Annual Activity Report 2023

European Health and Digital Executive Agency

Contents

HaDEA IN BRIEF

Set up in 2021, the European Health and Digital Executive Agency (HaDEA) implements European programmes and initiatives on behalf of the European Commission, by managing projects that are related to health, digital, food, industry and space.

HaDEA is supervised by a Steering Committee composed of representatives of its six parent Directorates-General (DGs): DG Health and Food Safety (DG SANTE), DG Research and Innovation (DG RTD), DG Communication Networks, Content and Technology (DG CONNECT), DG Internal Market, Industry, Entrepreneurship and SMEs (DG GROW), DG Defence Industry and Space (DG DEFIS) and the Commission's European Health Emergency Preparedness and Response Authority (HERA).

HaDEA's mission is *"to implement actions that strengthen Europe in the domains of health, food safety, digital technologies and networks, industrial capacities and space. We provide high quality and service-oriented support, with the aim to enable European society to become more healthy, resilient and fair and European industry to become more competitive. We ensure that the projects funded by the HaDEA deliver concrete results that benefit the lives of all EU citizens and provide the European Commission with valuable input for its policies".*

The Commission has entrusted HaDEA with the implementation of the following programmes:
- the EU4Health Programme;
- the Health research strand of Horizon Europe (Cluster 1);
- the health-related components of the Single Market Programme (Food chain);
- Horizon Europe's Cluster 4 "Digital, Industry and Space";
- the digital strand of the Connecting Europe Facility Programme;
- the Digital Europe Programme (DIGITAL).

Ensuring effective programme implementation while providing feedback on project results to inform policymaking is a challenge that the Agency takes up thanks to its competent and motivated staff, willing to do the extra mile.

Located in Brussels, the Agency has its own legal identity and is entrusted with its own operating budget (EUR 50 million in 2023) financed by the EU General Budget. The Director has overall responsibility for implementing HaDEA's budget, in accordance with the principles of sound financial management. At the end of 2023, HaDEA had an international team of 443 staff members.

EXECUTIVE SUMMARY

This annual activity report is a management report of the Director of the Health and Digital Executive Agency to the College of Commissioners. Annual activity reports are the main instrument of management accountability within the Commission and constitute the basis on which the College takes political responsibility for the decisions it takes as well as for the coordinating, executive and management functions it exercises, as laid down in the Treaties ([1]).

A. Implementation of the Agency's Annual Work Programme – Highlights of the year

In 2023, the Agency reached its cruising speed and continued to translate the political objectives of the Commission into concrete projects and investments across Europe for the benefit of European citizens, patients and businesses.

Contribution to the Commission's objectives

HaDEA contributed to many of the Commission's priorities, starting with the European Health Union: through the EU4Health programme, Horizon Europe Cluster 1 and the Cancer Mission, HaDEA ensured support for the Europe's Beating Cancer Plan and the Communication on a Comprehensive Approach to Mental Health and the implementation of activities on pandemic preparedness. For instance, the EU-FAB network of manufacturers, delegated by HERA to HaDEA, has reserved capacity to produce 325 million doses of vaccines ready to be mobilised in case of a new public health crisis. The Single Market Programme and EU4Health funded actions to take up the fight against anti-microbial resistance.

The Agency also implemented actions to ensure Europe is equipped for the Digital Decade. Large-scale projects deploying high-capacity digital infrastructures received funding under the Connecting Europe Facility Programme. Through Horizon Europe Cluster 4, the Agency funded actions to enable industry to achieve resilience, sustainability and flexibility through the use of digital technologies. The Digital Europe Programme granted support to projects on improving citizens' digital skills, thus responding to the EU 2030 Digital Compass, which aims to ensure that at least 20 million ICT specialists are employed in the EU by 2030 ([2]).

([1])   Article 17(1) of the Treaty on European Union.
([2])   More details on the achievements, EU added value of the programmes are available in the programme statements of the Draft general budget of the European Union for the financial year 2024. The updated programme statements will be available in the proposal for Draft budget of the European Union for the financial year 2025.

Performance: all signals on green

In 2023, HaDEA signed 697 grant agreements and 52 contracts. While the 2021–2027 programmes are now in their third year of implementation, at the end of 2023, about half of the projects in the Agency's portfolio were still projects funded under legacy programmes. 2024 should see the balance shift in favour of projects funded under the current programming period.

Number of grant agreements and procurement contracts signed by HaDEA in 2023

Programme	Number of grant agreements signed	Number of procurement contracts signed
EU4Health	148	45
HE Cluster 1 - Health	206	0
SMP Food	126	7
CEF - Digital	37	0
Digital Europe Progr.	12	0
HE Cluster 4 - Digital	31	0
HE Cluster 4 - Industry	99	0
HE Cluster 4 - Space	38	0

● Number of grant agreements signed
● Number of procurement contracts signed

Time to grant

Programme	Grant agreements signed on time	Time to grant overdue
EU4Health	98%	2%
Horizon Europe – Cluster 1	100%	
SMP – Food	100%	
CEF – Digital	100%	
Digital Europe Programme	100%	
Horizon Europe – Cluster 4	98%	2%

HaDEA — Target: 98%

	Grant agreements signed on time	Time to grant overdue
HaDEA	99%	1%

● Grant agreements signed on time
● Time to grant overdue
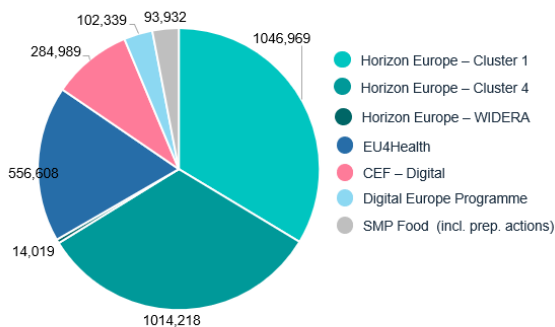excluding IBAs and reserve list projects.

The Agency reached all the targets on its key performance indicators; full budget execution in commitment and payment appropriations; all payments were made in a timely manner ([3]); with 99% of the grant agreements signed within the deadline, HaDEA's time to grant score jumped by 7 percentage points compared with last year. The Agency's amount at risk at closure equals 1.63 %, well below the 2% ceiling.

As the Agency becomes more mature and the number of projects from the 2021–2027 programmes grows, the focus shifted from setting up procedures to improving them and making them fit for the evolving portfolio of the Agency. The human resources' focus moved from recruitment to staff development. The control strategy was remodelled to encompass all control activities.

([3])   100% of the payments made on time, in aggregate value.

Commitment appropriations in M€
(All fund sources)

- Horizon Europe – Cluster 1
- Horizon Europe – Cluster 4
- Horizon Europe – WIDERA
- EU4Health
- CEF – Digital
- Digital Europe Programme
- SMP Food (incl. prep. actions)

Overall committed amount (all fund sources): 3114,142 M€

Programme	Amount committed (million EUR)
Horizon Europe – Cluster 4 ([1])	1 046,969
Horizon Europe – Cluster 1 ([1])	1 014,218
EU4Health	556,608
CEF 2 – Digital	284,989
Digital Europe Programme	102,339
SMP Food ([2])	93,932
Legacy	1,069
Horizon Europe – WIDERA ([3])	14,019
Total committed	**3 114,142**

([1]) including Horizon missions for a total of EUR 123,69 million
([2]) Including preparatory actions, covered under a separate financing decision
([3]) Funding for widening participation and strengthening the European Research Area

Policy feedback

HaDEA continued to provide insights to its parent DGs under the feedback to policy framework, clustering projects results, channelling lessons learned on call management, thereby contributing to refine the scope of future calls or shape future policies. For example, HaDEA helped DG DEFIS to assess the defence spin-in potential of civil projects contributing to create the first defence work programme targeting spin-in from space. The Agency also worked closely with DG SANTE to inform the Commission communication on mental health, adopted in June 2023. Finally, HaDEA supported the work of DG RTD by facilitating a growing number of thematic clusters of projects, such as the rare diseases cluster, the clusters under the Mission Cancer and the European research cluster to understand the impacts of micro- and nano-plastics on health. These clusters have proven to facilitate synergies, increase impact and avoid overlaps.

Making links between programmes

The Agency invested in fostering connections between programmes. Internal workshops were organised to identify cross-cutting topics within HaDEA's portfolio and discuss ways to stimulate internal cooperation. The Agency organised several events to stress the importance of breaking thematic silos between programmes. For instance, a large event gathered national support networks ([4]) active in the digital and health areas in Rome in June 2023. In October, HaDEA organised an event on synergies between projects on mental health funded under EU4Health and Horizon Europe, ahead of the High-level Conference hosted by Commissioner Kyriakides.

Furthermore, to increase visibility of the funding opportunities offered by the Agency and tackle under-subscription in some programmes, HaDEA met with key stakeholders during missions in Member States and at the occasion of international conferences on topics related to the Agency's mandate.

Client satisfaction

With the aim to support its client-oriented approach and culture, HaDEA ran the first satisfaction survey addressed to over 4000 external stakeholders from the programmes it

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([4])   Horizon Europe National Contact Points, EU4Health National Focal Points.

manages. Results show that the overall satisfaction with the service provided by HaDEA stands at 84% for beneficiaries. The results' analysis will feed into the preparation of an action plan that will follow up on participants' suggestions to improve HaDEA's client service.

Taking up the challenge of lump sums' funding

2023 also saw the introduction of lump sums in some of the calls of Horizon Europe Cluster 4, a novelty which impacts the grant evaluation and management. The Agency carefully monitored the implementation of this new funding mechanism. Based on this first experience, recommendations were made for future calls.

B. Key performance indicators

Time to grant

99% | 1%

Target: 98% of grant agreements signed within deadlines

HaDEA's methodology for calculating grants signed on time takes into account calls with a time-to-grant deadline in the reporting year and excludes Identified Beneficiary Actions and reserve list projects. Time-to-grant per programme is available in Annex 2 and 3.

Source of data: HaDEA [001]

Agency's overall risk at closure

Year	Value
2021	1,68%
2022	1,74%
2023	1,63%

(Dashed target line at 2,00%)
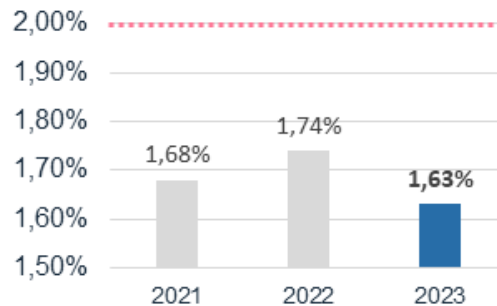
Target: <2%

Source of data: HaDEA [C2.2]

Time to pay

100%

Target: 98% of timely payments (in amount)

Time-to-pay per programme is available in Annex 2.

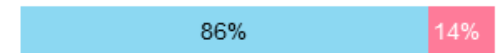*Source of data: HaDEA [C1]*

Implementation of the operational budget

100% committed vs. budget

100% paid vs. budget

Target: 100% implementation (both for commitments and payments)

Source of data: HaDEA [C1]

Client satisfaction

Satisfaction of participants in HaDEA's external events in 2023

86% | 14%

Target: 90%

Source of data: external client surveys/events evaluation form, HaDEA [001]
See details in Annex 2, table 9.

Results of HaDEA's 2023 Client satisfaction survey

In 2023, HaDEA launched its first survey to measure the satisfaction of beneficiaries and unsuccessful applicants to funding managed by the Agency. These results form the baseline for future years.

84% | 16%
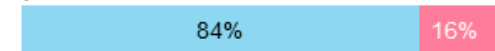
Percentage of beneficiaries satisfied

49% | 51%

Percentage of unsuccessful applicants satisfied

Source of data: 2023 client satisfaction survey, HaDEA [001]

C. Key conclusions on internal control and financial management

In line with the Commission's Internal Control Framework, HaDEA has assessed its internal control systems during the reporting year and has concluded that it is effective and that the components and principles are present and functioning well overall, but some improvements are needed. Please refer to annual activity report section 2.3 for further details.

In addition, HaDEA has systematically examined the available control results and indicators, as well as the observations and recommendations issued by the internal auditor and the European Court of Auditors. These elements have been assessed to determine their impact on management's assurance about the achievement of the control objectives. Please refer to section 2 for further details.

In conclusion, management has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated. Some minor improvements are necessary, notably: the continuous enhancement of HaDEA procedures, in particular the further development of the monitoring approach in grant and expert management; and the organisation of further awareness-raising activities for staff on ethics and conduct and anti-fraud training sessions. Remedial measures are under implementation to address these minor weaknesses .

The Director, in her capacity as Authorising Officer by Delegation, has signed the Declaration of Assurance.

D. Provision of information to the Commissioner

In the context of the regular meetings during the year between the Director and the parent DGs on management matters, the main elements of this report and assurance declaration, have been brought to the attention of the agency's Steering Committee and to the parent DGs Directors General.

1. IMPLEMENTATION OF THE AGENCY'S ANNUAL WORK PROGRAMME – HIGHLIGHTS OF THE YEAR

This section provides an overview of the activities carried out by HaDEA for the implementation of the programmes delegated to the Agency: EU4Health, Horizon Europe (Cluster 1 and Cluster 4), SMP Food, Digital Europe Programme (DIGITAL), and Connecting Europe Facility 2 – Digital (CEF-Digital).

In 2023, the Agency continued to cooperate closely with its parent DGs and to provide them with knowledge acquired from the management of projects. In October, HaDEA organised a workshop with parent DGs to review the progress made in the implementation of the **feedback to policy** framework adopted in 2021. Following interactive discussions, HaDEA prepared a list of actions to improve the activities' effectiveness, to be taken up in 2024.

HaDEA actively **promoted synergies between the different EU funding programmes** it manages. The Agency organised two internal workshops to identify cross-cutting topics within its portfolio and discuss ways to foster internal cooperation. HaDEA organised or participated in several events to meet stakeholders, promote the programmes and stress the importance of breaking thematic silos: five strategic missions ([5]) took place with that objective and a large event gathered national support networks ([6]) active in the digital and health areas in Rome in June 2023. In October, HaDEA organised an event on synergies between projects on mental health funded under EU4Health and Horizon Europe, ahead of the high-level conference hosted by Commissioner Kyriakides. Finally, the Agency participated in the WebSummit, inviting projects funded under CEF-Digital, DIGITAL and Horizon 2020 to participate in a workshop on "Funding the EU's digital transition".

With the aim to **support its client-oriented approach and culture,** HaDEA launched the first satisfaction survey addressed to unsuccessful applicants and beneficiaries from the programmes it manages, targeting over 4000 external clients. Results show that the overall satisfaction with the service provided by HaDEA stands at 84% for beneficiaries and 49% for unsuccessful applicants. The results of this survey constitute the Agency's first baseline on the satisfaction of external clients and will serve as a basis to set future targets. The results' analysis will feed into the preparation of an action plan to improve HaDEA's client service. In that respect, HaDEA also organised two training sessions for staff to promote service excellence.

1.1. EU4Health

The EU4Health Programme invests in key health priorities of the European Health Union. The Programme covers four overarching strands: crisis preparedness; health promotion and

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([5]) Strategic missions are national meetings or thematic conferences that aim to promote the programmes in HaDEA's portfolio, meet key stakeholders (National Contact/Focal Points, national and regional authorities, project coordinators and beneficiaries), and showcase the Agency.

([6]) Horizon Europe National Contact Points, EU4Health National Focal Points.

disease prevention; health systems and healthcare workforce; and digital - with cancer as a transversal strand. Norway, Iceland, Ukraine and Moldova (from February 2023) are associated to the EU4Health Programme.

Grants management

In 2023, HaDEA launched 12 calls for proposals, for a total budget of EUR 447 million, stemming from the 2022 and 2023 EU4Health work programmes. These include one open call for proposals and seven invitations to Member States to submit proposals for Joint Actions (JAs) and other direct grants. In addition, on 6 December 2023, just one day after the adoption of the EU4Health 2024 annual work programme, HaDEA launched the 2024 open call for operating grants for health non-governmental organisations (NGOs).

These calls ensure support for the Europe's Beating Cancer Plan [7], the Communication on a Comprehensive Approach to Mental Health [8], the Pharmaceutical Strategy for Europe [9], the European Health Data Space [10], the activities of the European Health Emergency Preparedness and Response Authority (HERA) as well as the implementation of the Union health legislation.

In 2023, HaDEA successfully signed 148 grant agreements, for a total EU co-funding of almost EUR 477 million. See Graph 1 in Appendix for further details. Most of these grants launched in 2023 are highly complex policy-relevant actions receiving substantial budget, for example the JA on "cancer and other non-communicable diseases prevention – action on health determinants", coordinated by Norway, with a total EU contribution of EUR 76.4 million.

The Agency also signed three grant agreements to support the European Reference Networks (ERNs) in their work on rare and complex diseases, whilst continuing to manage the 24 ongoing grants. The JA JARDIN, coordinated by Austria, will support the integration of the ERNs into the national healthcare systems of Member States.

Procurement management

HaDEA launched 33 procurement procedures, stemming from both the 2022 and 2023 work programmes, for a total budget of around EUR 320 million. The Agency published half of the procedures under the 2023 work programme. Most of the remaining ones, to be

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[7] Commission Communication on "Europe's Beating Cancer Plan", COM(2021) 44 final, https://health.ec.europa.eu/system/files/2022-02/eu_cancer-plan_en_0.pdf

[8] Commission Communication on 'A comprehensive approach to mental health', COM(2023) 298 final https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023DC0298

[9] Commission Communication on "A Pharmaceutical Strategy for Europe", COM(2020) 761 final, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0761&rid=3

[10] Commission Communication on "A European Health Data Space: harnessing the power of health data for people, patients and innovation" COM(2022) 197 final, eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52022DC0196

launched by mid-2024, concern either specific contracts under framework contracts currently published but not signed yet, or stem from policy needs requiring a later timeline.

HaDEA signed 45 contracts in 2023, bringing the portfolio of contracts to a total of 72 running actions, including the last ones from the Third Health Programme. Ongoing actions cover key topics, including crisis preparedness, cancer prevention, as well as the EU legislation on medical devices and health technology assessment. HaDEA also signed three contracts to design, develop, deliver and maintain HERA's Advanced Technology for Health Intelligence and Action IT System (ATHINA).

The support of HaDEA's procurement sector helped ensure quality control on all procedures. All files submitted to the HaDEA advisory committee for procurement and contracts received favourable opinions ([11]). The procurement cell also made sure to adapt the procedure to the action's scope and to produce clear tender specifications: this resulted in a high response rate to the calls, with an average of four submitted bids per procedure.

Some tangible results of the procurements launched by the Agency include the EU-FAB network. This network of manufacturers, delegated by HERA to HaDEA, has reserved capacity to produce 325 million doses of vaccines covering all three available technologies (mRNA, vector and protein-based vaccines) ready to be mobilised in case of a new public health crisis. In addition, several actions aim at supporting capacity building and training in key public health domains (mental health, preparedness, substances of human origin, eHealth or vaccination).

Outreach and external communication

In 2023, HaDEA actively promoted the EU4Health Programme and project outcomes. The Agency also provided support and information to potential applicants for grants through the organisation of 13 events. HaDEA also organised two info sessions for potential economic operators interested in the calls for tender to create the IT system ATHINA ([12]) and on innovative medical countermeasures.

In 2023, HaDEA continued its work with the EU4Health National Focal Points (NFPs) to support health authorities and community actors from EU and associated countries in accessing EU4Health funds. HaDEA also supported the JA on increasing capacity of NFPs, including the newly nominated NFP for Ukraine.

HaDEA promoted the EU4Health Programme in close cooperation with local authorities and/or the Representations of the European Commissions through jointly organised events in Italy, Romania, Bulgaria and Luxembourg. Furthermore, HaDEA participated in info days on EU4Health funding opportunities organised by national authorities in Austria, Finland, Germany, Lithuania, Poland and Slovakia.

([11])   One file was initially suspended as negative and receiving positive opinion after re-submission of the file.
([12])   HERA's Advanced Technology for Health Intelligence and Action IT System.

HaDEA reached out to potential applicants, tenderers, stakeholders, and the public at large during events including the World Public Health Congress (Rome, 2-6 May), the European Public Health Conference (Dublin, 8-11 November) and the HERA Conference 2023 (Brussels, 5 December).

Finally, HaDEA actively promoted EU4Health and the Third Health Programme actions through web articles and social media posts and in five issues of the 'EU4Health Updates' newsletter dedicated to NFPs.

Feedback to policy

In the framework of the 2023 feedback-to-policy plan, HaDEA worked closely with DG SANTE and HERA, providing progress updates and lessons learned from grants and procurements to inform work programme planning and implementation, as well as policy initiatives such as the 'Council recommendation on vaccine preventable cancers', or the Commission communication on 'A comprehensive approach to mental health'.

HaDEA facilitated the networking of EU4Health/Third Health Programme projects on HIV, mental health or cancer to facilitate the feeding of expertise and good practice into shaping new actions. For example, upon DG SANTE's request, projects related to screening informed Member States' representatives in the preparation of the upcoming JA on cancer screening to ensure synergies and effective use of resources.

The Agency also facilitated input from EU4Health projects into the European Mental Health Week, the World Mental Health Day conference and the European Week against Cancer.

Lastly, in the context of the rare and complex diseases policy, HaDEA supported DG SANTE in carrying out the fifth-year evaluation of the European Reference Networks (ERNs). The assessment of the Healthcare Providers led the parent DG to propose a revision of the evaluation methodology, towards a more cost-efficient and streamlined process, achieving the same quality standards but with less administrative burden for the evaluated entities.

1.2. Horizon Europe

1.2.1. Cluster 1: Health

Through the implementation of projects under Horizon Europe Cluster 1: Health, HaDEA contributes to the EU health research objectives ranging from disease prevention, through developing better diagnostics, more effective therapies, improved access to healthcare and wellbeing, as well as the take-up of innovative health technologies, including digital ones. Additionally, the Agency helps deliver the EU Mission on Cancer, aiming to improve lives of over 3 million people by 2030 through improved prevention, cure and support. The Agency also participates in the implementation of the "Hop-on Facility" of the "Widening participation and strengthening the European Research Area" (WIDERA) work programme.

Call management and grant agreement preparation

Under Cluster 1, HaDEA evaluated eight 2023 single-stage calls: 490 eligible proposals were received for the available budget of EUR 797 million. The results were communicated to the 97 successful projects in August 2023. The Agency also evaluated two European Partnerships on Rare Diseases and Personalised Medicine and two identified beneficiary actions, both for the Coalition for Epidemic Preparedness Innovations – CEPI.

In the second half of 2023, the Agency organised the evaluation of the first stage of the five two-stage calls for which 954 eligible proposals were received. The Agency will communicate the results to the applicants in January 2024.

With regards to grant agreement preparation, the Agency finalised the signature for 63 proposals shortlisted from the 2022 two-stage calls, of which nine promoted from the reserve lists. In addition, 13 grant agreements from the 2022 single-stage calls promoted from the reserve lists were concluded. One grant agreement was finalised for the 2022 ad-hoc call in the context of international public health emergency on clinical research response to the monkeypox. The Agency also concluded 96 grant agreements from the 2023 single stage calls as well as one CEPI grant agreement.

HaDEA also prepared and signed grant agreements for 20 proposals from the 2022 Cancer Mission calls. In addition, for the 2023 Cancer Mission call, 103 eligible proposals were submitted, and 13 grant agreements were signed.

Furthermore, in 2023, the evaluation of the WIDERA Hop-On Facility call resulted in 26 successful applications, amounting to EUR 13 million in additional funding. The selected projects will be amended to include a new partner country. The applicants will be informed in January 2024.

Project management

At the end of 2023, the Agency's portfolio included 717 open projects, 345 of which were Horizon Europe projects. These projects cover a wide range of issues, from the next generation of vaccines to pandemic preparedness and response. HaDEA is also monitoring 46 open projects from the Horizon Cancer Mission calls 2021-2023 and 326 projects from the legacy programme Horizon 2020. Lastly, HaDEA processed 369 amendments and 198 payments. See Appendix, Graph 2.

Promotion and dissemination

In 2023, HaDEA organised the 'Horizon Europe Cluster 1 Health Info Day' in collaboration with DG RTD as well as National Contact Points meetings for the main 2024 calls for proposals for Cluster 1: Health and the EU Cancer Mission. All calls and events were promoted on the HaDEA website and social media accounts. The Agency also served as a multiplier of information for various project-related events and showcased interesting

project developments and results on the HaDEA website and social media accounts, especially during international health days.

Policy feedback and support

HaDEA led the preparation of the 2023 feedback-to-policy plan in close collaboration with its parent DGs. At the end of the year, the Agency had conducted all activities listed in the plan ([13]).

HaDEA thus provided regular specific information on projects and project portfolios, notably on pandemic preparedness, mental health, rare diseases, digital health, the Cancer Mission, and co-funded partnerships. Furthermore, the Agency supported the work of a growing number of thematic clusters of projects, such as the rare diseases cluster, the clusters under the Mission Cancer and the European research cluster to understand the impacts of micro- and nano-plastics on health. These clusters have proven to facilitate synergies, increase impact and avoid overlaps.

1.2.2. Cluster 4: Digital, Industry and Space

1. Digital

The actions implemented by HaDEA within the digital strand of the Horizon Europe programme, Cluster 4: Digital, Industry and Space, aim at enabling industry to accelerate and lead the twin green and digital transitions through research and innovation actions. These actions contribute to the Commission's objective "A Europe fit for the digital age".

In addition, the Agency managed the legacy activities of Part II "Industrial Leadership" of the Horizon 2020 Programme, and notably the specific objective "Leadership in enabling and industrial technologies (LEIT)".

Call management and grant agreement preparation

HaDEA's main activities in this area in 2023 included the evaluation and signature of grant agreements from five calls under the 2023 work programme. In response to these calls, the Agency received 250 proposals, out of which 30 were selected for funding after a thorough evaluation process. The signature of an additional five projects from the 2023 reserve lists, expected in early 2024, will bring up the number of projects funded through the 2023 calls to 35. See details in Appendix, Graph 3.

The successful projects funded through the calls on computing technologies and on digital and emerging technologies will promote industrial leadership in artificial intelligence, data,

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([13]) The agreed plan for 2023 listed 45 activities. Five of the originally planned activities were either discontinued or not requested anymore by the parent DGs.

robotics and photonics, thereby contributing to boost European competitiveness and the green transition. Projects funded under the call twin green and digital transition aim to support manufacturing companies to achieve resilience, sustainability and flexibility through the use of digital technologies ([14]).

Other funded projects will support a human-centred and inclusive approach to technology development, aligned with European social and ethical values. For instance, some of the selected proposals will contribute to the development of an international hub for digital partnerships in the Indo-Pacific, promote cooperation with Sub-Saharan Africa as well as with Latin America in research and innovation.

Under the 2023 work programme, 43% of the signed projects are implemented using lump sum grants for the first time. HaDEA is monitoring closely the implementation of these projects.

Project management

At the end of 2023, HaDEA's project portfolio amounted to 105 ongoing projects under the digital strand of Horizon Europe. Projects funded under the legacy programme Horizon 2020 continue to represent more than half of HaDEA's current portfolio. In 2023, 64 legacy projects were completed, leaving the Agency 109 remaining Horizon 2020 projects to manage for a total amount of about EUR 660 million. See Appendix, Graph 4.

Promotion and dissemination

In 2023, HaDEA promoted the results of its work by participating in and co-organising some events. The Agency thus showcased some Horizon 2020 projects during the HiPEAC 2023 Conference and at the 2023 Optical Fiber Communication Conference, organised in California.

Moreover, to raise awareness on the funding opportunities offered by the programme, the Agency participated in the Digital Assembly 2023, providing information to potential applicants. HaDEA also published 41 articles on its website, highlighting successful projects funded under Horizon 2020 and the digital strand of Horizon Europe.

Policy feedback and support

By the end of 2023, all the items included in the 2023 feedback-to-policy plan had been successfully delivered to DG CONNECT ([15]). The completed actions include five evaluation reports providing information on evaluation outcomes and two workshops on "Factories of the Future and Made-in-Europe, challenges and opportunities" and "the transformative

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([14]) "Manufacturing as a service".

([15]) Seven out of the nine items in the 2023 F2P plan have been successfully delivered. In agreement with the parent DG, the remaining two items of the plan were postponed to 2024 as they were subject to further definition and specification from the requesting policy units in DG CONNECT.

power of Virtual Worlds and Web 4.0". In addition, numerous unplanned activities have taken place.

2. Industry

Horizon Europe Pillar 2, Cluster 4 supports the green transition and digital transformation, facilitating the uptake of new digital, climate-neutral and circular technologies by European industries, including and especially by small and medium-sized enterprises.

The actions funded under this strand will enable the transition to a green and digital industry in all industrial sectors, especially in the energy-intensive industries. This is made possible thanks to breakthrough technologies and advanced solutions for substitution, resource and energy efficiency, effective reuse and recycling and clean primary production of raw materials, including critical raw materials, and leadership in circular economy.

Call management, evaluation and grant agreement preparation

In 2023, HaDEA managed nine Horizon Europe calls for proposals (including two two-stage calls), with a budget of EUR 720.87 million ([16]). See details in Appendix, Graph 5.

In total, 488 proposals were submitted in response to the above-mentioned calls, confirming the quite considerable interest in the Horizon Europe funding among applicants. About 98% of the submitted proposals were found eligible, a sign that applicants are aware and acquainted with the set procedures. During the evaluation process, HaDEA conducted more than 550 online consensus and panel review meetings, all in a timely manner.

Project management

In 2023, HaDEA successfully implemented and monitored a total of 453 open projects under the industry strand of the Horizon Europe – Cluster 4. The total EU funding contribution of open projects in 2023 amounts to almost EUR 5 billion. See details on the portfolio in Appendix, Graph 6 and 7.

Promotion and dissemination

HaDEA coordinated and participated in several important events, promoting project results and funding opportunities to a wider audience.

In March 2023, 15 Horizon 2020 and Horizon Europe projects participated in the PDAC Convention 2023, the leading event for mineral exploration and extraction. HaDEA

([16]) This budget and the figures mentioned below reflect the budget and number of proposals handled by HaDEA.B3. The total budget implemented by HaDEA for these calls amounts to EUR 846.37 million. In addition to the calls presented in the graph, a call was launched for the organisation of a Presidency event in 2024 (budget of EUR 0.1 million).

organised and chaired a session on EU research and innovation for mineral exploration and extraction.

The Agency was also present at the 2023 Hannover Messe on 18 April 2023 with a session on EU research and innovation projects for sustainable and efficient raw materials value chains. Six projects presented their results during the biggest industrial event in Europe.

Furthermore, HaDEA, DG RTD and EU-funded projects managed by HaDEA participated in the Euro Nano Forum 2023 in June, a key event organised under the Swedish Presidency.

During the 8th edition of the EU Raw Materials Week, HaDEA organised a session on EU Horizon Technology Success Stories, highlighting the results of six Horizon 2020 projects on raw materials.

In the framework of the COP 28, HaDEA organised three side events as part of the EU Pavilion. These events focused on human-centric manufacturing, decarbonising buildings, and the decarbonisation of energy-intensive industries.

Lastly, to promote the results of selected HaDEA projects, five CORDIS dossiers were either created or updated.

Policy feedback and support

The 2023 feedback-to-policy plan entailed 40 activities covering a wide range of thematic areas. Among the most notable outcomes, the Agency provided reports and analyses of project portfolios on a width of topics, ranging from energy-intensive industries, to biotechnology, raw materials, advanced therapy medicinal products, medical devices for treatment and diagnostics, digitalisation in construction and solar alliance.

In addition, support was given to the organisation of and participation in the EuroNanoForum 2023 conference.

3. *Space*

HaDEA implements the 'Space' strand of Horizon Europe Cluster 4 with its leitmotiv "open strategic autonomy", as well as the legacy of Horizon 2020 LEIT Space ([17]).

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[17] The policy objectives and actions of the 'Space' strand of Cluster 4 are stipulated in the Horizon Europe specific programme and in its work programmes 2021-2022 (Commission Decision C(2022)2975 of 10 May 2022) and 2023-2024 (Commission Decision C(2022)7550 of 6 December 2022). The activities and objectives of the Horizon 2020 LEIT Space actions were set out in the Council Decision on the Specific Programme implementing Horizon 2020 (Council Decision 2013/743/EU of 3 December 2013) and in the annual work programmes for LEIT Space (Commission Implementing Decision (EU) 2021/173 of 12 February 2021).

Call Management, Evaluation and Grant Agreement Preparation

Between May and July 2023, HaDEA evaluated the 141 proposals received in response to the 2023 space call. The Agency supported DG HOME in conducting the mandatory security scrutiny for nine of the selected projects. These resulted in security measures to be applied by several projects. The call success rate was 24.8%, meaning that HaDEA invited 35 of the evaluated proposals to sign a grant agreement.

The Agency carried out the grant agreements' preparation from July to November. The biggest challenge for a smooth process and for respecting the deadlines were the ownership and control assessments (OCA) and the supply chain analyses required for some topics. The assessment of the financial capacity of coordinators was an additional issue in some projects. It took HaDEA significant effort to sign 32 grants by the deadline. One agreement was signed with a slight delay, and the signature of two projects with unresolved OCAs will take place in 2024. The total EU contribution for the 35 awarded grants amounts to EUR 119.8 million.

In addition, HaDEA evaluated and signed grant agreements for five proposals from the 2022 Identified Beneficiary Action Space Surveillance and Tracking (SST). The total budget for the five topics was EUR 52 million.

Moreover, in July 2023, HaDEA evaluated the Identified Beneficiary Action ([18]) for the Management and Coordination of the European Partnership Globally Competitive Space System. The grant agreement preparation started in August and is still ongoing. The budget for this action is EUR 1.5 million.

Project Management

At the end of 2023, 77 projects from the legacy programme Horizon 2020 were still ongoing, compared to 124 at the beginning of the year.

The number of grants from the space strand of Horizon Europe Cluster 4 that the Agency was managing in 2023 grew from 46 in the beginning of the year to 86 at the end. The 40 new projects included two from the reserve list of the 2022 call, five new projects from the 2022 SST call and 33 from the 2023 space call. See Appendix, Graph 8.

Communication

To ensure widespread visibility of the Horizon Europe space call 2023, HaDEA created a set of seven animated videos and promoted them via HaDEA's social media accounts. As part of the successful Horizon Europe Info Days on Cluster 4, HaDEA informed potential applicants about the space call 2024.

([18])   HORIZON-CL4-2023 IBA

Throughout 2023, the ongoing Horizon 2020 legacy and Horizon Europe space projects were promoted via HaDEA's communication channels. HaDEA published 14 articles on the space section of its website. This included multiple articles celebrating 'international days', using the occasion to put the spotlight on selected space projects. Moreover, HaDEA projects participated in key events to promote their results, such as the European Space Weather Week.

In 2023, a new section to highlight achievements of the space project portfolio was added to the HaDEA website, with a first feature on the Strategic Research Cluster on Space Robotics Technologies. Finally, a dedicated video to promote the unique Quantum Gravimetry Pathfinder mission portfolio was produced in-house.

Feedback to Policy and Policy Support

In 2023, HaDEA continued to work very closely with DG DEFIS to deliver on the feedback-to-policy plan it had developed together with them. At the end of the year, most of the 32 actions planned for 2023 had been completed ([19]).

For example, during the consultations for the Copernicus Strategic Research Agenda (SRA) HaDEA supported DG DEFIS by participating in stakeholder consultations, providing feedback on projects' achievements and challenges encountered during the projects. The Agency also conducted a survey on project exploitation, commented on the resulting draft SRA, and clarified intellectual property rights' issues related to the evolution of the Copernicus services.

HaDEA also helped DG DEFIS to assess the defence spin-in potential of civil projects, proposing criteria to use. HaDEA's analysis served as the main basis to further explore synergies between space and defence and to create the first defence work programme targeting spin-in from space.

This tight cooperation and the fact that space research feeds to a very large extent directly into policy development means that HaDEA makes important contributions to the policy-design work of DG DEFIS.

1.3.   Single Market Programme

The Agency implements the food safety strand of the Single Market Programme, which supports the safe production of food, the prevention and eradication of animal diseases and plant pests, and the improvement of animal welfare in the EU ([20]). The actions under this strand also include the fight against antimicrobial resistance as well as the

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([19]) Out of the 32 actions planned for 2023, 29 were completed, one was still in progress at the end of the year, two were no longer requested by DG DEFIS, and one major additional ad-hoc action had been completed.

([20]) in line with the EU animal health and plant health Regulations.

organisation of reliable official controls by the national competent authorities and actions to prevent and reduce food waste.

Grant management

In 2023, HADEA finalised the actions from the 2022 work programme. Grants were signed with 15 Member States to support the management of biocides' and pesticides' authorisation. The Agency also signed one grant on animal welfare. Moreover, HaDEA signed grants with Member States on the implementation of coordinated control plans on antimicrobial residues in meat [21].

With regards to the 2023 work programme, three calls for proposals on tackling food waste were launched. HADEA also signed 57 grants funding veterinary and phytosanitary programmes in Member States and non-EU countries competent authorities. The objective of these programmes is to implement measures of detection, eradication or containment of animal diseases and plant pests.

Finally, the Agency sent an invitation to submit proposals for grants to the 50 EU Reference Laboratories and Centres, to be signed in 2024.

In total, HaDEA signed 126 grants in 2023 under the SMP Food programme, for an overall budget of around EUR 68 million.

The efforts made in 2022 both by HaDEA's staff and the beneficiaries for the onboarding to the corporate IT tool eGrant paid off: in 2023, all grants were signed within the deadline. At the end of the year, a service-level agreement was signed between HaDEA and DG RTD for the IT development of a specific module for the calculation and submission of lump sums. This module will be used for the veterinary and phytosanitary programmes from 2024.

Procurement management

HaDEA signed five procurement contracts from the annual work programme 2022, covering training of Member States' officials in food safety within the framework of the Better Training for Safer Food (BTSF) initiative, training for veterinarians and farmers on the reduction of antibiotics' use as well as a study on the treatment of Equidae.

HaDEA also signed two contracts from the 2023 work programme for the delivery of studies on plant micro-organisms. Another two procurement procedures, one on BTSF trainings and one on a study on food contact material, were launched and will be signed in 2024.

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[21] 26 grants covering the year 2022 and an additional 26 covering the period 2023-2024.

Communication

To ensure the visibility of the programme, HaDEA promoted the calls for proposals and tenders on its website and social media accounts.

Feedback to policy

The feedback to policy activities took place as planned in the plan agreed with the parent DG. HaDEA thus provided several reports to DG SANTE on the veterinary and phytosanitary programmes, including a note on the programmes' outcomes and budget, as well as on the BTSF initiative. The Agency also informed DG SANTE on the state of play of the actions and on applications received for new activities related to the Farm to Fork action.

1.4.   Digital Europe Programme

The Digital Europe Programme (DIGITAL) aims to strengthen the EU's digital sovereignty by reinforcing key capacity areas through strategic deployments in digital skills, artificial intelligence (AI), cybersecurity, data infrastructure, governance and processing.

Call management

In 2023, HaDEA published two sets of calls. The projects funded under these calls will contribute to the deployment of an operational data space for cultural heritage and to the development of a common European data space for tourism. In addition, the Agency opened some calls with a focus on advanced digital skills, including the very first call of the programme using lump sum funding. In preparing this call, HaDEA could rely on the experience gained with this type of funding under Horizon Europe Cluster 4.

The 2023 calls are in line with the EU objective of ensuring that the EU has at least 20 million ICT specialists employed and promoting gender balance, as spelled out in the EU 2030 Digital Compass and in DIGITAL's Specific Objective 4. To address the lack of cybersecurity professionals in the EU, one topic managed by HaDEA aims at establishing a Cybersecurity Skills Academy.

Moreover, two evaluations took place in 2023. The first related to the 'specialised education programmes or modules in key capacity areas' call, published under DIGITAL's 2021-2022 work programme. The call was very successful and resulted in 12 new grants signed. Out of these 12, five were proposals originally placed on a reserve list but then granted funding as additional budget was made available by DG CONNECT. As the call was earmarked under 2022 budget, it was imperative to sign all contracts before the end of 2023. Despite the time pressure, HaDEA finalised all the grants within the time limit set in the Financial Regulation. In two cases, the grant agreement preparation process was concluded by HaDEA in less than two months.

The second evaluation covered key areas for the digitalisation of Europe such as the Digital Product Passport, reinforcing skills in semiconductors, and achieving a safer Internet.

Project management

In 2023, HaDEA focused on the monitoring of the 82 projects selected under the specific objectives 2, 4 and 5 (see Appendix, Graph 9), for a total budget of EUR 245 million. The projects cover topics as Advanced Digital Skills, European Digital Identity Wallet, Blockchain, Digital Product Passport, European Digital Media Observatory, Safer Internet, Data Space for Culture.

Legacy activities: Connecting Europe Facility – 1 Telecom

HaDEA continued to monitor the projects for generic services funded by the legacy programme CEF Telecom (2014-2020). This programme facilitates cross-border digital interaction between public administrations, businesses and citizens by deploying digital service infrastructures. HaDEA processed more than 100 payments in 2023 for a total amount of EUR 21 million.

Policy feedback and support

As in previous years, the Agency supported the policy work of the European Commission by preparing reports on the topics delegated to HaDEA.

The main contribution from HaDEA with regards to the CEF Telecom programme was the provision of data and analysis on the performance of the different Digital Service Infrastructures based on the performance monitoring framework. This exercise will be the basis for the ex-post assessment of the Programme, which will start in the coming months in collaboration with DG CONNECT, DG MOVE and DG ENER.

Concerning DIGITAL, HaDEA answered all requests from the policy units related to the implementation of the funded projects and lessons learnt from the call publication, the grant agreement preparation and the implementation period. Even though there are not many outcomes available for analysis yet, the Agency's close monitoring of the projects is crucial to ensure they meet the policy requirements and needs.

Promotion and dissemination

HaDEA organised four info days to promote the funding possibilities offered by DIGITAL.

The Agency focused on showcasing results and promoting future opportunities. Efforts resulted in the publication of four videos on DIGITAL, with subtitles in all EU languages. Moreover, DIGITAL was presented at the Digital Assembly 2023 in Stockholm. Finally, more visibility was given to the CEF-Telecom projects, which are now published in the Funding and Tender Portal. In 2023, the Agency promoted the work done towards the Digitalisation of Europe via these two programmes through 40 articles published on the HaDEA website.

1.5.   Connecting Europe Facility: Digital

The objective of the CEF-Digital programme is to support large-scale projects deploying high-capacity digital infrastructures (notably backbone networks), as well as 5G systems in cross-border areas.

Call management and evaluation

The second wave of CEF-Digital calls launched in October 2022 was closed in March 2023, after a one-month extension. The topics covered by the five calls ranged from 5G for transport corridors to 5G for smart communities, cloud backbone infrastructure, digital global gateways and coordination and support actions. The planned call for the European quantum communication infrastructure was postponed to 2024.

The external evaluation of the calls took place from March to May 2023. Specific input was provided by digital security experts to ensure the integration of the high digital security standards set in the Programme.

Following the internal evaluation by DG CONNECT, the selection committee made a decision on the selected projects at the end of September 2023. Member States were then informed of the evaluation outcome. The results were consequently published with a delay of 13 days beyond the deadline to inform applicants set by the Financial Regulation.

43 out of a total of 63 eligible proposals were selected, a success rate of 68%.

Project management

The grant agreement preparation process for the second set of calls took place from October to December 2023. Out of the 43 successful projects, 37 had signed their grant agreements with HaDEA by December 2023, within the timeframe foreseen by the Financial Regulation.

HaDEA also monitored the implementation of 38 projects from the first wave of calls, processing amendments, reviewing reports and executing payments.

Promotion and dissemination

Around 15 info-days and events at EU and national levels were held to promote the third wave of calls for proposals in the autumn of 2023. The calls were also advertised on the HaDEA website and social media accounts.

Throughout 2023, HaDEA actively participated in events with external stakeholders (Submarine Networks EMEA, TEN-T corridors fora, Smart Cities Expo, 5G Corridors and 5G Smart Communities Support Platform workshops), raising the visibility of the CEF-Digital Programme to external audiences and potential applicants.

Feedback to policy

In December 2023, HaDEA analysed the effect of the Association Agreements of Ukraine and Moldova to the CEF-Digital programme.

In addition, in February 2024, HaDEA will deliver a report to DG CONNECT on lessons learnt from the evaluation of the second wave of calls carried out in 2023, presenting the challenges encountered and recommendations for future calls. HaDEA also worked closely with DG CONNECT on the definition of key performance indicators and the intervention logic of the CEF Digital Programme.

Legacy activities: WiFi4EU initiative

In 2023, the Agency pursued the implementation of the WiFi4EU initiative, which provides free Wi-Fi to all Europeans. Since the beginning of the initiative, 8 802 municipalities across Europe – representing 10% of all municipalities – have been awarded a voucher of EUR 15 000 each to deploy hotspots in public places, with an overall budget of EUR 132 million.

Project management and communication

HaDEA continued taking actions to encourage the implementation by both municipalities and installation companies. By the third quarter of 2023, HaDEA finalised the payments of the last vouchers to 116 beneficiaries, corresponding to EUR 1.7 million.

At the end of 2023, HaDEA was monitoring a portfolio of 7 237 municipalities, corresponding to 9 169 deployed Wi-Fi networks. The peak of daily connections in 2023 was reached in July and August with over 180 000 citizens and visitors benefitting from WiFi4EU free connectivity in public places.

9 169 deployed networks   *93 369* hotspots   *184 286* peak connections (August 2023)
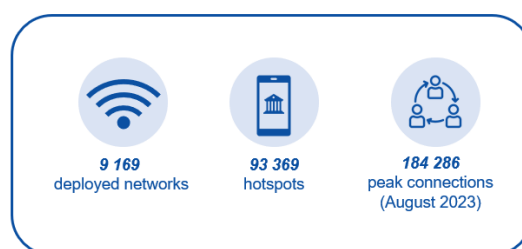
Throughout 2023, the Agency continued to put the WiFi4EU initiative in the spotlight through campaigns on social media channels. Posts were published on the national days of participating countries to showcase the results achieved across Europe ([22]). In addition, HaDEA launched promotional videos during holiday periods (Easter, summer, winter holidays and Europe day).

Feedback to policy

In line with the 2023 feedback to policy plan, HaDEA carried out a review of the extensions of the grant agreements and analyzed a pilot project testing the effectiveness of recovery

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[22]   See for example the article published on Romanian National Day.

procedures. Additionally, upon request of DG CONNECT, the Agency drew the lessons of running voucher schemes at EU level.

1.6.   Reliability of the performance information

HaDEA ensures reliability of performance information by following the principles established in the 'Data governance and data policies' at the European Commission (Ares(2022)860387) and the memoranda of understanding established between HaDEA and its parent DGs. Exhaustive reporting of the target as planned in the annual work programme can be found in Annex 2.

- The Agency reviews the information provided by the beneficiaries in their reports and performs a verification of the compliance of the reports with formal obligations defined in the grant agreements or any other contractual document.

- The Agency performs additional monitoring controls whenever deemed necessary and depending on the risks, checks the proper implementation of actions and beneficiaries' compliance with the obligations under contractual arrangements, also assessing the deliverables and the related reporting.

- Depending on the risks and based on the principle of proportionality, regular monitoring and contacts with the beneficiaries take place to allow the Agency to identify potential reliability issues. Any identified issues are discussed and addressed.

- When the Agency uses IT tools to collect data from the beneficiaries, these IT tools include minimum quality checks and validation rules and as well as a guidance for the beneficiaries.

2.   INTERNAL CONTROL AND FINANCIAL MANAGEMENT

Assurance is provided on the basis of information on the efficiency and effectiveness of internal control systems and governance processes. The management monitors the functioning of the internal control systems on a continuous basis and carries out an objective examination with internal and external auditors. The results are explicitly documented and reported to the Director. The following reports / documentation have been considered:

- the declarations from the authorising officers by sub-delegations ;
- the results of the annual risk assessment exercise;
- the reports on recorded exceptions, non-compliance events and any cases of 'confirmation of instructions' (Art 92.3 FR);
- the outcome of ex-post audit results and anti-fraud activities;
- the observations and recommendations reported by the Internal Audit Service (IAS);
- the observations and the recommendations reported by the European Court of Auditors (ECA);
- the report on the annual assessment of the internal control system of HaDEA;
- the results of the corporate indicators reported in the Annex 4.

The systematic analysis of the available evidence provides sufficient guarantees as to the completeness and reliability of the information reported and results in the full coverage of the budget delegated to the Director of HaDEA.

This section covers the control results and other relevant elements that support management's assurance. It is structured into 2.1. Control results, 2.2. Audit observations and recommendations, 2.3. Effectiveness of internal control systems and resulting in 2.4. Conclusions on the assurance.

2.1.   Control results

This section reports on the control results used by management to support the assurance on the achievement of the internal control objectives (ICO) (^{23}). The Agency's assurance-building and materiality criteria are outlined in Annex 5. Annex 6 outlines the main risks together with the control processes to mitigate them and the indicators used to measure the performance of the relevant control systems.
This Agency's assurance is built around the principles of effectiveness, efficiency and economy. This section demonstrates how HaDEA applied these principles. The controls

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(^{23}) 1) Effectiveness, efficiency and economy of operations; 2) reliability of reporting; 3) safeguarding of assets and information; 4) prevention, detection, correction and follow-up of fraud and irregularities; and 5) adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments (FR Art 36.2). The 2nd and/or 3rd Internal Control Objective(s) (ICO) only when applicable, given the DG's activities.

focus mainly on the legality and regularity of transactions, as well as on fraud prevention, detection and correction. Ex-ante and ex-post controls are carried out through the following four stages:

a) Programming, evaluation and selection of proposals;
b) Contracting, grant agreement preparation (GAP);
c) Monitoring of the execution;
d) Ex-post controls/audits.

These stages are applicable to both the legacy programmes and the new programmes, taking into account the level of maturity of each programme. The assurance building process reflects the principles and corporate guidance, adapted to the specificities of each programme.
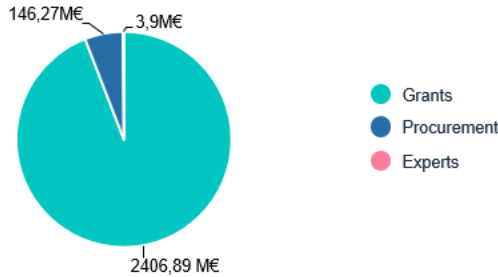
Expenditure overview
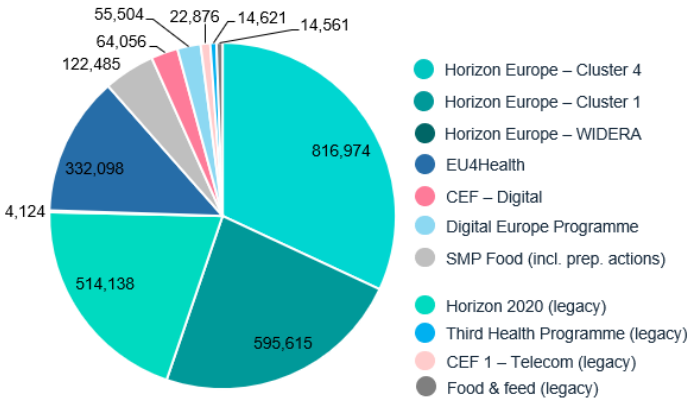
Operational budget

The figures below present an overview of HaDEA's expenditure per activity and per programme.

The programmes managed by Agency are implemented under the direct management scheme. Grants cover 94% of HaDEA's expenditure whereas 6% of the Agency's budget was spent on procurement and experts in 2023. The share of legacy programmes has decreased from 28.5% in 2022 to 22.1% of the total expenditure, while the new programmes represent 77.9%.

Payment appropriations per activity
(All fund sources considered)

146,27M€   3,9M€

2406,89 M€

- Grants
- Procurement
- Experts

Payment appropriations in M€
(All fund sources)

55,504   22,876   14,621   14,561
64,056
122,485
332,098
816,974
4,124
514,138
595,615

- Horizon Europe – Cluster 4
- Horizon Europe – Cluster 1
- Horizon Europe – WIDERA
- EU4Health
- CEF – Digital
- Digital Europe Programme
- SMP Food (incl. prep. actions)
- Horizon 2020 (legacy)
- Third Health Programme (legacy)
- CEF 1 – Telecom (legacy)
- Food & feed (legacy)

Overall paid amount (all fund sources): 2557,051 M€

Programme	Amount paid (million EUR)	% of payments
Horizon Europe – Cluster 4 ([1])	816,974	32%
Horizon Europe – Cluster 1 ([1])	595,615	23,29%
Horizon 2020 (legacy)	514,138	20,11%
EU4Health	332,098	12,99%
SMP Food ([2])	122,485	4,79%
CEF 2 - Digital	64,056	2,51%
Digital Europe Programme	55,504	2,17%
CEF 1 - Telecom (legacy)	22,876	0,89%
Third Health Programme (legacy)	14,621	0,57%
Food & Feed (legacy)	14,561	0,57%
Horizon Europe – WIDERA ([3])	4,124	0,16%
Total paid	**2557,051**	100%

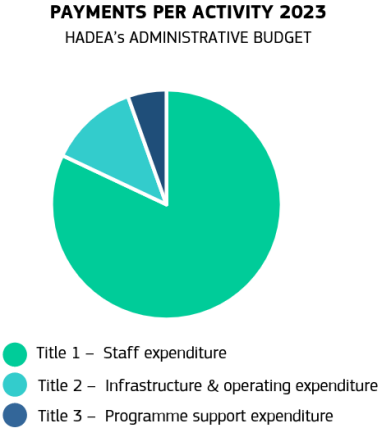([1]) including Horizon missions for a total of EUR 131,516 million

([2]) Including preparatory actions, covered under a separate financing decision

([3]) Funding for widening participation and strengthening the European Research Area

2023 also saw the introduction of lump sums in some of the calls of Horizon Europe Cluster 4, a novelty which impacts the grant evaluation and management. The Agency carefully monitored the implementation of this new funding mechanism. Based on this first experience, recommendations were made for future calls, including the provision of practical illustrations for potential applicants, the addition of guidelines on budget evaluation for experts, and the early involvement of the Agency's financial staff.

Administrative budget

In addition, the Agency has its own administrative budget for which it receives from the EU an annual budget (EUR 50 million in 2023). The administrative budget covers the running costs of the Agency, mainly staff expenditure, office related costs, IT and other services. In 2023, HaDEA implemented 99.36% of its commitment appropriations. The final rate of implementation for payments is 96.21%.

PAYMENTS PER ACTIVITY 2023
HADEA's ADMINISTRATIVE BUDGET

- Title 1 – Staff expenditure
- Title 2 – Infrastructure & operating expenditure
- Title 3 – Programme support expenditure

Item	Amount paid (million EUR)	% of payments
Title 1 – Staff expenditure	**41,32**	**82,03%**
Salaries	39,21	
Professional development and social expenditure	2,11	
Title 2 – Infrastructure & operating expenditure	**6,31**	**12,53%**
Building expenditure	3,76	
ICT expenditure	2,32	
Movable property and current operations expenditure	0,24	
Title 3 – Programme support expenditure (experts, missions, external audits, communications…)	**2,74**	**5,44%**
Total paid	**50,37**	

In line with the 2018 Financial Regulation, HaDEA's assessment for the new reporting requirement is as follows:

- HaDEA had **no cases of "confirmation of instructions"** (new FR art 92.3);

- There were **no cases of financing not linked to costs** (new FR art 125.3);

- There were **no Financial Framework Partnerships with a duration of more than 4 years** (new FR art 130.4);

- With regards to **cases of flat-rates superior to 7% for indirect costs (new FR art 181.6):** HaDEA manages grants under Horizon 2020 and Horizon Europe. The basic acts of these programmes provide for a 25% flat rate for indirect costs, by derogation to the Financial Regulation ([24]).

([24]) Regulation (EU) 2021/695 on Horizon Europe: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2021.170.01.0001.01.ENG&toc=OJ:L:2021:170:TOC
Regulation (EU) 1291/2013 on Horizon 2020: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R1291

- **194 cases of "Derogations from the principle of non-retroactivity** [of grants] pursuant to Article 193 FR" (Financial Regulation Article 193.2) ([25]). See Annex 7 for more details.

Effectiveness of controls

This section describes the effectiveness of the control system for the main expenditure items, i.e., direct grant management, unless indicated that it applies also for the other expenditure items. The effectiveness of the control systems assessed is based on (i) the legality and regularity of transactions, (ii) fraud prevention, protection and detection measures and (iii) other control objectives, namely safeguarding of assets and information and reliability of reporting.

a) Legality and regularity of the transactions

HaDEA uses internal control processes to ensure sound management of risks relating to the legality and regularity of the underlying transactions it is responsible for, taking into account the multiannual character of programmes and the nature of the payments concerned.

1) Control objective

The control activities constitute one of the five components of the Internal Control Framework of the European Commission ([26]). The controls are designed to provide reasonable assurance of achieving the five objectives set in Article 36.2 of the Financial Regulation ([27]).

In 2023, HaDEA updated its control strategy by integrating the different control activities of the Agency in a comprehensive way. It covers a variety of checks, including supervision arrangements, and aims to have a balanced approach to mitigate risks, considering manual and automated controls as well as preventive and detective controls.

As shown above, the vast majority of HaDEA's activities fall under grants in direct management. Considering the limited amount of procurements managed by the Agency, this section focuses on cost of controls of grants in direct management. Having said this, controls are in place for procurements as well and are detailed in annex 6. Annex 6 provides further details about the control objectives per stage and the related checks.

([25]) 42 cases under EU4Health; 26 cases under Horizon Europe Cluster 1; 11 cases under Horizon Europe Cluster 4; 110 cases under SMP Food; 4 cases under the Digital Europe Programme; and 1 case under CEF-Digital.

([26]) https://myintracomm.ec.europa.eu/corp/budget/financial-rules/internal-control/Pages/internal-control.aspx

([27]) Regulation (EU, Euratom) 2018/1046 on the financial rules applicable to the general budget of the Union, repealing Regulation (EU, Euratom) No 966/2012 (2012 Financial Regulation).

Stage 1: Programming, evaluation and selection of proposals

The first stage concerns the preparation and the publication of the calls for proposals and the subsequent evaluation of the received proposals. The overall control objective of this stage is to ensure that the most promising projects, meeting the policy objectives, are among the selected proposals. To achieve this control objective, HaDEA has put in place a set of rules and procedures that are objective, transparent and ensure equal treatment of all applicants.

Stage 2: Grant preparation/Contracting

After a sound and transparent selection process, the next stage consists of formalising the contractual side of the selected proposals. The overall control objective of this stage is to translate each of the selected proposals into legally binding grant agreements, allowing for the management of both the scientific and financial aspects of the projects and to ensure the best value for money output for each of the contracted projects. This stage is referred to as the "grant agreement preparation" process, which may result in grant reductions compared to the initial proposals.

Stage 3: Monitoring the execution

The overall control objective of this stage is to ensure that the projects are performing according to their schedule and that the financial operations comply with regulatory and contractual provisions. The execution of the projects is monitored through different tools, ex-ante controls being one of the most important ones at the time of cost claims submitted by the beneficiaries.

Stage 4: Ex-post controls/Audits

The ex-post controls (audits) are carried out on the costs declared to the Agency. Their objective is to verify the legality and regularity of the underlying transactions and consequently, the final eligible EU contribution of the grants.

The main indicator used to assess the legality and regularity of the transactions is the residual error rate detected by ex-post audits.

The final control objective is to have a cumulative residual error rate which does not exceed 2% for the programmes managed by the Agency [28]. In 2023, the programmes audited were the legacy programmes CEF Telecom, the Third Health Programme, the Food and feed and Horizon 2020 [29].

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[28] For Horizon 2020: a detected error rate ranging from 2% to 5% and as close as possible to 2% after corrections.

[29] As concerns the programmes 2021-2027, no representative error rate for Horizon Europe is available at the end of 2023 as the ex-post audit campaign for the Programme is planned to be launched in 2024. Similarly, no error rates are available by the end of 2023 for Connecting Europe Facility-Digital, the Digital Europe Programme, EU4Health and the Single Market Programme, as the Agency plans to launch the related audits in 2024.

It should be noted, however, that due to its multi-annual nature, the effectiveness of the ex-post control strategies, both for Horizon programmes and other programmes managed by the Agency, can only be measured and assessed fully in the final stages of the programming period, once the ex-post audit strategy has been fully implemented, and errors, including those of a systemic nature, have been detected and corrected.

The state of play is assessed annually, taking into account the results of the implementation of ex-post audit strategies, the frequency and significance of the errors detected, as well as a cost-benefit analysis of the effort needed to detect and correct them. An explanation of the methodology for ex-post controls for each programme managed by the Agency is provided in Annex 5, while details of the sources and results of the controls are provided in Annex 7.

2) Assessment of the control results

Stage 1: Programming, evaluation and selection of proposals

The selection process implies an initial screening of the submitted proposals to assess their admissibility and eligibility. In a second stage, the eligible proposals are evaluated by an independent evaluation panel. An adequate evaluation review procedure is put in place in case of complaints regarding the evaluation. The aim of all steps in this process is to ensure a robust and transparent selection which in turn will guarantee the highest value for money return.

Several qualitative benefits have been identified: a well-designed work programme and widely published calls appeal to a larger number of good quality projects, out of which the very best can be chosen. Expert evaluators bring independence, state-of-the-art knowledge and a range of different opinions, which has a positive impact on the whole project cycle. Selection controls ensure that the most merited projects are funded.

For further details on cost-effectiveness ratios for proposals and evaluation review requests, see Annex 7.

Stage 2: grant preparation/contracting

From a qualitative perspective, the whole committed budget is checked for appropriateness (actions not directly related to the achievement of programme objectives are thus excluded), as well as enhancing the prevention of future errors and leading to a higher assurance on the achievement of the project objectives and results.

In 2023, the related quantitative benefits are estimated at EUR 1 364,22 million which corresponds to funds not contracted due to reductions made at grant agreement preparation stage. Further details are available in Annex 7.

Stage 3: monitoring the execution

The qualitative benefits of this stage are the following: monitoring, processing amendments and scrutinising costs claimed by beneficiaries contribute to the legality and regularity of the transactions. While the benefits of this stage materialise mainly in financial terms, the qualitative benefits generated by these controls are prevention of errors and deterrent effect of controls leading to an overall improvement of the financial efforts carried out by the Agency.

In 2023, 0,46% of costs over the amount claimed were detected and rejected in ex-ante controls, corresponding to EUR 11,89 million. Further details are available in Annex 7.

Stage 4: Ex-post controls/audits

Multi-annual error rates calculated per programme at the end of 2023 are shown in the table below:

Programmes (2014-2020)	Detected error rates	Residual error rates
Horizon 2020	2.57%	1.74%
CEF Telecom DSI	2.82%	2.46%
Third Health Programme	1.86%	1.79%
Food and Feed ([30])	1.19%	1.07%

Error rates cannot be calculated yet for programmes under the 2021-2027 programming period as the current programmes did not reach the corresponding level of maturity, with no or limited interim or final payments performed in 2023 (for Digital Europe Programme, Connecting Europe Facility Digital), or as the payments took place in late 2023 (for EU4Health and Single Market programme) and the first audit campaigns are to be launched in 2024.

For Horizon Europe, no representative error rate is available in 2023 as the ex-post audit campaign for the programme is expected to be launched in 2024, once a meaningful number of payments is available for audit.

Consequently, without elements allowing an assessment of the level of errors, as well as taking into account the simplifications introduced that aim to reduce the error rate, a 2% detected and residual error rate will be considered for the new programmes ([31]).

An explanation of the methodology for ex-post audits for legacy and current HaDEA programmes is provided in Annex 5. For details regarding the audit results, please refer to Annex 7.

([30]) The detected error rate and the residual error rate for 2023 refers to HaDEA expenditure only. For details see Annex 7.
([31]) This rate corresponds to the objective set for the new programmes.

3) Overview of HaDEA risk profile

Overall, HaDEA's grant portfolio consists of segments with a relatively low error rate, i.e. the Third Health Programme and the Food and feed programme, and of segments with a relatively high error rate, such as Horizon 2020 and CEF Telecom-Digital Single Infrastructure segment (DSI).

This is mainly due to the different risk profile of the beneficiaries: while the beneficiaries of the Third Health Programme and Food and feed Programme are mostly public entities, those of Horizon 2020 and CEF-Telecom DSI, which include newcomers and private entities inexperienced in the financial management of EU funds, are considered more error-prone compared to more experienced beneficiaries. The complexities of Horizon 2020 and CEF-Telecom DSI, and notably the applicable funding model, based on reimbursement of eligible actual costs, also contribute to the relatively high error rate, despite the efforts made in the related segments.

For Horizon 2020 and CEF-Telecom DSI segments, most of the errors relate to incorrect claims for personnel costs, mainly due to beneficiaries' lack of understanding of the rules.

In relation to CEF-Telecom DSI, management actions were taken by the predecessor Agency INEA and by HaDEA to address these weaknesses identified both at ex-ante and ex-post levels [32]. In this context, the improvements made since the reporting year 2019 resulted in the continuous decrease of the error rate. In 2023, the residual error rate further decreased from 3.28% to 2.46% but remained above the 2% materiality threshold, based on the 99 audited beneficiaries so far. The implementation of the remedial measures has demonstrated their efficacy, as reflected in the continuous decrease of the error rate. The risks are being appropriately monitored and mitigated and the identified residual weaknesses are not considered as significant in terms of monetary loss or possible reputational risks and are below the established exposure limits. As CEF-Telecom DSI falls within the 'de minimis' criteria for reporting, there is no reservation required for CEF-Telecom DSI in the current report [33]. See Annex 7 and 9 for further details.

As regards Horizon 2020, given the results of the audit campaign, and the observations made by the European Court of Auditors in its annual reports, the Common Implementation Centre of DG RTD, in close cooperation with central Commission services, defined actions aimed at significantly simplifying the rules, and paving the way for an important reduction of the error rate in Horizon Europe such as the use of a corporate model grant agreement and a corporate annotated grant agreement for all programmes directly managed by the Commission. Other actions are under implementation targeting Horizon 2020 grants and beneficiaries including focused communication campaigns to the more "error-prone" types

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[32] At ex-ante level, by updating the guidelines on costs eligibility under CEF-Telecom and through increased communication campaigns towards the beneficiaries; at ex-post level, by increasing audit coverage, by monitoring and analysing closely the identified findings and applying the lessons learnt in the ex-ante controls.

[33] The 'de minimis' rule states that: quantified reservations, related to residual error rates above the materiality threshold, are deemed not substantial for segments representing less than 5% of the total payments made and with a financial impact below EUR 5 million.

of beneficiaries, and enhanced training to project and financial officers and to external auditors.

4) Table (X): Estimated risk at payment and at closure

Based on all the above, HaDEA presents in the following Table X an estimation of the risk at payment and risk at closure for the expenditure managed during the reporting year:

Table (X): Estimated risk at payment and at closure (amounts in EUR million)

The full detailed version of the table is provided in Annex 9.

DG HADEA	Payments made	Relevant expenditure	Estimated risk (error rate %) at payment		Estimated future corrections and deductions		Estimated risk (error rate %) at closure	
	m EUR	m EUR	m EUR	%	m EUR	%	m EUR	%
Operational budget:	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%
Grants 2021-2027	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%
Horizon Europe	1 413.57	32.37	0.65	2.00%	0.00	0.00%	0.65	2.00%
Connecting Europe Facility (CEF) – Digital	63.90	0.20	0.00	2.00%	0.00	0.00%	0.00	2.00%
Digital Europe Programme	53.52	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%
Single Market Programme - veterinary eradication	72.34	72.34	1.45	2.00%	0.00	0.00%	1.45	2.00%
Single Market Programme - laboratory, AMR, plant health	47.25	53.52	1.07	2.00%	0.00	0.00%	1.07	2.00%
EU4Health Programme	211.90	6.11	0.12	2.00%	0.00	0.00%	0.12	2.00%
Horizon Europe_Indirect	0.67	0.00	0.00	2.00%	0.00	0.00%	0.00	0.00%
Grants 2014-2020	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%
Horizon 2020	514.14	1 331.73	34.23	2.57%	11.05	0.83%	23.17	1.74%
Connecting Europe Facility (CEF) - Telecom - DSI	20.21	52.56	1.48	2.82%	0.42	0.80%	1.06	2.02%
Connecting Europe Facility (CEF) - Telecom - WiFi4EU	1.74	1.74	0.01	0.50%	0.00	0.00%	0.01	0.50%
Third Health Programme	8.28	17.76	0.33	1.86%	0.01	0.07%	0.32	1.79%
Food and Feed Programme	0.04	0.13	0.00	1.19%	0.00	0.12%	0.00	1.07%
Procurements	0.00	0.00	0.00	0.00%	0.00	0.00%	0.00	0.00%
Procurements 2021-2027	124.72	124.72	0.62	0.50%	0.00	0.00%	0.62	0.50%
Procurements 2014-2020	21.79	21.79	0.11	0.50%	0.00	0.00%	0.11	0.50%
Experts (evaluation & monitoring)	2.99	2.99	0.01	0.50%	0.00	0.00%	0.01	0.50%
Sub-total	2 557.05	1 717.97	40.09	2.33%	11.49	0.67%	28.60	1.66%
operating budget	50.37	50.37	0.25	0.50%	0.00	0.00%	0.25	0.50%
total EA (operational + operating)	2 607.42	1 768.34	40.34	2.28%	11.49	0.65%	28.85	1.63%

The **estimated overall risk at payment** for 2023 expenditure amounts to EUR 40.34 million representing **2.28% of the total relevant expenditure for the year 2023**.

This is the AOD's best conservative estimate of the amount of relevant expenditure during the year not in conformity with the contractual and regulatory provisions applicable at the time the payment was made. This expenditure will subsequently be subject to ex-post controls and a proportion of the underlying errors will be detected and corrected in subsequent years. The conservatively estimated future corrections for 2023 expenditure amounts to EUR 11.49 million representing 0.65% of the total relevant expenditure.

The difference between those two amounts (40.34-11.49) results in **the estimated overall risk at closure** (³⁴), **representing 1.63% of the Agency' total relevant expenditure** for 2023.

Compared to 2022, when the estimated overall risk at closure was at 1.74%, there is a decrease of 0.11. This is mainly due to the decrease in the Horizon 2020 detected error rate (the largest relevant expenditure in HaDEA), from 2.71% in 2022 to 2.57% in 2023. The impact of this change forms the majority of the downward movement in the overall amount at risk at closure compared to 2022 figures.

For an overview at Commission level, the departments' estimated overall risk at payment, estimated future corrections and risk at closure are consolidated in the AMPR.

5) Preventive and corrective measures

As regards the corrections carried out in 2023, HaDEA has in place an effective mechanism for correcting errors, through ex-ante and ex-post controls, resulting in preventive and corrective measures, amounting to EUR 11.53 million of corrections as a result of ex-ante controls and EUR 2.31 million following the results of ex-post controls. This is similar to last year with EUR 11.63 million across all programmes managed by the Agency, whilst recoveries and financial corrections following the results of ex-post controls amounted to EUR 3.21 million. The decrease in the level of recoveries compared to 2022 in relation to ex-post audits is linked to an overall decrease of financial errors detected during the audits finalised in 2023.

b) Fraud prevention, detection and correction

In 2021, HaDEA has developed its own anti-fraud strategy and action plan (³⁵) for the period 2022-2024, based on the methodology provided by the European Anti-Fraud Office (OLAF). In October–December 2023, HaDEA performed the annual review of the fraud risk assessment. The review exercise confirmed once again that HaDEA has adequate controls in place, adapted to its control environment and to the risks identified. Therefore, HaDEA considers that its Anti-fraud Strategy remains applicable.

The Agency regularly monitors the implementation of the action plan: all planned actions have been implemented, however in three cases (16%) the targets are only partially

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(³⁴) This is the AOD's best, conservative estimation of the expenditure authorised during the year that would remain not in conformity of applicable regulatory and contractual provisions by the end of implementation of the programme.

(³⁵) HaDEA anti-fraud strategy, covering the period 2022-2024, approved by the Interim Director on 17 December 2021 and adopted by the Steering Committee on 24 February 2022 (Ares(2022)1786345 – 10/03/2022).

achieved (^{36}). The implementation of the missing actions is in progress. Their completion is expected for 2024. Details are provided in Annex 7.

In 2023, HaDEA also contributed to the Commission anti-fraud strategy (37) and followed up on OLAF's financial recommendations with the following results: all are under analysis, out of which, for 6 cases, (representing 86%) the implementation of the respective recommendations was initiated.

During the year, HaDEA contributed to the revision of the Commission's anti-fraud strategy action plan38 and is involved in its implementation, by participating to FPDNet working groups on dedicated topics . HaDEA also participated in the revision of the Common Anti-Fraud Strategy in the research family and of the related action plan.

In July 2023 HaDEA signed a working arrangement with the European Public Prosecutor's Office, detailing the responsibilities and procedure for the exchange of information related to EPPO cases.

HaDEA has taken action in the following areas targeting fraud prevention, detection and correction:

- Ethical behaviour of staff;
- Awareness of fraud risks for project and financial Officers;
- Good cooperation with stakeholders;
- Implementation of OLAF recommendations.

The results achieved during the year are described in more detail in Annex 7.

On the basis of the available information, HaDEA has reasonable assurance that the anti-fraud measures in place are effective and that an adequate fraud prevention, detection and correction system is in place.

c) *Safeguarding of assets and information*

At the beginning of 2023, HaDEA identified current assets (inventories) for a total value of EUR 18 029 000. These assets related to a contract (^{39}) for the supply of vaccines for monkeypox, marketed under the commercial name of "Jynneos", and their distribution to delivery points in the Member States, Iceland, and Norway.

(^{36}) 16% corresponds to three activities (out of 19 outlined in the anti-fraud strategy action plan related to trainings on fraud risk awareness on fraud risk assessment, procurement and ethics respectively, with lower-than-expected participation rates).

(^{37}) COM(2019) 196 final - 29.4.2019

(^{38}) COM(2023) 405 final - 11.7.2023

(^{39}) Contract for supplies HaDEA/2022/NP/0014 – Supply of Modified Vaccinia Ankara against Monkeypox.

As of 31 December 2023, the total stock of vaccines had been delivered to the respective countries, bringing its accounting value to zero.

The main aim of accounting controls is to assure the quality and reliability of the accounts and underlying transactions through methodical checks on the accounting records (data) and timely communication and correction of the errors.

HaDEA ensured proper safeguarding of the inventories throughout the year through the close collaboration of the unit responsible for the operational budget, the IT sector and the accounting team. Two meetings were organized to map the list of assets/inventory in HaDEA.
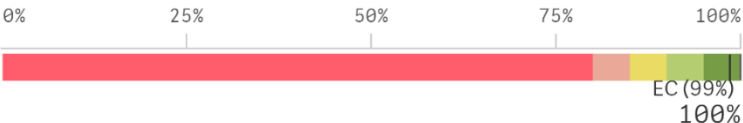
HaDEA considers the current control arrangements for accounting and financial reporting to be sufficient.

2.1.1. Efficiency of controls

The Agency uses the following three indicators to assess efficiency in programme implementation and budget execution: time-to-inform, time-to-grant and time-to-pay. A short description of the status of each indicator can be found below. Detailed information per activity can be found in Annexes 2 and 4.

Time to inform: Applicants were informed within deadlines in 97% of cases ([40]). For five calls under the Connecting Europe Facility programme, the applicants were informed of the decision of the selection committee with a delay of 13 days. Moreover, one applicant to a call under Horizon Europe Cluster 4 was informed late due to a technical issue. HaDEA's average time to inform in 2023 was 110 days.

- **Time to grant:** 99% of the grant agreements were signed within deadlines in 2023, an increase of 7 percentage points compared to 2022. The average time to grant was 229 days.

- **Timely payments:** HaDEA paid 100% of its operational appropriations on time, demonstrating an effective monitoring of payment deadlines.

Timely Payments			HADEA Score	EC Score
0% 25% 50% 75% 100% EC (99%) 100%			**100%**	**99%**

- **Time to pay:** HaDEA's net payment time in 2023 is 26.6 days, all transactions included.

([40]) 1948 out of 2013 applicants were informed on time.

2.1.2. Economy of controls

The table below provides an estimate of HaDEA's total costs of controls within the overall control system. The cost of controls is estimated for each of the four stages of the management control system. It is calculated based on the corporate methodology for the estimation, assessment and reporting on the cost-effectiveness of controls. The details of the calculation are available in Annex 7.

The total cost of controls within HaDEA for the operational payments of 2023 can be evaluated at approximately EUR 43.83 million, corresponding to **1.71% of the total operational payments made in 2023** (EUR 2 557.05 million).

HaDEA costs of controls management	Costs (M€)			Operational Payments 2023 (M€)	Overall rate (total costs/total amount paid)
	Internal costs	External costs	Total		
Stage 1 – programming and evaluation	6.45	0.71	**7.16**	2,557.05	**0.28%**
Stage 2 – contracting	4.37	0.09	**4.46**	2,557.05	**0.17%**
Stage 3 – monitoring the execution	27.85	2.89	**30.74**	2,557.05	**1.19%**
Stage 4 – ex-post controls and recoveries	1.08	0.42	**1.49**	2,557.05	**0.06%**
TOTAL	39.74	4.11	**43.83**	**2,557.05**	**1.71%**

Details of the estimated cost related to shared/pooled control activities carried out by REA and hosted by DG RTD (Common Implementation Centre; Common Audit Service; Common Policy Centre) for the Research and Innovation family are reported in the annual activity reports of REA and DG RTD.

The evolution of the estimated cost of control is presented in the table below. The increase of the overall rate in 2023 is linked mainly to the decrease in the total operational payments from EUR 2 795.40 million in 2022 to EUR 2 557.05 million in 2023 and the increase of the FTEs.

HaDEA costs of controls management	Overall rate 2023	Overall rate 2022	Overall rate 2021
Stage 1 – programming and evaluation	0.28%	0.23%	0.36%
Stage 2 – contracting	0.17%	0.14%	0.21%
Stage 3 – monitoring the execution	1.19%	0.99%	1.31%
Stage 4 – ex-post controls and recoveries	0.06%	0.05%	0.07%
TOTAL	**1.71%**	**1.41%**	**1.94%**

2.1.3. Conclusion on the cost-effectiveness of controls

Based on the most relevant key indicators and control results, HaDEA has assessed the effectiveness, efficiency and economy of its control system and reached a positive conclusion on the cost-effectiveness of the controls for which it is responsible.

When comparing the cost of controls (EUR 43.83 million) with the total operational payments made in this control environment in 2023 (EUR 2,557.05 million), the ratio is set at around 1.71%.

The analysis shows that the benefits of controls significantly counterbalance their overall costs. The effectiveness and efficiency of controls are in line with the objectives set for the programmes implemented and proportionate with the underlying risks.

The control system in place is suitable to fulfil the intended objectives efficiently, and at reasonable cost. This is attested by the satisfactory balance between error rates established within the materiality thresholds ([41]), swift time-to-pay and low costs of controls.

2.2. Audit observations and recommendations

This section sets out the observations, opinions and conclusions reported by auditors – including the limited conclusion of the Internal Auditor on the state of internal control. Summaries of the management measures taken in response to the audit recommendations are also included, together with an assessment of the likely material impact of the findings on the achievement of the internal control objectives, and therefore on management's assurance.

Audits from the Internal Audit Service (IAS)

In 2023, the IAS issued four final audit reports with regards to HaDEA, in the framework of the following audits:

- Multi-DG/Executive Agencies audit on Horizon Europe governance arrangements, the preparation of the work programmes and of budget planning, allocation and monitoring;

- Audit on Horizon Europe – Grant management phase 1, from the publication of the calls until the signature of grant agreements (HaDEA);

- Audit on the design and set-up of the Digital Europe Programme (HaDEA, DG CONNECT);

- Audit on the early implementation of grants in the EU4Health Programme (DG SANTE, HERA, HaDEA).

([41]) With the exception of CEF Telecom legacy programme, for which the residual error rate is at 2.46% and which falls within the *de minimis* rule.

The IAS did not raise any critical nor very important recommendations to HaDEA. As for the limited number of "important" audit recommendations, HaDEA will implement the necessary actions in the course of 2024 (⁴²). In its limited conclusion on the state of internal control, the Internal Auditor concludes that the internal controls on the audited processes are effective.

Audits from the European Court of Auditors (ECA)

Operational budget

In the context of the **statement of assurance 2022**, the ECA sampled 18 transactions (⁴³). By the end of 2023, the Court had finalised all 18 audits, with the following findings:

- In three cases, no findings were detected;
- In three cases, findings with no financial impact were detected;
- Financial errors were detected in the remaining 12 cases. For details, please refer to Annex 7.

The ECA stated that in nine cases, the audit findings were "not detectable" by the Commission services, and in three cases, they were detectable by the independent auditors.

Administrative budget

The ECA completed the **DAS audit 2022**. HaDEA received a clean opinion. The Court only made one observation related the low-value procurement procedures (below EUR 15 000). These included unclear descriptions of contract subjects and negotiations with potential contractors. HaDEA agreed with the observation and explained that as of September 2022, the Agency uses the dedicated IT tool PPMT (⁴⁴), which streamlines the procurement processes.

The ECA will perform the **DAS audit 2023** in April 2024. Both the legality and regularity of the transactions and accounts' reliability will be audited.

The winding up of CHAFEA has been completed in July 2023.

(⁴²) In total five "important" audit recommendations were addressed to HaDEA: two on the Digital Europe Programme and three in relation to Horizon Europe grant management. No audit recommendations were directly addressed to HaDEA in the framework of the EU4Health audit and of the Horizon Europe governance audit.

(⁴³) 17 transactions related to Horizon 2020 and 1 transaction related to the Third Health Programme.

(⁴⁴) Prescribed Procurement Management Tool.

The ECA issued in June 2023 the special report "The EU's industrial policy on batteries: new strategic impetus needed ", involving many Directorates General (such as DG GROW, DG RTD, DG ENV, DG REGIO, DG MOVE-ENER and DG COMP) and Executive Agencies. HaDEA was involved through a sample of four projects on batteries managed under Horizon 2020 and Horizon Europe. The audit report did not include audit findings or recommendations addressed to HaDEA in particular.

General conclusions

The Agency does not have any critical new or outstanding audit recommendations, or a combined effect of several very important recommendations, which could have a material impact on the achievement of the internal control objectives and the assurance.

2.3.   Assessment of the effectiveness of internal control systems

The Commission has adopted an internal control framework based on international good practice, to ensure the achievement of its policy and management objectives. Compliance with the internal control framework is a compulsory requirement.

HaDEA uses the organisational structure and the internal control systems suited to achieving its policy and internal control objectives in accordance with the internal control principles and has due regard to the risks associated with the environment in which it operates.

HaDEA has assessed its internal control system during the reporting year and has concluded that it is effective and that the components and principles are present and functioning well overall, but some improvements are needed as minor weaknesses were identified related to the "Control environment" and "Control activities" principles.

As regards risk assessment, in May the Agency carried out an update of previously identified risks. The Agency implemented appropriate measures to reduce the negative effects and effectively support the achievement of its objectives. In October 2023, HaDEA performed a new risk assessment exercise to identify and assess risks related to the 2024 objectives. The exercise revealed some risks related to the implementation of the programmes delegated to the Agency as well as to the implementation of the new EU economic security strategy. New measures were defined to reduce the negative consequences of the risks.

Moreover, some weaknesses with regards to staff awareness of ethics and anti-fraud were detected. Several measures have already been implemented in 2023, whereas others will be part of dedicated action plans targeting the areas with the identified deficiencies. In addition, based on the results of the internal control survey within the Agency, new procedures will be created, and existing ones updated during 2024.

Annex 8 provides details on the assessment of the Agency's internal control system, including the various sources of information, as well as on the proposed remedial measures.

HaDEA also continued internal control awareness-raising activities in 2023, via its dedicated Internal Control network "ICNetwork". Members of this network come from across the Agency, allowing staff members to be informed about the latest developments on internal control issues, and allowing the coordination of control exercises across the Agency.

2.4.   Conclusions on the assurance

In conclusion, based on the elements reported above, management has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated; and necessary improvements and reinforcements are being implemented. The Agency's Executive Director, in her capacity as Authorising Officer by Delegation has signed the Declaration of Assurance.

This section draws an overall conclusion, which stems from the systematic assessment of the elements already reported in part 2 of this report and auditor conclusions. It draws an overall conclusion to support the declaration of assurance and whether it should be qualified with reservations.

These reports result from a systematic analysis of the evidence available. This approach provides sufficient guarantees as to the completeness and reliability of the information reported and results in a comprehensive coverage of the budget delegated to the Director of HaDEA. This is confirmed by the statement of the Head of Department in charge of risk management and internal control in Annex 1. The audit results, the internal control assessment and the control indicators do not reveal any significant weaknesses and do not fulfil any of the materiality criteria laid down in Annex 5 of this report. The resources assigned in 2023 to the activities described in this report are used for the intended purpose following sound financial management and the control system in place provides the necessary guarantees concerning the legality and regularity of the transactions.

The relatively high error rate of the CEF-Telecom DSI segment (legacy programme 2014-2020) does not lead to a financial reservation, considering its limited financial impact, falling within the de minimis rule ([45]) and thus does not have impact on the assurance.

No error rates are available in 2023 for the new programmes (Horizon Europe, EU4Health, Digital Europe Programme, Connecting Europe Facility Digital, Single Market Programme) as the Agency plans to launch first ex–post audit campaigns in 2024.

Consequently, without elements allowing an assessment of the level of errors, as well as taking into account the simplifications introduced that aim to reduce the error rate, a 2%

([45])   The share of the segment CEF-Telecom (DSI) represents 0.79% of the total payments of the Agency and the financial impact is low, at EUR 1.29 EUR.

detected and residual error rate will be considered for the new programmes (^{46}). Therefore, no quantified reservation is required for the current annual activity report.

At the end of 2023, HaDEA had no critical, new or outstanding audit recommendations, nor a combined effect of a number of very important recommendations.

Other internal control objectives (reliable reporting, safeguard of assets and information and prevention, detection and correction of fraud and irregularities) for both expenditure and/or revenue operations were respected.

2.5. Declaration of Assurance

Declaration of Assurance

I, the undersigned,

Executive Director of the Health and Digital Executive Agency

In my capacity as authorising officer for the operating (administrative) budget and authorising officer by delegation for the operational budget

Declare that the information contained in this report gives a true and fair view (^{47}).

State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.

This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, ex-post controls, the work of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors for years prior to the year of this declaration.

Confirm that I am not aware of anything not reported here which could harm the interests of the Health and Digital Executive Agency or those of the Commission.

Brussels, 2 April 2024

E-signed in ARES

Marina Zanchi

Executive Director

(^{46}) This rate corresponds to the objective set for the new programmes.
(^{47}) True and fair in this context means a reliable, complete and correct view on the state of affairs in the Executive Agency.

3. MODERNISING THE ADMINISTRATION

3.1. Human resource management

Staffing and recruitment

At the end of 2023, HaDEA counted 443 staff in place out of the 456 posts foreseen in the Establishment Plan, thereby reaching a filling rate of 97%. The Agency collaborated with its parent DGs to increase female representation in management positions resulting in a 50/50 share of female and male senior and middle managers. See Appendix, Graph 10.

To provide senior management with a sound analysis supporting decision-making on staff allocation in the Agency, HaDEA, supported by an external contractor, conducted a detailed workload assessment. The activity-based analysis covered all staff categories (operational, finance and horizontal support functions) and included a self-assessment by staff which provided a qualitative assessment of how different aspects of workload are perceived by staff.

In line with HaDEA's commitment to recruit highly qualified and motivated colleagues, the Agency successfully launched and managed 18 external and 38 internal selection procedures. Six new reserve lists of external candidates and retained lists of candidates resulting from the inter-agency/interinstitutional selection procedures were established. These lists make mobility across the European Commission and the Executive Agencies easier, promoting a flexible and dynamic workforce.

The Talent Selection Manual, outlining selection processes and detailing measures for more efficient and transparent procedures, was adopted in July 2023. The manual notably introduced a new application form that will ease the screening process.

HaDEA focused on promoting the Agency as an employer by expanding its presence on social media and participating in events, such as the 2023 EU Career Days. Furthermore, HaDEA enlisted the help of EU Permanent Representations to advertise job vacancies with the aim to improve geographical balance. Lastly, HaDEA implemented the joint action plan developed by the six Executive Agencies to foster a diverse and inclusive workforce.

Attractiveness and staff retention

HaDEA engaged in various initiatives to support the staff's career development opportunities, such as the Commission's pilot inter-Institutional Junior Professional Programme (JPP), the pilot Staff Exchange Programme between the Commission and the Executive Agencies and in the Inter-agency Women Talent Programme. Moreover, HaDEA organised four editions of the HaDEA Talent Programme, offering each cohort of 16 participants the chance to develop their skills.

In December 2023, the Commission adopted a new Decision on the prevention of and fight against harassment. While the Decision is not applicable to the Executive Agencies yet, HaDEA actively participated in the discussions held between the Commission and the Executive Agencies regarding its future application to the agencies' environment. As part of the network of Confidential Counsellors, HaDEA was appointed to provide non-judgmental support and guidance to staff facing difficult situations or conflicts. In October 2023, HaDEA also contributed to the week on "Respect and Dignity at Work", raising awareness on the agencies' commitment to eliminate harassment and violence in the workplace.

In addition, in line with DG HR's well-being strategy, HaDEA appointed two local First Aid Mental Health (FAMH) contact persons: their role is crucial in heightening awareness about health risks and preventive measures.

HaDEA also participated in the development of an inclusive inter-agency Well-Being Programme. The programme will address various aspects of well-being and foster a holistic and supportive environment for everyone involved.

The appointment of the inclusion and diversity correspondent was postponed to the first half of 2024. The correspondent will play a vital role in driving positive change and creating a more equitable and diverse organisation.

83% of HaDEA staff participated in the 2023 EU Staff Survey — a significant leap from the previous 61% in 2021. The Agency ranked third among all Commission services in terms of participation. HaDEA's individual Staff Engagement index reached 73%, marking a one-percentage-point increase from the last survey.

Lastly, HaDEA's communities thrived over the year, with the establishment of 12 groups providing a safe environment for colleagues to connect and engage in discussions on various topics. This reflects and supports the Agency's bottom-up corporate culture.

3.2.   Digital transformation and information management

Digital Transformation

Alignment with the EC's corporate IT systems and governance

The IT Steering Group and IT Management Board met twice: first, to review the progress made mid-2023; a second time to discuss and approve the IT investment plan 2024-2025.

In 2023, HaDEA progressed in the implementation of the core principles defined by the Commission's Digital Strategy ([48]) for its IT flagship system BTSF Academy ([49]), reaching 82% of principles implemented.

([48]) European Commission Digital Strategy C(2022)4388 Final (c_2022_4388_1_en_act.pdf (europa.eu).
([49]) See the performance table in Annex 10.

HaDEA continued to support the integration of Microsoft 365 and SharePoint Online through the organisation of awareness-raising activities and training sessions. The Agency completed the migration of collaborative workspaces to SharePoint Online.

Although the migration from the accounting system ABAC to SUMMA was delayed to January 2025, the preparations progressed smoothly in 2023.

Furthermore, HaDEA made progress with regards to IT governance and security, by making sure all existing IT projects comply with corporate requirements. The Agency also conducted regular awareness-raising actions on IT security and compliance monitoring.

Concerning cybersecurity, the phishing campaigns launched by DIGIT showed an improvement in the awareness of HaDEA staff. HaDEA organised two in-house information sessions to further improve these results.

Digital empowerment

At the end of 2023, HaDEA had finalised the migration to the Welcome domain ([50]). By the end of December, 100% of staff had completed the transition to the new digital environment, putting the Agency on the first position out of the 49 Commission services.

New audiovisual equipment was purchased, bringing the number of large meeting rooms equipped for hybrid meetings to four in the Agency.

Information management

Throughout 2023, HaDEA made significant progress in implementing the data governance policies set at corporate level, through two main initiatives: the update of the Agency's data inventory with new data assets; and the launch of a Data Intelligence Network. HaDEA also maintained regular contacts with the HaDEA Data Agents/Owners Network, established in 2022. In this context, the Agency organised three awareness-raising actions to promote data knowledge sharing and enhance data quality as well as reinforce synergies among network members.

Concerning records and archives' management, HaDEA established and maintained sound and consistent records' handling and retention practices, ensuring compliance with the corporate e-Domec policy and in line with the HaDEA action plan for document and archives management drafted in January.

The Agency also organised two meetings with the Agency's document management correspondents and ensured daily contacts with all document management systems' users to reinforce a common collaborative, information and knowledge-sharing culture.

([50]) WELCOME is the name of the new digital environment of the Commission that will gradually replace the current environment called NET1.

Moreover, HaDEA conducted two in-house mini-training sessions covering specific topics for all staff members aimed at enhancing efficiency in records and archives management, and six ad-hoc coaching sessions for a total of 31 staff members to further improve their skills in this area.

Data protection

Throughout 2023, HaDEA proactively ensured compliance of its activities with Regulation 2018/1725 on data protection.

The Agency put a great emphasis on training, in particular for newcomers, with a total of 13 training sessions organised to raise awareness on data protection amongst its staff. As a result, 81,8 % of HaDEA staff followed the training on data protection basics and principles.

The Agency also ensured that appropriate information was provided to the data subjects concerned, including on their rights through concise and intelligible data protection notices.

Moreover, the DPO maintained a close cooperation with the European Data Protection Supervisor as well as an active participation in the different data protection experts' platforms, and in particular in the network of Executive Agencies' DPOs.

Details on the 2023 outputs can be found in Annex 10.

3.3.   Sound environmental management

In 2023, HaDEA focused on its objective to reduce greenhouse-gases emissions from business travel, in line with commitments taken at corporate level. HaDEA raised awareness on the topic through dedicated information sessions and created a checklist to help colleagues when planning or approving missions. HaDEA's results are excellent in this regard as HaDEA already exceeded its 2024 objective of 50% reduction ([51]).

HaDEA kept promoting sustainable commuting with financial contributions to public transport tickets and cycling. HaDEA took an active part in VeloMai, ranking 10th amongst all Commission DGs and services in the competition. 7.5% of staff joined the competition. In addition, 3.5% of HaDEA colleagues joined the Walking Challenge over the year. HaDEA was also awarded the Gold-level Cycle-Friendly Employer certificate, following an audit by the Fietsersbond ([52]), rewarding all the efforts taken by the Agency to promote cycling.

HaDEA promoted the 'Digital frugality' campaign on digital waste reduction and took an active role in the joint Executive Agencies' Green Week on waste reduction.

([51]) Compared to 2019 figures.
([52]) Fietserbond is an organisation representing the interests of cyclists in Belgium.

Following HaDEA's integration in the EU Eco-Management and Audit Scheme (EMAS) in June 2022, the Agency has now received its EMAS certification from Bruxelles Environnement ([53]).

3.4. Initiatives to improve economy and efficiency of financial and non-financial activities

In the field of human resources, the initiatives to improve the economy and efficiency of activities have been formalised through the inter-Executive Agency HR Strategy adopted in February 2023. HaDEA played a pivotal role in coordinating the development of this joint strategy and ensured the distribution of all actions among the six Executive Agencies up to 2027.

Furthermore, after the signing of the Memorandum of Understanding in 2023 and the creation of the common candidate repository, HaDEA has shared nine reserve lists of candidates and successfully recruited five candidates from other agencies' reserve lists. HaDEA also pioneered the initiation of a collaborative joint selection procedure for Contract Agents FGIII (Project Officers), uniting for the very first time all six Executive Agencies to create an extensive reserve list of 135 candidates accessible to each agency.
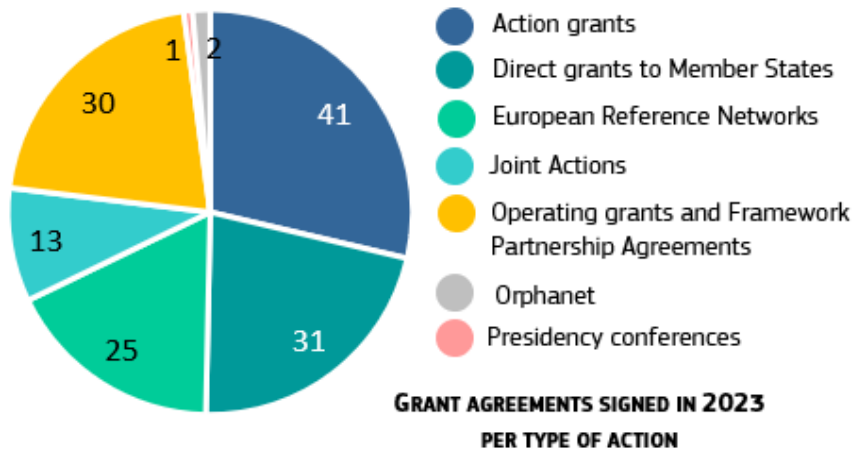
As foreseen in the work programme, HaDEA investigated the feasibility of automating standard document generation in human resources through a cost-benefit analysis and testing. However, the project proved inconclusive as automated extraction from SYSPER to HeRO, HaDEA's internal IT tool, was not feasible. Consequently, manual data entry remained necessary.

The HaDEAns for Efficiency initiative allows staff to submit ideas for process improvement and efficiency gains on different domains through a structured and coherent bottom-up approach. One of the main outcomes in 2023 is the "HaDEA work etiquette", with a set of golden rules to save time with emails and meetings and manage them more efficiently. The work etiquette has been endorsed by management and disseminated to all staff.

([53]) Bruxelles Environnement is the regional administration in charge of environment and energy policies.
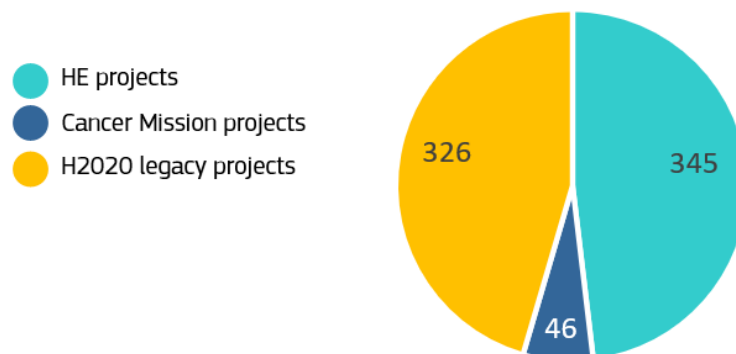
Appendix

Graph 1: Breakdown of grant agreements signed in 2023 under the EU4Health programme per action type

GRANT AGREEMENTS SIGNED IN 2023
PER TYPE OF ACTION

Legend:
- Action grants
- Direct grants to Member States
- European Reference Networks
- Joint Actions
- Operating grants and Framework Partnership Agreements
- Orphanet
- Presidency conferences

Graph 2: Horizon Europe – Cluster 1: Health. Project portfolio according to funding programme/scheme

Legend:
- HE projects
- Cancer Mission projects
- H2020 legacy projects

Graph 3: Horizon Europe – Cluster 4: Digital. Data on calls launched in 2023

TWIN-TRANSITION-01: 41, 6, €32 M, € 34,5 M
HUMAN-01-CNECT: 1, 0, €1,5, €0
DATA-01: 66, 5, €28 M, € 25,4 M
HUMAN-01: 18, 3, € 6,5 M, € 6,8 M
DIGITAL-EMERGING-01: 118, 16, € 86 M, € 86,1 M

■ Proposals evaluated ■ Projects funded ■ Budget available ■ Budget awarded
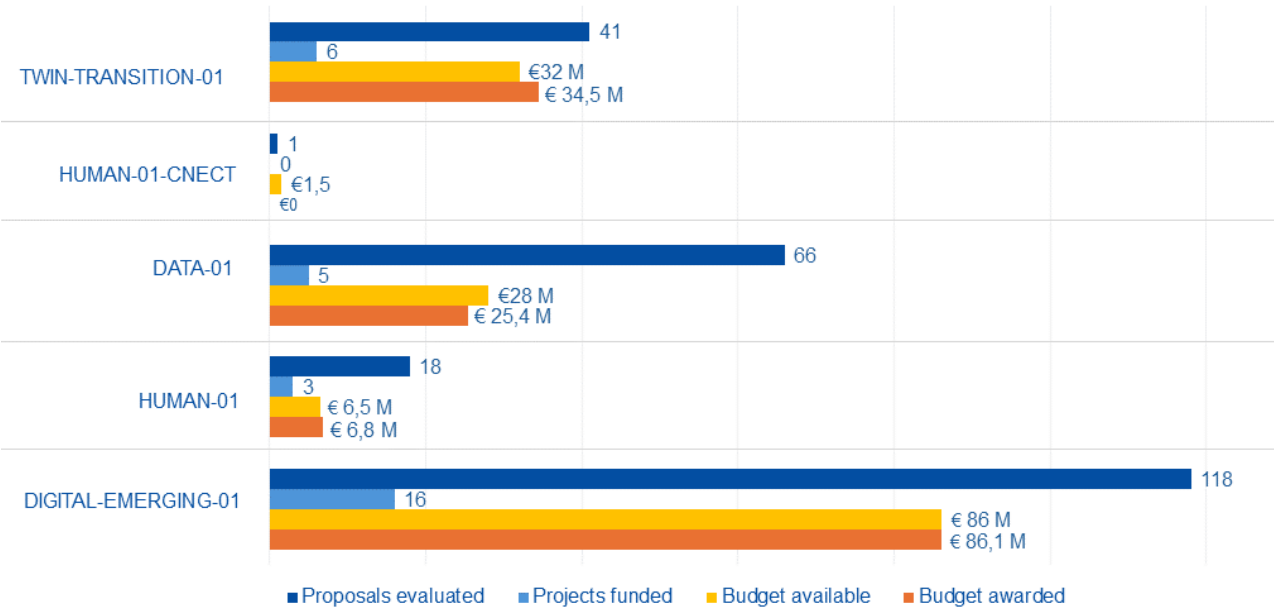
Go back to Part 1 – Horizon Europe – Cluster 4: Digital.

Graph 4: Horizon Europe – Cluster 4: Digital. Project portfolio at the end of 2023 according to funding programme/year

● H2020 legacy projects
● HE projects from 2021 calls
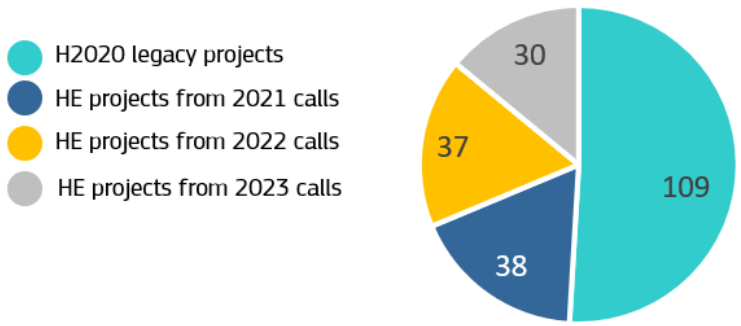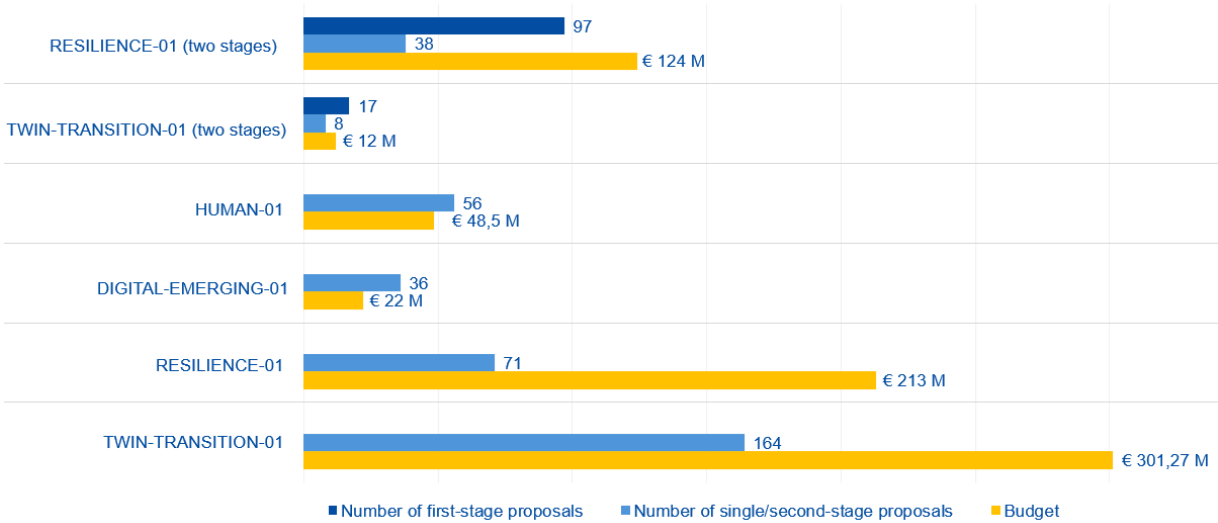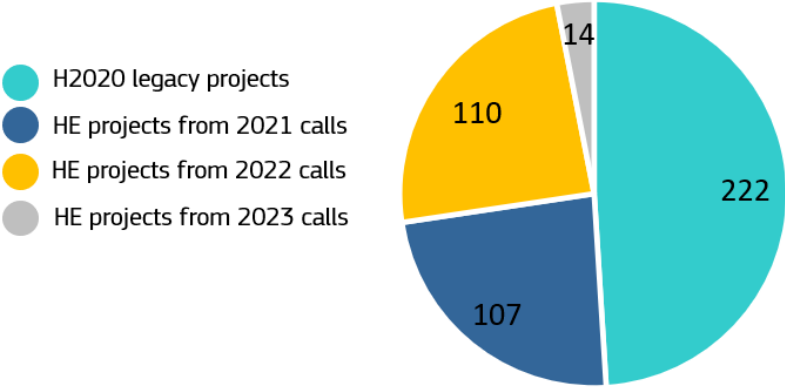● HE projects from 2022 calls
● HE projects from 2023 calls

30
37
109
38

Go back to Part 1 – Horizon Europe – Cluster 4: Digital.

Graph 5: Horizon Europe – Cluster 4: Industry. Data on calls launched in 2023 ([54])

RESILIENCE-01 (two stages)
- 97
- 38
- € 124 M

TWIN-TRANSITION-01 (two stages)
- 17
- 8
- € 12 M

HUMAN-01
- 56
- € 48,5 M

DIGITAL-EMERGING-01
- 36
- € 22 M

RESILIENCE-01
- 71
- € 213 M

TWIN-TRANSITION-01
- 164
- € 301,27 M

■ Number of first-stage proposals   ■ Number of single/second-stage proposals   ■ Budget

Graph 6: Horizon Europe – Cluster 4: Industry. Project portfolio according to funding programme/year

- ● H2020 legacy projects
- ● HE projects from 2021 calls
- ● HE projects from 2022 calls
- ● HE projects from 2023 calls

- 14
- 110
- 222
- 107

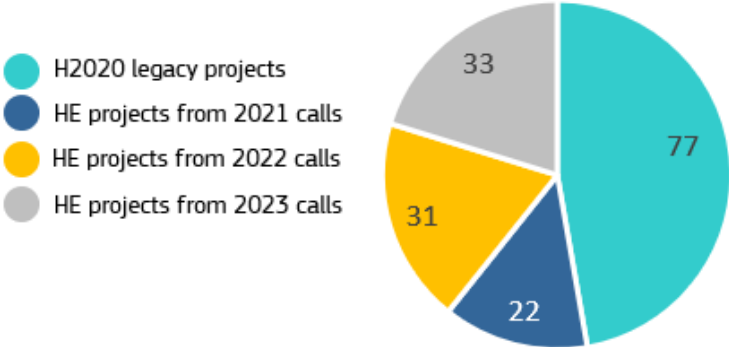([54]) The figures presented in the graph below reflect the budget and number of proposals handled by HaDEA.B3. The total budget implemented by HaDEA for these calls amounts to EUR 846.37 million. In addition to the calls presented in the graph, a call was launched for the organisation of a Presidency event in 2024 (budget of EUR 0.1 million).

Graph 7: Horizon Europe – Cluster 4: Industry. Project portfolio according to type of action.

Legend:
- Innovation Actions
- Research Innovation Actions
- Coordination and Support Actions
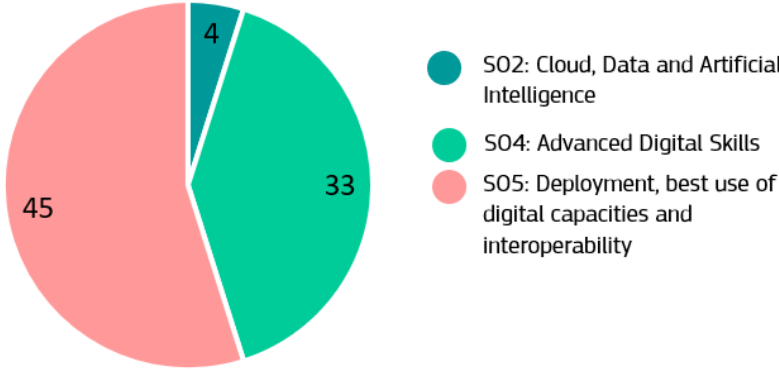- ERA-NET-COFUND

Values: 33, 6, 183, 231
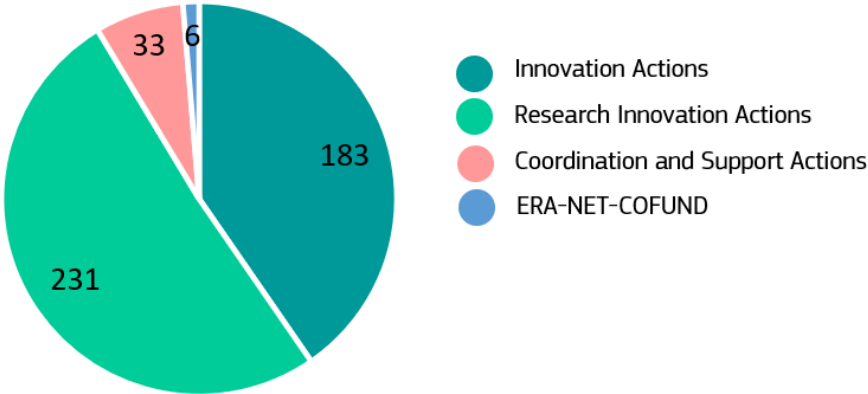
Go back to Part 1 – Horizon Europe Cluster 4: Industry.

Graph 8: Horizon Europe – Cluster 4: Space. Project portfolio according to funding programme/year.

Legend:
- H2020 legacy projects
- HE projects from 2021 calls
- HE projects from 2022 calls
- HE projects from 2023 calls

Values: 33, 77, 22, 31

Go back to Part 1 – Horizon Europe Cluster 4: Space.

Graph 9: Digital Europe Programme: Number of projects at the end of 2023 according to Specific Objective.

Legend:
- SO2: Cloud, Data and Artificial Intelligence
- SO4: Advanced Digital Skills
- SO5: Deployment, best use of digital capacities and interoperability

Values shown: 4, 33, 45

Go back to Part 1 – Digital Europe Programme.

Graph 10: Key figures on Human resources at the end of 2023.

HaDEA **in figures** 31 December 2023

- **443** Staff in place
- **97%** Filling rate staff in place
- **72/60** Offers sent / offers accepted
- **83%** Acceptance rate
- **50/51** Managers in place
- **98%** Filling rate posts of responsibility

Staff in place
- Temporary agents 25%
- Contract agents 75%

Gender balance
- All staff: ♂ 36% / 64% ♀
- Senior & middle management: ♂ 50% / 50% ♀
- Middle managers: ♂ 54% / 46% ♀

Go back to Part 3 – Human resources.