



Euratom Supply Agency

Annual Report 2021

ANNUAL ACTIVITY REPORT 2021

1. Key achievements

1.1 Mission and governance

Mandate and strategic objectives

The Supply Agency of the European Atomic Energy Community, also known as the Euratom Supply Agency (ESA), was established by Article 52 of the Euratom Treaty ⁽¹⁾ ('the Treaty'). It was set up to further the common supply policy for ores, source materials and special fissile materials in the nuclear common market set up by the Treaty. This is based on the principle of regular and equal access for all users in the Community to sources of supply.

The prerogatives of ESA stem from the Treaty and secondary legislation. The Agency has the exclusive right to conclude contracts for the supply of nuclear materials from inside or outside the Community, and has a right of option on nuclear materials coming from inside the Community. It also monitors transactions for services in the nuclear fuel cycle, including by acknowledging the notifications that market players must submit, which give details of their commitments. The Treaty gives ESA legal personality and financial autonomy, enabling it to make independent decisions on matters within its remit.

In the interest of its Treaty missions, the 2008 Statutes ⁽²⁾ entrust the Agency with a market observatory role. This was widened in 2013 to cover aspects of the supply of medical radioisotopes in the EU in the light of Council Conclusions on this issue ⁽³⁾.

The Statutes also determine the Agency's governance. ESA operates under the supervision of the European Commission and is assisted by its Advisory Committee.

ESA's strategic objective is the security of supply of nuclear materials, particularly nuclear fuel, for power and non-power uses.

New Rules of the Agency

Following approval by the Commission, the new Rules determining the manner in which ESA is to balance supply and demand entered into force on 1 July 2021. The result of lengthy and concerted efforts by ESA staff, and with the support of both its Advisory Committee and the Commission's Directorate-General for Energy, the new Rules came into effect 1 year after the Agency's 60th anniversary.

New Agency Rules, in force since 1 July 2021, determine how ESA performs its tasks.

The Agency's previous Rules were first drafted in 1960. They were partially revised in 1975 to establish a simplified procedure for concluding certain supply contracts. Since then, the nuclear fuel market has changed a lot, mainly due to the emergence of many new market players and new trade practices. In addition, ESA's 2008 Statutes strengthened its market monitoring role, making it necessary to change how the Agency collects market data.

The new Rules, adopted by the Agency on 15 January 2021 and approved by the Commission on 29 April 2021, aim to respond to these needs by taking into account new market realities and the Agency's tasks. They also aim to increase legal certainty in the interests of the industry, the Euratom Member States, ESA and the Commission. In particular, they:

- provide new definitions (e.g. 'Community production', 'intermediary', 'user', 'supply contract') to improve clarity;
- formally extend the scope of the simplified procedure (as opposed to the 'centralised procedure' whereby ESA acts as a mandatory intermediary between the parties) so it also covers special fissile materials and applies them by default, unless the regular supply is endangered;

¹ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:12012A/TXT>.

² Council Decision of 12 February 2008 establishing Statutes for the Euratom Supply Agency (O.J. L 41, 15/02/2008).

³ 'Towards the secure supply of radioisotopes for medical use in the EU', 3053rd Employment, Social Policy Health and Consumer Affairs Council meeting, 6 December 2010 and 17453/12, ATO 169/ SAN 321, 7 December 2012.

- require a formal decision to be adopted and published before the centralised procedure can exceptionally apply;
- set conditions for the Agency's potential refusal to conclude a contract;
- specify that any amendment (of whatever kind) to a supply contract must be made by ESA under the procedure used for the original contract;
- streamline procedures for collecting information from users and producers in the interest of clarity and efficiency;
- advise intermediaries on the information they should provide.

The new Rules, together with the Agency's Decision and the Commission Decision, were published in the *Official Journal of the EU* on 18 June 2021 ⁽⁴⁾.

Advisory Committee

In line with the Statutes, the Advisory Committee ⁽⁵⁾ helps the Agency carry out its tasks by giving opinions and providing analysis and information. The Committee also acts as a link between ESA, producers and users in the nuclear industry, and Member State governments. ESA provides the Committee and its working groups with a secretariat and logistical support.

Due to the COVID-19 pandemic and related travel restrictions, the Advisory Committee meetings in 2021 took place online. At its May meeting, the Committee delivered its opinions on ESA's 2020 annual report and on the audited financial and budgetary statements for 2020. The Committee approved the terms of reference for two working groups on prices and security of supply and on the European supply of low-enriched uranium (LEU) at 19.75%. The Agency informed the Committee about its 2021 budget and its new Rules.

At its October meeting, the Committee delivered its opinions on ESA's 2022 work programme, the draft budget for 2022 and the budget estimate for 2023. The Agency informed the Committee about the execution of the 2021 budget and progress in the NOEMI (Nuclear Observatory and ESA Management of Information) IT project. The Committee discussed the progress achieved by its two working groups. Following a presentation by ESA, there was an exchange of views on the legal nature of (and the appropriate way to handle) contracts pertaining to the transfer of spent nuclear fuel from a generator to a centralised facility within the Community for its long-term storage and/or disposal. The Committee was informed about the administrative arrangements for implementing the Euratom-UK Nuclear Cooperation Agreement and discussed the agreement's impact on ESA's operations.

1.2. Principal activities

ESA carries out the following core activities to attain its strategic objective:

- managing contracts for the supply of nuclear materials and/or services in the nuclear fuel cycle, in line with the applicable provisions, for power and non-power uses;
- helping ensure the future supply in the medium and long term by promoting diversification in the nuclear fuel cycle;
- facilitating the continued and equitable supply of medical radioisotopes;
- monitoring and analysing developments in the nuclear fuel market and in relevant R&D fields, publishing its annual report and providing information on the European and global nuclear markets;
- cooperation with stakeholders and partners.

1.2.1. Contract management

ESA's activities in this area comprise:

- concluding nuclear materials and fuel supply contracts, pursuant to Article 52 of the Euratom Treaty;
- acknowledging notifications of contracts for small quantities of nuclear materials, pursuant to Article 74 of the Euratom Treaty ⁽⁶⁾;
- acknowledging notifications of transactions for services in the nuclear fuel cycle, pursuant to Article 75 of the Euratom Treaty.

Nuclear materials that come from inside the Community may be exported only with the Commission's authorisation.

⁴ EUR-Lex - 32021O0618(01) - EN - EUR-Lex (europa.eu).

⁵ <https://ec.europa.eu/euratom/committee.html>.

⁶ Commission Regulation (Euratom) No 66/2006 provides details of how transactions involving small quantities of nuclear materials are handled.

In 2021, under its contract management activities, 248 new references were registered, 40% of which corresponded, pursuant to Article 52, to new contracts, amendments or supplements to existing supply contracts. The remaining 60% of references corresponded to notifications of contracts for related services or small quantities. These categories are covered, respectively, by Articles 75 and 74 of the Treaty.

To make the contract submission and notification process simpler, while ensuring the necessary level of security, ESA began using dedicated secure IT tools that guide its stakeholders in the submission and remote completion of contracts. ESA also began to accept in 2021 the submission of contracts with an electronic signature that complies with the regulation on identification for electronic transactions in the single market ⁽⁷⁾.

Following the entry into force of the new Rules, ESA published the forms that must be used to submit supply contracts to be concluded by the Agency ⁽⁸⁾ and to notify contracts for the provision of services ⁽⁹⁾. ESA held several meetings with utilities in 2021 to explain the new provisions and provide guidance on how to use the forms.

1.2.2. Security and diversification of the nuclear fuel supply chain

In line with its strategic objective and the Commission's policies, the Agency strives to diversify sources of supply in the nuclear fuel cycle for power and non-power uses.

Diversification of supply sources, which also contributes to the viability of the EU's nuclear industry, is a significant way of ensuring secure supplies in the medium and long term. This is explicitly acknowledged by the European energy security strategy¹⁰ and confirmed by the 2021 report on the State of the Energy Union ⁽¹¹⁾.

In its 2020 report, the Supply Agency made several recommendations on contractual terms and procedures. Market players were advised to pursue contractual due diligence to avert supply vulnerabilities, and to ensure a healthy exchange of information as part of an effective security of supply policy. They were advised of the benefits of multiannual contracts with diverse sources of supplies or services. They were also advised to consider special clauses to (i) make it possible to unbundle procurement (ii) to deal with the licensing and guarantee aspects in case of mixed use of vendor and non-vendor or test fuel, and (iii) to deal with issues pertaining to disclosure of fuel compatibility or testing (proprietary) data.

ESA welcomes the proactive approach taken by market players in 2021, as demonstrated by the numerous meetings with fuel cycle companies and utilities. These contacts gave insights into ongoing negotiations and draft contract terms, and suggest that most market participants heeded ESA's recommendations. Several examples of utilities making best efforts to diversify sources of supply, and to implement the corresponding lead test assembly projects, afforded the opportunity to confirm this assessment with several operators in the EU using VVER fuel.

ESA also recommended the use of contractual best practices to manage security of supply risks, in particular to ensure that stocks are increased or strategic inventories are set up. As presented in the following chapters, the available data suggests that these recommendations were duly heeded, bearing in mind that whether such inventory levels are sufficient for a particular utility may depend on its profile and risk factors. However, more evidence is needed on whether operators took note of ESA's recommendations to consider carrying out risk exposure assessments and to set up action plans as a result.

There was a good response throughout the year to ESA's earlier recommendations to increase engagement with alternative vendors and cooperation with ESA (and other players) to speed up the arrival of alternative solutions onto the market. ESA continued to monitor and inquire about steps to diversify the supply of fuel for VVER-1000 reactors in Czechia and Bulgaria, as well as the medium- to long-term plans of key EU fuel manufacturers in this respect. However, little progress was made in diversifying the supply of VVER-440 fuel. Licensing by the national nuclear safety regulator is a central element of the introduction of new fuel, to ensure the highest nuclear safety standards.

Through constant contact with several departments in the Commission, including those responsible for competition, trade, the single market and industry, various aspects of the security of supply were addressed in ongoing dossiers, and recommendations were made on the security of supply of nuclear materials and on diversification policies.

1.2.3. Market monitoring and analysis

The Supply Agency is responsible for monitoring the market to identify trends likely to affect the EU's security of supply of nuclear materials and services. To that end, ESA:

- monitors developments in the nuclear fuel market and in relevant technological fields;
- publishes a market analysis in its annual report;
- provides information in its publications on the European and global nuclear markets;
- shares information and knowledge with other international market analysis organisations.

7 Regulation on electronic identification and trust services for electronic transactions in the internal market (EU) No 910/2014.

8 Art. 11 et seq. of the new Rules.

9 Art. 16.

10 COM(2014) 330 final, of 28.5.2014 <https://www.eesc.europa.eu/resources/docs/european-energy-security-strategy.pdf>.

11 Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2021) 950 final.

Publications and knowledge sharing

ESA regularly publishes on its website reports and information on price trends ⁽¹²⁾ to create greater transparency in the EU's natural uranium market, reduce uncertainty and help improve security of supply.

In 2021, ESA's Nuclear Fuel Market Observatory issued three quarterly uranium market reports ⁽¹³⁾, covering global and specific Euratom developments in the nuclear market. The reports include general data about natural uranium supply contracts concluded by ESA or notified to it, descriptions of activity on the natural uranium market in the EU, and the quarterly spot price index for natural uranium⁽¹⁴⁾. The Agency also issues a weekly nuclear news brief for readers in the Commission.

Annual Report 2020

ESA's annual report remains its principal reporting tool. As in previous years, ESA conducted a survey of EU nuclear power operators. The survey provided a detailed analysis of supply and demand for natural uranium and for conversion and enrichment services in the EU. The Agency published three indices natural uranium prices with calculated weighted averages of the prices paid by EU utilities under multiannual and spot contracts. Its analysis contained forecasts of future demand for uranium and enrichment services and assessed the security of supply of nuclear fuel to utilities in the EU. ESA provided detailed analyses of future contractual coverage for natural uranium and enrichment services and of diversification of supply. It also made an analysis of EU inventories of nuclear material.

In its 2020 annual report, which had a new graphic design, ESA gave an overview of its own activities and of developments in the nuclear fuel markets and nuclear energy, both in the EU and worldwide. The report set out ESA's findings and recommendations on supply and demand for nuclear fuels, reflecting the Agency's diversification policy and work on security of supply, and discussed the security of supply of medical radioisotopes. ESA's work programme for 2021 was published together with the report.

The report was published on ESA's website¹⁵ on 2 July 2021. Due to the COVID-19 emergency and measures to mitigate its impact, the print version of the 2020 Report was published in October 2021 ⁽¹⁶⁾. Special graphics on the cover marked the 60th anniversary of the Agency in June 2020. The report was sent to the European Parliament, the Council of the EU and the Commission, and was presented to the Council Working Party on Atomic Questions.

Working group on security of supply and prices

ESA worked with the ESA Advisory Committee working group on security of supply and prices, which was given a new mandate in 2021. The working group continued to discuss and offer advice on subjects connected with the operation of the market. The work was pursued in two sub-groups: the first focusing on risks to the long-term security of supply, and the second on fair trade issues and prices.

1.2.4. Supply of medical radioisotopes

SAMIRA

ESA contributes to the implementation of the Strategic Agenda for Medical Ionising Radiation Applications (SAMIRA), which is the energy sector's contribution to Europe's Beating Cancer Plan, and a response to the Council's conclusions on non-power nuclear and radiological technologies and applications.

SAMIRA leads the activities aimed at securing the supply of source materials for radioisotopes production. This means protecting the supply of high-enriched uranium (HEU) until the full radioisotopes are converted into high-assay low-enriched uranium (HALEU), and to explore options for the supply of HALEU in the EU (see below for developments in these areas).

In addition, ESA is tasked with designing and launching a new platform and system for monitoring the supply and long-term forecasts for a broad spectrum of radioisotopes and production methods. ESA has to take into account the further development of the European Radioisotopes Valley Initiative (ERVl), which is crucial for ensuring the endorsement of a wide group of stakeholders and sufficient resources. The Agency closely cooperated in this area with the Commission in 2021. Overall progress in 2021 was slow but uninterrupted.

European Observatory on the Supply of Medical Radioisotopes

In 2021, ESA continued to lead and coordinate activities to improve the security of supply of widely used medical radioisotopes, focusing on Molybdenum-99/Technetium-99m (Mo-99/Tc-99m). It co-chaired, jointly with the industry association of nuclear

¹² https://euratom-supply.ec.europa.eu/activities/market-observatory_en.

¹³ https://euratom-supply.ec.europa.eu/publications/esa-quarterly-reports_en.

¹⁴ Provided at least three spot contracts have been concluded.

¹⁵ https://euratom-supply.ec.europa.eu/publications/esa-annual-reports_en

¹⁶ https://euratom-supply.ec.europa.eu/publications/esa-annual-reports_en.

medicine (NMEu) ⁽¹⁷⁾, the European Observatory on the Supply of Medical Radioisotopes ⁽¹⁸⁾.

Established in 2012, the observatory monitors the EU supply chain of Mo-99/Tc-99m and engages on a variety of topics on the EU supply of widely used medical radioisotopes. The observatory is composed of representatives of the Commission, international organisations and industry.

In March 2021, the observatory's mission statement ⁽¹⁹⁾ and terms of reference were given a much-needed review. The updated documents, adopted jointly by ESA and NMEu, are meant to provide suitable governance for the observatory's work and the challenges it will tackle. They enlarged the group of participants, offering national governments access to the expertise and information they need to define strategies and policies in this area.

In 2021, the observatory continued its close cooperation with the NMEu's security of supply working group, as well as the transport working group, on the uninterrupted supply of Mo-99/ Tc-99m, particularly as regards transport concerns related to the COVID-19 pandemic ⁽²⁰⁾.

Following the unplanned outage of the Australian OPAL research reactor in March-April and the unplanned production stop at the Belgian National Institute for Radioelements Mo-99 production line in December, the Agency ensured a steady flow of information from the NMEu's Emergency Response Team to various stakeholder groups, including the Council Working Party on Atomic Questions ⁽²¹⁾ and the Health Security Committee (HSC) ⁽²²⁾.

In October, ESA was informed (as a co-chair of the observatory) about a potential shortage of Iodine-131 (I-131) for nuclear medicine therapy in the second half of 2022. The Agency promptly informed the HSC, which is mandated to improve the coordination and sharing of information on national preparedness activities, and the European Medicines Agency (EMA). The EMA subsequently presented the case to the Co-ordination group for Mutual Recognition and Decentralised Procedures – Human (CMDh) ⁽²³⁾ to raise awareness of the need to change the terms of a marketing authorisation of I-131 from HALEU targets. A work-sharing procedure was agreed to facilitate a coordinated approach and avoid multiple evaluations by individual competent authorities. In parallel, EMA asked the national single point of contact (SPOC) network ⁽²⁴⁾ to conduct the criticality assessment at national level to get a detailed view of the impact of the potential shortage.

The observatory met in virtual form in June 2021. The meeting focused on:

- the observatory's new governance framework;
- transport issues related to Brexit and COVID-19 and lessons learned;
- Mo-99 supply monitoring;
- an overview of the future European production chain.

Research reactors and alternative suppliers presented their capacity forecasts. Participants also addressed the possible inclusion of other novel medical radioisotopes, such as Lutetium-177 (Lu-177), within the scope of the observatory. The representatives of the Commission's Directorate-General for Energy (DG ENER) and Joint Research Centre (JRC) presented their work on the supply of medical radioisotopes, with the focus on the SAMIRA initiative. In addition, the NMEu, the European Association of Nuclear Medicine and the International Atomic Energy Agency (IAEA) provided updates.

In September, ESA presented the observatory's activities and the results of its June meeting to the Council Working Party on Atomic Questions. ESA also presented information on the 2020 supply disruptions for medical radioisotopes and the related mitigation measures taken by the observatory in response to the COVID-19 pandemic.

Security of supply of nuclear materials for non-power use

In line with its strategic objective and the SAMIRA action plan, in 2021 ESA continued to scrutinise the security of supply of HEU and HALEU, which are required to produce medical radioisotopes and to fuel research reactors. These strategic materials are currently not produced in the European Union and must be imported from the United States of America or Russia.

In cooperation with the Member States concerned, ESA continued to assist with the supply of HEU to users who still need it until they convert to HALEU, in line with international nuclear security and non-proliferation commitments. In close cooperation with the Euratom Member States concerned, the Agency renewed for the next 5 years the memorandum of understanding with the US National Nuclear Security Administration (NNSA) for the exchange of HEU for European research reactors and medical

¹⁷ <https://nuclearmedicineeurope.eu/>.

¹⁸ https://euratom-supply.ec.europa.eu/activities/supply-medical-radioisotopes_en.

¹⁹ <https://euratom-supply.ec.europa.eu/system/files/2021-11/Observatory%20Mission%20Statement%20Final.pdf>.

²⁰ See Section 3.3.

²¹ <http://www.consilium.europa.eu/en/council-eu/preparatory-bodies/working-party-atomic-questions/>.

²² https://ec.europa.eu/health/preparedness_response/risk_management/hsc_fr.

²³ Heads of Medicines Agencies: CMDh (hma.eu).

²⁴ The SPOC network aims to improve information sharing between Member States, the EMA and the Commission on significant shortages of medicines and to coordinate actions to help prevent and manage them.

radioisotope production facilities ⁽²⁵⁾. Renewal of the memorandum of understanding in February 2021 was ESA's first deliverable under the SAMIRA action plan to support Europe's Beating Cancer Plan ⁽²⁶⁾ (see section 3.3.2).

The dedicated working group on HALEU was reinstated and in May 2021 the Advisory Committee adopted the terms of reference for a third mandate. The working group's objective is to respond to the EU's need for research reactor fuel and medical radioisotopes production by exploring industrial and commercial options to build a European capacity for producing LEU metal. Three meetings of the working group were held in 2021 and it was planned to present the outcome of the work to the ESA Advisory Committee in spring 2022.

1.2.5. Cooperation with stakeholders and partners

Outreach activities

Throughout 2021, ESA pursued contacts with EU authorities, utilities, industry and nuclear organisations to further its objectives. It monitored market developments and demand in the EU and provided advice and follow-up to ensure appropriate application of the common supply policy.

The Agency also oversaw the security and sustainability of the supply of medical radioisotopes in the EU, including through the co-chairmanship of the European Observatory on the Supply of Medical Radioisotopes. In this context ESA established further contacts, including for instance the EMA and its national SPOC network.

ESA responded to queries about the UK's withdrawal from the EU and Euratom, which came from individuals or businesses with commercial relations with companies in the UK.

In December, ESA became a corporate member of the European Nuclear Society (ENS) ⁽²⁷⁾ - a learned society that brings together more than 12 000 professionals from the academic world, research centres, industry and authorities to exchange knowledge and experience about nuclear science and technology. Founded in 1975, the ENS is the largest society for nuclear science, research and industry in Europe.

International cooperation

The Agency has long-standing and well-established relationships on nuclear energy with two major international organisations: the IAEA and the OECD NEA. In 2021, ESA continued to cooperate with these organisations by participating in working groups.

The joint NEA/IAEA uranium group is responsible for publishing the biennial report 'Uranium resources, production and demand' (known as the 'Red Book') ⁽²⁸⁾, to which ESA contributes its analysis of supply and demand for nuclear fuel in the EU. The report provides up-to-date information on established uranium production centres and mine development plans as well as projections of nuclear generating capacity and reactor-related requirements.

The NEA expert group on uranium mining and economic development analyses uranium mining's potential contribution to economic and social development, and explores whether uranium activities are managed in a way that benefits local and national economies. The expert group examines case studies in various countries to understand how uranium mining affects economic development, jobs, infrastructure, education and medical care ⁽²⁹⁾. ESA contributes to these investigations and analyses.

In July, ESA joined the IAEA expert group. The aim is to create a technical document on global secondary uranium supplies. The group also holds consultative meetings with representatives of international agencies and industry. The group is using publicly available information to develop a document that would provide a general overview of secondary uranium supplies, organised and presented in a way that would be useful for Member States and, in particular, for those not familiar with secondary supplies.

25 Originally signed in 2014.

26 https://ec.europa.eu/info/strategy/priorities-2019-2024/promoting-our-european-way-life/european-health-union/cancer-plan-europe_en.

27 <https://www.euronuclear.org/>.

28 https://www.oecd-nea.org/jcms/pl_52718/uranium-2020-resources-production-and-demand.

29 https://www.oecd-nea.org/jcms/pl_28160/expert-group-on-uranium-mining-and-economic-development-umed.

5. Management

Legal status

The Supply Agency was endowed by the Euratom Treaty ⁽³⁰⁾ with legal personality and financial autonomy ⁽³¹⁾ and operates under the supervision of the European Commission on a non-profit-making basis. The Statutes ⁽³²⁾ set out the governance of the Agency in more detail.

ESA's headquarters have been in Luxembourg since 2004. Together with the Commission, ESA has concluded a seat agreement with the government of the Grand Duchy of Luxembourg.

5.1 Budgetary and financial management

Part of ESA's operating costs is financed by its own budget, with the remainder directly financed by the Commission.

ESA carries out its financial operations according to the relevant provisions of its Statutes and of the EU Financial Regulation ⁽³³⁾ as well as the accounting rules and methods decided on by the Commission.

The Commission adopts ESA's budget, transfers the contribution allocated under the EU budget, and directly covers some of its administrative costs.

Budget

The Agency's budget for 2021 ⁽³⁴⁾ amounted to EUR 210 000, 9% less than 2020 (EUR 230 000).

Revenue and expenditure were in balance. ESA's revenue derived entirely from a contribution from the EU budget. ⁽³⁵⁾

The operating costs that ESA paid for from its budget include work travel, development of the NOEMI nuclear IT system for contract management and a stand-alone computer centre, advisory committee meetings, conferences, media subscriptions, publications and communication activities.

ESA is 100% financed from the EU's general budget.

On 31 December 2021, ESA's accounts showed a budget execution of EUR 209 489.28, or 99.76% of commitment appropriations. The budget and final annual accounts have been published on ESA's website ⁽³⁶⁾.

In-kind contribution from the Commission

A large part of ESA's administrative expenses are covered directly by the Commission's budget, including salaries ⁽³⁷⁾, premises, infrastructure, training, and some IT services and equipment.

In an internal estimate for 2021, the salaries of the Agency's staff were calculated at EUR 1 784 258, while other costs covered by the Commission amounted to EUR 486 000. This expenditure and the associated transactions are not included in ESA's accounts but in the Commission section of the EU's annual accounts. In 2021, ESA did not pay charge-back on any baseline services provided to it by the Commission ⁽³⁸⁾.

The in-kind contribution and charge-back exemption has had a positive impact on ESA's administrative capacity.

30 Article 52 of the Euratom Treaty.

31 Article 54 of the Euratom Treaty.

32 Council Decision (2008/114/EC, Euratom) of 12 February 2008 establishing Statutes for the Euratom Supply Agency.

33 Regulation (EU, Euratom) 2018/1046 on the financial rules applicable to the general budget of the Union; Article 68 of the EU Financial Regulation stipulates its applicability to the implementation of the budget for ESA.

34 C(2020) 8593 of 10.12.2020.

35 ESA's present financial situation results from the 1960 Council decision to postpone indefinitely the introduction of a charge on transactions (contracts for the purchase of nuclear materials by EU utilities), which had been intended to cover ESA's operating costs.

36 https://euratom-supply.ec.europa.eu/about-esa/financial-autonomy_en.

37 Salaries are paid by the Commission in line with Article 4 of ESA's Statutes and are not charged to the Agency's budget.

38 Commission Decision C(2018) 5120, Annex 21.

Financial accounts

In 2021, the assets owned by the Agency totalled EUR 963 933 (EUR 963 505 in 2020). They were financed by liabilities of EUR 99 442 (10%) and equity of EUR 864 491 (90%).

The Agency has a capital of EUR 5 856 000. An instalment of 10% of the capital has been paid by each Member State. On 31 December 2021, the total amount of instalments called up and reported in ESA's accounts stood at EUR 518 400 ⁽³⁹⁾.

In 2021, fixed assets increased by 44% to EUR 277 256 (EUR 191 937 in 2020) following the continued development of the NOEMI IT system ⁽⁴⁰⁾, classified as an internally generated intangible asset, and its going into production in December 2021.

5.2 Human resources

Staff allocation

ESA staff are Commission civil servants (officials) and ESA's establishment plan is incorporated into the global staff numbers of the Commission.

In 2021, one person was recruited and one retired. At the end of 2021, the Agency had 16 staff (8 administrator and 8 assistant posts) and one vacant assistant post under recruitment.

Human Resources	2021	
Number of staff	Authorised under the EU Budget (⁴¹)	Number of personnel (⁴²)
Commission officials	17	15.5
AD official or temporary agent	7	7.1
AST official or temporary agent	10	8.4
Total establishment plan posts	17	15.5
Contract agents	0	0
Seconded national experts	0	0
Total staff	17	15.5

The difficulties in recruitment had a negative effect on staffing: 15.5 posts were filled throughout the year, compared to 17 posts contained in the establishment plan. Despite the Agency's efforts, it proved extremely difficult to find assistants at lower grades, given the specialised profile required and the associated pay levels compared to the cost of living in Luxembourg. The Commission's Directorate-General for Energy, to which ESA staff are administratively attached, helped by upgrading one assistant post to administrator in 2021. This resulted in a successful selection and recruitment procedure.

Equal opportunities

ESA provides equal career opportunities for staff at all levels and promotes a gender-balanced workplace. Women make up 56% of ESA staff and men 44%. This equal opportunities policy is also reflected in management positions, which are also equally distributed.

5.3 Information management and communication

NOEMI Information system

Since January 2020, the Agency has been developing new software to support the management of ESA's core tasks under the Treaty and the ESA Statutes. The NOEMI IT system ('Nuclear Observatory and ESA Management of Information') started

39 The amount still to be aligned with the UK's withdrawal from the EU and Euratom. UK's participation, as a Member State, in the capital of the Euratom Supply Agency amounted to EUR 672 000 of which 10% is held in the Agency's bank account. No relevant provision exists in the Withdrawal Agreement or in any other agreement or arrangement or legal act, to date. The Agency, which cannot act unilaterally in this field, has registered an accounting provision in its financial statements on the UK's share repayment.

40 The NOEMI IT system (Nuclear Observatory and ESA Management of Information) envisages the management of ESA business core, i.e. nuclear supply contracts and EU security of supply information (see 5.4 below).

41 EU General Budget 2021, OJ L 57, 27.2.2020 p.1978, footnote 2.

42 Posts actually filled throughout the year.

operation in December 2021. The capitalised cost of phase one of the system amounted to EUR 269 466.69.

At this first stage, NOEMI constitutes a secure integrated database of information from contracts for the supply of nuclear materials and for related services, and of data provided by the nuclear users through annual reporting. To this end, it supports the monitoring of the EU's nuclear fuel cycle supply market and transactions, and makes it possible to export data to produce analyses and reports.

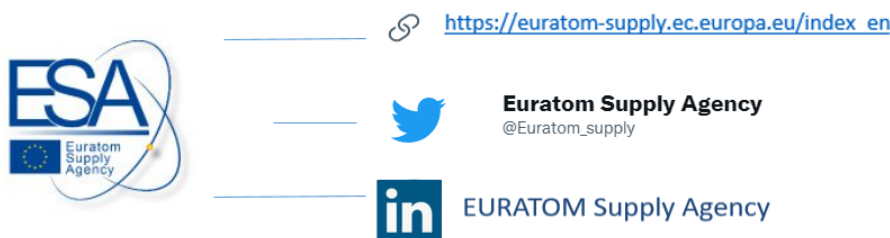
The system will further evolve in the coming years to increase ESA's efficiency and effectiveness. In the next stage, expected to start in 2022, it will integrate business workflows, monitor operations and improve the user experience. The project's final stage will eventually enable ESA to fully and securely digitalise its operations, which comprise handling nuclear fuel cycle contracts and collecting and processing data on the nuclear materials and fuel market.

NOEMI will improve ESA's ability to monitor the nuclear materials and fuel market while securely hosting sensitive data on nuclear contracts.

Information security

To carry out its mission, ESA receives or collects data from nuclear market actors, and processes, analyses, and, if appropriate, publishes them. ESA does this in full compliance with applicable confidentiality requirements. As records held by the Agency on its work under Chapter VI of the Treaty contain business secrets and sensitive information about companies, they must not be disclosed to other legal persons. The Agency premises, provided by the Commission, have reinforced security. All members of staff of the Agency and all external contractors hold security clearance. The NOEMI IT system underwent a vulnerability assessment, which will be repeated after all the recommendations from this assessment are carried out.

Communication and visibility



The Agency carries out its own communication and outreach policy.

In 2021, in collaboration with the Commission's Directorate-General for Communication, ESA revamped its website, which is now harmonised with that of the Commission. The website is hosted on an updated dynamic platform and is more user-friendly. Taking advantage of the website upgrade, all the information posted there was redrafted for a better user experience.

ESA continued to engage in targeted outreach to stakeholders in industry, research, and national administrations to ensure business continuity during the COVID-19 pandemic.

5.4 Audit and discharge

Audit by the European Court of Auditors

The European Court of Auditors (ECA) audits ESA's financial and budgetary accounts and the underlying transactions each year, in line with internationally accepted public sector auditing standards. ECA's responsibility is to give the European Parliament and the Council a statement of assurance as to the reliability of the annual accounts and the legality and regularity of the underlying transactions.

ESA duly notes ECA's observations and takes the necessary measures. It also carefully follows the observations of a cross-cutting nature that accompany the ECA annual report on the EU agencies.

ECA signed off the Agency's 2020 accounts and issued a 'clean' opinion both on the accounts and on the legality and regularity of revenue and expenditure transactions ⁽⁴³⁾. ECA noted a high carry-over rate of payment appropriations, mainly IT service contracts that had been signed in 2020 but not completed by the end of the year. ESA explained the carry-over by the need to ensure continuity and the timely delivery of the business-critical project, NOEMI.

Following up on observations made in previous years, ECA closed a comment on the high cancellation rate of carried-over budget appropriations, as ESA had taken steps to monitor its budget execution more closely.

Discharge

The discharge authority for ESA is the European Parliament, acting on a Council recommendation. The European Parliament granted ESA's Director-General a discharge for the implementation of the budget for the 2019 financial year ⁽⁴⁴⁾.

5.5 Internal control and assurance

Internal control and risk management

The Agency's internal control framework is designed to provide reasonable assurance in achieving the five objectives set out in Article 36 of the Financial Regulation, on the internal control of operations and budget implementation.

In 2021, ESA performed a risk assessment update covering all areas of the Agency's work and its operational and administrative processes. Adjustments were made to align the controls in place with the risks.

Management assurance

ESA carries out an assessment of the effectiveness of its internal controls. This consists of an evaluation of pre-defined monitoring indicators, including a survey; the evaluation of audit results and new or outstanding recommendations; and an analysis of non-compliances and exception cases.

The annual assessment for 2021 did not reveal any risks that could lead to a reservation in the Annual Declaration of Assurance.

Based on aspects of the internal control systems and the assurance they provide – the building blocks of assurance – the Director-General was in a position, as the authorising officer, to sign the Declaration of Assurance ⁽⁴⁵⁾ that accompanies this annual report.

Business continuity

The COVID-19 pandemic continued to affect the EU in 2021. With the lessons learned from 2020, the Agency remained fully operational and demonstrated it could respond swiftly to the challenges arising from this health crisis.

In line with Commission guidance and to minimise the risk to staff and their families, ESA introduced teleworking as the default option. Critical and essential staff who needed to access resources and work on the premises were able to do so on rotation.

No reduction of revenue, asset value or budget took place in 2021. ESA introduced changes to its spending pattern through a budget amendment and internal transfers. It reduced spending on statutory work trips and Advisory Committee meetings, and invested in its IT system instead.

In its 2022 work programme, ESA revised its tasks where appropriate and adjusted timeline to take account of changing circumstances.

5.6 Improving effectiveness and efficiency

Given ESA's limited resources, it is of paramount importance to ensure that it remains effective and efficient. The Agency is committed to continuously improving how it works. However, the number of tasks and the expectations of stakeholders continue to grow.

Repeated efforts have been made to achieve efficiency gains and reallocate human resources to new and upcoming tasks. This allowed the Agency to carry out the tasks linked to increasing legal obligations despite a reduction in the human resources that were allocated ⁽⁴⁶⁾. In particular, it has created and continued to run the nuclear market observatory (a new task in the 2008 Statutes), fulfilled the obligations of financial autonomy ⁽⁴⁷⁾ and assumed responsibility for the supply of medical radioisotopes ⁽⁴⁸⁾. Since 2020, it has had to fulfil the tasks related to public access to documents and personal data protection without the support that was previously given by the Commission.

⁴⁴ European Parliament Decision of 13/5/2020: P9_TA-(2021)0195 – Decision 2020/2171(DEC).

⁴⁵ Annex 10 – Declaration of Assurance of the Director General for the year 2021.

⁴⁶ The Agency has been working with the current staff level (17 officials) since 2012, when it lost one administrator (AD) post. In 2015, it also lost contractual agent allocation.

⁴⁷ Financial autonomy was reinstated in 2012, after the European Parliament noted that the lack of autonomous budget between 2008 and 2012 and de facto integration in the Commission was at odds with the Agency's Statutes. Financial autonomy requires the Agency to employ a full-time accounting officer and undergo an extensive annual audit by ECA.

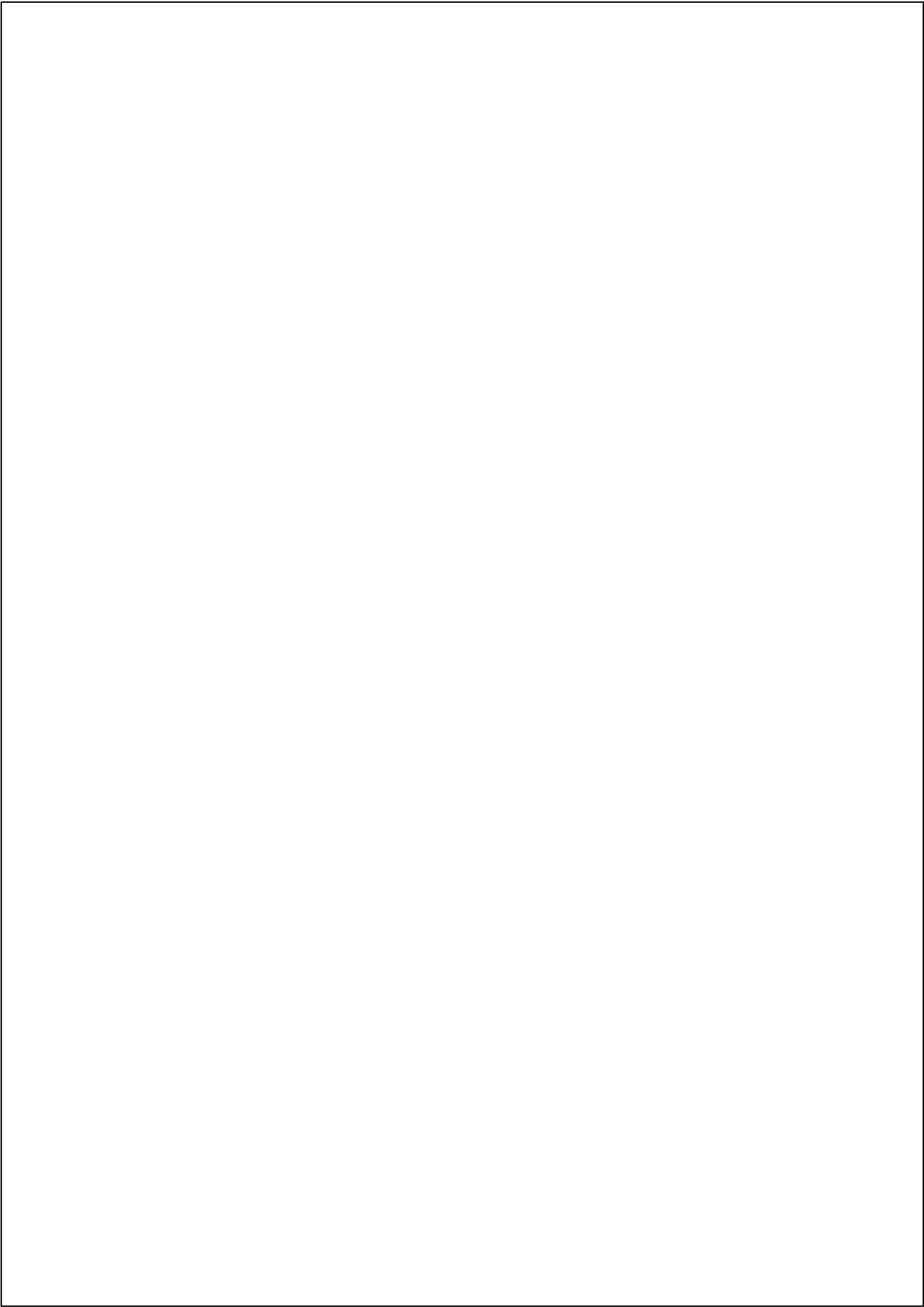
⁴⁸ 'Towards the secure supply of radioisotopes for medical use in the EU' 3053rd Employment, Social Policy Health and Consumer affairs Council meeting, 6 December 2010 and 17453/12, ATO 169/ SAN 321, 7 December 2012.

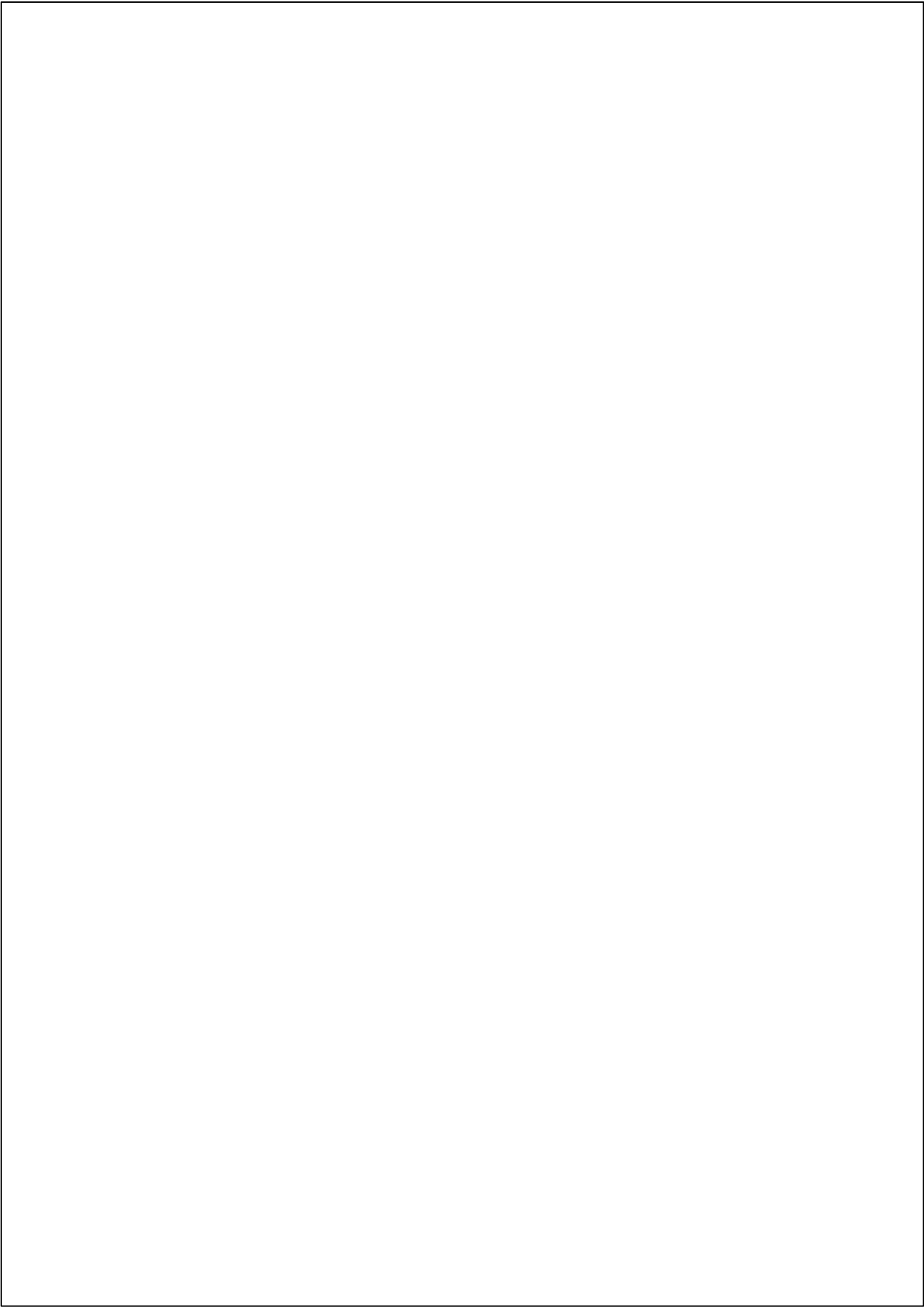
Further efficiency gains are possible by developing the NOEMI IT system, subject to the resources available. Introducing the internal workflow, planned for Phase 2 ⁽⁴⁹⁾, will streamline the process of handling information from contracts within the deadlines. ESA has already started to receive digitally signed contracts that would allow full electronic handling of this procedure. A future Phase 3 could envisage a portal for market participants to digitally exchange contracts and data with the Agency, subject to additional security measures. That would constitute a decisive benefit for utilities and industry.

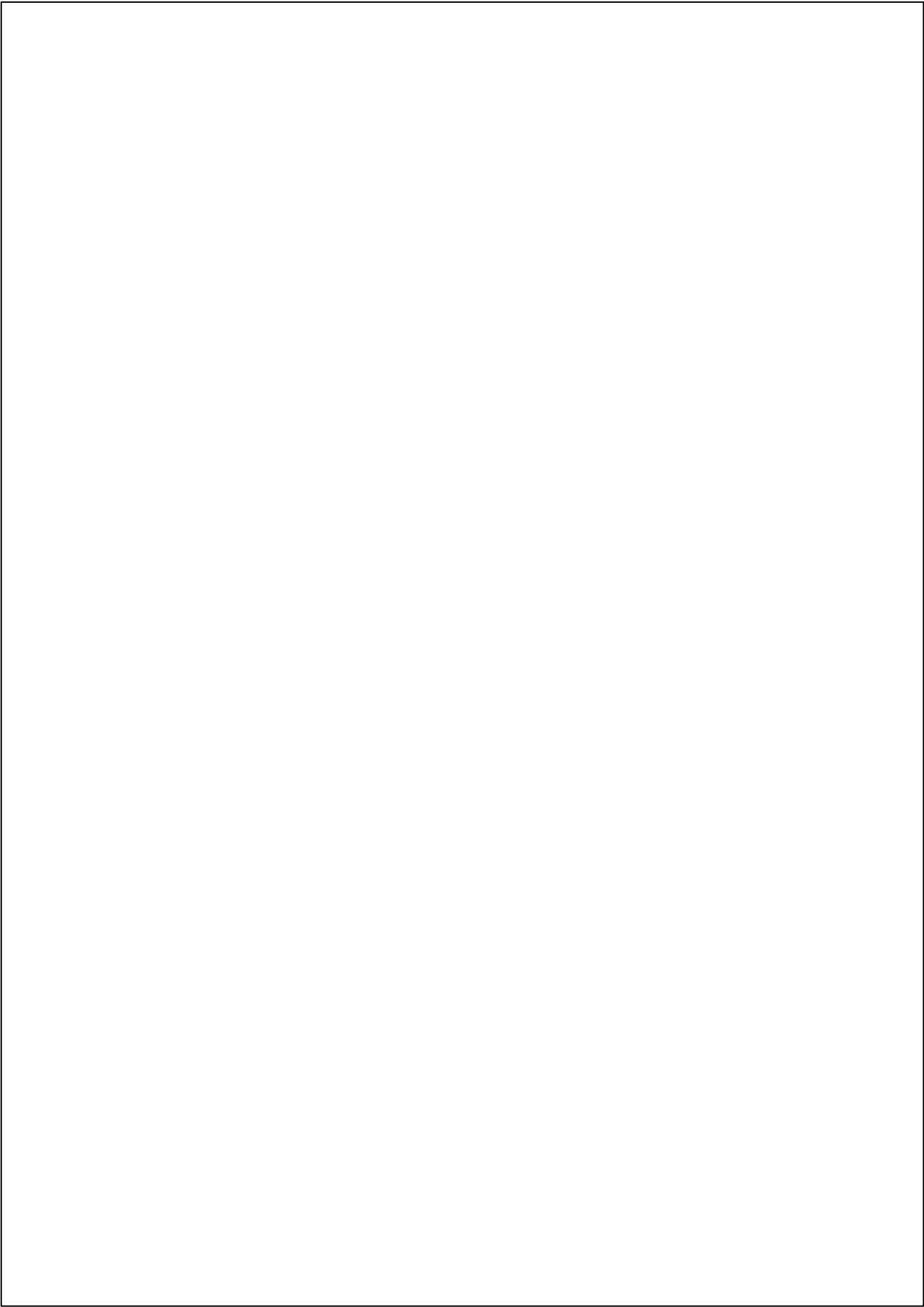
Another source of efficiency gains could be further synergies with the Commission, through specialised support functions, e.g. treasury, accounting officer and information security officer services, and extending the use of corporate tools, e.g. to manage work-related travel.

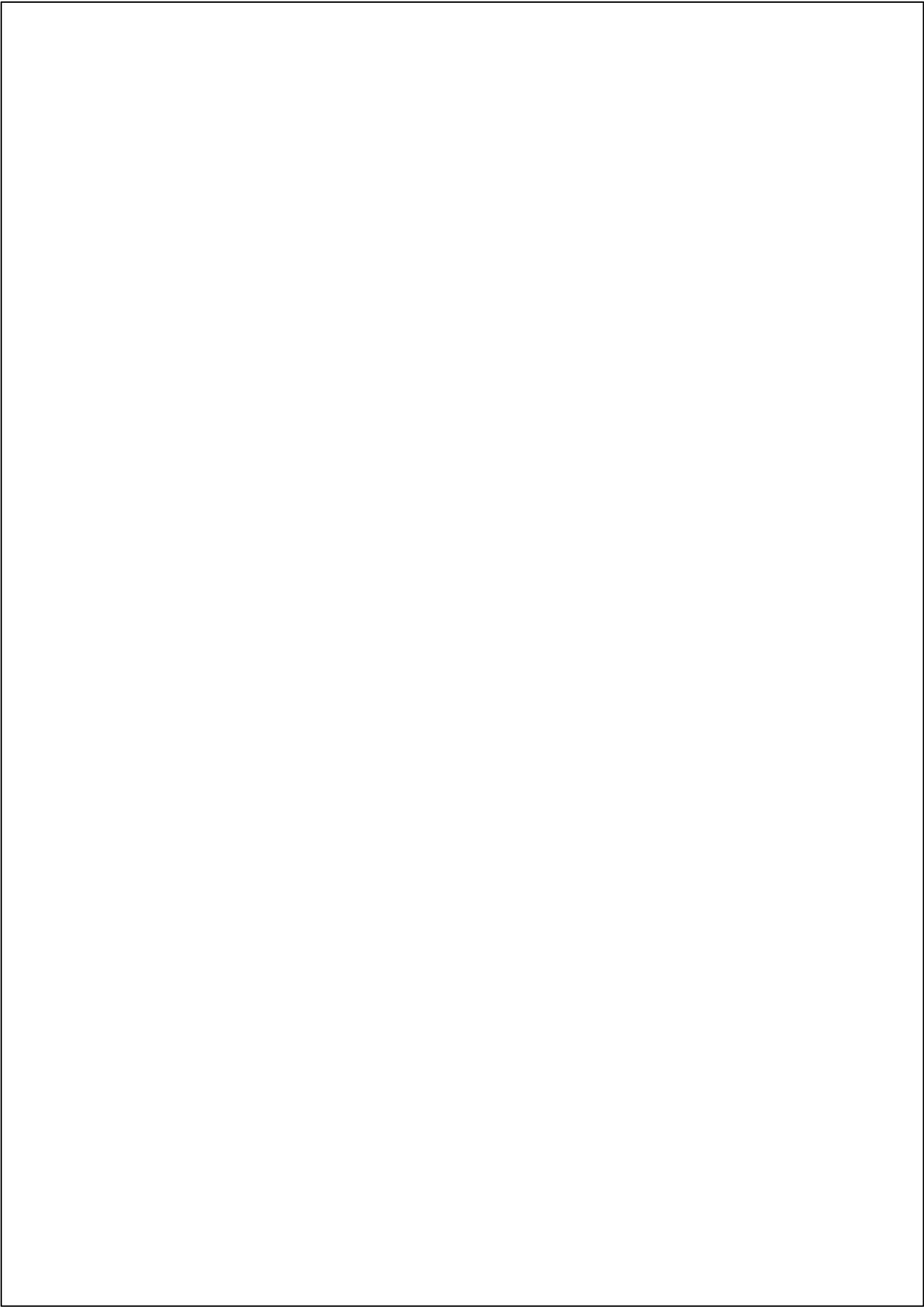
49 The exact timing and budget of Phase 2 of the NOEMI project will be decided in 2022 and submitted to the Commission's IT and Cybersecurity Board.

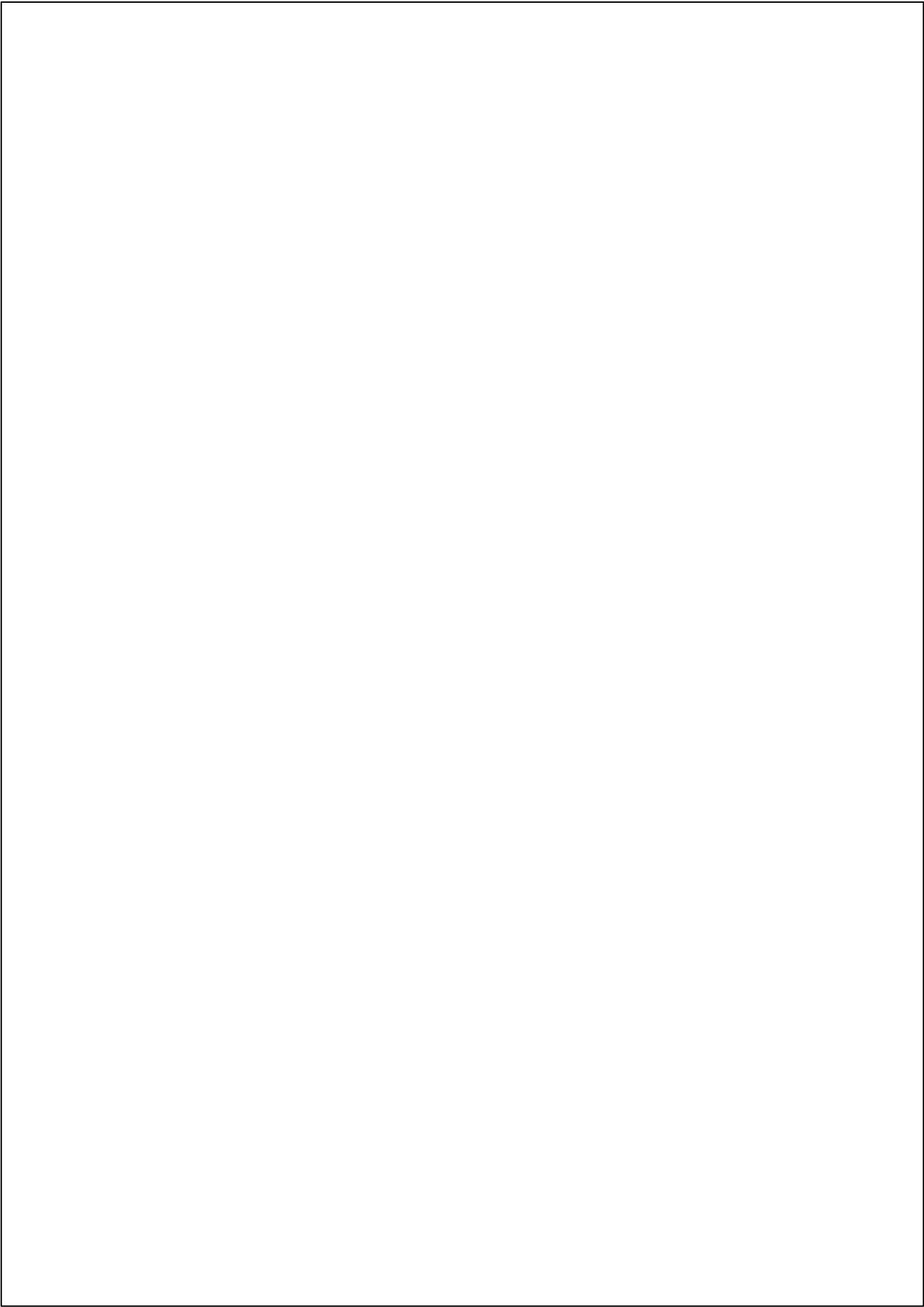
Annexes











Annex 10
Declaration of assurance



Euratom Supply Agency

Director-General

DECLARATION OF ASSURANCE

I, the undersigned, Agnieszka Ewa Kaźmierczak

Director-General of the Euratom Supply Agency in 2021

In my capacity as authorising officer

- Declare that the information contained in Chapters 1 and 5 of this report, forming the annual activity report, gives a true and fair view ⁽¹⁾;
- 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 on 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 and the lessons learned from the reports of the Court of Auditors for several years prior to the year of this declaration.

I confirm that I am not aware of anything not reported here which could harm the interests of the Euratom Supply Agency.

Agnieszka Ewa Kaźmierczak