the decision-making of the selection committee, EuroHPC should use a pre-agreed scoring grid during the pre-selection phase, in line with the practice of other JUs and EU bodies.		In 2024, EuroHPC implemented a scoring grid for use in the pre-selection phase of recruitment procedures, including a weighting for each essential criterion.  <b>Target implementation date: end 2024.</b>
4/2023	F4E	F4E should establish a centralised coordination and management function for external service providers and adopt a comprehensive methodology to regularly assess its total human resources needs (statutory staff and ESPs) based on workload and required skills. The JU should also supplement its risk register with the most important risks deriving from its high level of use of ESPs in the long run.		In 2024, the F4E director approved a policy on the use of ESPs, including their definition and planning of needs. Subsequently in 2025, a decision on the centralisation of their coordination and management was taken.  F4E has not updated its risk register accordingly.  <b>Target implementation date: end 2025.</b>
5/2023	F4E	F4E should implement an integrated risk management process in its internal control framework to manage its risks effectively.		In 2024, F4E introduced regular quarterly meetings between its risk management and internal audit functions. However, it has not yet updated its internal control framework to include an integrated risk management process.  <b>Target implementation date: mid 2025.</b>

Number and year	JUs	ECA recommendation	ECA analysis of progress made	
			Level of implementation	Remarks
6/2023	SNS, Global Health EDCTP3	Accounting guidelines should be developed specifying the rules for presenting the first annual accounts of new JUs. These guidelines should include instructions on how to separate the financial resources implemented by the Commission from those implemented by a JU after it attained financial autonomy.		In June 2025, the Commission issued “Instructions to perform the accounting of transfers of assets and liabilities of any new entity constituted under the TFEU and the Euratom Treaty and Public-private partnership bodies”. They provide clear guidance for the different components of the first set of annual accounts.  <b>Target implementation date: mid 2025.</b>

Source: ECA.

## Other recent special reports dealing with JUs

**2.45.** In the course of 2024 and the first half of 2025, we issued three special reports dealing with JUs (see [Figure 2.3](#)).



**Figure 2.3 – Other JU-related special reports recently issued by the ECA**

**ECA special report 08/2024:**

**EU Artificial intelligence ambition - Stronger governance and increased, more focused investment essential going forward**

This audit assessed the effectiveness of the Commission's contribution to the development of AI ecosystem in the EU. In this context, we analysed the performance of the EU's plan for AI as well as the Horizon 2020, Horizon Europe and Digital Europe fund spent in the period 2014-2022 on research and innovation of AI technologies and AI infrastructure.

**Audit findings**

While the Commission put financial and infrastructure enablers in place for AI development and uptake, the EU-funded infrastructure – such as testing facilities, data spaces, or an AI-on-demand platform – AI plans have so far triggered only modest EU capital support (such as equity financing) for innovators.

The single market for data are still at the inception phase and cannot immediately boost AI investment.

Results of EU-funded AI projects are not systematically monitored.

Coordination between EU and member states is ineffective due to a lack of governance tools.

**Recommendations**

The Commission should:

- Reinforce planning and coordination of AI investment by re-assessing the EU investment target for AI and how member states might contribute to it.
- Evaluate the need for a more AI-focused capital support instrument.
- Ensure that EU-funded AI innovation infrastructure operates in a coordinated way with a single access point.
- Reinforce support, coordination and monitoring for the exploitation of results in the EU.
- Support the exploitation of Horizon Europe R&I results in the AI field in the EU.

**ECA special report 11/2024:**

**The EU's industrial policy on renewable hydrogen - Legal framework has been mostly adopted – time for a reality check**

This audit assessed the EU's industrial policy on renewable hydrogen, focusing on the legal framework set by the Commission and its impact on the development of a hydrogen market in the EU.

**Audit findings**

While the Commission's legal framework is almost complete and has provided certainty for the establishment of a new market, the Commissions 2030 goals for renewable hydrogen production and demand were overly ambitious.

Building up an EU hydrogen industry requires massive public and private and investment. However, the Commission neither has a full overview of needs nor of the public funding available. Also, EU funding – which we estimated at €18.8 billion for the 2021-2027 period – is scattered between several programmes, which makes it difficult for companies to determine the type of funding best suited for a given project.

One of the main issues with this nascent market is the chicken-and-egg problem: supply is waiting for demand to develop and vice versa.

**Recommendations**

The Commission should:

- Following a reality check, make strategic choices on the way ahead without creating new strategic dependencies.
- Set out an EU roadmap and monitor progress.
- Obtain reliable national funding data and assess the appropriateness of EU funding arrangements accordingly.
- Monitor permitting processes in the member states.
- Take a clear decision on support and coordination actions with and for the hydrogen industry.

**ECA special report 12/2025:**

**The EU's strategy for microchips - Reasonable progress in its implementation but the Chips Act is very unlikely to be sufficient to reach the overly ambitious Digital Decade target**

This audit assessed the implementation progress of the EU's strategy for microchips, focusing on the effectiveness of the Commission's Chips Act in meeting the Digital Decade's ambitious target of securing 20 % of global semiconductor production by 2030. It also evaluated the effectiveness of funding mechanisms, industrial strategies, and the EU's ability to reduce reliance on foreign semiconductor suppliers.

**Audit findings**

The Chips Act and related funding is unlikely to be sufficient in achieving the Digital Decade goal due to the EU's strong dependence on external suppliers and supply chain vulnerabilities, particular for advanced chips manufacturing technologies.

Member states and the private sector still account for the lion's share of investment.

Skills shortages and production bottlenecks remain key obstacles to scaling up the EU's semiconductor capabilities.

EU's insufficient access to raw materials, high energy costs, and geopolitical tensions pose additional challenges.

**Recommendations**

The Commission should:

- Carry out an urgent reality check on the strategy and take the necessary short-term corrective actions.
- Start preparing the next semiconductor strategy.

*Source:* The details on the reports, related recommendations and the auditee's reply can be consulted on the ECA website [eca.europa.eu](https://eca.europa.eu).

## **Joint undertakings' replies to chapters 1 and 2**

[https://www.eca.europa.eu/Lists/ECARepplies/JUS-Replies-SAR-JUS-2024/JUS-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/JUS-Replies-SAR-JUS-2024/JUS-Replies-SAR-JUS-2024_EN.pdf)



EUROPEAN  
COURT  
OF AUDITORS

## Chapter 3

### **Statements of assurance on the EU joint undertakings**

## 3.1. Information in support of the statements of assurance

### Basis for opinions

**3.1.1.** We conducted our audit in accordance with the International Federation of Accountants (IFAC) International Standards on Auditing (ISAs) and Code of Ethics, and the INTOSAI International Standards of Supreme Audit Institutions (ISSAIs). Our responsibilities under those standards are described in more detail in the ‘Auditor’s responsibilities’ section of our report. We also complied with the independence requirements and ethical obligations in the International Ethics Standards Board for Accountants (IESBA) Code of Ethics for Professional Accountants. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

### Audit approach

**3.1.2.** We provide the European Parliament and the Council as well as other discharge authorities with statements of assurance as to the reliability of the accounts of the EU joint undertakings (JUs) and the legality and regularity of the transactions underlying them.

**3.1.3.** Our audit approach comprises analytical audit procedures, direct tests of transactions, and an assessment of the key components of each JU’s supervisory and control systems. These are supplemented by evidence resulting from the work of other auditors, and by an analysis of information provided by the auditees’ management.

### Responsibilities of management and those charged with governance

**3.1.4.** In accordance with Articles 310 to 325 TFEU and the JUs’ financial regulations, the management of each JU is responsible for preparing and presenting that JU’s accounts on the basis of internationally accepted accounting standards for the public sector and for ensuring the legality and regularity of the underlying transactions. This responsibility includes the design, implementation, and maintenance of internal controls relevant to the preparation and presentation of financial statements that are free from material misstatement, whether due to fraud or to error. The management also bears ultimate responsibility for ensuring that the activities, financial transactions, and other information reflected in the financial statements comply with all relevant regulations.

**3.1.5.** In preparing the accounts, the management is responsible for assessing the JU's ability to continue as a going concern. It must disclose any matters affecting the JU's status as a going concern, and must use the going-concern basis for accounting, unless it intends, or will be compelled, either to liquidate the entity or to cease operations.

**3.1.6.** Those charged with the governance of each JU are responsible for overseeing that JU's financial reporting process.

## **The auditor's responsibilities in connection with the audit of the accounts and underlying transactions**

**3.1.7.** Regarding the financial information reported for each JU, we obtain sufficient appropriate audit evidence to express an opinion with reasonable assurance on the accounts and the underlying transactions.

- In auditing the accounts, which comprise the financial statements<sup>6</sup> and the reports on the implementation of each JU's budget for the financial year, we consider the audit work carried out by the independent external auditor as stipulated in Article 70(6) of the EU Financial Regulation<sup>7</sup>.
- In auditing revenue, we verify the contributions received from the EU budget, other members or participating countries and assess each JU's procedures for collecting other income, if any.
- In auditing expenditure, we examine payment transactions once costs have been incurred, recorded, and accepted. This covers all categories of payments at the point they are made, with the exception of advances. We examine advance payments once the recipient of funding provides justification for its proper use and the JU accepts the justification by clearing the advance, whether in the same year or later. For our overall assessment, we also take account of the results of *ex post* audits carried out by the Common Audit Service (CAS) of the Commission's DG RTD regarding the JUs' Horizon 2020 and Horizon Europe grant expenditure and the European Health and Digital Executive Agency (HaDEA) regarding the JU's Digital Europe grant expenditure.

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<sup>6</sup> The financial statements comprise the balance sheet, the statement of financial performance, the cash flow statement, the statement of changes in net assets, a summary of significant accounting policies and other explanatory notes.

<sup>7</sup> The reports aggregate all budgetary operations and include the explanatory notes.

**3.1.8.** We are solely responsible for our audit opinions. In accordance with the ISAs and ISSAIs, we exercise professional judgement and maintain professional scepticism throughout the audit. In particular, we take the following steps:

- We identify and assess the risks of material misstatement of the accounts and material non-compliance of the underlying transactions with the EU's legal requirements, whether due to fraud or to error. The risk of failing to detect material misstatement or non-compliance is higher for fraud than it is for errors, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the overriding of internal controls. We design and perform audit procedures responsive to those risks.
- We obtain an understanding of the internal controls relevant to the audit. We do this not to reach an opinion on the effectiveness of those controls, but so that we can design appropriate audit procedures. If we find serious internal control weaknesses, we try, if possible, to quantify their impact and adjust the risk assessment for the following year. We did not identify any such weaknesses during this year's audit.
- We review the appropriateness of accounting policies and the reasonableness of accounting estimates and the related management disclosures.
- We assess the appropriateness of the management's use of the going-concern basis for accounting and, based on the audit evidence we have obtained, we also assess whether there is any material uncertainty in the form of events or circumstances that may cast significant doubt on a JU's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention, in our report, to the related disclosures in the accounts or, if those disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence we have obtained up to the date of our report. However, events or circumstances arising after that date may cause an entity to cease to continue as a going concern.
- Lastly, we evaluate the overall presentation, structure and content of the accounts, including all disclosures, and whether the accounts fairly represent the underlying transactions and events.

**3.1.9.** We communicate with the management on matters such as the planned scope and timing of the audit and any significant audit findings, including findings of significant internal control weaknesses.

**3.1.10.** In our report, we describe matters that we consider to be of most significance for our audit of the accounts and their underlying transactions. We do this unless public disclosure is legally prohibited or, as happens extremely rarely, we determine that a matter should not be disclosed in our report because the adverse consequences of disclosure would reasonably be expected to outweigh the public-interest benefits.

**3.1.11.** There can be no guarantee that an audit will always detect all instances of material misstatement or non-compliance in the audited accounts. These instances, which can arise from fraud or error, are considered material if, seen separately or together, they could reasonably be expected to influence the economic decisions taken by users on the basis of those accounts.

## **Joint undertakings implementing EU framework programmes for research and innovation**



## 3.2. Single European Sky Air Traffic Management Research Joint Undertaking (SESAR 3)

### Introduction

**3.2.1.** The [Single European Sky Air Traffic Management Research JU \(SESAR 3\)](#), located in Brussels, was set up in November 2021 under the Horizon Europe programme for the period ending 31 December 2031<sup>8</sup>. SESAR 3 is the current iteration of the SESAR JU, which was set up in February 2007 under the Seventh Research Framework Programme (FP7) for a period of eight years<sup>9</sup> and extended in June 2014 to continue operating under Horizon 2020<sup>10</sup>.

**3.2.2.** SESAR 3 was set up as a public-private partnership to develop modernised air traffic management in Europe and accelerate the delivery of the [Digital European Sky](#) through research and innovation. Its members are the EU, represented by the Commission (DG MOVE), the European Organisation for the Safety of Air Navigation ([Eurocontrol](#)), and more than 50 organisations covering the entire aviation value chain, including airports, airspace users of all categories, air navigation service providers, drone operators and service providers, as well as manufacturers and the scientific community.

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<sup>8</sup> [Council Regulation \(EU\) 2021/2085](#) establishing the Joint Undertakings under Horizon Europe.

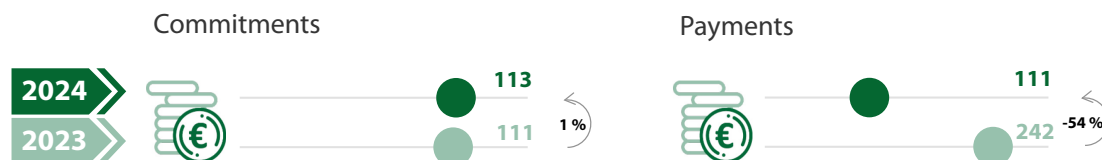
<sup>9</sup> [Council Regulation \(EC\) No 219/2007](#) on the establishment of a Joint Undertaking to develop the new generation European air traffic management system (SESAR).

<sup>10</sup> [Council Regulation \(EU\) No 721/2014](#) amending Regulation (EC) No 219/2007.

**3.2.3.** Figure 3.2.1 presents key figures for the JU.

**Figure 3.2.1 – Key figures for SESAR 3**

**Available budget (million euros)\***



**Staff (employed as at 31 December)\*\***



\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* “Staff” includes temporary staff, contract staff and seconded national experts.

Source: Data provided by the JU.

**3.2.4.** The reduction in the payments budget for 2024 reflects the use of multiannual calls for proposals. The first three-year call was issued in 2023, and most of the related pre-financing payments were made in the final months of that year. Consequently, in 2024 the JU did not yet expect to settle any cost declarations from beneficiaries.

## Our statement of assurance to the European Parliament and the Council – Independent auditor’s report

### Opinion

**3.2.5.** Our audit approach, the basis for our opinion, the responsibilities of the management of the Single European Sky Air Traffic Management Research Joint Undertaking (SESAR 3) and of those charged with its governance, and the auditor’s responsibilities for the audit of the accounts and underlying transactions, are all described in section 3.1. The signature on page 150 forms an integral part of the opinion.

**3.2.6.** We have audited:

- (a) the accounts of SESAR 3, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and
  - (b) the legality and regularity of the transactions underlying those accounts,
- as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

**Reliability of the accounts****Opinion on the reliability of the accounts**

**3.2.7.** In our opinion, SESAR 3's accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024 the results of its operations and its cash flows for the year then ended, in accordance with its financial regulation and with the accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

**Legality and regularity of the transactions underlying the accounts****Revenue****Opinion on the legality and regularity of revenue underlying the accounts**

**3.2.8.** In our opinion, the revenue underlying the SESAR 3 accounts for the year ended 31 December 2024 is legal and regular in all material respects.

**Payments****Opinion on the legality and regularity of payments underlying the accounts**

**3.2.9.** In our opinion, the payments underlying the SESAR 3 accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.2.10.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

**SESAR 3 closed Horizon 2020 funding in 2024, but only 88 % of the agreed contributions were made**

**3.2.11.** *Table 3.2.1* presents an overview comparing the SESAR 3 members' contribution targets for Horizon 2020 with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.2.1 – Members' contributions for Horizon 2020 (in € million)**

Members	Members' contributions (as per founding regulation and bilateral agreements)				Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Additional activities <sup>(1)</sup>	Total	Cash	In-kind validated	In-kind reported not validated	In-kind to additional activities	Total	Achievement %
EU (DG Move)	555.8	29.3	N/A	585.0	566.0	N/A	N/A	N/A	566.0	97 %
Eurocontrol	467.0	25.0	N/A	492.0	17.1	325.9	0.0	N/A	343.0	70 %
Private members	280.0	18.5	N/A	298.5	17.3	287.4	0.0	N/A	304.7	102 %
Total	1 302.8	72.8	N/A	1 375.5	600.4	613.3	0.0	N/A	1 213.7	88 %

(1) Additional activities are outside the ECA's audit scope.

Source: ECA, based on data from the JU and its founding regulation.

**3.2.12.** In 2024, SESAR 3 completed the implementation of Horizon 2020. Overall, it had received some 88 % of planned funding by the end of the year. The shortfall in contributions was particularly marked for Eurocontrol, which had provided only 70 %.

**Eurocontrol's contributions were also below the Horizon Europe target at end 2024**

**3.2.13.** *Table 3.2.2* presents an overview comparing the SESAR 3 members' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.2.2 – Members' contributions for Horizon Europe (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Members' contributions (as at 31.12.2024)	Cash not validated	In-kind <sup>(1)</sup> validated	In-kind <sup>(1)</sup> reported not validated	Total	Achievement %
EU (DG MOVE) <sup>(2)</sup>	585.0	30.0	615.0	183.4	59.0	N/A	N/A	242.4	39 %
Private members	504.0	25.0	529.0	0.0	N/A	90.8	98.4	189.2	36 %
Eurocontrol	475.0	25.0	500.0	11.1	N/A	40.4	27.1	78.6	16 %
Total	1 564.0	80.0	1 644.0	194.5	59.0	131.2	125.5	510.2	31 %

(1) Consists of in-kind contributions to operational activities (IKOP) and in-kind contributions to additional activities (IKAA). Validated IKAA only disclosed in SESAR 3's annual activity report.

(2) Includes United Kingdom contributions of €29 million and the mid-term Horizon Europe reduction of €14 million.

Source: ECA, based on data from the JU and its founding regulation.

## Single European Sky Air Traffic Management Research Joint Undertaking (SESAR 3)

**3.2.14.** By the end of 2024, in the third year of the programme, the EU and private members together had achieved around 44 % of their total contribution target. The private members and Eurocontrol's reported cash and in-kind contributions of around €267.8 million. Of this amount, according to the JU's AAR, €191 million (71 %) related to additional activities outside the SESAR 3 research programme. Eurocontrol was behind with its contributions, having reached only 16 % of the agreed amount by the end of 2024.

### Weaknesses in budget planning and implementation for administrative expenditure

**3.2.15.** Last year the implementation rate for payment appropriations under SESAR 3's 2024 infrastructure and operating budget (Title 2) dropped to 45 % (2023: 55 %). The JU partly attributed this to the migration to the Commission's new financial system (SUMMA) when Eurocontrol was presenting final invoices of some €1 million for IT services provided in 2024. However, the total shortfall in the implementation of payment appropriations was far more significant, at €3 million.

**3.2.16.** When spending on IT services, SESAR 3 did not first use the €1.6 million in payment appropriations that were carried over from the previous year, which is contrary to Article 6(5) of its [financial rules](#).

**3.2.17.** In 2024, the value of unused administrative payment appropriations to be reallocated to the following year's 2025 administrative budget stood at €3.1 million (2023: €2.4 million), and represented around 100 % of SESAR 3's infrastructure and operating budget for 2025. The JU also built up a total of €11.3 million in unused administrative payment appropriations (Titles 1 and 2) on a separate reserve budget line to be used for planned future administrative expenditure (2023: €8.2 million). This amount represents around 100 % of the JU's total needs for Title 1 and Title 2 administrative payments in 2025.

**3.2.18.** The persistently low payment implementation rates for Title 2 and the significant accumulation of unused administrative payment appropriations may indicate a structural problem in SESAR 3's budget planning and/or implementation.

### Observations on the legality and regularity of transactions

**3.2.19.** We audited two Horizon 2020 and Horizon Europe transactions (randomly sampled from all interim/final payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of SESAR 3's management and control systems with regard to the legality and regularity of operational expenditure. Both transactions were free of error.

**3.2.20.** Based on the *ex post* audit results of the Commission's Common Audit Service, SESAR 3 reported a representative error rate of 3.5 % and a residual error rate of 0.7 % for its Horizon 2020 expenditure (which accounted for around 21 % of its total payments in 2024)<sup>11</sup>. No *ex post* audit results are yet available for Horizon Europe expenditure (around 40 % of all 2024 payments).

## Observations on management and control systems

**3.2.21.** For the second year in a row, SESAR 3's external auditor found a material misstatement in the provisional annual accounts and issued an adverse opinion. This indicates shortcomings in the JU's procedure for drawing up its annual accounts and verifying the accuracy of calculations and the reliability of the underlying data. The material misstatement was corrected in the final annual accounts.

## Follow-up of previous years' observations

**3.2.22.** An overview of the action taken by SESAR 3 in response to our observations in previous years is provided in the [Annex](#).

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<sup>11</sup> SESAR 3 JU 2024 Consolidated Annual Activity Report, chapter 4.1.1.2.3.

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2023	Low implementation rate for the administrative payments budget (Title 2).	The situation persisted in 2024 (see paragraphs <a href="#">3.2.15</a> to <a href="#">3.2.18</a> ).	Open
2	2023	Business continuity plan (BCP) and disaster recovery plan (DRP) out of date.	Both plans were updated and tested in 2024.	Closed
3	2023	No internal control policy for sensitive functions.	SESAR 3 introduced an internal control policy for sensitive functions in February 2024.	Closed

Single European Sky Air Traffic Management Research Joint Undertaking (SESAR 3)

## SESAR 3 replies

[https://www.eca.europa.eu/Lists/ECARepplies/SESAR\\_3-Replies-SAR-JUS-2024/SESAR\\_3-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/SESAR_3-Replies-SAR-JUS-2024/SESAR_3-Replies-SAR-JUS-2024_EN.pdf)



## 3.3. Clean Aviation Joint Undertaking (CA JU)

### Introduction

**3.3.1.** The [Clean Aviation JU \(CA JU\)](#), located in Brussels, was set up in November 2021 under the Horizon Europe programme for the period ending 31 December 2031<sup>12</sup>. The CA JU replaced the Joint Undertaking for the implementation of the Joint Technology Initiative in Aeronautics (Clean Sky 1), which was set up in December 2007 under the Seventh Research Framework Programme (FP7) for a period of ten years<sup>13</sup> and extended in May 2014, as Clean Sky 2, under Horizon 2020<sup>14</sup>.

**3.3.2.** The CA JU is a public-private partnership focusing on research and innovation to transform aviation by working towards a sustainable and climate-neutral future. Its members are the EU, represented by the Commission (DG RTD), and organisations from the aviation sector<sup>15</sup>. The CA JU also selects associated members through calls for expressions of interest.

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<sup>12</sup> [Council Regulation \(EU\) 2021/2085](#) establishing the Joint Undertakings under Horizon Europe.

<sup>13</sup> [Council Regulation \(EC\) No 71/2007](#).

<sup>14</sup> [Council Regulation \(EU\) No 558/2014](#).

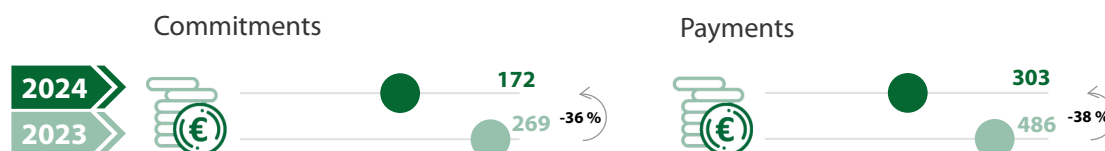
<sup>15</sup> [Council Regulation \(EU\) 2021/2085](#).

## Clean Aviation Joint Undertaking (CA JU)

**3.3.3.** Figure 3.3.1 presents key figures for the JU.

**Figure 3.3.1 – Key figures for the CA JU**

**Available budget (million euros)\***



**Staff (employed as at 31 December)\*\***



\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* "Staff" includes temporary staff and contract staff.

Source: Data provided by the JU.

**3.3.4.** The reduced 2024 budget for commitments and payments reflects the significant fall in value between the 2022 and 2023 calls for proposals for Horizon Europe projects, as well as delays in the implementation of projects from the 2022 call.

## Our statement of assurance to the European Parliament and the Council – Independent auditor's report

### Opinion

**3.3.5.** Our audit approach, the basis for our opinion, the responsibilities of the management of the Clean Aviation Joint Undertaking (CA JU) and of those charged with its governance, and the auditor's responsibilities for the audit of the accounts and underlying transactions, are all described in section 3.1. The signature on page 150 forms an integral part of the opinion.

**3.3.6.** We have audited:

- (a) the accounts of the CA JU, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and

## Clean Aviation Joint Undertaking (CA JU)

(b) the legality and regularity of the transactions underlying those accounts, as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

### Reliability of the accounts

#### Opinion on the reliability of the accounts

**3.3.7.** In our opinion, the CA JU's accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

#### Emphasis of matter

**3.3.8.** We draw attention to note 4.12 to the annual accounts for 2024, which describes the state of play of the CA JU's migration to a new budgetary, accounting and financial system (SUMMA) as a pilot for the Commission's development and testing of this system. Some functions in SUMMA are still under development and require manual processing and reliability checks to ensure data correctness. Our opinion is not qualified in respect of this matter.

### Legality and regularity of the transactions underlying the accounts

#### Revenue

##### Opinion on the legality and regularity of revenue underlying the accounts

**3.3.9.** In our opinion, the revenue underlying the CA JU's accounts for the year ended 31 December 2024 is legal and regular in all material respects.

#### Payments

##### Opinion on the legality and regularity of payments underlying the accounts

**3.3.10.** In our opinion, the payments underlying the CA JU's accounts for the year ended 31 December 2024 are legal and regular in all material respects.

## Clean Aviation Joint Undertaking (CA JU)

**3.3.11.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

The CA JU closed Horizon 2020 funding in 2024, and all members reached or exceeded their contribution targets

**3.3.12.** *Table 3.3.1* presents an overview comparing the CA JU members' contribution targets for Horizon 2020 with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.3.1 – Members' contributions for Horizon 2020 (in € million)**

Members	Members' contributions (as per founding regulation and legal decisions)				Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Additional activities <sup>(1)</sup>	Total	Cash	In-kind validated	In-kind reported not validated	In-kind to additional activities	Total	Achievement %
EU (DG RTD)	1 716.0	39.0	N/A	1 755.0	1 748.1	N/A	N/A	N/A	1 748.1	100 %
Private members	1 189.6	39.0	965.3	2 193.8	30.8	1 067.0	0.0	1 344.6	2 442.4	111 %
Total	2 905.6	78.0	965.3	3 948.8	1 778.9	1 067.0	0.0	1 344.6	4 190.5	106 %

(1) Additional activities are outside the ECA's audit scope.

Source: ECA, based on data from the JU and its founding regulation.

**3.3.13.** In 2024, the CA JU completed the implementation of Horizon 2020. At year's end, the reported contributions from private members were 11 % over target.

**Private members' contributions for Horizon Europe were mainly generated through activities outside the CA JU's research programme**

**3.3.14.** *Table 3.3.2* presents an overview comparing the CA JU members' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

## Clean Aviation Joint Undertaking (CA JU)

**Table 3.3.2 – Members’ contributions for Horizon Europe (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind <sup>(1)</sup> validated	In-kind <sup>(1)</sup> reported not validated	Total	Achievement %
EU (DG RTD) <sup>(2)</sup>	1 715.8	39.2	1 755.0	482.2	94.7	N/A	N/A	576.9	33 %
Private members	2 360.8	39.2	2 400.0	7.2	N/A	266.3	302.6	576.1	24 %
Total	4 076.6	78.4	4 155.0	489.4	94.7	266.3	302.6	1 153.0	28 %

(1) Consists of in-kind contributions to operational activities (IKOP) and in-kind contributions to additional activities (IKAA).

(2) Includes United Kingdom contributions of €96 million and the mid-term Horizon Europe reduction of €41 million.

Source: ECA, based on data from the JU and its founding regulation.

**3.3.15.** By the end of 2024, the EU and private members together had achieved around 28 % of their total contribution target. The EU had made total cash contributions of €576.9 million, while private members reported cash and in-kind contributions of around €576.1 million. Of this amount, according to the annual accounts, €481.3 million (84 %) related to their additional activities outside the CA JU’s research programme.

## Observations on the legality and regularity of transactions

**3.3.16.** We audited six Horizon 2020 and Horizon Europe transactions (randomly sampled from all interim/final payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of the CA JU’s management and control systems on the legality and regularity of operational expenditure. We found errors with a financial impact in three Horizon 2020 payment transactions. The first error concerned ineligible staff costs due to the incorrect calculation of hourly rates. The second concerned ineligible costs for external staff seconded to the beneficiary. The third concerned ineligible staff costs due to the inclusion, in the method for calculating hourly rates, of indirect costs that were already covered by the 25 % flat rate.

**3.3.17.** Based on the *ex post* audit results of the Commission’s Common Audit Service (CAS), however, the CA JU reported a representative error rate of only 1.6 % and a residual error rate of 0.1 % for its Horizon 2020 expenditure (which accounted for around 63 % of its total payments in 2024) <sup>16</sup>.

<sup>16</sup> CA JU 2024 Consolidated Annual Activity Report, chapter 4.1.1.

## Clean Aviation Joint Undertaking (CA JU)

**3.3.18.** In 2024, the CA JU piloted a new reporting arrangement under which JUs must disclose an error rate for their Horizon Europe expenditure. For its Horizon Europe expenditure in 2024 (around 34 % of all 2024 payments), the CA JU estimated the error rate at 1.3 %. To do this, the CA JU applied guidance given by DG BUDG, in the annual activity report instructions, on the calculation of detected and residual error rates, financial exposure as an amount at risk, the materiality criteria for reservations and the impact on the executive director's declaration. For its estimate, the CA JU was using CAS data on its beneficiaries' most recent error rate.

### Follow-up of previous years' observations

**3.3.19.** An overview of the action taken by the CA JU in response to our observations in previous years is provided in the [Annex](#).

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2020	Significant number of interim staff.	The CA JU significantly reduced the number of interim staff from 12 at end 2023 to 7 at end 2024.	Closed
2	2022, 2023	Low implementation rate for operational payment appropriations relating to Horizon 2020.	The implementation rate for Horizon 2020 activities increased to 93 % at end 2024, allowing the CA JU to close its Horizon 2020 projects.	Closed
3	2022, 2023	Low implementation rate for the infrastructure and operating payments budget (Title 2).	The 2024 implementation rate for infrastructure and operating payments (Title 2) was 67 % (2023: 60 %).	Open
4	2023	Low implementation rate for the Horizon Europe payments budget.	The 2024 implementation rate for Horizon Europe payments was 52 % considering reallocation to the year 2025 (2023: 53 %).	Open
5	2023	Accumulation of cash surplus.	The CA JU significantly reduced its accumulated cash surplus from €237 million at end 2023 to €105 million at end 2024 (a fall of 56 %). The remaining surplus is needed to cover payments for the first four months of 2025.	Closed
6	2023	Business continuity plan (BCP) and disaster recovery plan (DRP) out of date.	An updated common BCP and DRP were approved in 2024. The testing of both plans is part of the 2025 common IT work programme.	Open

Clean Aviation Joint Undertaking (CA JU)

## CA replies

[https://www.eca.europa.eu/Lists/ECARepplies/CA-Replies-SAR-JUS-2024/CA-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/CA-Replies-SAR-JUS-2024/CA-Replies-SAR-JUS-2024_EN.pdf)



## 3.4. Innovative Health Initiative Joint Undertaking (IHI)

### Introduction

**3.4.1.** The [Innovative Health Initiative JU \(IHI\)](#), located in Brussels, was set up in November 2021 under the Horizon Europe programme for the period ending 31 December 2031<sup>17</sup>. IHI replaced the Innovative Medicines Initiative JU (IMI), which was set up in December 2007 under the Seventh Research Framework Programme (FP7) for a period of ten years<sup>18</sup> and extended in May 2014, as IMI 2, under Horizon 2020<sup>19</sup>.

**3.4.2.** IHI is a public-private partnership focusing on sustainable, interdisciplinary and patient-centric health research and innovation. Its members are the EU, represented by the Commission (DG RTD), and European industry associations.

**3.4.3.** [Figure 3.4.1](#) presents key figures for the JU.

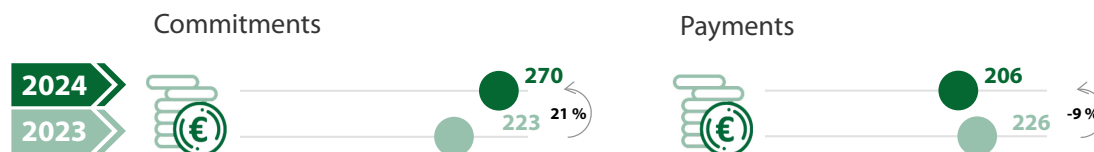
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<sup>17</sup> Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe.

<sup>18</sup> Council Regulation (EC) No 73/2008.

<sup>19</sup> Council Regulation (EU) No 557/2014.

## Innovative Health Initiative Joint Undertaking (IHI)

**Figure 3.4.1 – Key figures for IHI****Available budget (million euros)\*****Staff (employed as at 31 December)\*\***

\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* "Staff" includes temporary staff and contract staff.

Source: Data provided by the JU.

**3.4.4.** The increase in the commitments budget for 2024 reflects the fact that a significant volume of unused 2023 commitment appropriations was reallocated to the 2024 operational budget (see paragraphs [3.4.18](#) to [3.4.19](#)).

## Our statement of assurance to the European Parliament and the Council – Independent auditor's report

### Opinion

**3.4.5.** Our audit approach, the basis for our opinion, the responsibilities of the management of the Innovative Health Initiative Joint Undertaking (IHI) and of those charged with its governance, and the auditor's responsibilities for the audit of the accounts and underlying transactions, are all described in section [3.1](#). The signature on page [150](#) forms an integral part of the opinion.

**3.4.6.** We have audited:

- (a) the accounts of IHI, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and
- (b) the legality and regularity of the transactions underlying those accounts,

as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

## Reliability of the accounts

### Opinion on the reliability of the accounts

**3.4.7.** In our opinion, IHI's accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

## Legality and regularity of the transactions underlying the accounts

### Revenue

#### Opinion on the legality and regularity of revenue underlying the accounts

**3.4.8.** In our opinion, the revenue underlying IHI's accounts for the year ended 31 December 2024 is legal and regular in all material respects.

### Payments

#### Opinion on the legality and regularity of payments underlying the accounts

**3.4.9.** In our opinion, the payments underlying IHI's accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.4.10.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

IHI completed the FP7 programme in 2024, when members had reached 90 % of their contribution targets

**3.4.11.** [Table 3.4.1](#) presents an overview comparing the IHI members' contribution targets for FP7 with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

## Innovative Health Initiative Joint Undertaking (IHI)

**Table 3.4.1 – Members' contributions for FP7 (in € million)**

Members	Members' contributions (as per founding regulation)				Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Additional activities <sup>(1)</sup>	Total	Cash	In-kind validated	In-kind reported not validated	In-kind to additional activities	Total	Achievement %
EU (DG RTD)	966.0	34.0	N/A	1 000.0	938.4	N/A	N/A	N/A	938.4	94 %
Private members	966.0	34.0	N/A	1 000.0	21.9	836.5	0.2	N/A	858.6	86 %
Total	1 932.0	68.0	N/A	2 000.0	960.3	836.5	0.2	N/A	1 797.0	90 %

(1) Additional activities are outside the ECA's audit scope.

Source: ECA, based on data from the JU and its founding regulation.

**3.4.12.** In 2024, IHI completed the implementation of the FP7 programme. Overall, members provided 90 % of their contribution targets.

**Members reached 81 % of their contribution targets for Horizon 2020 by the end of 2024**

**3.4.13.** [Table 3.4.2](#) presents an overview comparing the IHI members' contribution targets for Horizon 2020 with their actual contributions (cash and in-kind) as reported at the end of 2024.

**Table 3.4.2 – Members' contributions for Horizon 2020 (in € million)**

Members	Members' contributions (as per founding regulation)				Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Additional activities <sup>(1)</sup>	Total	Cash	In-kind validated	In-kind reported not validated	In-kind to additional activities	Total	Achievement %
EU (DG RTD)	1 595.4	42.6	N/A	1 638.0	1 211.7	N/A	N/A	N/A	1 211.7	74 %
EFPIA and associated partners	1 595.4	42.6	N/A	1 638.0	41.1	1 241.5	145.5	N/A	1 428.1	87 %
Total	3 190.8	85.2	N/A	3 276.0	1 252.8	1 241.5	145.5	N/A	2 639.8	81 %

(1) Additional activities are outside the ECA's audit scope.

Source: ECA, based on data from the JU and its founding regulation.

**3.4.14.** By the end of 2024, the EU had made cash contributions totalling €1 211.7 million (74 % of target). At the same time, private members reported cash and in-kind contributions of around €1 428.1 million (87 % of target). The aggregate contribution rate was 81 % as of the end of 2024.

**3.4.15.** According to the annual accounts, as of the end of the year the EU had legally committed €1 452 million to co-finance Horizon 2020 projects (91 % of the operational activities target). In addition, private members had legally committed €1 510 million (95 % of the operational activities target) in form of in-kind contributions.

## Innovative Health Initiative Joint Undertaking (IHI)

### The slow start of the Horizon Europe programme affected actual contributions achievements

**3.4.16.** *Table 3.4.3* presents an overview comparing the IHI members' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.4.3 – Members' contributions for Horizon Europe (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind <sup>(1)</sup> validated	In-kind <sup>(1)</sup> reported not validated	Total	Achievement %
EU (DG RTD) <sup>(2)</sup>	1 169.8	30.2	1 200.0	155.6	11.4	N/A	N/A	167.0	14 %
Private members and contributing partners	1 169.8	30.2	1 200.0	4.1	N/A	7.0	51.9	63.0	5 %
Total	2 339.6	60.4	2 400.0	159.7	11.4	7.0	51.9	230.0	10 %

(1) Consists of in-kind contributions to operational activities (IKOP) and in-kind contributions to additional activities (IKAA).  
At the JU level, IKAA shall not exceed 40 % of total private members' in-kind contributions.

Source: ECA, based on data from the JU and its founding regulation.

**3.4.17.** By the end of 2024, the third year of Horizon Europe, the EU and private members together had achieved around 10 % of their total contribution target, reflecting the slow start made to programme implementation. According to the JU's annual accounts, the private members mainly provide contributions to IHI-funded projects. Since these projects result from competitive call evaluation procedures, we consider such contributions to be effective in achieving the JU's programme objectives.

**3.4.18.** As of the end of 2024, IHI had only used €168 million (65 %) of the €260 million available in 2024 commitment appropriations for Horizon Europe (2023: 93 %).

**3.4.19.** The JU explained that changes in the Horizon Europe rules, coupled with an increased number of single-stage calls, had meant that fewer high-quality proposals were submitted under the first three calls issued in 2022. As a result, a significant volume of unused 2023 commitment appropriations (some €72 million) was reallocated to the 2024 operational budget. In 2024, use of these reallocated appropriations was further delayed by the United Kingdom's association agreement to Horizon Europe of 2024, according to which the United Kingdom was ineligible for Horizon Europe funding for 2021 to 2023.

### Observations on the legality and regularity of transactions

**3.4.20.** We audited four Horizon 2020 and Horizon Europe transactions (randomly sampled from all interim/final payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of IHI's management and control systems on the legality and regularity of operational expenditure. We found one error with a financial impact, resulting partly from ineligible staff costs (due to the incorrect calculation of hourly rates and

## Innovative Health Initiative Joint Undertaking (IHI)

the improper inclusion of subcontracting costs) and partly from the use of incorrect exchange rates.

**3.4.21.** IHI carried out its own *ex post* audits of FP7 expenditure until the end of 2023. In 2024, it reported a final representative error rate for FP7 expenditure of 2.1 % and a residual error rate of 0.8 %. *Ex post* audits of Horizon 2020 and Horizon Europe are carried out by the Commission's Common Audit Service. Based on the results, the JU reported a representative error rate of 3.6 % and a residual error rate of 1.8 % for Horizon 2020 expenditure (which accounted for around 92 % of its total payments in 2024)<sup>20</sup>. No *ex post* audit results are yet available for Horizon Europe expenditure (around 8 % of all 2024 payments).

## Follow-up of previous years' observations

**3.4.22.** An overview of the action taken by IHI in response to our observations in previous years is provided in the [Annex](#).

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<sup>20</sup> IHI JU 2024 Consolidated Annual Activity Report, chapter 4.1.

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2023	Low implementation rates for the administrative infrastructure expenditure budget (Title 2).	At the end of 2024, the implementation rates for, respectively, commitment and payment appropriations from the infrastructure and operating expenditure budget (Title 2) increased to 91 % and 81 % (2023: 69 % and 67 %).	Closed
2	2023	Design weaknesses affecting the tender and evaluation stages of a procurement procedure.	In 2024 the JU used an interinstitutional framework contract for similar services and enhanced its internal controls.	Closed
3	2023	Business continuity plan (BCP) and disaster recovery plan (DRP) out of date.	An updated common BCP and DRP were approved in 2024. The testing of both plans is part of the 2025 common IT work programme.	Open

Innovative Health Initiative Joint Undertaking (IHI)

## IHI replies

[https://www.eca.europa.eu/Lists/ECARepplies/IHI-Replies-SAR-JUS-2024/IHI-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/IHI-Replies-SAR-JUS-2024/IHI-Replies-SAR-JUS-2024_EN.pdf)



## 3.5. Clean Hydrogen Joint Undertaking (Clean H2)

### Introduction

**3.5.1.** The [Clean Hydrogen JU](#) (Clean H2), located in Brussels, was set up in November 2021 under the Horizon Europe programme for the period ending 31 December 2031<sup>21</sup>. Clean H2 replaced the Joint Technology Initiative on Fuel Cells and Hydrogen (FCH 1), which was set up in May 2008 under the Seventh Research Framework Programme (FP7) for the period to 31 December 2017<sup>22</sup> and extended in May 2014, as FCH 2, under Horizon 2020<sup>23</sup>. For the period from 2023 to 2025, Clean H2 is set to receive €200 million from RePowerEU to increase the number of “hydrogen valleys” (integrated local ecosystems from production to final use) covered by Horizon Europe.

**3.5.2.** Clean H2 is a public-private partnership in the field of hydrogen and fuel-cell technology research and innovation. Its members are the EU, represented by the Commission (DG RTD), the industry association Hydrogen Europe, and the research association Hydrogen Europe Research.

**3.5.3.** [Figure 3.5.1](#) presents key figures for the JU.

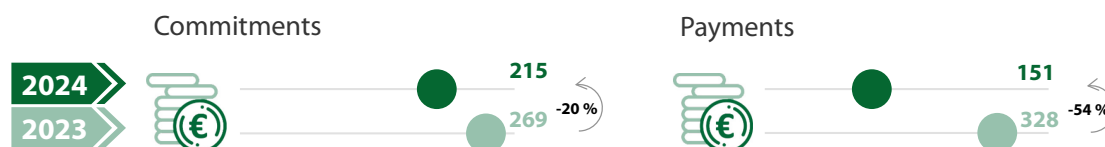
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<sup>21</sup> Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe.

<sup>22</sup> Council Regulation (EC) No 521/2008.

<sup>23</sup> Council Regulation (EU) No 559/2014.

## Clean Hydrogen Joint Undertaking (Clean H2)

**Figure 3.5.1 – Key figures for Clean H2****Available budget (million euros)\*****Staff (employed as at 31 December)\*\***

\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* “Staff” includes temporary staff, contract staff and seconded national experts.

Source: Data provided by the JU.

**3.5.4.** The reduced payments budget for 2024 (including €23 million in RePowerEU funding) reflects the fact that the JU launched only one Horizon Europe call for proposals in 2023 (compared with two calls in 2022). The reduced commitments budget is a result of the smaller volume of the 2024 call for proposals.

## Our statement of assurance to the European Parliament and the Council – Independent auditor’s report

### Opinion

**3.5.5.** Our audit approach, the basis for our opinion, the responsibilities of the management of the Clean Hydrogen Joint Undertaking (Clean H2) and of those charged with its governance, and the auditor’s responsibilities for the audit of the accounts and underlying transactions, are all described in section 3.1. The signature on page 150 forms an integral part of the opinion.

**3.5.6.** We have audited:

- (a) the accounts of Clean H2, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and
- (b) the legality and regularity of the transactions underlying those accounts,

## Clean Hydrogen Joint Undertaking (Clean H2)

as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

### Reliability of the accounts

#### Opinion on the reliability of the accounts

**3.5.7.** In our opinion, the Clean H2 accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

### Legality and regularity of the transactions underlying the accounts

#### Revenue

##### Opinion on the legality and regularity of revenue underlying the accounts

**3.5.8.** In our opinion, the revenue underlying the Clean H2 accounts for the year ended 31 December 2024 is legal and regular in all material respects.

#### Payments

##### Opinion on the legality and regularity of payments underlying the accounts

**3.5.9.** In our opinion, the payments underlying the Clean H2 accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.5.10.** The observations which follow do not call our opinion into question.

## Clean Hydrogen Joint Undertaking (Clean H2)

## Observations on budgetary management

### Private members' contributions exceeded the Horizon 2020 programme target mainly by means of additional activities

**3.5.11.** *Table 3.5.1* presents an overview comparing the Clean H2 members' contribution targets for Horizon 2020 with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.5.1 – Members' contributions for Horizon 2020 (in € million)**

Members	Members' contributions (as per founding regulation and legal decisions)				Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Additional activities <sup>(1)</sup>	Total	Cash	In-kind validated	In-kind reported not validated	In-kind to additional activities	Total	Achievement %
EU (DG RTD)	646.0	19.0	N/A	665.0	654.9	N/A	N/A	N/A	654.9	98 %
Private members	76.0	19.0	285.0	380.0	18.2	79.7	48.5	1 039.1	1 185.5	312 %
<b>Total</b>	<b>722.0</b>	<b>38.0</b>	<b>285.0</b>	<b>1 045.0</b>	<b>673.1</b>	<b>79.7</b>	<b>48.5</b>	<b>1 039.1</b>	<b>1 840.4</b>	<b>176 %</b>

(1) Additional activities are outside the ECA's audit scope.

*Source:* ECA, based on data from the JU and its founding regulation.

**3.5.12.** While the private members provided €1 185 million in cash and in-kind contributions, considerably more than the minimum target, €1 039.1 million (around 88 %) of that amount concerned additional activities not directly related to the CleanH2-funded projects. We note that for both IKAA and IKOP, the JU has to apply similar rules on their certification, reporting and validation. However, since additional activities are not bound by the same rules on evaluation and monitoring as the JU-funded activities resulting from calls, we consider that there may be a risk that they are less effective in terms of achieving the JU's programme objectives.

### Private members' contributions for Horizon Europe are already over target because of in-kind contributions related to additional activities

**3.5.13.** *Table 3.5.2* presents an overview comparing the Clean H2 members' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

## Clean Hydrogen Joint Undertaking (Clean H2)

**Table 3.5.2 – Members’ contributions for Horizon Europe, including RePowerEU (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind <sup>(1)</sup> validated	In-kind <sup>(1)</sup> reported not validated	Total	Achievement %
EU (DG RTD) <sup>(2)</sup>	1 184.8	30.2	1 215.0	369.1	60.5	N/A	N/A	429.6	35 %
Private members <sup>(2)</sup>	984.8	30.2	1 015.0	0.0	N/A	1 438.0	719.9	2 157.9	213 %
Total	2 169.6	60.4	2 230.0	369.1	60.5	1 438.0	719.9	2 587.5	116 %

(1) Consists of in-kind contributions to operational activities (IKOP) and in-kind contributions to additional activities (IKAA).

(2) Includes €200 million from RePowerEU of, United Kingdom contributions of €39 million and the mid-term Horizon Europe reduction of €24 million.

Source: ECA, based on data from the JU and its founding regulation.

**3.5.14.** By the end of 2024, the third year of Horizon Europe, the EU and private members together had already achieved around 116 % of their total contribution target. The private members’ cash and in-kind contributions of €2 157.9 million significantly exceeded the minimum target because – according to the JU’s annual accounts –almost all of that amount concerned additional activities not directly related to the CleanH2-funded projects.

### Weaknesses in budget planning and implementation for administrative expenditure

**3.5.15.** The implementation rates for commitment and payment appropriations in the JU’s 2024 staff expenditure budget (Title 1) were down, at 83 % and 73 % respectively (2023: 87 % and 86 %). The implementation rate for payment appropriations in the infrastructure and operating budget (Title 2) also fell, to 58 % (2023: 61 %). As a result, the volume of unused administrative payment appropriations to be reallocated to the next year’s administrative budget increased from €1.8 million to €3 million, approximately one third of the total planned administrative budget (Titles 1 and 2) for 2025.

**3.5.16.** Regarding the infrastructure and operating budget (Title 2), Clean H2 did not first use the payment appropriations that were carried over from the previous year, which is contrary to Article 6(5) of its [financial rules](#).

**3.5.17.** The 2024 annual accounts mainly attribute the increase in unused administrative payment appropriations to delays in recruitment (Title 1) and the late implementation of refurbishment and technical service contracts (Title 2). However, this only partially explains why the implementation shortfall was as much as €3 million, which may also be due to structural issues with the JU’s budget planning and/or implementation.

## Observations on the legality and regularity of transactions

**3.5.18.** We audited three Horizon 2020 and Horizon Europe transactions (randomly sampled from all interim/final payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of Clean H2's management and control systems on the legality and regularity of operational expenditure. We found one error with a financial impact resulting from ineligible staff costs (due to the improper inclusion of subcontracting costs) and ineligible equipment costs (due to the incorrect calculation of depreciation).

**3.5.19.** Based on the *ex post* audit results of the Commission's Common Audit Service, Clean H2 reported a representative error rate of 2.8 % and a residual error rate of 0.5 % for its Horizon 2020 expenditure (which accounted for around 53 % of its total payments in 2024)<sup>24</sup>. No *ex post* audit results are yet available for Horizon Europe expenditure (around 40 % of all 2024 payments).

## Observations on other issues

**3.5.20.** In 2024 we issued a special report<sup>25</sup> in which we recommended that the Commission reconsider the EU's approach to its industrial policy on hydrogen, taking account of changing circumstances. Clean H2 was part of the audit for that report. The Commission's Internal Audit Service (IAS) also carried out an audit to assess the design and implementation of the processes put in place by CleanH2 to identify, exploit, monitor and report on synergies in hydrogen research. Due to the increased number, size and complexity of EU and national hydrogen initiatives, the IAS recommended that CleanH2, under the guidance of its governing board, should establish formal processes and guidance to optimise the identification and exploitation of potential synergies in hydrogen research.

## Follow-up of previous years' observations

**3.5.21.** An overview of the action taken by Clean H2 in response to our observations in previous years is provided in the [Annex](#).

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<sup>24</sup> Clean H2 JU 2024 Consolidated Annual Activity Report, chapter 4.1.

<sup>25</sup> ECA Special Report 11/2024: 'The EU's industrial policy on renewable hydrogen – Legal framework has been mostly adopted – time for a reality check'.

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2022, 2023	Low implementation rate for the Horizon 2020 payments budget.	The implementation rate for the Horizon 2020 payments budget increased to 72 % in 2024 (2023: 69 %).	Closed
2	2022, 2023	Low implementation rates for the administrative commitments and infrastructure payments budgets (Title 2).	The situation persisted in 2024, and worsened still further in the case of administrative infrastructure payments (Title 2) and salary expenditure (Title 1) – see paragraphs <a href="#">3.5.15</a> and <a href="#">3.5.16</a> .	Open
3	2023	Business continuity plan (BCP) and disaster recovery plan (DRP) out of date.	An updated common BCP and DRP were approved in 2024. The testing of both plans is part of the 2025 common IT work programme.	Open
4	2023	No internal control policy for sensitive functions.	Clean H2 introduced an internal control policy for sensitive functions in 2024.	Closed

Clean Hydrogen Joint Undertaking (Clean H2)

## Clean H2 replies

[https://www.eca.europa.eu/Lists/ECARepplies/Clean\\_H2-Replies-SAR-JUS-2024/Clean\\_H2-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/Clean_H2-Replies-SAR-JUS-2024/Clean_H2-Replies-SAR-JUS-2024_EN.pdf)



## 3.6. Chips Joint Undertaking

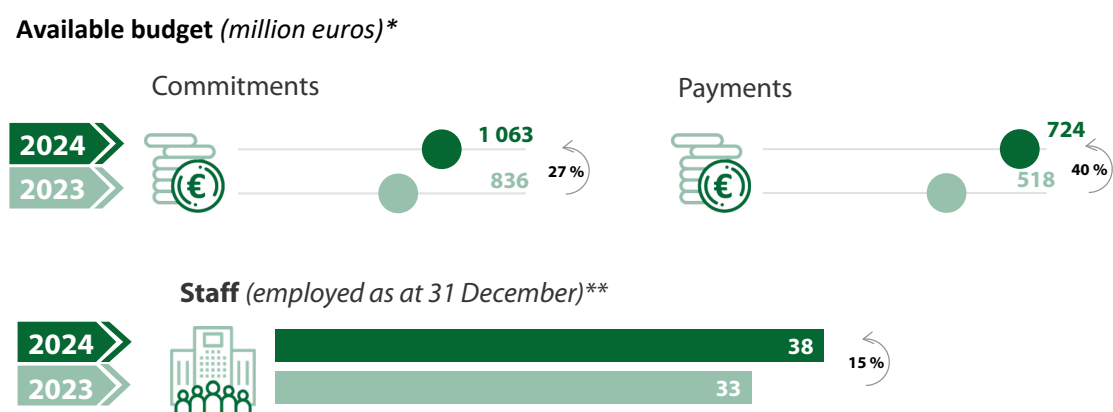
### Introduction

**3.6.1.** The [Chips JU](#), located in Brussels, was set up in September 2023 under the Horizon Europe and Digital Europe programmes for the period ending 31 December 2031, through an amendment to the Single Basic Act<sup>26</sup>. It replaced the Key Digital Technologies JU, which was set up in November 2021 under Horizon Europe<sup>27</sup>.

**3.6.2.** The Chips JU fosters the development of innovative next-generation semiconductor technologies and reinforces European chip-production capability under the [Chips for Europe Initiative](#). Its members are the EU, represented by the Commission (DG CNECT), [participating states](#) and three industrial associations.

**3.6.3.** [Figure 3.6.1](#) presents key figures for the JU.

**Figure 3.6.1 – Key figures for the Chips JU**



\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* “Staff” includes temporary staff and contract staff.

Source: Data provided by the JU.

**3.6.4.** The increase in the Chips JU’s 2024 budget for commitments and payments reflects 14 Horizon and Digital Europe calls for proposals which the JU issued in 2024 and the

<sup>26</sup> Council Regulation (EU) 2023/1782 amending Regulation (EU) 2021/2085 establishing the JUs under Horizon Europe, as regards the Chips Joint Undertaking.

<sup>27</sup> Council Regulation (EU) 2021/2085.

## Chips Joint Undertaking

significant level of unused payment appropriations for Horizon Europe projects, which the JU reallocated to the 2024 payments budget.

## Our statement of assurance to the European Parliament and the Council – Independent auditor’s report

### Opinion

**3.6.5.** Our audit approach, the basis for our opinion, the responsibilities of the management of the Chips Joint Undertaking and of those charged with its governance, and the auditor’s responsibilities for the audit of the accounts and underlying transactions, are all described in section [3.1](#). The signature on page [150](#) forms an integral part of the opinion.

**3.6.6.** We have audited:

- (a) the accounts of the Chips JU, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and
  - (b) the legality and regularity of the transactions underlying those accounts,
- as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

### Reliability of the accounts

#### Opinion on the reliability of the accounts

**3.6.7.** In our opinion, the Chips JU’s accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission’s accounting officer. These are based on internationally accepted accounting standards for the public sector.

## Chips Joint Undertaking

## Legality and regularity of the transactions underlying the accounts

### Revenue

#### Opinion on the legality and regularity of revenue underlying the accounts

**3.6.8.** In our opinion, the revenue underlying the Chips JU's accounts for the year ended 31 December 2024 is legal and regular in all material respects.

### Payments

#### Opinion on the legality and regularity of payments underlying the accounts

**3.6.9.** In our opinion, the payments underlying the Chips JU's accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.6.10.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

As Horizon 2020 enters its final stage, participating states will be unable to reach their contribution targets

**3.6.11.** [Table 3.6.1](#) presents an overview comparing the Chips JU members' contribution targets for Horizon 2020 with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.6.1 – Members' contributions for Horizon 2020 (in € million)**

Members	Members' contributions (as per founding regulation)				Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Additional activities <sup>(1)</sup>	Total	Cash	In-kind validated	In-kind estimated not validated	In-kind to additional activities	Total	Achievement %
EU (DG CNCT)	1 169.7	15.3	N/A	1 185.0	1 173.0	N/A	N/A	N/A	1 173.0	99 %
Private members	1 617.5	40.0	N/A	1 657.5	25.6	721.6	973.9	N/A	1 721.1	104 %
Participating states	1 170.0	N/A	N/A	1 170.0	N/A	739.8	171.1	N/A	910.9	78 %
<b>Total</b>	<b>3 957.2</b>	<b>55.3</b>	<b>N/A</b>	<b>4 012.5</b>	<b>1 198.6</b>	<b>1 461.4</b>	<b>1 145.0</b>	<b>N/A</b>	<b>3 805.0</b>	<b>95 %</b>

(1) Additional activities are outside the ECA's audit scope.

Source: ECA, based on data from the JU and its founding regulation.

## Chips Joint Undertaking

**3.6.12.** By the end of 2024, the EU and private members together had reached 95 % of their contribution target. The EU's cash contributions of €1 173 million were close to target (99 %). The private members' cash and in-kind contributions of €1 721.1 were even slightly above target. However, the JU still has to validate €973.9 million in in-kind contributions to operational activities reported by private members (57 % of the corresponding target). This is because the JU can only calculate and validate private members' in-kind contributions once all co-financing payments have been made by both the JU and the participating states and all end-of-project certificates have been received.

**3.6.13.** By the end of 2024, the participating states had achieved 78 % of their aggregate contribution target. However, according to the JU's latest decision on the amount of national funding for grant agreements under Horizon 2020, the participating states have only committed to a maximum amount of €981.9 million. By the end of the programme, therefore, they will have delivered only 84 % of the original target of €1 170 million.

### The slow start to Digital Europe has delayed the achievement of contribution targets

**3.6.14.** In 2024, the implementation rate for Digital Europe payments was still very low, at 6 %. The JU explained that this was due to delays in signing hosting and joint procurement agreements, which meant that contracting for the purchase of assets and the execution of payments was postponed to 2025.

**3.6.15.** [Table 3.6.2](#) presents an overview comparing the Chips JU members' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as validated and reported in the JU's annual accounts at the end of 2024.

**Table 3.6.2 – Members' contributions for Horizon Europe and Digital Europe (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind <sup>(2)</sup> validated	In-kind <sup>(2)</sup> estimated not validated	Total	Achievement %
EU (DG CNCT) <sup>(1)</sup>	4 192.7	62.3	4 255.0	729.3	325.4	N/A	N/A	1 054.7	25 %
Private members	2 511.1	26.3	2 537.4	3.6	N/A	0.0	312.0	315.6	12 %
Participating states	4 101.2	N/A	4 101.2	N/A	N/A	104.4	684.5	788.9	19 %
Total	10 805.0	88.6	10 893.6	732.9	325.4	104.4	996.5	2 159.2	20 %

(1) Includes (a) up to €2 720 million from Horizon Europe minus €65 million mid-term reduction plus €145 million United Kingdom contribution; (b) up to €1 450 million from Digital Europe.

(2) Consists of in-kind contributions to operational activities (IKOP) only.

Source: ECA, based on data from the JU and its founding regulation.

## Chips Joint Undertaking

**3.6.16.** By the end of 2024, the third year of Horizon Europe and the first year of the implementation of the Digital Europe, the EU, private members and participating states had only achieved around 20 % of their aggregate contribution target, owing in particular to the slow pace of implementation of Digital Europe activities (see paragraph [3.6.14](#)).

### Observations on the legality and regularity of transactions

**3.6.17.** We audited four Horizon 2020, Horizon Europe and Digital Europe transactions (randomly sampled from all interim/final payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of the Chips JU's management and control systems on the legality and regularity of operational expenditure. We found one error with a financial impact resulting from ineligible staff costs due to the incorrect calculation of hourly rates.

**3.6.18.** Based on the *ex post* audit results of the Commission's Common Audit Service, the JU reported a representative error rate of 2.2 % and a residual error rate of 0.9 % for Horizon 2020 expenditure (which accounted for around 48 % of its total payments in 2024)<sup>28</sup>. No *ex post* audit results are yet available for Horizon Europe and Digital Europe expenditure (also around 48 % of all 2024 payments).

### Observations on other issues

**3.6.19.** In the first quarter of 2025 we issued a special report<sup>29</sup> in which we recommended that the Commission carry out an urgent 'reality check' on the current microchip strategy and swiftly start preparing the next semiconductor strategy. The Chips JU, which was set up to advance Europe's design capacity for integrated semiconductor technologies, should assist the Commission, where appropriate, in implementing this recommendation.

### Follow-up of previous years' observations

**3.6.20.** An overview of the action taken by the Chips JU in response to our observations in previous years is provided in the [Annex](#).

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<sup>28</sup> Chips JU 2024 Consolidated Annual Activity Report, chapter 4.1.1.

<sup>29</sup> Special report 12/2025: 'The EU's strategy for microchips – Reasonable progress in its implementation but the Chips Act is very unlikely to be sufficient to reach the overly ambitious Digital Decade target'.

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2022, 2023	Low implementation rates for operational payment appropriations.	The situation persisted in 2024 (see paragraph <a href="#">3.6.14</a> ).	Open
2	2023	Accumulation of cash surplus.	The JU's cash surplus increased from €438 million at the end of 2023 to €479 million one year later.	Open
3	2023	Design weaknesses affecting the tender and financial evaluation stages of a procurement procedure.	In 2024 the JU updated its tender documentation, strengthened its procurement team and started to use the Commission's common public procurement management tool.	Closed
4	2023	Business continuity plan (BCP) and disaster recovery plan (DRP) out of date.	An updated common BCP and DRP were approved in 2024. The testing of both plans is part of the 2025 common IT work programme.	Open
5	2023	No internal control policy for sensitive functions.	The JU adopted a policy on the management of sensitive functions in June 2024.	Closed
6	2023	No monitoring of the occupational activity of former senior staff.	The JU has not yet started the monitoring of the post-employment activities of senior staff.	Open

Chips Joint Undertaking

## Chips JU replies

[https://www.eca.europa.eu/Lists/ECARepplies/Chips-Replies-SAR-JUS-2024/Chips-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/Chips-Replies-SAR-JUS-2024/Chips-Replies-SAR-JUS-2024_EN.pdf)

## 3.7. Circular Bio-based Europe Joint Undertaking (CBE)

### Introduction

**3.7.1.** The [Circular Bio-based Europe JU \(CBE\)](#), located in Brussels, was set up in November 2021 under the Horizon Europe programme for the period ending 31 December 2031<sup>30</sup>. It replaced the Bio-based Industries JU, which was set up in May 2014 under Horizon 2020<sup>31</sup>.

**3.7.2.** The CBE is a public-private partnership focusing on research and innovation for a sustainable and competitive circular bio-based industries sector. Its members are the EU, represented by the Commission (DG RTD, DG AGRI and DG GROW) and industrial partners represented by the Bio-based Industries Consortium.

**3.7.3.** [Figure 3.7.1](#) presents key figures for the JU.

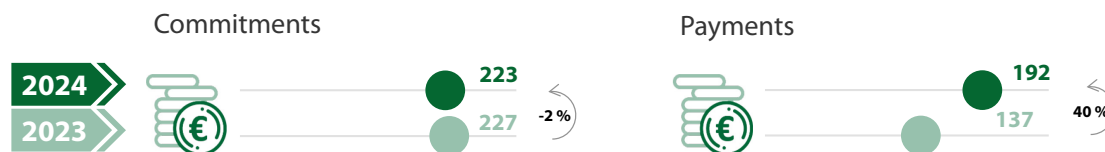
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<sup>30</sup> [Council Regulation \(EU\) 2021/2085](#) establishing the Joint Undertakings under Horizon Europe.

<sup>31</sup> [Council Regulation \(EU\) No 560/2014](#).



## Circular Bio-based Europe Joint Undertaking (CBE)

**Figure 3.7.1 – Key figures for the CBE****Available budget (million euros)\*****Staff (employed as at 31 December)\*\***

\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* "Staff" includes temporary staff and contract staff.

Source: Data provided by the JU.

**3.7.4.** The increase in the payments budget for 2024 reflects the pre-financing of projects awarded grants under the 2023 Horizon Europe call for proposals.

## Our statement of assurance to the European Parliament and the Council – Independent auditor's report

### Opinion

**3.7.5.** Our audit approach, the basis for our opinion, the responsibilities of the management of the Circular Bio-based Europe Joint Undertaking (CBE) and of those charged with its governance, and the auditor's responsibilities for the audit of the accounts and underlying transactions, are all described in section 3.1. The signature on page 150 forms an integral part of the opinion.

**3.7.6.** We have audited:

- (a) the accounts of the CBE, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and

- (b) the legality and regularity of the transactions underlying those accounts,

as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

## Reliability of the accounts

### Opinion on the reliability of the accounts

**3.7.7.** In our opinion, the CBE's accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

## Legality and regularity of the transactions underlying the accounts

### Revenue

#### Opinion on the legality and regularity of revenue underlying the accounts

**3.7.8.** In our opinion, the revenue underlying the CBE's accounts for the year ended 31 December 2024 is legal and regular in all material respects.

### Payments

#### Opinion on the legality and regularity of payments underlying the accounts

**3.7.9.** In our opinion, the payments underlying the CBE's accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.7.10.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

### For Horizon 2020, private members significantly relied on their contributions to additional activities

**3.7.11.** [Table 3.7.1](#) presents an overview comparing the CBE members' contribution targets for Horizon 2020 with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

## Circular Bio-based Europe Joint Undertaking (CBE)

**Table 3.7.1 – Members' contributions for Horizon 2020 (in € million)**

Members	Members' contributions (as per founding regulation and legal decisions)				Members' contributions (as at 31.12.2024)					
	Operational activities <sup>(1)</sup>	Administrative costs	Additional activities <sup>(2)</sup>	Total	Cash	In-kind validated	In-kind estimated not validated	In-kind to additional activities	Total	Achievement %
EU (DG RTD)	816.1	18.9	N/A	835.0	783.5	N/A	N/A	N/A	783.5	94 %
Private members	266.6	18.9	2 444.5	2 730.0	22.0	104.2	44.2	2 353.6	2 524.0	92 %
Total	1 082.7	37.8	2 444.5	3 565.0	805.5	104.2	44.2	2 353.6	3 307.5	93 %

(1) EU and private members' cash contribution targets reduced by €140 million. Private members' in-kind contribution targets as set in the JU's annual work programme.

(2) Additional activities are outside the ECA's audit scope. The minimum target of €1 755 million for private members was increased to €2 444.5 million so they could achieve their minimum total contribution obligation of €2 730 million.

Source: ECA, based on data from the JU and its founding regulation.

**3.7.12.** By the end of 2024, the EU and private members had made cash and in-kind contributions of €3 307.5 million (around 93 % of their total aggregate target). However, €2 353.6 million (92 %) of the cash and in-kind contributions reported by private members relate to additional activities not directly linked to the CBE-funded projects. In addition, the amount of validated private members' in-kind contributions for operational activities stagnated at the previous year's low level of €104.2 million (40 % of target).

### The slow start to Horizon Europe has delayed the achievement of contribution targets

**3.7.13.** [Table 3.7.2](#) presents an overview comparing the CBE members' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.7.2 – Members' contributions for Horizon Europe (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind <sup>(1)</sup> validated	In-kind <sup>(1)</sup> reported not validated	Total	Achievement %
EU (DG RTD) <sup>(2)</sup>	1 002.5	23.5	1 026.0	214.8	31.9	N/A	0.0	246.7	24 %
Private members <sup>(2)</sup>	1 002.5	23.5	1 026.0	3.4	N/A		120.7	124.1	12 %
Total	2 005.0	47.0	2 052.0	218.2	31.9	0.0	120.7	370.8	18 %

(1) Consists of in-kind contributions to operational activities (IKOP) and in-kind contributions to additional activities (IKAA).

(2) Includes United Kingdom contributions of €50 million and the mid-term Horizon Europe reduction of €24 million.

Source: ECA, based on data from the JU and its founding regulation.

**3.7.14.** By the end of 2024, the third year of the programme, the EU and private members had only achieved around 18 % of their aggregate contribution target, reflecting the slow start made to implementation. Moreover, as with Horizon 2020, the JU is heavily dependent on in-kind contributions to additional activities not directly related to the CBE-funded projects, which – according to the JU's annual accounts – represent €108.8 million (88 %) of private member contributions.

## Observations on the legality and regularity of transactions

**3.7.15.** We audited two Horizon 2020 and Horizon Europe transactions (randomly sampled from all interim/final payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of the JU's management and control systems on the legality and regularity of operational expenditure. We found one error with a financial impact resulting from ineligible staff costs (due to the incorrect calculation of hourly rates and the inclusion of ineligible hours and depreciation costs).

**3.7.16.** Based on the *ex post* audit results of the Commission's Common Audit Service, the CBE reported a representative error rate of 1.8 % and a residual error rate of 1.3 % for its Horizon 2020 expenditure (which accounted for around 94 % of its total payments in 2024)<sup>32</sup>. By the end of 2024, the JU had not yet made any interim payments nor cleared advances for Horizon Europe projects.

## Follow-up of previous years' observations

**3.7.17.** An overview of the action taken by the CBE in response to our observations in previous years is provided in the [Annex](#).

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<sup>32</sup> CBE JU 2024 Consolidated Annual Activity Report, chapter 4.1.2.

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2021, 2022, 2023	Upward revision of the Horizon 2020 target regarding private members' in-kind contributions to additional activities to compensate for the reduction in their indicative target for in-kind contributions to the JU's operational activities.	By the end of 2024, private members had achieved 93 % of their aggregate cash and in-kind contributions target. However, around 86 % of this amount related to additional activities outside the JU's research programme (see paragraph <a href="#">3.7.12</a> ).	Open
2	2022, 2023	Low implementation rate for the staff expenditure payments budget (Title 1).	The implementation rate for the 2024 staff expenditure payments budget (Title 1) was 94 % (2023: 57 %).	Closed
3	2023	Business continuity plan (BCP) and disaster recovery plan (DRP) out of date.	An updated common BCP and DRP were approved in December 2024. The testing of both plans is part of the 2025 common IT work programme.	Open

Circular Bio-based Europe Joint Undertaking (CBE)

## CBE replies

[https://www.eca.europa.eu/Lists/ECARepplies/CBE-Replies-SAR-JUS-2024/CBE-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/CBE-Replies-SAR-JUS-2024/CBE-Replies-SAR-JUS-2024_EN.pdf)

## 3.8. Europe's Rail Joint Undertaking (EU-Rail)

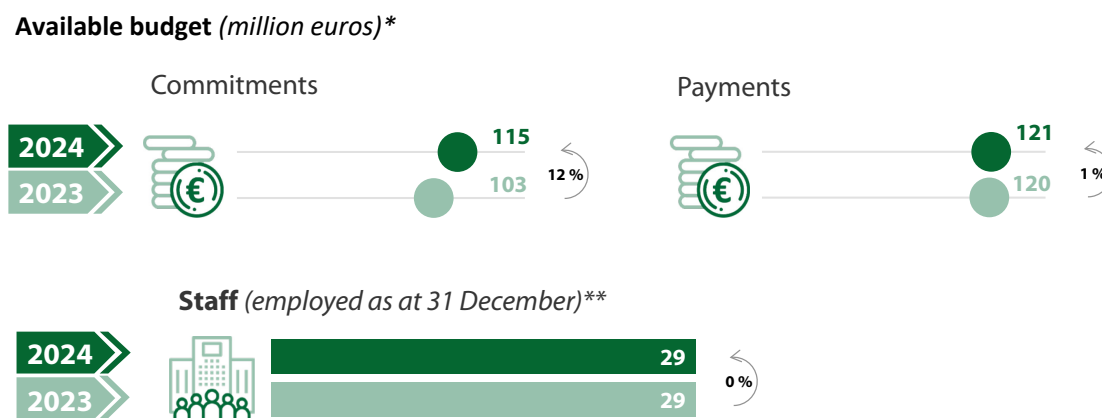
### Introduction

**3.8.1.** The [Europe's Rail JU](#) (EU-Rail), located in Brussels, was set up in November 2021 under the Horizon Europe programme for the period ending 31 December 2031<sup>33</sup>. It replaced the Shift2Rail JU (S2R), which was set up in June 2014 under Horizon 2020<sup>34</sup>.

**3.8.2.** EU-Rail is a public-private partnership for research and innovation in the railway sector. Its members are the EU, represented by the Commission (DG MOVE and DG RTD), and rail industry partners (comprising rail equipment manufacturers, railway companies, infrastructure managers and research centres).

**3.8.3.** [Figure 3.8.1](#) presents key figures for the JU.

**Figure 3.8.1 – Key figures for EU-Rail**



\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* "Staff" includes temporary staff, contract staff and seconded national experts.

Source: Data provided by the JU.

<sup>33</sup> Council Regulation (EU) 2021/2085 establishing the Joint Undertakings under Horizon Europe.

<sup>34</sup> Council Regulation (EU) No 642/2014.

## Our statement of assurance to the European Parliament and the Council – Independent auditor's report

### Opinion

**3.8.4.** Our audit approach, the basis for our opinion, the responsibilities of the management of the Europe's Rail Joint Undertaking (EU-Rail) and of those charged with its governance, and the auditor's responsibilities for the audit of the accounts and underlying transactions, are all described in section [3.1](#). The signature on page [150](#) forms an integral part of the opinion.

**3.8.5.** We have audited:

(a) the accounts of EU-Rail, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and

(b) the legality and regularity of the transactions underlying those accounts,

as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

### Reliability of the accounts

#### Opinion on the reliability of the accounts

**3.8.6.** In our opinion, the EU-Rail accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.



## Europe's Rail Joint Undertaking (EU-Rail)

## Legality and regularity of the transactions underlying the accounts

### Revenue

#### Opinion on the legality and regularity of revenue underlying the accounts

**3.8.7.** In our opinion, the revenue underlying the EU Rail accounts for the year ended 31 December 2024 is legal and regular in all material respects.

### Payments

#### Opinion on the legality and regularity of payments underlying the accounts

**3.8.8.** In our opinion, the payments underlying the EU Rail accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.8.9.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

### EU-Rail closed Horizon 2020 funding in 2024, and all members reached or exceeded their contribution targets

**3.8.10.** [Table 3.8.1](#) presents an overview comparing the EU-Rail members' contribution targets for Horizon 2020 with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.8.1 – Members' contributions for Horizon 2020 (in € million)**

Members	Members' contributions (as per founding regulation)				Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Additional activities <sup>(1)</sup>	Total	Cash	In-kind validated	In-kind reported not validated	In-kind to additional activities	Total	Achievement %
EU (DG Move)	384.5	13.5	0.0	398.0	398.0	0.0	0.0	0.0	398.0	100 %
Private members	336.5	13.5	120.0	470.0	13.5	362.1	0.0	267.6	643.2	137 %
Total	721.0	27.0	120.0	868.0	411.5	362.1	0.0	267.6	1 041.2	120 %

(1) Additional activities are outside the ECA's audit scope.

Source: ECA, based on data from the JU and its founding regulation.

## Europe's Rail Joint Undertaking (EU-Rail)

**3.8.11.** At the end of 2024, the year of programme closure, private members' contributions were significantly over target. Taken together, all members contributed 20 % above the aggregate target set in the funding regulation.

## EU-Rail is advanced with the implementation of Horizon Europe and members' contributions

**3.8.12.** *Table 3.8.2* presents an overview comparing the EU-Rail members' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.8.2 – Members' contributions for Horizon Europe (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind <sup>(1)</sup> validated	In-kind <sup>(1)</sup> reported not validated	Total	Achievement %
EU (DG RTD) <sup>(2)</sup>	591.0	24.0	615.0	215.7	45.2	N/A	N/A	260.9	42 %
Private members <sup>(2)</sup>	591.0	24.0	615.0	8.4	N/A	163.1	95.3	266.8	43 %
Total	1 182.0	48.0	1 230.0	224.1	45.2	163.1	95.3	527.7	43 %

(1) Consists of in-kind contributions to operational activities (IKOP) and in-kind contributions to additional activities (IKAA).

(2) Includes United Kingdom contributions of €29 million and the mid-term Horizon Europe reduction of €14 million.

Source: ECA, based on data from the JU and its founding regulation.

**3.8.13.** By the end of 2024, the third year of the programme, the EU and private members had already achieved around 43 % of their aggregate contribution target. The EU had made total cash contributions of €260.9 million (42 % of target). Private members reported cash and in-kind contributions of around €266.8 million (43 %). Of this amount, according to the JU's annual accounts, €166.8 million (63 %) related to additional activities outside the EU-Rail research programme.

## Observations on the legality and regularity of transactions

**3.8.14.** We audited two Horizon 2020 and Horizon Europe transactions (randomly sampled from all interim/final payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of the JU's management and control systems on the legality and regularity of operational expenditure. Both transactions were free of error.

**3.8.15.** Based on the *ex post* audit results of the Commission's Common Audit Service, EU-Rail reported a representative error rate of 1.9 % and a residual error rate of 0.7 % for its

## Europe's Rail Joint Undertaking (EU-Rail)

Horizon 2020 expenditure (which accounted for around 92 % of its total payments in 2024)<sup>35</sup>. No *ex post* review results are yet available for Horizon Europe expenditure (around 3 % of all 2024 payments), where EU-Rail exclusively uses lump-sum grants. Our audit of lump-sum payments made in recent years did not reveal any errors.

### Follow-up of previous years' observations

**3.8.16.** An overview of the action taken by EU-Rail in response to our observations in previous years is provided in the [Annex](#).

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<sup>35</sup> EU-Rail JU's 2024 Consolidated Annual Activity Report, chapter 4.

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2021, 2022, 2023	Low implementation rate for operational payment appropriations for Horizon 2020.	At the end of 2024, the implementation rate for Horizon 2020 stood at 88 % (2023: 67 %), allowing EU-Rail to close its Horizon 2020 projects.	Closed
2	2023	Business continuity plan (BCP) and disaster recovery plan (DRP) out of date.	An updated common BCP and DRP were approved in December 2024. The testing of both plans is part of the 2025 common IT work programme.	Open

Europe's Rail Joint Undertaking (EU-Rail)

## EU-Rail replies

[https://www.eca.europa.eu/Lists/ECARepplies/EU-Rail-Replies-SAR-JUS-2024/EU-Rail-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/EU-Rail-Replies-SAR-JUS-2024/EU-Rail-Replies-SAR-JUS-2024_EN.pdf)

## 3.9. European High Performance Computing Joint Undertaking (EuroHPC)

### Introduction

**3.9.1.** The [European High Performance Computing JU](#) (EuroHPC), located in Luxembourg, was set up in October 2018 for the period ending 31 December 2026<sup>36</sup>. In July 2021, the Council adopted a new founding regulation, extending the JU's lifetime and expanding its remit under the 2021-2027 MFF programmes, for the period ending 31 December 2033<sup>37</sup>. In 2024, acting on a Commission proposal, the Council amended the JU's founding regulation, introducing a further objective covering the development of factories to boost European leadership in the area of artificial intelligence<sup>38</sup>.

**3.9.2.** EuroHPC is a public-private partnership that enables the pooling of resources for the development and deployment of high-performance computing in Europe. Its members are the EU, represented by the Commission (DG CNECT), [participating states](#) and three private members: the European Technology Platform for High Performance Computing, the Big Data Value Association and the European Quantum Industry Consortium.

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<sup>36</sup> [Council Regulation \(EU\) 2018/1488](#) establishing the European High Performance Computing JU.

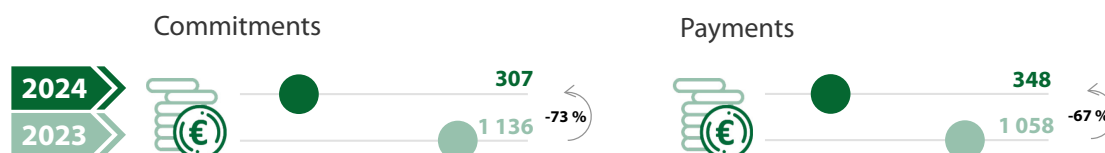
<sup>37</sup> [Council Regulation \(EU\) 2021/1173](#) establishing the European High Performance Computing JU and repealing Regulation (EU) 2018/1488.

<sup>38</sup> [Council Regulation \(EU\) 2024/1732](#), amending Regulation (EU) 2021/1173 as regards an EuroHPC initiative for start-ups to boost European leadership in trustworthy Artificial Intelligence.

### 3.9.3. Figure 3.9.1 presents key figures for the JU.

**Figure 3.9.1 – Key figures for EuroHPC**

**Available budget (million euros)\***



**Staff (employed as at 31 December)\*\***



\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* “Staff” includes temporary staff and contract staff.

Source: Data provided by the JU.

**3.9.4.** The significantly reduced 2024 budget for commitments and payments reflects the work done on preparing for new AI investment projects. In September 2024, the JU launched two major calls for expressions of interest in the establishment of AI factories. To finance these projects it was obliged to postpone or cancel investment projects that were already planned and budgeted under Digital Europe and the Connecting Europe Facility (CEF).

## Our statement of assurance to the European Parliament and the Council – Independent auditor’s report

### Opinion

**3.9.5.** Our audit approach, the basis for our opinion, the responsibilities of the management of the European High Performance Computing Joint Undertaking (EuroHPC) and of those charged with its governance, and the auditor’s responsibilities for the audit of the accounts and underlying transactions, are all described in section 3.1. The signature on page 150 forms an integral part of the opinion.

**3.9.6.** We have audited:

- (a) the EuroHPC accounts, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and
- (b) the legality and regularity of the transactions underlying those accounts,

as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

**Reliability of the accounts****Opinion on the reliability of the accounts**

**3.9.7.** In our opinion, the EuroHPC accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

**Emphasis of matter**

**3.9.8.** We draw attention to Note 4.2 to EuroHPC's 2024 annual accounts, which describes a preliminary impact assessment by the JU and the related uncertainty around advances paid to a supplier, also given recent public disclosures regarding the supplier's financial situation. Having analysed the total value of its contractual relations with the supplier, focusing on the advances paid for contracts and grant agreements, EuroHPC estimates the potential impact at as much as €88.4 million. Our opinion is not modified in respect of this matter.

**Legality and regularity of the transactions underlying the accounts****Revenue****Opinion on the legality and regularity of revenue underlying the accounts**

**3.9.9.** In our opinion, the revenue underlying the EuroHPC accounts for the year ended 31 December 2024 is legal and regular in all material respects.



## Payments

### Opinion on the legality and regularity of payments underlying the accounts

**3.9.10.** In our opinion, the payments underlying the EuroHPC accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.9.11.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

**In 2024, the implementation rate for EuroHPC's budget for Horizon 2020 grant payments declined still further**

**3.9.12.** In 2024, the implementation rate for the Horizon 2020 grant payments budget fell to 27 % (2023: 36 %). The JU explained that this was due to delays in processing the *ex ante* control of technical and financial reports submitted by beneficiaries in 2024 for the purposes of JU co-financing. Payments in connection with the unprocessed reports were postponed to 2025.

**Unlike the EU and participating states, private members will not achieve their contribution target for Horizon 2020**

**3.9.13.** [Table 3.9.1](#) presents an overview comparing the EuroHPC members' contribution targets for Horizon 2020 and CEF1 with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.9.1 – Members' contributions for Horizon 2020 and CEF1  
(in € million)**

Members	Members' contributions (as per founding regulation)				Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Additional activities <sup>(2)</sup>	Total	Cash	In-kind validated	In-kind reported not validated	In-kind to additional activities	Total	Achievement %
EU (DG CNECT) <sup>(1)</sup>	526.0	10.0	N/A	536.0	477.4	N/A	N/A	N/A	477.4	89 %
Participating states <sup>(3) (4)</sup>	476.0	0.0	N/A	476.0	179.6	0.0	51.9	N/A	231.5	49 %
Private members <sup>(3)</sup>	420.0	0.0	N/A	420.0	0.0	0.0	20.0	N/A	20.0	5 %
Total	1 422.0	10.0	N/A	1 432.0	657.0	0.0	71.9	N/A	728.9	51 %

(1) Includes €100 million from CEF1.

(2) Additional activities are outside the ECA's audit scope.

(3) The new founding regulation repealed the obligation for participating states and private members to contribute to administrative costs.

(4) Participating states' cash contributions paid directly to contractors/beneficiaries are not included.

Source: ECA, based on data from the JU and its founding regulation.

## European High Performance Computing Joint Undertaking (EuroHPC)

**3.9.14.** By the end of 2024, the EU had made total cash contributions of €477.4 million (89 % of target). The participating states had made financial contributions of €179.6 million for supercomputers procured by the JU and reported an additional €51.9 million in in-kind contributions to the hosting entities' operating costs (49 % of target). The main reason for the participating states' lower contribution rate is that they only recognise their costs and report them to the JU when the corresponding Horizon 2020 and CEF1 projects they support with national funds have been completed.

**3.9.15.** While the legal commitments made by both the EU and participating states are in line with their Horizon 2020 contribution targets, the achievement of private members' contributions is low. Their in-kind contributions to operational activities (€20 million) are still significantly below the minimum target of €420 million agreed for private members in the JU's founding regulation. As we have observed in earlier reports (for example the [2023 annual report on EU joint undertakings](#), paragraph 3.9.16), this situation results from the EuroHPC's arrangements<sup>39</sup> for financing its activities. Under these arrangements, private members can only provide in-kind contributions to innovation grants (which account for around 30 % of the JU's total grant activities). We consider that this limits the JU's capacity to fulfil its mission of strong cooperation with the private sector and does not enable the JU to quantify the private sector's contributions to the JU's Horizon 2020 objectives.

### The new AI pillar slowed down implementation of the 2024 Digital Europe budget and member contributions

**3.9.16.** Given the high strategic importance of the new AI pillar for EuroHPC and its participating states, the JU redeployed available resources towards the crucial first calls for expression of interest in the establishment of AI factories. In December 2024, it selected seven AI hosting entities and awarded co-funding to their investment projects (around €653 million from Digital Europe and €112 million from Horizon Europe). This meant that several other planned investment activities were either cancelled or postponed to the 2025-2027 period, delaying implementation of EuroHPC's Digital Europe infrastructure activities in 2024.

**3.9.17.** This explains why, in 2024, implementation rates remained very low for both commitments and payments for Digital Europe investment activities, at 22 % and 19 % respectively (2023: 89 % and 18 %).

**3.9.18.** [Table 3.9.2](#) presents an overview comparing the EuroHPC members' contribution targets for research programmes under the 2021-2027 MFF with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

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<sup>39</sup> See article 15(3)(f) of the Statutes annexed to the Council Regulation (EU) 2018/1488.

## European High Performance Computing Joint Undertaking (EuroHPC)

**Table 3.9.2 – Members' contributions for Horizon Europe, Digital Europe and CEF2 (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind <sup>(3)</sup> validated	In-kind <sup>(3)</sup> reported not validated	Total	Achievement %
EU (DG CNCT) <sup>(1)</sup>	3 059.3	92.0	3 151.3	190.3	724.9	N/A	N/A	915.2	29 %
Participating states <sup>(2)</sup>	2 989.3	0.0	2 989.3	36.6	103.2	0.0	0.0	139.8	5 %
Private members	900.0	0.0	900.0	0.0	N/A	0.0	2.8	2.8	0 %
<b>Total</b>	<b>6 948.6</b>	<b>92.0</b>	<b>7 040.6</b>	<b>226.9</b>	<b>828.0</b>	<b>0.0</b>	<b>2.8</b>	<b>1 057.8</b>	<b>15 %</b>

(1) Includes of (a) up to €900 million from the Horizon Europe minus €21 million mid-term reduction plus €91 million United Kingdom contribution; (b) up to €1 981.3 million from Digital Europe; (c) up to €200 million from CEF2.

(2) Participating states' cash contributions paid directly to contractors/beneficiaries are not included.

(3) Consists of participating states' in-kind contributions to hosting entities' operational costs and private members' in-kind contributions to the JU's operational activities.

Source: ECA, based on data from the JU and its founding regulation.

**3.9.19.** By the end of 2024, the third year of Horizon Europe and Digital Europe, the EU and participating states had only achieved around 17 % of their total contribution target (29 % and 5 % respectively). This reflects among others, the redeployment of resources, mainly from Digital Europe investment activities, to activities under the new AI pillar (see paragraph 3.9.16).

**3.9.20.** While private members' contribution targets were more than twice as high as in the previous MFF (up from €420 million to €900 million), only €2.8 million in in-kind contributions were achieved in 2024. This situation resulted from the same structural reasons as described in connection with Horizon 2020 (see paragraph 3.9.15). Also under the 2021-2027 programmes, private members are excluded from participating in Digital Europe funded investment projects such as the purchase or upgrading of supercomputers and the establishment of AI factories (some 70 % of the JU's activities), and are limited to innovation grant projects, which represent only 3 % of the remaining 30 % targeting the JU's Horizon Europe grant activities. This significantly reduces their possibility to generate in-kind contributions.

**3.9.21.** As we observed in [last year's annual report on EU joint undertakings](#) (paragraph 3.9.19), as long as EuroHPC's financing arrangements<sup>40</sup> and/or contribution target for private members remain unchanged, it will not achieve the significantly higher private members' contribution target under the 2021-2027 MFF. This threatens the achievement of its overall programme objectives to have a strong cooperation with the private partners.

<sup>40</sup> See Article 15(3)(g) of the Statutes annexed to the Council Regulation (EU) 2021/1173 together with Article 7(1) and 11(2) of the same regulation.

## Observations on the legality and regularity of transactions

**3.9.22.** We audited five Horizon 2020, Horizon Europe transactions (randomly sampled from all final/interim payments and clearings the JU made in 2024) at the level of the final beneficiaries to assess the effectiveness of the JU's management and control systems on the legality and regularity of operational expenditure. We found weaknesses in the control and supervision of the time records of staff working for one project concerned by our sample. In another case, we found an error with a financial impact resulting from ineligible staff costs due to an incorrect method for calculating daily rates.

**3.9.23.** Based on the *ex post* audit results of the Commission's Common Audit Service, the JU reported a representative error rate of 0.84 % and a residual error rate of 0 % for its Horizon 2020 expenditure (which accounted for around 80 % of its total payments in 2024)<sup>41</sup>. No *ex post* audit results are yet available for Horizon Europe and Digital Europe expenditure (around 17 % of all 2024 payments).

## Observations on other issues

### EuroHPC had not met its recruitment targets by the end of 2024

**3.9.24.** In 2021, the Commission granted EuroHPC 39 additional staff positions towards the full complement of 54 staff that it needed to implement around €7 billion in funds under the 2021-2027 MFF. Thirty of the new posts were to be filled by the end of 2022, the remaining nine by the end of 2023. At the end of 2024, 14 of the 39 posts were still vacant. This may prevent EuroHPC from implementing its activities as planned.

## Follow-up of previous years' observations

**3.9.25.** An overview of the action taken by EuroHPC in response to our observations in previous years is provided in the [Annex](#).

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<sup>41</sup> EuroHPC JU Consolidated Annual Activity Report 2024, chapter Internal Control (Page 104)

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2023	Incomplete business continuity plan (BCP) and disaster recovery plan (DRP).	The JU adopted its updated BCP and DRP in 2024, and tested them in May 2025.	Closed
2	2023	No internal control policy for sensitive functions.	The JU adopted a policy on the management of sensitive functions in 2024.	Closed
3	2021, 2022, 2023	The JU's financing arrangements, whereby private members could provide in-kind contributions for only one type of project (innovation projects representing some 3 % of the total Horizon Europe funds) prevented private members from achieving their minimum contribution targets.	The situation persisted in 2024 (see paragraph <a href="#">3.9.20</a> ).	Open
4	2022, 2023	Low implementation rates for Digital Europe related commitment and payment appropriations.	The situation persisted in 2024 in respect of Digital Europe investment activities (see paragraph <a href="#">3.9.16</a> ).	Open
5	2023	Accumulation of cash surplus.	At the end of 2024, EuroHPC's cash surplus increased from €840.7 million at the end of 2023 to €904.7 million at the end of 2024.	Open

## European High Performance Computing Joint Undertaking (EuroHPC)

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
6	2020, 2021, 2022, 2023	When planning the administrative commitments and payments budget (Titles 1 and 2), insufficient account was taken of the reallocation of significant amounts in unused payment appropriations from previous years.	While in 2024, the implementation rate for staff expenditure budget (Title 1) was 95 % the situation persisted for the payments budget for buildings, equipment and operating expenditure (Title 2). Because insufficient consideration was given to the reallocation to the 2024 administrative budget of cumulative unused payment appropriations, the implementation rate for the payments budget for Title 2 remained low, at 61 % (2023: 26 %).	Open
7	2021, 2022, 2023	Recruitment targets not met.	At the end of 2024, the JU had still not met its target of 39 new staff to be recruited by the end of 2023 (see paragraph <a href="#">3.9.24</a> ).	Open
8	2023	Weaknesses in the pre-selection phase of recruitment procedures.	In 2024, EuroHPC implemented for the pre-selection phase of its recruitment procedures, the use of a scoring grid with a weighting for each of the essential criteria.	Closed

European High Performance Computing Joint Undertaking (EuroHPC)

## **EuroHPC replies**

[https://www.eca.europa.eu/Lists/ECARepplies/EuroHPC-Replies-SAR-JUS-2024/EuroHPC-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/EuroHPC-Replies-SAR-JUS-2024/EuroHPC-Replies-SAR-JUS-2024_EN.pdf)

## 3.10. Smart Networks and Services Joint Undertaking (SNS JU)

### Introduction

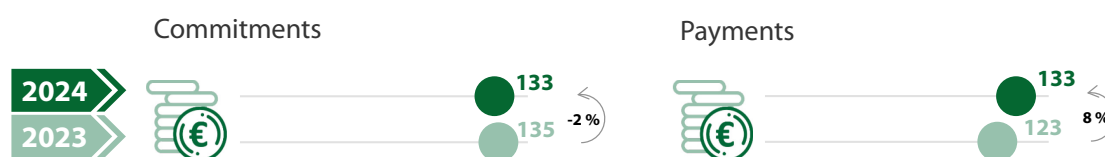
**3.10.1.** The [Smart Networks and Services Joint Undertaking \(SNS JU\)](#), located in Brussels, was set up in November 2021 under the Horizon Europe programme for the period ending 31 December 2029<sup>42</sup>. It achieved financial autonomy on 24 October 2023.

**3.10.2.** The SNS JU is a public-private partnership that aims to facilitate and develop industrial leadership in Europe in 5G and 6G networks and services. Its members are the EU, represented by the Commission (DG CNECT), and the 6G Smart Networks and Services Industry Association (6G-IA).

**3.10.3.** [Figure 3.10.1](#) presents key figures for the JU.

**Figure 3.10.1 – Key figures for the SNS JU**

**Available budget (million euros)\***



**Staff (employed as at 31 December)\*\***



\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* "Staff" includes temporary staff and contract staff.

Source: Data provided by the JU.

<sup>42</sup> [Council Regulation \(EU\) 2021/2085](#) establishing the Joint Undertakings under Horizon Europe.



## Our statement of assurance to the European Parliament and the Council – Independent auditor’s report

### Opinion

**3.10.4.** Our audit approach, the basis for our opinion, the responsibilities of the management of the Smart Networks and Services Joint Undertaking (SNS JU) and of those charged with its governance, and the auditor’s responsibilities for the audit of the accounts and underlying transactions, are all described in section [3.1](#). The signature on page [150](#) forms an integral part of the opinion.

**3.10.5.** We have audited:

- (a) the SNS JU’s accounts, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and
  - (b) the legality and regularity of the transactions underlying those accounts,
- as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

### Reliability of the accounts

#### Opinion on the reliability of the accounts

**3.10.6.** In our opinion, the SNS JU’s accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission’s accounting officer. These are based on internationally accepted accounting standards for the public sector.

## Smart Networks and Services Joint Undertaking (SNS JU)

## Legality and regularity of the transactions underlying the accounts

### Revenue

#### Opinion on the legality and regularity of revenue underlying the accounts

**3.10.7.** In our opinion, the revenue underlying the SNS JU's accounts for the year ended 31 December 2024 is legal and regular in all material respects.

### Payments

#### Opinion on the legality and regularity of payments underlying the accounts

**3.10.8.** In our opinion, the payments underlying the SNS JU's accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.10.9.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

### Private members achieved their targets by means of additional activities

**3.10.10.** *Table 3.10.1* presents an overview comparing the SNS JU members' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.10.1 – Members' contributions for Horizon Europe (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind <sup>(1)</sup> validated	In-kind <sup>(1)</sup> reported not validated	Total	Achievement %
EU (DG RTD) <sup>(2)</sup>	881.5	18.5	900.0	416.8	19.1	N/A	N/A	435.9	48 %
Private members <sup>(2)</sup>	881.5	18.5	900.0	1.7	0.0	337.3	24.7	363.7	40 %
Total	1 763.0	37.0	1 800.0	418.5	19.1	337.3	24.7	799.6	44 %

(1) Consists of in-kind contributions to operational activities (IKOP) and in-kind contributions to additional activities (IKAA).

(2) Includes United Kingdom contributions of €21 million and the mid-term Horizon Europe reduction of €21 million.

Source: ECA, based on data from the JU and its founding regulation.

## Smart Networks and Services Joint Undertaking (SNS JU)

**3.10.11.** By the end of 2024, the EU and private members together had achieved around 44 % of their total contribution target (48 % and 40 % respectively). According to the JU's annual accounts, €337.3 million in private members' contributions (93 %) concerned additional activities not directly linked to the SNS JU-funded projects. We note that for both IKAA and IKOP, the JU has to apply similar rules on their certification, reporting and validation. However, since additional activities are not bound by the same rules on evaluation and monitoring as the JU-funded activities resulting from calls, we consider that there may be a risk that they are less effective in terms of achieving the JU's programme objectives.

### Observations on the legality and regularity of transactions

**3.10.12.** We audited two Horizon Europe transactions (randomly sampled from all interim payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of the SNS JU's management and control systems on the legality and regularity of operational expenditure. We found one error with a financial impact, resulting from ineligible staff costs due to incorrect reporting of such costs for the small and medium enterprise owner and an incorrect method for calculating actual costs.

**3.10.13.** The Commission's Common Audit Service has not yet obtained any *ex post* audit results for Horizon Europe, so we could not take them into account for our overall assessment.

### Observations on management and control systems

#### The SNS JU has not yet implemented a risk-based control framework for Horizon Europe grant payments

**3.10.14.** The SNS JU has not yet implemented risk-based controls of Horizon Europe expenditure. Use of a systematic, centralised control framework is a key part of the executive director's declaration of assurance on the legality and regularity of the JU's payment transactions. Setting up a risk-based control framework will entail a significant amount of work for which the SNS JU will have to make available the necessary resources.

### Follow-up of previous years' observations

**3.10.15.** An overview of the action taken by the SNS JU in response to our observations in previous years is provided in the [Annex](#).

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2023	Only partial implementation of the <a href="#">Commission's internal control framework</a> . In particular, action is still needed to ensure the effective functioning of the business continuity plan (BCP) and disaster recovery plan (DRP), the policy on the management of sensitive functions, and the control principles for risk assessment and control and monitoring activities.	<p>The JU adopted a policy on the management of sensitive functions in June 2024.</p> <p>An updated common BCP and DRP were approved in 2024. The testing of both plans is part of the 2025 common IT work programme.</p> <p>By the end of 2024, the JU had not yet implemented a risk-based control framework for Horizon Europe expenditure (see paragraph <a href="#">3.10.14</a>).</p>	Open

Smart Networks and Services Joint Undertaking (SNS JU)

## SNS replies

[https://www.eca.europa.eu/Lists/ECARepplies/SNS-Replies-SAR-JUS-2024/SNS-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/SNS-Replies-SAR-JUS-2024/SNS-Replies-SAR-JUS-2024_EN.pdf)

## 3.11. Global Health EDCTP3 Joint Undertaking

### Introduction

**3.11.1.** The [Global Health EDCTP3 JU](#), located in Brussels, was set up in November 2021 under the Horizon Europe programme for the period ending 31 December 2031<sup>43</sup>. It built on the first and second European and Developing Countries Clinical Trials Partnership (EDCTP) programmes. It achieved financial autonomy on 23 November 2023.

**3.11.2.** Global Health EDCTP3 is a partnership between the EU and the EDCTP Association, whose current members are [15 European and 30 African countries](#). It aims to deliver new solutions to reduce the burden of infectious diseases in sub-Saharan Africa, and to strengthen research capacities to prepare for and respond to the re-emergence of infectious diseases in that region and globally. Its members are the EU, represented by the Commission (DG RTD), and the EDCTP Association.

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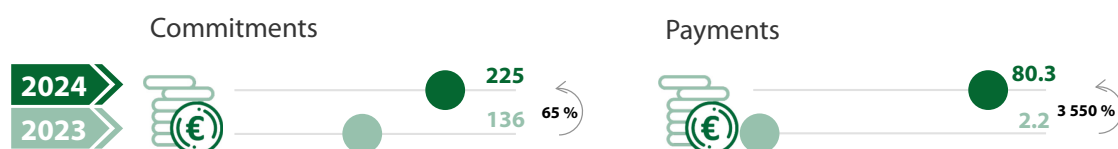
<sup>43</sup> [Council Regulation \(EU\) 2021/2085](#) establishing the Joint Undertakings under Horizon Europe.

## Global Health EDCTP3 Joint Undertaking

**3.11.3.** Figure 3.11.1 presents key figures for the JU.

**Figure 3.11.1 – Key figures for Global Health EDCTP3**

**Available budget (million euros)\***



**Staff (employed as at 31 December)\*\***



\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* “Staff” includes temporary staff and contract staff.

Source: Data provided by the JU.

**3.11.4.** The increase in the JU’s 2024 budget for commitments and payments reflects the issuing of an important call for proposals and prefinancing payments on grant agreements under the 2023 call. At the end of 2024, the JU had finished recruitment to the posts provided for in its establishment plan.

## Our statement of assurance to the European Parliament and the Council – Independent auditor’s report

### Opinion

**3.11.5.** Our audit approach, the basis for our opinion, the responsibilities of the management of Global Health EDCTP3 and of those charged with its governance, and the auditor’s responsibilities for the audit of the accounts and underlying transactions, are all described in section 3.1. The signature on page 150 forms an integral part of the opinion.

**3.11.6.** We have audited:

- (a) the accounts of Global Health EDCTP3JU, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and
- (b) the legality and regularity of the transactions underlying those accounts,

as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

## Reliability of the accounts

**3.11.7.** In our opinion, the Global Health EDCTP3 accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

## Other matters

**3.11.8.** We draw attention to important events that have occurred since the reporting period and may have a significant impact on the JU's activities. In particular:

- The rapid escalation of the conflict in the east of the Democratic Republic of Congo could threaten several projects financed by the JU in the region.
- The JU and the EDCTP Association had organised the Twelfth EDCTP Forum in Rwanda on 15-20 June 2025, in partnership with the Rwandan Ministry of Health and Biomedical Centre. The JU has committed in 2024 around €1 million entirely towards the operational costs of this event. –
- On 13 February 2025, the European Parliament issued a resolution in the context of the escalated violence in the eastern Democratic Republic of Congo.
- In February 2025 the US Secretary of State announced the cancellation of most programmes funded by the US Agency for International Development (USAID), in a move which could adversely affect some JU beneficiaries that are highly dependent on this funding.

Our opinion is not modified in respect of these matters.

## Legality and regularity of the transactions underlying the accounts

### Revenue

#### Opinion on the legality and regularity of revenue underlying the accounts

**3.11.9.** In our opinion, the revenue underlying the Global Health EDCTP3 accounts for the year ended 31 December 2024 is legal and regular in all material respects.

### Payments

#### Opinion on the legality and regularity of payments underlying the accounts

**3.11.10.** In our opinion, the payments underlying the Global Health EDCTP3 accounts for the year ended 31 December 2024 are legal and regular in all material respects.



## Global Health EDCTP3 Joint Undertaking

**3.11.11.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

### Global Health EDCTP3 is still significantly behind target in engaging contributing partners

**3.11.12.** [Table 3.11.1](#) presents an overview comparing the Global Health EDCTP3 members' and contributing partners' contribution targets for Horizon Europe with their actual contributions (cash and in-kind) as reported in the JU's annual accounts at the end of 2024.

**Table 3.11.1 – Members' contributions for Horizon Europe (in € million)**

Members	Members' contributions (as per founding regulation)			Members' contributions (as at 31.12.2024)					
	Operational activities	Administrative costs	Total	Cash validated	Cash not validated	In-kind validated	In-kind reported not validated	Total	Achievement %
EU (DG RTD) <sup>(2)</sup>	830.3	59.8	890.1	120.9	4.0	N/A	N/A	124.9	14 %
EDCTP - participating states <sup>(1) (2)</sup>	550.0	0.0	550.0	5.3	N/A	0.0	394.5	399.8	73 %
Contributing partners <sup>(1)</sup>	400.0	0.0	400.0	0.0	15.6	N/A	N/A	15.6	4 %
Total	1 780.3	59.8	1 840.1	126.2	19.6	0.0	394.5	540.3	29 %

(1) The contributions of the EDCTP association consists of cash and in-kind contributions to additional activities (IKAA). The contributions of contributing partners consists of cash contributions to the JU's activities.

(2) Includes United Kingdom contributions of €110.1 million and the mid-term Horizon Europe reduction of €20 million.

Source: ECA, based on data from the JU and its founding regulation.

**3.11.13.** By the end of 2024, the EDCTP Association had already reported €399.8 million (73 % of target) in cash and in-kind contributions to additional activities, while the EU's cash contributions stood at just 14 % of target. The JU estimates in its annual accounts that the EDCTP Association's contributions, together with €110.1 million in commitments to additional activities from the United Kingdom, will ensure that total in-kind contributions to additional activities are €550 million (100 % of the EDCTP Association's minimum contribution target) by the end of the programme.

**3.11.14.** According to recital 69 to the Global Health EDCTP3 [founding regulation](#), the Global Health EDCTP3 JU should encourage other international research funders, such as philanthropists, the pharmaceutical industry and other non-EU countries, to make cash contributions to the partnership as contributing partners. Article 102 of the regulation requires the JU to target cash contributions of €400 million by the end of the programme implementation. However, as of the end of 2024, the third year of implementation, the level of cash contributions from contributing partners was still very low, at €15.6 million (4 % of target). In 2024, the JU took on just one additional partner, whose contributions of some €2.2 million will materialise in 2025 and 2026. The shortage of such contributions may

## Global Health EDCTP3 Joint Undertaking

significantly reduce the leverage effect of the JU's activities and therefore presents a risk to the achievement of its programme objectives.

### Weaknesses in budget planning and implementation for administrative expenditure

**3.11.15.** By the end of 2024, Global Health EDCTP3 had made payments of only €3 million (75 %) from its staff expenditure budget of around €4 million (Title 1), and just €1 million (37 %) from the €2.7 million administrative infrastructure budget (Title 2). As a result, the volume of unused administrative payment appropriations to be reallocated to the next year's administrative budget stood at €2.7 million, or 40% of the total administrative budget (Titles 1 and 2) for 2025. According to the JU, the increase in unused administrative payment appropriations was mainly due to delays in recruitment (Title 1) and the late implementation of refurbishment contracts (Title 2) for which expenditure was scheduled in 2024.

### Observations on the legality and regularity of transactions

**3.11.16.** We audited one Horizon Europe transaction (randomly sampled from all interim/final payments and clearings the JU made in 2024), at the level of the final beneficiaries, to assess the effectiveness of the JU's management and control systems on the legality and regularity of operational expenditure. The transaction was free of error.

**3.11.17.** The Commission's Common Audit Service has not yet obtained any *ex post* audit results for Horizon Europe, so we could not take them into account for our overall assessment.

### Observations on other issues

#### Shortcomings in the selection of a senior member of staff

**3.11.18.** In 2024, Global Health EDCTP3 ran a selection procedure for a management position. Candidates without the requisite minimum management experience and expertise as set out in the vacancy notice were not systematically excluded. However, this did not affect the outcome of the procedure as the successful candidate met all the selection criteria.

## Follow-up of previous years' observations

**3.11.19.** An overview of the action taken by Global Health EDCTP3 in response to our observations in previous years is provided in the [Annex](#).

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2023	Only partial implementation of the <a href="#">Commission's internal control framework</a> . In particular, action is still needed to ensure the effective functioning of the business continuity plan (BCP) and disaster recovery plan (DRP), the policy on the management of sensitive functions, and the control principles for monitoring activities.	<p>The JU adopted a policy on the management of sensitive functions in May 2024.</p> <p>An updated common BCP and DRP were approved in 2024. The testing of both plans is part of the 2025 common IT work programme.</p>	Open

Global Health EDCTP3 Joint Undertaking

## Global Health EDCTP3 replies

[https://www.eca.europa.eu/Lists/ECARepplies/Global\\_Health\\_EDCTP3-Replies-SAR-JUS-2024/Global\\_Health\\_EDCTP3-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/Global_Health_EDCTP3-Replies-SAR-JUS-2024/Global_Health_EDCTP3-Replies-SAR-JUS-2024_EN.pdf)

## 3.12. European Cybersecurity Industrial, Technology and Research Competence Centre (ECCC)

### Introduction

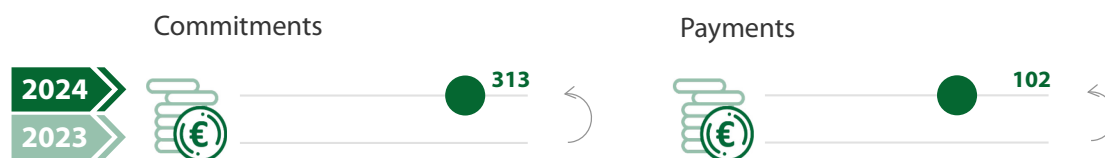
**3.12.1.** The [European Cybersecurity Industrial, Technology and Research Competence Centre \(ECCC\)](#), located in Bucharest, was set up in May 2021 under the Digital Europe Programme for the period ending 31 December 2029<sup>44</sup>. It achieved financial autonomy on 24 September 2024. Before that date the Commission was in charge of the ECCC's 2024 budget and implemented €74.2 million in payment appropriations and €2.1 million in commitment appropriations.

**3.12.2.** The ECCC works alongside the Network of National Coordination Centres to support innovation and industrial policy in cybersecurity in cooperation with industry, SMEs, European research and standardisation organisations, public entities and stakeholders dealing with cybersecurity.

**3.12.3.** [Figure 3.12.1](#) presents key figures for the ECCC for the period between 24 September and 31 December 2024.

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<sup>44</sup> [Regulation of the European Parliament and the Council \(EU\) 2021/887](#) establishing the European Cybersecurity Industrial, Technology and Research Competence Centre and the Network of National Coordination Centres.

**Figure 3.12.1 – Key figures for the ECCC****Available budget (million euros)\*****Staff (employed as at 31 December)\*\***

\* The available budget includes appropriations unused in previous years, which the ECCC reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* "Staff" includes temporary staff and contract staff.

Source: Data provided by the ECCC.

## Our statement of assurance to the European Parliament and the Council – Independent auditor's report

### Opinion

**3.12.4.** Our audit approach, the basis for our opinion, the responsibilities of the management of the European Cybersecurity Industrial, Technology and Research Competence Centre (ECCC) and of those charged with its governance, and the auditor's responsibilities for the audit of the accounts and underlying transactions, are all described in section 3.1. The signature on page 150 forms an integral part of the opinion.

**3.12.5.** We have audited:

- (a) the ECCC's accounts, which comprise the financial statements and the reports on the implementation of the budget, for the period from 24 September to 31 December 2024, and
- (b) the legality and regularity of the transactions underlying those accounts,

as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

## Reliability of the accounts

### Opinion on the reliability of the accounts

**3.12.6.** In our opinion, the ECCC's accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission's accounting officer. These are based on internationally accepted accounting standards for the public sector.

### Emphasis of matter

**3.12.7.** We draw attention to note 4.1.2 to the ECCC's 2024 accounts, which explains that the ECCC achieved financial autonomy on 24 September 2024. Prior to that date, the Commission was responsible for the ECCC's establishment and initial operation. We also draw attention to note 4.3.3, which explains that, in 2024, the total amount paid in pre-financing for operational activities was €276.2 million, of which €195.6 million was given by the Commission before the ECCC achieved financial autonomy. Our opinion is not modified in respect of these matters.

## Legality and regularity of the transactions underlying the accounts

### Revenue

#### Opinion on the legality and regularity of revenue underlying the accounts

**3.12.8.** In our opinion, the revenue underlying the ECCC's accounts for the period from 24 September to 31 December 2024 is legal and regular in all material respects.

### Emphasis of matter

**3.12.9.** We draw attention to note 5.1.3 to the ECCC's 2024 annual accounts, which explains that by 31 December 2024, the member states have not yet made voluntary contributions to the ECCC's joint actions and administrative budget. Our opinion is not modified in respect of this matter.



## Payments

### Opinion on the legality and regularity of payments underlying the accounts

**3.12.10.** In our opinion, the payments underlying the ECCC's accounts for the period from 24 September to 31 December 2024 are legal and regular in all material respects.

**3.12.11.** The observations which follow do not call our opinion into question.

## Observations on budgetary management

### The ECCC lacks information on its members' cumulative contributions received before its financial autonomy

**3.12.12.** The ECCC did not disclose in its 2024 annual accounts any information about the cumulative contributions made by its members before the ECCC's financial autonomy at Horizon Europe and Digital Europe programme level, nor compare the contributions it had received from all sources by the end of the year with the contribution targets set for each programme. As a result, there was no full end-of-year disclosure on the ECCC's achievements.

## Observations on the management and control systems

### The ECCC had partly implemented its internal control framework

**3.12.13.** At the end of 2024, the ECCC had partly implemented its [internal control framework](#), which is based on 17 principles. In particular, it had not yet completed work to ensure the effective functioning of its business continuity and disaster recovery plans, establish a policy on the management of sensitive functions, or implement the control principles relating to risk assessment, risk-based control and monitoring activities.

## Observations on legality and regularity of transactions

**3.12.14.** We audited one Digital Europe transaction (randomly sampled from all interim payment and clearings the ECCC made in 2024), at the level of the final beneficiaries, to assess the effectiveness of the ECCC's management and control systems on the legality and regularity of operational expenditure. We found one error with a financial impact, resulting from ineligible staff costs due to the use of incorrect unit costs when calculating daily rates.

European Cybersecurity Industrial, Technology and Research Competence Centre (ECCC)

**3.12.15.** The Commission's Common Audit Service carries out *ex post* audits of Horizon Europe payments. In the case of Digital Europe, these audits are done by the European Health and Digital Executive Agency (HaDEA). No *ex post* audit results are yet available, so we could not take them into account for our overall assessment.

European Cybersecurity Industrial, Technology and Research Competence Centre (ECCC)

## ECCC replies

[https://www.eca.europa.eu/Lists/ECARepplies/ECCC-Replies-SAR-JUS-2024/ECCC-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/ECCC-Replies-SAR-JUS-2024/ECCC-Replies-SAR-JUS-2024_EN.pdf)



## **Joint undertaking operating under EURATOM**

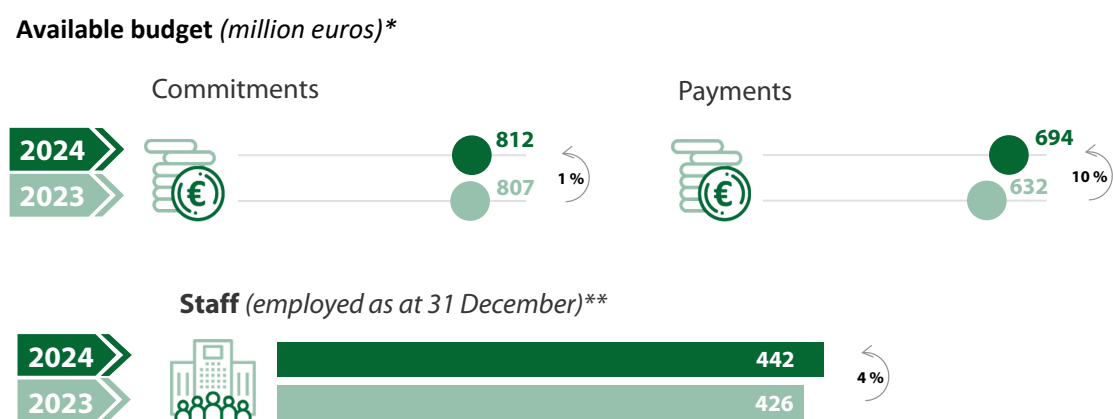
## 3.13. European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)

### Introduction

**3.13.1.** The European JU for the International Thermonuclear Experimental Reactor (ITER) and the Development of Fusion Energy (F4E) was set up in April 2007 for a period of 35 years<sup>45</sup>. One of its main tasks is to provide the contribution of the European Atomic Energy Community (Euratom) to the ITER International Fusion Energy Organization (ITER-IO), which is in charge of implementing the ITER project. The main fusion facilities are at Cadarache in France, but F4E itself is located in Barcelona. Its members are Euratom, represented by the Commission, and the Euratom member states.

**3.13.2.** Figure 3.13.1 presents key figures for the JU.

**Figure 3.13.1 – Key figures for the F4E JU**



\* The available budget includes appropriations unused in previous years, which the JU reallocated to the budget for the current year, as well as assigned revenue and reallocations to the following year.

\*\* "Staff" includes officials, temporary staff, contract staff and seconded national experts.

Source: Data provided by the JU.

<sup>45</sup> Council Decision 2007/198/Euratom establishing the European JU for ITER and the Development of Fusion Energy and conferring advantages upon it.

## Our statement of assurance to the European Parliament and the Council – Independent auditor’s report

### Opinion

**3.13.3.** Our audit approach, the basis for our opinion, the responsibilities of the management of the European JU for ITER and the Development of Fusion Energy (F4E) and of those charged with its governance, and the auditor’s responsibilities for the audit of the accounts and underlying transactions, are all described in section [3.1](#). The signature on page [150](#) forms an integral part of the opinion.

**3.13.4.** We have audited:

- (a) the F4E accounts, which comprise the financial statements and the reports on the implementation of the budget for the financial year ended 31 December 2024, and
- (b) the legality and regularity of the transactions underlying those accounts,

as required by Article 287 of the Treaty on the Functioning of the European Union (TFEU).

### Reliability of the accounts

#### Opinion on the reliability of the accounts

**3.13.5.** In our opinion, the F4E accounts for the year ended 31 December 2024 present fairly, in all material respects, its financial position as at 31 December 2024, the results of its operations, its cash flows, and the changes in net assets for the year then ended, in accordance with its financial regulation and with accounting rules adopted by the Commission’s accounting officer. These are based on internationally accepted accounting standards for the public sector.

#### Emphasis of matter

**3.13.6.** We draw attention to note 6.4.2 to the JU’s 2024 annual accounts, in which the total cost for completing its delivery obligations for the ITER project (“estimate at completion”) is assessed at €25.8 billion (at 2024 values). This estimate reflects a cost increase resulting from the revised ITER baselines, which were proposed by ITER-IO in July 2024 but have not yet been formally adopted by the ITER Council (see paragraphs [3.13.12](#) and [3.13.15](#)).

**3.13.7.** We also draw attention to point (d) in the introductory part of the JU’s 2024 annual accounts (“Impact of international situation”), which describes the significant and

## European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)

protracted inflationary impact which supply chain issues triggered by COVID-19 and the war of aggression against Ukraine have had on F4E's operations. F4E estimates that the total impact on its estimate at completion will be €246 million (at 2008 values).

Our opinion is not modified in respect of these matters.

### Legality and regularity of the transactions underlying the accounts

#### Revenue

##### Opinion on the legality and regularity of revenue underlying the accounts

**3.13.8.** In our opinion, the revenue underlying the F4E accounts for the year ended 31 December 2024 is legal and regular in all material respects.

#### Payments

##### Opinion on the legality and regularity of payments underlying the accounts

**3.13.9.** In our opinion, the payments underlying the F4E accounts for the year ended 31 December 2024 are legal and regular in all material respects.

**3.13.10.** The observations which follow do not call our opinion into question.

### Observations on other issues

#### The 2024 revision of the ITER baselines has considerably increased F4E's exposure to risk

**3.13.11.** The ITER Agreement setting up the ITER-IO among the participating states (the Euratom member states, represented by the Commission, as well as China, India, Japan, South Korea, Russia and the United States) entered into force in October 2007. F4E was established in 2007 as the "domestic agency" in charge of the EU contribution to the ITER project. Both ITER-IO and F4E have a lifespan of 35 years, ending in 2042. The ITER Agreement can be extended for another 10 years by a decision of the ITER Council.

**3.13.12.** In June 2024, ITER-IO proposed a revised project plan to the ITER Council, with a new set of baselines to replace those agreed in 2016. The revised plan postpones the end of

## European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)

the ITER assembly phase from 2025 (first plasma) to 2035 (start of the research operations) and the end of the whole project from 2042 to 2059 (17 years later than the current end date). The ITER Council took note of the revised baselines and endorsed their use by ITER-IO and the domestic agencies (such as F4E) as a working plan for the monitoring of progress and operational management of the ITER project, without prejudice to overall costs and annual budgetary procedures. However, the ITER Council did not formally approve the 2024 baselines<sup>46</sup>.

**3.13.13.** In the second half of 2024, F4E started to adjust its operational planning to the revised baselines, following the ITER Council recommendation. According to the 2012 French government decree setting up ITER, the Cadarache reactor must be in operation within 25 years (before April 2037) unless France grants an extension.

**3.13.14.** The 2024 baselines include several important technical changes to the ITER project which may significantly affect the scope for in-kind contributions to F4E). The main changes are:

- Separation of the assembly process into two stages, with the acquisition of more complex tool parts postponed to the later stage.
- Use of tungsten rather than beryllium in the plasma-facing first wall, thereby improving safety and reducing long-term costs.
- A significant increase in radiofrequency heating power because of the change in the first wall material, necessitating an additional 48 gyrotrons. F4E proposed to deliver up to 16 of these 48 gyrotrons in exchange for the possibility of an equivalent reduction in its ITER cash contributions to strengthen the EU's industrial resilience in this critical fusion technology domain.
- A two-staged hot cell facilities design for the disposal of contaminated ITER components, with simpler and significantly smaller facilities during the low activation phase lasting until 2050.

**3.13.15.** Finally, the proposed new baselines will require larger cash and in-kind contributions to ITER-IO from all domestic agencies. According to F4E's annual accounts, the estimated financial impact of the 2024 baselines is the main driver for the significant increase in the JU's delivery obligations for the ITER project ("estimate at completion") from €21.2 billion (end 2023; €21.6 billion in 2024 values) to €25.8 billion (end 2024). This will mean

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<sup>46</sup> See ITER Council decisions from its 34th meeting (20 June 2024).



## European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)

an increase of around €4.2 billion (in 2024 values) in the contributions by Euratom and France to the JU's operational budgets.

**3.13.16.** We acknowledge that an adjustment to the 2016 baselines was necessary, to tackle the significant delays so far, mainly by simplifying project implementation. However, the revised baselines as proposed by ITER-IO have increased F4E's exposure to a number of risks which are not adequately shown in its latest risk register.

- Sustainability risk: the relevance of the ITER project could be undermined, due to the shifting of important milestones (such as first plasma achievement) closer to the project end date and the greater competition caused by the development of fusion projects in third countries.
- Legal risk: members may refuse to sign off the extension to the ITER Agreement (ending in 2042), or the French decree may expire before the reactor can be put into operation.
- Technical and economic risk: the significant changes in the scope of F4E's technical deliverables (such as those affecting the hot cell facilities) may have an impact on innovation.
- Financial risk: the significantly higher F4E contributions may not be sustainably financed by Euratom under future MFFs or the host country, France.

## Observations on legality and regularity of transactions

**3.13.17.** We audited 30 randomly sampled transactions (final/interim payments and clearings) approved in 2024 to assess the effectiveness of F4E's management and control systems on the legality and regularity of operational expenditure. We found one error with a financial impact resulting from a substantial modification to two building contracts that was not addressed by a new procurement procedure.

## Observations on the management and control systems

### Weaknesses in F4E's risk management system and IT tool

**3.13.18.** In identifying risk, F4E mainly focuses on risks to the project's operational implementation. It does not address all human resources risks such as the need to restructure the JU to adjust to the 2024 baselines, the intensive use of external service providers, topics of resource planning and management (in particular the JU's ability to retain or recruit people with the requisite skills), and non-compliance with the [EU Staff Regulations](#) or the JU's ethical framework in a similar manner.

## European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)

**3.13.19.** Moreover, the IT tool which F4E uses for risk management does not provide information on the financial impact in current prices of relevant key risks, nor on their actual incidence.

### Follow-up of previous years' observations

**3.13.20.** An overview of the action taken by F4E in response to our observations in previous years is provided in the [Annex](#).

## Annex – Follow-up of previous years' observations

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
1	2019, 2023	<p>No centralised function for the coordination and management of external service providers (ESPs) or methodology for assessing F4E's aggregate human resources needs (including ESPs).</p> <p>Planning of aggregate HR needs (including ESPs) not based on a proper estimate of workload or requisite skills and abilities.</p> <p>No single formal definition of ESPs so that their impact on statutory staff needs can be correctly assessed.</p>	<p>A working group was set up in 2022 to assess the heavy dependence on external resources so their use could be better planned and justified. In 2024 F4E approved a policy on the use of ESPs, including their definition and planning of needs. Subsequently in 2025, a decision on the centralisation of their coordination and management was taken.</p>	Open
2	2021, 2023	<p>F4E's latest risk register covers the risk of insufficient assimilation of ESPs, but no other potential risks relating to a heavy dependence on ESPs in the long term.</p>	<p>F4E plans to assess in 2025 whether other ESP related risks need to be included in the risk register.</p>	Open
3	2022, 2023	<p>Low implementation rate for the operational commitments budget.</p> <p>Low implementation rate for the administrative payments budget (Title 2), and the cancellation of many commitments carried over from the previous year.</p>	<p>The situation improved in 2024. At the end of 2024, F4E had implemented 91 % of the available commitment appropriations (2023: 70 %) and 68 % of the administrative payments budget (2023: 65 %) and cancelled 19 % of commitments carried over from the previous year (2023: 21 %).</p>	Closed

## European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
4	2022, 2023	F4E's senior management is in a state of transition since the end of 2022, and a significant reorganisation in 2023 resulting in changed middle management roles and responsibilities.	In 2024 F4E launched all outstanding recruitment procedures for vacant senior and middle management positions and finalised them in March 2025.	Closed
5	2022	F4E's latest risk assessment did not reflect the risks posed by known significant events that were affecting its activities.	<p>F4E has introduced a new risk identification concept to support rapid consolidation at the risk summary level and increase the visibility of all risk management activities.</p> <p>However, the key risks resulting from the proposed 2024 baselines are not adequately shown in the JU's risk assessment (see paragraph <a href="#">3.13.16</a>).</p> <p>F4E plans to assess in 2025 whether these risks need to be included in the risk register.</p>	Open
6	2023	F4E's long-term planning estimates in the 2023 annual accounts ("estimate at completion") were substantially underestimated, as still based on 2016 milestones and cost assumptions that did not take account of significant and more recent technical changes.	In F4E's 2024 annual accounts the estimate at completion was based on the proposed 2024 baselines (see paragraph <a href="#">3.13.15</a> ).	Closed
7	2023	F4E's annual reports did not accurately reflect the situation regarding permanent staff, including temporary staff on indefinite contracts thus de facto permanent staff.	F4E's annual reports for 2024 provided no information on temporary staff appointed to permanent posts.	Open

## European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)

Number	Year of ECA observation	ECA observation (summary)	Corrective action and other relevant developments (summary)	Status of ECA observation
8	2023	F4E's internal audit capability provided no satisfactory evidence of the regular use of risk management information when planning internal audit activities. The internal control framework did not yet include an integrated risk management process.	In 2024 F4E introduced regular quarterly meetings between its risk management and internal audit teams. The outcome of these meetings has not yet been taken into account in the internal control process.	Open
9	2023	No policy on the management of sensitive functions.	F4E adopted its policy on the management of sensitive functions in April 2025. In line with the policy provisions, it has defined a list of sensitive posts and corresponding mitigating measures.	Closed

European Joint Undertaking for ITER and the Development of Fusion Energy (F4E)

## F4E replies

[https://www.eca.europa.eu/Lists/ECARepplies/F4E-Replies-SAR-JUS-2024/F4E-Replies-SAR-JUS-2024\\_EN.pdf](https://www.eca.europa.eu/Lists/ECARepplies/F4E-Replies-SAR-JUS-2024/F4E-Replies-SAR-JUS-2024_EN.pdf)

This report was adopted by Chamber IV, headed by Mr Petri Sarvamaa, Member of the Court of Auditors, in Luxembourg at its meeting of 23 September 2025.

*For the Court of Auditors*



Tony Murphy  
*President*

# Abbreviations

<b>AI</b>	Artificial intelligence
<b>BBI</b>	The Bio-based Industries Joint Undertaking
<b>BCP</b>	Business continuity plan
<b>CA</b>	Clean Aviation Joint Undertaking
<b>CAS</b>	Common Audit Service of the European Commission
<b>CBE</b>	Circular Bio-based Europe Joint Undertaking
<b>CEF</b>	Connecting Europe Facility
<b>Clean H2</b>	Clean Hydrogen Joint Undertaking
<b>CS</b>	Clean Sky Joint Undertaking
<b>DG CNECT</b>	Commission Directorate-General for Communications Networks, Content and Technology
<b>DG MOVE</b>	Commission Directorate-General for Mobility and Transport
<b>DG RTD</b>	Commission Directorate General for Research and Innovation
<b>DRP</b>	Disaster recovery plan
<b>ECCC</b>	European Cybersecurity Competence Centre
<b>ECSEL</b>	The Electronic Components and Systems Joint Undertaking
<b>EDCTP</b>	European and Developing Countries Clinical Trials Partnership
<b>ESP</b>	External service provider
<b>EU-Rail</b>	Europe's Rail Joint Undertaking
<b>Euratom</b>	European Atomic Energy Community
<b>EuroHPC</b>	European High-Performance Computing Joint Undertaking
<b>FP7</b>	Seventh Framework Programme for Research and Technological Development (2007-2013)
<b>F4E</b>	Fusion for Energy Joint Undertaking
<b>FCH</b>	Fuel Cells and Hydrogen Joint Undertaking
<b>Global Health EDCTP3</b>	Global Health Joint Undertaking and European and Developing Countries Clinical Trials Partnership 3
<b>HaDEA</b>	European Health and Digital Executive Agency
<b>IAS</b>	Internal audit service
<b>IKAA</b>	In-kind contributions to additional activities



<b>IKOP</b>	In-kind contributions to operational activities
<b>IHI</b>	Innovative Health Initiative Joint Undertaking
<b>IMI</b>	Innovative Medicines Initiative Joint Undertaking
<b>ISAs</b>	International Standards on Auditing
<b>ISSAIs</b>	International Standards of Supreme Audit Institutions
<b>ITER</b>	International Thermonuclear Experimental Reactor
<b>ITER-IO</b>	ITER International Fusion Energy Organization
<b>JU</b>	Joint undertaking
<b>KDT</b>	The Key Digital Technologies Joint Undertaking
<b>MFF</b>	Multiannual financial framework
<b>S2R</b>	The Shift2Rail (European Rail Initiative) Joint Undertaking
<b>SESAR</b>	Single European Sky Air Traffic Management Research Joint Undertaking
<b>SNS</b>	Smart Networks and Services Joint Undertaking
<b>TFEU</b>	Treaty on the Functioning of the European Union

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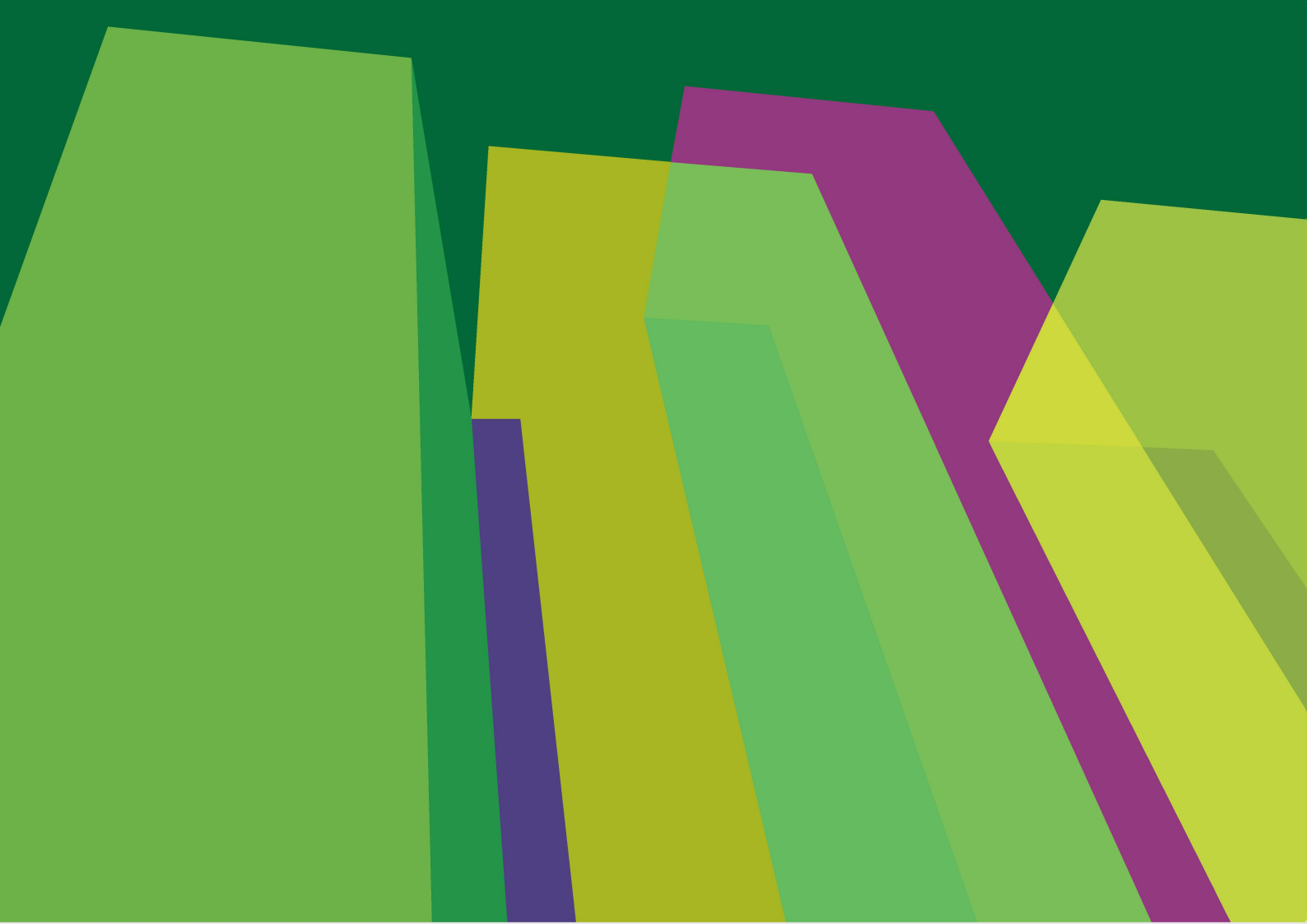
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