# The Agency's Programme and Budget 2026–2027

IAEA
International Atomic Energy Agency
*Atoms for Peace and Development*

GC(69)/6

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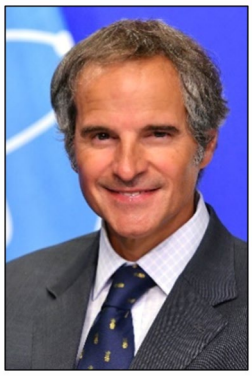
# Foreword by the Director General



Interest in using atomic energy for sustainable development continues to rise in the world. In the last ten years, 20 new countries have joined the International Atomic Energy Agency raising the number of its Member States to 180. The clean and precise solutions that nuclear technology offers are attracting countries to using its applications to achieve sustainable development goals in many different areas including human health (especially for cancer control); food and agriculture; industry; research; water resource management; and the environment, to name but a few. At the Climate Change Conferences and many other fora, an increasing number of countries are declaring their commitments to use nuclear power in their fight against climate change.

Consequently, the demands on the Agency's services continue to rise including in the areas of nuclear safety, nuclear security and safeguards. The Agency is already applying safeguards on record amount of nuclear material and facilities, which is bound to rapidly grow further, going by the commitments to triple the nuclear power capacity in the coming decades. Similar situation is being experienced for other Agency's services. The Agency will also continue to respond to requests for help to address global challenges pertaining to nuclear safety, nuclear security and non-proliferation and to respond to requests for assistance in overcoming the consequences of regional and global emergencies. While the Agency will take advantage of modern tools to deliver its services efficiently and effectively, we would need to separately consider future resourcing of the organization to meet these increasing demands.

Member States have continued to demonstrate their broad support to the Agency's work, which was exemplified in the approval of the revised budget for 2023 to partially alleviate the impact of high inflation on programme delivery. Further, the Agency had faced financial liquidity challenges in the year 2023. Your overwhelming response in 2024 resulted in a sound liquidity situation throughout 2024.

The Programme and Budget for 2026–2027 is prepared, bearing in mind, once again, the constraints faced by Member States and the Agency due to the prevailing financial environment. At each phase of preparation of the programme and budget, attention has been given to identify efficiencies through streamlining processes and prioritizing activities.

Efforts will continue to enhance the cross departmental cooperation by identifying and linking relevant Agency projects so that their collective implementation make greater impact in addressing global challenges. This approach is successfully being followed for the implementation of initiatives such as Zoonotic Disease Integrated Action project (ZODIAC), Rays of Hope (RoH), Nuclear Technology for Controlling Plastic Pollution (NUTEC Plastics), the IAEA Platform on small modular reactors and their Applications (SMR Platform), the Atoms4NetZero Initiative, Nuclear Harmonization and Standardization Initiative (NHSI), Marie Sklodowska Curie Fellowship Programme (MSCFP), Lise

Meitner Programme and the recently launched Atoms4Food. Several of these initiatives serve as the pivot for enlarging the existing projects based on resource availability. They will continue to be implemented through enhanced in-house coordination and by mobilizing resources, by enlarging the donor base, building new partnerships, including with development and regional banks, the private sector, interested foundations and others.

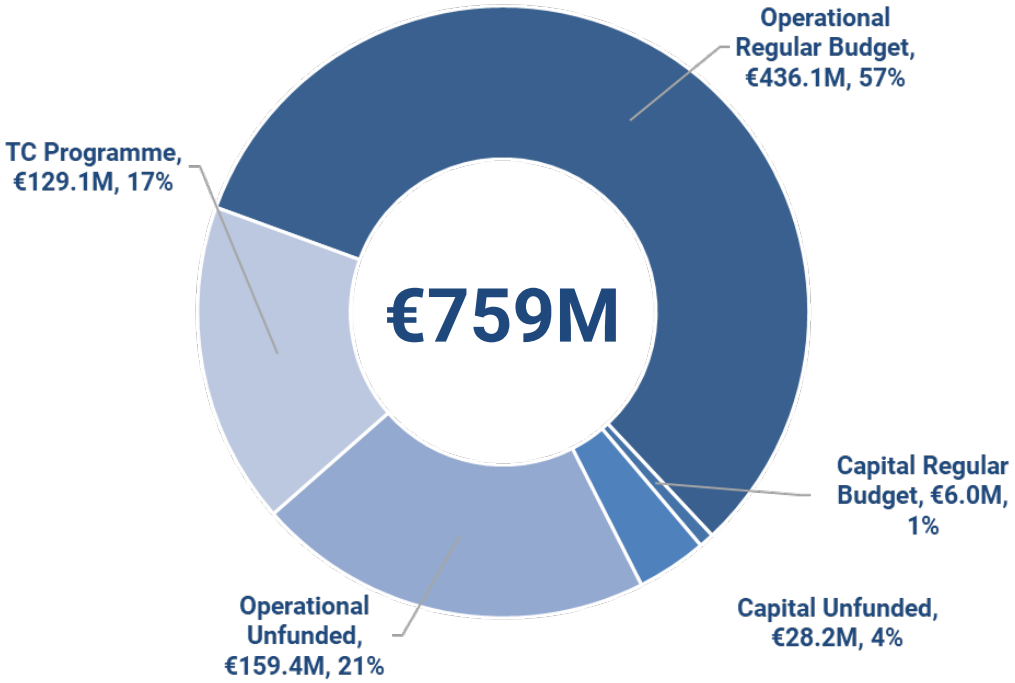
It is a matter of great satisfaction that the ministerial declaration adopted at the recently held Ministerial Conference on Nuclear Science, Technology and Applications and the Technical Cooperation Programme, recognized the important role of these initiatives in helping to increase the visibility of the IAEA's work, mobilize additional resources, and focus the IAEA activities in these important areas.

Lastly, let me emphasize my commitment to managing the resources at the Agency's disposal wisely and productively, and with discipline and restraint.

Rafael Mariano Grossi
Director General

# 2026–2027 Programme and Budget at a Glance

2026 Total Resources [1]




The Agency's Programme and Budget 2026–2027:

- Is at ZNG, despite increasing demand for the Agency's services and takes into account the financial constraints faced by Member States;
- Includes sustainable efficiencies without compromising the effectiveness of the Agency's deliverables;
- Continues to focus on enhancing partnerships and resource mobilization.

2026 Regular Budget

**Total Regular Budget**
**€442.1M**

**Zero Nominal Growth Budget**

**Sustainable efficiencies of €4.4M[2] identified and reinvested**

[1] *Figures in tables may not add up to corresponding sums owing to rounding. Activities currently unfunded in the Regular Budget for which extrabudgetary resources would be required are shown as "unfunded" in the charts and tables of this document.*

[2] *Efficiencies from Non-Human Resource and Human Resource costs. See Annex 3 for more detailed information.*

# PART I

# The Agency's Programme and Budget 2026–2027

# I.1 Overview

# Overview

1. *The Agency's Programme and Budget 2026–2027* has been prepared in an environment where Member States continue to endure the impact of the difficult global financial situation. Despite these challenges, they recognize the critical role played by the Agency in increasing the contribution of nuclear science and technology for achieving the sustainable development goals and for enhancing nuclear safety and security and strengthening nuclear verification and non-proliferation efforts worldwide.

2. Member States have continued to demonstrate their broad support of the Agency's work, which was exemplified in the approval of the revised budget for 2023 to partially alleviate the impact of high inflation on programme delivery. When confronted with the financial liquidity in the year 2023, Member States responded positively, and the situation improved throughout 2024.

3. Notwithstanding the precarious global financial situation, the demands for the Agency's services continue to rise. The Agency's membership continues to grow, as does the peaceful use of nuclear technologies and applications for development. Nuclear energy is expected to have a more prominent role in the adaptation and mitigation of climate change related challenges, as well as for achieving energy security. The contribution of nuclear techniques is expected to further increase in achieving the Sustainable Development Goals (SDGs), including in the areas of human health, especially for cancer control; food and agriculture; preparedness and response capabilities for outbreak of zoonotic diseases; water resource management; and the environment. Countries' adherence to international legal instruments in the areas of nuclear safety, nuclear security and safeguards continues to grow, consequently increasing the demand for Agency support and activities.

4. In this context, the Secretariat will continue to work closely with Member States and support them, mainly through the technical cooperation (TC) programme, and across a wide range of programmatic activities, in their efforts to meet their development challenges, including the achievement of the SDGs. The Agency will also continue to respond to requests for assistance to help address global challenges in overcoming the consequences of regional or global medical emergencies, natural disasters, industrial accidents, as well as those related to nuclear safety, nuclear security and non-proliferation.

5. During deliberations on *The Agency's Draft Programme and Budget for 2026–2027*, Member States have come to an agreement on a zero nominal growth (ZNG), instead of the originally proposed zero-real-growth (ZRG) budget. This amounts to reductions of 3.8% per annum (or €51.0 million) for the biennium in the proposed budget, commensurate to the price adjustment.

6. The Secretariat will continue to endeavour to do 'more with the given resources', as well as enhance cross departmental cooperation diligently applying a results based approach in all areas of the Agency's work and ensure that the quality and effectiveness of the Agency`s deliverables are not compromised. Additionally, continued focus on partnerships and resource mobilization should enable the Agency to better respond to increasing demands.

For 2026, a total Regular Budget of €442.1 million is at zero nominal growth, which is at the same level as the 2025 Regular Budget. This represents a Regular Budget comprised of the operational Regular Budget (€436.1 million) and the capital Regular Budget (€6.0 million).

7. All figures in this document are presented in euros, at 2026 prices[3], unless otherwise specified.

[3] 2026 prices are at the same level as 2025, given the reductions implemented to achieve ZNG.

## Cost Savings and Efficiencies

8. The prioritization and efficiencies were kept in focus throughout the budget preparation process. The Secretariat has identified further efficiency measures for 2026–2027 to free up resources to enable the Agency to respond, at least partially, to the increased demands being placed on it.

9. Efficiencies in the amount of €4.4 million (at 2025 prices) for the 2026–2027 biennium were identified. Annex 3 provides additional details.

## Managing for Results

10. As requested by Member States during discussions on Programme and Budget 2024–2025, the Agency has continued its efforts to strengthen its results based management (RBM) throughout the programme cycle. Lessons learned from previous biennia and from other reviews and assessments as well as internal and external evaluations are taken as one of the starting points during the planning process. Planning in RBM requires looking at the reviews, assessment, and evaluations upfront and considering how their results are influencing planning going forward or in the continuation of the implementation of current programmatic activities.

11. The Agency's results based approach aims to improve the clarity and consistency of programme designs across the Agency. To this end, the Results Based Management Coordination Group (RBM Coordination Group), a standing interdepartmental group, assists on the coordination, implementation and quality assurance of the application of RBM throughout the programme cycle. The RBM Coordination Group assists promoting reflection, cross-departmental learning and programme adjustment based on outcome monitoring and evaluation evidence.

12. In addition, the Agency has further strengthened its coordination with the wider UN system and other international actors, including through the UN Strategic Planning Network (UNSPN) and the Development Assistance Committee Results Community of the Organisation for Economic Co-operation and Development (OECD). The aim was to contribute to and continuously learn from best practices in applying RBM for better results.

13. In the preparation of the Programme and Budget for 2026–2027, the Agency planned new activities based on Members States' needs and demands following a prioritization exercise of the existing programme and/or through identifiable new efficiency measures. Agency-wide and Major Programme-specific metrices representing the increase in demand were reviewed and carefully integrated.

14. Furthermore, performance indicators have been further refined to measure programme performance. For example, performance indicator metrics including baseline, targets and means of verification were reviewed to gauge programme performance and report to Member States in a meaningful manner. In addition, a dedicated internal mid-year review exercise, using performance indicators to track actual results against planned targets, is leveraged to strengthen performance monitoring. In order to assess impact of the Agency's activity in Member States, the Agency developed pilot knowledge tests and participant follow-up surveys for better and more timely measurement of capacity-building results.

15. The Agency continues to improve its programmatic IT system for improved functionalities such as better assessment of actual achievement against planned targets. In parallel, dedicated capacity building activities, including e-learning materials on RBM during the programme planning phase and as part of the induction programme for new managers, have been developed and implemented.

*Risk Management*

16. The Agency's enterprise risk management has been implemented based on enhanced internal policy and guidelines and using the updated IT risk management tool. This facilitated risk management and monitoring across all levels of the Agency's programmatic activities, while strengthening the links between risk management, RBM and internal controls.

Additionally, a revised set of training materials has been developed, and a periodic induction training programme has been launched to raise awareness and build capacity of new managers. The Agency continues to further strengthen its enterprise risk management to achieve organizational objectives and mandates, as well as to create and protect organizational values.

*Cross-cutting issues*

17. Cross-cutting issues are, to varying degrees, relevant to all aspects of the Agency's activities. Mainstreaming the cross-cutting issues means that they become an integral dimension for consideration during the planning, design, implementation, monitoring and evaluation of the Agency's programmes.

*Contribution to SDGs*

18. The Agency seeks to accelerate and enlarge the contribution of nuclear technologies and applications to peace, health and prosperity throughout the world. Therefore, the Agency supports its Member States with capacity building, technology transfer and research activities, with a view to contribute to the attainment of national priorities and goals, and, consequently, to the SDGs of its Member States. For the Agency's Programme and Budget 2026–2027, over 72% of operational regular programme projects were marked to support Member States in their contribution to the SDGs, with the majority focused on SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure) and SDG 3 (good health and well-being).

*Knowledge Management*

19. Knowledge management is an important cross-cutting component of the Agency's results based approach. It is fully integrated into the Agency's results based management framework and further cascaded in Departmental action plans. Knowledge management is intimately linked to the work processes of different organizational units of the Agency. It enables the Agency to create, acquire, capture, codify, store, retain, share, use and transfer knowledge. To strengthen knowledge management within the Agency, an Agency-wide planning and reporting exercise was conducted, along with sharing of best practices among Departments to foster knowledge sharing. In addition, a common knowledge management portal was established to optimize and integrate the available tools and templates on knowledge transfer and to provide a better experience for Agency-internal knowledge sharing and storing.

*Gender*

20. The Agency is committed to gender equality and to supporting the ability of all individuals, men and women to equally contribute to and benefit from its programmes and activities to this end, *The Agency's Programme and Budget 2026–2027*, has been prepared with these considerations in mind, as relevant.

21. In 2025, the Secretariat has achieved gender parity in the Professional and higher categories, upholding the highest standards of efficiency, technical competence and integrity.

*Partnerships*

22. The Agency continues to provide support to Member States, including through flagship initiatives focusing on key areas of the applications of nuclear science and technology. Emphasis is placed on areas such as cancer care, food safety and security, prevent diseases, protect ocean and women in nuclear, through Rays of Hope, Atoms4Food, ZODIAC, NUTEC Plastics, the IAEA Marie Sklodowska-Curie Fellowship Programme and the Lise Meitner Programme respectively.

23. The Agency continues to leverage Country Programme Frameworks (CPFs) for establishing partnership and results matrices to support Member States in the process of identifying potential partners for the implementation of projects aimed at achieving national development priorities. This approach is also applied to the Agency's support for efforts under the Regional Cooperative Agreements (RCAs) to establish partnerships and mobilize resources for related TC projects. Such approach will help ensure sustainability and will encourage ownership of and commitment to TC activities under the portfolio of the RCAs.

24. The Agency continuously expands its strategic collaborations with other United Nations system organizations and international organizations. Cooperation with the United Nations Environment Management Group for example, proved to be pivotal in increasing outreach and visibility and facilitating the implementation of programme activities related to marine pollution, specifically those addressing marine microplastics pollution and ocean acidification. Another example is the close collaboration with the World Health Organization (WHO) that led to a joint publication on the sustainable management of radiotherapy facilities and equipment. This partnership was important in ensuring that there were no overlaps between Member State needs addressed by the Agency and those addressed by the WHO. The partnership between the Food and Agriculture Organization of the United Nations (FAO) and the Agency was expanded beyond the Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture through a joint initiative, Atoms4Food, which aims to assist Member States' efforts to tackle growing hunger and boost food security.

25. Furthermore, the Agency will continue to seek opportunities to mobilize new streams of public and private finance and expand partnerships including with non-traditional donors in order to expand its ability to support Member States. The mobilization of knowledge and innovation from partners will remain a key focus of the Agency's work, where appropriate.

# I.2 Financial Overview

## Total Resources

26. The Agency's total resources consist of the Regular Budget, extrabudgetary resources and resources for the TC programme. For the 2026–2027 biennium, the Agency's total resources amount to €1 513.0 million at 2026 prices, including unfunded requirements for which extrabudgetary resources will be sought.

**2026–2027 Total Resources at a Glance (in millions)**

| Funding Source | 2026 | 2027 | Total |
|---|---|---|---|
| Operational Regular Budget | 436.1 | 436.1 | 872.2 |
| Capital Regular Budget | 6.0 | 6.0 | 12.0 |
| Capital Carry Forward | 0.0 | 0.0 | 0.0 |
| Operational Unfunded | 159.4 | 152.5 | 311.9 |
| Capital Unfunded | 28.2 | 31.4 | 59.6 |
| TC Programme | 129.1 | 128.1 | 257.2 |
| **TOTAL** | **758.9** | **754.2** | **1 513.0** |

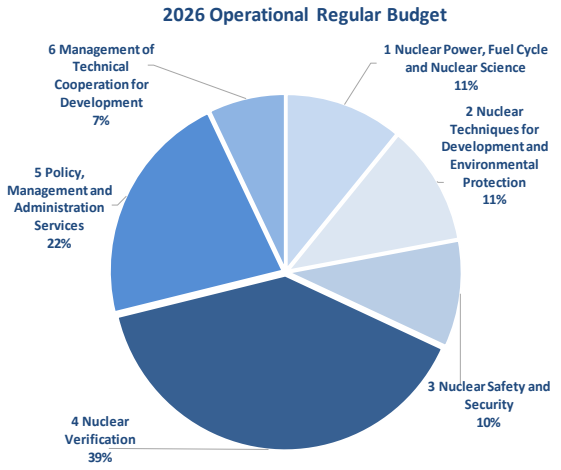
27. The Regular Budget consists of an operational portion and a capital portion used to fund major infrastructure investments in line with the Major Capital Investment Plan (MCIP). Regular Budget estimates are presented in six Major Programmes, in accordance with the structure of the Agency's programme of work.

28. The Agency continues to rely on extrabudgetary funds to carry out some of its activities for which funding is not foreseen in the Regular Budget. For 2026, activities currently unfunded in the Regular Budget for which extrabudgetary resources would be required amount to €159.4 million for the operational portion and €28.2 million for the capital portion of the Regular Budget. These activities are shown as 'unfunded' in the budget tables of this document.

29. For the TC programme, €129.1 million is expected to be available in 2026 — €92.1 million for estimated core project funding, supplemented by €2.0 million of National Participation Costs and €35.0 million in extrabudgetary contributions in support of the TC programme. For 2027, a total amount of €128.1 million is expected.

## Operational Regular Budget Resources

30. The chart and the table below depict the operational Regular Budget for 2026, which is proposed at €436.1 million.




**2026–2027 Operational Regular Budget (in millions)**

| Major Programme | 2026 | 2027 |
|---|---|---|
| 1 Nuclear Power, Fuel Cycle and Nuclear Science | 47.7 | 47.7 |
| 2 Nuclear Techniques for Development and Environmental Protection | 48.5 | 48.5 |
| 3 Nuclear Safety and Security | 42.8 | 42.8 |
| 4 Nuclear Verification | 171.4 | 171.4 |
| 5 Policy, Management and Administration Services | 94.6 | 94.6 |
| 6 Management of Technical Cooperation for Development | 31.1 | 31.1 |
| **TOTAL** | **436.1** | **436.1** |

## Capital Resources

31. The capital resources are allocated with a view to address capital needs of the Agency. For 2026, the Major Capital Investment Fund (MCIF) will receive €6.0 million, from the Capital Regular Budget assessed to Member States, to finance major infrastructure investments in line with the MCIP.

32. The following table depicts the 2026–2027 capital investments. Details are provided in Section I.4.

**2026–2027 Capital Investments (in millions)**

| Major Programme | 2026 | 2027 |
|---|---|---|
| 1 Nuclear Power, Fuel Cycle and Nuclear Science | 0.0 | 0.0 |
| 2 Nuclear Techniques for Development and Environmental Protection | 0.6 | 0.6 |
| 3 Nuclear Safety and Security | 0.3 | 0.3 |
| 4 Nuclear Verification | 1.0 | 1.0 |
| 5 Policy, Management and Administration Services | 3.5 | 3.5 |
| 6 Management of Technical Cooperation for Development | 0.6 | 0.6 |
| **TOTAL** | **6.0** | **6.0** |

## Other Financial Considerations

### Major Items of Expenditure

33. Major items of expenditure aligned with the Agency's Financial Statements, as per External Audit recommendation, include Salaries and employee benefits (€324.1 million, or 74% of the 2026 operational Regular Budget), VIC common services (€36.1 million or 8% ), equipment and intangible assets (€18.8 million or 4%), contractual and other services (€28.0 million or 6%), travel (€18.2 million or 4%), transfer to development counterparts[4] (€7.0 million or 2% ), consultants, experts (€4.8 million or 1%), training (€3.5 million or 1%) and other operating expenses (negative €4.3 million or -1%).

34. While the HR cost continues to remain within the 75% cap established by the Director General in the 2022–2023 biennia, the current overall share of staff costs is at 74%.

### Price Adjustment

35. In line with the *Price Adjustment Methodology for the Agency's 2020–2021 Programme and Budget and Subsequent Biennia* (document GOV/INF/2018/8), the price adjustment for each year, 2026 and 2027, was estimated at 3.8%. These percentages are based on the Harmonised Index of Consumer Prices for the euro area, as provided in the fourth quarter report of the European Central Bank's *Survey of Professional Forecasters*, issued in October 2024[5], and a correction factor of 1.8% for each of 2026 and 2027.

36. Without prejudice to the application of the price adjustment methodology, the IAEA Board of Governors has recommended not to include the price adjustment in the current proposal.

### After-Service Health Insurance Liabilities

37. The Agency fulfils its obligations in respect of the financing of health insurance for former officials from the Regular Budget, on a pay-as-you-go basis. It does not currently set aside any funds to meet this long-term financial liability, which amounts to €409 million (as of 31 December 2023)[6]. Most United Nations system organizations are facing the issue of funding after-service staff liabilities, and most organizations have established reserves. A recommendation from the Agency's External Auditor to consider the implementation of a long-term funding strategy for after-service health insurance (ASHI) was first made in 2013 and was reiterated by the External Auditor in numerous reports.

[4] Allocation to counterparts for coordinated research projects.

[5] Available at The ECB Survey of Professional Forecasters - Fourth quarter of 2024.

[6] As contained in *The Agency's Financial Statements for 2024* (document GC(69)/5).

38. In document GOV/INF/2024/2, the Secretariat presented an update on the ASHI matters at the United Nations system, and the measures implemented by the Agency's Secretariat to contain the costs and address the unfunded liability. Understanding the importance of curbing the ASHI liability and stabilizing the growing costs of ASHI, especially in light of the challenging financial environment, the Director General has implemented a set of cost containment measures as a first step towards reducing the ASHI liability and addressing its fundings challenge.

**Working Capital Fund**

39. The Secretariat is preparing a proposal, as requested in GOV/2024/25, aimed to increase the Working Capital Fund to a more adequate level with a view to its submissions with the Budget Update for 2027, for consideration by Member States.

**Budget Currency and Exchange Rate**

40. The Agency's functional currency is the euro. As in the past, Regular Budget estimates have been prepared in euros, using a budget exchange rate of €1.00 to US $1.00. All tables and charts in this document are in euros, based on this budget exchange rate. The Secretariat assesses Member States in euros and US dollars in accordance with the scale of assessment fixed by the General Conference and the required split between the two currencies. The majority of the expenditures of the Agency are in euros; however, as some are denominated in US dollars, the split assessment protects the Agency in the event of euro–US dollar currency fluctuations. The Secretariat will monitor any changes in the proportion of the currency of expenditures and report to Member States, if required.

# Table 1. The Regular Budget — By Programme and Major Programme

| Programme/Major Programme | 2025 Budget | 2026 | | | | | 2027 |
|---|---|---|---|---|---|---|---|
| | | 2026 Estimates at 2025 Prices | Variance compared to 2025 | | 2026 Estimates at ZNG | Price Adjustment* | 2027 Preliminary Estimates at ZNG |
| | | | EUR | % | | | |
| **1. Nuclear Power, Fuel Cycle and Nuclear Science** | | | | | | | |
| Overall management, coordination and common activities | 1 907 139 | 1 907 139 | ( 0) | (0.0%) | 1 907 139 | - | 1 907 139 |
| Corporate Shared Services Attribution to Major Programme 1 | 2 469 897 | 2 469 898 | 0 | 0.0% | 2 469 898 | - | 2 469 898 |
| Nuclear Power | 10 967 494 | 10 971 476 | 3 982 | 0.0% | 10 971 476 | - | 10 974 316 |
| Nuclear Fuel Cycle and Waste Management | 10 543 171 | 10 543 340 | 169 | 0.0% | 10 543 340 | - | 10 550 055 |
| Capacity Building and Nuclear Knowledge for Sustainable Energy Development | 11 828 759 | 11 823 648 | ( 5 110) | (0.0%) | 11 823 648 | - | 11 814 593 |
| Nuclear Science | 10 020 660 | 10 021 620 | 960 | 0.0% | 10 021 620 | - | 10 021 121 |
| **Major Programme 1** | **47 737 121** | **47 737 121** | **0** | **0.0%** | **47 737 121** | **-** | **47 737 121** |
| **2. Nuclear Techniques for Development and Environmental Protection** | | | | | | | |
| Overall management, coordination and common activities | 3 012 226 | 3 012 226 | 0 | 0.0% | 3 012 226 | - | 3 012 226 |
| Corporate Shared Services Attribution to Major Programme 2 | 7 325 790 | 7 325 790 | ( 0) | (0.0%) | 7 325 790 | - | 7 325 791 |
| Food and Agriculture | 13 454 535 | 13 454 535 | ( 0) | (0.0%) | 13 454 535 | - | 13 454 533 |
| Human Health | 9 966 037 | 9 966 037 | 0 | 0.0% | 9 966 037 | - | 9 966 037 |
| Water Resources | 4 314 948 | 4 314 947 | ( 0) | (0.0%) | 4 314 947 | - | 4 314 948 |
| Marine Environment | 5 411 004 | 5 411 004 | ( 0) | (0.0%) | 5 411 004 | - | 5 411 004 |
| Radiochemistry and Radiation Technology | 5 061 086 | 5 061 086 | 0 | 0.0% | 5 061 086 | - | 5 061 087 |
| **Major Programme 2** | **48 545 625** | **48 545 625** | **0** | **(0.0%)** | **48 545 625** | **-** | **48 545 625** |
| **3. Nuclear Safety and Security** | | | | | | | |
| Overall management, coordination and common activities | 2 347 397 | 2 347 397 | ( 0) | (0.0%) | 2 347 397 | - | 2 347 397 |
| Corporate Shared Services Attribution to Major Programme 3 | 2 635 277 | 2 635 277 | ( 0) | (0.0%) | 2 635 277 | - | 2 635 277 |
| Incident and Emergency Preparedness and Response | 5 093 873 | 5 093 874 | 0 | 0.0% | 5 093 874 | - | 5 093 873 |
| Safety of Nuclear Installations | 12 202 785 | 12 202 785 | 0 | 0.0% | 12 202 785 | - | 12 202 785 |
| Radiation and Transport Safety | 8 755 366 | 8 755 366 | 0 | 0.0% | 8 755 366 | - | 8 755 366 |
| Radioactive Waste Management and Environmental Safety | 4 389 526 | 4 389 526 | ( 0) | (0.0%) | 4 389 526 | - | 4 389 526 |
| Nuclear Security | 7 329 107 | 7 329 108 | 0 | 0.0% | 7 329 108 | - | 7 329 108 |
| **Major Programme 3** | **42 753 332** | **42 753 332** | **0** | **(0.0%)** | **42 753 332** | **-** | **42 753 332** |
| **4. Nuclear Verification** | | | | | | | |
| Overall management, coordination and common activities | 4 538 302 | 4 538 302 | 0 | 0.0% | 4 538 302 | - | 4 538 302 |
| Corporate Shared Services Attribution to Major Programme 4 | 13 510 842 | 13 510 842 | 0 | 0.0% | 13 510 842 | - | 13 510 842 |
| Safeguards Implementation | 149 958 394 | 150 135 980 | 177 586 | 0.1% | 150 135 980 | - | 150 135 980 |
| Other Verification Activities | 3 412 331 | 3 234 745 | ( 177 586) | (5.2%) | 3 234 745 | - | 3 234 745 |
| **Major Programme 4** | **171 419 868** | **171 419 868** | **0** | **0.0%** | **171 419 868** | **-** | **171 419 869** |
| **5. Policy, Management and Administration Services** | | | | | | | |
| Policy, Management and Administration Services | 88 218 170 | 88 497 338 | 279 168 | 0.3% | 88 497 338 | - | 88 497 338 |
| Corporate Shared Services Attribution to Major Programme 5 | 6 079 527 | 6 079 528 | 0 | 0.0% | 6 079 528 | - | 6 079 527 |
| **Major Programme 5** | **94 297 698** | **94 576 866** | **279 168** | **0.3%** | **94 576 866** | **-** | **94 576 865** |
| **6. Management of Technical Cooperation for Development** | | | | | | | |
| Management of technical cooperation programme | 29 268 180 | 29 268 180 | 0 | 0.0% | 29 268 180 | - | 29 268 180 |
| Corporate Shared Services Attribution to Major Programme 6 | 1 807 208 | 1 807 209 | 0 | 0.0% | 1 807 209 | - | 1 807 209 |
| Management of Technical Cooperation for Development | 31 075 389 | 31 075 389 | 0 | 0.0% | 31 075 389 | - | 31 075 389 |
| **Major Programme 6** | **31 075 389** | **31 075 389** | **0** | **0.0%** | **31 075 389** | **-** | **31 075 389** |
| **Operational Regular Budget** | **435 829 033** | **436 108 201** | **279 168** | **0.1%** | **436 108 201** | **-** | **436 108 201** |
| **Capital Regular Budget** | **6 279 168** | **6 000 000** | **(279 168)** | **(4.4%)** | **6 000 000** | **-** | **6 000 000** |
| **Total Agency Programmes** | **442 108 201** | **442 108 201** | **0** | **0.0%** | **442 108 201** | **-** | **442 108 201** |
| Reimbursable Work for Others | 3 652 299 | 3 611 263 | (41 036) | (1.1%) | 3 611 263 | - | 3 643 380 |
| **Total Regular Budget** | **445 760 500** | **445 719 464** | **(41 036)** | **(0.0%)** | **445 719 464** | **-** | **445 751 581** |
| Reimbursable Work for Others | 3 652 299 | 3 611 263 | (41 036) | (1.1%) | 3 611 263 | - | 3 643 380 |
| **Assessment on Member States** | **438 973 201** | **438 973 201** | **0** | **0.0%** | **438 973 201** | **-** | **438 973 201** |

*Upon MS request, and notwithstanding the principle of the price adjsutment methodology, the price adjustment is redcued from 3.8% to 0% in order to achieve ZNG in 2026 [and 2027].

## Table 2. The Regular Budget — Summary of Income

| | | 2026 | | | 2027 | |
|---|---|---|---|---|---|---|
| | 2025 Budget | 2026 Estimates at 2025 Prices | Variance 2026 compared to 2025 | 2026 Estimates at 2026 Prices | 2027 Preliminary Estimates at 2026 Prices | 2027 Preliminary Estimates at 2027 Prices |
| Operational Regular Budget[a] | 432 694 033 | 432 973 201 | 279 168 | 432 973 201 | 432 973 201 | 432 973 201 |
| Capital Regular Budget | 6 279 168 | 6 000 000 | ( 279 168) | 6 000 000 | 6 000 000 | 6 000 000 |
| **Assessment on Member States** | **438 973 201** | **438 973 201** | **0** | **438 973 201** | **438 973 201** | **438 973 201** |
| **Miscellaneous Income** | | | | | | |
| **Reimbursable Work for Others** | | | | | | |
| Printing Services | 426 080 | 370 000 | ( 56 080) | 370 000 | 370 000 | 370 000 |
| Medical Services | 966 988 | 1 114 717 | 147 729 | 1 114 717 | 1 114 717 | 1 114 717 |
| Nuclear Fusion Journal | 408 996 | 408 996 | ( 0) | 408 996 | 408 996 | 408 996 |
| Laboratory Income | 249 520 | 220 000 | ( 29 520) | 220 000 | 220 000 | 220 000 |
| Amounts Recoverable Under Safeguards Agreements | 1 600 715 | 1 497 550 | ( 103 165) | 1 497 550 | 1 529 667 | 1 529 667 |
| **Subtotal Reimbursable Work for Others** | **3 652 299** | **3 611 263** | **( 41 036)** | **3 611 263** | **3 643 380** | **3 643 380** |
| **Other** | | | | | | |
| Travel Rebates | 135 000 | 135 000 | - | 135 000 | 135 000 | 135 000 |
| Investment and Interest Income | 3 000 000 | 3 000 000 | - | 3 000 000 | 3 000 000 | 3 000 000 |
| **Subtotal Other** | **3 135 000** | **3 135 000** | **-** | **3 135 000** | **3 135 000** | **3 135 000** |
| **Total Miscellaneous Income** | **6 787 299** | **6 746 263** | **( 41 036)** | **6 746 263** | **6 778 380** | **6 778 380** |
| **Total Regular Budget Income** | **445 760 500** | **445 719 464** | **( 41 036)** | **445 719 464** | **445 751 581** | **445 751 581** |

[a] Does not include estimates for Other Miscellaneous Income.

## Table 3 (a). Total Resource Requirements for 2026 — By Programme and Major Programme

| Programme/Major Programme | Regular Budget | | Carry Forward | Unfunded | | TC Programme | Total |
|---|---|---|---|---|---|---|---|
| | Operational | Capital | Capital | Operational | Capital | | |
| **1. Nuclear Power, Fuel Cycle and Nuclear Science** | | | | | | | |
| Overall management, coordination and common activities | 4 377 036 | - | - | 658 977 | 952 477 | - | 5 988 491 |
| Nuclear Power | 10 971 476 | - | - | 6 807 551 | - | 6 851 734 | 24 630 760 |
| Nuclear Fuel Cycle and Waste Management | 10 543 340 | - | - | 3 273 819 | - | 3 076 465 | 16 893 624 |
| Capacity Building and Nuclear Knowledge for Sustainable Energy Development | 11 823 648 | - | - | 11 544 509 | - | 2 131 203 | 25 499 361 |
| Nuclear Science | 10 021 620 | - | - | 660 190 | 327 500 | 7 251 053 | 18 260 363 |
| **Major Programme 1** | **47 737 121** | **-** | **-** | **22 945 046** | **1 279 977** | **19 310 455** | **91 272 598** |
| **2. Nuclear Techniques for Development and Environmental Protection** | | | | | | | |
| Overall management, coordination and common activities | 10 338 015 | 607 322 | - | 290 844 | 4 877 867 | - | 16 114 048 |
| Food and Agriculture | 13 454 535 | - | - | 15 245 305 | - | 17 593 542 | 46 293 382 |
| Human Health | 9 966 037 | - | - | 4 513 915 | - | 35 193 049 | 49 673 001 |
| Water Resources | 4 314 947 | - | - | 535 000 | - | 3 242 307 | 8 092 254 |
| Marine Environment | 5 411 004 | - | - | 2 825 607 | - | 4 945 626 | 13 182 237 |
| Radiochemistry and Radiation Technology | 5 061 086 | - | - | 346 072 | - | 14 058 541 | 19 465 700 |
| **Major Programme 2** | **48 545 625** | **607 322** | **-** | **23 756 743** | **4 877 867** | **75 033 065** | **152 820 622** |
| **3. Nuclear Safety and Security** | | | | | | | |
| Overall management, coordination and common activities | 4 982 674 | 304 393 | - | 1 987 416 | 702 317 | - | 7 976 800 |
| Incident and Emergency Preparedness and Response | 5 093 874 | - | - | 1 253 875 | - | 3 205 155 | 9 552 904 |
| Safety of Nuclear Installations | 12 202 785 | - | - | 7 995 338 | - | 8 199 009 | 28 397 131 |
| Radiation and Transport Safety | 8 755 366 | - | - | 4 497 204 | - | 11 825 718 | 25 078 289 |
| Radioactive Waste Management and Environmental Safety | 4 389 526 | - | - | 2 565 175 | - | 10 886 026 | 17 840 726 |
| Nuclear Security | 7 329 108 | - | - | 42 969 261 | - | - | 50 298 369 |
| **Major Programme 3** | **42 753 332** | **304 393** | **-** | **61 268 269** | **702 317** | **34 115 908** | **139 144 219** |
| **4. Nuclear Verification** | | | | | | | |
| Overall management, coordination and common activities | 18 049 144 | - | - | 1 634 363 | - | - | 19 683 507 |
| Safeguards Implementation | 150 135 980 | 1 000 000 | - | 33 548 340 | 11 105 921 | - | 195 790 240 |
| Other Verification Activities | 3 234 745 | - | - | 4 990 525 | - | - | 8 225 270 |
| **Major Programme 4** | **171 419 868** | **1 000 000** | **-** | **40 173 228** | **11 105 921** | **-** | **223 699 017** |
| **5. Policy, Management and Administration Services** | | | | | | | |
| Policy, Management and Administration Services | 94 576 866 | 3 488 285 | - | 8 337 678 | 10 236 907 | 660 573 | 117 300 308 |
| **Major Programme 5** | **94 576 866** | **3 488 285** | **-** | **8 337 678** | **10 236 907** | **660 573** | **117 300 308** |
| **6. Management of Technical Cooperation for Development** | | | | | | | |
| Management of Technical Cooperation for Development | 31 075 389 | 600 000 | - | 2 950 654 | - | - | 34 626 043 |
| **Major Programme 6** | **31 075 389** | **600 000** | **-** | **2 950 654** | **-** | **-** | **34 626 043** |
| **Total Agency Programmes** | **436 108 201** | **6 000 000** | **-** | **159 431 617** | **28 202 989** | **129 120 000** | **758 862 807** |
| Reimbursable Work for Others | 3 611 263 | - | - | - | - | - | 3 611 263 |
| **Total** | **439 719 464** | **6 000 000** | **-** | **159 431 617** | **28 202 989** | **129 120 000** | **762 474 070** |

## Table 3 (b). Total Resource Requirements for 2027 — By Programme and Major Programme

| Programme/Major Programme | Regular Budget | | Carry Forward | Unfunded | | TC Programme | Total |
|---|---|---|---|---|---|---|---|
| | Operational | Capital | Capital | Operational | Capital | | |
| **1. Nuclear Power, Fuel Cycle and Nuclear Science** | | | | | | | |
| Overall management, coordination and common activities | 4 377 036 | - | - | 658 977 | 935 601 | - | 5 971 615 |
| Nuclear Power | 10 974 316 | - | - | 6 670 247 | - | 6 798 669 | 24 443 231 |
| Nuclear Fuel Cycle and Waste Management | 10 550 055 | - | - | 3 271 679 | - | 3 052 639 | 16 874 373 |
| Capacity Building and Nuclear Knowledge for Sustainable Energy Development | 11 814 593 | - | - | 11 518 969 | - | 2 114 698 | 25 448 260 |
| Nuclear Science | 10 021 121 | - | - | 660 190 | 3 960 000 | 7 194 895 | 21 836 206 |
| **Major Programme 1** | **47 737 121** | **-** | **-** | **22 780 062** | **4 895 601** | **19 160 901** | **94 573 684** |
| **2. Nuclear Techniques for Development and Environmental Protection** | | | | | | | |
| Overall management, coordination and common activities | 10 338 017 | 607 322 | - | 290 844 | 5 013 404 | - | 16 249 586 |
| Food and Agriculture | 13 454 533 | - | - | 15 340 305 | - | 17 457 284 | 46 252 122 |
| Human Health | 9 966 037 | - | - | 4 647 818 | - | 34 920 488 | 49 534 343 |
| Water Resources | 4 314 948 | - | - | 535 000 | - | 3 217 196 | 8 067 143 |
| Marine Environment | 5 411 004 | - | - | 2 825 607 | - | 4 907 324 | 13 143 935 |
| Radiochemistry and Radiation Technology | 5 061 087 | - | - | 346 072 | - | 13 949 661 | 19 356 821 |
| **Major Programme 2** | **48 545 625** | **607 322** | **-** | **23 985 646** | **5 013 404** | **74 451 954** | **152 603 951** |
| **3. Nuclear Safety and Security** | | | | | | | |
| Overall management, coordination and common activities | 4 982 674 | 304 393 | - | 1 987 416 | 115 607 | - | 7 390 090 |
| Incident and Emergency Preparedness and Response | 5 093 873 | - | - | 1 149 417 | - | 3 180 332 | 9 423 623 |
| Safety of Nuclear Installations | 12 202 785 | - | - | 7 891 514 | - | 8 135 510 | 28 229 808 |
| Radiation and Transport Safety | 8 755 366 | - | - | 4 439 646 | - | 11 734 131 | 24 929 143 |
| Radioactive Waste Management and Environmental Safety | 4 389 526 | - | - | 2 181 867 | - | 10 801 716 | 17 373 109 |
| Nuclear Security | 7 329 108 | - | - | 41 930 925 | - | - | 49 260 033 |
| **Major Programme 3** | **42 753 332** | **304 393** | **-** | **59 580 785** | **115 607** | **33 851 689** | **136 605 806** |
| **4. Nuclear Verification** | | | | | | | |
| Overall management, coordination and common activities | 18 049 144 | - | - | 1 634 363 | - | - | 19 683 508 |
| Safeguards Implementation | 150 135 980 | 1 029 287 | | 28 239 243 | 6 841 613 | - | 186 246 122 |
| Other Verification Activities | 3 234 745 | - | - | 4 990 525 | - | - | 8 225 270 |
| **Major Programme 4** | **171 419 869** | **1 029 287** | **-** | **34 864 131** | **6 841 613** | **-** | **214 154 900** |
| **5. Policy, Management and Administration Services** | | | | | | | |
| Policy, Management and Administration Services | 94 576 865 | 3 458 998 | - | 8 337 678 | 14 570 097 | 655 457 | 121 599 095 |
| **Major Programme 5** | **94 576 865** | **3 458 998** | **-** | **8 337 678** | **14 570 097** | **655 457** | **121 599 095** |
| **6. Management of Technical Cooperation for Development** | | | | | | | |
| Management of Technical Cooperation for Development | 31 075 389 | 600 000 | - | 2 950 654 | - | - | 34 626 043 |
| **Major Programme 6** | **31 075 389** | **600 000** | **-** | **2 950 654** | **-** | **-** | **34 626 043** |
| **Total Agency Programmes** | **436 108 201** | **6 000 000** | **-** | **152 498 955** | **31 436 322** | **128 120 000** | **754 163 479** |
| Reimbursable Work for Others | 3 643 380 | - | - | - | - | - | 3 643 380 |
| **Total** | **439 751 581** | **6 000 000** | **-** | **152 498 955** | **31 436 322** | **128 120 000** | **757 806 858** |

# I.3 Programme and Budget Overview by Major Programme

## Major Programme 1: Nuclear Power, Fuel Cycle and Nuclear Science

41. Major Programme 1 aims to provide scientific and technical support, guidance and services for the development and deployment of nuclear power and research reactor technology, including their nuclear fuel cycles and nuclear fuel cycle facilities (NFCFs); for advancing new nuclear power technologies, including small and medium sized or modular reactors (SMRs) and fusion energy; for radioactive waste management, decommissioning and environmental remediation; for energy system analysis and energy planning; and for nuclear knowledge and information management. It also supports advancements in nuclear science, including fusion science and plasma physics, nuclear and atomic data, accelerator and neutron source applications, and nuclear instrumentation. Major Programme 1 further supports Member States in outreach and stakeholder engagement efforts throughout the entire nuclear fuel cycle and the various stages of the life cycle of nuclear facilities.

42. The role of nuclear power to mitigate the effects of climate change, achieve energy security and accelerate the clean energy transition in line with the Sustainable Development Goals (SDGs) and the Paris Agreement got further established by the historic inclusion of nuclear in the Global Stocktake of the 28th Conference of the Parties to the UN Framework Convention on Climate Change (COP28) in 2023, as well as at the first ever Nuclear Energy Summit held in Brussels in 2024. Major Programme 1 will continue to support interested Member States for assessing the potential and integrating nuclear energy in their national energy strategies through, among others, the Atoms4NetZero initiative and the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO). Support will also continue in the field of nuclear knowledge management (NKM), human resource development (HRD) and nuclear information dissemination and preservation.

43. Major Programme 1 also provides support for Member States considering, embarking on or expanding nuclear power programmes. It will continue to provide support for enhancing operating performance; life management; and safe, secure, efficient and reliable construction and long term operation (LTO) of nuclear power plants (NPPs), including development of supply chains. Support will continue for the development and deployment of SMRs; innovative reactor systems and associated fuel cycles; non-electric applications of nuclear power, including hydrogen production; integration of nuclear power with renewable energy sources; and technology development and deployment of fusion energy.

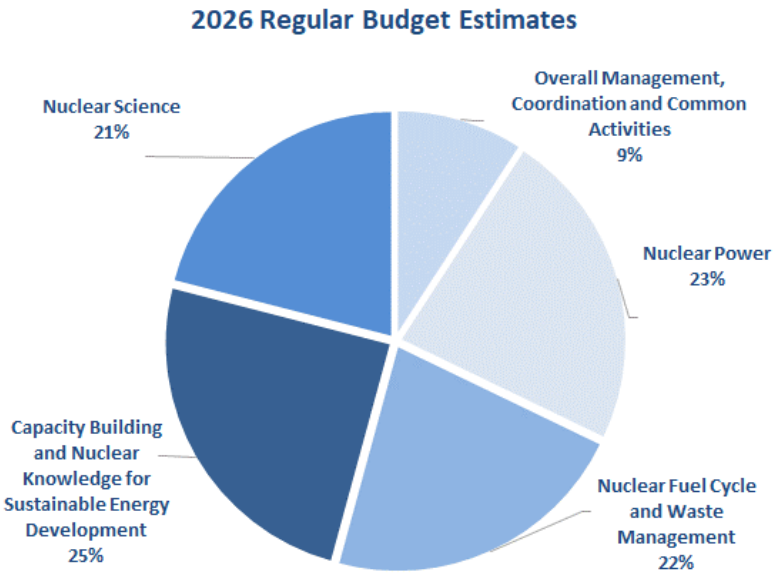
44. Major Programme 1 support will continue in connection with uranium exploration, mining and milling; and in connection with fuel cycle activities, including those related to spent fuel integrity, design vulnerabilities, defuelling and storage. Support will also continue for radioactive waste management, decommissioning of nuclear facilities and management of disused sealed radioactive sources (DSRSs), as well as for environmental remediation.

45. Major Programme 1 will continue to support Member States with an interest in building, operating or accessing research reactors — including via the IAEA-designated International Centre based on Research Reactor (ICERR) scheme — and in improving their utilization. Upon Member State request, support for transitioning from the use of high enriched uranium (HEU) to low enriched uranium (LEU) in research reactors will continue.

46. Major Programme 1 will continue to provide accurate nuclear reaction and structure data, and atomic and molecular data. Training, method development and facilitation of experiments using various types of particle accelerators, neutron sources and nuclear instrumentation will continue. Collaboration with the Abdus Salam International Centre for Theoretical Physics (ICTP), in Trieste, Italy, in facilitating advanced studies in science, technology, engineering and mathematics will continue, including education and training activities, especially targeting developing countries.

## Table 4. Major Programme 1 — Nuclear Power, Fuel Cycle and Nuclear Science
## Summary of Regular Budget Resources for the Biennium
## (excluding Major Capital Investments)

| Subprogramme/Programme | | 2025 Budget | 2026 | 2026 Variance compared to 2025 | | 2027 | 2027 Variance compared to 2026 | |
|---|---|---|---|---|---|---|---|---|
| | | | 2026 Estimates at 2025 Prices | EUR | % | Preliminary Estimates at 2025 Prices | EUR | % |
| 1.0.1 Overall management, coordination and common activities | | 1 907 139 | 1 907 139 | (0) | (0.0%) | 1 907 139 | - | - |
| 1.S Corporate Shared Services Attribution to Major Programme 1 | | 2 469 897 | 2 469 898 | 0 | 0.0% | 2 469 898 | 0 | 0.0% |
| **1.0 Overall Management, Coordination and Common Activities** | | **4 377 037** | **4 377 036** | **(0)** | **(0.0%)** | **4 377 036** | **0** | **0.0%** |
| 1.1.1 Strengthening Integrated Engineering Support for Nuclear Power Programmes | | 1 851 506 | 1 826 507 | (25 000) | (1.4%) | 1 821 507 | ( 5 000) | (0.3%) |
| 1.1.2 Management for Construction and Operation of Nuclear Power Plants | | 1 292 644 | 1 292 654 | 9 | 0.0% | 1 292 654 | - | - |
| 1.1.3 Integrated Support for Nuclear Power Programme Infrastructure Development | | 3 053 221 | 3 055 750 | 2 530 | 0.1% | 3 062 215 | 6 464 | 0.2% |
| 1.1.4 International Project on Innovative Nuclear Reactors and Fuel Cycles | | 1 339 370 | 1 338 865 | (504) | (0.0%) | 1 338 865 | - | - |
| 1.1.5 Technology Development for Small and Medium Sized or Modular Reactors, Large Advanced Reactors, Non-electric Applications of Nuclear Power and Fusion Energy | | 3 430 754 | 3 457 700 | 26 946 | 0.8% | 3 459 075 | 1 375 | 0.0% |
| **1.1 Nuclear Power Total** | | **10 967 494** | **10 971 476** | **3 982** | **0.0%** | **10 974 316** | **2 840** | **0.0%** |
| 1.2.1 Uranium Resources and Processing | | 1 192 674 | 1 192 445 | (229) | (0.0%) | 1 193 810 | 1 365 | 0.1% |
| 1.2.2 Nuclear Power Reactor Fuel and Fuel Cycle Facilities | | 1 124 693 | 1 141 453 | 16 760 | 1.5% | 1 154 389 | 12 936 | 1.1% |
| 1.2.3 Management of Spent Fuel from Nuclear Power Reactor and Radioactive Material Transportation | | 1 319 246 | 1 319 374 | 128 | 0.0% | 1 313 235 | ( 6 139) | (0.5%) |
| 1.2.4 Radioactive Waste Management | | 3 153 527 | 3 148 315 | (5 212) | (0.2%) | 3 138 565 | ( 9 750) | (0.3%) |
| 1.2.5 Decommissioning and Environmental Remediation | | 1 974 195 | 1 971 218 | (2 977) | (0.2%) | 1 971 288 | 70 | 0.0% |
| 1.2.6 Research Reactors | | 1 778 837 | 1 770 535 | (8 302) | (0.5%) | 1 778 768 | 8 233 | 0.5% |
| **1.2 Nuclear Fuel Cycle and Waste Management Total** | | **10 543 171** | **10 543 340** | **169** | **0.0%** | **10 550 055** | **6 716** | **0.1%** |
| 1.3.1 Energy Modelling, Data and Capacity Building | | 2 143 166 | 2 143 197 | 31 | 0.0% | 2 142 988 | ( 208) | (0.0%) |
| 1.3.2 Energy –Economy –Environment (3E) Analysis | | 1 984 742 | 1 984 812 | 70 | 0.0% | 1 984 646 | ( 166) | (0.0%) |
| 1.3.3 Nuclear Knowledge Management and Human Resource Development | | 2 670 312 | 2 684 081 | 13 769 | 0.5% | 2 679 301 | ( 4 780) | (0.2%) |
| 1.3.4 Nuclear Information | | 5 030 539 | 5 011 558 | (18 980) | (0.4%) | 5 007 657 | ( 3 901) | (0.1%) |
| **1.3 Capacity Building and Nuclear Knowledge for Sustainable Energy Development Total** | | **11 828 759** | **11 823 648** | **(5 110)** | **(0.0%)** | **11 814 593** | **( 9 056)** | **(0.1%)** |
| 1.4.1 Atomic and Nuclear Data | | 3 447 732 | 3 451 602 | 3 870 | 0.1% | 3 451 103 | ( 500) | (0.0%) |
| 1.4.2 Research and Applications with Accelerators and Neutron Sources | | 1 857 718 | 1 855 758 | (1 960) | (0.1%) | 1 855 758 | - | - |
| 1.4.3 Nuclear Instrumentation | ↑ | 1 430 414 | 1 466 626 | 36 212 | 2.5% | 1 466 626 | - | - |
| 1.4.4 Fusion Science and Plasma Physics | ↓ | 871 910 | 832 388 | (39 522) | (4.5%) | 832 388 | - | - |
| 1.4.5 Support to the Abdus Salam International Centre for Theoretical Physics (ICTP) | | 2 412 886 | 2 415 247 | 2 361 | 0.1% | 2 415 247 | - | - |
| **1.4 Nuclear Science Total** | | **10 020 660** | **10 021 620** | **960** | **0.0%** | **10 021 121** | **( 500)** | **(0.0%)** |
| **Total for Nuclear Power, Fuel Cycle and Nuclear Science** | | **47 737 121** | **47 737 121** | **0** | **0.0%** | **47 737 121** | **0** | **0.0%** |



### Major Programme 2: Nuclear Techniques for Development and Environmental Protection

47. Major Programme 2 aims at fostering the development of innovative nuclear science and technology that can contribute to the Sustainable Development Goals (SDGs) and at providing technical support to transfer validated technologies to Member States. The Major Programme supports the peaceful uses of nuclear science and applications, providing Member States with new and improved technologies and techniques, science-based advice, educational materials, standards, guidance on best practices and reference materials, and technical documents. Major Programme 2 encompasses activities in five thematic areas: food and agriculture, human health, water resources, the marine environment, and radiochemistry and radiation technology.

48. The application of nuclear science and technology continues to grow in areas such as health care, environmental protection, materials, industry, food and agriculture and water resources, as well as in addressing global challenges such as climate change, zoonotic diseases, non-communicable diseases (NCDs) and plastic pollution.

49. The Agency's 12 laboratories located in Vienna, Seibersdorf and Monaco — a unique feature in the United Nations system — are the cornerstone for the Agency's technology development and transfer to Member States. The laboratories support Member States in enhancing their capacity to use nuclear applications to reach their development goals, including SDG targets. The 12 laboratories managed through Major Programme 2 develop, coordinate and implement the research and development (R&D) that is pivotal to the technology transfer undertaken primarily through the Agency's TC programme and will inform the cross-cutting initiatives (Zoonotic Disease Integrated Action (ZODIAC), Nuclear Technology for Controlling Plastic Pollution (NUTEC Plastics), Rays of Hope, Atoms4Food and the Global Water Analysis Laboratory Network (GloWAL Network)). The laboratories need to remain capable of meeting the increasing and rapidly evolving needs of Member States.

50. The Agency's R&D activities and its vast number of coordinated research activities contribute to addressing a diverse range of issues. While the Major Programme assists Member States in building their capacity, knowledge and expertise, its coordinated research projects (CRPs) contribute to increasing their R&D capacity. The Agency's Collaborating Centre scheme remains a valuable arrangement for working jointly with Member State institutions. Efforts will be made to continue strengthening the efficiency of the scheme, which supports the cost-effective delivery of the Major Programme and will continue to be leveraged to increase Programme efficiency and effectiveness.

51. Partnerships remain an important way to strengthen programmatic activities and engage with Member States. Major Programme 2 will continue to enhance key partnerships with United Nations system organizations such as the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO), the United Nations Environment Programme (UNEP) and the World Organisation for Animal Health (WOAH, formerly the International Office of Epizootics) and will continue its efforts to further develop partnerships with the private sectors in some key areas.

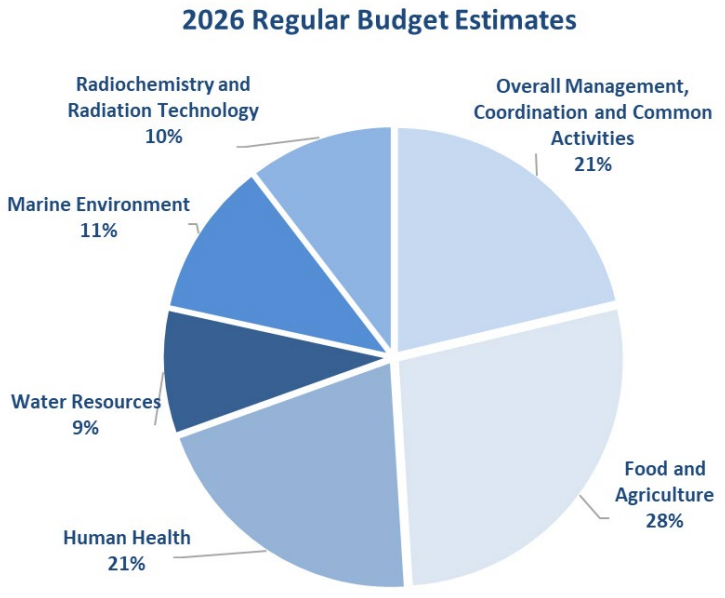
52. Major Programme 2 hosts several internationally recognized databases and networks of Member State scientific and research institutions, such as the network of Analytical Laboratories for the Measurement of Environmental Radioactivity (ALMERA), the Veterinary Diagnostic Laboratory (VETLAB) Network, the network of ZODIAC National Laboratories and the GloWAL Network. Education and training will continue to be fundamental to this Major Programme. To reach a wider audience and achieve greater cost savings, the development of e-learning tools and online education platforms such as webinars, and the use of virtual platforms, where relevant, will continue to be emphasized.

## Table 5. Major Programme 2 — Nuclear Techniques for Development and Environmental Protection

### Summary of Regular Budget Resources for the Biennium (excluding Major Capital Investments)

| Subprogramme/Programme | | 2025 Budget | 2026 Estimates at 2025 Prices | 2026 Variance compared to 2025 EUR | 2026 Variance compared to 2025 % | 2027 Preliminary Estimates at 2025 Prices | 2027 Variance compared to 2026 EUR | 2027 Variance compared to 2026 % |
|---|---|---|---|---|---|---|---|---|
| 2.0.0 Overall management, coordination and common activities | | 3 012 226 | 3 012 226 | 0 | 0.0% | 3 012 226 | - | - |
| 2.S Corporate Shared Services Attribution to Major Programme 2 | | 7 325 790 | 7 325 790 | ( 0) | (0.0%) | 7 325 791 | 1 | 0 |
| **2.0 Overall Management, Coordination and Common Activities** | | **10 338 015** | **10 338 015** | **0** | **0.0%** | **10 338 017** | **1** | **0.0%** |
| 2.1.1 Sustainable Land and Water Management | | 2 645 982 | 2 645 982 | ( 0) | (0.0%) | 2 645 982 | 1 | 0.0% |
| 2.1.2 Sustainable Intensification of Livestock Production Systems | | 2 572 788 | 2 572 788 | 0 | 0.0% | 2 572 788 | - | - |
| 2.1.3 Improvement of Food Safety and Food Control Systems | | 2 047 730 | 2 047 730 | ( 0) | (0.0%) | 2 047 728 | ( 3) | (0.0%) |
| 2.1.4 Sustainable Control of Major Insect Pests | | 4 031 665 | 4 031 665 | 0 | 0.0% | 4 031 665 | - | - |
| 2.1.5 Crop Improvement for Intensification of Agricultural Production Systems | | 2 156 370 | 2 156 370 | ( 0) | (0.0%) | 2 156 370 | - | - |
| **2.1 Food and Agriculture Total** | | **13 454 535** | **13 454 535** | **( 0)** | **(0.0%)** | **13 454 533** | **( 2)** | **(0.0%)** |
| 2.2.1 Nutrition for Improved Human Health | | 2 028 285 | 2 033 143 | 4 857 | 0.2% | 2 033 263 | 120 | 0.0% |
| 2.2.2 Nuclear Medicine and Diagnostic Imaging | | 2 277 893 | 2 258 090 | ( 19 803) | (0.9%) | 2 258 212 | 122 | 0.0% |
| 2.2.3 Radiation Oncology and Cancer Treatment | | 2 141 059 | 2 172 022 | 30 963 | 1.4% | 2 171 997 | ( 25) | (0.0%) |
| 2.2.4 Dosimetry and Medical Physics for Imaging and Therapy | | 3 518 799 | 3 502 782 | ( 16 017) | (0.5%) | 3 502 565 | ( 216) | (0.0%) |
| **2.2 Human Health Total** | | **9 966 037** | **9 966 037** | **0** | **0.0%** | **9 966 037** | **0** | **0.0%** |
| 2.3.1 Isotope Hydrology Data Networks and Climate Change | ↓ | 1 493 239 | 1 233 912 | ( 259 327) | (17.4%) | 1 356 155 | 122 243 | 9.9% |
| 2.3.2 Isotope Based Integrated Water Resource Management | ↓ | 1 317 768 | 815 850 | ( 501 919) | (38.1%) | 804 708 | ( 11 141) | (1.4%) |
| 2.3.3 Radio-isotope Applications for Water Resource Sustainability | ↓ | 1 503 940 | 1 373 642 | ( 130 298) | (8.7%) | 1 243 216 | ( 130 426) | (9.5%) |
| 2.3.4 Isotope Applications for Water Quality* | ↑ | - | 891 543 | 891 543 | - | 910 868 | 19 325 | 2.2% |
| **2.3 Water Resources Total** | | **4 314 948** | **4 314 947** | **( 0)** | **(0.0%)** | **4 314 948** | **0** | **0.0%** |
| 2.4.1 Nuclear Techniques to Understand Climate and Marine Environmental Change | | 1 707 507 | 1 693 677 | ( 13 830) | (0.8%) | 1 693 677 | - | - |
| 2.4.2 Nuclear Techniques to Monitor and Assess Marine Pollution | ↓ | 1 916 969 | 1 814 822 | ( 102 147) | (5.3%) | 1 814 822 | - | - |
| 2.4.3 Analytical Techniques to Protect Marine Biodiversity and Ecosystem Services | ↑ | 1 786 528 | 1 902 505 | 115 977 | 6.5% | 1 902 505 | - | - |
| **2.4 Marine Environment Total** | | **5 411 004** | **5 411 004** | **( 0)** | **(0.0%)** | **5 411 004** | **-** | **-** |
| 2.5.1 Radioisotope Products for Cancer Management and Non-communicable Diseases | ↓ | 1 207 900 | 1 181 894 | ( 26 006) | (2.2%) | 1 212 622 | 30 727 | 2.6% |
| 2.5.2 Radiation Technology Applications in Health Care, Industries and the Environment | | 1 617 195 | 1 643 900 | 26 705 | 1.7% | 1 613 133 | (30 767) | (1.9%) |
| 2.5.3 Terrestrial Environmental Radiochemistry | | 2 235 991 | 2 235 292 | ( 699) | (0.0%) | 2 235 333 | 40 | 0.0% |
| **2.5 Radiochemistry and Radiation Technology Total** | | **5 061 086** | **5 061 086** | **0** | **0.0%** | **5 061 087** | **1** | **0.0%** |
| **Total for Nuclear Techniques for Development and Environmental Protection** | | **48 545 625** | **48 545 625** | **( 0)** | **(0.0%)** | **48 545 625** | **0** | **0.0%** |

* Activities under Subprogrammes 2.3.1 Isotope Hydrology Data Networks and Climate Change, 2.3.2 Isotope Based Integrated Water Resource Management and 2.3.3 Radioisotope Applications for Water Resource Sustainability have been moved to a new Subprogramme 2.3.4 Isotope Applications for Water Quality.



## Major Programme 3: Nuclear Safety and Security

53. Major Programme 3 promotes the worldwide achievement and maintenance of high levels of nuclear safety and security to protect people, society and the environment from the harmful effects of ionizing radiation. It supports Member States in meeting the demand for a higher level of safety at the growing number of nuclear installations — including uranium mining facilities — and at existing NPPs and research reactors, whose average age continues to increase. It also supports Member States in addressing the wider use of ionizing radiation in industry, medicine and agriculture; the continuous threat of nuclear terrorism; and the accumulation of radioactive waste and spent nuclear fuel. In conducting these activities, the Agency fosters a strong safety and security culture. Through Major Programme 3, the Agency performs its statutory function of establishing safety standards and providing for their application in Member States, upon request, as well as to its own operations.

54. Major Programme 3 assists Member States in building national capacities by promoting international cooperation and by transferring nuclear safety knowledge from States with mature nuclear energy and nuclear applications programmes to States with emerging nuclear energy and nuclear applications programmes through knowledge networks. The activities under this Major Programme will continue to cover the strengthening of nuclear, radiation, transport and waste safety in a comprehensive manner, including design safety, external hazard assessment, safety culture, communication on safety, severe accident management, post-accident remediation and transition to recovery, as well as aspects related to NPP operating life extension, including organizational and human performance, decommissioning of facilities, disposal of low and high level radioactive waste, innovative technologies such as fast reactors and small and medium sized or modular reactors, and the safety of radiation sources used in non-power applications.

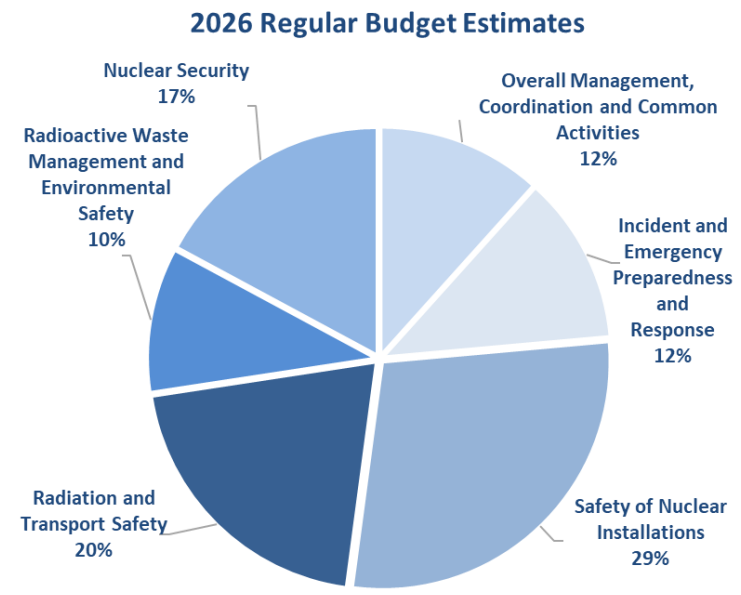
55. The security of nuclear and other radioactive material and facilities remains a high priority. The Agency develops and publishes nuclear security recommendations and guidance and maintains an effective information platform for their application. At the request of a State, the Agency assists in developing and implementing a robust nuclear security infrastructure, including prevention, detection and response. Despite the nuclear safety and security arrangements in place, the risk of a nuclear or radiological emergency — of various origins or severity — cannot be entirely eliminated. This Major Programme also focuses on providing assistance in developing and strengthening national and international capacities to prepare to respond effectively to, and to mitigate, the consequences of such an emergency. The Incident and Emergency Centre will continue responding to the growing demands from Member States.

56. The Agency is the global focal point for international preparedness for and response to nuclear and radiological incidents or emergencies and implements its response roles under this Major Programme. Radiation safety and nuclear security regulations for the Agency's own activities will continue to be strengthened. Major Programme 3 will continue to focus on enhancing timely coordination within this Major Programme and with other Major Programmes to contribute to — as well as to build synergies and increase effectiveness and efficiency within — the planning and implementation of activities such as the IAEA Platform on Small Modular Reactors and their Applications, the Nuclear Harmonization and Standardization Initiative (NHSI), Rays of Hope and other initiatives.

## Table 6. Major Programme 3 — Nuclear Safety and Security

## Summary of Regular Budget Resources for the Biennium (excluding Major Capital Investments)

| Subprogramme/Programme | | 2025 Budget | 2026 | | | 2027 | | |
|---|---|---|---|---|---|---|---|---|
| | | | 2026 Estimates at 2025 Prices | Variance compared to 2025 EUR | Variance compared to 2025 % | Preliminary Estimates at 2025 Prices | Variance compared to 2026 EUR | Variance compared to 2026 % |
| 3.0.0 | Overall management, coordination and common activities | 2 347 397 | 2 347 397 | ( 0) | (0.0%) | 2 347 397 | - | - |
| 3.S | Corporate Shared Services Attribution to Major Programme 3 | 2 635 277 | 2 635 277 | - | - | 2 635 277 | 0 | 0.0% |
| **3.0** | **Overall Management, Coordination and Common Activities** | **4 982 674** | **4 982 674** | **( 0)** | **(0.0%)** | **4 982 674** | **0** | **0.0%** |
| 3.1.1 | National and International Emergency Preparedness | 2 041 568 | 2 041 253 | ( 315) | (0.0%) | 2 038 761 | ( 2 492) | (0.1%) |
| 3.1.2 | IAEA IES and Operational Arrangements with Member States and International Organizations | 3 052 306 | 3 052 620 | 315 | 0.0% | 3 055 112 | 2 492 | 0.1% |
| **3.1** | **Incident and Emergency Preparedness and Response Total** | **5 093 873** | **5 093 874** | **0** | **0.0%** | **5 093 873** | **( 0)** | **(0.0%)** |
| 3.2.1 | Governmental Regulatory Framework and Safety Infrastructure Development | 3 550 072 | 3 922 426 | 372 354 | 10.5% | 3 550 071 | ( 372 356) | (9.5%) |
| 3.2.2 | Safety Assessment of Nuclear Installations | 2 619 432 | 2 539 445 | ( 79 987) | (3.1%) | 2 619 432 | 79 987 | 3.1% |
| 3.2.3 | Safety and Protection Against External Hazards | 1 337 838 | 1 188 187 | ( 149 651) | (11.2%) | 1 337 839 | 149 652 | 12.6% |
| 3.2.4 | Safe Operation of Nuclear Power Plants | 2 954 549 | 2 882 830 | ( 71 719) | (2.4%) | 2 954 549 | 71 719 | 2.5% |
| 3.2.5 | Safety of Research Reactor and Fuel Cycle Facilities | 1 740 893 | 1 669 896 | ( 70 997) | (4.1%) | 1 740 894 | 70 998 | 4.3% |
| **3.2** | **Safety of Nuclear Installations Total** | **12 202 785** | **12 202 785** | **0** | **0.0%** | **12 202 785** | **( 0)** | **(0.0%)** |
| 3.3.1 | Radiation Safety and Monitoring | 5 096 737 | 5 096 725 | ( 12) | (0.0%) | 5 096 698 | ( 26) | (0.0%) |
| 3.3.2 | Regulatory Infrastructure and Transport Safety | 3 658 629 | 3 658 642 | 13 | 0.0% | 3 658 668 | 26 | 0.0% |
| **3.3** | **Radiation and Transport Safety Total** | **8 755 366** | **8 755 366** | **0** | **0.0%** | **8 755 366** | **( 0)** | **(0.0%)** |
| 3.4.1 | Safety of Spent Fuel and Radioactive Waste Management | 2 279 838 | 2 042 777 | ( 237 061) | (10.4%) | 2 171 466 | 128 688 | 6.3% |
| 3.4.2 | Safety of Decommissioning, Remediation and Environmental Releases | 2 109 688 | 2 346 749 | 237 061 | 11.2% | 2 218 060 | ( 128 688) | (5.5%) |
| **3.4** | **Radioactive Waste Management and Environmental Safety** | **4 389 526** | **4 389 526** | **( 0)** | **(0.0%)** | **4 389 526** | **0** | **0.0%** |
| 3.5.1 | Information Management | 1 490 975 | 1 491 801 | 826 | 0.1% | 1 476 356 | ( 15 445) | (1.0%) |
| 3.5.2 | Nuclear Security of Materials and Facilities | 1 807 216 | 1 800 511 | ( 6 706) | (0.4%) | 1 800 511 | - | - |
| 3.5.3 | Nuclear Security of Material outside of Regulatory Control | 1 919 772 | 1 844 767 | ( 75 005) | (3.9%) | 1 819 800 | ( 24 967) | (1.4%) |
| 3.5.4 | Programme Development and International Cooperation | 2 111 144 | 2 192 029 | 80 885 | 3.8% | 2 232 442 | 40 413 | 1.8% |
| **3.5** | **Nuclear Security Total** | **7 329 107** | **7 329 108** | **0** | **0.0%** | **7 329 108** | **0** | **0.0%** |
| **Total for Nuclear Safety and Security** | | **42 753 332** | **42 753 332** | **( 0)** | **(0.0%)** | **42 753 332** | **0** | **0.0%** |



## Major Programme 4: Nuclear Verification

57. Major Programme 4 supports the Agency's statutory mandate to establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities and information made available by the Agency, or at its request or under its supervision or control, are not used in such a way as to further any military purpose; and to apply safeguards, at the request of the parties to any bilateral or multilateral arrangement, or at the request of a State to any of that State's activities in the field of atomic energy.

58. To this end, the Agency concludes safeguards agreements with States, which confer upon the Agency the legal obligation and authority to apply safeguards to nuclear material, facilities and other items subject to safeguards. The implementation of Agency safeguards pursuant to safeguards agreements comprises four fundamental processes: the collection and evaluation of safeguards relevant information; the development of safeguards approaches; the planning, conduct and evaluation of safeguards activities in the field and at Headquarters; and the drawing of safeguards conclusions. In addition, the Agency, in accordance with its Statute, assists with other verification tasks, including in connection with nuclear disarmament or arms control agreements as requested by States and approved by the Board of Governors.

59. For the 2026–2027 period, the main challenges for Major Programme 4 include:

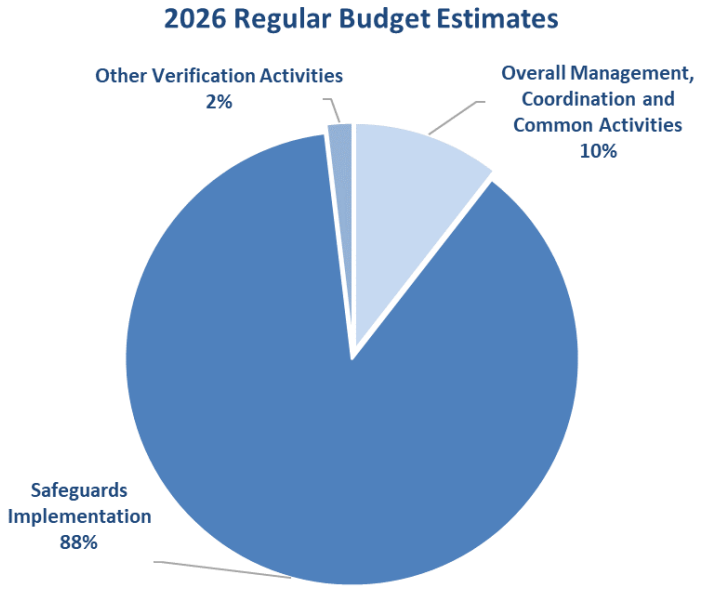
- Meeting increasing safeguards responsibilities effectively and efficiently;
- Enhancing business continuity and disaster recovery capabilities to respond to large-scale external events, in order to ensure that critical safeguards verification activities are carried out without interruption, including through increased use of remote data transmission (RDT) and the strengthening of the Agency's existing regional offices;
- Implementing, as appropriate, the necessary verification and monitoring of the nuclear-related commitments of the Islamic Republic of Iran (Iran), as set out in the Joint Comprehensive Plan of Action (JCPOA), in light of United Nations Security Council resolution 2231 (2015);
- Preparing to safeguard more complex or larger-scale nuclear facilities, such as the Mixed Oxide Fuel Fabrication Plant (J-MOX) in Japan, and the encapsulation plant and geological repository (EPGR) in Finland and Sweden; as well as new types of nuclear facilities, and ensuring organizational preparedness and resilience in an evolving nuclear landscape;
- Planning for and conducting verification activities related to the transfer of spent fuel to dry storages, and related to the decommissioning of nuclear facilities;
- Addressing areas of difficulty in safeguards implementation;
- Strengthening the effectiveness of State systems of accounting for and control of nuclear material (SSACs) and State or regional authorities responsible for safeguards implementation (SRAs) through additional support provided to States in the context of the IAEA Comprehensive Capacity-Building Initiative for SSACs and SRAs (COMPASS);
- Facilitating the conclusion of comprehensive safeguards agreements (CSAs) and additional protocols (APs), and the amendment or rescission of small quantities protocols (SQP) in line with the 2005 decision of the Board of Governors;
- Maintaining the Agency's enhanced readiness to return to the Democratic People's Republic of Korea (DPRK);
- Ensuring the availability of a safeguards workforce with the necessary skills and expertise, enhancing cost- effectiveness, and maintaining critical institutional knowledge;
- Maintaining and enhancing the modernized IT infrastructure, including the technical systems, services and instrumentation that underpin effective and efficient safeguards implementation and provide for, inter alia, the highest standards of information security;

- Securing sustainable sources of funding in order to continue delivering high-quality safeguards services and implementing effective safeguards in States, including funding for the safeguards equipment necessary to implement effective and efficient safeguards approaches, and encouraging Member States and outside donors to provide co-funding or in-kind contributions to support the implementation of relevant activities, as appropriate; and
- Operating in a challenging security environment, which may require additional measures to ensure the physical safety of staff operating in the field and to ensure information security.

## Table 7. Major Programme 4 — Nuclear Verification

### Summary of Regular Budget Resources for the Biennium (excluding Major Capital Investments)

| Subprogramme/Programme | | 2025 Budget | 2026 Estimates at 2025 Prices | 2026 Variance compared to 2025 EUR | 2026 Variance compared to 2025 % | 2027 Preliminary Estimates at 2025 Prices | 2027 Variance compared to 2026 EUR | 2027 Variance compared to 2026 % |
|---|---|---|---|---|---|---|---|---|
| 4.0.1 Overall management, coordination and common activities | | 4 538 302 | 4 538 302 | 0 | 0.0% | 4 538 302 | - | - |
| 4.S Corporate Shared Services Attribution to Major Programme 4 | | 13 510 842 | 13 510 842 | - | - | 13 510 842 | - | - |
| **4.0 Overall Management, Coordination and Common Activities** | | **18 049 144** | **18 049 144** | **0** | **0.0%** | **18 049 144** | **-** | **-** |
| 4.1.1 Concepts and Planning | | 9 489 178 | 9 489 178 | 0 | 0.0% | 9 489 178 | ( 1) | (0.0%) |
| 4.1.2 Safeguards Implementation for States under the Responsibility of Division SGOA | | 19 559 180 | 19 559 176 | ( 4) | (0.0%) | 19 559 177 | 1 | 0.0% |
| 4.1.3 Safeguards Implementation for States under the Responsibility of Division SGOB | | 29 144 776 | 29 322 365 | 177 588 | 0.6% | 29 322 365 | - | - |
| 4.1.4 Safeguards Implementation for States under the Responsibility of Division SGOC | | 19 753 480 | 19 753 479 | ( 1) | (0.0%) | 19 753 479 | - | - |
| 4.1.5 Information Analysis | | 14 381 717 | 14 381 717 | 0 | 0.0% | 14 381 717 | ( 0) | (0.0%) |
| 4.1.6 Provision and Development of Safeguards Instrumentation | | 24 971 711 | 24 971 711 | 0 | 0.0% | 24 971 711 | - | - |
| 4.1.7 Analytical Services | | 12 611 673 | 12 611 673 | 0 | 0.0% | 12 611 674 | 0 | 0.0% |
| 4.1.8 Special Projects | | 1 873 922 | 1 873 922 | ( 0) | (0.0%) | 1 873 922 | - | - |
| 4.1.9 Safeguards Information and Communication Technology (ICT) | | 18 172 757 | 18 172 758 | 1 | 0.0% | 18 172 758 | - | - |
| **4.1 Safeguards Implementation Total** | | **149 958 394** | **150 135 980** | **177 586** | **0.1%** | **150 135 980** | **( 0)** | **(0.0%)** |
| 4.2.1 Other Verification Activities | ↓ | 3 412 331 | 3 234 745 | ( 177 586) | (5.2%) | 3 234 745 | - | - |
| **4.2 Other Verification Activities Total** | ↓ | **3 412 331** | **3 234 745** | **( 177 586)** | **(5.2%)** | **3 234 745** | **-** | **-** |
| **Total for Nuclear Verification** | | **171 419 868** | **171 419 868** | **0** | **0.0%** | **171 419 868** | **( 0)** | **(0.0%)** |



### Major Programme 5: Policy, Management and Administration Services

60. Under the leadership, direction and authority of the Director General, the Agency's programmes seek to achieve the objectives of the Agency's Member States. This requires effective guidance on priorities; quality assurance; interactions with Member States; and services provided to the Policy-Making Organs (PMOs), in line with the relevant cross cutting issues. Furthermore, an independent Ethics function continues to promote and sustain an ethical organizational culture of integrity, accountability and transparency, and continues to assist the Director General in ensuring that all staff members observe and perform their functions consistent with the highest standards of integrity.

61. To help achieve the Agency's mandate, a wide range of administrative, managerial, oversight and legal services continues to support Agency programmes, enabling efficient and effective programme delivery to Member States.

62. The Office of Internal Oversight Services (OIOS) provides independent and objective assurance and advice to the Director General, management, Member States and other stakeholders through the activities of OIOS — including audits, evaluations, investigations and the provision of advisory support to senior management and Member States — as well as through the Secretariat's support to the External Auditors.

63. The Office of Legal Affairs (OLA) continues to provide comprehensive legal services across the Agency in the development and implementation of Agency activities.

64. Ensuring the sustainable operation of facilities maintained or used by the Agency, such as its laboratories at Seibersdorf and the Vienna International Centre (VIC), remains important. Approximately a quarter of the Major Programme 5 budget is related to the cost of common security services and the cost of the United Nations Industrial Development Organization (UNIDO) operated management of the VIC premises that are expected to continue to increase. Adequate funding is needed to cover the maintenance of the infrastructure of the VIC. At the same time, the Agency's contribution to these common buildings management services must also consider the current budget climate.

65. The demand for services of Major Programme 5 is constantly increasing from all programmes. This includes requests for introducing new IT tools, develop training programmes and improving data visualization, as well as establishing new common infrastructure platforms that can be leverages across the organization. There is also a continuous need to enhance the agility of services, ensure efficiency and optimize service delivery, including through the use of innovative technologies and AI, where applicable. Ensuring transparent and effective financial management of all Agency resources remains important, with strong support for Member States and managers.

66. The increased use of advanced IT services and tools enhances both efficiency and effectiveness across the Agency by streamlining processes and enabling the data-driven management of operations. The growing complexity of and reliance on IT, along with the evolving information security landscape, requires a continued focus on addressing information security risks. Therefore, it is essential to continue building and maintaining a secure IT infrastructure and to ensure that robust and appropriate measures are in place.

67. The Office of Procurement Services continues to optimize the delivery of core services to both the regular and the TC programme, ensuring that the Agency maintains its capacity to deliver rapid response assistance to Member States as required. There is also a focus on providing innovative solutions to support programmes, for example, in their cooperation with non-traditional partners.

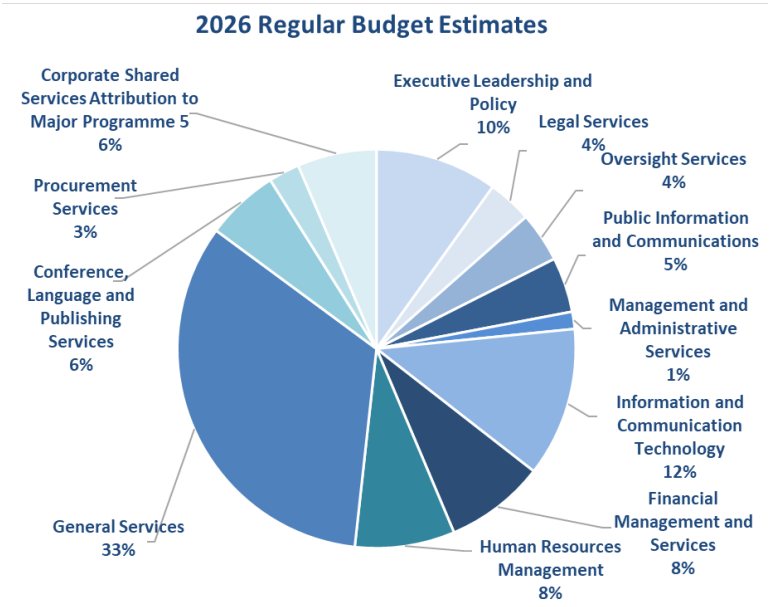
68. Further expansion of multilingualism and outreach remains a priority, including diversifying the range of output formats for publications and other materials and increasing the use of e-publishing and electronic dissemination of conference materials.

69. Human resources management remains focused on identifying opportunities to promote the Agency as an employer of choice, enhancing a culture of accountability and improving the agility and effectiveness of the Agency's work force.

## Table 8. Major Programme 5 — Policy, Management and Administration Services

### Summary of Regular Budget Resources for the Biennium (excluding Major Capital Investments)

| Subprogramme | | | 2025 Budget | 2026 | | | 2027 | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | 2026 Estimates at 2025 Prices | Variance compared to 2025 | | Preliminary Estimates at 2025 Prices | Variance compared to 2026 | |
| | | | | | EUR | % | | EUR | % |
| 5.0.1 | Executive Leadership and Policy | | 9 102 476 | 9 279 643 | *177 167* | *1.9%* | 9 279 643 | *0* | *0.0%* |
| 5.0.2 | Legal Services | | 3 388 149 | 3 427 049 | *38 899* | *1.1%* | 3 427 049 | - | - |
| 5.0.3 | Oversight Services | | 3 834 022 | 3 877 122 | *43 100* | *1.1%* | 3 877 122 | - | - |
| 5.0.4 | Public Information and Communications | ↑ | 4 107 975 | 4 238 576 | *130 601* | *3.2%* | 4 238 576 | *( 0)* | *(0.0%)* |
| 5.0.5 | Management and Administrative Services | | 1 316 626 | 1 316 626 | *0* | *0.0%* | 1 316 626 | - | - |
| 5.0.6 | Information and Communication Technology | | 11 566 728 | 11 508 589 | *( 58 140)* | *(0.5%)* | 11 508 589 | - | - |
| 5.0.7 | Financial Management and Services | | 7 676 376 | 7 676 376 | *( 0)* | *(0.0%)* | 7 676 376 | - | - |
| 5.0.8 | Human Resources Management | | 7 669 189 | 7 669 188 | *( 0)* | *(0.0%)* | 7 669 188 | - | - |
| 5.0.9 | General Services | | 31 493 589 | 31 493 588 | *( 0)* | *(0.0%)* | 31 493 588 | *0* | *0.0%* |
| 5.0.10 | Conference, Language and Publishing Services | | 5 679 409 | 5 626 950 | *( 52 459)* | *(0.9%)* | 5 626 950 | - | - |
| 5.0.11 | Procurement Services | | 2 383 631 | 2 383 631 | *0* | *0.0%* | 2 383 631 | - | - |
| 5.S | Corporate Shared Services Attribution to Major Programme 5 | | 6 079 527 | 6 079 528 | *0* | *0.0%* | 6 079 527 | *( 0)* | *(0.0%)* |
| **Total for Policy, Management and Administration Services** | | | **94 297 698** | **94 576 866** | ***279 168*** | ***0.3%*** | **94 576 866** | ***0*** | ***0.0%*** |



### Major Programme 6: Management of Technical Cooperation for Development

70. Major Programme 6 supports the management, development and implementation of TC projects within the framework of the TC programme. The TC programme is developed jointly with Member States to respond to their developmental priorities through effective programme management, in accordance with strategic objective. TC Programme will continue to serve as the vehicle for the transfer of nuclear technology and to build capacity in nuclear applications in Member States — with an emphasis on human resource development, contributing to Member States' efforts to achieve the SDGs.

71. The TC programme is a cross-cutting Agency programme that supports Member States' sustainable development needs and priorities, including in the areas of human health, especially for cancer control; food and agriculture; irradiation technology and processing; energy planning and nuclear power development; and water resources management and the environment. The TC programme helps enhancing Member States preparedness in preventing and combating zoonotic diseases, in responding to emergencies related to disease outbreaks, extreme climate events and natural disasters; combating plastic pollution; and promoting greater engagement of women in the nuclear field. The programme includes partnership building, supports knowledge sharing, and builds and reinforces scientific networking and delivered through national, regional and interregional projects funded from the Technical Cooperation Fund (TCF), extrabudgetary resources and in-kind contributions. TC projects are developed through a consultative process with Member States and address national development priorities outlined in CPFs and national development plans, as well as issues of common interest and needs identified through various regional frameworks. Under the 2026–2027 TC programme cycle, a total of 152 Member States and territories (including 37 least developed countries) will have national TC projects. For planning purposes, it is assumed that the overall rate of attainment of the TCF will reach 94%.

72. The TCP for the 2026–2027 cycle is formulated with an emphasis on the following:

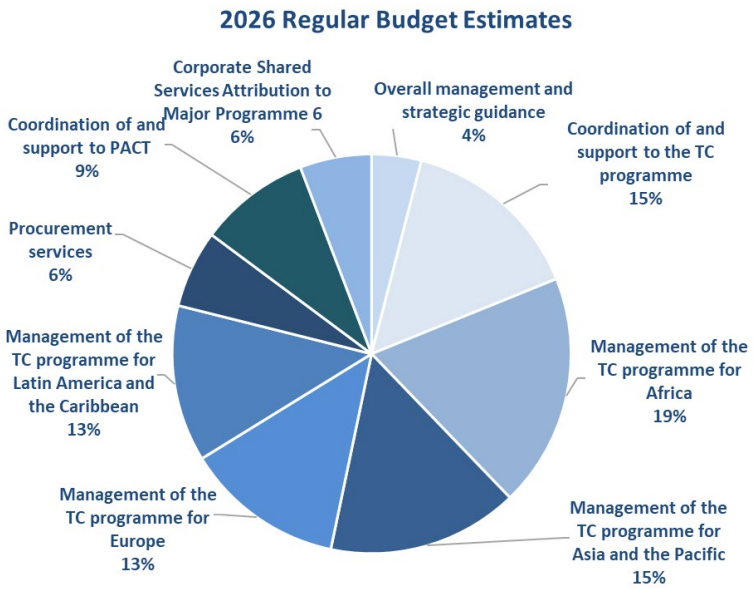
- Enhancing dialogue with, and participation of, Member States at all stages of the programme cycle, in particular in the planning, design, implementation, monitoring and reporting of TC projects;
- Ensuring the provision of adequate support to meet the growing demand and needs of Member States in using nuclear technology for sustainable development, including supporting their efforts to achieve the SDGs, particularly SDGs 2, 3, 6, 7, 9, 13, 14, 15 and 17;
- Supporting Member States in capacity building related to the early detection and control of zoonotic diseases;
- Supporting Member States that require assistance with building and expanding cancer care capacity by integrating radiotherapy, diagnostic imaging and nuclear medicine services into a comprehensive cancer control programme;
- Supporting Member States in addressing global challenges such as climate change and plastic pollution;
- Supporting Member States in addressing food safety and security;
- Supporting Member States in energy planning, long term operation of nuclear power plants and the development of nuclear power infrastructure, including for small modular reactors (SMRs);
- Supporting Member States to build and strengthen their regulatory and safety infrastructures for the safe and secure use of nuclear science and applications;
- Promoting cooperation among Member States in response to evolving development challenges through information and knowledge exchange utilizing, in particular, the expertise available regionally;
- Ensuring the Agency's continued capacity to plan and deliver the programme and to swiftly and adequately respond to Member States' emerging and urgent requests for support through the TC programme;

- Enhancing the effectiveness, efficiency and quality of the TC programme by further strengthening the results based approach, increasing in-house coordination with technical Departments, and streamlining TC projects to optimize their impact;
- Supporting the upscaling of results achieved through the TC programme through the major initiatives focusing on development;
- Enhancing partnerships and resource mobilization efforts with traditional and non-traditional donors and public–private partnerships;
- Supporting South–South and triangular cooperation with Member States, financial institutions and official development agencies to develop and implement projects related to the application of nuclear technology;
- Strengthening the visibility and role of the TC programme in nuclear technology transfer and development through outreach efforts; and
- Promoting participation of women in TC activities.

## Table 9. Major Programme 6 — Management of Technical Cooperation for Development

### Summary of Regular Budget Resources for the Biennium (excluding Major Capital Investments

| Project | 2025 Budget | 2026 | | | 2027 | | |
|---|---|---|---|---|---|---|---|
| | | 2026 Estimates at 2025 | Variance compared to 2025 | | Preliminary Estimates at 2025 Prices | Variance compared to 2026 | |
| | | | EUR | % | | EUR | % |
| 6.0.1.001 Overall management and strategic guidance | 1 251 100 | 1 251 099 | ( 0) | (0.0%) | 1 251 099 | - | - |
| 6.0.1.002 Coordination of and support to the TC programme | 4 613 123 | 4 613 122 | ( 0) | (0.0%) | 4 613 122 | - | - |
| 6.0.1.003 Management of the TC programme for Africa | 5 881 564 | 5 881 564 | ( 0) | (0.0%) | 5 881 564 | - | - |
| 6.0.1.004 Management of the TC programme for Asia and the Pacific | 4 813 405 | 4 813 405 | 0 | 0.0% | 4 813 405 | ( 0) | (0.0%) |
| 6.0.1.005 Management of the TC programme for Europe | 4 017 780 | 4 017 780 | 0 | 0.0% | 4 017 780 | - | - |
| 6.0.1.006 Management of the TC programme for Latin America and the Caribbean | 3 938 561 | 3 938 561 | 1 | 0.0% | 3 938 561 | - | - |
| 6.0.1.007 Procurement services | 1 951 460 | 1 951 460 | ( 0) | (0.0%) | 1 951 460 | 0 | 0.0% |
| 6.0.1.008 Coordination of and support to the PACT | 2 801 188 | 2 801 188 | 0 | 0.0% | 2 801 188 | - | - |
| 6.0.1.009 Corporate Shared Services Attribution to Major Programme 6 | 1 807 208 | 1 807 208 | - | - | 1 807 208 | 0 | 0.0% |
| **Total for Management of Technical Cooperation for Development** | **31 075 389** | **31 075 389** | **0** | **0.0%** | **31 075 389** | **0** | **0.0%** |



# I.4 Major Capital Investments

## Major Capital Investment Plan

73. The MCIP outlines the Agency's major capital projects for the next ten years. It is updated annually and is based on Agency requirements for maintaining an adequate, up-to-date and well-functioning infrastructure. An overview of the plan with annual projections is presented in Table 10.

74. For 2026, major capital investment requirements total €34.2 million. The breakdown is shown in the table below.

| Major Programme/Major Capital Item (in € millions) | 2026 |
|---|---|
| **1. Nuclear Power, Fuel Cycle and Nuclear Science** | |
| Integrated Information Management Systems Upgrade | 1.0 |
| Establishment of an Ion Beam Accelerator Facility in Seibersdorf | 0.3 |
| **Major Programme 1** | **1.3** |
| **2. Nuclear Techniques for Development and Environmental Protection** | |
| Integrated Life Cycle Management of NA Assets (ILNA) | 5.5 |
| **Major Programme 2** | **5.5** |
| **3. Nuclear Safety and Security** | |
| Advanced Radiation Monitoring Technology Infrastructure (ARTIS) | 1.0 |
| **Major Programme 3** | **1.0** |
| **4. Nuclear Verification** | |
| Develop and Implement a Safeguards Approach for J-MOX | 3.4 |
| Develop and Implement Safeguards Approaches for a SF EPGR | 0.3 |
| Integrated Life Cycle Management of Safeguards Assets (ILSA) | 8.4 |
| **Major Programme 4** | **12.1** |
| **5. Policy, Management and Administration Services** | |
| Provision for IT Infrastructure and Information Security Investment | 8.0 |
| Seibersdorf Infrastructure and Common Facilities | 1.7 |
| Buildings Management Services Capital Fund | 1.7 |
| UNSSS CIP for Standardization Upgrade of Physical Security Architecture | 2.2 |
| **Major Programme 5** | **13.7** |
| **6. Management of Technical Cooperation for Development** | |
| Upgrade of the IAEA Technical Cooperation Programme Cycle Management Framework | 0.6 |
| **Major Programme 6** | **0.6** |
| **Major Capital Investment Plan Total** | **34.2** |

75. The MCIF is a reserve fund established in accordance with *Financial Regulation 4.06* to help provide for those Agency major infrastructure requirements that are included in the MCIP. It provides an opportunity to fund capital requirements that could otherwise face continued deferral or require substantial increases in annual Member State contributions.

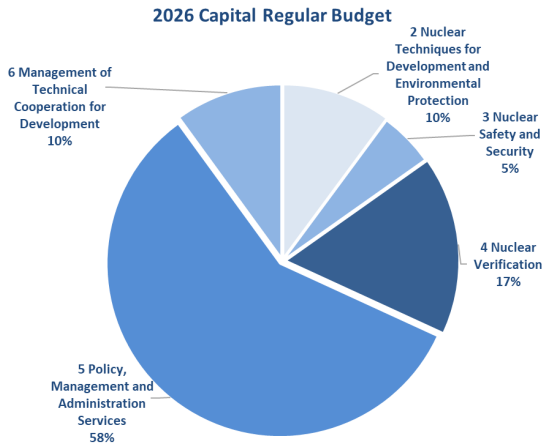
76. The MCIF is reviewed by the Board of Governors in the framework of the established Programme and Budget approval process.

77. As indicated in document GC(53)/5, the MCIF is funded by the entire amount appropriated for the capital portion of the Regular Budget, unspent budgetary balances from the operational Regular Budget in prior years, if any, and any other source as the Board of Governors may determine.

78. Since the inception of the MCIF in 2009[7] unspent balances from past operational Regular Budget appropriations have been transferred to the MCIF and reported in the respective financial statements in accordance with *Financial Regulation 7.02(b)(4)*. In the same manner, any unspent budgetary balances from the 2024–2025 operational Regular Budget will also be transferred to the MCIF.

## Capital Investments

79. The Director General is proposing to fund €6.0 million from assessed Capital Regular Budget.




[7] See documents GOV/2009/1 and GOV/2009/52/Rev.1.

80. A total of €6.0 million of 2026 MCIF funding from the capital Regular Budget will be distributed to the following capital projects:

- Integrated Life Cycle Management of NA Assets (ILNA) — Major Programme 2 — €0.6 million.
- Advanced Radiation Monitoring Technology Infrastructure (ARTIS) — Major Programme 3 — €0.3 million.
- Develop and Implement a Safeguards Approach for J-MOX — Major Programme 4 — €1.0 million.
- Provision for IT Infrastructure and Information Security Investment — Major Programme 5 — €1.7 million.
- Buildings Management Services Capital Fund — Major Programme 5 — €1.7 million.
- Upgrade of the IAEA Technical Cooperation Programme Cycle Management Framework — Major Programme 6 — €0.6 million.

81. As in prior years, a significant amount of capital investments proposed for 2026–2027 remains unfunded. A total of €28.2 million in capital requirements remains unfunded for 2026, while investments unfunded for 2027 amount to €31.4 million. It is hoped that these requirements will be funded through extrabudgetary contributions. The unfunded requirements for both 2026 and 2027 are presented in Table 12.

## Overview by Major Programme

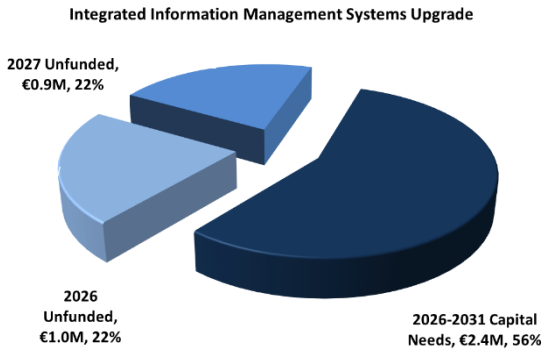
82. The following paragraphs provide an overview of those major capital investments that are part of the MCIP for 2026–2035.

## Major Programme 1 — Nuclear Power, Fuel Cycle and Nuclear Science

### Integrated Information Management Systems Upgrade

83. Major Programme 1 maintains a set of databases for collection and timely dissemination of validated, authoritative nuclear data and information on peaceful uses of nuclear technology, nuclear energy, economics, R&D, innovative reactor designs, and the entire fuel cycle. These information management systems support the implementation of Major Programme 1 and of other Agency's Major Programmes as well as relevant Member States activities and are highly regarded and unique. Efforts have been undertaken in recent years to streamline, combine, and harmonize these systems. However, much more must be done, also considering that some of these systems are reaching their end-of-life cycle and require renovation to ensure the integrity and availability of this information and critical knowledge to Member States and other stakeholders. The objective of this project is to renew, upgrade and secure these information systems and to further integrate them, where feasible, to reduce the future operational and maintenance cost. This will be accomplished through harmonization of the IT architecture of each system and standardization of the development framework elements. As systems are re-built, the new versions will be designed for re-usability of components and interoperability. In addition, enterprise solutions for data presentation and access will be implemented as a replacement strategy for fully custom and inconsistent front-end applications. As a result, these systems will become more tightly integrated, and duplication and inconsistency of data will be significantly reduced or eliminated.

84. The overall project needs for the period 2026–2031 are estimated at €4.3 million. For 2026–2027, €1.9 million is needed but is currently unfunded.



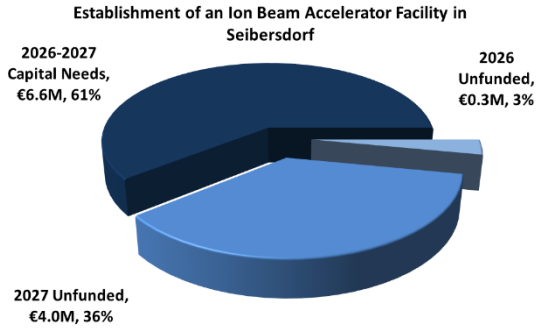
### Establishment of an Ion Beam Accelerator Facility in Seibersdorf

85. The Nuclear Science and Instrumentation Laboratory (NSIL) in Seibersdorf, Austria, supports capacity building in Member States through the effective use and development of nuclear instrumentation and nuclear spectroscopy techniques in a variety of peaceful applications using adaptive research, analytical services and training activities. The objective of this project is to expand the capability of the Agency's Laboratories in Seibersdorf and NSIL in particular by establishing an ion beam accelerator facility (IBF) with several beam lines for ion beam analysis techniques, ion beam implantation as well as one line dedicated to neutron production for research and applications with neutrons.

86. Compact low energy (MeV range) electrostatic ion beam accelerators are of growing interest in research and industry because of the increased analytical and irradiation services they can provide. They have multiple applications in areas as diverse as cultural heritage, biomedicine, forensics science, food and agriculture, water and air quality, energy, materials research and radiation damage studies, among others. Accelerators benefit scientific research, contribute to socio-economic development and provide a bridge to the high-tech sector. As per SAGNE recommendation, a comprehensive feasibility study for the establishment of an IBF was performed to assess whether and how the acquisition and operation of a compact ion beam accelerator in Seibersdorf could match the NSIL's mission and existing programme for capacity building as well as the provision of services across many fields of relevance to the Agency. More than 60 replies from almost 40 Member States (from 56 operating ion beam facilities) were received, showing that the most emerging and demanded topics include: training, services and applied research. This study also demonstrated that the expected IBF services and products have direct relevance to both, the UN SDGs and major IAEA initiatives. It also served as the baseline for preparing a preliminary civil engineering study and was later supplemented with a comprehensive technical document that defined the specifications for all technical facility and building components as well as the associated costs for procurement, construction, operation, and maintenance of the IBF.

87. The initiation and completion of the IBF project is a natural continuation of the modernization of the Seibersdorf Laboratories by acquiring state of the art technologies and offering new capabilities. The IBF will be a stand-alone activity in support of the Agency's broader programmatic goals to assist its Member States in strengthening their capacity to adopt and benefit from the use of accelerator-based technologies through training activities, applied research and provision of specialised products and services across many fields with direct relevance to socio-economic development.

88. The overall project needs for the period 2026–2030 are estimated at €10.9 million. For 2026–2027, €4.3 million is needed but currently unfunded.



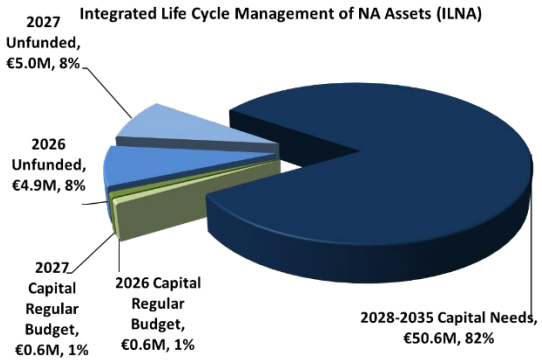

## Major Programme 2 — Nuclear Techniques for Development and Environmental Protection

### Integrated Life Cycle Management of NA Assets (ILNA)

89. The objective of the ILNA is to ensure sustainability of laboratory operations and continuous provision of services to Member States through replacement of the equipment that has exceeded its lifecycle, is malfunctioning, or is operating at reduced efficiency. As infrastructure upgrade and asset replacement needs are dynamic across the Department, this project will distribute resources according to prioritized needs using an established

mechanism, which promotes and supports a whole lifecycle cost approach for asset related projects, where all costs associated with the asset are taken into consideration (not just the initial cost); and use data-driven assessments for decision-making to obtain optimum value without compromising effectiveness. The needs include future infrastructure upgrade and asset replacement costs of the NA laboratories. ILNA will implement improved and prioritized business decisions on the replacement of NA assets and to efficiently manage the allocation of resources for assets.

90. The overall project needs for the period 2026–2035 are estimated at €61.7 million. For 2026–2027, €11.1 million is needed of which €0.6 million is funded from the capital Regular Budget, respectively, for each year of the biennium. An amount of €9.9 million remains unfunded in 2026–2027.

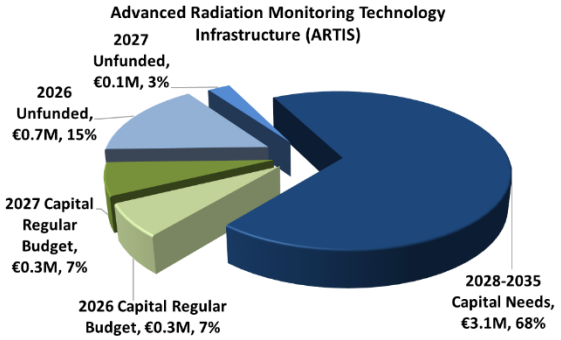



## Major Programme 3 — Nuclear Safety and Security

### Advanced Radiation Monitoring Technology Infrastructure (ARTIS)

91. The ARTIS project focuses specifically on major upgrades to equipment and modernization of key infrastructure in the IAEA Radiation Safety Technical Services Laboratory (RSTSL), considering the rapid pace of technological development. The actions would include replacement of obsolete equipment and backing up of equipment in case of failure. As a role model for Member States, the Laboratory's equipment should be state-of-the-art and fit for purpose. The project will ensure that radiation monitoring services continue to be provided in accordance with the requirements of international standards, at the highest level of quality. Investments to replace the ageing infrastructure, will strengthen operational resilience and secure business continuity in an essential safety-critical area. To introduce efficiencies, to streamline and secure data handling processes, the laboratory information management systems and databases need to be migrated to modern platforms.

92. The overall project needs for the period 2026–2035 are estimated at €4.5 million. The 2026–2027 funding requirement of the project is €1.4 million of which €0.3 million is funded from the capital Regular Budget, respectively, for each year of the biennium. An amount of €0.8 million remains unfunded in 2026–2027.

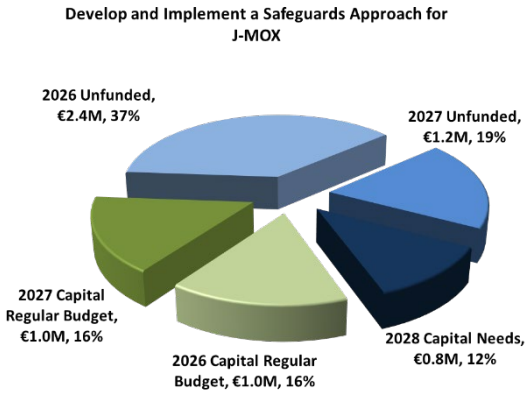



## Major Programme 4 — Nuclear Verification

### Develop and Implement a Safeguards Approach for J-MOX

93. Japan Nuclear Fuel Limited is building a large-scale plant to produce mixed oxide (MOX) fuel for light water reactors at its site in Rokkasho-mura. Construction started in October 2010 and is expected to be completed towards the end of the 2026–2027 biennium or early in the following biennium. The Agency expects to have all of the required safeguards systems for nuclear material process monitoring in place and operational in sufficient time to meet safeguards objectives and in accordance with the operator's schedule. In particular, the relevant plans and funding from MCIF are for major equipment and software required for safeguarding the plant, much of which is expected to be procured and installed during the 2026–2027 biennium.

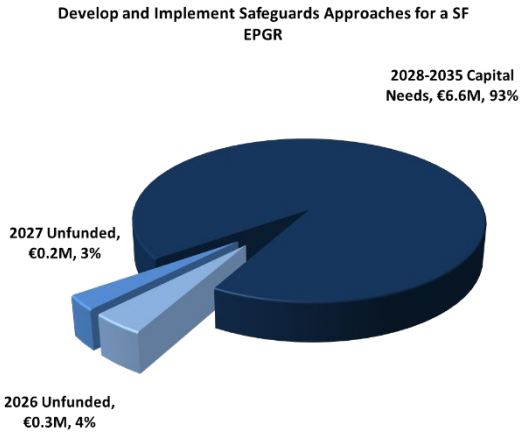
94. The overall project needs for the period 2026–2028 are estimated at €6.4 million. For 2026–2027, €5.7 million is needed, of which €1.0 million is funded from the capital Regular Budget, respectively, for each year of the biennium. An amount of €3.6 million remains unfunded in 2026–2027.




## Develop and Implement Safeguards approaches for Spent Fuel Encapsulation Plant and Geological Repository (EPGR) in Finland and Sweden

95. Finland and Sweden are each planning to construct an EPGR to permanently store their spent fuel. In Finland the construction license was granted in 2015, and operation is planned to commence in 2025. Construction of the Swedish EPGR is planned to start in 2028 and operation to commence in 2032. The construction of encapsulation plants and geological repositories presents new safeguards challenges as nuclear material is intended to be stored permanently and access for verification will be difficult. The EPGR project requires the development of specific safeguards approaches for EPGRs, the assessment of existing verification methods and the development of new equipment and techniques necessary for safeguarding these facilities and implementing optimized safeguards measures.

96. The overall project needs for the period 2026–2035 are estimated at €7.1 million. For 2026–2027 an amount of €0.5 million is needed for the biennium but currently unfunded.

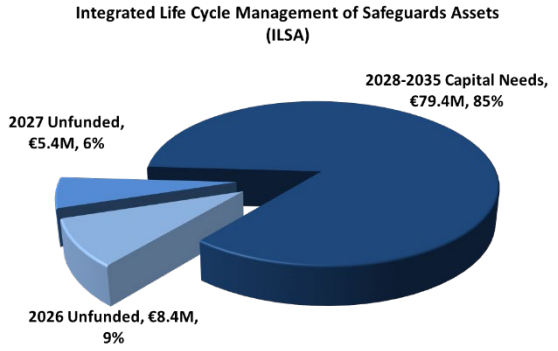



## Integrated Life Cycle Management of Safeguards Assets (ILSA)

97. The Integrated Lifecycle Management of Safeguards Assets (ILSA) project was created to enable the optimum management of assets, and associated financial resources, to ensure that the Department of Safeguards has the necessary resources and capabilities to fulfil its mission and responsibilities. As asset replacement needs are dynamic across the Department of Safeguards, the project will distribute resources based on prioritized needs, using a whole lifecycle cost approach and data-driven decision-making. This will apply to the replacement of critical assets, including internally developed software for verification, data centre replacements, handheld gamma spectrometers, surveillance systems, and mass spectrometers at the Safeguards Analytical Laboratory.

98. This suite of assets is critical to safeguards implementation and makes up approximately 52% of all forecasted asset replacement costs between 2026 and 2035. Maintaining this level of assets can be considered a major infrastructure investment in nature, and inclusion in MCIF will allow for improved and prioritized business decisions on the replacement of safeguards assets by responding to dynamic resource needs through a dynamic budget. The most critical needs to be covered from MCIF in 2026–2027 biennium include Portable Gamma Spectrometry equipment and the replacement of one Thermal Ionization Mass Spectrometer.

99. The overall project needs for the period 2026–2035 are estimated at €93.2 million. For 2026–2027, €13.8 million is needed, but is currently unfunded.




## Major Programme 5 — Policy, Management and Administration Services

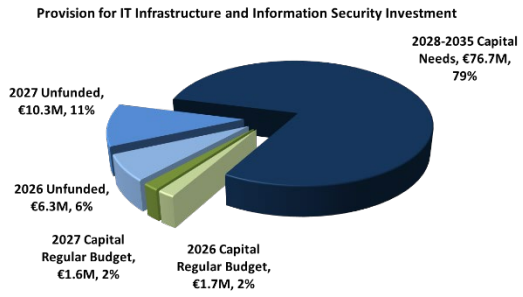
### Provision for IT Infrastructure and Information Security Investment

100. Secure, available and reliable information and communication technology (ICT) infrastructure and support systems are essential to programme delivery. This critical project will cover ICT costs associated with maintaining up-to-date ICT infrastructure and services through the procurement of hardware, software and cloud or subscription-based services. Components of this project include infrastructure replacement in the areas of network, telecommunications, data processing, data centre, and applications to ensure they remain fit for purpose, supported by vendors and secure.

101. The Agency needs to maintain a strong disaster recovery infrastructure and capability for selected critical systems. Funding would be used to upgrade existing capabilities to ensure that they remain viable, and vendor supported. The long-term viability of the Agency's Enterprise Resource Planning (ERP) system, now depends on transitioning to a cloud delivery model, ensuring alignment with the strategic direction and the trend followed by most UN system and other international organizations, and staying current with the latest versions and updates of the core commercial product. By transitioning to a cloud-based version of its ERP, the Agency will leverage cutting-edge technologies such as AI, machine learning, and advanced analytics to enhance decision-making, predictive capabilities and operational efficiency across the organization. Introducing an archiving solution is also needed to address data growth and system performance as well as provide broader hosting arrangement options.

102. The Agency's information assets must be managed efficiently, accurately and securely. These investments will streamline the existing integration architecture, consolidate data integration onto a common platform, and leverage a new data integration and governance framework. The benefits of this investment include minimizing the risk of proliferation of sensitive data throughout the Agency, reducing the risk of data loss or compromise, improving the accuracy of the data supporting Agency-wide decision making, and simplifying the Agency's information technology investment.

103. The overall project needs for the period 2026–2035 are estimated at €96.7 million. For 2026–2027, €20.0 million is needed, of which €1.7 million and €1.6 million are funded from the capital Regular Budget, respectively, for each year of the biennium. An amount of €16.6 million remains unfunded in 2026–2027.




### Seibersdorf Infrastructure and Common Facilities

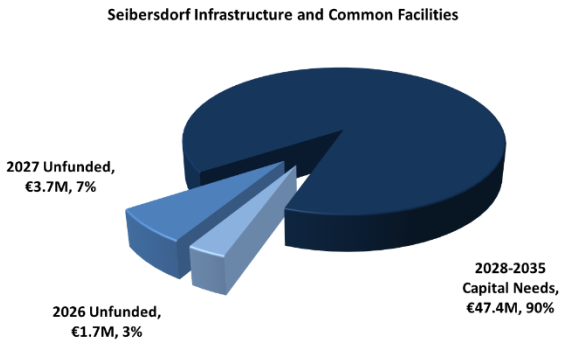
104. The objective of this project is to ensure the Agency’s ability to maintain ongoing and planned investments in the laboratories and property in Seibersdorf and thereby to support the smooth delivery of the Agency’s programmes. This need has resulted from the infrastructure investments in Seibersdorf, including the expansion of the laboratories, the increase in complexity of the infrastructure as

well as the transformation of the site into a self-reliant site. One component of the project covers investments in the infrastructure that are of a capital nature. This also includes costs related to the addressing old infrastructures and obsolete or unsafe buildings and constructions.

105. A second component of the project addresses the need for the replacement of non-laboratory specific equipment in line with standard life cycles required to support site infrastructure and buildings. The third component covers continued investments in physical security infrastructure including the renewal and integration of existing physical security systems.

106. For 2026 and 2027 common infrastructure, security and building projects, together with non-laboratory specific equipment replacement projects are planned.

107. The total project needs for the period 2026–2035 are estimated at €52.9 million. For 2026–2027, €5.4 million is needed, but is currently unfunded.

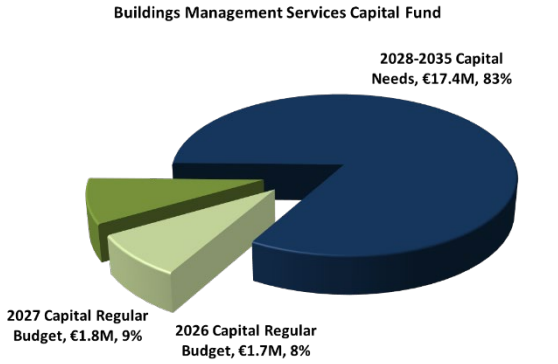



## Buildings Management Services Capital Fund

108. This project represents the Agency's contribution to the Major Repairs and Replacement Fund (MRRF). The MRRF is a common fund for the purpose of financing the cost of major repairs and replacement of buildings, facilities, and technical installations at the Vienna International Centre (VIC). The annual assessed contributions to the fund are shared equally between the Republic of Austria and the VIC based organizations.

109. The project objective is to ensure the Agency's continued ability to finance its cost share contributions towards major repairs and replacement in the buildings, facilities and technical installations at the VIC. It includes investments in ageing infrastructure that are of a capital nature, such as major improvements to buildings; external facilities; and air conditioning, heating, water and other systems.

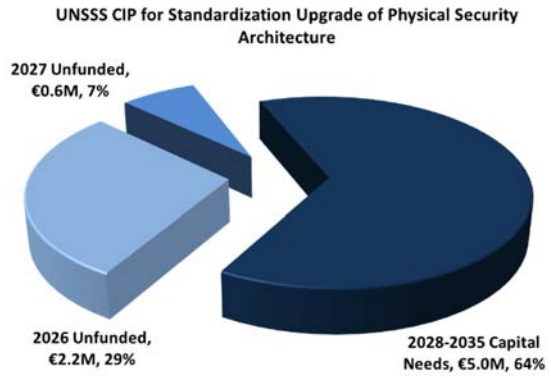
110. The total project needs for the period 2026–2035 are estimated at €20.9 million. The 2026–2027 funding requirement for the project is €3.6 million, of which €1.7 million in 2026 and €1.8 million in 2027 is funded from the capital Regular Budget.




## UNSSS CIP for Standardization Upgrade of Physical Security Architecture

111. In 2022, the United Nations Department of Safety and Security in New York reviewed the physical security systems at UN headquarters, including the VIC. This review focused on physical security infrastructure, systems, and safety. The resulting Capital Investment Plan (CIP) proposes multi-year safety and security upgrades at the VIC. From 2026 to 2031, the CIP aims to enhance emergency response mechanisms, and to upgrade other aspects of physical security. This phased approach addresses the long-term security needs of the VIC, ensuring a safe environment for staff, delegates, and dignitaries.

112. The overall project needs for the period 2026–2031 are estimated at €7.8 million. For 2026–2027, €2.8 million is needed, but is currently unfunded.




## Major Programme 6 — Management of Technical Cooperation for Development

### Upgrade of the IAEA Technical Cooperation Programme Cycle Management Framework

113. The planning, design and review process for the TC programme is handled through the Programme Cycle Management Framework (PCMF). The PCMF, with its decentralized usage and leveraging web-based systems, enables Member States' responsibility and ownership over the formulation and execution of their TC programme, while allowing stakeholders in the Secretariat to support the process and collaborate in a transparent manner. The PCMF enables users to develop and manage the TC programme from submitting project concepts and designs, to approval and project and programme monitoring. It facilitates interaction between members of project teams and provides facilities for completing, compiling and approving Board of Governors documentation.

114. The PCMF was introduced in 2005 and leverages a platform that requires regular updates, which is no longer possible nor sustainable in the long term, given that it uses obsolete technology.

115. With the introduction of new information security standards and systems, support for the underlying technology is ending, and the system requires an overhaul. Increased inter-connectivity with AIPS and InTouch+, as well as the enhancement of the user experience and features, would greatly benefit both the Secretariat and Member States.

116. The PCMF upgrade is in full swing and is planned to be completed in time for the implementation of projects from the TC Programme 2026–2027.

117. In line with the IAEA IT Strategy, PCMF+ moved to the cloud, which entails using the software's cloud platform for access. With 3000+ PCMF users, most of which are Member States, the cost model which is based on per user license is not sustainable in the long run.

118. Therefore, the project scope will include a Member States portal hosted by the IAEA for accessing PCMF+, allowing uninterrupted and unlimited access to the software platform by all Member States regardless of the number of users. Without this portal beyond 2027, licence annual costs in an amount of €0.8 million would have to be absorbed by the operational regular budget.

119. The total project needs for the period 2026–2027 are estimated at €1.2 million of which €0.6 million is funded from the capital Regular Budget, respectively, for each year of the biennium.

## Table 10. Major Capital Investment Plan 2026–2035

| Major Programme/Major Capital Item | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1. Nuclear Power, Fuel Cycle and Nuclear Science** | | | | | | | | | | | |
| Integrated Information Management Systems Upgrade | 952 477 | 935 601 | 1 203 124 | 670 000 | 376 226 | 161 931 | - | - | - | - | 4 299 359 |
| Establishment of an Ion Beam Accelerator Facility in Seibersdorf | 327 500 | 3 960 000 | 4 234 500 | 1 715 900 | 658 800 | - | - | - | - | - | 10 896 700 |
| **Major Programme 1** | **1 279 977** | **4 895 601** | **5 437 624** | **2 385 900** | **1 035 026** | **161 931** | **-** | **-** | **-** | **-** | **15 196 059** |
| **2. Nuclear Techniques for Development and Environmental Protection** | | | | | | | | | | | |
| Integrated Life Cycle Management of NA Assets (ILNA) | 5 485 189 | 5 620 726 | 5 886 105 | 8 725 659 | 8 520 000 | 5 779 953 | 5 334 117 | 5 652 571 | 5 334 117 | 5 334 117 | 61 672 554 |
| **Major Programme 2** | **5 485 189** | **5 620 726** | **5 886 105** | **8 725 659** | **8 520 000** | **5 779 953** | **5 334 117** | **5 652 571** | **5 334 117** | **5 334 117** | **61 672 554** |
| **3. Nuclear Safety and Security** | | | | | | | | | | | |
| Advanced Radiation Monitoring Technology Infrastructure (ARTIS) | 1 006 710 | 420 000 | 840 000 | 730 000 | 460 000 | 260 000 | 170 000 | 150 000 | 150 000 | 340 000 | 4 526 710 |
| **Major Programme 3** | **1 006 710** | **420 000** | **840 000** | **730 000** | **460 000** | **260 000** | **170 000** | **150 000** | **150 000** | **340 000** | **4 526 710** |
| **4. Nuclear Verification** | | | | | | | | | | | |
| Develop and Implement a Safeguards Approach for J-MOX | 3 400 000 | 2 250 000 | 750 000 | - | - | - | - | - | - | - | 6 400 000 |
| Develop and Implement Safeguards Approaches for a SF EPGR | 300 000 | 200 000 | 1 301 000 | 1 405 600 | 1 020 000 | 920 000 | 720 000 | 400 000 | 400 000 | 400 000 | 7 066 600 |
| Integrated Life Cycle Management of Safeguards Assets (ILSA) | 8 405 921 | 5 420 900 | 8 178 000 | 8 242 000 | 8 361 000 | 6 706 000 | 9 609 010 | 5 579 000 | 18 844 000 | 13 883 000 | 93 228 831 |
| **Major Programme 4** | **12 105 921** | **7 870 900** | **10 229 000** | **9 647 600** | **9 381 000** | **7 626 000** | **10 329 010** | **5 979 000** | **19 244 000** | **14 283 000** | **106 695 431** |
| **5. Policy, Management and Administration Services** | | | | | | | | | | | |
| Provision for IT Infrastructure and Information Security Investment | 8 034 192 | 11 929 895 | 8 649 458 | 9 927 825 | 8 391 228 | 8 850 709 | 13 299 570 | 10 276 294 | 9 106 276 | 8 236 686 | 96 702 133 |
| Seibersdorf Infrastructure and Common Facilities | 1 712 000 | 3 730 200 | 3 272 500 | 817 300 | 5 002 000 | 4 577 500 | 1 490 000 | 22 046 500 | 3 842 000 | 6 376 000 | 52 866 000 |
| Buildings Management Services Capital Fund | 1 740 000 | 1 811 000 | 1 884 000 | 1 959 000 | 2 038 000 | 2 119 000 | 2 204 000 | 2 292 000 | 2 386 000 | 2 479 000 | 20 912 000 |
| UNSSS CIP for Standardization Upgrade of Physical Security Architecture | 2 239 000 | 558 000 | 1 233 700 | 843 400 | 842 000 | 2 092 100 | - | - | - | - | 7 808 200 |
| **Major Programme 5** | **13 725 192** | **18 029 095** | **15 039 658** | **13 547 525** | **16 273 228** | **17 639 309** | **16 993 570** | **34 614 794** | **15 334 276** | **17 091 686** | **178 288 333** |
| **6. Management of Technical Cooperation for Development** | | | | | | | | | | | |
| Upgrade of the IAEA Technical Cooperation Programme Cycle Management Framework | 600 000 | 600 000 | - | - | - | - | - | - | - | - | 1 200 000 |
| **Major Programme 6** | **600 000** | **600 000** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **-** | **1 200 000** |
| **Major Capital Investment Plan Total** | **34 202 989** | **37 436 322** | **37 432 387** | **35 036 684** | **35 669 254** | **31 467 193** | **32 826 697** | **46 396 365** | **40 062 393** | **37 048 803** | **367 579 087** |

## Table 11. Capital Regular Budget Details 2026–2027

| Major Programme/Major Capital Item | 2025 Budget | 2026 Estimates at 2025 Prices | 2026 Estimates at 2026 Prices | 2027 Preliminary Estimates at 2026 Prices | 2027 Preliminary Estimates at 2027 Prices |
|---|---|---|---|---|---|
| **2. Nuclear Techniques for Development and Environmental Protection** | | | | | |
| Integrated Life Cycle Management of NA Assets (ILNA) | - | 607 322 | 607 322 | 607 322 | 607 322 |
| **Major Programme 2** | **-** | **607 322** | **607 322** | **607 322** | **607 322** |
| **3. Nuclear Safety and Security** | | | | | |
| Enhancing Radiation Safety through Efficient and Modern Dosimetry (RADSED) | 313 958 | - | - | - | - |
| Advanced Radiation Monitoring Technology Infrastructure (ARTIS) | - | 304 393 | 304 393 | 304 393 | 304 393 |
| **Major Programme 3** | **313 958** | **304 393** | **304 393** | **304 393** | **304 393** |
| **4. Nuclear Verification** | | | | | |
| Develop and Implement a Safeguards Approach for J-MOX | 1 360 486 | 1 000 000 | 1 000 000 | 1 029 287 | 1 029 287 |
| Integrated Life Cycle Management of Safeguards Assets (ILSA) | - | - | - | - | - |
| **Major Programme 4** | **1 360 486** | **1 000 000** | **1 000 000** | **1 029 287** | **1 029 287** |
| **5. Policy, Management and Administration Services** | | | | | |
| Provision for IT Infrastructure and Information Security Investment | 3 401 216 | 1 748 285 | 1 748 285 | 1 647 998 | 1 647 998 |
| Seibersdorf Infrastructure and Common Facilities | 1 308 160 | - | - | - | - |
| Buildings Management Services Capital Fund | 1 674 445 | 1 740 000 | 1 740 000 | 1 811 000 | 1 811 000 |
| UNSSS CIP for Standardization Upgrade of Physical Security Architecture | - | - | - | - | - |
| **Major Programme 5** | **6 383 821** | **3 488 285** | **3 488 285** | **3 458 998** | **3 458 998** |
| **6. Management of Technical Cooperation for Development** | | | | | |
| Upgrade of the IAEA Technical Cooperation Programme Cycle Management Framework | 313 958 | 600 000 | 600 000 | 600 000 | 600 000 |
| **Major Programme 6** | **313 958** | **600 000** | **600 000** | **600 000** | **600 000** |
| **Major Capital Investment Fund** | **8 372 224** | **6 000 000** | **6 000 000** | **6 000 000** | **6 000 000** |
| **Capital Carry Forward** | **(2 093 056)** | **-** | **-** | **-** | **-** |
| **Capital Regular Budget** | **6 279 168** | **6 000 000** | **6 000 000** | **6 000 000** | **6 000 000** |

120. The table below lists the capital needs for 2026 and 2027[8] that will not be funded from the MCIF. It is expected that these needs will attract extrabudgetary pledges from Member States.

**Table 12. Unfunded 2026–2027 Capital Needs[9]**

| Major Programme/Major Capital Item | 2026 | 2027 |
|---|---|---|
| **1. Nuclear Power, Fuel Cycle and Nuclear Science** | | |
| Integrated Information Management Systems Upgrade | 952 477 | 935 601 |
| Establishment of an Ion Beam Accelerator Facility in Seibersdorf | 327 500 | 3 960 000 |
| **Major Programme 1** | **1 279 977** | **4 895 601** |
| **2. Nuclear Techniques for Development and Environmental Protection** | | |
| Integrated Life Cycle Management of NA Assets (ILNA) | 4 877 867 | 5 013 404 |
| **Major Programme 2** | **4 877 867** | **5 013 404** |
| **3. Nuclear Safety and Security** | | |
| Advanced Radiation Monitoring Technology Infrastructure (ARTIS) | 702 317 | 115 607 |
| **Major Programme 3** | **702 317** | **115 607** |
| **4. Nuclear Verification** | | |
| Develop and Implement a Safeguards Approach for J-MOX | 2 400 000 | 1 220 713 |
| Develop and Implement SG Approaches for a SF EPGR | 300 000 | 200 000 |
| Integrated Life Cycle Management of Safeguards Assets (ILSA) | 8 405 921 | 5 420 900 |
| **Major Programme 4** | **11 105 921** | **6 841 613** |
| **5. Policy, Management and Administration Services** | | |
| Provision for IT Infrastructure and Information Security Investment | 6 285 907 | 10 281 897 |
| Seibersdorf Infrastructure and Common Facilities | 1 712 000 | 3 730 200 |
| **Major Programme 5** | **10 236 907** | **14 570 097** |
| **Unfunded Capital Needs Total** | **28 202 989** | **31 436 322** |

[8] In addition to the capital needs presented in the MCIP for the upcoming 10 years, it should be noted that there are structural concerns with the Vienna International Centre Gate 1 and the requirements to address these, are currently being assessed. As the level for this joint investment is yet to be determined, the MCIP does not currently include this project.

[9] Reflecting increasing capital needs of the IAEA.

# I.5 Draft Resolutions for 2026

121. This section presents the draft resolutions for 2026, including the appropriations for the Regular Budget for 2026, the allocation for the Technical Cooperation Fund (TCF) in 2026 and the Working Capital Fund (WCF) in 2026.

## A. The Regular Budget

122. Regular Budget appropriations for 2026 are presented in two parts: one for the operational Regular Budget (paras 1 and 2 of resolution A); and one for the capital Regular Budget (paras 3–5 of resolution A). The expenditures against these appropriations will be recorded separately, so that funds appropriated for the operational Regular Budget will not be used for major capital investments and vice versa. The total amount of appropriations for the capital Regular Budget will be transferred to the Major Capital Investment Fund.

123. The resolution for the Regular Budget appropriation contains an adjustment formula to take into account the exchange rate variations during the year. Member State contributions will be based on the scale of assessment to be fixed by the General Conference in September 2025.

## B. Technical Cooperation Programme

124. The technical cooperation activities of the Agency are financed from the TCF and extrabudgetary contributions. The TCF mainly comprises voluntary contributions, for which a target is recommended each year by the Board of Governors, and National Participation Costs paid by recipient Member States. The target for voluntary contributions to the TCF recommended by the Board of Governors amounts to €98 000 000 for 2026 and €98 000 000 for 2027.

125. The forecast of the resources for the technical cooperation programme for 2026 amounts to €129 120 000, comprising €92 120 000 for estimated core project funding, €2 000 000 for National Participation Costs (to be added to the estimated core funding) and €35 000 000 for the estimated implementation levels of extrabudgetary activities.

126. The forecast of the resources for the technical cooperation programme for 2027 amounts to €128 120 000, comprising €92 120 000 for estimated core project funding, €1 000 000 for National Participation Costs (to be added to the estimated core funding) and €35 000 000 for the estimated implementation levels of extrabudgetary activities.

127. These amounts do not constitute a target for, or limitation on, funds and do not in any way prejudge the technical cooperation programme for 2026 and 2027.

## C. Working Capital Fund

128. During its 68th regular session, the General Conference approved a continuation of the WCF at the level of €15 210 000 for 2025. No change in this level is proposed for 2026, although it should be borne in mind that the average monthly requirement of the Regular Budget exceeds the level of the WCF, which constitutes a significant risk to the Agency.

## A. REGULAR BUDGET APPROPRIATIONS FOR 2026

The General Conference,

Accepting the recommendations of the Board of Governors relating to the Regular Budget of the Agency for 2026,[1]

1. Appropriates, on the basis of an exchange rate of US $1.00 to €1.00, an amount of €439 719 464 for the operational portion of the Regular Budget expenses of the Agency in 2026 as follows:[2]

| | | € |
|---|---|---|
| 1. | Nuclear Power, Fuel Cycle and Nuclear Science | 47 737 121 |
| 2. | Nuclear Techniques for Development and Environmental Protection | 48 545 625 |
| 3. | Nuclear Safety and Security | 42 753 332 |
| 4. | Nuclear Verification | 171 419 868 |
| 5. | Policy, Management and Administration Services | 94 576 866 |
| 6. | Management of Technical Cooperation for Development | 31 075 389 |
| | Subtotal of Major Programmes | 436 108 201 |
| 7. | Reimbursable work for others | 3 611 263 |
| | TOTAL | 439 719 464 |

the amounts in the appropriation sections to be adjusted in accordance with the adjustment formula presented in Attachment A.1 in order to take into account the exchange rate variations during the year;

2. Decides that the foregoing appropriation shall be financed, after the deduction of:
- Revenues deriving from reimbursable work for others (Section 7); and
- Other miscellaneous income of €3 135 000;

from contributions by Member States amounting, at an exchange rate of US $1.00 to €1.00, to €432 973 201 (€371 914 263 plus US $61 058 938), in accordance with the scale of assessment fixed by the General Conference in resolution GC(69)/RES/ ;

[1] Document GC(69)/6.

[2] Appropriation Sections 1–6 represent the Agency's Major Programmes.

3. Appropriates, on the basis of an exchange rate of US $1.00 to €1.00, an amount of €6 000 000 for the capital portion of the Regular Budget expenses of the Agency in 2026 as follows[3]:

| | | € |
|---|---|---|
| 1. | Nuclear Power, Fuel Cycle and Nuclear Science | - |
| 2. | Nuclear Techniques for Development and Environmental Protection | 607 322 |
| 3. | Nuclear Safety and Security | 304 393 |
| 4. | Nuclear Verification | 1 000 000 |
| 5. | Policy, Management and Administration Services | 3 488 285 |
| 6. | Management of Technical Cooperation for Development | 600 000 |
| | TOTAL | 6 000 000 |

the amounts in the appropriation sections to be adjusted in accordance with the adjustment formula presented in Attachment A.2 in order to take into account the exchange rate variations during the year;

4. Decides that the foregoing appropriation shall be financed from contributions by Member States amounting, at an exchange rate of US $1.00 to €1.00, to €6 000 000, in accordance with the scale of assessment fixed by the General Conference in resolution GC(69)/RES/ ;

5. Authorizes the transfer of the capital portion of the Regular Budget to the Major Capital Investment Fund; and

6. Authorizes the Director General:
   a. To incur expenditures additional to those for which provision is made in the Regular Budget for 2026, provided that the relevant emoluments of any staff involved, and all other costs are entirely financed from revenues arising out of sales, work performed for Member States or international organizations, research grants, special contributions or other sources extraneous to the Regular Budget for 2026; and
   b. With the approval of the Board of Governors, to make transfers between any of the Sections listed in paras 1 and 3 above.

[3] See footnote 2.

# ATTACHMENT

## A.1. APPROPRIATIONS FOR THE OPERATIONAL PORTION OF THE REGULAR BUDGET IN 2026

ADJUSTMENT FORMULA IN EUROS

| | | € | | US$ |
|---|---|---|---|---|
| 1. | Nuclear Power, Fuel Cycle and Nuclear Science | 40 561 485 | + ( | 7 175 636 /R) |
| 2. | Nuclear Techniques for Development and Environmental Protection | 43 075 692 | + ( | 5 469 933 /R) |
| 3. | Nuclear Safety and Security | 35 074 708 | + ( | 7 678 624 /R) |
| 4. | Nuclear Verification | 144 959 881 | + ( | 26 459 988 /R) |
| 5. | Policy, Management and Administration Services | 84 747 171 | + ( | 9 829 695 /R) |
| 6. | Management of Technical Cooperation for Development | 26 630 326 | + ( | 4 445 063 /R) |
| | Subtotal of Major Programmes | 375 049 263 | + ( | 61 058 938 /R) |
| 7. | Reimbursable work for others | 3 611 263 | + ( | - /R) |
| | TOTAL | 378 660 525 | + ( | 61 058 938 /R) |

**Note:** R is the average United Nations dollar to euro exchange rate which will be experienced during 2026.

# ATTACHMENT

## A.2. APPROPRIATIONS FOR THE CAPITAL PORTION OF THE REGULAR BUDGET IN 2026

ADJUSTMENT FORMULA IN EUROS

| | | € | US$ |
|---|---|---|---|
| 1. | Nuclear Power, Fuel Cycle and Nuclear Science | - + ( | - /R) |
| 2. | Nuclear Techniques for Development and Environmental Protection | 607 322 + ( | - /R) |
| 3. | Nuclear Safety and Security | 304 393 + ( | - /R) |
| 4. | Nuclear Verification | 1 000 000 + ( | - /R) |
| 5. | Policy, Management and Administration Services | 3 488 285 + ( | - /R) |
| 6. | Management of Technical Cooperation for Development | 600 000 + ( | - /R) |
| | TOTAL | 6 000 000 + ( | - /R) |

**Note**: R is the average United Nations dollar to euro exchange rate which will be experienced during 2026.

## B. TECHNICAL COOPERATION FUND ALLOCATION FOR 2026

The General Conference,

(a) Noting the decision of the Board of Governors of June 2025 to recommend the Technical Cooperation Fund target of €98 000 000 for voluntary contributions to the Agency's Technical Cooperation Fund for 2026; and

(b) Accepting the foregoing recommendation of the Board;

1. Decides that for 2026 the target figure for voluntary contributions to the Technical Cooperation Fund shall be €98 000 000.

2. Allocates, in euros, contributions of €98 000 000 for the Agency's technical cooperation programme for 2026; and

3. Urges all Member States to make voluntary contributions for 2026 in accordance with Article XIV.F of the Statute, with para. 2 of its resolution GC(V)/RES/100 as amended by resolution GC(XV)/RES/286 or with para. 3 of the former resolution, as appropriate.

## C. THE WORKING CAPITAL FUND FOR 2026

The General Conference,

Accepting the recommendations of the Board of Governors relating to the Agency's Working Capital Fund for 2026,

1. Approves a level of €15 210 000 for the Agency's Working Capital Fund for 2026;

2. Decides that the Fund shall be financed, administered and used in 2026 in accordance with the relevant provisions of the Financial Regulations of the Agency;[4]

3. Authorizes the Director General to make advances from the Fund not exceeding €500 000 at any time to finance temporarily projects or activities which have been approved by the Board of Governors for which no funds have been provided under the Regular Budget; and

4. Requests the Director General to submit to the Board of Governors statements of advances made from the Fund under the authority given in para. 3 above.

[4] Document INFCIRC/8/Rev.4.

# PART II

## The Agency's Programme and Budget 2026–2027
## Details by Major Programme

# Major Programme 1
# Nuclear Power, Fuel Cycle and Nuclear Science

## Introduction

Major Programme 1 aims to provide scientific and technical support, guidance and services for the development and deployment of nuclear power and research reactor technology, including their nuclear fuel cycles and nuclear fuel cycle facilities (NFCFs); for advancing new nuclear power technologies, including small and medium sized or modular reactors (SMRs) and fusion energy; for radioactive waste management, decommissioning and environmental remediation; for energy system analysis and energy planning; and for nuclear knowledge and information management. It also supports advancements in nuclear science, including fusion science and plasma physics, nuclear and atomic data, accelerator and neutron source applications, and nuclear instrumentation. Major Programme 1 further supports Member States in outreach and stakeholder engagement efforts throughout the entire nuclear fuel cycle and the various stages of the life cycle of nuclear facilities.

The role of nuclear power to mitigate the effects of climate change, achieve energy security and accelerate the clean energy transition in line with the Sustainable Development Goals (SDGs) and the Paris Agreement got further established by the historic inclusion of nuclear in the Global Stocktake of the 28th Conference of the Parties to the UN Framework Convention on Climate Change (COP28) in 2023, as well as at the first ever Nuclear Energy Summit held in Brussels in 2024. Major Programme 1 will continue to support interested Member States for assessing the potential and integrating nuclear energy in their national energy strategies through, among others, the Atoms4NetZero initiative and the International Project on Innovative Nuclear Reactors and Fuel Cycles (INPRO). Support will also continue in the field of nuclear knowledge management (NKM), human resource development (HRD) and nuclear information dissemination and preservation.

Major Programme 1 also provides support for Member States considering, embarking on or expanding nuclear power programmes. It will continue to provide support for enhancing operating performance; life management; and safe, secure, efficient and reliable construction and long term operation (LTO) of nuclear power plants (NPPs), including development of supply chains. Support will continue for the development and deployment of SMRs; innovative reactor systems and associated fuel cycles; non-electric applications of nuclear power, including hydrogen production; integration of nuclear power with renewable energy sources; and technology development and deployment of fusion energy.

Major Programme 1 support will continue in connection with uranium exploration, mining and milling; and in connection with fuel cycle activities, including those related to spent fuel integrity, design vulnerabilities, defuelling and storage. Support will also continue for radioactive waste management, decommissioning of nuclear facilities and management of disused sealed radioactive sources (DSRSs), as well as for environmental remediation.

Major Programme 1 will continue to support Member States with an interest in building, operating or accessing research reactors — including via the IAEA-designated International Centre based on Research Reactor (ICERR) scheme — and in improving their utilization. Upon Member State request, support for transitioning from the use of high enriched uranium (HEU) to low enriched uranium (LEU) in research reactors will continue.

Major Programme 1 will continue to provide accurate nuclear reaction and structure data, and atomic and molecular data. Training, method development and facilitation of experiments using various types of particle accelerators, neutron sources and nuclear instrumentation will continue. Collaboration with the Abdus Salam International Centre for Theoretical Physics (ICTP), in Trieste, Italy, in facilitating advanced studies in science, technology, engineering and mathematics will continue, including education and training activities, especially targeting developing countries.

Major Programme 1

| ***Objectives:*** | |
|---|---|
| — *To expand and improve the use of nuclear technology in support of sustainable development, to advance nuclear science and technology, to catalyse innovation, and to build capacity to support the existing and expanded use of nuclear power and nuclear science applications.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of Agency information, resources and services, and cooperation opportunities in life cycle management of existing, expanding and new nuclear programmes, including fuel cycles, decommissioning, environmental remediation and radioactive waste management. | • Number of Member States using Agency information, resources and services for managing the life cycle of their nuclear programmes.<br>• Number of Member States engaged in Agency collaborative frameworks. |
| • Improved Member State understanding of the potential role of nuclear technologies, including electric and non-electric applications of nuclear energy, in support of sustainable development. | • Number of professionals from Member States trained within the biennium in the use of Agency tools, models and methodologies.<br>• Number of Member States using guidance material for infrastructure development. |
| • Increased Member State use of Agency information, resources and services, and cooperation opportunities in nuclear science for technological and socio-economic advancement. | • Number of participants in Agency events, workshops and training courses on nuclear science.<br>• Number of Member States accessing and retrieving atomic and nuclear data from Agency websites. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.0.0.001 Overall management, coordination and common activities*** | Executive, programmatic and administrative guidance documents; Board of Governors and General Conference reports; Agency policies and reporting documents; management meetings and provision of services for institutional knowledge and information preservation and sharing. |
| ***1.0.0.002 Outreach and stakeholder involvement*** | Production of relevant documents, briefs, brochures and visuals; outreach materials targeted at stakeholders of the Department of Nuclear Energy, including content for the Department's webpage and X account; production of outreach materials aimed at the general public in coordination with the Office of Public Information and Communication; coordination of Department of Nuclear Energy support to Member States in the area of stakeholder engagement for nuclear power programmes; IAEA Nuclear Stakeholder Engagement Schools; Stakeholder Engagement Advisory Service for Nuclear Power Programmes. |
| ***1.0.0.003 Partnerships and resource mobilization*** | Active outreach activities with existing and potential non-traditional public-private partners with targeted outreach aimed at donors for selected flagship initiatives; tools and recognition mechanisms for existing donors for visibility and acknowledgement for donor contributions; tools to facilitate internal knowledge sharing and collaboration. |

# Programme 1.1 Nuclear Power

Programme 1.1 supports Member States in their efforts towards better performance and safe, secure, efficient and reliable LTO of NPPs. Support — including capacity building and application of innovative technologies, and digital innovations — is provided to existing and expanding nuclear programmes, and the programme fosters the implementation of integrated management systems, development of supply chains and harmonization and standardization efforts for NPPs. The programme also continues to support Member States embarking on new nuclear power programmes or expanding existing ones, by assisting them in building sound nuclear infrastructure for the successful introduction of NPPs and for their safe, secure, efficient and reliable operation. In this regard, the programme coordinates services with all other Agency Departments, in particular the Department of Nuclear Safety and Security, the Department of Safeguards and the Department of Technical Cooperation.

The programme provides a forum for technology holders and users to jointly consider innovations and supports Member States in their long term planning through INPRO. INPRO implements collaborative projects and provides services including scenario-based nuclear energy system (NES) modelling, analysis and assessment of sustainability. Furthermore, the programme supports Member States' activities in research, innovation and technical advancement associated with advanced nuclear power reactors, development and deployment of SMRs, non-electric applications of nuclear energy, fusion energy technology development and deployment, and the integration of NESs with other clean energy sources, such as variable renewables. This is achieved by coordinating research, promoting the exchange of information, supporting reactor technology assessment, education and training, developing toolkits and simulators, and analysing data and results for various advanced reactor technologies.

***Lessons learned from reviews, assessments and evaluations:*** Member States operating nuclear facilities and those interested in expanding or starting nuclear power programmes expect the Secretariat to continue to disseminate good practices through new and updated publications, support the exchange of information on technical and organizational aspects, and provide tailored review and assistance services. Member States appreciate support such as NPP life management, the Milestones approach to new nuclear power programmes, and the related training workshops, activities and services provided. Member States have recommended that assistance and support should continue to be provided for development and deployment of evolutionary and innovative nuclear reactor technologies and their non-electric applications, including nuclear hydrogen production, water desalination, district heating and process heat, with particular emphasis on small modular reactors for near-term deployment, integrated nuclear–renewables energy systems, transportable reactors and microreactors. In this regard, efforts will be increased to support enhanced use of innovations like artificial intelligence or the Agency's Nuclear Harmonization and Standardization Initiative (NHSI), as well as accelerating progress towards fusion energy development and deployment. Fusion energy is transitioning from an experimental science to an industrial application with its emergence in the private sector, the subsequent significant increase in capital invested and the recent breakthroughs, as well as the progress of large-scale international and national fusion projects. In this context, developing an adequate technical, legal, institutional and regulatory harmonized framework for fusion is intrinsically connected to the development of this new type of technology and its future commercial deployment.

***Specific criteria for prioritization:***

1. Activities supporting Member States' efforts towards better performance; safe, secure, efficient and reliable LTO; and construction of new NPPs.
2. Activities supporting the development of nuclear power infrastructure and human resource capacity building in Member States embarking on a nuclear power programme.
3. Activities to maintain and increase international dialogue and cooperation to promote long term nuclear energy strategies and innovations in nuclear energy-related technology in support of NES sustainability.
4. Activities supporting Member States and stakeholders in development and deployment of advanced reactor technologies and related applications, including integrated nuclear–renewables energy systems and fusion technology, by sharing up-to-date information and providing methods and tools in support of the sustainable use of nuclear energy.

## Programmatic changes and trends

***Subprogramme 1.1.1 Strengthening Integrated Engineering Support for Nuclear Power Programmes*** continues to focus on existing NPPs and new nuclear power projects. This includes the provision of support to Member States in plant life management for enhanced performance and safe, secure, efficient, reliable and economically sustainable LTO of NPPs, and in the development and deployment of innovative technical solutions such as AI,

digital twins, advanced digital technologies and advanced manufacturing, aimed at improving reliability. This subprogramme also assists Member States in engineering aspects at all stages of nuclear projects, including Member States embarking on or expanding their nuclear power programmes. To optimize operating costs, Member States can benefit from operational efficiencies and effectiveness identified by the work of this subprogramme. Member States expanding nuclear power programmes will also benefit from the subprogramme's collection and dissemination of good practices and lessons learned in the construction, commissioning and operation of NPPs.

***Subprogramme 1.1.2 Management for Construction and Operation of Nuclear Power Plants*** focuses on support to Member States for the development of management systems, configuration and performance management, project management, contracting, plant deployment models, human performance, leadership for construction and operation of NPPs. It also supports the development of supply chains, industrial involvement, procurement, quality management, codes and standards, and harmonization and standardization efforts for NPPs.

***Subprogramme 1.1.3 Integrated Support for Nuclear Power Programme Infrastructure Development*** is the point of integration for relevant activities throughout Major Programme 1 and for their coordination across the Agency. Therefore, some of these activities are implemented in conjunction with technical staff from other Agency Departments. In 2026–2027, the number of Member States embarking on or expanding nuclear programmes and requesting Agency assistance is expected to increase, taking into account the new wave of countries interested in SMRs. Additionally, efforts towards improving the quality, consistency and effectiveness of such assistance will be increased.

***Subprogramme 1.1.4 International Project on Innovative Nuclear Reactors and Fuel Cycles*** will continue to focus on national, regional and global nuclear energy sustainability issues and related cooperation among INPRO members. INPRO activities will continue to include the provision of assistance to Member States with Nuclear Energy System Assessments (NESAs), nuclear energy scenario analysis, collaborative projects, and further development of tools for NESAs and sustainable NES planning services. Provision of training services and guidance to Member States on the application of INPRO products will continue. The INPRO Strategic Plan 2024–2029, endorsed by the INPRO Steering Committee in 2024, will continue to be implemented. INPRO will also contribute to the implementation of the Agency's flagship initiative Atoms4NetZero.

***Subprogramme 1.1.5 Technology Development for Small and Medium Sized or Modular Reactors, Large Advanced Reactors, Non-electric Applications of Nuclear Power and Fusion Energy*** supports the development and deployment of evolutionary and innovative nuclear power reactors, their non-electric applications and technology development of fusion energy, especially near-term demonstration (DEMO). The deployment of advanced water cooled reactors (AWCRs), as well as the development and initial deployment of SMRs by Member States, including newcomer countries, is expected to increase further. The subprogramme will thus address specific developments, challenges and opportunities for AWCRs, fast reactors and SMRs (including microreactors) of all types including high temperature and molten salt reactors, for land, maritime, space and non-electric applications. Activities to support the integration of nuclear power with other clean energy sources will also be strengthened. The focus will continue to be on facilitating the deployment of non-electric applications and nuclear cogeneration in order to address climate change and support the clean energy transition. Additionally, it will assist Member States in developing and applying advanced modelling and simulation tools validated by experimental data. The subprogramme provides support and technical expertise to the NHSI, acts as secretariat for the IAEA Platform on Small Modular Reactors and their Applications, and provides support to other Agency fusion activities and initiatives, such as the Fusion Energy Conference, the International Fusion Research Council and the World Fusion Energy Group.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 1.1 Nuclear Power** |
|---|
| ***Objectives:*** |
| — *To support Member States with existing NPPs to enhance operating performance and safe, secure, efficient and reliable LTO, with a harmonized approach to human, technological, organizational and innovative aspects.* |
| — *To support Member States embarking on new nuclear power programmes or expanding existing ones in planning and building their national nuclear infrastructure through coordinated assessment and assistance activities.* |
| — *To support Member States in modelling, analysing and assessing future NESs for sustainable development of nuclear energy and to provide them with collaborative frameworks and support for technology development and deployment of advanced nuclear reactors, SMRs, non-electric applications, fusion energy and integrated energy systems.* |

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State use of Agency information, resources and services for safe, reliable, efficient and sustainable operation and construction of NPPs including improved management system, human performance, leadership and management capabilities. | • Number of Member States using relevant Agency resources, including Nuclear Energy Series publications, guidelines, recommendations and databases for engineering activities within existing and expanding nuclear power programmes.<br>• Number of Member States using Agency resources for the development and enhancement of their management capacities and implementation of their supply chains and quality management in the construction and operation of NPPs. |
| • Increased Member State understanding of issues and commitments regarding the development of the national infrastructure for embarking on a nuclear power programme. | • Number of Integrated Nuclear Infrastructure Review (INIR) missions, which include self-evaluation support missions, pre-INIR and INIR follow-up missions.<br>• Number of Member States using guidance material for nuclear power infrastructure development. |
| • Increased cooperation among Member States on global nuclear energy sustainability, long term nuclear energy strategies, nuclear reactor technology development, non-electric applications and integrated energy systems. | • Number of Member States participating in INPRO collaborative projects, Dialogue Forum, and using INPRO tools, services and publications.<br>• Number of Member States and stakeholders cooperating on evolutionary and innovative nuclear reactor and fusion technology development, SMRs, non-electric applications of nuclear power and fusion energy activities through coordinated research projects (CRPs), Technical Meetings and training courses. |

**Subprogramme 1.1.1 Strengthening Integrated Engineering Support for Nuclear Power Programmes**

***Objectives*:**

— *To support Member States in the safe, secure, efficient and reliable operation of NPPs over their planned lifetime and into extended operation/LTO.*

— *To support Member States in effective operation, maintenance and engineering processes for new NPPs.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State use of Agency information, resources and services for NPP performance and sustainability. | • Number of Member States using Agency publications and databases on NPP performance and sustainability.<br>• Number of Member States participating in training conferences and symposia on NPP performance and sustainability. |
| • Increased Member State use of Agency information, resources and services for the implementation of new nuclear power projects. | • Number of Member States accessing Agency guidance and requesting Agency services to support efficient and effective implementation of new NPP projects. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.1.1.001 Engineering support for operating NPPs*** | Publications, databases and events on specific aspects of NPP engineering, operation and maintenance, including life management and innovation relevant to operating NPPs; networks on life management and innovation that foster exchanges of information; national experience among Member States through Technical Meetings, workshops and conferences, including promotion of excellence within the nuclear power sector; sixth International Conference on Nuclear Power Plant Life Management (PLiM-6). |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***1.1.1.002 Engineering support for new nuclear power projects*** | Publications, databases, toolkits and collaboration events on new NPP projects and major refurbishments of operating plants; capacity building; exchange of information and national experience among Member States through Technical Meetings and workshops in the field of NPP project engineering as well as awareness and deployment of innovative construction technologies and processes. |

| **Subprogramme 1.1.2 Management for Construction and Operation of Nuclear Power Plants** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in the development of management systems, configuration and performance management, project management, contracting, plant deployment models, human performance and leadership for construction and operation of NPPs.*<br>— *To support Member States in the development of supply chains, industrial involvement, procurement, quality assurance and quality management, codes and standards, and harmonization efforts for NPPs.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of Agency guidance and services for development and implementation of management services in Member State organizations. | • Number of Member States using Agency resources for the development and enhancement of their management capacities in the construction and operation of NPPs. |
| • Increased Member State use of Agency guidance and services for development and implementation of supply chains and quality management for NPPs. | • Number of Member States using Agency resources for the development and implementation of supply chains and quality management for NPPs. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.1.2.001 Management support for construction and operation of nuclear power plants*** | Agency guidance documents, training courses, workshops, Technical Meetings, toolkits, webinars and similar virtual learning modules on configuration management, project and plant management, contracting and human performance; information hubs and mapping/modelling tools for the development of operating organizations for NPP construction and operation. |
| ***1.1.2.002 Supply chain and quality management for nuclear power plants*** | Agency guidance documents and training courses related to nuclear supply chain and quality management; workshops, Technical Meetings, toolkits and similar virtual learning modules on harmonization in uses of codes and standards, procurement and industrial involvement; supply chain webinar series; tools for nuclear supply chain assessment and development, and for industrial localization; development and implementation of review services coupled with other types of review, such as Construction Readiness Review missions. |

## Subprogramme 1.1.3 Integrated Support for Nuclear Power Programme Infrastructure Development

***Objectives:***

- *To support Member States in improving their understanding of the responsibilities and obligations essential to implementing safe, secure, efficient and reliable nuclear power programmes.*
- *To support Member States in developing, in a phased manner, the necessary infrastructure to enable the introduction of nuclear power.*
- *To provide integrated and coordinated Agency support to Member States embarking on a nuclear power programme.*

| Outcomes | Performance Indicators |
|---|---|
| ● Improved national plans, based on the gaps identified, aligned with the international good practices reflected in the Milestones approach. | ● Number of national plans developed by Member States in line with the Milestones approach. |
| ● Improved understanding of specific nuclear infrastructure issues in Member States relevant to different phases of programme development. | ● Number of Member States participating in Technical Meetings and consultancy meetings to develop and share guidance and information. |
| ● Improved assistance to Member States through integrated Agency support. | ● Number of Integrated Work Plans and training courses on infrastructure development. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.1.3.001 Nuclear power infrastructure development*** | Enhancement of the INIR methodology, including development of electronic tools and adaptation to SMRs; implementation of INIR missions; development or updating of Integrated Work Plans and Country Nuclear Infrastructure Profiles; organization of roundtable and road map meetings; coordination and integration of assistance to embarking and expanding Member States; International Ministerial Conference on Nuclear Power in the 21st Century. |
| ***1.1.3.002 Support for capacity building for nuclear power infrastructure*** | Development and implementation of publications and information sharing activities (e.g., Technical Meetings and webinars) for issues addressed in the Milestones approach; enhancement of training programmes; e-learning; Nuclear Infrastructure Bibliography and Nuclear Infrastructure Competency Framework; expert reviews on specific infrastructure issues (policies and strategies, management systems, etc.). |

## Subprogramme 1.1.4 International Project on Innovative Nuclear Reactors and Fuel Cycles

***Objectives:***

- *To increase international dialogue and strengthen cooperation among Member States regarding the development of sustainable nuclear energy.*
- *To support Member States in analysing and assessing NES development from the front end to the back end of the nuclear fuel cycle.*

| Outcomes | Performance Indicators |
|---|---|
| ● Enhanced Member State understanding of, and cooperation on, actions to achieve NES sustainability in the 21st century. | ● Number of Member States participating in INPRO collaborative projects, the INPRO Dialogue Forum and training, and using INPRO tools, services and publications. |
| ● Improved NES sustainability through Member State use of the INPRO toolset, including NES scenario modelling and analysis and the INPRO methodology. | ● Number of Member States using and contributing to development of INPRO tools (INPRO methodology and NES modelling and analysis tools). |

| Outcomes | Performance Indicators |
|---|---|
| • Strengthened Member State capacity for evaluating technological and institutional issues associated with NES sustainability. | • Number of Member States participating in the INPRO Dialogue Forum, regional training and other INPRO training opportunities that enhance Member States' knowledge and communication on NES sustainability. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.1.4.001 International project on innovative nuclear reactors and fuel cycles*** | Publications on planning for sustainable NESs, including scenario modelling analysis; application of INPRO methodology for NES sustainability assessments; implementation of INPRO Advisory Service; INPRO Dialogue Forum; related training and outreach, including with universities; collaborative projects on innovative NESs and fuel cycles. |

**Subprogramme 1.1.5 Technology Development for Small and Medium Sized or Modular Reactors, Large Advanced Reactors, Non-electric Applications of Nuclear Power and Fusion Energy**

***Objectives:***

— *To support Member States in their efforts towards evolution and innovation in nuclear reactor technology and non-electric applications, in particular for their near-term deployment.*

— *To provide Member States with a collaborative research and technology development framework for the development of and preparation for the deployment of SMRs, large advanced reactors and fusion energy systems, as well as their integration in clean energy systems, for safe, secure and sustainable use of nuclear power.*

— *To support Member States in the development and deployment of non-electric applications of nuclear power, including nuclear cogeneration, hydrogen and heat production, desalination and industrial applications of nuclear energy.*

| Outcomes | Performance Indicators |
|---|---|
| • Enhanced Member State capacity for technology development and deployment of advanced reactors, non-electric applications of nuclear power, fusion energy and integrated energy systems. | • Number of Member States collaborating on the sharing of information and using Agency guidance and services on advanced reactor technologies, fusion energy technology and non-electric applications. |
| • Strengthened Member State capacity building and HRD in the areas of advanced reactors, fusion energy technology and non-electric applications of nuclear power. | • Number of Member States using Agency expertise to conduct workshops and training in the area of advanced reactors, fusion energy technology and non- electric applications of nuclear power. |
| • Increased international cooperation on technology development and deployment for advanced reactors, fusion energy technology and non-electric applications of nuclear power. | • Number of institutions and organizations in Member States participating in CRPs and other innovation- oriented activities including Collaborating Centres. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.1.5.001 Technology development for advanced water cooled reactors*** | Reports; databases; CRPs and Collaborating Centres dealing with AWCR technology development; Technical Meetings and workshops; training courses, training material and e-learning modules; basic-principle full-plant and basic-principle part-task simulators; reactor technology assessments. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***1.1.5.002 Technology development for small and medium sized or modular reactors*** | Technical Meetings; workshops; CRPs; e-tools; toolkits; databases; publications on key technologies, validation testing, design features, generic user requirements and criteria and topics of common technical interest for SMRs (including high temperature gas cooled reactors (HTGRs) and other advanced technologies). |
| ***1.1.5.003 Technology development for fast reactors*** | Technical Meetings; workshops; education and training seminars; CRPs; Collaborating Centres; technical studies; Nuclear Energy Series publications; Agency publications; status reports; websites; databases; e-platforms; simulators related to research and technology development and deployment of fast nuclear systems; fifth International Conference on Fast Reactors and Related Fuel Cycles (FR26). |
| ***1.1.5.004 Non-electric applications of nuclear power*** | Publications and events on nuclear cogeneration; release of updated and improved Agency tools on nuclear cogeneration; collection and exchange of results of CRP on nuclear cogeneration for sustainable development; facilitation of exchange of information and experience among Member States through Technical Meetings and training courses/workshops. |
| ***1.1.5.005 Fusion energy technology development and deployment*** | IAEA Fusion Energy Conference; Agency DEMO Workshop; International Fusion Research Council; Agency activities and initiatives such as the World Fusion Energy Group and the World Fusion Outlook; Technical Meetings; consultancy meetings; workshops, training courses and webinars; publications; papers at international conferences and in peer-reviewed journals; databases, simulators and tools; CRPs; Collaborating Centres. |

## Programme 1.2 Nuclear Fuel Cycle and Waste Management

Programme 1.2 supports Member States in the efficient and sustainable use of nuclear technologies related to: the nuclear fuel cycle; management of waste arising from all nuclear applications and energy production; life management of fuel cycle and waste management facilities and research reactors; transportation of radioactive material; decommissioning of all power and non-power nuclear facilities; and environmental remediation.

Sharing of information, capacity building and review services are priorities in all areas of the programme. With growing interest in peaceful applications of nuclear science and technology, including nuclear energy, demand for strategies, approaches and reference information on good practices in the above-mentioned areas is increasing. The retirement of nuclear facilities, as well as the policy of upfront planning in this regard, generates an increased demand for effective solutions for decommissioning and waste management.

In order to enlarge the impact of its activities, the programme will continue publishing technical reference documents, and increase outreach and access to information and good practices through networks of practitioners, further developing virtual and web-based tools, such as e-learning modules, databases and wikis, and widening their availability in different languages. Furthermore, the programme will encourage partnership through the Collaborating Centre, the ICERR and the Internet Reactor Laboratory (IRL) schemes, which promote research, development of and training on nuclear technologies and provide access to research facilities. Through strengthened coordination within the Secretariat, the programme will provide Member States with a comprehensive approach with regard to strategies and methodologies related to the nuclear fuel cycle, research reactors, radioactive waste management, decommissioning and environmental remediation, as well as integrated services in relevant areas.

***Lessons learned from reviews, assessments and evaluations:*** Addressing the impact of the design and operation of advanced reactors, especially SMRs, on the fuel cycle, radioactive waste management and decommissioning is a key factor to enable the deployment of such technology. Peer review services benefit from the availability of Agency reference publications and information resources, as well as from formalized and documented processes. Regular gap analyses are now performed to ensure completeness of such resources for all peer review services offered under this programme. The development of e-tools, as well as the use of such tools by Member States, is successfully progressing.

***Specific criteria for prioritization:***

1. Support for Member States in capacity building and the transfer of experience, especially for those without (or with small) nuclear power programmes, including embarking countries.
2. Support for Member States in the sustainable use of nuclear technologies, including safety and innovation, in the nuclear fuel cycle, the nuclear facility life cycle up to and including decommissioning, waste management and research reactors.
3. Dissemination of information through activities fostering international cooperation and the development and promotion of e-tools, such as e-learning modules, wikis, databases and networks.

## Programmatic changes and trends

***Subprogramme 1.2.1 Uranium Resources and Processing*** will continue to support Member States in improving their capacity to understand, plan and develop activities in the uranium (and thorium) production cycle(s). After the declaration made by several countries at COP28 to triple their nuclear energy capacities by 2050, the fuel supply chain, from raw materials to fuel fabrication, is expected to face an increasing demand across all segments. If a significant deployment of SMRs is considered worldwide, projected uranium requirements up to 2040 could increase by approximately 10%–15% over requirement projections for only large reactors. Substantial geoscientific research will therefore need to be undertaken to develop an understanding and reliable resource estimate for thorium resources as is available for uranium resources.

***Subprogramme 1.2.2 Nuclear Power Reactor Fuel and Fuel Cycle Facilities*** will continue to support Member States in research efforts to be undertaken in order to deploy advanced fuels (e.g., advanced technology fuels (ATFs), high assay low enriched uranium (HALEU) fuels for Generation IV reactors and SMRs) at industrial scale, considering that the fuel supply chain will face an increasing demand across all segments of the front end of the nuclear fuel cycle.

***Subprogramme 1.2.3 Management of Spent Fuel from Nuclear Power Reactor and Radioactive Material Transportation*** will continue to respond to Member States' demand for advice and assistance on topics such as storage, recycling and transportation of spent fuel, integration of the management of new spent fuels from advanced reactors (e.g. Generation IV reactors, including SMRs) into currently implemented strategies, and transportation of all kinds of radioactive materials. Technological challenges related to the effective and safe management of spent nuclear fuel discharged from current and future generations of nuclear power reactors (i.e. water cooled reactors, HTGRs and Generation IV reactors, including SMRs) will remain matters of concern for Member States, regardless of the strategies, options and programmes they have adopted (i.e. direct disposal or recycling of their spent fuel, with possible recycling of the actinides and use of long lived fission products in industrial/medical applications). The subprogramme will document existing and emerging technologies, share best operational practices and lessons learned among Member States, coordinate research activities and provide e-Learning and advisory services.

***Subprogramme 1.2.4 Radioactive Waste Management*** will continue to support Member States in discharging their responsibility to manage waste in a safe and effective manner, in line with SDG 12 (on responsible consumption and production), through comprehensive and inclusive policy and strategies ensuring that any radioactive waste produced is handled responsibly throughout its life cycle — from generation to disposal — minimizing environmental impact and avoiding generating legacy waste. Development in this field continues with the adoption of an integrated waste management concept and a waste-informed approach, where waste considerations are a fundamental part of the process from the beginning. Leveraging over 60 years of experience of nuclear industries, efforts are also focused on developing robust technical solutions for managing radioactive waste from currently operating and new reactors, and technologies for managing DSRSs. Member States' demand for support in the area of radioactive waste management remains high.

***Subprogramme 1.2.5 Decommissioning and Environmental Remediation*** will continue to respond to the evolving needs and interests of Member States. Particular focus will be placed on developing policies and strategies to promote the application of circular economy principles in decommissioning nuclear installations and remediating radioactively contaminated sites.

***Subprogramme 1.2.6 Research Reactors*** will continue to address the main challenges related to the sustainable operation of research reactors, supporting regional and interregional collaboration through networking and ICERRs to enhance performance and access to research reactors. It also supports Member States in improving operation and maintenance in order to optimize the operational performance of research reactors; disseminating good practices in modernization, refurbishment and ageing management; planning and implementing research reactor modifications, including those related to utilization; planning and implementation of a first or new research reactor; spent fuel management; using and accessing research reactors, including distance learning tools (such as the IRL) for nuclear capacity building in Member States developing nuclear science and technology programmes, including nuclear power programmes; and transitioning away from the use of HEU in research reactors, upon Member States' request.

**Objectives, Outcomes and Performance Indicators by Programme**

<table>
<tr><th colspan="2">Programme 1.2 Nuclear Fuel Cycle and Waste Management</th></tr>
<tr><td colspan="2">Objectives:</td></tr>
<tr><td colspan="2">— To support Member States in establishing and improving effective, safe, secure and sustainable frameworks and implementing solutions in the fields of the nuclear fuel cycle, research reactors, radioactive waste management, decommissioning and environmental remediation.<br>— To support Member States in strengthening their capabilities and human resources in the domains of the fuel cycle, radioactive waste management, decommissioning and environmental remediation, and research reactors, including collaborative arrangements and shared facilities.<br>— To be a platform to facilitate and strengthen international cooperation, coordination and information sharing among Member States.</td></tr>
<tr><th>Outcomes</th><th>Performance Indicators</th></tr>
<tr><td>● Increased Member State use of Agency information, resources and services for the establishment and continuous improvement of policy frameworks and for the implementation of effective and sustainable solutions in the domains of the programme.</td><td>● Number of Member States reporting on important milestones reached in strengthening relevant frameworks or implementing relevant programmes.<br>● Number of Member States requesting peer review services, e.g., Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS), Operation and Maintenance Assessment for Research Reactors (OMARR), Integrated Nuclear Infrastructure Review for Research Reactors (INIR-RR), Integrated Uranium Production Cycle Review (IUPCR), or targeted peer review or advisory services.</td></tr>
<tr><td>● Enhanced Member State capacity and knowledge, including programme management.</td><td>● Number of Member States providing experts for peer review services, e.g., ARTEMIS, OMARR, INIR- RR, IUPCR, or targeted peer review and advisory services.<br>● Number of designated collaborative and reference centres.</td></tr>
<tr><td>● Improved international cooperation in the fields of nuclear fuel cycle, radioactive waste management, research reactors, decommissioning and environmental remediation.</td><td>● Number of Member States participating in relevant CRPs.<br>● Number of Member States participating in Technical Meetings, workshops and forums.</td></tr>
</table>

## Subprogramme 1.2.1 Uranium Resources and Processing

***Objectives:***

- *To support Member States in improving their capacity to understand, plan and develop activities in the uranium (and thorium) production cycle(s).*
- *To contribute to energy supply security by facilitating the supply of LEU, upon request, to Member States experiencing disruption for non-commercial reasons, via the IAEA LEU Bank.*

| Outcomes | Performance Indicators |
|---|---|
| • Improved Member State information on and knowledge of uranium (and thorium) global resources by ensuring their access to accurate information, data and references. | • Publication of the joint publication entitled Uranium: Resources, Production and Demand by the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD/NEA) and the Agency.<br>• Number of record modifications relating to new and existing uranium (and thorium) deposits in the World Distribution of Uranium Deposits (UDEPO) (and World Thorium Deposits and Resources (ThDEPO)) databases to improve the quality and accuracy of data therein. |
| • Improved Member State understanding and implementation of best practices in the uranium (and thorium) production cycle(s), from exploration and resource delineation to production. | • Number of participants in Agency meetings related to best practices in the uranium (and thorium) production cycle(s).<br>• Person-hours of training imparted through training courses on best practices in the uranium (and thorium) production cycle(s). |
| • Member States provided with assurance of supply of LEU, through the operation of the IAEA LEU Bank in compliance with document GOV/2010/67. | • IAEA LEU Bank remains operational and ready for supply to eligible Member States upon request. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.2.1.001 Exploration, mining and processing*** | Conference, meetings; training workshops and training courses; Agency publications promoting best practices in uranium and thorium production cycles from exploration to milling; e-tools (Uranium Production Cycle Network web platform; e-learning modules, infographics) and peer review services (IUPCR missions) based on the Milestones approach for systematic and phased project development in uranium (or thorium) mining. |
| ***1.2.1.002 Resource data analytics*** | Biennial issuance of the joint OECD/NEA–IAEA publication entitled *Uranium: Resources, Production and Demand*; e-tools; infographics; well-maintained and updated uranium and thorium deposits databases (UDEPO and ThDEPO). |
| ***1.2.1.003 Low Enriched Uranium Bank*** | Operation of the IAEA LEU Bank in accordance with documents GOV/2010/67 and GOV/2010/70. |

## Subprogramme 1.2.2 Nuclear Power Reactor Fuel and Fuel Cycle Facilities

***Objectives:***

- *To support Member States in understanding and addressing the factors affecting the design, fabrication and in-pile behaviour of currently operated and advanced nuclear fuels and core materials, and in developing capacities to facilitate their industrial deployment.*
- *To support Member States in strengthening their capacity to address the technical challenges faced when operating or upgrading their nuclear fuel cycle facilities for advanced fuel cycles involving new fuels.*

| Outcomes | Performance Indicators |
|---|---|
| • Improved Member State understanding of research and development (R&D) challenges with regard to the design, manufacture and in-operation performance assessment of advanced nuclear fuels and core materials to facilitate their industrial deployment in current and future generations of nuclear power reactors. | • Number of experts participating in Agency events on R&D challenges with regard to the design, manufacture and operation of advanced nuclear fuels and core materials for current and future generations of nuclear reactors who acknowledge having improved their knowledge after attending the event.<br>• Number of Member States participating in Agency CRPs on the design, fabrication and in-pile behaviour of advanced nuclear fuels for current and future generations of nuclear power reactors. |
| • Improved Member State understanding of technical issues related to the ageing and upgrading of nuclear fuel cycle facilities. | • Number of participants in Agency events on technical issues related to the ageing and upgrading of nuclear fuel facilities who acknowledge using/applying the technical information provided by the Agency (through Agency publications and meetings). |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.2.2.001 Fuel engineering and operation for current generations of nuclear power reactors*** | International Conference on Fuel Supply Chain for Sustainable Nuclear Power Development; meetings (consultancy meetings and Technical Meetings); training workshops and training courses; Agency publications promoting best practices in the development and operation of existing and advanced fuels and core materials for current generations of nuclear power reactors; CRPs; e-tools (Nuclear Fuel Engineering Network web platform, e-learning modules). |
| ***1.2.2.002 Fuel cycle facilities operation and life management*** | Publications on technical issues and best practices related to daily operation of NFCFs; management of life cycle and improvement of process efficiencies (e.g. instrumentation and control systems, AI, reduction of dose, waste or by-product flows, etc.); upgrading of current and development of new nuclear fuel cycle infrastructure to ensure the supply of advanced fuels (e.g. ATFs, HALEU fuels for SMRs and future generations of reactors); development of e-tools, infographics and databases, and simulation tools; International Conference on Fuel Supply Chain for Sustainable Nuclear Power Development. |
| ***1.2.2.003 Fuel engineering and operation for SMRs and future generations of nuclear power reactors*** | International Conference on Fuel Supply Chain for Sustainable Nuclear Power Development; meetings (consultancy meetings and Technical Meetings); training workshops and training courses; Agency publications promoting best practices in the development and deployment of innovative fuels and core materials for advanced nuclear power reactors, including next-generation designs and small modular reactors; CRPs; e-tools (Nuclear Fuel Engineering Network web platform, e-learning modules). |

## Subprogramme 1.2.3 Management of Spent Fuel from Nuclear Power Reactors and Radioactive Material Transportation

***Objectives:***

- *To support Member States in understanding and addressing the challenges of effective and safe storage (under wet and dry conditions) of their spent nuclear fuel from nuclear power reactors.*
- *To facilitate discussion and information sharing among interested Member States on recent and future developments in nuclear fuel recycling processes and technologies for current and future generations of nuclear power reactors, including all different SMR technologies.*
- *To support Member States in understanding various nuclear fuel cycle options for managing their spent fuel, and in enhancing capabilities to address the challenges of safe transportation of radioactive materials.*

| Outcomes | Performance Indicators |
|---|---|
| • Improved Member State understanding of, and capabilities to address, the challenges of effective and safe storage of their spent nuclear fuel through wet and dry technologies, including spent fuel generated by small modular reactor designs. | • Number of Member States participating in the relevant CRPs. |
| • Increased Member State understanding of, and capabilities to address, the challenges of nuclear fuel recycling processes and technologies for current and future generations of nuclear power reactors, including all SMR designs. | • Number of participants in Agency events on nuclear fuel recycling who acknowledge having improved their competence by attending such events. |
| • Increased Member State understanding of the implications of the different nuclear fuel cycle options and of the challenges and issues of the safe transportation of all kinds of radioactive materials used or generated by nuclear fuel cycle activities. | • Number of participants in Agency meetings on nuclear fuel cycle options/strategies who acknowledge having improved their competence by attending such events. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.2.3.001 Spent fuel storage*** | Meetings; fifth International Conference on Fast Reactors and Related Fuel Cycles (FR26); training workshops and training courses; Agency publications promoting best practices in spent fuel inventories and storage technologies; coordination of research projects on the performance and demonstration of safe and effective storage of spent fuel, including the development and implementation of ageing management programmes for Structures, Systems and Components (SSCs); e-tools (Network on Spent Fuel Management web platform, e-learning modules) and peer review services (ARTEMIS). |
| ***1.2.3.002 Spent fuel recycling*** | Meetings; fifth International Conference on Fast Reactors and Related Fuel Cycles (FR26); training workshops and expert missions (through the TC programme); Agency publications disseminating progress in R&D, demonstration and industrial implementation of spent fuel recycling processes and technologies; e-tools (Network on Spent Fuel Management web platform, e-learning modules) and peer review services (ARTEMIS); coordination of research projects on R&D, demonstration and industrial implementation of nuclear fuel recycling processes and technologies. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***1.2.3.003 Radioactive materials transportation*** | International Conference on the Management of Spent Fuel from Nuclear Power Reactors; meetings; training workshops and training courses; Agency publications promoting best practices and lessons learned on the research, development, demonstration and implementation of nuclear fuel cycle options, on the transportation of high burnup and mixed oxide fuels, and on the transportability of spent fuel after long storage periods (including the societal aspects of spent fuel transportation on public roads); development of e-learning materials and infographics. |

| **Subprogramme 1.2.4 Radioactive Waste Management** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in strengthening their infrastructure and capabilities towards a comprehensive radioactive waste management programme.*<br>— *To facilitate technology and knowledge transfer to support effective progress in Member States and identify cost-effective, fit-for-purpose solutions to safely manage radioactive waste.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased awareness in Member States of options, solutions and good practices in radioactive waste management, including the management of DSRSs. | • Number of Member States participating in Agency meetings, workshops, conferences and other events on radioactive waste and DSRS management. |
| • Strengthened Member State infrastructure and capabilities for addressing radioactive waste management responsibilities. | • Number of Member States supported by the Agency in improving capabilities and national infrastructure for managing radioactive waste and DSRSs. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.2.4.001 Predisposal management*** | Guidance on the development and implementation of robust predisposal radioactive waste management practices through publications, e-tools (including professional networks and Nuclear Wiki content), courses, workshops, advisory and peer review missions, capacity building, knowledge transfer, and collaboration with international organizations. |
| ***1.2.4.002 Waste disposal*** | Technical guidance on site selection, managing RD&D programme, societal considerations to support disposal implementation; planning for the construction of underground research or geological disposal facilities; closure of near surface disposal facilities; establishing the global knowledge basis to support initial implementation of the deep borehole disposal concept; training material for effective transfer of knowledge on topics fundamental to implementing a disposal facility; international network of disposal professionals; International Conference on Advancements in Radioactive Waste Management: Innovations for a Sustainable Future. |
| ***1.2.4.003 Managing disused sealed radioactive sources (DSRSs)*** | Guidance on DSRS management practices in the form of publications, e-tools, training, databases and professional networks; upon request, field missions and hands-on operations for establishing inventory, source recovery, conditioning and source removal; development, cataloguing and dissemination of technologies for the management of DSRSs; Disused Sealed Radioactive Sources Technical Centre peer reviews. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***1.2.4.004 Capacity building and knowledge sharing*** | E-tools and web-based systems; training course material; sharing of information with other international organizations on synergies between respective programmes. |

| **Subprogramme 1.2.5 Decommissioning and Environmental Remediation** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in strengthening their capabilities for, and improving their practices in, the decommissioning of nuclear facilities and remediation of radioactively contaminated sites.*<br>— *To facilitate experience sharing and knowledge transfer on effective practical measures for the decommissioning of nuclear installations and the environmental remediation of contaminated sites.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased awareness in Member States regarding decommissioning and remediation needs, along with increased experience and knowledge sharing on best available solutions for achieving safe and effective decommissioning and environmental remediation. | • Number of case studies on nuclear decommissioning and environmental remediation contributed to the Nuclear Wiki by experts and organizations from Member States.<br>• Number of expert review or advisory service requests from Member States related to decommissioning and environmental remediation. |
| • Enhanced capabilities of Member States to have in place proper human resources, infrastructure and technologies for the decommissioning of nuclear installations and remediation of contaminated sites. | • Number of Member States offering experts for peer review and expert review services on decommissioning and environmental remediation issues.<br>• Number of Collaborating Centres for decommissioning. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.2.5.001 Decommissioning*** | Publications; activities organized within the practitioner community (including the International Decommissioning Network); decommissioning input to the wiki and e-learning module development; update of decommissioning databases; cooperation with other international organizations; cross- cutting activities; outreach to attract the young generation, in particular women, to decommissioning-related education and work; support for capacity building in Member States. |
| ***1.2.5.002 Environmental remediation*** | Publications; activities organized within the practitioner community (including the Network on Environmental Management and Remediation); workshops and field-based training; training in partnership with higher education institutions; development of wiki case studies and e-learning modules; cooperation with other international organizations; cross-cutting activities; outreach to attract the young generation, in particular women, to environmental remediation- related education and work; support for capacity building in Member States. |

| **Subprogramme 1.2.6 Research Reactors** |
|---|
| ***Objectives:*** |
| — *To support Member States in enhancing sustainable operation and performance of existing research reactors.*<br>— *To support Member States in nuclear capacity building through the use of, and access to, research reactors.*<br>— *To support Member States in planning and implementing new research reactor projects, including the development of their national infrastructure.* |

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State understanding and use of Agency services for sustainable operation and improved performance of existing research reactors, as well as effective implementation of new research reactor projects. | • Number of peer review and advisory services related to sustainable operation of research reactors and infrastructure development (e.g., OMARR, INIR-RR and In-Service-Inspection support missions) implemented in Member States. |
| • Increased Member State use of, and access to, research reactors for developing their national nuclear programmes and strategies, including for developing human resources. | • Number of Member States engaged as providers in Agency capacity building initiatives based on research reactors (ICERR, hands-on training courses, IRL).<br>• Number of Member States engaged as beneficiaries in Agency capacity building initiatives based on research reactors (ICERR, hands-on training courses, IRL). |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.2.6.001 Access to research reactors, capacity building and infrastructure development*** | Support for Member States embarking on new research reactor projects through workshops and expert missions (including INIR-RR missions); delivery of tools for capacity building based on research reactors (ICERR, hands-on training courses, IRL); development of relevant publications. |
| ***1.2.6.002 Research reactor fuel cycle*** | Support for Member States on research reactor fuel cycle issues: sharing experience and knowledge through CRPs, training courses, expert missions and the Research Reactor Database; publications; conversion of research reactor fuel and irradiation targets from HEU to LEU and return of HEU fuel to the country of origin, upon Member State request. |
| ***1.2.6.003 Research reactor operation, performance and upgrade*** | Support for Member States in research reactor operation and life management through training workshops, Technical Meetings, publications, CRPs, expert and peer review missions, including OMARR and in-service inspection missions, updated research reactor information resources, — i.e. Research Reactor Database, Research Reactor Ageing Database, Research Reactor Material Properties Database — and other relevant delivery tools for experience and knowledge sharing. |

## Programme 1.3 Capacity Building and Nuclear Knowledge for Sustainable Energy Development

Programme 1.3 supports interested Member States in formulating science-based energy policy and strategies and improving understanding of the unique role of nuclear energy in addressing the objectives of the SDGs and the Paris Agreement through building capacity with improved energy models and tailored analytical tools, providing comprehensive energy information and data, and conducting various scenario analyses and case studies at national, regional and global levels.

The programme also supports Member States in preserving and disseminating nuclear knowledge and implementing effective NKM and HRD programmes through providing relevant methodologies, guidance and good practices; fostering nuclear education networking; and offering targeted capacity building and peer review services. The programme manages the International Nuclear Information System (INIS) and the IAEA Lise Meitner Library, which provide comprehensive, authoritative and up-to-date information and data to Member States in supporting their peaceful uses of nuclear technologies. The programme coordinates the implementation of the IAEA Marie Skłodowska-Curie Fellowship Programme (MSCFP), which provides scholarships for qualified female students to complete master's degree studies and encourage more women to enter the nuclear field; the programme also coordinates the IAEA Lise Meitner Programme (LMP), which provides early- and mid-career

women professionals with opportunities to participate in a multiweek visiting professional programme and advance their technical and soft skills with the aim of contributing to their career development and retention.

***Lessons learned from reviews, assessments and evaluations:*** Taking into account feedback from Member States and international organizations, analytical tools for energy planning are periodically assessed, upgraded and optimized to ensure their suitability and adaptation to the development of the SDGs and the Paris Agreement. Under the Atoms4NetZero initiative, scientific case studies and scenario analyses in cooperation with international partners will be undertaken to highlight the indispensable role of nuclear energy in achieving the SDGs, combating climate change and facilitating the clean energy transition. Through the Cyber Learning Platform for Network Education and Training and the Nuclear Knowledge Management Hub, a hybrid format will continue to be applied in capacity building services, such as the Nuclear Energy Management (NEM) and NKM Schools, in order to address the increasing demands of Member States and budget constraints. Considering the different circumstances of Member States pursuing nuclear power and nuclear applications, tailored information and knowledge management, HRD, and nuclear education services will be continuously developed and provided following a holistic approach. Applying modern information technology (IT), including AI, will help to improve searches for and acquisition of nuclear information and data in INIS, the largest nuclear information repository in the world, and ensure its quality and usage.

***Specific criteria for prioritization:***

1. Improved analytical tools and integrated approaches to support Member States in formulating science-based energy policies and making informed decisions with regard to facilitating the clean energy transition, mitigating and adapting to climate change and achieving the objectives of the SDGs and the Paris Agreement.
2. High-quality case studies and scenario analyses of clean energy transition pathways at national, regional and global levels, including for net zero transitions, in the framework of Atoms4NetZero initiative.
3. Improved learning modules, a tailored knowledge management service and a hybrid delivery mechanism for effectively and efficiently supporting the increasing needs of Member States.
4. A comprehensive, reliable, accessible and up-to-date nuclear information source with the support of modern IT.

## Programmatic changes and trends

***Subprogramme 1.3.1 Energy Modelling, Data and Capacity Building*** will strengthen the provision of support to Member States to allow national experts to conduct energy planning studies, integrating SDG and Paris Agreement targets. Energy planning tools will be further assessed, upgraded and integrated to adapt to the need for multi-objective evaluation as well as net zero objectives. Development activities will continue to be informed through feedback from Member States and international organizations using these tools in scenario analyses regarding clean energy transition pathways. E-learning content will be expanded and promoted through standardized Agency platforms and used in combination with in-person training.

***Subprogramme 1.3.2 Energy–Economy–Environment (3E) Analysis*** will strengthen support to Member States in the assessment of uses of nuclear energy within the context of the SDGs and Paris Agreement, as well as the contribution of nuclear power to the transition to clean, climate-resilient energy systems. The subprogramme includes efforts to understand the economics of nuclear energy (for power and non-electric applications) in markets with increased shares of renewable energy; to establish guidelines, tools and approaches for developing consistent cost estimates of nuclear energy technology and fuel cycle costs; to continue development of nuclear cost modelling capabilities in partnership with other international organizations; to support the adoption and application of integrated economic assessment methods and approaches, particularly for newcomer countries; and to assist Member States in assessing their climate change mitigation and adaptation strategies in the power sector, as well as approaches to address the SDGs, under a range of deployment scenarios, including through the Atoms4NetZero initiative.

***Subprogramme 1.3.3 Nuclear Knowledge Management and Human Resource Development*** will continue to expand the provision of support to Member States through NEM and NKM Schools, the International Nuclear Management Academy, Knowledge Management Assist Visits, Integrated Nuclear Education Advisory Services, HRD services, leadership development activities, and human resource and knowledge development networking

initiatives. Member State participation continues to increase in the Agency's NKM and HRD programmes, including nuclear education and networking activities, NKM and NEM Schools and e-learning tools. Priorities include NKM methodology development, supporting education at the university level with a focus on nuclear energy; knowledge organization system technology and life cycle management of design knowledge; and establishing and strengthening knowledge networks, such as technical communities of practice. The subprogramme will also provide for a more integrated range of services for Member States seeking assistance and guidance across the full spectrum of education, training, HRD and NKM. The merging of HRD with NKM under this subprogramme will provide a more focused and efficient service to Member States, in line with the structures deployed by Member States throughout the nuclear energy sector. Having successfully established the MSCFP and the LMP, the focus will be embedding and sustaining these important initiatives.

***Subprogramme 1.3.4 Nuclear Information*** will continue to gather and make available to Member States and to the Secretariat authoritative, validated, up-to-date nuclear information on the peaceful use of nuclear energy through INIS, the IAEA Lise Meitner Library and the International Nuclear Library Network (INLN). It will also provide access to the OECD/NEA Data Bank for Agency Member States that are neither OECD/NEA nor OECD members.

**Objectives, Outcomes and Performance Indicators by Programme**

**Programme 1.3 Capacity Building and Nuclear Knowledge for Sustainable Energy Development**

***Objectives:***

- *To support Member States in strengthening their energy planning capacities in formulating science-based energy strategies and programmes, and to improve the understanding of Member States and the international community of the role of nuclear energy in mitigating climate change, facilitating the net zero transition and achieving the SDGs.*
- *To support Member States in strengthening their organizational capacities in NKM and HRD and to foster and expand international networking in these areas.*
- *To acquire, manage and preserve information and data on nuclear science and technology, and to provide Member States with effective and efficient access to authoritative information through INIS and the IAEA Lise Meitner Library.*

| Outcomes | Performance Indicators |
|---|---|
| • Strengthened Member State capacity in energy planning and improved understanding of the important role of nuclear energy under the framework of the SDGs and the Paris Agreement. | • Number of professionals from Member States trained in the use of Agency energy models.<br>• Number of instances where the Agency's economic or energy–economy–environment (3E) analysis relating to the role of nuclear energy with regard to the SDGs and the objectives of the Paris Agreement are requested or incorporated into the decision-making process of Member States. |
| • Strengthened Member State capacity in NKM and HRD. | • Number of Member States engaged in Agency NKM and HRD activities and applying Agency methodologies and guidance.<br>• Number of new Member States participating in Agency- supported nuclear education networks. |
| • Increased access by Member States to nuclear information and data collected in INIS and the IAEA Lise Meitner Library. | • Number of INIS repository web page views.<br>• Usage of information resources managed by the library (books and online information resources). |

**Subprogramme 1.3.1 Energy Modelling, Data and Capacity Building**

***Objectives:***

- *To support Member States in strengthening their capabilities and expertise in developing comprehensive energy analyses to evaluate alternative energy development pathways to achieve climate objectives, including net zero commitments; and carrying out pre-feasibility analyses for the possible introduction of nuclear power.*

| Outcomes | Performance Indicators |
|---|---|
| • Enhanced Member State capacity in designing energy development strategies to meet sustainable development and climate mitigation targets. | • Number of professionals from Member States trained in the use of Agency energy models and planning tools. |
| • Improved Member State knowledge and understanding of energy and nuclear power status and trends. | • Number of cumulative requests from Member States and international organizations for data on energy and nuclear power. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.3.1.001 Energy, electricity and nuclear power economics: Status and trends*** | Updated information on status and trends of energy, electricity and nuclear power development in different regions of the world; updated internal and external websites; publication of *Energy, Electricity and Nuclear Power Estimates for the Period up to 2050* (Reference Data Series No. 1). |
| ***1.3.1.002 Models and capacity building for energy and nuclear power planning*** | Technical support for Member State energy planning studies offered online or through fellowships; enhanced analytical tools (models) applicable in widely diverse country situations; training courses. |

## Subprogramme 1.3.2 Energy–Economy–Environment (3E) Analysis

***Objectives:***

— *To support Member States in their understanding of the potential roles of nuclear energy in achieving the SDGs and mitigating climate change, including evaluating economic aspects, funding/financing and integration with renewables in evolving energy markets.*

— *To support Member States in their understanding of the nexus between SDG 7 and other SDGs, including in developing integrated assessment frameworks (e.g. climate, land, energy, water) and in assessing the effect of government policy and financial sector mechanisms on investment in low carbon technologies such as nuclear power.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State and international organization use of Agency tools and expertise to improve understanding of the role of nuclear power in climate change and sustainable energy development. | • Number of instances in which the Agency's economic or 3E analysis relating to nuclear technology is requested or incorporated into the decision-making process of Member States and other international organizations. |
| • Increased Member State awareness of the potential role of nuclear energy to contribute to sustainable development and to mitigate climate change. | • Number of publications, presentations and speeches on the potential contribution of nuclear energy to the SDGs and Paris Agreement objectives. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.3.2.001 Technoeconomic analysis*** | Economic studies and reports (cost assessment methodologies, comparisons, business case composition, macroeconomic impact, funding/financing options and cost–benefit analyses) on various issues in nuclear energy development and deployment, including innovative nuclear systems and SMRs; comparative assessments of energy systems or their attributes; Atoms4NetZero initiative deliverables. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.3.2.002 Nuclear energy for sustainable development and net zero transitions*** | Reports and presentations on the potential contribution of nuclear energy to SDG 7 and Paris Agreement objectives; case studies analysing sustainable energy and low carbon energy development strategies and policies focusing on the potential for nuclear energy in energy systems with variable renewables and energy markets beyond electricity; third International Conference on Climate Change and the Role of Nuclear Power; Atoms4NetZero initiative deliverables. |

## Subprogramme 1.3.3 Nuclear Knowledge Management and Human Resource Development

***Objectives:***

- *To support Member States in their application and implementation of NKM and HRD programmes.*
- *To contribute to improving Member State knowledge in applying advanced technologies for sustainable NKM and HRD.*
- *To support Member States in strengthening academic education in the areas of nuclear technology management; nuclear engineering; nuclear science and applications; networking, collaboration and methodology development; and human resource development and sharing.*

| Outcomes | Performance Indicators |
|---|---|
| • Strengthened Member States capacity in the areas of NKM and HRD. | • Number of Member States engaged in Agency NKM and HRD activities and applying Agency methodologies and guidance. |
| • Strengthened academic nuclear education in Member States in the areas of nuclear management, nuclear engineering and nuclear science and applications, as well as increased Member State engagement in nuclear education networks. | • Number of Member State organizations using or requesting Agency NKM methodologies and guidance for their nuclear education improvement programmes or curricula initiatives.<br>• Number of Member State organizations participating in Agency-supported nuclear education and related networks. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.3.3.001 Implementing integrated NKM and HRD for nuclear organizations*** | Publications, reports, conferences, workshops, advisory services, visits and missions supporting NKM and HRD in Member States. |
| ***1.3.3.002 Facilitating sustainable education in nuclear science and technology*** | Publications on nuclear education; annual regional and interregional meetings to facilitate Agency-fostered networking for nuclear education, NKM and HRD; NKM Schools and NEM Schools; additional e-learning opportunities for Member States. |
| ***1.3.3.003 Applying nuclear knowledge organizational systems and technology*** | Platforms for collaboratively managing nuclear knowledge, data and information; support services, activities, documentation, databases and IT-related tools provided. |
| ***1.3.3.004 IAEA Marie Skłodowska-Curie and Lise Meitner Programmes*** | Award of MSCFP scholarships to applicants who meet the selection criteria; internship opportunity provided to each interested MSCFP participant; promotional and outreach material; LMP visiting professional programmes organized and implemented in different areas of specialization. |

| **Subprogramme 1.3.4 Nuclear Information** | |
|---|---|
| ***Objectives:*** | |
| — *To provide Member States with access to authoritative, validated and up-to-date information in the area of nuclear science and technology.*<br>— *To facilitate the sustainable sharing of information generated by Member States on peaceful uses of nuclear science and technology.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State access to authoritative and validated information and data on peaceful uses of nuclear science and technology through INIS. | • Number of knowledge products managed (added, deleted, and amended) in the INIS repository.<br>• Number of INIS repository web page views. |
| • Increased Member State access to relevant, reliable and up-to-date library resources. | • Annual statistics of usage of information resources managed by the library (books and online information resources). |
| • Enhanced cooperation amongst INLN members for the improvement of management and access to nuclear information. | • Number of INLN information sharing meetings held.<br>• Number of nuclear information requests from INLN members. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.3.4.001 IAEA Lise Meitner Library information resources and services*** | Accessible, relevant, authoritative, and up-to-date information resources, organized using information management best practices. |
| ***1.3.4.002 INIS collection and services*** | Accessible information that is relevant, trusted and up to date which includes bibliographic and full text source files, using information management best practices and standards such as high-quality thesaurus, open access, etc. |

## Programme 1.4 Nuclear Science

Programme 1.4. supports Member States in the provision of nuclear, atomic and molecular data; research reactor and particle accelerator applications; fusion science and plasma physics research; and nuclear instrumentation. The Agency's data libraries on nuclear reaction and structure data, and atomic and molecular data for all nuclear applications, are continuously updated. The programme supports Member States in applications of neutrons using both research reactor and accelerator sources, and accelerator technologies, including relevant instrumentation, for a broad range of applications benefiting Member States' environmental and socio-economic welfare. This programme facilitates and supports fusion science and plasma physics research via information exchange among Member States, cooperation with international partners such as the ITER organization, and through major events, including the IAEA Fusion Energy Conferences. Finally, through this programme, financial support is provided to the ICTP, with the aim of enabling scientists from developing countries to enhance their research capabilities.

***Lessons learned from reviews, assessments and evaluations:*** Support to Member States in the effective and sustainable utilization of particle accelerators and neutron sources, including research reactors, as well as nuclear instrumentation, is vital for the effective application of these tools in myriad areas, including medicine, industry, cultural heritage, analysis and capacity building in nuclear sciences and engineering. Such efforts help accelerate the transition to knowledge-based economies in developing countries and serve as a platform for science diplomacy. Fusion energy has the potential to be a future source of low carbon energy, and the Agency's assistance in bringing Member States together for the dissemination of knowledge in fusion research and development is vital for driving progress.

***Specific criteria for prioritization:***

1. Support Member State capacity building in nuclear science through international cooperation to address emerging environmental and socio-economic needs.
2. Foster international cooperation and information exchange in fusion science and plasma physics research.

3. Provide nuclear, atomic and molecular data services.
4. Provide laboratory services, advanced training and materials for human resource development.
5. Support Member States in strengthening sustainable utilization of accelerators, research reactors and other neutron sources, including relevant instrumentation.

## Programmatic changes and trends

***Subprogramme 1.4.1 Atomic and Nuclear Data*** will continue its focus in the areas of nuclear and atomic data evaluation and compilation, provision of data services to Member States, close cooperation with collaborating nuclear data centres, and support for the exchange of information. The key steps in the production of databases include computer modelling and measurements, evaluation, processing, benchmarking and validation. These steps are typically supported by a large number of experts in the Agency's network, over a long period of time. The subprogramme will follow up on the trend of using AI and machine learning techniques to improve atomic and nuclear data for applications and to respond to data requests in connection with the programmatic needs of the Agency's technical Departments, in particular the Department of Nuclear Sciences and Applications, the Department of Nuclear Energy and the Department of Safeguards. Ongoing and additional efforts in data library development will be made, helping to combat climate change through nuclear data contributions to fission and fusion energy and support medical radioisotope production.

***Subprogramme 1.4.2 Research and Applications with Accelerators and Neutron Sources*** will continue to support Member States in the development and sustainable utilization of particle accelerators and neutron sources, including research reactors. While the ageing fleet of research reactors continues to decrease in number, (compact) accelerator-based neutron sources can fill the gap for some applications of neutrons. The continuation of periodic accelerator and research reactor conferences and other key activities, such as CRPs and Technical Meetings/workshops, will enhance international cooperation and the sharing of good practices in this technical area.

***Subprogramme 1.4.3 Nuclear Instrumentation*** will continue to support Member States in the development and utilization of nuclear instrumentation in adaptive research and a broad range of applications, with expanded capabilities enabled by the laboratory move to the new facilities in the Seibersdorf site.

***Subprogramme 1.4.4 Fusion Science and Plasma Physics*** will continue to support Member States' activities in fusion science and plasma physics R&D, while facilitating information exchange and knowledge transfer. It aims to enhance international cooperation in fusion energy through activities and different modalities such as the Fusion Energy Conference series, the International Fusion Research Council, CRPs and other collaborative and coordinated activities with international institutions like the ITER organization. Additionally, it will contribute to newly launched Agency activities and initiatives such as the World Fusion Energy Group and the World Fusion Outlook series.

***Subprogramme 1.4.5 Support to the Abdus Salam International Centre for Theoretical Physics*** will support Member States, in particular developing countries, in enhancing their scientific capability in nuclear sciences and technologies, both for power and non-power applications. While ICTP R&D activities have expanded beyond basic theoretical physics areas in the past few years, not all of these are of relevance to the Agency. Therefore, the Agency's contribution focuses on areas of mutual relevance and benefit, such as basic and applied nuclear sciences, nuclear energy, and nuclear safety and security.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 1.4 Nuclear Science** |
|---|
| ***Objectives:*** |
| — *To support Member States in strengthening their capabilities in the development and application of nuclear science as a tool for their technological and socio-economic development.* |
| — *To support Member States in enhancing sustainable operation and effective utilization of particle accelerators and neutron sources as well as effective utilization of research reactors, increasing opportunities for access to these facilities and their diverse applications, and in developing relevant qualified professionals.* |

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State capacity in the area of nuclear science for technological and socio-economic advancement. | • Number of relevant scientific events conducted.<br>• Number of participants in scientific events, workshops and training courses on nuclear science. |
| • Increased Member State knowledge of atomic and nuclear data and capacity for sustainable and effective utilization of particle accelerators and neutron sources, including research reactors. | • Number of reports and publications supported by the Agency and resulting from the use of particle accelerators and neutron sources, including research reactors.<br>• Number of Member States accessing and retrieving atomic and nuclear data from Agency websites. |

## Subprogramme 1.4.1 Atomic and Nuclear Data

***Objectives:***

— *To support Member States in increasing their capabilities and expertise for the safe, secure and sustainable deployment of nuclear technologies by providing access to reliable nuclear and atomic data for nuclear power and non-power applications.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State access to atomic and nuclear data for nuclear power and non-power applications. | • Number of Member States accessing and retrieving atomic and nuclear data from Agency websites.<br>• Number of unique visitors to the Agency website on atomic and nuclear datasets. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.4.1.001 Provision of data services*** | Easy online access to atomic and nuclear data, with improved search, analysis, retrieval and visualization tools; documentation and reports to enable efficient data use; new and improved atomic and nuclear databases; coordinated data networks and training courses; support for data standards development; renewed and modernized website to disseminate information on nuclear data science. |
| ***1.4.1.002 Nuclear data developments*** | Update of the fission and fusion neutron data libraries; evaluated files of important actinides and structural materials for the International Nuclear Data Evaluation Network; an updated version of the Fusion Evaluated Nuclear Data Library; improved nuclear level density data; nuclear data for medical isotope production and ion beam analysis. |
| ***1.4.1.003 Atomic and molecular data developments*** | Compilation of uncertainty data in the A Labelled Atomic Data Interface and the Atomic and Molecular Bibliographic Data System databases containing newly evaluated datasets as they become available; continued population and development of CollisionDB and related databases such as the new plasma–wall interaction database, and standards for fusion energy research; improved corresponding dissemination tools. |

## Subprogramme 1.4.2 Research and Applications with Accelerators and Neutron Sources

***Objectives:***

— *To support Member States in strengthening their capabilities to conduct research with accelerators and neutron sources.*

— *To support Member States in strengthening their capabilities to expand the applications of accelerators and neutron sources.*

| Outcomes | Performance Indicators |
|---|---|
| • Strengthened Member State capability in establishing and sustaining well-functioning and optimized nuclear science infrastructures based on particle accelerators and neutron sources, including the development of relevant qualified professionals. | • Number of participants attending relevant Agency technical and training events.<br>• Number of publications and reports supported by the subprogramme and resulting from utilization of accelerators and neutron sources. |
| • Increased capacity in Member States to access and utilize accelerators and neutron sources for research and diverse applications. | • Number of research groups from Member States participating in experiments.<br>• Number of Member States requesting Agency assistance in enhancing the utilization of accelerator and neutron source facilities, in operation and maintenance issues, or in setting up new facilities. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.4.2.001 Accelerator and neutron source applications in multiple disciplines*** | CRPs, Technical Meetings and workshops on a wide variety of accelerator and neutron source applications in different disciplines, with an emphasis on materials science and energy applications; Accelerator Knowledge Portal, Neutron Applications Portal, databases and e-learning tools; Agency and non-Agency publications; second International Conference on Accelerators for Research and Sustainable Development. |
| ***1.4.2.002 Enhancing research with accelerators and neutrons*** | Experiments, training courses and workshops with practical hands-on training at the Agency beamlines at the Elettra institute and the Ruđer Bošković Institute; Collaborating Centres; active CRPs; peer review missions and services aiming to advise accelerator and neutron source facilities on their strategic planning and enhanced utilization options (e.g. Integrated Research Reactor Utilization Review). |

**Subprogramme 1.4.3 Nuclear Instrumentation**

***Objectives:***

— *To support Member States in developing and strengthening their capabilities in the use of nuclear instrumentation for applied research and nuclear applications.*

— *To support Member States in environmental and in situ radioactivity mapping as well as other applications of mobile instrumentation.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State capability in developing qualified professionals for establishing, optimizing and utilizing nuclear instrumentation for a wide variety of applications. | • Number of fellows and training workshop participants trained in using the Agency's experimental infrastructure.<br>• Number of users accessing the Agency's nuclear instrumentation portal. |
| • Increased Member State use of Agency guidance, support, resources and services in the field of nuclear instrumentation and its applications. | • Number of publications, reports and e-resources supported by the Agency and dedicated to nuclear instrumentation and its applications made available to Member States.<br>• Number of Member States requesting specific Agency assistance with the implementation and use of nuclear instrumentation and its applications. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***1.4.3.001 Nuclear instrumentation and capacity building*** | Training courses, scientific and technical publications, Technical Meetings and workshops on nuclear instrumentation, with an emphasis on applications in environmental monitoring; nuclear spectrometry and accelerator-based R&D; training courses and course materials. |
| ***1.4.3.002 Mobile instrumentation for radiation monitoring*** | Detectors and analysis software combined with a geoinformation system for in situ mapping of radiological contamination; uncrewed aerial vehicle- and backpack-based and handheld gamma detector systems for the survey of medium-sized areas; relevant methodologies developed and documented; training events; advisory and demonstration missions. |

## Subprogramme 1.4.4 Fusion Science and Plasma Physics

***Objectives:***

— *To support Member States' R&D programmes on fusion science and plasma physics, including capacity building.*

— *To facilitate the exchange of information and transfer of knowledge among Member States in the area of fusion science and plasma physics.*

| Outcomes | Performance Indicators |
|---|---|
| • Improved fusion science and plasma physics capacity and infrastructure in Member States. | • Number of research organizations/institutions involved in the relevant CRPs and joint experiments. |
| • Improved information exchange and knowledge transfer among Member States in fusion science and plasma physics. | • Number of participants attending the Fusion Energy Conference, workshops, Technical Meetings and schools.<br>• Number of users accessing the Agency's Fusion Portal and the Fusion Device Information System (FusDIS). |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***1.4.4.001 Fusion science and plasma physics*** | IAEA Fusion Energy Conference; International Fusion Research Council; large scale technical events including Thematic Workshops and Technical Meetings; CRPs; AI and plasma technology; cooperation with partner organizations such as the ITER organization; maintenance and update of the Fusion Portal and FusDIS; technical publications; training and outreach activities; Agency activities and initiatives such as the World Fusion Energy Group and the World Fusion Outlook. |

## Subprogramme 1.4.5 Support to the Abdus Salam International Centre for Theoretical Physics

***Objectives:***

— *To support Member States, in particular developing countries, in enhancing their scientific capability through training and information exchange and in advancing their capabilities in nuclear science and technology through cooperation with the ICTP.*

| Outcomes | Performance Indicators |
|---|---|
| • Enhanced knowledge among scientists through their participation in ICTP scientific programmes, including through the exchange of information among scientists. | • Number of ICTP scientific events organized.<br>• Number of scientists participating in ICTP scientific events. |

| Outcomes | Performance Indicators |
|---|---|
| • Enhanced knowledge of scientists, including young scientists in particular from developing countries, in relevant Agency programmatic areas. | • Number of joint Agency–ICTP events conducted.<br>• Number of scientists participating in joint Agency–ICTP events. |
| • Increased opportunity for scientists from developing countries to carry out doctoral research at an internationally renowned institute. | • Number of new Sandwich Training Educational Programme fellowships funded by the Agency. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***1.4.5.001 Support to ICTP*** | Training courses, workshops and seminars; scientific publications. |

## Major Programme 1 — Nuclear Power, Fuel Cycle and Nuclear Science

Summary of Programme Structure and Resources

*(excluding Major Capital Investments)*

| | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| Programme/Subprogramme/Project | Regular Budget | Unfunded | Regular Budget | Unfunded |
| 1.0.0.001 Overall management, coordination and common activities | 635 067 | 243 399 | 635 067 | 243 399 |
| 1.0.0.002 Outreach and stakeholder involvement | 633 112 | 353 051 | 633 112 | 353 051 |
| 1.0.0.003 Partnerships and resource mobilization | 638 960 | - | 638 960 | - |
| 1.S Corporate shared services | 2 469 898 | 62 528 | 2 469 898 | 62 528 |
| | **4 377 036** | **658 977** | **4 377 036** | **658 977** |
| 1.1.1.001 Engineering support for operating nuclear power plants | 1 475 928 | 755 749 | 1 470 928 | 755 749 |
| 1.1.1.002 Engineering support for new nuclear power projects | 350 578 | 37 450 | 350 578 | 37 450 |
| **1.1.1 Strengthening Integrated Engineering Support for Nuclear Power Programmes** | **1 826 507** | **793 199** | **1 821 507** | **793 199** |
| 1.1.2.001 Management support for construction and operation of nuclear power plants | 623 658 | 174 064 | 623 658 | 174 064 |
| 1.1.2.002 Supply chain and quality management for nuclear power plants | 668 996 | 87 057 | 668 996 | 87 057 |
| **1.1.2 Management for Construction and Operation of Nuclear Power Plants** | **1 292 654** | **261 122** | **1 292 654** | **261 122** |
| 1.1.3.001 Nuclear power infrastructure development | 912 318 | 2 300 360 | 912 319 | 2 275 399 |
| 1.1.3.002 Support to capacity building for nuclear power infrastructure | 2 143 432 | 456 698 | 2 149 896 | 344 356 |
| **1.1.3 Integrated Support for Nuclear Power Programme Infrastructure Development** | **3 055 750** | **2 757 059** | **3 062 215** | **2 619 754** |
| 1.1.4.001 International project on innovative nuclear reactors and fuel cycles | 1 338 865 | 1 563 465 | 1 338 865 | 1 563 465 |
| **1.1.4 International Project on Innovative Nuclear Reactors and Fuel Cycles** | **1 338 865** | **1 563 465** | **1 338 865** | **1 563 465** |
| 1.1.5.001 Technology development for advanced water cooled reactors | 1 140 878 | 40 451 | 1 141 378 | 40 451 |
| 1.1.5.002 Technology development for small and medium sized or modular reactors | 753 656 | 1 118 517 | 753 656 | 1 118 517 |
| 1.1.5.003 Technology development for fast reactors | 658 456 | - | 658 716 | - |
| 1.1.5.004 Non-electric applications of nuclear power | 497 934 | 156 055 | 498 549 | 156 055 |
| 1.1.5.005 Fusion Energy Technology Development and Deployment | 406 776 | 117 684 | 406 776 | 117 684 |
| **1.1.5 Technology Development for Small and Medium Sized or Modular Reactors, Large Advanced Reactors, Non-electric Applications of Nuclear Power and Fusion Energy** | **3 457 700** | **1 432 707** | **3 459 075** | **1 432 707** |
| **1.1 Nuclear Power** | **10 971 476** | **6 807 551** | **10 974 316** | **6 670 247** |
| 1.2.1.001 Exploration, mining and processing | 689 780 | 119 930 | 689 966 | 119 930 |
| 1.2.1.002 Resources data analytics | 502 665 | - | 503 844 | - |
| 1.2.1.003 Low Enriched Uranium Bank | - | 489 408 | - | 489 408 |
| **1.2.1 Uranium Resources and Processing** | **1 192 445** | **609 337** | **1 193 810** | **609 337** |
| 1.2.2.001 Fuel engineering and operation for current generations of nuclear power reactors | 540 622 | - | 555 072 | - |
| 1.2.2.002 Fuel cycle facilities operation and life management | 288 371 | - | 283 365 | - |
| 1.2.2.003 Fuel engineering and operation for SMRs and next generations of nuclear power reactors | 312 460 | 80 250 | 315 952 | 80 250 |
| **1.2.2 Nuclear Power Reactor Fuel and Fuel Cycle Facilities** | **1 141 453** | **80 250** | **1 154 389** | **80 250** |
| 1.2.3.001 Spent fuel storage | 698 447 | - | 686 768 | - |
| 1.2.3.002 Spent fuel recycling | 357 206 | - | 359 783 | - |
| 1.2.3.003 Nuclear fuel cycle strategies and radioactive materials transportation | 263 721 | - | 266 684 | - |
| **1.2.3 Management of Spent Fuel from Nuclear Power Reactor and Radioactive Material Transportation** | **1 319 374** | **-** | **1 313 235** | **-** |
| 1.2.4.001 Predisposal management | 1 118 704 | 62 422 | 1 119 401 | 62 422 |
| 1.2.4.002 Waste disposal | 1 127 821 | 190 017 | 1 127 821 | 190 017 |
| 1.2.4.003 Managing disused sealed radioactive sources (DSRSs) | 571 338 | 570 051 | 571 338 | 570 051 |
| 1.2.4.004 Capacity building and knowledge sharing | 330 452 | - | 320 004 | - |
| **1.2.4 Radioactive Waste Management** | **3 148 315** | **822 490** | **3 138 565** | **822 490** |
| 1.2.5.001 Decommissioning | 1 003 202 | 641 293 | 1 003 202 | 641 293 |
| 1.2.5.002 Environmental remediation | 968 016 | - | 968 086 | - |
| **1.2.5 Decommissioning and Environmental Remediation** | **1 971 218** | **641 293** | **1 971 288** | **641 293** |
| 1.2.6.001 Access to research reactors, capacity building and infrastructure development | 479 718 | 171 176 | 489 718 | 171 176 |
| 1.2.6.002 Research reactor fuel cycle | 579 399 | 863 573 | 579 399 | 861 433 |
| 1.2.6.003 Research reactor operation, performance and upgrade | 711 418 | 85 700 | 709 651 | 85 700 |
| **1.2.6 Research Reactors** | **1 770 535** | **1 120 449** | **1 778 768** | **1 118 309** |
| **1.2 Nuclear Fuel Cycle and Waste Management** | **10 543 340** | **3 273 819** | **10 550 055** | **3 271 679** |

## Major Programme 1 — Nuclear Power, Fuel Cycle and Nuclear Science

Summary of Programme Structure and Resources

*(excluding Major Capital Investments)*

| Programme/Subprogramme/Project | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| | Regular Budget | Unfunded | Regular Budget | Unfunded |
| 1.3.1.001 Energy, electricity and nuclear power economics: status and trends | 574 226 | - | 574 018 | - |
| 1.3.1.002 Models and capacity building for energy and nuclear power planning | 1 568 970 | - | 1 568 970 | - |
| **1.3.1 Energy Modelling, Data and Capacity Building** | **2 143 197** | **-** | **2 142 988** | **-** |
| 1.3.2.001 Technoeconomic analysis | 1 045 288 | 190 017 | 1 045 222 | 190 017 |
| 1.3.2.002 Nuclear energy for sustainable development and net zero transitions | 939 525 | 878 338 | 939 425 | 878 338 |
| **1.3.2 Energy –Economy –Environment (3E) Analysis** | **1 984 812** | **1 068 355** | **1 984 646** | **1 068 355** |
| 1.3.3.001 Implementing integrated NKM and HRD for nuclear organizations | 768 122 | - | 768 122 | - |
| 1.3.3.002 Facilitating sustainable education in nuclear science and technology | 1 102 719 | 461 299 | 1 097 939 | 461 299 |
| 1.3.3.003 Applying nuclear knowledge organizational systems and technology | 813 241 | 51 113 | 813 241 | 51 113 |
| 1.3.3.004 IAEA Marie Skłodowska-Curie and Lise Meitner Programmes | - | 9 615 033 | - | 9 589 494 |
| **1.3.3 Nuclear Knowledge Management and Human Resource Development** | **2 684 081** | **10 127 445** | **2 679 301** | **10 101 905** |
| 1.3.4.001 IAEA Lise Meitner Library information resources and services | 2 658 871 | 156 055 | 2 657 488 | 156 055 |
| 1.3.4.002 INIS collection and services | 2 352 688 | 192 654 | 2 350 169 | 192 654 |
| **1.3.4 Nuclear Information** | **5 011 558** | **348 709** | **5 007 657** | **348 709** |
| **1.3 Capacity Building and Nuclear Knowledge for Sustainable Energy Development** | **11 823 648** | **11 544 509** | **11 814 593** | **11 518 969** |
| 1.4.1.001 Provision of data services | 1 122 622 | - | 1 122 621 | - |
| 1.4.1.002 Nuclear data developments | 1 448 937 | - | 1 448 936 | - |
| 1.4.1.003 Atomic and molecular data developments | 880 044 | - | 879 545 | - |
| **1.4.1 Atomic and Nuclear Data** | **3 451 602** | **-** | **3 451 103** | **-** |
| 1.4.2.001 Accelerator and neutron source applications in multiple disciplines | 1 092 838 | 374 500 | 1 092 838 | 374 500 |
| 1.4.2.002 Enhancing research with accelerators and neutrons | 762 920 | - | 762 920 | - |
| **1.4.2 Research and Applications with Accelerators and Neutron Sources** | **1 855 758** | **374 500** | **1 855 758** | **374 500** |
| 1.4.3.001 Nuclear Instrumentation and capacity building | 948 007 | 285 690 | 948 007 | 285 690 |
| 1.4.3.002 Mobile instrumentation for radiation monitoring | 518 619 | - | 518 619 | - |
| **1.4.3 Nuclear Instrumentation** | **1 466 626** | **285 690** | **1 466 626** | **285 690** |
| 1.4.4.001 Fusion science and plasma physics | 832 388 | - | 832 388 | - |
| **1.4.4 Fusion Science and Plasma Physics** | **832 388** | **-** | **832 388** | **-** |
| 1.4.5.001 Support to ICTP | 2 415 247 | - | 2 415 247 | - |
| **1.4.5 Support to the Abdus Salam International Centre for Theoretical Physics (ICTP)** | **2 415 247** | **-** | **2 415 247** | **-** |
| **1.4 Nuclear Science** | **10 021 620** | **660 190** | **10 021 121** | **660 190** |
| **Major Programme 1 - Nuclear Power, Fuel Cycle and Nuclear Science** | **47 737 121** | **22 945 046** | **47 737 121** | **22 780 062** |

## Major Programme 1 — Nuclear Power, Fuel Cycle and Nuclear Science

Activities unfunded in the Regular Budget

*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 1.0.0.001 Overall management, coordination and common activities | Programme coordination and facilitation of the development and upgrade of e-learning tools and applications | 243 399 | 243 399 |
| 1.0.0.002 Outreach and stakeholder involvement | Support in the field of communication and stakeholder involvement activities | 353 051 | 353 051 |
| 1.1.1.001 Engineering support for operating nuclear power plants | Expert support of publications, databases and eLearning | 755 749 | 755 749 |
| 1.1.1.002 Engineering support for new nuclear power projects | Expert support for development of publications and databases, and creation of e-Learning materials focused on the safety aspects of operating nuclear power plants | 37 450 | 37 450 |
| 1.1.2.001 Management support for construction and operation of nuclear power plants | Support to management systems, leadership and stakeholder involvement | 174 064 | 174 064 |
| 1.1.2.002 Supply chain and quality management for nuclear power plants | Expert support in the area of HRD, workforce planning, training and qualification, behavioural competencies, leadership and organizational culture for operating nuclear power plants and new nuclear power projects | 87 057 | 87 057 |
| 1.1.3.001 Nuclear power infrastructure development | Expert support in INIR services development and implementation | 2 300 360 | 2 275 399 |
| 1.1.3.002 Support to capacity building for nuclear power infrastructure | Support implementation of capacity building in Member States | 456 698 | 344 356 |
| 1.1.4.001 International project on innovative nuclear reactors and fuel cycles | Expert support in transition to sustainable nuclear energy systems | 1 563 465 | 1 563 465 |
| 1.1.5.001 Technology development for advanced water cooled reactors | Technology development for advanced water cooled reactors | 40 451 | 40 451 |
| 1.1.5.002 Technology development for small and medium sized or modular reactors | Expert support in SMR technology development and deployment | 1 118 517 | 1 118 517 |
| 1.1.5.004 Non-electric applications of nuclear power | Expert support with demonstration of nuclear cogeneration, and assessments on nuclear cogeneration for seawater desalination, hydrogen production, district heating, and other industrial applications | 156 055 | 156 055 |
| 1.1.5.005 Fusion Energy Technology Development and Deployment | Expert support for Agency-wide fusion energy initiatives, including professional assistance in technology development and preparation for deploying fusion power plants for energy production | 117 684 | 117 684 |
| 1.2.1.001 Exploration, mining and processing | Technical information and good practices on Uranium and Thorium exploration, mining and processing | 119 930 | 119 930 |
| 1.2.1.003 Low Enriched Uranium Bank | Project team costs | 489 408 | 489 408 |
| 1.2.2.003 Fuel engineering and operation for SMRs and next generations of nuclear power reactors | Expert support to the Coordinated Research Project on improving testing, modeling and performance simulation for advanced reactors of next generation | 80 250 | 80 250 |

# Major Programme 1 — Nuclear Power, Fuel Cycle and Nuclear Science

Activities unfunded in the Regular Budget

*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 1.2.4.001 Predisposal management | Expert support of publications, wiki articles and web based information | 62 422 | 62 422 |
| 1.2.4.002 Waste disposal | Expert support of developing a framework for the effective implementation of a disposal system | 190 017 | 190 017 |
| 1.2.4.003 Managing disused sealed radioactive sources (DSRSs) | Expert support in capacity building, development of training material and publications | 570 051 | 570 051 |
| 1.2.5.001 Decommissioning | Facilitate implementation of projects of International Decommissioning Network | 641 293 | 641 293 |
| 1.2.6.001 Access to research reactors, capacity building and infrastructure development | Assistance to Member States embarking on new research reactors projects, including project planning and implementation, assessment and development of national nuclear infrastructure, national nuclear capacity building and HR development | 171 176 | 171 176 |
| 1.2.6.002 Research reactor fuel cycle | Support to Member States on research reactor fuel cycle issues | 863 573 | 861 433 |
| 1.2.6.003 Research reactor operation, performance and upgrade | Research reactor operation, performance and upgrade | 85 700 | 85 700 |
| 1.3.2.001 Technoeconomic analysis | Expert support on topical energy, economics and environmental issues | 190 017 | 190 017 |
| 1.3.2.002 Nuclear energy for sustainable development and net zero transitions | Topical issues related to sustainable energy development | 878 338 | 878 338 |
| 1.3.3.002 Facilitating sustainable education in nuclear science and technology | Expert support in maintaining and establishing educational networks | 461 299 | 461 299 |
| 1.3.3.003 Applying nuclear knowledge organizational systems and technology | Assist and support Member States in the implementation of the Knowledge Organization Systems (KOS) and technology | 51 113 | 51 113 |
| 1.3.3.004 IAEA Marie Skłodowska-Curie and Lise Meitner Programmes | Scholarships and activities under IAEA Marie Skłodowska-Curie fellowship programme and Lise Meitner programme | 9 615 033 | 9 589 494 |
| 1.3.4.001 IAEA Lise Meitner Library information resources and services | IAEA library information resources and services | 156 055 | 156 055 |
| 1.3.4.002 INIS collection and services | Expert support in INIS collection and services | 192 654 | 192 654 |
| 1.4.2.001 Accelerator and neutron source applications in multiple disciplines | Capacity building in Member States and collaboration in the area of RR utilization | 374 500 | 374 500 |
| 1.4.3.001 Nuclear Instrumentation and capacity building | Expert support in the area of nuclear instrumentation | 285 690 | 285 690 |
| 1.S Corporate shared services | Corporate shared services | 62 528 | 62 528 |
| **Grand Total** | | **22 945 046** | **22 780 062** |

# Major Programme 2
# Nuclear Techniques for Development and Environmental Protection

## Introduction

Major Programme 2 aims at fostering the development of innovative nuclear science and technology that can contribute to the Sustainable Development Goals (SDGs) and at providing technical support to transfer validated technologies to Member States. The Major Programme supports the peaceful uses of nuclear science and applications, providing Member States with new and improved technologies and techniques, science-based advice, educational materials, standards, guidance on best practices and reference materials, and technical documents. Major Programme 2 encompasses activities in five thematic areas: food and agriculture, human health, water resources, the marine environment, and radiochemistry and radiation technology.

The application of nuclear science and technology continues to grow in areas such as health care, environmental protection, materials, industry, food and agriculture and water resources, as well as in addressing global challenges such as climate change, zoonotic diseases, non-communicable diseases (NCDs) and plastic pollution.

The Agency's 12 laboratories located in Vienna, Seibersdorf and Monaco — a unique feature in the United Nations system — are the cornerstone for the Agency's technology development and transfer to Member States. The laboratories support Member States in enhancing their capacity to use nuclear applications to reach their development goals, including SDG targets. The 12 laboratories managed through Major Programme 2 develop, coordinate and implement the research and development (R&D) that is pivotal to the technology transfer undertaken primarily through the Agency's technical cooperation (TC) programme and will inform the cross-cutting initiatives (ZODIAC, NUTEC Plastics, Rays of Hope, Atoms4Food and GloWAL). The laboratories need to remain capable of meeting the increasing and rapidly evolving needs of Member States.

The Agency's R&D activities and its vast number of coordinated research activities contribute to addressing a diverse range of issues. While the Major Programme assists Member States in building their capacity, knowledge and expertise, its coordinated research projects (CRPs) contribute to increasing their R&D capacity. The Agency's Collaborating Centre scheme remains a valuable arrangement for working jointly with Member State institutions. Efforts will be made to continue strengthening the efficiency of the scheme, which supports the cost-effective delivery of the Major Programme and will continue to be leveraged to increase Programme efficiency and effectiveness.

Partnerships remain an important way to strengthen programmatic activities and engage with Member States. Major Programme 2 will continue to enhance key partnerships with United Nations system organizations such as the Food and Agriculture Organization of the United Nations (FAO), the World Health Organization (WHO), the United Nations Environment Programme (UNEP) and the World Organisation for Animal Health (WOAH, formerly the International Office of Epizootics) and will continue its efforts to further develop partnerships with the private sectors in some key areas.

Major Programme 2 hosts several internationally recognized databases and networks of Member State scientific and research institutions, such as the network of Analytical Laboratories for the Measurement of Environmental Radioactivity (ALMERA), the Veterinary Diagnostic Laboratory (VETLAB) Network, the network of Zoonotic Disease Integrated Action (ZODIAC) National Laboratories and the Global Water Analysis Laboratory (GloWAL) Network. Education and training will continue to be fundamental to this Major Programme. To reach a wider audience and achieve greater cost savings, the development of e-learning tools and online education platforms such as webinars, and the use of virtual platforms, where relevant, will continue to be emphasized.

| *Objectives:* | |
|---|---|
| — *To support Member States to strengthen their science and application capabilities through the integration of nuclear and related techniques.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of nuclear and isotopic techniques in the areas of food and agriculture, human health, water resource management, management of marine and terrestrial environments, and industrial development. | • Number of Member States with active R&D activities in non-power nuclear applications.<br>• Number of Member States using non-power nuclear applications developed in collaboration with the Agency. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.0.0.001 Overall management, coordination and common activities*** | Annual Report; Nuclear Technology Review; Mid-Term Progress Report; Programme Performance Report; reports to the General Conference; briefings and meeting of the Standing Advisory Group on Nuclear Applications (SAGSI); meetings with Member States; donor reports. |
| ***2.0.0.002 Management of the coordinated research activities*** | Completed CRPs; completed research, technical and doctoral contracts and research agreements; Technical Meetings (Research Coordination Meetings); publications; dissemination of databases and techniques; Collaborating Centre agreements. |
| ***2.0.0.003 Outreach and partnerships coordination*** | Completed documents related to nuclear applications partnerships and networks, such as practical arrangements and memoranda of understanding; reports and other communication tools for management and Member States on nuclear applications partnerships to increase public awareness of the work and contributions of this Major Programme. |

## Programme 2.1 Food and Agriculture

Between 713 and 757 million people may have faced hunger in 2023 — 1 in 11 people globally. Almost 30 per cent of the global population were moderately or severely food insecure. Climate change threatens the ability to ensure global food security, eradicate poverty and achieve sustainable development, requiring adequate climate change mitigation and adaption measures. While agriculture is strongly affected by climate change, current agri-food systems cause 30 per cent of global greenhouse gas (GHG) emissions, in addition to biodiversity loss and environmental pollution. Thousands of chemical hazards, such as agrochemicals, persistent organic pollutants (POPs) and per- and polyfluoroalkyl substances (PFAS) (so-called ‘forever chemicals’), continue to contribute to the global burden of foodborne diseases, causing 1 in 10 people to fall sick and costing low and middle income countries $110 billion a year, and zoonotic diseases, agricultural pests and vector-borne diseases are on the rise. These challenges are exacerbated by the fact that global freshwater is becoming increasingly scarce due to improper management, indiscriminate use and a changing climate.

The agricultural sector accounts for more than 70 per cent of global freshwater consumption, yet water use efficiency on farms in many countries is below 50 per cent due to poor irrigation practices. Building on five up-to-date dedicated laboratories and coordinated research activities, Programme 2.1 aims at promoting, developing and coordinating research in food and agriculture to support Member States in their efforts to address challenges related to agricultural production, through crop improvement, animal production and health, insect pest control, agricultural land, nutrient and water management, and food safety and authenticity to devise concrete and adapted solutions developed by the programme through applied and innovative R&D activities that use nuclear and related technologies that will continue to contribute to the 2030 Agenda for Sustainable Development through the transition to more efficient, inclusive, resilient and sustainable agri-food systems. The Atoms4Food initiative will be mainstreamed to facilitate the holistic and multidisciplinary approaches of improving food security while addressing environmental challenges.

***Lessons learned from reviews, assessments and evaluations:*** The programme will use the Atoms4Food and ZODIAC initiatives and will continue to build on the strong partnership between the Agency and FAO, including through increased communication and outreach activities. Partnerships will be further strengthened through Collaborating Centres, CRPs, technical cooperation projects (TCPs), and the Consultative Group on International Agricultural Research (CGIAR) centres and other United Nations agencies to increase the impact of the programme's work on the ground. Knowledge sharing across the five laboratories managed by the programme will be increased, as well as coordination and outreach. To ensure the optimal use of resources, the proficiency test process will be improved, as well as data creation, storage and transfer. Integration across the subprogrammes will be strengthened through joint activities in areas such as climate change adaptation and mitigation in agriculture, as well as within the One Health approach (including topics such as antimicrobial resistance (AMR) and food safety). The programme will further collaborate with other programmes under Major Programme 2, including on microplastics and other contaminants. Cross-cutting technologies such as the use of electron beam technology as an alternative to the use of gamma sources will also be investigated.

***Specific criteria for prioritization:***

1. Achieve sustainable food and agriculture production, support implementing actions to achieve SDGs in Member States, and address emerging threats to agri-food systems, particularly in response to the impacts of climate change.
2. Address challenges posed by global trends impacting agricultural development and food security, with a focus on emerging issues and challenges requiring further research, development and technology transfer.
3. Develop innovative scientific and technical knowledge addressing current and future challenges for the agriculture and food sector, using nuclear and related techniques.

## Programmatic changes and trends

***Subprogramme 2.1.1 Sustainable Land and Water Management*** provides Member States with new technology tools and knowledge to improve land and water management practices for sustainable food production which contribute to the Atoms4Food initiative. These include using new nuclear and related technologies to further enhance nutrient and water use efficiency on farms, to improve fertilizer management to mitigate GHG emissions, to build soil resilience to the impacts of climate change, to minimize land degradation by salinity and erosion, to reduce the enrichment of surface and ground water bodies by nutrients, and to strengthen work on assessing and managing soil contaminants, including microplastics, heavy metals, PFAS and radionuclides as well as AMR affecting food and agriculture.

***Subprogramme 2.1.2 Sustainable Intensification of Livestock Production Systems*** will integrate reproduction and breeding as a suite of activities that builds Member States' capacity for the sustainable use of local breeds. Activities will include the development of genomic tools for the characterization and improvement of indigenous breeds coupled with assisted reproductive technologies for the successful dissemination of superior genetics. Technologies will target resource limited communities and will leverage other initiatives that organize smallholder farmers and establish sustainable breeding programmes (such as the initiatives of FAO and CGIAR centres). Multidisciplinary approaches and collaborations with other subprogrammes to address issues related to animal nutrition, AMR and One Health will be pursued in line with Atoms4Food initiative. The development of innovative techniques for timely and efficient disease sampling, detection and surveillance will be strengthened. The ZODIAC and VETLAB networks will leverage and complement each other and support enhanced capacity in Member State laboratories to provide rapid responses to transboundary animal and zoonotic disease emergencies such as highly pathogenic avian influenza, African swine fever and monkeypox. The use of irradiation technologies to inactivate or kill disease pathogens and for vaccine production will be promoted.

***Subprogramme 2.1.3 Improvement of Food Safety and Food Control Systems*** supports Member States in implementing food control systems ensuring safety and quality, safeguarding consumers, tackling food fraud, applying ionization radiation, and facilitating trade. Feedback from the International Symposium on Food Safety and Control, held in Vienna in May 2024, highlighted that while Member States appreciate the expert assistance provided, they need more support. Increasingly, Member States need support to strengthen systems from source to consumption, to determine authenticity and geographical origin, and to enhance diverse irradiation applications and radioactivity testing in food. Member States also need support to generate scientific data for food safety standards using radioisotopes and to collect data on food-borne illnesses. Member States are increasingly adopting the One Health approach, which now encompasses food safety and requires cross-sectoral partnerships. There is a need for R&D on modelling in food irradiation; assessing consumer exposure to hazards arising from food

handling, preparation/processing and packaging; circular agriculture; and investigating the safety and authenticity of novel foods. Other new areas include the isotopic detection of food-borne pathogens, AMR, POPs, microplastics and seafood authenticity; the promotion of food safety networks; enhancement of the excellence of the Food Safety and Control Laboratory; and implementation of Atoms4Food initiative as a priority. Collaboration and partnerships with other subprogrammes and programmes under Major Programme 2 between FAO, Collaborating Centres and CGIAR centres as well as with the private sector will be established and/or strengthened.

***Subprogramme 2.1.4 Sustainable Control of Major Insect Pests*** responds to increased demands from Member States for the effective management of key insect pests of crops, livestock and human health through the One Health approach and in response to the increased use of broad-spectrum insecticides. The response to Member States will be delivered in the framework of Atoms4Food initiative. As the reduction of other control methods has reduced the number of tools available for insect pest control, the sterile insect technique (SIT) as a continuous suppression tool has been expanding and is used more frequently, in addition to eradication strategies. Furthermore, the SIT has been increasingly used as a preventive tool to ensure the pest-free status of affected areas and promote trade. The emphasis of this subprogramme will be on the development of more cost-effective mass-rearing techniques; the development of genetic sexing strains, including for the Mediterranean fruit fly, to allow the continuous introduction of the wild genetic background; the improvement of the SIT package to optimize cost-effective methods for mosquito management; in-depth studies on the biological effects of radiation on male insects to develop more effective radiation procedures; and protocols to enhance the mating competitiveness of sterile males.

***Subprogramme 2.1.5 Crop Improvement for Intensification of Agricultural Production Systems*** supports Member States by providing advanced crop improvement technologies to address climate change, enhance food and nutrition security, and boost farmers' incomes. It will continue to contribute to Atoms4Food by developing and implementing new projects focused on crop improvement. Moving forward, the subprogramme will focus on integrating nuclear and genomic technologies, combining nuclear techniques with cutting-edge genomic advancements to further crop improvement in line with its mandate. It will also emphasize biologicals for plant health by leveraging nuclear techniques to advance microbial mutagenesis and develop biological solutions that improve plant health and promote sustainability. Additionally, the subprogramme will work on innovative disease detection methods, including by creating novel diagnostic tools for the early detection and management of transboundary plant diseases which are critical for safeguarding global food security. Efforts will also be made to strengthen laboratory capacities in Member States, with an emphasis on improving biosafety, biosecurity and advanced diagnostic methods. Lastly, the subprogramme will expand R&D in climate-resilient and nutrition-sensitive agriculture, collaborating with internal and external partners.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 2.1 Food and Agriculture** | |
|---|---|
| ***Objectives:*** | |
| — *To increase the sustainability and resilience of food and agriculture production and related livelihoods in Member States through climate-smart agriculture approaches, including meeting challenges from animal and zoonotic diseases, plant pests, food safety risks, climate change, biothreats, and nuclear or radiological emergencies.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased capacities for the integration of nuclear and related techniques in agricultural production in Member States. | • Number of Member States applying nuclear and related Agency recommended techniques in agricultural production. |
| • Increased capacities of national agricultural research institutes and other relevant national organizations in using nuclear and related techniques in R&D. | • Number of national agricultural research institutes and other relevant national organizations using nuclear and related techniques in agricultural research and innovation. |

| **Subprogramme 2.1.1 Sustainable Land and Water Management** |
|---|
| ***Objectives:*** |
| — *To build and enhance the capacities of Member States in using nuclear and related techniques to develop climate-smart agricultural practices and tools including digital technology for sustainable food production, building soil resilience to climate change, and minimizing land degradation and environmental pollution.* |

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State capacity to use nuclear and related techniques for building soil resilience, improving nutrient and fertilizer management to reduce water enrichment by nutrients, mitigation of GHG emissions, and minimizing land degradation caused by erosion and salinity. | • Number of Member States using nuclear and related techniques to develop new climate-smart agricultural practices. |
| • Increased Member State use of nuclear and related techniques to measure and monitor the impact of on-farm and area-wide land and water management practices, climate change and extreme weather events on water resources for better crop production. | • Number of Member States using nuclear and related techniques to assess the impact of on-farm and area-wide land and water management practices and extreme weather events on water resource conservation. |
| • Increased Member State capacity in monitoring and assessing soil pollution, including radionuclides in the case of nuclear emergencies, microplastics, AMR, heavy metals and PFAS in agricultural land for better soil management. | • Number of Member States applying guidelines and tools for assessing soil pollution for better soil management. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***2.1.1.001 Land management for climate-smart agriculture*** | Publications; protocols, guidelines and standard operating procedures; reports; training courses and workshops. |
| ***2.1.1.002 Water management for resource saving agriculture*** | Publications; protocols, guidelines and standard operating procedures; reports; training courses and workshops. |
| ***2.1.1.003 Assessment of soil contaminants in agricultural lands*** | Protocols and guidelines; data collection, management and visualization tools for soil contamination management and training. |

**Subprogramme 2.1.2 Sustainable Intensification of Livestock Production Systems**

***Objectives:***

— *To support Member States in identifying, selecting and using local animal breeds, and in enhancing livestock nutrition and improving reproduction and breeding systems to sustainably improve farmers' livelihoods and food security under changing climate conditions, by developing, transferring and applying nuclear and related techniques.*

— *To support Member States in using a One Health approach for the detection, effective surveillance and control of transboundary animal and zoonotic diseases, and to improve animal production and enhance livelihoods by developing and applying nuclear and related technologies.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State use of services and technologies developed or adapted for use in animal genetics and breeding, including reproduction strategies and practices to promote the use of indigenous animal genetic resources and improve productivity in medium and low input production systems. | • Number of Member States implementing assisted reproductive technologies based on nuclear and related techniques to improve dissemination of improved or optimal genetics for improved animal productivity. |
| • Increased Member State use of services and Agency technologies developed or adapted in animal nutrition, and support for sustainable animal intensification while mitigating or adapting to the effects of climate change. | • Number of Member States adopting recommended feeding and nutrition strategies using locally available feed resources and technologies to minimize GHG emissions and mitigate the effects of climate change.<br>• Number of Member States adopting technologies and practices for AMR surveillance in animal production systems using technologies and guidelines. |

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State use of technologies and procedures developed by the Agency for mining, early detection, rapid diagnosis and control of transboundary animal and zoonotic diseases, including those with a biothreat potential. | • Number of Member States implementing transboundary animal and zoonotic disease diagnostic and control technologies to ensure timely response to animal and zoonotic disease threat.<br>• Number of technologies and tools developed and disseminated to Member States through VETLAB and ZODIAC national laboratories. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.1.2.001 Improving animal reproduction and breeding*** | Optimization of genomic and breeding tools for the characterization and optimal use of indigenous animal breeds. Optimization and establishment of assisted reproductive technologies in Member States to improve reproductive performance, minimize reproductive wastage and facilitate dissemination of superior genetics using indigenous livestock breeds. |
| ***2.1.2.002 Efficient and sustainable animal production systems*** | Development and transfer of nuclear and related technologies for improved and sustainable animal nutrition. Promotion of multidisciplinary approaches such as One Health to assist Member States tackle the challenges of AMR in livestock production systems. |
| ***2.1.2.003 Early detection, rapid diagnosis and control of transboundary animal and zoonotic diseases*** | Development, evaluation, validation and transfer of nuclear and related technologies for the mining, early and rapid diagnosis, surveillance and control of transboundary animal zoonotic diseases at the environment–wildlife–livestock level and human interface to enhance livestock productivity and to promote biosecurity. |

| **Subprogramme 2.1.3 Improvement of Food Safety and Food Control Systems** | |
|---|---|
| ***Objectives:*** | |
| — *To enhance food safety and food quality control systems in Member States through the effective application of nuclear and related techniques, including food irradiation in order to contribute to food security and public health and to enable sustainable trade.*<br>— *To improve the capability of Member States to rapidly and effectively respond to food safety incidents and emergencies.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State application of food irradiation, based on established and novel uses for food safety, quality, sanitary and phytosanitary purposes. | • Number of additional Member States requesting support and assistance in food irradiation for sanitary and phytosanitary purposes.<br>• Number of additional food treatment facilities using food irradiation for food safety, sanitary, phytosanitary and related purposes. |
| • Increased Member State use of food testing technology developed or adapted by the Agency to support food safety and quality control systems. | • Number of laboratories or institutions in Member States adopting new or advanced techniques for food safety and quality developed or transferred by the Agency and/or conducting R&D to generate data for standards setting.<br>• Number of new and/or advanced analytical methods for food safety, authenticity and determination of geographical origin transferred to, validated by and implemented in Member States. |

| Outcomes | Performance Indicators |
|---|---|
| ● Increased Member State capability to use rapid, cost-effective and reliable confirmatory analytical techniques for a fast response to food contamination, including during incidents or emergencies affecting food safety. | ● Number of laboratories in Member States conducting rapid screening and confirmatory techniques to support food safety or emergency response activities.<br>● Number of new and/or advanced rapid screening and confirmatory methods for food safety, authenticity and determination of geographical origin established in or transferred to and validated in Agency supported laboratory networks. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***2.1.3.001 Food irradiation applications using novel radiation technologies*** | International standards, guidelines, protocols and approaches for electron beam, X-ray and relevant radionuclide source technology; new electrical radiation beam technologies and modelling data. |
| ***2.1.3.002 Assurance of food safety, quality and authenticity to enhance trade*** | Analytical methods for food contaminant and residue control; food authenticity/origin; microbial hazard and AMR determination used in Member State laboratories; trained laboratory staff; strengthened/expanded food safety and authenticity networks; data to support scientific risk assessment and enable risk management; quality management system initiated at the Food Safety and Control Laboratory; R&D and capacity building in new/emerging hazards including POPs, biotoxins etc. |
| ***2.1.3.003 Cost-effective nuclear techniques for responding to food contamination during emergencies*** | Rapid field-based, on-site or portable analytical and confirmatory techniques for the detection of chemical contamination/adulteration or geographical origin tracing of food; food safety emergency response networks; applications of food irradiation to reduce the spread of pathogens in food and food packaging; and detection of radioactivity in food. |

**Subprogramme 2.1.4 Sustainable Control of Major Insect Pests**

***Objectives:***

— *To increase the capacity of Member States in the suppression, prevention, containment or eradication of key insect pests that threaten crops, livestock and humans, by developing and integrating the SIT with other suppression methods in an area-wide integrated pest management approach.*

| Outcomes | Performance Indicators |
|---|---|
| ● Increased capacity of Member States in the application of the SIT and related technologies to create efficient and cost-effective plant insect pest management strategies. | ● Number of Member States receiving training, support on improved technologies, and the elaboration of technical and economic feasibility studies for SIT application for plant pests. |
| ● Increased capacity of Member States in the application of the SIT and related technologies to create efficient and cost-effective livestock insect pest management strategies. | ● Number of Member States receiving training, support on improved technologies, and the elaboration of technical and economic feasibility studies for SIT application for livestock pests. |
| ● Increased capacity of Member States in the application of the SIT and related technologies to create efficient and cost-effective pest management strategies for human disease vectors. | ● Number of Member States receiving training, support on improved technologies, and the elaboration of technical and economic feasibility studies for SIT application for human disease vectors. |

| **Projects** | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***2.1.4.001 SIT and related technologies to manage major insect plant pests*** | Improved mass-rearing methods and more cost-effective and productive strains; protocols to enhance mating competitiveness of sterile male fruit flies; technical and economic feasibility assessments and implementation of area-wide integrated pest management programmes; design of more efficient insect plant pest mass-rearing facilities; development of better detection systems and rapid response for invasive species; post-harvest treatments; guidelines; databases; e-learning courses and models; shipment of strains and materials; capacity development. |
| ***2.1.4.002 Management of livestock insect pests for sustainable agriculture*** | Cost-effective mass-rearing methods; innovative protocols to ensure constant and stable fly production; new designs for accurate separation of the sexes in the pupal phase; in-depth radiation biology data to improve sterilization methods; new chilled adult release systems for the aerial release of sterile males; new mating behaviour protocols; capacity development; provision of materials, feasibility assessments and facility designs; insect pest control strategy and policy advice; harmonized approaches among key international partners and Member States. |
| ***2.1.4.003 Development of the SIT for the control of disease transmitting mosquitoes*** | Methodologies to enable upscaling of the rearing and sterilization of *Aedes albopictus* and *Ae. aegypti* to a large operational scale; development of genetic sexing systems and strains and engineered equipment to separate the morphological markers; transfer of new technologies to Member States; male mosquito mating behaviour assessments in relation to mass-rearing, radiation, transport and handling processes; guidelines, manuals and designs of more cost-effective rearing facilities and training. |

## Subprogramme 2.1.5 Crop Improvement for Intensification of Agricultural Production Systems

***Objectives:***

— *To enhance innovative breeding technologies for Member States to use nuclear and related technologies for crop improvement and crop adaptation to climate change.*

— *To support Member States in addressing major constraints in crop production through the use of induced genetic variation to enhance crop biodiversity and mutation breeding.*

| Outcomes | Performance Indicators |
|---|---|
| • Enhanced Member State capacity to use nuclear and related technologies, and associated biotechnologies, for the faster development of improved food, feed and cash crops with better yield, quality and adaptation to climate change. | • Number of Member States supported in the use of nuclear and related technologies in crop improvement.<br>• Number of improved crop mutant varieties adaptable to climate change (tolerant to abiotic and biotic stresses, improved yield and quality) released by Member States. |
| • Increased use of mutation breeding and related innovative in vitro and genomic technologies in seed and vegetative crops for increased crop genetic diversity in Member States. | • Number of Member States applying newly developed technology packages.<br>• Number of technology packages developed or adapted for transfer to Member States. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***2.1.5.001 Mutation induction for better adaptation to climate change*** | Protocols, guidelines, database, training, improved crop varieties with broadened adaptation to climate change. |
| ***2.1.5.002 Integrated techniques for mutation breeding and biodiversity*** | Protocols, guidelines, database, training, enhanced crop biodiversity (advanced mutant lines) as breeding resources. |

## Programme 2.2 Human Health

The Human Health programme supports Member States in addressing ongoing technological challenges in health care and wellbeing through the use of nuclear and related techniques to support the management of NCDs as well as communicable and infectious diseases. Through its activities, the programme supports Member States in assessing and implementing new technologies; strengthening the use of medical imaging and radiation therapy; implementing accurate dosimetry and quality assurance to ensure appropriate clinical outcomes and reduce the likelihood of errors, accidents and misdiagnoses; enhancing safety and quality through guidance documents, codes of practice, audits, calibrations and quality assurance services; and establishing techniques and guidance for implementation. The technical support provided by the programme will enhance equitable access to care, including through Rays of Hope. In addition, the use of stable isotope and nuclear imaging techniques in public health and clinical settings will be fostered to address knowledge gaps in adolescent, maternal and early life nutrition, the prevention and management of NCDs including cancer, and diet quality and nutrition security in the context of changing food systems and climate change. The programme will support improvements in cancer outcomes and address Member States' unique cancer care needs by developing tailored national solutions for high quality, accessible and sustainable radiotherapy. It focuses on supporting sound radiotherapy policies and implementing national radiotherapy planning informed by evidence and real-world data. It enables sustainable operation of radiotherapy services through the optimization of resource allocation, resource-sparing technologies and research. Resource-sparing technologies will optimize the use of the finite resources available to countries through innovative solutions to maximize impact. Databases, data analytics and predictive modelling support optimal resource allocation and planning, leading to better national health outcomes. Health economics will be integrated to assess the cost-effectiveness of interventions, guiding sustainable and equitable policy decisions. With the rapid integration of artificial intelligence (AI) into health care technology processes, it is imperative to identify roles and responsibilities and support them with guidance, training and quality assurance tools. Bridging the workforce gap will be fostered through innovations in education and training. Innovative emerging technologies have revolutionized educational processes — with access free and open to all, they have reduced inequity and biases. The programme will continue to provide essential technical support to elements of the Agency's TC programme related to health. Partnerships with the WHO, other United Nations entities, international organizations and professional bodies will lead to enhanced synergies, harmonized good practices, quality guidelines and strengthened care practices.

***Lessons learned from reviews, assessments and evaluations:*** The importance of databases and harmonized information has become apparent from the increased use and recognition of these resources globally. To continue to benefit from these databases, they must be continuously developed, updated and maintained. Streamlining collaboration with international organizations and other United Nations organizations has been instrumental in disseminating the benefits of the Agency's work in the field of human health and better integrating it within a larger framework.

It is imperative to continue strengthening capacity-building efforts in Member States and refining and expanding training programmes, workshops and conferences to address emerging challenges and advancements. Sustaining networks to facilitate ongoing collaboration among health care professionals globally remains a priority.

Continuous efforts and resources are needed to support novel educational platforms and introduce new and update existing educational and training materials, all of which requires substantial time and expertise. These resources should be viewed as complementary to hands-on training, and while they cannot replace in-person training, they may lead to time and cost efficiencies in knowledge transfer.

***Specific criteria for prioritization:***

1. Activities having the greatest impact on the effectiveness of diagnosis and treatment of patients, while ensuring the safety of patients, staff and public.

2. Activities supporting the implementation and sustainability of appropriate technologies to tackle Member States' specific needs.
3. Activities supporting the safe transitioning to new and proven modalities, including those relating to capacity building of professionals.
4. Activities having the greatest impact on improving the effectiveness of nutrition programmes to combat malnutrition in all its forms.
5. Emerging nuclear techniques applicable to human health and nutrition that reflect the priorities identified by Member States, and research activities supporting knowledge acquisition to guide future directions.

## Programmatic changes and trends

***Subprogramme 2.2.1 Nutrition for Improved Human Health*** will continue to support the use of nuclear techniques to address the double burden of malnutrition, improve diet quality and expand clinical applications based on the needs of Member States, thereby contributing to Atoms4Food and Rays of Hope initiatives. Based on the recommendations of an IAEA Technical Meeting, research will focus on nutrient requirements, infant feeding, nutrient bioavailability, and nutrition assessment in cancer care. In addition, innovative methods such as isotope-based metabolomics and precision nutrition approaches will be explored to support context- and population-specific nutrition actions addressing nutritional challenges and climate change mitigation. Advice to Member States related to in-country policy and programme design will be enhanced. Integrating health economics into the use of nuclear nutrition techniques will be essential to demonstrate their cost-effectiveness. Strengthening the Agency's global nutrition databases will further enhance the understanding of energy metabolism, body composition, infant feeding and the protein quality of foods. Partnerships with nutrition societies, the WHO, FAO, and relevant Agency subprogrammes in early life nutrition, diet quality, cancer, plant breeding, food safety and the marine environment will expand collaborative research, dissemination activities and extrabudgetary funding opportunities. Isotope usage will be enhanced through new guidance material, innovative educational and learning approaches, simplification of procedures and validation of field techniques.

***Subprogramme 2.2.2 Nuclear Medicine and Diagnostic Imaging*** will focus on data-driven insights and innovative technologies to support Member States in optimizing health care strategies in nuclear medicine and diagnostic imaging. By leveraging datasets and using predictive modelling, the subprogramme aims to guide investments in human resources and equipment to address NCDs and communicable diseases. Emphasizing technological advancements and clinical applications, it will integrate AI to expand the diagnostic and therapeutic uses of nuclear medicine and diagnostic imaging, adopting a personalized medicine approach. The subprogramme will continue its commitment to achieving SDG 3. Specific activities to address prevalent pathologies in women — such as cardiovascular diseases and gynaecological cancers — as well as in children, will be implemented. It will employ innovative solutions for education and training to optimize resource use. Additionally, it will support the development of region- and country-specific health care strategies, use health economics models to assess the cost-effectiveness of interventions for sustainable and equitable policies, explore resource-sparing technologies to maximize the impact of nuclear medicine and diagnostic imaging, and incorporate educational innovations such as virtual reality, interactive three-dimensional (3D) animations, and adaptive learning for professional development. The subprogramme will remain flexible and adaptable so that it can respond to the emerging needs of Member States, including those related to emergencies, with a special emphasis on supporting Agency's flagship initiatives, such as Rays of Hope and ZODIAC.

***Subprogramme 2.2.3 Radiation Oncology and Cancer Treatment*** will focus on evidence based real-world data-informed planning of national radiotherapy services. It will prioritize the development of guidance and tools on the clinical component of radiotherapy quality management systems. The subprogramme will expand the deployment of innovative solutions for education and training, including virtual reality simulations, AI tools and personalized learning platforms. The adoption of resource-sparing approaches (such as hypofractionated radiotherapy) and the optimization of radiotherapy workflows (for example, the appropriate incorporation of positron emission tomography–computed tomography (PET/CT) into radiotherapy protocols), underpinned by research, will reduce inefficiencies and unnecessary costly procedures. Agency guidance on radiotherapy for cancers in women and children, including for vulnerable populations (for example those with HIV comorbidity, pregnancy and cancer), and guidance on advanced and emerging radiotherapy techniques will be developed. It will highlight professional and policy issues for recognition and access to education and training for radiation oncologists and radiation therapy technologists. The subprogramme will be agile in responding to the emerging needs of Member States, including those related to emergencies, with a special emphasis on supporting Agency's flagship Rays of Hope initiative, including the paediatric radiation oncology component.

***Subprogramme 2.2.4 Dosimetry and Medical Physics for Imaging and Therapy*** will focus on developing new dosimetry and quality assurance guidance in medical physics, dosimetry and radiation metrology, updating existing guidelines and codes of practice, and maintaining and enhancing databases. Support for the education, training and recognition of medical physicists and radiation metrologists in Member States will continue in cooperation with relevant professional societies and international organizations. The recent refurbishment of the Agency's Dosimetry Laboratory (DOL) will further enhance opportunities for education, training and the development of guidelines in dosimetry and medical radiation physics. Supported research activities, through CRPs, will be designed to address new developments, whenever appropriate. These activities will encourage the acquisition and dissemination of new knowledge in the field of dosimetry and medical physics. The assessment of new technologies will be conducted in consultation with relevant experts and alongside the development of guidelines for the safe, effective and equitable implementation of emerging digital modalities and platforms, including cross-cutting technologies such as AI, in radiation medicine. The increasing use of advanced radiotherapy techniques will be accompanied by ad-hoc guidance and dosimetry services provided by the DOL. Innovative instruments for producing, personalizing and disseminating training materials will be explored to enhance and expand access to learning experiences in medical physics and radiation metrology.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 2.2 Human Health** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in enhancing their capability to address needs relating to nutrition and the prevention, diagnosis and treatment of health problems through the development and application of nuclear and related techniques within a quality assurance framework.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased use of nuclear techniques by institutions in Member States supported by the Agency to develop more effective programmes in health. | • Number of institutions in Member States engaged in Agency studies and activities using nuclear and related techniques in health. |
| • Enhanced competencies of health care professionals working in radiation medicine in Member States. | • Number of Member States participating in Agency activities in the use of nuclear and related or isotopic techniques in human health.<br>• Number of professionals trained through human health related activities. |

| **Subprogramme 2.2.1 Nutrition for Improved Human Health** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in enhancing their capability to improve nutrition for better human health.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of nuclear techniques to conduct studies and develop nutrition policies and programmes. | • Number of institutions in Member States engaging in Agency studies and activities using nuclear and related techniques in nutrition, including research, publications and quality assurance.<br>• Number of Member States using or taking part in Agency led activities using nuclear and related techniques in nutrition. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.2.1.001 Health effects of nutrition and the environment*** | Research studies and improved data quality; guidelines, web-based education tools and resources, publications, and standard quality control procedures made available to Member States; new and effective partnerships; advice provided to Member States on nutrition policy and programme design. |

## Subprogramme 2.2.2 Nuclear Medicine and Diagnostic Imaging

***Objectives:***

— *To enhance access to nuclear medicine and diagnostic imaging services in Member States, in a sustainable manner, to improve the management of patients with NCDs and infectious diseases.*

— *To elevate nuclear medicine and diagnostic imaging clinical practice in Member States.*

| Outcomes | Performance Indicators |
|---|---|
| • Improved access and quality of nuclear medicine and diagnostic imaging services to enhance patient care and support health systems. | • Number of Member States utilizing the Agency's advice in the specific areas of nuclear medicine and diagnostic imaging, including clinical research, quality management programmes, clinical audits, data analysis and predictive models, guidelines and recommendations, and databases.<br>• Number of institutions participating in Agency led activities in nuclear medicine and diagnostic imaging. |
| • Elevated clinical practice and professional competencies in nuclear medicine and diagnostic imaging in Member States through harnessing data analytics, refining medical imaging strategies, ensuring cost-effective, resource-efficient health care, implementing patient-centred quality management systems, and enhancing staff skills through innovative education and training. | • Number of professionals accessing educational materials or engaging in education and training initiatives and activities for continuous professional development or comprehensive training in the fields of nuclear medicine and diagnostic imaging. |

### Projects

| Title | Main Planned Outputs |
|---|---|
| ***2.2.2.001 Nuclear medicine and radiology techniques in health conditions*** | CRPs to address health needs through the clinical applications of nuclear medicine and diagnostic imaging with a resource-sparing approach implemented and results transferred to Member States; guidance and guidelines on the use of nuclear medicine and diagnostic imaging developed; peer reviews and Agency publications aimed at closing gaps in medical evidence made available; International Conference on Integrated Medical Imaging in Cardiovascular Diseases (IMIC 2026); support for the design and implementation of the Agency's flagship initiatives provided. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***2.2.2.002 Clinical data management and education in nuclear techniques in health*** | Human Health Campus and other Agency educational platforms updated; new material developed; subprogramme 2.2.2 databases (Nuclear Medicine Database (NUMDAB) and IAEA Medical Imaging and Nuclear Medicine Global Resources Database (IMAGINE)) maintained and updated; new relevant databases developed; health economics on nuclear medicine and diagnostic imaging models developed; interactive e-learning and other educational materials updated; virtual reality, 3D animations and other educational materials developed; major international congresses organized by Agency partners broadcasted; leadership and other soft skills promoted; nuclear medicine and radiology training curriculums unified and harmonized. |
| ***2.2.2.003 Medical imaging and radiomics*** | Availability of datasets, databases and data analysis models to assess the educational, staffing and diagnostic imaging equipment needs in Member States; big data for the analysis of clinical futures of communicable and non-communicable diseases collected. |

| Subprogramme 2.2.3 Radiation Oncology and Cancer Treatment | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in effective and efficient utilization of current and future advanced cancer radiotherapy technologies and in enhancing their capabilities to establish sound policies for quality, accessible and sustainable radiotherapy within the context of a national cancer care continuum.* | |
| **Outcomes** | **Performance Indicators** |
| • Strengthened Member State use of Agency guidelines to optimize the management of cancer cases through the implementation of evidence based approaches. | • Number of institutions in Member States using or taking part in Agency research, publications and quality management activities in radiotherapy and radiation biology.<br>• Number of professionals accessing educational materials or engaging in education and training initiatives and activities for continuous professional development or comprehensive training in the fields of radiation oncology, radiotherapy and radiobiology. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.2.3.001 Clinical radiation oncology*** | Peer reviews and Agency publications aimed at bridging gaps in international guidance on planning, utilization and quality of radiotherapy, including advanced/emerging techniques, and for vulnerable populations; teaching materials and e-learning resources; CRPs in clinical and health system-related aspects of radiation oncology. |
| ***2.2.3.002 Biological effects of radiation*** | Virtual teaching materials and e-learning resources; provision of expertise for clinical trials using novel strategies, including clinical and radiation accident biodosimetry; research in clinically relevant radiobiology. |

| **Subprogramme 2.2.4 Dosimetry and Medical Physics for Imaging and Therapy** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in enhancing their capabilities to implement radiation imaging and treatment modalities safely and effectively through optimized dosimetry and medical physics practice.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased use of Agency guidelines and dosimetry services to enhance quality assurance and dosimetry in national calibration laboratories and hospitals. | • Number of Member States using the DOL's services (calibrations, comparisons and dosimetry audits).<br>• Number of professionals, partners or organizations that benefit from collaboration and training activities at the DOL. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.2.4.001 Calibration and auditing services*** | Results of dosimetry postal audit services; results of calibrations of national dosimetry standards; results of comparisons; resolution of discrepancies of beam calibrations in Member States; updated databases. |
| ***2.2.4.002 Developments in radiation dosimetry*** | Agency publications providing dosimetry guidance; dosimetry codes of practice; International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS 2026); training materials on radiation dosimetry; relevant databases. |
| ***2.2.4.003 Clinical medical radiation physics*** | Publications on quality assurance guidelines for the physical, technical and safety aspects of clinical medical physics; training events and educational materials for medical physicists working in medical radiation imaging and therapy. |

## Programme 2.3 Water Resources

Water resource management is a key factor for human wellbeing and ecosystem health, as recognized in SDG 6 "Clean Water and Sanitation". Estimates of available freshwater and its replenishment, the interlinkages between atmospheric, surface water and groundwater systems, and the mechanisms and scale of water quality decline are not always clearly understood. Population increase and global development are putting additional pressure on global water resources, particularly groundwater. Overexploitation of fossil or non-renewable groundwater often leads to severe declines in groundwater levels and general water scarcity, but differentiating between renewable and non-renewable groundwater is complex. Increasing demand for food and energy requires that governments appropriately allocate water across different economic sectors. However, climate change is increasingly causing shifts in the timescales of hydrological cycle processes, leading to extreme weather events. These events can accelerate the replenishment of water resources, as in the case of floods, but also create significant additional pressure through the increased intensity and duration of droughts.

Comprehensive surface water and groundwater resource assessment and management require multidisciplinary and multi-isotope approaches that must be supported by sound scientific hydrological data and environmental information. Many water basins lack comprehensive assessments of surface water and groundwater resources, negatively impacting Member States' ability to effectively manage water supply demands and achieve water resource management. This programme addresses SDG 6 targets by deploying isotope hydrology techniques to improve national hydrological understanding, including analytical developments supported by the IAEA Isotope Hydrology Laboratory (IHL). The programme prioritizes scientific innovation in isotope hydrology approaches and analytical methods, and the transfer of these developments and skills through capacity building actions, for example through the GloWAL Network. These steps support the ability of Member States to become self-reliant in water resource management and to be able to affectively adapt to the combined pressures of climate and anthropogenic change.

***Lessons learned from reviews, assessments and evaluations:*** The involvement of Member States in all stages of proper hydrological design is regarded as essential for the successful adoption of isotope hydrology as a key pillar of water resource assessment. The revised IAEA Water Availability Enhancement 2.0 (IWAVE 2.0) approach is a powerful tool available to Member States for analysing the sustainability of their water supply management structures, as well as the long term commitment and involvement of all key stakeholders with a mandate for water resources. Informed assessment of the appropriate role of isotopic techniques in addressing specific water problems ensures that work plans have a comparative advantage compared to conventional hydrological investigations. The application of stable isotopes, radioisotopes and noble gases in hydrology continues to be updated as new and novel isotope tracers are developed. This includes the continued focus on non-traditional isotope tracers in water systems by Member States, particularly those concerned with water quality, leading to the need for self-reliance in providing analytical results. The Agency continues to support Member State laboratories in improving their analytical capacity and the reliability of the generated data through the use of biennial proficiency testing for stable isotopes and radioisotopes in hydrology, and increasingly seeks to run regional tests that help to build a sense of community among the laboratories being supported. This support will be fostered through the GloWAL Network. Projects related to water quality and quantity using aquifer vulnerability mapping were identified by Member States as vital to ensure sustainable water supply, and the training courses established are fully subscribed. Additional training offerings have been developed to focus on the establishment of a sound hydrological conceptual model as well as more advanced use of the data generated using isotope-enabled hydrological models for forecasting catchment water balances.

***Specific criteria for prioritization:***

1. Synthesizing priority areas in water resource management identified by Member States related to water sustainability that can be addressed by isotope hydrology and incorporation into the key objective of the GloWAL Network.
2. Identification and evaluation of the institutional and legal framework needs, as well as comprehensive hydrological information at the national and regional levels, including in monitoring networks, to strengthen the impact of isotope hydrology approaches on water resource management.
3. Isotope techniques that have a comparative advantage compared to traditional non-nuclear alternatives for the proposed application.

## Programmatic changes and trends

***Subprogramme 2.3.1 Isotope Hydrology Data Networks and Climate Change*** compiles and provides public access to the Agency's long-standing global isotope databases — the Global Network of Isotopes in Precipitation (GNIP) and the Global Network of Isotopes in Rivers (GNIR) — for hydrological and climatological studies. Member State participation has continued to increase in recent years. The networks have significant capacity to expand, with additional monitoring stations in underrepresented areas being a priority goal. However, evaluations are also taking place where the density of monitoring stations is becoming too high. There is also interest in developing a global network of isotopes in lakes and the set-up for this will be examined. Demand for these global data has continued to rise as they are increasingly used to study climate change and environmental impacts. In particular, the data are being used to develop isotope-enabled water balance and climate models for improved climate forecasting. Efforts are ongoing to expand the databases to cover other hydrological tracers such as nitrogen-15 (15N), and to mainstream machine learning tools to enable prediction of precipitation isotopes in data scarce regions. The models to do this already exist but real data is needed to evaluate their accuracy. This work supports the need for ongoing monitoring in Member States and demonstrates new and innovative ways in which the Agency's global isotope dataset can be used to evaluate climatic- and land use-change impacts on the hydrological cycle. The IHL continues to support Member States in enhancing self-reliance and the performance of established and new isotope hydrology laboratories through training and e-learning activities in hydrological sciences and isotope data interpretation.

***Subprogramme 2.3.2 Isotope Based Integrated Water Resource Management*** supports a growing number of Member States to conduct comprehensive water resources assessments at the local, national and regional levels to achieve to support sustainable water resource management. Projects and work plans are based on the water issue priorities identified by Member States and through IWAVE 2.0 and existing institutional and legal frameworks. The number of requests to assess vulnerability to groundwater pollution and related water quality issues has increased in recent years. This subprogramme will foster and promote the development of new field and laboratory approaches and methods based on the application of environmental isotopes to address these requests. This includes groundwater vulnerability mapping assessments and modelling of fluxes between different parts of the water cycle using a range of isotope tracers, depending on the environmental context and the management

strategies being adopted by Member States.

***Subprogramme 2.3.3 Radioisotope Applications for Water Resource Sustainability*** facilitates and promotes access to the use of environmental radioisotopes, dissolved noble gases and their isotopes in the context of water resources assessment and management, with a focus on constraining the timescales of water cycle processes. It consolidates efforts to improve the use of such tracers and to broaden the use of radioisotopes with a wide range of half-lives to constrain groundwater residence time, recharge processes and compression of the hydrological cycle in response to climate change. The subprogramme will focus on scientific innovation in new field and laboratory methodologies aimed at the routine application of these radioisotopes as well as stable isotopes and other geochemical tools to constrain how the timescales of water cycle processes are changing in response to global warming.

***Subprogramme 2.3.4 Isotope Applications for Water Quality*** is a new subprogramme introduced in the 2026–2027 biennium. The main activities under this subprogramme will be CRPs, technical meetings, training courses, and the development of scientific and technical reports and guidelines focused on addressing the multitude of issues around declining global water quality.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 2.3 Water Resources** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in applying isotope hydrology techniques for assessment and management of their freshwater resources, including the hydroclimatic change impacts on water resources distribution and availability.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of Agency services for sustainable water resource management and related legal and policy development based on a scientifically sound evaluation of water resource availability and quality. | • Number of Member States using Agency isotope hydrology methodologies and global isotope datasets for water resource assessment and management, including supporting adaptation to climate change. |
| • Trained human resources and available infrastructure in Member States using Agency services for the integration and routine use of isotope hydrology methods in water resources assessments. | • Number of Member States participating in Agency training activities to enhance capacity in the development of sustainable water management strategies to improve water resource management.<br>• Number of Member States with laboratories able to produce good quality isotope data from water samples with Agency assistance. |

| **Subprogramme 2.3.1 Isotope Hydrology Data Networks and Climate Change** | |
|---|---|
| ***Objectives:*** | |
| — *To provide Member States with access to global water isotope data and mapping products and to disseminate isotope hydrology information through publications and training.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased use by Member State institutions of the global isotope datasets managed by the Agency for water resource assessment and management. | • Number of Member States contributing to Agency global isotope data networks. |
| • Increased capacity of Member States to analyse stable water isotopes. | • Number of Member State counterparts who successfully complete Agency isotope hydrology training on the acquisition and use of water isotope data. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.3.1.001 IAEA global water isotope data networks*** | Annual updates of the global water isotope databases (GNIP and GNIR), including adding a growing number of monitoring stations in Member States; training courses on analytical methods and interlaboratory comparison exercises. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***2.3.1.002 Understanding the impact of climate change on the global water cycle*** | Training courses, e-learning materials, digital maps, databases, newsletters and outreach materials produced by the Agency and in collaboration with various partners. |

| Subprogramme 2.3.2 Isotope Based Integrated Water Resource Management | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in adopting isotope techniques to perform integrated assessment of water quantity, quality and sustainability at local, national and transboundary scales across the whole water cycle to enhance national water resource management.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased availability of technical information and capacity in Member States to generate and use isotope hydrology data information for water resources assessment and management. | • Number of Member States using Agency isotope hydrology methods as part of water resource assessment management efforts. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.3.2.001 Comprehensive assessment of water resources*** | National assessment reports for participating Member States; technical meetings on best practice guidelines for water resources assessment; training courses and teaching materials; scientific and technical reports and publications. |
| ***2.3.2.002 Management strategies for groundwater and surface water resources*** | Reports on the assessment of watersheds and aquifers, training on water management strategies using isotope tracers, as well as scientific and technical publications. Best practice guidelines for isotope-enabled water resource management; training courses and teaching materials; scientific and technical reports and publications; outreach materials produced by the Agency and in collaboration with various United Nations and Member State partners. |

| Subprogramme 2.3.3 Radioisotope Applications for Water Resource Sustainability | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in strengthening their capacity to analyse and use environmental radioisotopes in water samples to understand the duration of hydrological cycle processes.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of Agency expertise in using radioisotopes to quantify timescales of water cycle processes, including determination of groundwater age. | • Number of Member States using radionuclides and noble gas isotopes for quantification of timescales. |
| • Increased Member State use of Agency services in the analysis of tritium and noble gases isotopes in water samples. | • Number of Member State counterparts trained in the analysis of environmental radionuclides for timescale assessment.<br>• Number of Member States able to produce high quality tritium or noble gas isotope data. |

| **Projects** | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***2.3.3.001 Quantification of groundwater age*** | Expanded network of Member State laboratories capable of conducting isotope analysis and measurements of tritium and noble gases; improved radioisotope sampling and analysis for evaluation of groundwater residence time; proficiency tests; trained counterparts; scientific publications and technical reports. |
| ***2.3.3.002 Defining timescales of water cycle processes*** | Trainings, standard operating procedures, guidelines, scientific and technical reports. |

| **Subprogramme 2.3.4 Isotope Applications for Water Quality** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in strengthening their capacity to analyse and use isotope tracers to improve management of surface water and groundwater quality.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of Agency services for sustainable water resource management and related legal and policy development based on a scientifically sound evaluation of water resource availability and quality. | • Number of Member States using isotope tracers for water quality assessment and management. |
| • Increased trained human resources and available infrastructure in Member States using Agency services for the integration and routine use of isotope hydrology methods in water resource assessments. | • Number of Member States able to produce good quality nitrogen and sulphur isotope data. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.3.4.001 Isotopic assessment of surface water and groundwater quality*** | Expanded network of Member State laboratories; guidance on sampling and analysis of nitrogen and sulphur isotopes; standard operating procedures, trainings, reports of proficiency tests. |
| ***2.3.4.002 Tracing pollution sources and pathways*** | Technical reports illustrating the use of water quality isotope tracers; scientific publications; trained counterparts in the use of isotope tracers to track pollution sources and pathways. |

## Programme 2.4 Marine Environment

The ocean is impacted by the triple planetary crisis of climate change, biodiversity loss and pollution, which represent major threats to ocean health as well as to human health and wellbeing. Hence, understanding and protecting coastal and marine ecosystems and their associated resources is essential for health and sustainable development and to help Member States work towards achieving the SDGs, especially SDG 13 “Climate Action” and SDG 14 “Life Below Water”. Major threats to the coastal and marine environment — such as pollution, including from microplastics, ecosystems degradation, and ocean-change impacts, including climate-related impacts — continue to affect seafood safety, reduce biodiversity and compromise the provision of key ecosystem services.

Nuclear and isotopic techniques have an important role to play in the implementation of tailored science to generate knowledge for mitigation and adaptation strategies. The objective of this programme is to support Member States, through R&D, in enhancing their capacity to use nuclear and isotopic techniques to better understand ocean-change impacts, including climate-related impacts, to identify and address marine problems caused by radioactive and non-radioactive contaminants, in particular through NUTEC Plastics initiative, and to address seafood safety through Atoms4Food initiative.

The activities of this programme aim at developing and coordinating R&D to support Member States in improving the analytical and assessment capabilities of their laboratories, thus contributing to international trade, ecological

sustainability, effective marine environmental risk assessment, emergency preparedness and response (EPR), climate change mitigation and adaptation, and remediation of environmentally stressed marine ecosystems. The programme further supports Member States in building their capacity to assess blue carbon and elevated environmental levels of radioactive or other contaminants, including marine plastics, through the programme's new NUTEC marine reference laboratory, as well as to sustainably manage marine environments ranging from polar to small islands, and their natural resources. The programme plays a coordination role in important areas such as ocean acidification, and international transparency and validation of marine environmental monitoring data. The programme also conducts research to provide relevant scientific information to other United Nations agencies on marine issues, thus contributing to the coherent delivery of SDG 14, which includes responding to calls for action to support the implementation of new environment-related frameworks, with particular attention to biodiversity conservation.

***Lessons learned from reviews, assessments and evaluations:*** Member State feedback, scientific studies and the conclusions of the 2024 United Nations Conference to Support the Implementation of SDG 14 have demonstrated that ocean health is of great concern worldwide as it has direct consequences for human health, which is a top priority for many Member States, and that their ability to participate in and lead their own science-based associated decision making remains paramount. The conference also called for urgent action, as the ocean crisis is progressing faster than our current understanding and actions. Therefore, accurate and timely assessments of the impacts of marine pollution and ocean changes, including climate-related impacts, and the identification of mitigation measures and key information gaps in national, regional and interregional efforts remain of critical importance. This has further highlighted the added value of nuclear and isotopic technologies in addressing scientific knowledge gaps to complement conventional methods.

The IAEA Marine Environment Laboratories will continue addressing knowledge gaps, developing methods and collecting monitoring data, including through NUTEC Plastics and Atoms4Food initiatives. This will provide relevant marine science-based assessments and associated tools and data to assist Member States to address their priority marine environment challenges and contribute towards SDG and related targets. In particular, the laboratories will meet Member States' growing demands for the provision of science for marine plastics, pollution and blue carbon assessments.

***Specific criteria for prioritization:***

1. Activities that enable Member States to address and work towards the SDGs, in particular SDGs 13, 14 and 17.
2. Activities that support Member State laboratories, through networking and development of guidelines and best practices, to enhance their environmental awareness and management using nuclear and isotopic techniques.
3. Activities that support Member States in actions conducive to seafood safety and security.
4. Enhancing cooperation with Member State institutions via networks (such as the ALMERA network, UN-Oceans, and the United Nations Environment Management Group), and with United Nations agencies to deliver coherently on SDG 14, the United Nations Common Approach Towards a Pollution-Free Planet, the Programme for the Assessment and Control of Pollution in the Mediterranean Region, the Baltic Marine Environment Protection Commission (HELCOM) and the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, as well as through Agency Collaborating Centres and other partnerships.

## Programmatic changes and trends

***Subprogramme 2.4.1 Nuclear Techniques to Understand Climate and Marine Environmental Change*** will initiate the assessment of potential impacts of marine carbon dioxide removal techniques under development by Member States, and a 'multiple pressures' approach on ecosystems. The programme will pursue the use of nuclear and isotopic techniques to advance understanding of climate and ocean change, in particular changes to the marine carbon cycle, the assessment of ocean acidification, blue carbon and its multiple benefits, climate change- and eutrophication-driven deoxygenation effects on coastal and marine ecosystems, climate change effects on the behaviour of pollutants, and climate change impact on ocean processes. The IAEA Marine Environment Laboratories address scientific knowledge gaps and assist Member States in enhancing analytical self-reliance and performance in new and existing laboratories, in complementing training activities on ocean-change and climate-related impacts, and in promoting the harmonization of methods required for data intercomparison.

***Subprogramme 2.4.2 Nuclear Techniques to Monitor and Assess Marine Pollution*** will further reinforce the capability to support Member States in EPR and expand collaboration with global organizations, marine conventions, Collaborating Centres, groups of experts and the ALMERA network. Particular attention will be devoted to the polar regions and small island developing States, where significant environmental and/or economic impacts of pollution, in the context of multiple stressors and vulnerable ecosystems, are expected. The Agency's Marine Radioactivity Information System (MARIS) database has been substantially upgraded, making it a powerful tool for marine radioactivity assessment, and will continue to be updated with additional datasets. This subprogramme contains broad activities coordinated across the Division of IAEA Marine Environment Laboratories. Following accreditation of the laboratories for the production of reference materials and the expansion of NUTEC Plastics initiative, the subprogramme will be structured in two major components to enhance implementation effectiveness. The first major component focuses on pollution monitoring and assessment, while the second focuses on improving marine data quality. This new structure will streamline activities across the three laboratories, respond appropriately to Member States' increasing demands for robust monitoring and high quality data-based science, and foster collaboration and extrabudgetary funding for specialized services.

***Subprogramme 2.4.3 Analytical Techniques to Protect Marine Biodiversity and Ecosystem Services*** will continue to develop nuclear and related techniques to provide Member States with powerful tools to assess biotoxins produced by harmful algal blooms (HABs) and marine contaminants including microplastics. It will study the sources, behaviour and impact of contaminants on marine ecosystem services and consider the potential impacts of deep seabed mining on the functioning and biodiversity of deep-sea ecosystems. There will be an increased focus on contaminants of emerging concern (including microplastics, plastic additives, PFAS and technology-critical elements) and seafood safety. This subprogramme will support Member States through international initiatives such as the UNEP-administered Barcelona, Minamata and Stockholm Conventions, by providing scientific expertise and transferring knowledge to Member States and their laboratories to produce reliable-quality marine contaminants monitoring data, developing knowledge, strengthening Member States' analytical capacities, and transferring know-how on coastal and marine ecosystems assessments.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 2.4 Marine Environment** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States to address and mitigate their most pressing marine challenges using nuclear and derived techniques while enhancing their expertise and capability to develop tailored science-based strategies for the sustainable management of marine ecosystems.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State expertise and ability to address climate-related ocean changes and marine contaminants and mitigate their impacts. | • Number of new Agency and scientific publications addressing coastal and marine challenges using nuclear and isotopic techniques and working towards relevant SDGs, including the United Nations Decade of Ocean Science for Sustainable Development. |
| • Increased Member State use of Agency services, knowledge and capacities to enhance expertise and capabilities in Member States to develop strategies for the sustainable management of marine ecosystems and resources. | • Number of Member State scientists participating in Agency research or training activities to enhance their capabilities to develop strategies to protect the marine environment and use natural resources sustainably.<br>• Number of certified reference materials produced and proficiency tests and interlaboratory comparison exercises organized. |

| **Subprogramme 2.4.1 Nuclear Techniques to Understand Climate and Marine Environmental Change** |
|---|
| ***Objectives:*** |
| — *To support Member States in building scientific expertise and capacity to assess impacts on ocean health through research and development.* |

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State expertise and capacity to develop tailored science-based strategies for the sustainable management of marine ecosystems affected by climate change and human activities. | • Number of Member State scientists participating in Agency coordinated research or training activities in the use of nuclear and isotopic techniques to assess climate- and ocean-change impacts.<br>• Number of Member State experts visiting the Ocean Acidification International Coordination Centre (OA-ICC) website for information on ocean acidification and potential socioeconomic impacts. |
| • Increased Member State use of Agency services to develop and apply nuclear and isotopic techniques to assess the effects of climate- and ocean-change impacts. | • Number of Agency reports and scientific publications addressing pressing coastal and marine challenges in Member States, such as blue carbon, ocean acidification, ocean warming and deoxygenation. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***2.4.1.001 Isotopic tools to study climate and environmental change*** | Publications and best practice guidelines on the application of nuclear and isotopic techniques to studies of ocean-change impacts, including climate-related impacts. |
| ***2.4.1.002 Assessing carbon cycle and impacts of ocean acidification*** | Publications, reports and best practice guidelines on the application of nuclear and related techniques to assess the impact of ocean acidification and the marine carbon cycle with a focus on blue carbon as a nature-based solution to mitigate climate change; transfer of fit-for-purpose knowledge to Member States; updates of the OA-ICC website; training events and information exchange. |

## Subprogramme 2.4.2 Nuclear Techniques to Monitor and Assess Marine Pollution

***Objectives:***

— *To support Member States in enhancing their scientific expertise and capacity for assessing pollution and the impacts of contaminants on the marine environment for informed environmental management decisions in routine and emergency situations through the development and transfer of nuclear and isotopic techniques.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State use of Agency services supporting the application of nuclear and isotopic techniques for monitoring the occurrence, dispersion and trends of radioactive and non-radioactive pollutants and for assessing their origin, behaviour and impacts on the marine environment. | • Number of Member State scientists participating in Agency coordinated research or receiving support from the Agency to efficiently use nuclear applications to assess pollution and the impacts of contaminants on the coastal and marine environment.<br>• Number of certified reference materials produced and proficiency test and interlaboratory comparison exercises organized. |
| • Increased use of information, data, real-time measurements and numerical tools by Member State experts in support of marine environment management and decision making for routine and emergency situations. | • Number of Member State experts accessing the MARIS database.<br>• Number of Agency reports and scientific publications addressing coastal and marine radioactive and non-radioactive pollution. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***2.4.2.001 Radioactive and non-radioactive pollution and impact on the marine environment*** | Publications and guidelines on the application of nuclear and associated techniques to the study of marine environmental pollution. |

| **Subprogramme 2.4.3 Analytical Techniques to Protect Marine Biodiversity and Ecosystem Services** | |
|---|---|
| ***Objectives:*** | |
| — *To provide scientific and technical support and expertise to Member States on the application of nuclear and isotopic techniques to understand the sources, distribution, fate and impact of marine contaminants, including microplastics, biotoxins linked to HABs and radionuclides; to safeguard marine biodiversity, ecosystems and ecosystem services; and to maintain seafood safety.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of Agency expertise and R&D services to apply nuclear and isotopic techniques to assess the occurrence, transfer and impact of contaminants in the marine environment. | • Number of analytical methods developed or improved to increase the quality of Member State contaminant analysis data.<br>• Number of Member State scientists participating in Agency coordinated research and training activities, and of scientific institutions assisted to improve their capacity to monitor and assess transfer processes, behaviour and impact of pollutants and radionuclides in the marine environment. |
| • Increased Member State use of Agency tools to improve knowledge on the sources, accumulation, transfer and impacts of marine contaminants in target marine organisms in coastal and marine ecosystems and seafood. | • Number of Agency and scientific publications presenting the use of nuclear and isotopic techniques related to the sources, accumulation, transfer and impacts of marine contaminants in marine organisms and seafood. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.4.3.001 Developing methodologies for environmental monitoring and assessment*** | Analytical methodologies for the determination of marine pollutants including contaminants of emerging concern; provision of quality assurance services to improve or maintain the quality of Member State laboratories; capacity building in Member States to improve knowledge of environmental monitoring, assessment and remediation. |
| ***2.4.3.002 Nuclear and isotopic techniques for management of ecosystem services, including addressing marine plastics*** | Best practice guidelines, scientific publications, reports on the application of nuclear and related techniques to assess the impacts of pollutants (e.g. marine microplastics, biotoxins from harmful algae, radionuclides, surplus nutrients) on biota, coastal and marine ecosystems and seafood safety in the context of a changing marine environment. Transfer of fit-for-purpose knowledge to Member States. |

## Programme 2.5 Radiochemistry and Radiation Technology

Radiochemistry and radiation technology have numerous beneficial applications in diverse areas such as health care, food safety and security, the environment and industry. This programme will continue to focus on strengthening applications in these diverse areas to address the needs of Member States, including the mitigation of plastic pollution through NUTEC Plastics initiative. Radiochemical and stable isotope techniques developed in the Agency's Seibersdorf laboratories can help to assess pollution problems, climate change and other environmental processes by conducting applied research to develop suitable tools to ensure the generation of high quality, suitable data/impact assessments to guide science-based policy decisions.

In response to continued increasing demand, the programme's activities will be aimed at supporting Member States in building their capacity for the sustainable use of relevant technologies, such as machine-based technology through the acquisition of a transportable electron beam accelerator, with an emphasis on best laboratory/industrial work practice, quality assurance, safety, compliance with relevant national regulatory requirements and certification. These activities will be complemented by the development of technical documents, guidelines, web-based educational materials and e-learning modules.

In health care, the focus will continue to be on activities relating to the production of medical and industrial radioisotopes and other diagnostic isotopes; emerging therapeutic radionuclides, including alpha emitters; and theragnostic and molecular targeting radiopharmaceuticals, with a strong emphasis on accessibility and regulatory aspects. Supporting activities will include topics such as the use of biomaterials and tissue regeneration using radiation-assisted processing. Activities in industrial and environment applications of radiotracers, radiation technology and nuclear analytical methods will focus on training and certification to support Member States in enabling the safe use of such techniques, on environmental processes monitoring applications, and on the assessment of civil engineering structures and cultural artefacts. In addition, the use of non-destructive testing (NDT) will strengthen the collaborative network for response to natural disasters. Another area of focus is radiation technologies that address emerging needs such as radiation treatment of industrial effluents or potential biohazards; preservation of cultural heritage objects; upcycling activities to mitigate plastic pollution; and production of high-value products such as nanomaterials, biomaterials and bio-based plastics. Practical training will be provided, and e-learning tools will be produced in cooperation with collaborating institutes.

***Lessons learned from reviews, assessments and evaluations:*** Successful, sustainable deployment and applications of nuclear techniques in Member States require the engagement of all stakeholders from the very beginning, including appropriate training and certification of personnel. The Agency's support to Member States in the use of NDT for structural integrity evaluation of civil infrastructures following recent natural disasters underpins the need to remain ready to respond to such events, which includes the provision of training in NDT techniques. Applications of radiotracer and radiation-based techniques in industry are well established in many countries. However, these applications are continually evolving to suit emerging needs, such as for plastic pollution and the mitigation of greenhouse gases. These activities are effectively addressed under NUTEC Plastics initiative.

***Specific criteria for prioritization:***

1. Support Member States in the use of nuclear techniques that have a clear advantage over non-nuclear techniques.
2. Support Member States in developing holistic training strategies for skilled human resources, safe working practices and compliance with national regulatory requirements.
3. Support Member States in the global production and supply of radioisotopes.
4. Support Member States in developing methodologies for upcycling plastics using radiation.

## Programmatic changes and trends

***Subprogramme 2.5.1 Radioisotope Products for Cancer Management and Non-communicable Diseases*** *w*ill prioritize support for Member States in developing diagnostic radiopharmaceuticals, specifically those based on copper-64 ($^{64}$Cu), gallium-68 ($^{68}$Ga), technetium-99m ($^{99m}$Tc), and zirconium-89 ($^{89}$Zr). Additionally, it will continue to support the development of therapeutic radiopharmaceuticals utilizing lutetium-177 ($^{177}$Lu) and actinium-225 ($^{225}$Ac), as well as new beta, alpha, and Auger emitters. The subprogramme will also assist in the implementation of good manufacturing practices and quality assurance programmes in the production of radioisotopes and radiopharmaceuticals. In response to interest expressed by Member States, the subprogramme will explore emerging therapeutic radionuclides and radiopharmaceuticals, emphasizing the importance of maintaining a sustainable supply of medical isotopes. Furthermore, the subprogramme will expand the Radiopharmacy Database and strengthen collaboration with the WHO and other regulatory bodies through the IAEA Technical Working Group on Radiopharmaceuticals Regulations.

***Subprogramme 2.5.2 Radiation Technology Applications in Health Care, Industries and the Environment*** will continue to prioritize the use of emerging radiation technologies for various key applications. These include material modification to produce high performing, environmentally friendly materials, the deactivation of biothreats and other toxic substances, preservation of cultural heritage, and recycling of plastics. Additionally, the subprogramme will emphasize the use of radiotracers, NDT techniques and nucleonic gauges across different sectors. Key trends will include the development of accessible electron beam systems and strategies to support Member States and initiatives such as NUTEC Plastics initiative, showcasing the transportable electron beam system at the Seibersdorf laboratories. Another major trend will focus on consolidating a global NDT response centre for civil engineering assessments that will integrate machine learning capabilities for disaster management.

***Subprogramme 2.5.3 Terrestrial Environmental Radiochemistry*** will continue to focus on assisting Member States in addressing terrestrial and atmospheric pollution challenges. This subprogramme will prioritize support for Member States in tackling pollution and climate change issues, thereby contributing to the achievement of the SDGs. Efforts will be bolstered by laboratory quality assurance activities, including the development of reference

materials, proficiency tests, and ensuring radiological emergency preparedness in Member State laboratories. The main goals focus on capacity building and training, with an emphasis on environmental monitoring training and pursuing ISO 17043 accreditation through a worldwide proficiency test exercise for over 600 participants from more than 100 Member States. Additionally, the subprogramme aims to strengthen analytical capabilities by expanding training opportunities and providing support for CRPs.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 2.5 Radiochemistry and Radiation Technology** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in strengthening their capability to produce radioisotopes and radiopharmaceuticals.*<br>— *To support Member States in applications of radiotracers and radiation technology for industrial and other uses, and in application of nuclear analytical techniques to address environmental challenges* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of Agency services to produce radioisotopes and radiolabelled products for use in health care, industry, research and other suitable areas. | • Number of Member State laboratories involved in developing and utilizing methodologies for radioisotope production using research reactors, cyclotrons, linear accelerators and generators as well as for radiopharmaceutical production for diagnosis and therapeutic applications.<br>• Number of technical documents produced and made available to Member States on topics related to medical radioisotope or radiopharmaceutical production. |
| • Increased Member State use of Agency services in the use of radiotracers and radiation technologies for industrial applications, environmental remediation and production of novel high-performance materials. | • Number of Member State laboratories trained in developing and utilizing methodologies dealing with radiotracers, NDT, nucleonic control systems, radiation processing for material modification, and for efficient industrial processes, environmental remediation and preservation of cultural artefacts.<br>• Number of technical documents, databases and guidebooks made available and used in Member States. |
| • Increased capability of Member State institutions to address pollution, climate change and other environmental challenges and to mitigate their detrimental consequences through the use of nuclear techniques and stable isotopes. | • Number of scientists and technicians participating in training events, round robin tests and proficiency testing. |

| **Subprogramme 2.5.1 Radioisotope Products for Cancer Management and Non-communicable Diseases** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in enhancing their capability to locally produce medical radioisotopes or radiopharmaceuticals for use in support of the management of cancer and other non-communicable diseases.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased Member State use of Agency services in developing and producing radioisotopes or radiopharmaceuticals for improving health care. | • Number of Member State laboratories involved in developing and utilizing methodologies for radioisotope production using research reactors, cyclotrons, linear accelerators and generators as well as for radiopharmaceutical production for diagnosis and therapeutic applications.<br>• Number of technical documents produced and made available to Member States on topics related to medical radioisotope or radiopharmaceutical production. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***2.5.1.001 Development and production of medical radioisotopes*** | Guidelines on quality assurance for the production and analysis processes of medical radioisotopes; alternative technologies for the production of important medical radioisotopes such as $^{99}$Mo and $^{99m}$Tc generators; production methodologies for medical radioisotopes used for positron emission tomography diagnosis ($^{68}$Ga, $^{89}$Zr, etc.), for therapy (beta, alpha and Auger emitters) and for theragnostics; worldwide databases for facilities involved in the production of medical radioisotopes via accelerators and research reactors. |
| ***2.5.1.002 Development of diagnostic and therapeutic radiopharmaceuticals*** | Guidelines on procedures and regulatory issues in radiopharmaceutical production; development of new radiopharmaceuticals and respective quality control procedures and pre-clinical tests, including the use of radiopharmaceuticals for COVID-19; educational and training programmes, including e-learning. |

## Subprogramme 2.5.2 Radiation Technology Applications in Health Care, Industries and the Environment

***Objectives:***

— *To support Member States in enhancing their capability to adopt and use radiation technologies for the development of products for health care and industry, environmental remediation, preservation of artefacts, and cleaner and safer industrial processes.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased national capabilities to use radiation techniques for efficient industrial process management and development, and in assessment of civil engineering structures and environmental impacts. | • Number of Member State laboratories trained in developing and utilizing methodologies dealing with radiotracer techniques, NDT and nucleonic control systems for efficient industrial processes management and development, and in assessment of civil engineering structures and environmental impacts.<br>• Number of technical documents and training materials made available and used in Member States. |
| • Increased national capabilities to use radiation technologies for sterilization, development of advanced products for health care and industry, environmental remediation and preservation of cultural heritage artefacts. | • Number of Member State laboratories trained in developing and utilizing methodologies of radiation processing for material modification, for development of products for health care and industry, for environmental remediation and for preservation of cultural heritage artefacts.<br>• Number of technical documents, databases and guidebooks made available and used in Member States. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***2.5.2.001 Applications of radiotracers and radiation techniques*** | Manuals, e-learning modules, guidelines and training materials on NDT, nucleonic control systems (sealed radiation sources) and radioactive tracer applications in industry, civil engineering and environment; projects and meetings dealing with new technologies for existing and emerging applications; organization and implementation of the International Conference on Applications of Radiation Science and Technology (ICARST-2025). |

| **Projects** | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***2.5.2.002 Radiation processing technologies and applications*** | Methodologies, guidelines, e-learning modules, training materials and standard procedures for radiation applications for food safety, health care, industry, recycling of plastics and remediation of pollutants; workshops and meetings on emerging techniques; organization and implementation of the International Conference on Applications of Radiation Science and Technology (ICARST-2025). |

| **Subprogramme 2.5.3 Terrestrial Environmental Radiochemistry** | |
|---|---|
| ***Objectives:*** | |
| — *To support Member States in delivering reliable scientific data and applying impact assessment tools to address challenges posed by environmental pollution and climate change.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased capability of Member State institutions to address pollution problems, climate change and environmental challenges and to mitigate their detrimental consequences. | • Total number of scientists and technicians participating in training events, technical meetings and proficiency testing. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***2.5.3.001 Quality assurance and control in environmental nuclear analytical techniques*** | Annual proficiency tests for the ALMERA network and worldwide open proficiency tests on radionuclides in environmental samples; tailored reference materials for Member State laboratories; analytical procedures for analysis of radionuclides; training courses on sampling and analysis; quality system maintenance and expanded accreditation. |
| ***2.5.3.002 Nuclear techniques to monitor and assess terrestrial and atmospheric pollution*** | Publications; online training material on environmental sampling; training courses. |

## Major Programme 2 — Nuclear Techniques for Development and Environmental Protection

Summary of Programme Structure and Resources

*(excluding Major Capital Investments)*

| Programme/Subprogramme/Project | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| | Regular Budget | Unfunded | Regular Budget | Unfunded |
| 2.0.0.001 Overall management, coordination and common activities | 2 192 950 | - | 2 192 950 | - |
| 2.0.0.002 Management of the coordinated research activities | 672 009 | 109 239 | 672 009 | 109 239 |
| 2.0.0.003 Outreach and partnerships coordination | 147 267 | 46 817 | 147 267 | 46 817 |
| 2.S Corporate shared services | 7 325 790 | 134 789 | 7 325 791 | 134 789 |
| | **10 338 015** | **290 844** | **10 338 017** | **290 844** |
| 2.1.1.001 Land management for climate-smart agriculture | 1 441 082 | 714 097 | 1 303 305 | 779 097 |
| 2.1.1.002 Water management for resource saving agriculture | 777 774 | 379 113 | 806 286 | 379 113 |
| 2.1.1.003 Assessment of soil contaminants in agricultural lands | 427 126 | 21 085 | 536 391 | 21 085 |
| **2.1.1 Sustainable Land and Water Management** | **2 645 982** | **1 114 295** | **2 645 982** | **1 179 295** |
| 2.1.2.001 Improving animal reproduction and breeding | 947 755 | 945 269 | 935 108 | 1 045 269 |
| 2.1.2.002 Efficient and Sustainable Animal Production Systems | 743 589 | 476 971 | 815 801 | 476 971 |
| 2.1.2.003 Early detection, rapid diagnosis and control of transboundary animal and zoonotic diseases | 881 444 | 7 165 592 | 821 879 | 7 165 592 |
| **2.1.2 Sustainable Intensification of Livestock Production Systems** | **2 572 788** | **8 587 832** | **2 572 788** | **8 687 832** |
| 2.1.3.001 Food irradiation applications using novel radiation technologies | 446 694 | 404 872 | 502 519 | 404 872 |
| 2.1.3.002 Assurance of food safety, quality and authenticity to enhance trade | 1 479 347 | 1 246 716 | 1 423 520 | 1 146 716 |
| 2.1.3.003 Cost-effective nuclear techniques for responding to food contamination during emergencies | 121 689 | 104 837 | 121 689 | 104 837 |
| **2.1.3 Improvement of Food Safety and Food Control Systems** | **2 047 730** | **1 756 425** | **2 047 728** | **1 656 425** |
| 2.1.4.001 SIT and related technologies to manage major insect plant pests | 1 594 153 | 656 354 | 1 514 191 | 656 354 |
| 2.1.4.002 Management of livestock insect pests for sustainable agriculture | 983 265 | 732 751 | 1 100 605 | 732 751 |
| 2.1.4.003 Development of the SIT for the control of disease transmitting mosquitoes | 1 454 247 | 890 246 | 1 416 869 | 890 246 |
| **2.1.4 Sustainable Control of Major Insect Pests** | **4 031 665** | **2 279 351** | **4 031 665** | **2 279 351** |
| 2.1.5.001 Mutation induction for better adaptation to climate change | 1 157 018 | 1 064 116 | 1 180 592 | 1 094 116 |
| 2.1.5.002 Integrated techniques for mutation breeding and biodiversity | 999 352 | 443 287 | 975 778 | 443 287 |
| **2.1.5 Crop Improvement for Intensification of Agricultural Production Systems** | **2 156 370** | **1 507 403** | **2 156 370** | **1 537 403** |
| **2.1 Food and Agriculture** | **13 454 535** | **15 245 305** | **13 454 533** | **15 340 305** |
| 2.2.1.001 Health effects of nutrition and the environment | 2 033 143 | 990 012 | 2 033 263 | 1 124 011 |
| **2.2.1 Nutrition for Improved Human Health** | **2 033 143** | **990 012** | **2 033 263** | **1 124 011** |
| 2.2.2.001 Nuclear medicine and radiology techniques in health conditions | 1 440 572 | 889 940 | 1 443 494 | 889 940 |
| 2.2.2.002 Clinical data management and education in nuclear techniques in health | 743 155 | - | 740 355 | - |
| 2.2.2.003 Medical imaging and radiomics | 74 363 | 200 022 | 74 363 | 200 022 |
| **2.2.2 Nuclear Medicine and Diagnostic Imaging** | **2 258 090** | **1 089 963** | **2 258 212** | **1 089 963** |
| 2.2.3.001 Clinical radiation oncology | 1 673 692 | 1 353 908 | 1 672 666 | 1 353 812 |
| 2.2.3.002 Biological effects of radiation | 498 331 | - | 499 331 | - |
| **2.2.3 Radiation Oncology and Cancer Treatment** | **2 172 022** | **1 353 908** | **2 171 997** | **1 353 812** |
| 2.2.4.001 Calibration and auditing services | 1 431 724 | - | 1 431 590 | - |
| 2.2.4.002 Developments in radiation dosimetry | 842 163 | - | 822 087 | - |
| 2.2.4.003 Clinical medical radiation physics | 1 228 895 | 1 080 032 | 1 248 888 | 1 080 032 |
| **2.2.4 Dosimetry and Medical Physics for Imaging and Therapy** | **3 502 782** | **1 080 032** | **3 502 565** | **1 080 032** |
| **2.2 Human Health** | **9 966 037** | **4 513 915** | **9 966 037** | **4 647 818** |

## Major Programme 2 — Nuclear Techniques for Development and Environmental Protection

Summary of Programme Structure and Resources

*(excluding Major Capital Investments)*

| Programme/Subprogramme/Project | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| | Regular Budget | Unfunded | Regular Budget | Unfunded |
| 2.3.1.001 IAEA global water isotope data networks | 621 935 | - | 736 011 | - |
| 2.3.1.002 Understanding the Impact of Climate Change on the Global Water Cycle | 611 977 | - | 620 144 | - |
| **2.3.1 Isotope Hydrology Data Networks and Climate Change** | **1 233 912** | **-** | **1 356 155** | **-** |
| 2.3.2.001 Comprehensive assessment of water resources | 404 663 | - | 396 329 | - |
| 2.3.2.002 Management strategies for groundwater and surface water resources | 411 187 | 535 000 | 408 379 | 535 000 |
| **2.3.2 Isotope Based Integrated Water Resource Management** | **815 850** | **535 000** | **804 708** | **535 000** |
| 2.3.3.001 Quantification of groundwater age | 606 695 | - | 569 092 | - |
| 2.3.3.002 Defining Timescales of Water Cycle Processes | 766 948 | - | 674 124 | - |
| **2.3.3 Radioisotope Applications for Water Resource Sustainability** | **1 373 642** | **-** | **1 243 216** | **-** |
| 2.3.4.001 Isotopic Assessment of Surface Water and Groundwater Quality | 425 301 | - | 444 885 | - |
| 2.3.4.002 Tracing Pollution Sources and Pathways | 466 242 | - | 465 982 | - |
| **2.3.4 Isotope Applications for Water Quality Total** | **891 543** | **-** | **910 868** | **-** |
| **2.3 Water Resources** | **4 314 947** | **535 000** | **4 314 948** | **535 000** |
| 2.4.1.001 Isotopic tools to study climate and environmental change | 834 276 | 246 050 | 834 276 | 246 050 |
| 2.4.1.002 Assessing carbon cycle and impacts of ocean acidification | 859 401 | 770 089 | 859 401 | 770 089 |
| **2.4.1 Nuclear Techniques to Understand Climate and Marine Environmental Change** | **1 693 677** | **1 016 139** | **1 693 677** | **1 016 139** |
| 2.4.2.001 Radioactive and non-radioactive pollution and impact on the marine environment | 1 814 822 | 1 174 860 | 1 814 822 | 1 174 860 |
| **2.4.2 Nuclear Techniques to Monitor and Assess Marine Pollution** | **1 814 822** | **1 174 860** | **1 814 822** | **1 174 860** |
| 2.4.3.001 Developing methodologies for environmental monitoring and assessment | 915 220 | 379 214 | 915 220 | 379 214 |
| 2.4.3.002 Nuclear and isotopic techniques for management of ecosystem services, including addressing marine plastics | 987 285 | 255 394 | 987 285 | 255 394 |
| **2.4.3 Analytical Techniques to Protect Marine Biodiversity and Ecosystem Services** | **1 902 505** | **634 608** | **1 902 505** | **634 608** |
| **2.4 Marine Environment** | **5 411 004** | **2 825 607** | **5 411 004** | **2 825 607** |
| 2.5.1.001 Development and production of medical radioisotopes | 488 333 | - | 509 174 | - |
| 2.5.1.002 Development of diagnostic and therapeutic radiopharmaceuticals | 693 561 | - | 703 448 | - |
| **2.5.1 Radioisotope Products for Cancer Management and Non-communicable Diseases** | **1 181 894** | **-** | **1 212 622** | **-** |
| 2.5.2.001 Applications of radiotracers and radiation techniques | 703 616 | - | 688 572 | - |
| 2.5.2.002 Radiation processing technologies and applications | 940 284 | 346 072 | 924 561 | 346 072 |
| **2.5.2 Radiation Technology Applications in Health Care, Industries and the Environment** | **1 643 900** | **346 072** | **1 613 133** | **346 072** |
| 2.5.3.001 Quality assurance and control in environmental nuclear analytical techniques | 1 095 390 | - | 1 095 391 | - |
| 2.5.3.002 Nuclear techniques to monitor and assess terrestrial and atmospheric pollution | 1 139 903 | - | 1 139 942 | - |
| **2.5.3 Terrestrial Environmental Radiochemistry** | **2 235 292** | **-** | **2 235 333** | **-** |
| **2.5 Radiochemistry and Radiation Technology** | **5 061 086** | **346 072** | **5 061 087** | **346 072** |
| **Major Programme 2 - Nuclear Techniques for Development and Environmental Protection** | **48 545 625** | **23 756 743** | **48 545 625** | **23 985 646** |

# Major Programme 2 — Nuclear Techniques for Development and Environmental Protection

Activities unfunded in the Regular Budget

*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 2.0.0.002 Management of the coordinated research activities | Management of the coordinated research activities and the collaborating centres scheme | 109 239 | 109 239 |
| 2.0.0.003 Outreach and partnerships coordination | Manage administrative aspects of various partnerships of the NA Department, and support NA Divisions in outreach activities | 46 817 | 46 817 |
| 2.1.1.001 Land management for climate-smart agriculture | Land management for climate smart agriculture and crisis response in food and agriculture including Atoms4Food for all activities in the area of Sustainable Land and Water Management | 714 097 | 779 097 |
| 2.1.1.002 Water management for resource saving agriculture | Water Management for Resource Saving Agriculture | 379 113 | 379 113 |
| 2.1.1.003 Assessment of soil contaminants in agricultural lands | Assessment of Food and Soil Contamination during Radiological Emergencies | 21 085 | 21 085 |
| 2.1.2.001 Improving animal reproduction and breeding | Improving Animal Production and Breeding including Atoms4Food for all activities in the area of Sustainable Intensification of Livestock Production Systems | 945 269 | 1 045 269 |
| 2.1.2.002 Efficient and Sustainable Animal Production Systems | Decreasing Transboundary Animal Disease Threats | 476 971 | 476 971 |
| 2.1.2.003 Early detection, rapid diagnosis and control of transboundary animal and zoonotic diseases | Zoonotic Disease Integrated Action (ZODIAC) flagship initiative and Early detection, rapid diagnosis and control of zoonotic diseases. This includes IAEA IT platforms on Zoonotic Diseases Strengthened including Geo-visualization Tools for Multiple Users (ZODIAC Pillar 3) and four Coordinated Research Projects Enhancing Laboratory Preparedness for the Detection and Control of Emerging and Re-emerging Zoonotic Diseases – ZODIAC in Asia and the Pacific, in the Americas and the Caribbean, in Europe and Central Asia and in Africa | 7 165 592 | 7 165 592 |
| 2.1.3.001 Food irradiation applications using novel radiation technologies | Food Irradiation Applications Using Novel Radiation Technologies | 404 872 | 404 872 |
| 2.1.3.002 Assurance of food safety, quality and authenticity to enhance trade | Traceability for food safety and quality to enhance international trade including Atoms4Food for all activities in the area of Improvement of Food Safety and Food Control Systems | 1 246 716 | 1 146 716 |
| 2.1.3.003 Cost-effective nuclear techniques for responding to food contamination during emergencies | Research and Development on Rapid Methods for Food Safety Emergencies<br>CRP on Rapid Screening for Safe Food | 104 837 | 104 837 |
| 2.1.4.001 SIT and related technologies to manage major insect plant pests | Sterile Insect Technique and Related Technologies to Manage Major Insect Plant Pests<br>Harmonization of Phytosanitary Treatments for Exotic Fruit Flies | 656 354 | 656 354 |
| 2.1.4.002 Management of livestock insect pests for sustainable agriculture | Management of Livestock Insect Pests for Sustainable Agriculture including Atoms4Food for all activities in the area of Sustainable Control of Major Insect Pests | 732 751 | 732 751 |
| 2.1.4.003 Development of the SIT for the control of disease transmitting mosquitoes | Development of Sterile Insect Technique (SIT)'s for the Control of Disease Transmitting Mosquitoes<br>Human Disease Vectors - Development and Validation of the Sterile Insect Technique to Control Disease Transmitting Mosquitoes | 890 246 | 890 246 |

## Major Programme 2 — Nuclear Techniques for Development and Environmental Protection

Activities unfunded in the Regular Budget

*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 2.1.5.001 Mutation induction for better adaptation to climate change | Mutation induction for better adaptation to climate change including Atoms4Food for all activities in the area of Crop Improvement for Intensification of Agricultural Production Systems | 1 064 116 | 1 094 116 |
| 2.1.5.002 Integrated techniques for mutation breeding and biodiversity | Integrated Techniques for Mutation Breeding and Biodiversity | 443 287 | 443 287 |
| 2.2.1.001 Health effects of nutrition and the environment | Supporting NAHRES component of Rays of Hope Initiative and Atoms4Food including CRP and PUI projects | 990 012 | 1 124 011 |
| 2.2.2.001 Nuclear medicine and radiology techniques in health conditions | Supporting Rays of Hope initiative including SUNRISE CRP framework, Anchor Centres, development of e-learning media for databases, virtual reality, education and training for NMDI | 889 940 | 889 940 |
| 2.2.2.003 Medical imaging and radiomics | Databases and datasets in medical imaging and other medical infrastructure<br>CRP 13054: CT Findings in Patients with COVID-19: An IAEA International Cooperative Study | 200 022 | 200 022 |
| 2.2.3.001 Clinical radiation oncology | Supporting Rays of Hope initiative including SUNRISE CRP framework, Anchor Centres, development of e-learning media for databases, virtual reality, education and training for ARBR | 1 353 908 | 1 353 812 |
| 2.2.4.003 Clinical medical radiation physics | Supporting Rays of Hope initiative including SUNRISE CRP framework, workshops for Anchor Centres, development of e-learning media for databases, virtual reality, education and training for DMRP | 1 080 032 | 1 080 032 |
| 2.3.2.002 Management strategies for groundwater and surface water resources | Supporting improved access to isotope hydrology analytical methods to integrate into the GloWAL Network | 535 000 | 535 000 |
| 2.4.1.001 Isotopic tools to study climate and environmental change | CRP for advancing knowledge on the effects of climate change on contaminants in the ocean | 246 050 | 246 050 |
| 2.4.1.002 Assessing carbon cycle and impacts of ocean acidification | PUI Project Ocean Acidification International Coordination Centre (OA-ICC)<br>PUI Project Coastal Dead-Zones | 770 089 | 770 089 |
| 2.4.2.001 Radioactive and non-radioactive pollution and impact on the marine environment | Radioanalytical, radiotracer, isotopic and related techniques and numerical assessment tools for environmental monitoring, assessment and management supporting the sustainable development and use of the environment and its resources | 1 174 860 | 1 174 860 |
| 2.4.3.001 Developing methodologies for environmental monitoring and assessment | Development of methodologies to assess contaminants in the marine environment, transfer technology to MS, enhance partnerships with int. organizations, and provide services for the quality assurance of contaminant analysis | 379 214 | 379 214 |
| 2.4.3.002 Nuclear and isotopic techniques for management of ecosystem services, including addressing marine plastics | PUI Project Marine Plastics: Tackling the Challenge using Nuclear Applications (Phase III)<br>CRP Optimizing Nuclear Techniques to Assess Microplastic Pollution in Coastal Areas<br>CRP Advancing Transdisciplinary Knowledge on Marine Plastic Pollution<br>CRP Development & Application of Isotopic Technqs to Assess Eutrophication & HABs in Coastal Areas | 255 394 | 255 394 |
| 2.5.2.002 Radiation processing technologies and applications | Supporting Member States on the use of radiation technologies | 346 072 | 346 072 |
| 2.S Corporate shared services | Corporate shared services | 134 789 | 134 789 |
| **Grand Total** | | **23 756 743** | **23 985 646** |

# Major Programme 3
# Nuclear Safety and Security

## Introduction

Major Programme 3 promotes the worldwide achievement and maintenance of high levels of nuclear safety and security to protect people, society and the environment from the harmful effects of ionizing radiation. It supports Member States in meeting the demand for a higher level of safety at the growing number of nuclear installations — including uranium mining facilities — and at existing nuclear power plants (NPPs) and research reactors, whose average age continues to increase. It also supports Member States in addressing the wider use of ionizing radiation in industry, medicine and agriculture; the continuous threat of nuclear terrorism; and the accumulation of radioactive waste and spent nuclear fuel. In conducting these activities, the Agency fosters a strong safety and security culture. Through Major Programme 3, the Agency performs its statutory function of establishing safety standards and providing for their application in Member States, upon request, as well as to its own operations.

Major Programme 3 assists Member States in building national capacities by promoting international cooperation and by transferring nuclear safety knowledge from States with mature nuclear energy and nuclear applications programmes to States with emerging nuclear energy and nuclear applications programmes through knowledge networks. The activities under this Major Programme will continue to cover the strengthening of nuclear, radiation, transport and waste safety in a comprehensive manner, including design safety, external hazard assessment, safety culture, communication on safety, severe accident management, post-accident remediation and transition to recovery, as well as aspects related to NPP operating life extension, including organizational and human performance, decommissioning of facilities, disposal of low and high level radioactive waste, innovative technologies such as fast reactors and small and medium sized or modular reactors, and the safety of radiation sources used in non-power applications.

The security of nuclear and other radioactive material and facilities remains a high priority. The Agency develops and publishes nuclear security recommendations and guidance and maintains an effective information platform for their application. At the request of a State, the Agency assists in developing and implementing a robust nuclear security infrastructure, including prevention, detection and response. Despite the nuclear safety and security arrangements in place, the risk of a nuclear or radiological emergency — of various origins or severity — cannot be entirely eliminated. This Major Programme also focuses on providing assistance in developing and strengthening national and international capacities to prepare to respond effectively to, and to mitigate, the consequences of such an emergency. The Incident and Emergency Centre will continue responding to the growing demands from Member States.

The Agency is the global focal point for international preparedness for and response to nuclear and radiological incidents or emergencies and implements its response roles under this Major Programme. Radiation safety and nuclear security regulations for the Agency's own activities will continue to be strengthened. Major Programme 3 will continue to focus on enhancing timely coordination within this Major Programme and with other Major Programmes to contribute to — as well as to build synergies and increase effectiveness and efficiency within — the planning and implementation of activities such as the IAEA Platform on Small Modular Reactors and their Applications, the Nuclear Harmonization and Standardization Initiative (NHSI), Rays of Hope and other initiatives.

| ***Objectives:*** |
| --- |
| — *To continuously improve global safety and security through the establishment and application of safety standards and security guidance; adherence to international legal instruments; and strengthened experience sharing through peer reviews and advisory services, capacity building and networking.* |
| — *To continuously enhance national, regional and international capabilities and arrangements for ensuring a high level of safety and security and emergency preparedness and response.* |

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State use of Agency tools, methodologies and expertise to strengthen nuclear safety and security at the national, regional and international levels. | • Number of peer review and advisory services conducted in the areas of nuclear safety and security.<br>• Percentage of Agency recommendations from safety and security services addressed by Member States. |
| • An integrated and comprehensive set of up-to-date safety standards and security guidance available to Member States. | • Number of new or revised safety standards and security guidance. |
| • Enhanced global knowledge sharing networks on nuclear safety. | • Number of thematic safety areas within the safety networks.<br>• Number of safety network members. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.0.0.001 Overall management, coordination, communication and common activities*** | Nuclear Safety Review; Mid-Term Progress Report; Programme Performance Report; reports responding to General Conference resolutions on nuclear safety and security; International Nuclear Advisory Safety Group publications; outreach materials; International Conference on Effective Nuclear and Radiation Regulatory Systems (RegCon2026); effective coordination of interdepartmental activities and services. |
| ***3.0.0.002 Capacity building, knowledge networks and partnerships*** | Capacity building activities and self-assessment; outreach materials; nuclear safety knowledge products; senior-level meetings; partnership and resource mobilization tools and processes. |
| ***3.0.0.003 Coordination of safety standards and security guidance*** | Safety Requirements and Safety Guides; Nuclear Security Recommendations, Implementing Guides and Technical Guidance and means for their promotion. |
| ***3.0.0.004 Internal control for radiation safety and nuclear security*** | Documents on regulatory activities; status reports on safety and security at the Agency's laboratories; progress reports on implementation of the recommendations of the self-assessment and the Integrated Regulatory Review Service (IRRS) mission. |

## Programme 3.1 Incident and Emergency Preparedness and Response

Member States and the international community need to be prepared to respond effectively to nuclear and radiological emergencies, should they occur. Programme 3.1 supports Member States in enhancing specific elements of preparedness for and response to nuclear and radiological emergencies, irrespective of the triggering event(s), by, for example, developing and maintaining national infrastructure elements; improving cooperation between the safety and security communities; assessing hazards and emergency management; and keeping the international community and the general public well informed. The programme also assists Member States in developing effective national and global response capabilities and arrangements to minimize the impacts of nuclear or radiological incidents and emergencies.

An effective emergency response requires a coherent initial assessment followed by adequate emergency management, which can only be achieved through coordinated emergency preparedness and response (EPR). The Agency is the focal point in EPR for nuclear and radiological emergencies, regardless of whether they arise from an accident, natural disaster, negligence, nuclear security event or any other cause. This role derives from responsibilities mandated to the Agency by the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, as well as by decisions of the Agency's Policy-Making Organs. The role is also established as part of a number of mechanisms and practical arrangements and builds upon the expertise and long experience of the Agency in the area of EPR. The Agency also has a statutory function to develop safety standards and to provide for their application. Finally, the Agency has a role in assessing nuclear and radiological incidents and emergencies and in communicating their significance and potential consequences.

***Lessons learned from reviews, assessments and evaluations:*** This programme takes into account Member States' needs in emergency preparedness and response activities and lessons identified during the performance assessment of the previous programme cycle, particularly in relation to operational arrangements for implementing relevant Conventions, to actual emergency responses and exercises, to peer review missions, and to the establishment and functioning of capacity building centres and networks. Of particular importance are the Emergency Preparedness Review (EPREV) missions and Member States' self-evaluations, as reflected in the IAEA Emergency Preparedness and Response Information Management System (EPRIMS), on the stages of implementation of the EPR requirements formulated in IAEA Safety Standards Series No. GSR Part 7.

***Specific criteria for prioritization:***

1. Activities necessary to fulfil obligations under the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency;
2. Activities to support Member States in enhancing EPR in line with *Preparedness and Response for a Nuclear or Radiological Emergency* (IAEA Safety Standards Series No. GSR Part 7 and EPR-related Safety Guides);
3. Activities to enhance international EPR, based on the conclusions of the 2025 International Conference on Nuclear and Radiological Emergencies: Building the Future in an Evolving World; and
4. Activities to address lessons from response to emergencies, and from the Level 3 Convention Exercise (ConvEx-3) to be conducted in 2025.

## Programmatic changes and trends

***Subprogramme 3.1.1 National and International Emergency Preparedness*** will continue to follow up on relevant EPR activities from the preceding biennial programme cycle. The subprogramme's activities have been prepared based on EPR needs identified through assessment and evaluation of national and international EPR utilizing various means (e.g. EPRIMS, EPREV and advisory missions, recommendations from the International Conference on Nuclear and Radiological Emergencies: Building the Future in an Evolving World (2025) and provisions of General Conference resolutions), the conclusions of meetings of the Emergency Preparedness and Response Standards Committee, meetings of Competent Authorities and meetings of the Inter-Agency Committee on Radiological and Nuclear Emergencies (IACRNE).

***Subprogramme 3.1.2 IAEA IES and Operational Arrangements with Member States and International Organizations*** will continue its activities aimed at maintaining and continuously enhancing the Agency's Incident and Emergency System (IES) and operational arrangements with Member States and relevant international organizations. The subprogramme's activities have been prepared on the basis of needs identified through the evaluation of EPR exercises, the conclusions of meetings of the Competent Authorities and relevant General Conference safety-related resolutions.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 3.1 Incident and Emergency Preparedness and Response** | |
|---|---|
| ***Objectives:*** | |
| — *To maintain and further enhance efficient Agency, national, regional and international EPR capabilities and arrangements for effective response to nuclear or radiological incidents and emergencies, irrespective of the triggering event(s).*<br>— *To improve exchange of information on nuclear or radiological incidents and emergencies among Member States, international stakeholders, and the public and media in the preparedness stage of, and during response to, nuclear or radiological incidents and emergencies, irrespective of the triggering event(s).* | |
| **Outcomes** | **Performance Indicators** |
| • Enhanced EPR arrangements and capabilities to effectively respond to a nuclear or radiological incident or emergency at the national, regional and international levels, irrespective of the triggering event(s). | • Percentage of recommendations from meetings of the Competent Authorities and peer review missions for the improvement of national, regional and international EPR addressed. |
| • Enhanced EPR arrangements and capabilities to effectively respond to a nuclear or radiological incident or emergency at the Agency level, irrespective of the triggering event(s). | • Percentage of recommendations from internal full response exercises for improvement of the Agency's IES addressed. |

| Outcomes | Performance Indicators |
|---|---|
| • Maintained and improved information systems, including the Unified System for Information Exchange in Incidents and Emergencies, the International Radiation Monitoring Information System and EPRIMS, for providing and sharing technical information and monitoring data in a nuclear or radiological incident or emergency, irrespective of the triggering event(s). | • Percentage of recommendations from the use of information systems for improvement of the information sharing systems in a nuclear or radiological incident or emergency addressed. |

## Subprogramme 3.1.1 National and International Emergency Preparedness

***Objectives:***

— *To strengthen EPR arrangements and capabilities at the national level for effective response to nuclear or radiological emergencies, irrespective of the* triggering event(s)*, by developing and providing assistance in the application of safety standards, operational guidelines and tools through capacity building activities and EPR peer reviews.*

— *To enhance transparency and knowledge sharing in the area of EPR through more effective and comprehensive use of peer review missions and collaborative networks.*

— *To further strengthen the international EPR framework.*

| Outcomes | Performance Indicators |
|---|---|
| • Strengthened national EPR arrangements and capabilities and enhanced transparency in the sharing of information on EPR for nuclear or radiological incidents and emergencies, irrespective of the triggering event(s). | • Number of Member States that have provided or updated input in EPRIMS.<br>• Percentage of Member States with all modules of their self-assessment published in EPRIMS. |
| • Strengthened inter-agency EPR arrangements and enhanced international cooperation and coordination in EPR. | • Percentage of recommendations from IACRNE meetings and related exercises and/or lessons for improvement of international EPR arrangements addressed. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.1.1.001 Member State emergency preparedness*** | IAEA safety standards on EPR; technical guidance documents and tools; training events and materials; capacity building centres; EPRIMS database as a tool for self-assessment of Member State EPR arrangements; EPR education and training networks; peer review and advisory mission reports; effective coordination of interdepartmental activities and services. |
| ***3.1.1.002 International emergency management*** | Joint Radiation Emergency Management Plan of the International Organizations reviewed and updated; IACRNE meeting reports; report on the 2024 meeting of Competent Authorities; IACRNE procedures reviewed and updated; IACRNE website maintained; EPR activities coordinated at the international level; harmonized inter-agency response to a nuclear or radiological emergency, irrespective of the triggering event(s). |

## Subprogramme 3.1.2 IAEA IES and Operational Arrangements with Member States and International Organizations

***Objectives:***

— *To maintain and continuously enhance arrangements for effective Agency emergency response, including notification, exchange of information, assessment and prognosis, international assistance, public communication and coordination of inter-agency response.*

— *To respond effectively to nuclear or radiological incidents and emergencies, irrespective of the triggering event(s).*

— *To develop, maintain and continuously improve systems facilitating the exchange of specific information in a nuclear or radiological incident and emergency.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased effectiveness of the Secretariat's response and response coordination with relevant international organizations in a nuclear or radiological incident or emergency. | • Percentage of recommendations by Competent Authorities addressed. |
| • Increased efficiency of the international assistance mechanism and effectiveness of the provision of requested assistance in a nuclear or radiological incident or emergency. | • Number of Member States registering or updating their national assistance capabilities. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.1.2.001 Preparedness of the Incident and Emergency System*** | Annual training programme, schedule and training records; maintained and enhanced response arrangements (appendices to the Response Plan for Incidents and Emergencies, procedures, checklists and instructions); updated contact point lists; ConvEx-1 reports. |
| ***3.1.2.002 Response and assistance arrangements with Member States and international organizations*** | Effective response to nuclear or radiological emergencies irrespective of the triggering event(s); operational arrangements and protocols with Member States and international organizations; Member States trained in operational arrangements; conduct of exercises, including on assessment and prognosis, public information during a nuclear or radiological emergency triggered by a nuclear security event; updated arrangements for international assistance. |
| ***3.1.2.003 Public communication in emergencies*** | Agency publications; implementation of the International Nuclear and Radiological Event Scale guidance; training materials; outreach activities (newsletter, tweets, web articles, brochures) in coordination with the Office of Public Information and Communication; workshops and training activities. |

## Programme 3.2 Safety of Nuclear Installations

Programme 3.2 supports Member States in establishing the appropriate safety infrastructure and in continuously improving the safety of nuclear installations through the availability and application of up-to-date safety standards. Relevant information from sources such as the Convention on Nuclear Safety (CNS), including the Vienna Declaration on Nuclear Safety, the Code of Conduct on the Safety of Research Reactors and the feedback from safety peer review services, will be considered to ensure that the needs of Member States are addressed.

The Agency will continue developing or revising, as appropriate, safety standards with a focus on the safety of innovative technologies. Increased interest in new nuclear power technologies and long term operation (LTO) of existing installations requires clear design safety requirements and assessment capabilities consistent with advances in technology, methods and tools. Priority will thus be given to the design safety of evolutionary and innovative nuclear power technologies, such as small modular reactors (SMRs), fusion, transportable NPPs and peaceful uses of nuclear propulsion, and the operational safety of existing installations, including organizational and human performance. Work will also continue to develop supporting guides with regard to site and design safety and severe accident prevention and mitigation, with special reference to the effects of climate change on the safety of nuclear installations.

Application of the IAEA safety standards will continue to be actively promoted through the conduct, upon request, of safety peer review services and capacity building activities. Safety peer review services are an important component of assisting Member States in their efforts to continuously improve the regulatory infrastructure and the safety performance of nuclear installations, and the effectiveness of these services will continue to be assessed and enhanced as necessary. Analysis of findings, including the implementation rate of recommendations and suggestions, will be published on a periodic basis. In addition, Member States will be supported in building capacity and enhancing national safety infrastructure to improve regulatory effectiveness through education and training and international cooperation. For countries with mature nuclear power programmes, activities will focus on both deployment of evolutionary and innovative reactor technologies and LTO of existing installations. For

countries either restarting or embarking on a nuclear power programme, capacity building will focus on the development of nuclear safety infrastructure and regulatory and operational readiness and will be strengthened to ensure sustainability. Feedback from operating experience and the results of research and development will be widely disseminated.

***Lessons learned from reviews, assessments and evaluations:*** Programme 3.2 considers the results of meeting of the Contracting Parties to the Convention on Nuclear Safety (CNS), the conclusions of Agency conferences on regulatory effectiveness and on design and operational safety of nuclear installations, the findings from safety peer review services, and the lessons learned from operating and regulatory experience shared, respectively, through the international event reporting systems and regulatory forums and networks. The programme focuses on current and emerging challenges, such as the effectiveness and transparency of regulatory bodies; the competency of human resources; safety assessments of evolutionary and innovative nuclear power technologies, such as SMRs, fusion, transportable NPPs and peaceful uses of nuclear propulsion; and safety of LTO of nuclear installations. Specifically, the programme responds to a continued demand for assistance in the development of safety infrastructure in countries expanding or embarking on a new nuclear power programme and in extending operation of existing nuclear installations. In addition, the programme participates in the IAEA Platform on Small Modular Reactors and their Applications and leads the IAEA's NHSI initiative.

***Specific criteria for prioritization:***

1. Maintaining up-to-date safety standards, reflecting current practice, and supporting conventions and codes of conduct.
2. Providing for more effective application of the IAEA safety standards through continuously improving the delivery of safety peer review services and development of supporting documents.
3. Supporting Member States in capacity building through education and training, and the exchange of information and operating experience; and
4. Strengthening international cooperation, including enhanced coordination of research and development activities.

## Programmatic changes and trends

***Subprogramme 3.2.1 Governmental Regulatory Framework and Safety Infrastructure Development*** will support the effective implementation of regulatory core functions, both in countries with mature nuclear power programmes and in those expanding or embarking on one. It responds to requests from Member States seeking support to enhance their nuclear safety infrastructure through, for example, Agency workshops on the licensing process for a first NPP, on developing and implementing core regulatory processes, on establishing integrated management systems, on developing programmes on leadership and management for safety, on the safety–security interface, and on conducting safety culture self-assessments for regulatory bodies. Many Member States considering or actively implementing a nuclear power programme also face difficulties in developing competence to perform regulatory functions effectively; this subprogramme will respond to these needs through providing support in the areas of education and training, human resource development, knowledge management and knowledge networks. With the growing interest in deploying new nuclear technologies, and specifically SMRs, the Agency will support Member States in addressing the regulatory challenges through the work of the Small Modular Reactors Regulators' Forum and other activities, such as the NHSI. Under this subprogramme, the previous project "Capacity building for installations safety and regulatory functions" was merged with project 3.2.1.001 "Regulatory effectiveness and safety infrastructure for new programmes" for reasons of efficiency and clarity. Capacity building remains an integral part of this project.

***Subprogramme 3.2.2 Safety Assessment of Nuclear Installations*** will, in light of the renewed interest in nuclear power, which includes the development and deployment of evolutionary and innovative reactor technologies, either as large reactors, small modular reactors or microreactors, and the construction of new NPPs continue to focus on developing or revising, as appropriate, the safety assessment and design safety standards to ensure that they are applicable to the advanced reactor technologies and that they represent the state of the art. Additionally, many existing NPPs are planning for LTO, and there is a strong interest in accelerating the ability to produce energy from fusion. Application of the IAEA safety standards will be supported via advisory and Technical Safety Review (TSR) services and the deployment of safety assessment and design safety competency building programmes.

***Subprogramme 3.2.3 Safety and Protection Against External Hazards*** will address many challenges to safety and protection against external hazards, including the following, highlighted by recent experiences: the effects of low probability events beyond the design basis; the importance of accurate knowledge and scientific evidence in periodic safety reviews; combined external hazards that simultaneously affect multiple units on a site; and mechanisms for sharing operating experience in the case of external events. It is expected that requests from Member States for technical insights on these issues will increase. The subprogramme will deliver safety documents and safety peer review services containing practical advice to Member States in an effective and efficient manner.

***Subprogramme 3.2.4 Safe Operation of Nuclear Power Plants*** will increase assistance to host organizations in addressing issues identified during safety peer review missions, expand support to corporate nuclear organizations and Member States embarking on new nuclear programmes and conduct more 'train the trainer' sessions on operational safety related topics based on the needs of Member States. The Agency will continue to support Member States in enhancing their capability to review LTO and ageing management and to implement the safety requirements established in *Leadership and Management for Safety* (IAEA Safety Standards Series No. GSR Part 2), *Safety of Nuclear Power Plants: Commissioning and Operation* (IAEA Safety Standards Series No. SSR-2/2 (Rev. 1)), *Ageing Management and Development of a Programme for Long Term Operation of Nuclear Power Plants* (IAEA Safety Standards Series No. SSG-48), and *Operating Experience Feedback for Nuclear Installations* (IAEA Safety Standards Series No. SSG-50). The updated requirements are now included in the Operational Safety Review Team (OSART) and Safety Aspects of Long Term Operation (SALTO) services, in the Independent Safety Culture Assessment (ISCA) process, and in capacity building through assistance to Member States for self-assessment and continuous improvement.

***Subprogramme 3.2.5 Safety of Research Reactor and Fuel Cycle Facilities*** will continue to assist Member States in addressing priority needs, identified challenges and emerging trends with a focus on regulatory effectiveness, ageing of facilities, preparation for decommissioning, the interface between safety and security, safety of use of innovative technology in the design and operation of research reactors and nuclear fuel cycle facilities, and infrastructure for new programmes. Work is also needed to ensure the safety of research reactors and nuclear fuel cycle facilities in supporting the design and manufacturing of new fuel and development of nuclear power, including SMRs. The activities of the subprogramme include the development of up-to-date safety standards and assistance for Member States in their application; support for the application of the Code of Conduct on the Safety of Research Reactors; the organization of safety peer reviews and advisory services; the conduct of capacity building activities; and the fostering of information networks and exchange of feedback experience.

**Objectives, Outcomes and Performance Indicators by Programme**

<table>
<tr><th colspan="2">Programme 3.2 Safety of Nuclear Installations</th></tr>
<tr><td colspan="2">Objectives:</td></tr>
<tr><td colspan="2">— To support Member States in improving the safety of nuclear installations during site evaluation, design, construction and operation through the availability and application of up-to-date safety standards.<br>— To support Member States in establishing and enhancing their national safety infrastructure through the conduct of safety review services and facilitation of adherence to, and implementation of, the CNS and the Code of Conduct on the Safety of Research Reactors.<br>— To support Member States in capacity building through human resource development, education and training, and knowledge management and knowledge networks by means of international cooperation, including exchange of information and operating experience, and coordination of research and development activities.</td></tr>
<tr><th>Outcomes</th><th>Performance Indicators</th></tr>
<tr><td>● An integrated and comprehensive set of up-to-date safety standards and supporting documents, reflecting current practice, in the general areas of legal and governmental framework and safety of nuclear installations during their entire lifetime.</td><td>● Percentage of planned new or revised safety standards and supporting documents — relevant to governmental organizations or the safety of nuclear installations — that are issued.</td></tr>
<tr><td>● Appropriate safety infrastructure established, and safety of nuclear installations continuously improved through the application of IAEA safety standards in Member States.</td><td>● Number of safety peer review services conducted.<br>● Percentage of recommendations from safety review services addressed by the host Member State/host organization.</td></tr>
</table>

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State use of Agency services in the areas of safety infrastructure and safety of nuclear installations focusing on the effectiveness of regulatory control, leadership and management for safety, and design and operational safety, including LTO. | • Number of training events conducted in the areas of safety infrastructure and safety of nuclear installations. |

## Subprogramme 3.2.1 Governmental Regulatory Framework and Safety Infrastructure Development

***Objectives:***

— *To support Member States in establishing and maintaining effective, independent and sustainable governmental, regulatory and safety frameworks for nuclear installations through peer reviews, advisory services and activities supporting the implementation of up-to-date IAEA safety standards.*

— *To support Member State regulatory bodies in enhancing their regulatory and safety capacity building process, and in fostering strong leadership and safety culture.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated, comprehensive and consistent set of up-to-date safety standards in the area of governmental and regulatory framework for the safety of nuclear installations. | • Number of relevant new and revised safety standards and supporting documents. |
| • Sustained Member State use of Agency services and safety standards to support the development and strengthening of regulatory infrastructure. | • Number of IRRS missions conducted in countries with NPPs and those embarking on or expanding nuclear power programmes.<br>• Percentage of recommendations and suggestions from IRRS missions addressed. |
| • Use of Agency capacity building services, competency assessment tools and training programmes by Member State regulatory bodies to support the sustainability of resources for the safety of nuclear installations, for emerging and mature nuclear programmes. | • Number of training activities in the area of regulatory activities.<br>• Number of Member States utilizing the Systematic Assessment of Regulatory Competence Needs methodology and/or other review and self-assessment tools. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.2.1.001 Regulatory effectiveness and safety infrastructure for new programmes*** | Safety standards, guidelines, other technical publications, information exchange and mission reports; information exchange facilitated through international regulatory forums; coordination and provision of expert support to countries with nuclear installations and to embarking countries. |
| ***3.2.1.002 Safety standards and CNS promotion/support*** | Safety standards and reports; CNS Officers' Meeting, 10th CNS review meeting in 2026 and CNS organizational meeting in 2027; four meetings of the Nuclear Safety Standards Committee. |

## Subprogramme 3.2.2 Safety Assessment of Nuclear Installations

***Objectives:***

— *To support Member States in achieving a high level of safety in NPP design and excellence in safety assessment through the provision of state-of-the-art safety assessment and design safety standards and providing for their application to existing, evolutionary and innovative reactor technologies.*

— *To support Member States with advisory and review services in the implementation of safety assessment and design safety standards to existing, evolutionary and innovative technologies.*

— *To support Member States in safety assessment competency building and to assist them in addressing topical issues on safety assessment and design safety.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated, comprehensive and consistent set of state-of-the-art safety standards and supporting documents in the areas of safety assessment and design safety available to Member States. | • Number of relevant new and revised safety assessment and design safety standards and supporting documents. |
| • Sustained Member State use of Agency services to support design safety and safety assessment of nuclear power plants. | • Number of safety review services conducted. |
| • Sustained Member State use of the Agency's training courses, workshops and webinars in the areas of safety assessment and design safety, including for innovative reactor technologies. | • Number of Member States participating in training activities.<br>• Number of training activities conducted in the areas of safety assessment and design safety. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.2.2.001 Design safety of current, evolutionary and innovative power reactors*** | Technical documents and reports associated with the new or revised design safety standards; reports on TSRs and advisory services for design safety; design safety related training materials and e-learning modules. |
| ***3.2.2.002 Development and application of safety assessment methods*** | New and revised safety standards on safety assessment and associated technical publications and materials; reports from technical safety assessment peer review and advisory services; safety assessment related training materials and e-learning modules. |

## Subprogramme 3.2.3 Safety and Protection Against External Hazards

***Objectives:***

— *To support Member States in enhancing site and installation design safety with respect to external hazards, including hazards resulting from human activity and with special reference to the effects of climate change, through the development of safety standards and technical guidelines for their application.*

— *To support Member States in assessing site and installation design safety with respect to external hazards, through advisory services, peer review services and capacity building initiatives.*

— *To support Member States in capacity building through education and training.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated, comprehensive, and consistent set of up-to-date safety standards and supporting technical documents in the areas of site safety, design safety and safety assessment in relation to external hazards. | • Number of new and revised safety standards and supporting documents in this area. |
| • Improved level of safety and protection against external hazards, demonstrated by follow-up review services. | • Number of Site and External Events Design (SEED) review services implemented upon request by Member States.<br>• Percentage of recommendations from SEED missions addressed by Member States after receiving a full-scope SEED review. |
| • Increased Member State use of Agency training methodologies in the area of safety and protection against external hazards and external hazard assessment. | • Number of Member States participating in training activities.<br>• Number of training activities conducted in the area of safety protection against external hazards and external hazard assessment. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***3.2.3.001 Site evaluation and installation design safety*** | Safety standards and supporting documents in the areas of site selection and evaluation, and protection of nuclear installations against external hazards; safety review services, expert missions, workshops, training materials, standard review guidelines, handbooks and webinars for capacity building in Member States; software tools for assessment of damage to nuclear installations induced by external events and for the assessment of lessons learned on hazard evaluation and risk management. |
| ***3.2.3.002 Evaluation methods and tools for installation safety assessment*** | IAEA safety reports and Technical Documents (TECDOCs) on technical methods and tools required for implementing IAEA safety standards for site evaluation, safety assessment and safe operation; workshops, training materials and webinars for capacity building in Member States; dissemination and sharing of information; international training events on selected safety issues for advanced reactors; optimization of the resilience of installations in case of major external scenarios; databases and tools for improved qualification methods and design for nuclear safety. |

## Subprogramme 3.2.4 Safe Operation of Nuclear Power Plants

***Objectives:***

- *To support Member States in improving operational safety performance through the development of safety standards and other publications and providing support for their application.*
- *To support Member States in improving operational safety through safety review services for operational safety, safe LTO and ageing management, operating experience, and leadership and management for safety and safety culture.*
- *To support Member States in capacity building by arranging training and workshops on enhancing operational safety and providing advice on conducting self-assessments.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated, comprehensive and consistent set of up-to-date safety standards in the areas of operational safety, safe LTO and ageing management, operating experience, and leadership and management for safety and safety culture available to Member States. | • Percentage of planned new or revised safety standards and supporting documents issued in the area of operational safety, LTO and ageing management, operating experience and leadership and management. |
| • Improved operational safety in Member States. | • Number of OSART, SALTO, operating experience, and leadership and culture for safety review missions conducted.<br>• Percentage of Agency recommendations from safety review services addressed by Member States. |
| • Enhanced competency in Member States in the areas of operational safety, safe LTO, ageing management, operating experience, and leadership and management for safety and safety culture. | • Number of training events conducted in the areas of OSART, LTO, ageing management, operating experience, and management, leadership and culture for safety. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***3.2.4.001 Operational safety performance*** | OSART mission reports; e-learning-based training materials on corporate/plant self-assessment; updated OSART mission results database; integrated revision of safety guides on operational safety; publication of OSART mission highlights; dissemination of OSART-related information on a dedicated website. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***3.2.4.002 Sharing and use of international operating experience*** | Event reports from NPPs shared through the International Reporting System for Operating Experience (IRS); operating experience summary reports (IRS Blue Books, IRS annual report); assistance mission reports; safety standards and TECDOCs on operating experience and continuous performance improvement programmes; training courses on performance improvement, operating experience and root cause analysis. |
| ***3.2.4.003 Leadership and management for safety and safety culture in Member States*** | Revised Safety Guides on leadership and management for safety; safety culture continuous improvement workshops for Member States; ISCA mission reports; training activities, meetings and workshops. |
| ***3.2.4.004 Safety of long term operation*** | SALTO mission and expert mission reports; support missions conducted; workshops and Technical Meetings; Safety Reports; TECDOCs and guidelines on ageing management and LTO; International Generic Ageing Lessons Learned ageing management programmes, time-limited ageing analyses, regulatory practices, ageing management review tables and other ageing management related activities and associated documents. |

## Subprogramme 3.2.5 Safety of Research Reactor and Fuel Cycle Facilities

***Objectives:***

- *To support Member States in strengthening safety of research reactors and fuel cycle facilities in all phases of their lifetime, including support for the development of safety infrastructure for new research reactors and fuel cycle facilities.*
- *To foster the international exchange of information on operating experience and capacity building for research reactors and fuel cycle facilities.*

| Outcomes | Performance Indicators |
|---|---|
| • A comprehensive set of up-to-date safety standards on research reactors and nuclear fuel cycle facilities made available to Member States. | • Number of new or revised safety standards and supporting documents for research reactors and fuel cycle facilities. |
| • Increased Member State use of Agency services to support safety of research reactors and nuclear fuel cycle facilities. | • Number of safety review services conducted.<br>• Percentage of Agency recommendations from safety review services addressed by Member States. |
| • Increased Member State use of Agency capacity building activities on safety of research reactors and nuclear fuel cycle facilities. | • Percentage of Member States with operating research reactors and nuclear fuel cycle facilities participating in Agency capacity building activities and in the platform for exchange of operating experience. |

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***3.2.5.001 Safety of research reactors*** | Safety standards and supporting documents; meeting and mission reports; feedback on Member States' self-assessments against application of the Code of Conduct on the Safety of Research Reactors; coordinated research projects (CRPs); Incident Reporting System for Research Reactors database. |
| ***3.2.5.002 Safety of fuel cycle facilities*** | Safety standards and supporting documents; meeting and mission reports; training material; Fuel Incident Notification and Analysis System database. |

# Programme 3.3 Radiation and Transport Safety

Programme 3.3 focuses on the protection of people and the environment from the harmful effects of ionizing radiation. It covers the establishment of safety standards and provisions for their application — both being statutory functions of the Agency. Capacity building, including education and training, and networking, as well as communication strategies on radiation risks, are cross-cutting key elements of the global safety framework, and they are included throughout this programme. The importance of international undertakings, such as applicable conventions and codes of conduct, as an element of the safety framework, is also recognized. The activities within the programme are still mainly ongoing, with some changes of emphasis. The target audience includes national bodies and relevant international organizations dealing with radiation and transport safety issues. The beneficiaries are governments, regulators, workers, patients, the general public, and users and operators.

Agency safety standards will continue to be reviewed. The programme will provide for the implementation of the IAEA safety standards and the Code of Conduct on the Safety and Security of Radioactive Sources. This is done through various means, including peer review and advisory services, outreach and the exchange of information, and guidance and training materials. These activities provide essential feedback and assurances on the overall effectiveness of the programme and facilitate planning and anticipating future issues.

***Lessons learned from reviews, assessments and evaluations:*** Peer review and advisory missions are in strong demand and the results indicated the importance of stable, adequately resourced and effectively independent regulatory systems. The Agency will further tailor its approach to the delivery of IRRS and Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) missions to better meet the needs of individual Member States requesting combined or separate missions. Member State support for the Code of Conduct on the Safety and Security of Radioactive Sources, as well as for its supplementary Guidance on the Import and Export of Radioactive Sources and Guidance on the Management of Disused Radioactive Sources, remains strong. The transport of radioactive material and of nuclear facilities remains of interest to Member States and, consequently, there is a need to retain strong links with other international organizations dealing with transport. The Agency's strategic approach to education and training continues to assist Member States in strengthening radiation and transport safety.

***Specific criteria for prioritization:***

1. Activities that strengthen the global safety framework by establishing safety standards and cooperating with other international organizations that also assist in harmonization and international undertakings and that provide for the application of the IAEA safety standards.
2. Activities that support Member States in strengthening regulatory infrastructure for radiation and transport safety through peer review and advisory missions.
3. Activities that promote the Code of Conduct on the Safety and Security of Radioactive Sources and assist Member States in strengthening national strategies for sealed source end of life management, in order to avoid orphan sources.

## Programmatic changes and trends

***Subprogramme 3.3.1 Radiation Safety and Monitoring*** focuses on the provision of assistance to Member States in reaching or maintaining the highest level of radiation safety. In 2026–2027, the Agency will continue to provide for application of *Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards* (IAEA Safety Standards Series No. GSR Part 3), as well as the associated Safety Guides. The Agency has launched preparations for the conference entitled "International Conference on Radiation Protection and Safety: Promoting International Harmonization for Improving Radiation Protection and Safety in an Evolving Context". The Agency will develop new general safety guidance on existing exposure situations and will continue to advise Member States on enhancing safety in relevant medical procedures and to assist in the implementation of the principles of justification and optimization. The Agency continues to implement actions identified in the Bonn Call for Action (2012) at strengthening the radiation safety of patients with regard to the medical applications of ionizing radiation and radioactive sources. After the revision of the Safety Guide entitled *Occupational Radiation Protection*, several Safety Reports need to be revised or developed, for example addressing radiation safety in the oil and gas industry and the water treatment industry. The Agency continues to ensure the highest possible radiation safety for its staff and experts in all activities involving radiation and radioactive sources.

***Subprogramme 3.3.2 Regulatory Infrastructure and Transport Safety*** will continue to address the increasing demand from Member States for independent peer reviews and advisory missions supported by self-assessments in the area of regulatory infrastructure and transport of radiation sources. The Radiation Safety Information

Management System (RASIMS) will be updated and optimized to improve the assessment of the radiation safety infrastructure in Member States and develop more tailored support. Recognizing the need to build competence in radiation safety in a sustainable manner, the number of Member States that are developing and implementing their own national strategy based on a national needs analysis in line with the IAEA safety standards and guidance is expected to continue to increase. Growing request for the Postgraduate Educational Course (PGEC) in Radiation Protection and the Safety of Radioactive Source is expected, as well as the need to develop more schools and e-learning related to radiation safety infrastructure. In transport safety, the revision of the IAEA safety standards will continue with special emphasis on the transport safety of innovative reactors. Upon the request of Member States, of technical assistance recipient countries and of donor countries, this subprogramme — on both regulatory infrastructure and transport safety — will increase coordination and cooperation with the relevant subprogrammes on nuclear security in order to foster the integrated strengthening of national infrastructure for radiation safety and security of radioactive material. Continuous support will be provided to Member States in capacity building through education and training, knowledge management and networking.

**Objectives, Outcomes and Performance Indicators by Programme**

**Programme 3.3 Radiation and Transport Safety**

***Objectives:***

— *To support Member States in improving radiation safety and transport safety for the protection of people and the environment through the development of safety standards and by providing for their application.*

— *To support Member States in establishing the appropriate radiation and transport safety infrastructure through, among other things, safety review services and support to implement the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary guidance.*

— *To support Member States in capacity building through education and training, and in encouraging the exchange of information and experience.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated, comprehensive and consistent set of up-to-date safety standards in the area of radiation and transport safety available to Member States. | • Number of relevant new and revised safety standards and supporting documents. |
| • Increased Member State use of Agency services to support radiation and transport safety. | • Number of safety review, appraisal and advisory missions conducted. |
| • Increased Member State use of Agency methodologies for analysing training needs in the area of radiation and transport safety. | • Number of Member States having conducted an analysis of training and education needs in radiation and transport safety. |

**Subprogramme 3.3.1 Radiation Safety and Monitoring**

***Objectives:***

— *To support Member States in reaching the highest level of radiation safety through the development of safety standards and guides and by providing for their use in all sectors of industry, medicine and other applications, and also through providing relevant information on the risks and benefits of such applications.*

— *To provide services for a high level of radiation protection for the Agency's own operations and for all operations making use of materials, services, equipment, facilities and information made available by the Agency, including assistance in technical cooperation projects.*

| Outcomes | Performance Indicators |
|---|---|
| • Strengthened cooperation among relevant international organizations with responsibilities and mandates for radiation safety. | • Number of safety standards, other documents and workshops jointly sponsored by members of the Inter-Agency Committee on Radiation Safety.<br>• Number of safety standards, guidance and other documents (revision of existing documents or development of new documents) to support implementation of the revised GSR Part 3 jointly sponsored by international organizations. |

| Outcomes | Performance Indicators |
|---|---|
| • Increased efficiency and effectiveness of dosimetry systems protecting occupationally exposed workers for Agency staff, and increased Member State capabilities for their application. | • Number of accredited methods maintained in the Agency's laboratories. |
| • Increased Member State use of Agency materials on good practices in medical radiation protection among health professionals and organizations involved in radiation protection with regard to the medical application of radiation and radioactive sources. | • Number of page views, including downloads of Agency guidance and other information on methods for improving radiation protection of patients from the Agency's Radiation Protection of Patients web pages. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.3.1.001 Public and environment radiation protection*** | New and revised safety standards and guidance documents; meetings and workshops for Member States to support implementation of GSR Part 3 and cooperation with relevant international organizations on radiation safety issues. |
| ***3.3.1.002 Radiation protection of patients*** | Safety related reporting systems for radiological procedures and radiotherapy; a website for health professionals and patients containing up-to-date information on dose reduction in radiation exposure in medicine; outputs driven by the results of the International Conference on Radiation Protection in Medicine: X-Ray Vision; new advisory service on medical uses; International Conference on Radiation Protection and Safety: Promoting International Harmonization for Improving Radiation Protection and Safety in an Evolving Context. |
| ***3.3.1.003 Occupational radiation protection*** | New and revised safety documents supporting the IAEA safety standards on occupational radiation protection; new or expanded radiation protection optimization networks; operation of the Information System on Occupational Exposure, and promotion and upgrade of the Information System on Occupational Exposure in Medicine, Industry and Research — industrial radiography and naturally occurring radioactive material (NORM) modules; newly developed and updated training packages, reports and information management system for the Occupational Radiation Protection Appraisal Service; expansion and use of Occupational Radiation Protection Networks. |
| ***3.3.1.004 Radiation safety technical services*** | Accredited individual dosimetry and workplace monitoring services; instrument calibration services; radiation safety and monitoring assistance in accidents and incidents; novel dosimetry and monitoring methodologies and practices. |

## Subprogramme 3.3.2 Regulatory Infrastructure and Transport Safety

***Objectives:***

— *To support Member States in strengthening their regulatory infrastructure for radiation and transport safety through the development of safety standards and by providing for their application.*

— *To support Member States in strengthening their regulatory infrastructure for radiation and transport safety through peer review and advisory services, expert missions and workshops.*

— *To support Member States in enhancing their radiation safety competence building across all relevant organizations.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated, comprehensive and consistent set of up-to-date safety standards in the area of transport safety and regulatory infrastructure available to Member States. | • Number of new and revised safety standards and supporting documents in the area of transport safety and regulatory infrastructure approved by the Safety Standards Committees/Commission on Safety Standards, as appropriate. |

| Outcomes | Performance Indicators |
|---|---|
| • Increased Member State use of Agency services to support a fit for purpose regulatory infrastructure for radiation safety in Member States. | • Number of safety review services conducted. |
| • Increased Member State understanding of the IAEA safety standards through education and training. | • Number of PGEC events and 'train the trainers' courses for radiation protection officers. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***3.3.2.001 Regulatory control of radiation sources*** | Meetings of legal and technical experts on the implementation of the Code of Conduct on the Safety and Security of Radioactive Sources; regional workshops on the implementation of the Code; revised safety standards; advisory missions reports; regulatory review services; recommendations to Member States on regulatory aspects; schools for regulators, on drafting regulations, and on policy and strategy. |
| ***3.3.2.002 Transport safety*** | A comprehensive set of transport safety standards, TECDOCs and other guidance, and training courses; Technical Meetings and other consultancy meetings to support the implementation of such guidance, with a specific focus on the transport safety aspects of innovative technologies; International Conference on the Safe and Secure Transport of Nuclear and Radioactive Materials. |
| ***3.3.2.003 Technical assistance and information management*** | RASIMS and radiation safety infrastructure country profiles in RASIMS; reports of the Steering Committee on Education and Training in Radiation, Transport and Waste Safety and of the directors of PGECs; a revised and updated approach to education and training in this area; updated training materials for PGECs and train the trainer' events for radiation protection officers; updated impact analysis of PGECs and 'train the trainer' events. |

## Programme 3.4 Radioactive Waste Management and Environmental Safety

Programme 3.4 provides support to Member States in establishing radiation safety infrastructure for the management of spent nuclear fuel, radioactive waste, residues and environmental releases, decommissioning of nuclear installations and other facilities using radioactive material, and remediation of contaminated areas. This programme includes the development of relevant IAEA safety standards, the provision of assistance to Member States in the use and application of these safety standards, coordination of the Waste Safety Standards Committee (WASSC), and the provision of secretariat services for meetings of the Contracting Parties to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention).

***Lessons learned from reviews, assessments and evaluations:*** Programme 3.4 is informed by the conclusions of Agency conferences, findings of peer reviews and advisory missions, common overarching issues identified by Contracting Parties to the Joint Convention, and experiences shared by Member States. Increasing interest in nuclear power production brings with it the need for guidance on early planning for safe decommissioning and radioactive waste management to avoid creating legacy sites and waste in the future. Potential increases in nuclear power could also lead to an increased demand for uranium and thorium and to expansion of mining and processing activities. Therefore, guidance on safe decommissioning of uranium production facilities and safe management of NORM residues is a growing priority. This need to consider the 'back end' of facilities early was a key conclusion of the IAEA conference on Ensuring Safety and Enabling Sustainability. The conference also highlighted that the optimization of protection and safety is complex when comparing options for ensuring waste and environmental safety — for example, deciding how clean is clean enough when remediating a site. Case-specific guidance is well received (e.g., guidance on the safe management of disused sealed radioactive sources and on the decommissioning of small facilities) and there is increasing interest in developing safety infrastructure in countries with small inventories of radioactive waste. The safe management of discharges to the marine

environment remains a priority topic; the Agency continues to maintain a database of radioactive materials entering the marine environment, provides guidance on control of discharges and maintains links with related international conventions. As well as ensuring safety standards are comprehensive and up to date, there is a need to focus on their application. E-learning and virtual meetings increase dissemination and have a place in blended learning.

***Specific criteria for prioritization:***

1. Maintaining a comprehensive set of up-to-date safety standards on the safety of the management of radioactive waste, spent nuclear fuel and environmental releases, decommissioning and remediation.
2. Providing for more effective application of the IAEA safety standards and thereby strengthening national safety infrastructure for managing radioactive waste, spent nuclear fuel and environmental releases, decommissioning and remediation.
3. Supporting Member States in increasing capacities and capabilities for safely managing radioactive waste, spent nuclear fuel and environmental releases, decommissioning and remediation.
4. Promoting adherence to and implementation of the Joint Convention.

## Programmatic changes and trends

***Subprogramme 3.4.1 Safety of Spent Fuel and Radioactive Waste Management*** covers projects on predisposal and disposal of spent fuel and radioactive waste related to near surface, borehole and geological disposal. The backbone of international projects on predisposal and disposal will be the development and review of safety cases for demonstrating the safety of facilities and activities in all phases of waste management, including both operational and post-closure phases. The application of a graded approach will also be considered and guidance on specific clearance of radioactive material will be a focus in order to enable recycling and reuse and minimize the volume of waste requiring disposal. Progress continues regarding the disposal of radioactive waste but in many countries some or all waste remains in storage. Therefore, international projects will enable Member States to take the first or next step towards disposal of radioactive waste, by mapping out a sequence of decisions from design to closure of a disposal facility informed by the evolving safety case. The Secretariat will ensure that these international projects and the implementation of peer review services (such as ARTEMIS) will foster exchange and sharing of experience in this domain. With regard to review missions, initial experience suggests a preference for ARTEMIS missions to be conducted back-to-back with IRRS missions. The Agency will continue to monitor opportunities for further developing its review services and promoting the Joint Convention.

***Subprogramme 3.4.2 Safety of Decommissioning, Remediation and Environmental Releases*** consists of projects addressing the safety of the interrelated elements of decommissioning, remediation and the management of NORM residues and radioactive releases to the environment. Efforts will continue towards developing safety standards and guidance with increased emphasis on site-specific guidance, including guidance on the safe management and decommissioning of uranium production facilities, and determining decommissioning strategies and end states for small facilities in countries with limited safety infrastructure, where the implementation of a graded approach is essential. Consideration will be given to the need for guidance on control of discharges, potential exposures and decommissioning for innovative reactors in order to avoid the creation of future legacy situations. Recent work on the remediation of contaminated areas will be expanded to address long-term post-remediation management, and the role of clearance in managing large volumes of radioactive waste. The subprogramme will explore ways of helping Member States to determine whether managing contamination from past practices or uranium production facilities should be managed as an existing or planned exposure situation. With growing interest in the area of releases to the marine environment, the Agency will maintain its understanding of radioactive materials entering the marine environment and enhance its guidance on environmental monitoring and radiological environmental impact assessments, including guidance on a graded approach to assessing impacts on the environment (flora and fauna).

## Objectives, Outcomes and Performance Indicators by Programme

### Programme 3.4 Radioactive Waste Management and Environmental Safety

***Objectives:***

- *To support Member States in improving the safety of radioactive waste and spent nuclear fuel management, including geological repositories for high level waste, decommissioning, remediation and environmental releases, through the development of safety standards and providing for their application.*
- *To support Member States in improving the safety of radioactive waste and spent nuclear fuel management, including geological repositories for high level waste, decommissioning, remediation and environmental releases, through peer reviews and advisory services; and to assist in their adherence to, and facilitate implementation of, the Joint Convention.*
- *To support Member States in capacity building through education and training and by encouraging the exchange of information and experience.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated and comprehensive set of up-to-date safety standards and support documents in the area of safety of radioactive waste management, including predisposal and disposal of waste (near surface and geological) and decommissioning and remediation available to Member States. | • Number of new and revised safety standards and supporting documents accepted for publication.<br>• Number of document preparation profiles approved for development. |
| • Enhanced safety infrastructure in Member States for managing radioactive waste, spent nuclear fuel and environmental releases, decommissioning and remediation. | • Number of peer review and advisory missions conducted in the area of spent fuel and radioactive waste management, including predisposal and disposal.<br>• Number of Contracting Parties to the Joint Convention. |
| • Increased capacity in Member States for safely managing radioactive waste, spent nuclear fuel and environmental releases, decommissioning and remediation. | • Number of training events and Technical Meetings held.<br>• Number of new or revised e-learning materials prepared. |

### Subprogramme 3.4.1 Safety of Spent Fuel and Radioactive Waste Management

***Objectives:***

- *To support Member States in improving the safety of radioactive waste and spent nuclear fuel management through the development of safety standards and providing for their application.*
- *To support Member States in improving the safety of radioactive waste and spent fuel management through peer reviews and advisory services; and to assist in their adherence to, and facilitate implementation of, the Joint Convention.*
- *To support Member States in capacity building through education and training and by encouraging the exchange of information and experience.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated and comprehensive set of up-to-date safety standards and support documents in the area of safety of radioactive waste management, including predisposal and disposal of waste (near surface and geological) and decommissioning and remediation available to Member States. | • Number of new and revised safety standards and supporting documents accepted for publication.<br>• Number of document preparation profiles approved for development. |
| • Enhanced safety infrastructure in Member States for managing radioactive waste and spent nuclear fuel. | • Number of ARTEMIS peer review missions and advisory missions conducted.<br>• Number of Contracting Parties to the Joint Convention. |
| • Increased capacity in Member States for safely managing radioactive waste and spent nuclear fuel. | • Number of training events and Technical Meetings held.<br>• Number of new or revised e-learning materials prepared. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.4.1.001 Waste management safety standards and Joint Convention support*** | Safety standards on the predisposal management and disposal of radioactive waste and spent fuel; provision of secretariat services for the Joint Convention (including organization of Review Meetings); provision of secretariat services for the WASSC. |
| ***3.4.1.002 Application of safety standards and support for inter-comparison projects*** | Work plans and periodic and final reports for existing and new projects on the safety of radioactive waste and spent fuel management (predisposal and disposal) and organization of peer reviews (ARTEMIS) in Member States. |

## Subprogramme 3.4.2 Safety of Decommissioning, Remediation and Environmental Releases

***Objectives:***

- *To support Member States in improving the safety of their programmes with regard to decommissioning, remediation and environmental releases, including post-accident situations, through the development of safety standards and by providing for their application.*
- *To support Member States in improving the safety of their programmes with regard to decommissioning, remediation and environmental releases, including post-accident situations, through peer reviews and advisory services.*
- *To support Member States in capacity building through education and training and by encouraging the exchange of information and experience.*

| Outcomes | Performance Indicators |
|---|---|
| • An integrated and comprehensive set of up-to-date safety standards and supporting documents in the area of safety of decommissioning, remediation and environmental releases, including post-accident situations, available to Member States. | • Number of new and revised safety standards and supporting documents accepted for publication.<br>• Number of document preparation profiles approved for development. |
| • Enhanced safety infrastructure in Member States for managing environmental releases, decommissioning and remediation. | • Number of advisory missions conducted. |
| • Increased capacity in Member States for safely managing environmental releases, decommissioning and remediation. | • Number of training events and Technical Meetings held.<br>• Number of new or revised e-learning materials prepared. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.4.2.001 Safety for decommissioning and remediation*** | Safety standards pertaining to decommissioning, remediation and residue management from uranium production and processing of NORM; supporting publications and training materials to assist Member States with the application of these standards; international projects and meetings facilitating knowledge sharing and promotion of the standards and best practices. |
| ***3.4.2.002 Safety for assessment and management of environmental releases*** | New and revised safety standards, and new TECDOCs to assist in elaborating examples for the application of safety standards in practice; recommendations to Member States for performing radiological impact assessments and environmental monitoring to enhance nuclear safety. |

# Programme 3.5 Nuclear Security

The risk that nuclear or other radioactive material could be used in malicious acts continues to be a serious threat to international peace and security. Even though the responsibility for nuclear security within a State rests entirely with that State, Member States have consistently recognized the central role of the Agency in strengthening the nuclear security framework globally and in coordinating international cooperation in nuclear security activities.

Much progress has been made in recent years in addressing nuclear security, including via the entry into force of the Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM) in 2016 and the first Conference of the Parties to the Amendment to the CPPNM in 2022, which reviewed the Convention as amended and resulted in a consensus outcome document highlighting its adequacy. Efforts will continue to promote the universal adherence to, and full implementation of, the Convention and its Amendment, as well as commitment to non-binding instruments under the Agency's auspices.

This programme is designed to assist States, upon request, in meeting the requirements of legally binding and non-binding international instruments, and in establishing and maintaining effective national nuclear security regimes. It takes into account global trends in nuclear security, including those reflected in the Nuclear Security Reviews. Greater emphasis is placed on the publication of comprehensive guidance documents as part of the IAEA Nuclear Security Series (NSS); promotion of their use, as appropriate, including through peer reviews and advisory services; capacity building, including education, training and professional networks, as well as through activities at the Agency's Nuclear Security Training and Demonstration Centre (NSTDC); and promotion of nuclear security culture, ensuring coordination and promotion of international cooperation activities on nuclear security and improving cooperation between the security and safety communities, while avoiding duplication and overlap.

***Lessons learned from reviews, assessments and evaluations:*** The overall priorities remain to develop coordination and priority setting by the Nuclear Security Guidance Committee, to issue NSS publications and to provide services to promote their use. The Agency builds on its capacity building foundation with training courses utilizing specialized technical infrastructure through the NSTDC. The NSTDC complements and fills gaps in training capabilities that do not commonly exist among institutions in States, and adds new capabilities to enable the Agency to deliver a nuclear security programme with the advanced technology and expertise needed to respond to States' requests. The NSTDC provides the means to enhance the quality of training on computer security provided to Member States, with more hands-on activities, and enabled training on physical protection system components in its Physical Protection Laboratory. The implementation of this programme will continue to be dependent on Nuclear Security Fund (NSF) contributions and conditions attached to those contributions. Dialogue with States and other relevant organizations and initiatives needs to be maintained in order to increase awareness of the Agency's central role in facilitating the strengthening of nuclear security globally. Attention is given to assess impact and to enhance ownership by Member States. The effective management of nuclear security information is essential to support States, and the use of advanced data processing and analysis methods will enhance the evaluation of available nuclear security data, improve the visual representation of information, and enable better tracking of key performance indicators. By utilizing such technologies, the Nuclear Security programme will increase its efficiency and effectiveness in achieving its objectives.

***Specific criteria for prioritization:***

1. Completion and maintenance of universally applicable Nuclear Security Series recommendations and guidance, and provision of assessment and evaluation services at the request of States.
2. Provision, upon request for assistance, of capacity building, human resource development programmes, and nuclear security culture and risk reduction activities, based on an analysis of needs, including those identified through Integrated Nuclear Security Sustainability Plans (INSSPs).
3. Development of information technology (IT) applications for data analysis, information sharing and decision-making.

## Programmatic changes and trends

***Subprogramme 3.5.1 Information Management.*** Information and computer security remains a topic of high importance for Member States, as the nuclear sector increasingly uses digital technologies to control, monitor and protect the various aspects of operations at NPPs; other fuel cycle and spent fuel storage facilities; non-power reactors; advanced reactors, including small modular reactors; decommissioned nuclear facilities; and in other applications involving radioactive sources. The Agency will continue to raise awareness of cyber-threats while increasing support to Member States through hands-on computer security activities at the NSTDC. The nuclear sector is leveraging on advanced data processing and analysis methods to enhance decision-making, facilitate

information sharing, monitor safety and security systems. The Agency will increase the use of advanced data processing and analysis methods, including for the Incident and Trafficking Database (ITDB) and the INSSP, and through a CRP on computer security. Requests for nuclear security assistance through the INSSP process are expected to continue at a high level in 2026–2027, driven by an increasing demand to ensure security in the application of nuclear technology in support of States' sustainable development goals.

***Subprogramme 3.5.2 Nuclear Security of Materials and Facilities*** continues to respond to global trends associated with increased demand worldwide for radioactive material for health and sustainable development needs, and increased interest in novel and advanced reactor designs capable of meeting future clean energy requirements, which are driving increased nuclear security demands and Subprogramme requests. The development or enhancement of regulatory infrastructure in nuclear security, nuclear material control and accounting systems at nuclear facilities for security purposes, specific guidance on insider threats, nuclear security culture, and contingency planning continue to be important security elements. A further increase in State requests for technical assistance for risk-reduction activities, advisory services and assessment missions on the physical protection of materials, facilities and activities is also anticipated. Most important, however, is the urgent and growing interest by States in assessing and mitigating nuclear security risks and threats posed by technological and societal trends and developments. In 2026–2027, the Subprogramme will strengthen its focus and efforts to identify, monitor and provide information and tools to address such emerging global trends.

***Subprogramme 3.5.3 Nuclear Security of Material outside of Regulatory Control*** assists States in enhancing their nuclear security regimes with regard to material out of regulatory control (MORC) using a more structured approach to capacity building that aims to increase impact and ownership.

***Subprogramme 3.5.4 Programme Development and International Cooperation*** aims to further strengthen the Agency's central coordinating role in nuclear security. This includes increasing efforts to promote the universalization and effective implementation of the CPPNM and its Amendment, assisting States by facilitating participation in the development of education and training networks, and maintaining the set of NSS publications — including developing new guidance or revising existing guidance so as to ensure that the NSS remains up to date. During the last few years, a significant number of NSS publications have been translated into Arabic, Chinese, French, Russian and Spanish. The sustainable and effective operation of the NSTDC supports Member States with regard to capacity building in nuclear security through the provision of hands-on training and a variety of 'train-the-trainers' courses. The Junior Professional Development Programme provides young professionals from organizations that are members of the International Network for Nuclear Security Training and Support Centres (NSSC Network) with an opportunity to experience and contribute to international cooperation in support of national nuclear security regimes.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 3.5 Nuclear Security** | |
|---|---|
| ***Objectives:*** | |
| — *To promote adherence to relevant legally and non-legally binding international instruments to enhance nuclear security globally.*<br>— *To assist States in establishing, maintaining and sustaining national nuclear security regimes for nuclear and other radioactive materials, including during transport, and associated facilities used for peaceful purposes.*<br>— *To play the central role of facilitating and enhancing international cooperation and increasing visibility and awareness through communication on nuclear security.* | |
| **Outcomes** | **Performance Indicators** |
| ● Increased State commitment to meeting international obligations under relevant international instruments. | ● Number of additional States' adherence to the CPPNM and/or its Amendment.<br>● Number of additional States expressing political support for the Code of Conduct on the Safety and Security of Radioactive Sources and/or its supplementary guidance. |
| ● Enhanced capability of States to establish, maintain and sustain a national nuclear security regime by developing comprehensive nuclear security guidance and providing technical assistance (including peer reviews, advisory services and capacity building, including education and training). | ● Number of States showing progress in their Nuclear Security Information Management System (NUSIMS) functional areas results.<br>● Number of States receiving technical assistance through results based nuclear security projects. |

| Outcomes | Performance Indicators |
|---|---|
| • Enhanced coordination and cooperation globally in the delivery of assistance to complement national efforts in the establishment, maintenance and sustainability of nuclear security regimes. | • Number of events jointly organized by the Agency in cooperation with other organizations and donors addressing coordination of activities in the establishment, maintenance and sustainability of nuclear security regimes. |

## Subprogramme 3.5.1 Information Management

***Objectives:***

— *To provide a comprehensive framework for systematically identifying and prioritizing States' nuclear security needs and to support planning and prioritizing the provision of Agency nuclear security assistance to States, as well as to facilitate international cooperation and coordination in meeting States' nuclear security needs.*

— *To assist States with the timely exchange of information on incidents involving illicit trafficking and other related unauthorized activities involving nuclear and other radioactive material.*

— *To raise awareness of the threat of cyberattacks and their potential impact on nuclear security, and to support States in taking effective security measures against such attacks.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased use of a single, reliable, comprehensive and systematic process by States to identify, prioritize and implement their nuclear security needs. | • Number of States that have provided or updated input in the NUSIMS self-assessment tool.<br>• Number of States engaging with the INSSP process. |
| • Information is promptly shared and high quality analysis of incidents is reported to the ITDB through the leveraging of IT services. | • Percentage of incident reports received from reporting States disseminated to participating States within approximately one working day. |
| • Enhanced information and computer security capabilities at the State and facility levels to support the prevention and detection of, and response to, computer security incidents that have the potential to either directly or indirectly adversely impact nuclear safety and security. | • Number of States participating in Agency activities to improve computer and information security capabilities. |

### Projects

| Title | Main Planned Outputs |
|---|---|
| ***3.5.1.001 Assessing nuclear security needs and priorities*** | INSSP and corresponding implementation plans; voluntary NUSIMS self-assessment tool; country status drafted/approved/updated; result based projects documentation. |
| ***3.5.1.002 Information sharing on incidents and trafficking*** | ITDB; incident analysis reports; information exchange meetings; training of appropriate State professionals to improve the effectiveness of information sharing activities implemented through the ITDB. |
| ***3.5.1.003 Information and computer security, and IT services*** | Information and computer security guidance publications in the IAEA NSS and other nuclear security publications; international, regional and national training courses; workshops, seminars; technical assistance for States; expert meetings; exchange and sharing of information and experiences in computer security for nuclear security; CRPs; International Conference on Computer Security in the Nuclear World: Securing the Future. |

## Subprogramme 3.5.2 Nuclear Security of Materials and Facilities

***Objectives:***

— *To support States in establishing, enhancing and maintaining effective national competencies, capacities and capabilities for the security of nuclear and other radioactive material and associated facilities, including during transport.*

| Outcomes | Performance Indicators |
|---|---|
| • Enhanced State capacities, competencies and capabilities to protect nuclear and other radioactive material, including during transport, and associated facilities, through the provision of Agency guidance, expert advice and technical assistance. | • Number of States in which the national regulatory infrastructure was established or enhanced with the support of the Agency.<br>• Percentage of States' participants in Agency activities reporting increased awareness of, or capacities in, nuclear security subjects. |
| • Enhanced State capacities and capabilities to reduce risks related to the security of nuclear and other radioactive material, including during transport, and associated facilities through the provision of Agency guidance and technical assistance. | • Number of States in which physical protection measures and systems have been strengthened with the support of the Agency.<br>• Number of States in which the safe and secure management of nuclear and other radioactive material has been enhanced with the support of the Agency. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.5.2.001 Integrated nuclear security approaches*** | IAEA NSS guidance and other Agency publications; international, regional and national training courses, meetings/workshops and consultancy meetings; expert missions and International Physical Protection Advisory Service; standing technical discussion forums. |
| ***3.5.2.002 Enhancing security of nuclear material and associated facilities*** | IAEA NSS guidance and other Agency publications; international, regional and national training courses; physical protection enhancements; Technical Meetings/workshops and consultancy meetings; expert missions; advisory services; standing technical discussion forums. |
| ***3.5.2.003 Upgrading security of radioactive material and associated facilities*** | IAEA NSS guidance, methodologies, meetings/workshops and consultancy meetings; nuclear security services including Advisory Missions on Regulatory Infrastructure for Radiation Safety and Nuclear Security (RISS); standing technical discussion forums; international, regional and national training courses; physical protection enhancements; safe and secure management enhancements for radioactive sources. |
| ***3.5.2.004 Nuclear security in transportation of nuclear and radioactive material*** | IAEA NSS guidance and other Agency publications; international, regional and national training courses; exercises and physical protection enhancements; Technical Meetings/workshops and consultancy meetings; expert missions; advisory services; standing technical discussion forums. |

## Subprogramme 3.5.3 Nuclear Security of Material outside of Regulatory Control

***Objectives:***

— *To assist States in establishing and sustaining an effective institutional infrastructure to strengthen national efforts to protect people, property, the environment and society from the unauthorized use of nuclear and other radioactive material by utilizing nuclear security measures in response to nuclear security events, as well as nuclear security systems and measures for major public events.*

— *To assist States in strengthening and maintaining effective national nuclear security detection architectures, and enhancing and improving capabilities in detecting, locating and interdicting nuclear and other radioactive material out of regulatory control.*

— *To assist States in strengthening their national framework for managing radiological crime scenes, collecting evidence for use in subsequent legal proceedings, and undertaking nuclear forensics examinations to support investigations and help determine the origin and history of the material.*

| Outcomes | Performance Indicators |
|---|---|
| • Increased national capability to establish sustainable and harmonized national nuclear security systems and measures for the State's response infrastructure in order to ensure that national and international obligations are met, including the effective provision of assistance to States hosting major public events in enhancing the implementation of nuclear security measures. | • Number of States where assistance is provided in implementing nuclear security measures at major public events.<br>• Number of activities implemented related to the nuclear security systems and reaction measure infrastructure for managing MORC. |
| • Enhanced capabilities and capacities resulting from improved nuclear security detection architecture, CRPs and the use of NSS publications to strengthen nuclear security systems and measures for detection of MORC. | • Number of States using newly developed or enhanced technologies and systems through CRPs on nuclear security systems and measures for detection.<br>• Number of activities implemented related to detection of MORC. |
| • Improved capability of States to conduct investigations involving nuclear and other radioactive material, and to determine the point at which such material left regulatory control and address nuclear security vulnerabilities. | • Number of relevant NSS publications, including revisions, and Agency non-serial publications resulting from CRPs.<br>• Number of activities implemented related to radiological crime scene management and nuclear forensics science. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.5.3.001 Institutional response infrastructure for material out of regulatory control*** | Related NSS guidance; expert missions and the International Nuclear Security Advisory Service (INSServ); international, regional and national training courses; Technical Meetings, workshops and consultancy meetings; activities arising from INSSPs to support States in establishing a national nuclear security response infrastructure, in capacity building and in hosting major public events. |
| ***3.5.3.002 Nuclear security detection architecture*** | Related NSS guidance; expert missions and INSServ; advisory services, including INSServ; international, regional and national training courses; Technical Meetings, workshops and consultancy meetings; activities arising from INSSPs to support States in establishing and strengthening their capabilities in the detection of MORC; CRPs in the field of detection technology for MORC. |
| ***3.5.3.003 Radiological crime scene management and nuclear forensics science*** | Related NSS guidance; expert missions and advisory services, including INSServ; international, regional and national training courses; Technical Meetings, workshops and consultancy meetings; activities arising from INSSPs to support States in establishing and strengthening their capabilities in radiological crime scene management and nuclear forensics science; CRPs; fellowships in nuclear forensics. |

## Subprogramme 3.5.4 Programme Development and International Cooperation

***Objectives:***

— *To ensure the coordination and implementation of Programme 3.5 (Nuclear Security) to address Member States' needs.*

— *To assist in the promotion and strengthening of nuclear security globally, including the production and relevant use of guidance in the NSS, and to promote the universalization of the CPPNM and its Amendment.*

— *To provide coordinated education and training programmes, including at the NSTDC, that meet the requirements of States and to facilitate delivery of those programmes through the International Nuclear Security Education Network (INSEN), the NSSC Network and the Nuclear Security Information Portal.*

| Outcomes | Performance Indicators |
|---|---|
| • Improved nuclear security regime through the production of up-to-date nuclear security guidance and adherence to, including effective implementation of, the CPPNM and its Amendment. | • Number of publications (new or revised) issued in the NSS.<br>• Number of additional States adhering to the CPPNM and/or its Amendment. |
| • Strengthened State capacity through the implementation of nuclear security education and training programmes, available to all States, including through the INSEN and NSSC networks. | • Percentage of participants demonstrating or reporting knowledge improvement resulting from instruction.<br>• Number of capacity building events implemented including through INSEN and the NSSC Network. |
| • Coordinated delivery and resource mobilization for the Nuclear Security programme. | • Number of Collaborating Centres and Practical Arrangements signed or renewed with partners for the delivery of the Nuclear Security programme during the biennium.<br>• Total number of active donors among traditional partners (Member States and the EU) and non-traditional partners to the NSF. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***3.5.4.001 International cooperation on nuclear security networks and partnerships*** | Practical Arrangements; agreements on partnership and collaboration centres; Information Exchange Meetings; meetings and workshops related to the CPPNM and its Amendment; Conference of the Parties to the Amendment to the Convention on the Physical Protection of Nuclear Material (2027). |
| ***3.5.4.002 Education and training programmes for human resource development*** | Education and training materials reflecting Agency nuclear security publications, including e-learning and the development of advanced training tools; materials and resources that support an integrated approach to human resource development in nuclear security by States, including through the INSEN and NSSC Network. |
| ***3.5.4.003 Coordinating nuclear security guidance and advice services*** | NSS guidance and other related documents; recommendations by experts. |

# Major Programme 3 — Nuclear Safety and Security

Summary of Programme Structure and Resources

*(excluding Major Capital Investments)*

| Programme/Subprogramme/Project | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| | Regular Budget | Unfunded | Regular Budget | Unfunded |
| 3.0.0.001 Overall management, coordination, communication and common activities | 1 448 510 | 78 000 | 1 448 510 | 78 000 |
| 3.0.0.002 Capacity building, knowledge networks and partnerships | 345 416 | 1 190 310 | 345 416 | 1 190 310 |
| 3.0.0.003 Coordination of safety standards and security guidance | 296 096 | 510 696 | 296 096 | 510 696 |
| 3.0.0.004 Internal control for radiation safety and nuclear security | 257 375 | 145 846 | 257 375 | 145 846 |
| 3.S Corporate shared services | 2 635 277 | 62 564 | 2 635 277 | 62 564 |
| | **4 982 674** | **1 987 416** | **4 982 674** | **1 987 416** |
| 3.1.1.001 Member State emergency preparedness | 1 749 022 | 588 287 | 1 746 530 | 590 829 |
| 3.1.1.002 International emergency management | 292 231 | - | 292 231 | - |
| **3.1.1 National and International Emergency Preparedness** | **2 041 253** | **588 287** | **2 038 761** | **590 829** |
| 3.1.2.001 Preparedness of the Incident and Emergency System | 1 144 618 | 264 375 | 1 150 172 | 328 575 |
| 3.1.2.002 Response and assistance arrangements with Member States and international organizations | 1 278 034 | 401 213 | 1 278 034 | 230 013 |
| 3.1.2.003 Public communication in emergencies | 629 969 | - | 626 906 | - |
| **3.1.2 IAEA IES and Operational Arrangements with Member States and International Organizations** | **3 052 620** | **665 588** | **3 055 112** | **558 588** |
| **3.1 Incident and Emergency Preparedness and Response** | **5 093 874** | **1 253 875** | **5 093 873** | **1 149 417** |
| 3.2.1.001 Regulatory effectiveness and safety infrastructure for new programmes | 2 209 748 | 2 351 954 | 2 326 010 | 2 423 677 |
| 3.2.1.002 Safety standards and CNS promotion/support | 1 712 678 | 203 263 | 1 224 060 | 203 263 |
| **3.2.1 Governmental Regulatory Framework and Safety Infrastructure Development** | **3 922 426** | **2 555 217** | **3 550 071** | **2 626 941** |
| 3.2.2.001 Design safety of current, evolutionary and innovative power reactors | 1 521 802 | 381 768 | 1 564 202 | 318 346 |
| 3.2.2.002 Development and application of safety assessment methods | 1 017 643 | 1 289 960 | 1 055 230 | 1 358 645 |
| **3.2.2 Safety Assessment of Nuclear Installations** | **2 539 445** | **1 671 728** | **2 619 432** | **1 676 991** |
| 3.2.3.001 Site evaluation and installation design safety | 703 941 | 250 696 | 780 964 | 253 655 |
| 3.2.3.002 Evaluation methods and tools for installation safety assessment | 484 246 | 1 735 498 | 556 875 | 1 741 879 |
| **3.2.3 Safety and Protection Against External Hazards** | **1 188 187** | **1 986 194** | **1 337 839** | **1 995 534** |
| 3.2.4.001 Operational safety performance | 1 060 940 | 596 012 | 1 065 155 | 556 892 |
| 3.2.4.002 Sharing and use of international operating experience | 971 844 | 88 751 | 1 003 249 | 90 057 |
| 3.2.4.003 Leadership and management for safety, and safety culture in Member States | 439 318 | 195 515 | 462 495 | 183 005 |
| 3.2.4.004 Safety of long term operation | 410 728 | 671 830 | 423 649 | 494 512 |
| **3.2.4 Safe Operation of Nuclear Power Plants** | **2 882 830** | **1 552 108** | **2 954 549** | **1 324 466** |
| 3.2.5.001 Safety of research reactors | 1 119 181 | 124 677 | 1 158 974 | 158 568 |
| 3.2.5.002 Safety of fuel cycle facilities | 550 715 | 105 413 | 581 920 | 109 013 |
| **3.2.5 Safety of Research Reactor and Fuel Cycle Facilities** | **1 669 896** | **230 090** | **1 740 894** | **267 581** |
| **3.2 Safety of Nuclear Installations** | **12 202 785** | **7 995 338** | **12 202 785** | **7 891 514** |

## Major Programme 3 — Nuclear Safety and Security
Summary of Programme Structure and Resources
*(excluding Major Capital Investments)*

| Programme/Subprogramme/Project | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| | Regular Budget | Unfunded | Regular Budget | Unfunded |
| 3.3.1.001 Public and environment radiation protection | 1 285 836 | 276 047 | 1 284 969 | 276 047 |
| 3.3.1.002 Radiation protection of patients | 1 000 471 | 80 535 | 1 000 487 | 84 900 |
| 3.3.1.003 Occupational radiation protection | 814 567 | 754 241 | 804 393 | 740 876 |
| 3.3.1.004 Radiation safety technical services | 1 995 850 | 296 830 | 2 006 850 | 296 830 |
| **3.3.1 Radiation Safety and Monitoring** | **5 096 725** | **1 407 653** | **5 096 698** | **1 398 653** |
| 3.3.2.001 Regulatory control of radiation sources | 1 293 128 | 2 552 019 | 1 299 193 | 2 503 461 |
| 3.3.2.002 Transport safety | 1 075 293 | 287 026 | 1 077 555 | 287 026 |
| 3.3.2.003 Technical assistance and information management | 1 290 220 | 250 506 | 1 281 920 | 250 506 |
| **3.3.2 Regulatory Infrastructure and Transport Safety** | **3 658 642** | **3 089 551** | **3 658 668** | **3 040 993** |
| **3.3 Radiation and Transport Safety** | **8 755 366** | **4 497 204** | **8 755 366** | **4 439 646** |
| 3.4.1.001 Waste management safety standards and Joint Convention support | 1 239 527 | - | 1 368 213 | - |
| 3.4.1.002 Application of safety standards and support for inter-comparison projects | 803 250 | 1 225 784 | 803 252 | 1 096 654 |
| **3.4.1 Safety of Spent Fuel and Radioactive Waste Management** | **2 042 777** | **1 225 784** | **2 171 466** | **1 096 654** |
| 3.4.2.001 Safety for decommissioning and remediation | 1 294 019 | 880 945 | 1 233 131 | 669 558 |
| 3.4.2.002 Safety for assessment and management of environmental releases | 1 052 730 | 458 446 | 984 929 | 415 655 |
| **3.4.2 Safety of Decommissioning, Remediation and Environmental Releases** | **2 346 749** | **1 339 391** | **2 218 060** | **1 085 213** |
| **3.4 Radioactive Waste Management and Environmental Safety** | **4 389 526** | **2 565 175** | **4 389 526** | **2 181 867** |
| 3.5.1.001 Assessing nuclear security needs and priorities | 532 692 | 2 566 828 | 533 892 | 2 566 828 |
| 3.5.1.002 Information sharing on incidents and trafficking | 63 263 | 555 702 | 63 263 | 375 550 |
| 3.5.1.003 Information and computer security, and information technology services | 895 847 | 5 272 311 | 879 201 | 3 647 104 |
| **3.5.1 Information Management** | **1 491 801** | **8 394 841** | **1 476 356** | **6 589 482** |
| 3.5.2.001 Integrated nuclear security approaches | 735 806 | 4 434 016 | 735 806 | 4 434 016 |
| 3.5.2.002 Enhancing security of nuclear material and associated facilities | 426 793 | 3 670 654 | 426 793 | 3 670 654 |
| 3.5.2.003 Upgrading security of radioactive material and associated facilities | 388 704 | 5 756 836 | 388 704 | 5 771 836 |
| 3.5.2.004 Nuclear security in transportation of nuclear and radioactive material | 249 207 | 1 496 596 | 249 207 | 1 511 596 |
| **3.5.2 Nuclear Security of Materials and Facilities** | **1 800 511** | **15 358 101** | **1 800 511** | **15 388 101** |
| 3.5.3.001 Institutional response infrastructure for material out of regulatory control | 745 735 | 1 715 370 | 745 736 | 1 715 370 |
| 3.5.3.002 Nuclear security detection architecture | 719 253 | 5 238 499 | 694 285 | 5 305 376 |
| 3.5.3.003 Radiological crime scene management and nuclear forensics science | 379 778 | 2 327 314 | 379 778 | 2 314 612 |
| **3.5.3 Nuclear Security of Material outside of Regulatory Control** | **1 844 767** | **9 281 183** | **1 819 800** | **9 335 358** |
| 3.5.4.001 International cooperation on nuclear security networks and partnerships | 1 305 451 | 3 469 733 | 1 345 863 | 4 198 592 |
| 3.5.4.002 Education and training programmes for human resource development | 355 172 | 5 915 044 | 355 172 | 5 989 944 |
| 3.5.4.003 Coordinating nuclear security guidance and advice services | 531 407 | 550 359 | 531 407 | 429 448 |
| **3.5.4 Programme Development and International Cooperation** | **2 192 029** | **9 935 136** | **2 232 442** | **10 617 984** |
| **3.5 Nuclear Security** | **7 329 108** | **42 969 261** | **7 329 108** | **41 930 925** |
| **Major Programme 3 - Nuclear Safety and Security** | **42 753 332** | **61 268 269** | **42 753 332** | **59 580 785** |

# Major Programme 3 — Nuclear Safety and Security
Activities unfunded in the Regular Budget
*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 3.0.0.001 Overall management, coordination, communication and common activities | Enhancement of effectiveness and efficiency of peer review and advisory services | 78 000 | 78 000 |
| 3.0.0.002 Capacity building, knowledge networks and partnerships | Activities on capacity building, knowledge management, networks and partnerships | 1 190 310 | 1 190 310 |
| 3.0.0.003 Coordination of safety standards and security guidance | Development and maintenance of processes and tools for safety standards and security guidance | 510 696 | 510 696 |
| 3.0.0.004 Internal control for radiation safety and nuclear security | Activities to ensure that IAEA safety standards and nuclear security guidance are consistently applied in the Agency laboratories and operations involving exposure to ionizing radiation in accordance with article III.A.6 of the IAEA statute | 145 846 | 145 846 |
| 3.1.1.001 Member State emergency preparedness | Assistance to Member States in building, maintaining and enhancing their EPR arrangements by: providing capacity building services; developing knowledge sharing tools; conducting peer review services; and supporting Capacity Building Centres in EPR | 588 287 | 590 829 |
| 3.1.2.001 Preparedness of the Incident and Emergency System | Maintenance and improvement of the IEC's response arrangements, infrastructure and relevant software solutions | 264 375 | 328 575 |
| 3.1.2.002 Response and assistance arrangements with Member States and international organizations | Response to emergencies and enhancement of international response arrangements<br>Enhancement of international assistance arrangements<br>Enhancement of information exchange supporting the assessment and prognosis process | 401 213 | 230 013 |
| 3.2.1.001 Regulatory effectiveness and safety infrastructure for new programmes | Support to implementation of the nuclear safety infrastructure for Member States embarking on a new nuclear power programme<br>Development, review and revision of safety standards and related documents on governmental and regulatory frameworks for nuclear installations<br>Support to application of legal and non-binding instruments in the regulatory bodies and fostering international cooperation, coordination and information exchange activities in the regulatory area<br>Enhancement of the Integrated Regulatory Review Services (IRRS) and assistance to Member States in the implementation of recommendations<br>Support to international cooperation and information exchange by organizing and participating in the Small Modular Reactor Regulators' Forum, Regulatory Cooperation Forum (RCF), the Nuclear Harmonization and Standardization Initiative (NHSI) and other international conferences, networks and activities | 2 351 954 | 2 423 677 |
| 3.2.1.002 Safety standards and CNS promotion/support | Support to CNS review meetings of the contracting parties, including maintenance of the CNS secure website | 203 263 | 203 263 |
| 3.2.2.001 Design safety of current, evolutionary and innovative power reactors | Development and review of safety standards and associated documents<br>Support and implement Technical Safety Review (TSR) Peer Reviews<br>International cooperation and information exchange | 381 768 | 318 346 |

## Major Programme 3 — Nuclear Safety and Security
Activities unfunded in the Regular Budget
*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 3.2.2.002 Development and application of safety assessment methods | Development and review of safety standards and associated documents<br>Update and implementation of safety assessment competency building programmes | 1 289 960 | 1 358 645 |
| 3.2.3.001 Site evaluation and installation design safety | Conducting SEED review service missions and assisting Member States in implementing their recommendations | 250 696 | 253 655 |
| 3.2.3.002 Evaluation methods and tools for installation safety assessment | Development and revision of supporting documents with technical methods and tools required for implementing safety standards of site evaluation and safety assessment<br>Development of capacity of embarking countries in conducting safety analysis of nuclear installations in light of site evaluation, site-related safety assessments, design and risk reduction | 1 735 498 | 1 741 879 |
| 3.2.4.001 Operational safety performance | Development, review and revision of safety standards and supporting documents on operational safety of NPPs<br>Conducting Operational Safety Review Team (OSART) missions and assistance to Member States in implementation of the findings<br>Support to international cooperation and information exchange | 596 012 | 556 892 |
| 3.2.4.002 Sharing and use of international operating experience | Development, review and revision of safety standards and supporting documents on operating experience and continuous performance improvement<br>Conducting operating experience programme review (PROSPER) and assistance to Member States in the implementation of the recommendations<br>Sharing and use of international operating experience | 88 751 | 90 057 |
| 3.2.4.003 Leadership and management for safety, and safety culture in Member States | Conducting missions and advisory services for Leadership, Management for Safety and Safety Culture and assisting Member States in implementing the recommendations | 195 515 | 183 005 |
| 3.2.4.004 Safety of long term operation | Conducting Safety Aspects of Long Term Operation (SALTO) peer review service and assistance to Member States in preparation for safe Long Term Operation<br>Conducting International Generic Ageing Lessons Learned (IGALL) programme and fostering international exchange of information and knowledge sharing on Ageing Management and Long Term Operation of nuclear power plants | 671 830 | 494 512 |
| 3.2.5.001 Safety of research reactors | Support to capacity building for research reactor safety infrastructure<br>Conducting safety review and advisory services missions and assisting Member States in implementing the recommendations | 124 677 | 158 568 |
| 3.2.5.002 Safety of fuel cycle facilities | Support to capacity building for fuel cycle facilities' safety infrastructure<br>Conducting safety review and advisory services missions and assisting Member States in implementing the recommendations | 105 413 | 109 013 |
| 3.3.1.001 Public and environment radiation protection | Provision of assistance to Member States in application of safety standards | 276 047 | 276 047 |
| 3.3.1.002 Radiation protection of patients | Radiation protection and safety in medical uses of ionizing radiation | 80 535 | 84 900 |

# Major Programme 3 — Nuclear Safety and Security

Activities unfunded in the Regular Budget

*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 3.3.1.003 Occupational radiation protection | Operation of the Information System on Occupational Exposure (ISOE) system jointly with OECD/NEA | 754 241 | 740 876 |
| 3.3.1.004 Radiation safety technical services | Implementation of accredited individual monitoring services for the Agency staff and workers participating in the Agency operations | 296 830 | 296 830 |
| 3.3.2.001 Regulatory control of radiation sources | Organization of the Code of Conduct open ended meetings to share experience on its implementation by Member States | 2 552 019 | 2 503 461 |
| 3.3.2.002 Transport safety | Assisting Member States in establishing and strengthening national regulatory infrastructures for facilities and activities using radiation sources | 287 026 | 287 026 |
| 3.3.2.003 Technical assistance and information management | Support to international cooperation and information exchange | 250 506 | 250 506 |
| | Development, review and revision of safety standards and supporting documents | | |
| | Maintenance of radiation safety profiles of recipient Member States in RASIMS | | |
| 3.4.1.002 Application of safety standards and support for inter-comparison projects | Conducting review and advisory missions to strengthen radiation safety infrastructure | 1 225 784 | 1 096 654 |
| 3.4.2.001 Safety for decommissioning and remediation | Coordination of Waste Safety Standards Committee and providing the secretariat for the Joint Convention | 880 945 | 669 558 |
| 3.4.2.002 Safety for assessment and management of environmental releases | Assistance to Member States in the application of safety standards | 458 446 | 415 655 |
| 3.5.1.001 Assessing nuclear security needs and priorities | Support to the implementation of the Nuclear Security Plan 2026-2029 | 2 566 828 | 2 566 828 |
| 3.5.1.002 Information sharing on incidents and trafficking | Support to the implementation of the Nuclear Security Plan 2026-2029 | 555 702 | 375 550 |
| 3.5.1.003 Information and computer security, and information technology services | Support to the implementation of the Nuclear Security Plan 2026-2029 | 5 272 311 | 3 647 104 |
| 3.5.2.001 Integrated nuclear security approaches | Support to the implementation of the Nuclear Security Plan 2026-2029 | 4 434 016 | 4 434 016 |
| 3.5.2.002 Enhancing security of nuclear material and associated facilities | Support to the implementation of the Nuclear Security Plan 2026-2029 | 3 670 654 | 3 670 654 |
| 3.5.2.003 Upgrading security of radioactive material and associated facilities | Support to the implementation of the Nuclear Security Plan 2026-2029 | 5 756 836 | 5 771 836 |
| 3.5.2.004 Nuclear security in transportation of nuclear and radioactive material | Support to the implementation of the Nuclear Security Plan 2026-2029 | 1 496 596 | 1 511 596 |
| 3.5.3.001 Institutional response infrastructure for material out of regulatory control | Support to the implementation of the Nuclear Security Plan 2026-2029 | 1 715 370 | 1 715 370 |
| 3.5.3.002 Nuclear security detection architecture | Support to the implementation of the Nuclear Security Plan 2026-2029 | 5 238 499 | 5 305 376 |
| 3.5.3.003 Radiological crime scene management and nuclear forensics science | Support to the implementation of the Nuclear Security Plan 2026-2029 | 2 327 314 | 2 314 612 |
| 3.5.4.001 International cooperation on nuclear security networks and partnerships | Support to the implementation of the Nuclear Security Plan 2026-2029 | 3 469 733 | 4 198 592 |
| 3.5.4.002 Education and training programmes for human resource development | Support to the implementation of the Nuclear Security Plan 2026-2029 | 5 915 044 | 5 989 944 |
| 3.5.4.003 Coordinating nuclear security guidance and advice services | Support to the implementation of the Nuclear Security Plan 2026-2029 | 550 359 | 429 448 |
| 3.S Corporate shared services | Corporate shared services | 62 564 | 62 564 |
| **Grand Total** | | **61 268 269** | **59 580 785** |

# Major Programme 4
# Nuclear Verification

## Introduction

Major Programme 4 supports the Agency's statutory mandate to establish and administer safeguards designed to ensure that special fissionable and other materials, services, equipment, facilities and information made available by the Agency, or at its request or under its supervision or control, are not used in such a way as to further any military purpose; and to apply safeguards, at the request of the parties to any bilateral or multilateral arrangement, or at the request of a State to any of that State's activities in the field of atomic energy.

To this end, the Agency concludes safeguards agreements with States, which confer upon the Agency the legal obligation and authority to apply safeguards to nuclear material, facilities and other items subject to safeguards. The implementation of Agency safeguards pursuant to safeguards agreements comprises four fundamental processes: the collection and evaluation of safeguards relevant information; the development of safeguards approaches; the planning, conduct and evaluation of safeguards activities in the field and at Headquarters; and the drawing of safeguards conclusions. In addition, the Agency, in accordance with its Statute, assists with other verification tasks, including in connection with nuclear disarmament or arms control agreements as requested by States and approved by the Board of Governors.

For the 2026–2027 period, the main challenges for Major Programme 4 include:

- Meeting increasing safeguards responsibilities effectively and efficiently;
- Enhancing business continuity and disaster recovery capabilities to respond to large-scale external events, in order to ensure that critical safeguards verification activities are carried out without interruption, including through increased use of remote data transmission (RDT) and the strengthening of the Agency's existing regional offices;
- Implementing, as appropriate, the necessary verification and monitoring of the nuclear-related commitments of the Islamic Republic of Iran (Iran), as set out in the Joint Comprehensive Plan of Action (JCPOA), in light of United Nations Security Council resolution 2231 (2015);
- Preparing to safeguard more complex or larger-scale nuclear facilities, such as the Mixed Oxide Fuel Fabrication Plant (J-MOX) in Japan, and the encapsulation plant and geological repository (EPGR) in Finland and Sweden; as well as new types of nuclear facilities, and ensuring organizational preparedness and resilience in an evolving nuclear landscape;
- Planning for and conducting verification activities related to the transfer of spent fuel to dry storages, and to the decommissioning of nuclear facilities;
- Addressing areas of difficulty in safeguards implementation;
- Strengthening the effectiveness of State systems of accounting for and control of nuclear material (SSACs) and State or regional authorities responsible for safeguards implementation (SRAs) through additional support provided to States in the context of the IAEA Comprehensive Capacity-Building Initiative for SSACs and SRAs (COMPASS);
- Facilitating the conclusion of comprehensive safeguards agreements (CSAs) and additional protocols (APs); and the amendment or rescission of small quantities protocols (SQP) in line with the 2005 decision of the Board of Governors;
- Maintaining the Agency's enhanced readiness to return to the Democratic People's Republic of Korea (DPRK);
- Ensuring the availability of a safeguards workforce with the necessary skills and expertise, enhancing cost-effectiveness, and maintaining critical institutional knowledge;
- Maintaining and enhancing the modernized IT infrastructure, including the technical systems, services and instrumentation that underpin effective and efficient safeguards implementation and provide for, inter alia, the highest standards of information security;
- Securing sustainable sources of funding in order to continue delivering high-quality safeguards services and implementing effective safeguards in States, including funding for the safeguards equipment necessary to implement effective and efficient safeguards approaches, and encouraging Member States and outside donors to provide co-funding or in-kind contributions to support the implementation of relevant activities, as appropriate; and

- Operating in a challenging security environment, which may require additional measures to ensure the physical safety of staff operating in the field and to ensure information security.

| ***Objectives:*** | |
|---|---|
| — *To deter the proliferation of nuclear weapons by detecting early the misuse of nuclear material or technology and by providing credible assurances that States are honouring their safeguards obligations, and, in accordance with the Agency's Statute, assist with other verification tasks including in connection with nuclear disarmament or arms control agreements, as requested by States and approved by the Board of Governors.* | |
| **Outcomes** | **Performance Indicators** |
| • Soundly based safeguards conclusions regarding States' fulfilment of their safeguards obligations. | • Percentage of States for which an annual implementation plan (AIP) has been developed and executed.<br>• Percentage of anomalies addressed appropriately in a timely manner. |
| • Timely response to requests by States to carry out verification tasks approved by the Board of Governors. | • Percentage of approved verification tasks carried out in a timely manner. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***4.0.0.001 Overall management and coordination*** | Inputs for reports of the Director General to the Policy-Making Organs; communication plans on safeguards priorities; dialogue with States on safeguards implementation matters; engagement activities with States and other stakeholders; contribution to the Agency's Annual Report; coordination of Department-wide priorities and activities, inter alia through meetings of senior management; safeguards human resources strategy, coordination of planning, monitoring and reporting on results related to the programme management cycle. |
| ***4.0.0.002 Safeguards effectiveness evaluation*** | Safeguards Implementation Report (SIR) and other safeguards reports to the Policy-Making Organs; internal reports on performance monitoring and independent reviews of State evaluation reports (SERs), AIPs, safeguards approaches and procedures. |

## Programme 4.1 Safeguards Implementation

The effective implementation of safeguards requires the Agency to conduct a variety of activities to verify that States are honouring their safeguards obligations. These activities include the development and/or updating of safeguards approaches to be implemented in States and at specific types of facility; the conduct of in-field verification activities in relevant locations in States; the collection, processing and analysis of safeguards relevant information; the provision, development, standardization and maintenance of safeguards equipment; the analysis of nuclear material and environmental samples; the continued provision of information and communication support; the evaluation of performance; and the training of staff. These activities enable the Agency to establish a complete and comprehensive basis upon which safeguards conclusions can be drawn.

***Lessons learned from reviews, assessments and evaluations:*** An advanced technology framework including business continuity measures is a strategic enabler for safeguards implementation and needs to be continuously supported. Other major lessons learned from past biennia include the demonstrated critical role of RDT and the importance of the Agency's regional offices to sustain the Agency's safeguards capabilities. Further efforts are focused on the evaluation and improvement of the technical capabilities of States and of the performance and effectiveness of State and regional systems of accounting for and control of nuclear material, for example in the context of COMPASS and other initiatives enhancing cooperation with States and regional authorities. A standardized methodology for State-level safeguards approaches (SLAs) enhances the consistency and effectiveness of safeguards implementation at the State level.

Engagement with States remains essential to ensure effective and efficient safeguards implementation. Such engagement has yielded positive results demonstrated by progress in the entry into force of CSAs and APs, and in

the amendment and rescission of SQPs. Advances in the nuclear landscape and emerging technologies have demonstrated the ever-evolving nature of the Department's operating environment, and the need to keep abreast of changes and their implications for the Agency's verification mission to ensure organizational preparedness and resilience. In cooperation with Member States, the Agency will continue to enhance its preparedness to safeguard new types of facilities, explore and leverage technological advancements for safeguards purposes, and monitor and mitigate any potential risks arising from emerging technologies.

***Specific criteria for prioritization:***

1. Projects responding directly to the Agency's statutory and legal obligations, and decisions of the Board of Governors and the General Conference. The Agency must conduct these projects and cannot defer their implementation.
2. Projects enhancing the Agency's ability to conduct mandatory activities effectively and efficiently: providing technological, methodological, information management and research infrastructure.
3. Non-mandatory projects carried out at the request of States and subject to decisions of the Board of Governors.

## Programmatic changes and trends

***Subprogramme 4.1.1 Concepts and Planning*** will continue to be dedicated to high-priority operational support activities and to providing resources and expertise that are critical to ensuring that the Agency's safeguards obligations can be carried out effectively, efficiently and consistently. Focus will remain on the development of SLAs and safeguards approaches for novel fuel cycle facilities including various types of small modular reactors. Minor adjustments were made to project names to better reflect the activities of the subprogramme.

***Subprogramme 4.1.2 Safeguards Implementation for States under the Responsibility of Division SGOA*** will continue to implement safeguards for States under its responsibility without substantive programmatic changes as compared with the previous biennium.

***Subprogramme 4.1.3 Safeguards Implementation for States under the Responsibility of Division SGOB*** will continue to implement safeguards for States under its responsibility without substantive programmatic changes as compared with the previous biennium. Safeguards activities in Iran under the CSA and the AP (as applicable) conducted by the Office for Verification in Iran will continue under this subprogramme.

***Subprogramme 4.1.4 Safeguards Implementation for States under the Responsibility of Division SGOC*** will continue to implement safeguards for States under its responsibility without substantive programmatic changes as compared with the previous biennium.

***Subprogramme 4.1.5 Information Analysis*** continues to include all projects dedicated to ongoing safeguards relevant information collection, advanced technical expert evaluations, and processing and analysis of all safeguards relevant information required to draw soundly based safeguards conclusions from mandatory verification activities. It also involves the development of relevant methodologies, including data science, artificial intelligence and machine learning, to strengthen the analytical tools needed by experts and analytical processes.

***Subprogramme 4.1.6 Provision and Development of Safeguards Instrumentation*** continues to cover all Departmental activities related to the development, provision, maintenance, and asset management of safeguards equipment and instrumentation. This ensures the availability of up-to-date infrastructure and services needed to carry out the Agency's verification mandate, as well as keeping abreast of the latest trends and the evolution of safeguards-related technologies.

***Subprogramme 4.1.7 Analytical Services*** will continue to provide analytical services, in collaboration with the Network of Analytical Laboratories (NWAL). The total number of samples submitted for analysis (environmental, material characterization and nuclear material) rose by about 11% during the previous biennium (2022–2023) as compared to the 2020–2021 biennium. The number of analyses, for all sample types, is expected to rise even further. The acquisition in 2022 of a new large geometry secondary ion mass spectrometer provides the Agency with enhanced particle analysis capability. Demand for this type of analysis has increased significantly, a trend that is likely to continue. The necessary additional capacity will be achieved by maintaining the existing instruments in operational status, and by mobilizing increased analytical support from the NWAL.

***Subprogramme 4.1.8 Special Projects*** includes planned activities related to J-MOX in Japan and the EPGR in Finland and Sweden, which are progressing in the respective States. The Integrated Life Cycle Management of Safeguards Assets (ILSA) project, which aims to ensure the optimum management of assets and associated financial resources, is also included under this subprogramme.

***Subprogramme 4.1.9 Safeguards Information and Communication Technology (ICT)*** includes the set of activities related to the safeguards centre of competence for the specification, development, improvement and maintenance of safeguards information and communication technology (ICT) systems and for the management of all safeguards ICT infrastructure. Following rapidly evolving needs and trends, from digitalization to collaborative environments with enhanced data analysis capabilities, this subprogramme will ensure that specific safeguards ICT systems continue to be available.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 4.1 Safeguards Implementation** | |
|---|---|
| ***Objectives:*** | |
| — *To verify States' undertakings under their respective safeguards agreements with the Agency.*<br>— *To support safeguards implementation effectively and efficiently.* | |
| **Outcomes** | **Performance Indicators** |
| • Soundly based safeguards conclusions regarding States' fulfilment of their safeguards obligations. | • Percentage of States for which an AIP has been developed and executed.<br>• Percentage of anomalies addressed appropriately in a timely manner. |
| • Enhanced cooperation in safeguards implementation between State and/or regional authorities and the Agency. | • Percentage of States and regional authorities engaged in Agency activities, including through assistance and training supporting safeguards implementation.<br>• Percentage of States and regional authorities that have submitted timely declarations and nuclear material accounting reports. |
| • Effective and efficient safeguards implementation. | • Percentage of safeguards activities supported by effective and efficient implementation of safeguards approaches, processes and procedures, including information and physical security, business continuity and disaster recovery.<br>• Percentage of safeguards activities utilizing advanced tools, methodologies and technologies. |

| **Subprogramme 4.1.1 Concepts and Planning** | |
|---|---|
| ***Objectives:*** | |
| — *To ensure organizational preparedness and resilience in an evolving nuclear landscape through identifying and assessing emerging safeguards issues of relevance to the Department and ensuring that resources from Member State Support Programmes (MSSPs) and other partners are focused on meeting high-priority safeguards needs.*<br>— *To support the effective, efficient and consistent implementation of safeguards at the facility and State level by developing and maintaining departmental methodologies and tools, policies, procedures, approaches and guidance, including addressing safeguards challenges as they arise.*<br>— *To implement and improve the departmental quality management system to provide assurance that processes are carried out as planned, deliver intended results and consistently meet requirements.*<br>— *To strengthen safeguards knowledge, skills and abilities within the Department of Safeguards and in States, through effective and innovative safeguards training and learning opportunities.* | |
| **Outcomes** | **Performance Indicators** |
| • Substantively addressed resource mobilization priorities and preparedness for the future, through well-coordinated support from MSSPs and non-traditional partnerships. | • Percentage of the Department's resource mobilization priorities that are being supported by activities of MSSPs or by non-traditional partnerships. |

| Outcomes | Performance Indicators |
|---|---|
| • Up-to-date internal processes and documentation to support effective, efficient and consistent safeguards implementation. | • Number of review meetings held by the Safeguards State-Level Sub-Committee and Technical Review Committee with recommendations to guide safeguards implementation.<br>• Percentage of internal quality audits and assessments conducted according to the approved programme. |
| • Improved knowledge and skills of Agency staff, as well as counterparts in States, to perform and support safeguards implementation. | • Percentage of safeguards training courses carried out, according to the annual safeguards staff training programme.<br>• Percentage of participants from SSACs who have indicated or demonstrated increased knowledge and/or skills as a result of training. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***4.1.1.001 Partnerships and planning*** | Strategic analyses, including on the operating environment; analyses and workshops on emerging issues and technologies; up-to-date priority objectives; plans for mobilization of resources and other support for enhanced safeguards capabilities in the departmental Resource Mobilization Priorities document and the biennial Development and Implementation Support Programme for Nuclear Verification; completed tasks and deliverables with partners; and coordination of partnerships. |
| ***4.1.1.002 Safeguards concepts and approaches*** | Methodologies, procedures, departmental references and tools to support development of facility and State-level safeguards approaches in a consistent manner; technical analyses to support departmental committees; updated SLAs according to departmental procedures; safeguards concepts and approaches to address safeguards challenges such as novel fuel cycle facilities, and for decommissioning and waste management activities; Standing Advisory Group on Safeguards Implementation meetings and reports to the Director General. |
| ***4.1.1.003 Quality management*** | An implemented departmental quality management system including audits, assessments, critical knowledge management and controlled documented information. |
| ***4.1.1.004 Safeguards staff training*** | Training needs analysis; training programme; training evaluation guides and mechanisms; training courses for staff; reports and assessment of training courses; teaching materials and training tools. |
| ***4.1.1.005 Member States training*** | SRA and SSAC training programmes; online and in-person courses for SRAs and SSACs; training and learning aids, materials and guides; IAEA Safeguards and SSAC Advisory Service mission reports; Safeguards Traineeship Programme; COMPASS reports. |

| **Subprogramme 4.1.2 Safeguards Implementation for States under the Responsibility of Division SGOA** | |
|---|---|
| ***Objectives:*** | |
| — *To verify that all nuclear material remains in peaceful activities in States with CSAs in force.*<br>— *To verify that nuclear material to which safeguards are applied in selected facilities pursuant to voluntary offer agreements (VOAs) remains in peaceful activities unless withdrawn as provided for in the agreements.* | |
| **Outcomes** | **Performance Indicators** |
| ● Effective verification activities performed in the field. | ● Percentage of satisfactory statements on the activities, results and conclusions of the Agency's in-field activities. |
| ● Evaluation of safeguards relevant information for all States. | ● Percentage of States with safeguards agreements in force for which an annual evaluation has been produced and reviewed. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***4.1.2.001 Verification for States with a CSA and an AP in force*** | SERs; SLAs[1]; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections, complementary access (CA) and design information verification (DIV). |
| ***4.1.2.002 Verification for States with a CSA in force*** | SERs; SLAs[2]; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections and DIVs. |
| ***4.1.2.003 Verification for States with a VOA and an AP in force*** | SERs; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections and DIVs. |

| **Subprogramme 4.1.3 Safeguards Implementation for States under the Responsibility of Division SGOB** | |
|---|---|
| ***Objectives:*** | |
| — *To verify that all nuclear material remains in peaceful activities in States with CSAs in force.*<br>— *To verify that nuclear material, facilities and other items to which safeguards are applied pursuant to INFCIRC/66-type safeguards agreements remain in peaceful activities.*<br>— *To verify that nuclear material to which safeguards are applied in selected facilities pursuant to voluntary offer safeguards agreements (VOAs) remains in peaceful activities unless withdrawn as provided for in the agreements.* | |
| **Outcomes** | **Performance Indicators** |
| ● Effective verification activities performed in the field. | ● Percentage of satisfactory statements on the activities, results and conclusions of the Agency's in-field activities. |
| ● Evaluation of safeguards relevant information for all States. | ● Percentage of States with safeguards agreements in force for which an annual evaluation has been produced and reviewed. |

[1, 2] It is noted that the development and implementation of SLAs is to be carried out in close consultation and coordination with the State and/or regional authority and includes agreement by the State concerned on practical arrangements related to the implementation of safeguards measures identified for use in the field if not already in place.

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***4.1.3.001 Verification for States with a CSA and an AP in force*** | SERs; SLAs[3]; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections, CAs and DIVs. |
| ***4.1.3.002 Verification for States with a CSA in force*** | SERs; SLAs[4]; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections and DIVs. |
| ***4.1.3.003 Verification for States with an INFCIRC/66-type agreement in force*** | SERs; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections. |
| ***4.1.3.004 Verification for States with a VOA and an AP in force*** | SERs; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections, CAs (as applicable) and DIVs. |
| ***4.1.3.005 Verification for Iran (CSA (in force) and AP (as applicable))*** | SER; acquisition path analysis; SLA[5] (as applicable); AIP; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections, CAs (as applicable) and DIVs. |

| **Subprogramme 4.1.4 Safeguards Implementation for States under the Responsibility of Division SGOC** | |
|---|---|
| ***Objectives:*** | |
| — *To verify that all nuclear material remains in peaceful activities in States with CSAs in force.*<br>— *To verify that nuclear material to which safeguards are applied in selected facilities pursuant to VOAs remains in peaceful activities unless withdrawn as provided for in the agreements.* | |
| **Outcomes** | **Performance Indicators** |
| • Effective verification activities performed in the field. | • Percentage of satisfactory statements on the activities, results and conclusions of the Agency's in-field activities. |
| • Evaluation of safeguards relevant information for all States. | • Percentage of States with safeguards agreements in force for which an annual evaluation has been produced and reviewed. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***4.1.4.001 Verification for States with a CSA and an AP in force*** | SERs; SLAs[6]; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections, CAs and DIVs. |
| ***4.1.4.002 Verification for States with a CSA in force*** | SERs; SLAs[7]; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections and DIVs. |

[3, 4, 5] See footnote 1 on page 148.

[6, 7] See footnote 1 on page 148.

| Projects | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***4.1.4.003 Verification for States with a VOA and an AP in force*** | SERs; AIPs; safeguards approaches and inspection procedures; statements and documentation on activities, results and conclusions of inspections, CAs (as applicable) and DIVs. |

| **Subprogramme 4.1.5 Information Analysis** | |
|---|---|
| ***Objectives:*** | |
| — *To contribute to drawing soundly based safeguards conclusions through collecting, processing, evaluating, analysing, structuring, securing and disseminating necessary information in a timely manner, while preserving long-term organizational knowledge.* | |
| **Outcomes** | **Performance Indicators** |
| • Enhanced verification effectiveness and soundness of safeguards conclusions through the provision of safeguards relevant information and analytical added value. | • Absence of instances where additional information that later comes to light brings into question a previously drawn safeguards conclusion. |
| • Timely availability of information and competence contributing to Departmental collaborative processes (State evaluation and implementation of in-field activities). | • Percentage of information available on time to meet State evaluation schedules. |
| • Necessary methodologies, approaches, processes, tools and procedures in place. | • Percentage of information management processes in place improved yearly through the implementation of methodologies, approaches, tools and procedures. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***4.1.5.001 Declared information analysis*** | Comprehensive and up-to-date State-declared information processed and stored in databases compliant with analytical needs; official statements to States; analytical reports backing verification activities and State evaluation; contribution to the SIR; improved methodologies; training support for SSACs. |
| ***4.1.5.002 Nuclear fuel cycle information analysis*** | Evaluation reports on in-field measurement and sample results and estimation of their uncertainties; material balance evaluations; developed probabilistic verification schemes; documented evaluation methodologies and IT solutions; training and consultancy meetings; extensive contributions to in-field activities and safeguards implementation (e.g., reports, ad-hoc written or verbal feedback, sampling plans and random inspection schemes). |
| ***4.1.5.003 State infrastructure analysis*** | Analytical reports from commercially available satellite imagery and other geospatial information; analytical reports on advanced fuel cycle issues; contributions to State evaluation and in-field activities. |
| ***4.1.5.004 Information collection and analysis*** | Provision of analytical reports, information products and expert support based on the assessment of information from open sources, including commercially available databases, and other sources. |

## Subprogramme 4.1.6 Provision and Development of Safeguards Instrumentation

***Objectives:***

- *To enable and improve the implementation of safeguards through the timely provision of appropriate and reliable safeguards instruments with adequate field support.*
- *To ensure the safety of Department of Safeguards staff through properly organized equipment flow, contamination checking and decontamination measures, as well as the provision of personal protective equipment (PPE).*
- *To develop innovative approaches and upgrades in safeguards technologies, to evaluate the application of new technologies for the detection of undeclared nuclear material and activities, and to ensure synergy between safeguards equipment development and innovations originating from other technical areas.*
- *To maintain and enhance a system of asset management and operational equipment tracking compliant with International Public Sector Accounting Standards (IPSAS) that supports equipment life cycle management; and to assure safety in equipment handling through properly organized equipment flow, contamination check and decontamination measures.*

| Outcomes | Performance Indicators |
|---|---|
| • Timely availability of appropriate and reliable safeguards instruments for inspections and adequate field support. | • Percentage of inspector requests for authorized safeguards equipment completed in a timely manner.<br>• Equipment performance rate of safeguards authorized equipment. |
| • Increased use of improved technologies enabling safeguards implementation. | • Number of new and upgraded instruments, components and systems authorized for inspection use. |
| • Asset inventory compliant with IPSAS and occupational safety and radiation regulations. | • Percentage of unverified assets at the Agency's Headquarters and the Safeguards Analytical Laboratory.<br>• Percentage of items returned from radiation-controlled areas that are measured for radioactive contamination. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***4.1.6.001 Provision of safeguards instrumentation and services*** | Authorized safeguards systems and instruments prepared, tested and provided to inspectors; field support by relevant experts and in-house expertise for the development of safeguards systems and instrumentation; safeguards assets management, handling of equipment, storage, contamination checks and shipments; suitable documentation supporting safeguards systems and instruments, and divisional activities; occupational health and safety of safeguards staff managed in compliance with applicable regulations and standards. |
| ***4.1.6.002 Development of safeguards instrumentation*** | New and upgraded instruments and components available; documented studies on promising new technologies; innovative solutions addressing gaps in the technologies currently in use for safeguards and laboratory activities; innovative methodologies used for identifying, testing, developing and deploying innovative solutions supporting safeguards scientific development activities. |

## Subprogramme 4.1.7 Analytical Services

***Objectives:***

- *To maintain and improve capabilities, capacity and services for destructive analysis of nuclear material samples and environmental sample analysis in order to strengthen the Agency's verification capabilities.*
- *To strengthen quality assurance and control of nuclear material and environmental sample analyses.*
- *To optimize sample logistics and coordinate NWAL management.*

| Outcomes | Performance Indicators |
|---|---|
| • Accurate and timely analysis of all required nuclear material and environmental samples. | • Number of nuclear material and environmental sample analytical results reports produced by the NWAL, including the Safeguards Analytical Laboratory.<br>• Percentage of samples analysed within agreed timeframes. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***4.1.7.001 Analytical services and sample analysis*** | Nuclear material and environmental sample analytical results; shipment and logistics of samples; NWAL management; stockpile and provision of sampling kits and materials; design and conduct of the NWAL external quality assurance programme. |

## Subprogramme 4.1.8 Special Projects

***Objectives:***

— *To ensure the successful and timely implementation of effective and efficient safeguards approaches requiring significant capital investments for special projects.*

| Outcomes | Performance Indicators |
|---|---|
| • Effective and efficient safeguards approaches and verification methods available and implemented for all special projects in State facilities. | • Percentage of applicable safeguards approaches and equipment, software and systems and associated information made available in accordance with planned schedules.<br>• Percentage of projects implemented in a timely manner. |
| • Efficient management of resources for Safeguards assets. | • Percentage of critical asset projects with Whole Life Cost estimations. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***4.1.8.001 Develop and implement a safeguards approach for J-MOX*** | Project plan and schedule updated in line with construction plan; development of a safeguards approach and related equipment and documentation as required. |
| ***4.1.8.002 Integrated Life Cycle Management of Safeguards Assets (ILSA)*** | Updated asset management strategy, whole-life cost estimates and cost benefit analyses to explain, justify and plan investments required for the timely introduction and effective implementation of asset replacement projects. |

## Subprogramme 4.1.9 Safeguards Information and Communication Technology (ICT)

***Objectives:***

— *To enhance the Department of Safeguards' evolving processes and to continue enabling the Department to deliver on its mandate by providing reliable, efficient and secure ICT infrastructure and solutions, and user support services.*

— *To ensure the security of safeguards information, physical security, business continuity and disaster recovery.*

| Outcomes | Performance Indicators |
|---|---|
| • Effective and efficient delivery of ICT projects to address safeguards business requirements. | • Percentage of completed product/project road map items compared to what was planned to fulfil business requirements.<br>• Satisfaction rate of internal stakeholders of the Department of Safeguards ICT solutions. |
| • Effectively managed operational processes providing secure and highly available ICT infrastructure with strong user support. | • Availability of core ICT communication infrastructure among all Department of Safeguards staff, and availability of ICT systems at Headquarters and regional offices.<br>• Percentage of reported incidents solved within one working day by the Safeguards Service Desk. |

| Outcomes | Performance Indicators |
|---|---|
| • Improved information security, physical security, and business continuity and disaster recovery. | • Maturity level for the critical security controls that support Department of Safeguards IT security.<br>• Percentage of successful tests of disaster recovery scenarios annually. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***4.1.9.001 ICT development*** | Effectively implemented and maintained ICT solutions (developed in-house or utilizing commercial solutions) for the Department, as well as for States to collaborate on safeguards specific matters including their safeguards reporting responsibilities. |
| ***4.1.9.002 ICT infrastructure and support*** | Help desk, email, file storage, network, database, IT security and applications hosting services; desktop/laptop design services; equipment standards and evaluation, and life cycle management and training; mobile devices management; mobile platform, disaster recovery and next generation security implementation. |
| ***4.1.9.003 Security*** | Security procedures and response to physical/information security incidents; business continuity and disaster recovery plans; security awareness campaigns; training for staff on classifying and handling sensitive information; coordination/cooperation with the Agency's overall security efforts. |

## Programme 4.2 Other Verification Activities

When requested by States and approved by the Board of Governors, the Agency will respond to requests for additional verification tasks. Since 16 January 2016 (JCPOA Implementation Day), the Agency has verified and monitored Iran's implementation of its nuclear-related commitments under the JCPOA[8] and will maintain its readiness in this regard.

Furthermore, the Agency is maintaining its enhanced readiness to return to the DPRK if and when requested, in accordance with its mandate, to monitor and verify the DPRK's nuclear programme.

The Agency will assist with other verification tasks, in accordance with its Statute, in connection with nuclear disarmament or arms control agreements, as requested by States and approved by the Board of Governors.

***Lessons learned from reviews, assessments and evaluations:*** The Agency needs to remain ready to implement its mandate, in an effective and agile manner, as requested by States and approved by the Board of Governors, as was demonstrated in the context of the JCPOA. The Agency maintains its enhanced readiness to return to the DPRK if and when requested and as approved by the Board of Governors. An advanced technology framework including business continuity measures is a strategic enabler for safeguards implementation of other verification tasks and needs to be continuously supported for the Agency to remain agile and prepared to implement its mandate.

***Specific criteria for prioritization:***

1. Projects responding directly to the Agency's statutory and legal obligations, and decisions of the Board of Governors and the General Conference. The Agency must conduct these projects and cannot defer their implementation.
2. Projects enhancing the Agency's ability to conduct mandatory activities effectively and efficiently: providing technological, methodological, information management and research infrastructure.
3. Non-mandatory projects carried out at the request of States and subject to decisions of the Board of Governors.

[8] In August 2015, the Board of Governors authorized the Director General to implement the necessary verification and monitoring of Iran's nuclear-related commitments as set out in the JCPOA, and report accordingly, for the full duration of those commitments in light of United Nations Security Council resolution 2231 (2015), subject to the availability of funds and consistent with the Agency's standard safeguards practices.

## Programmatic changes and trends

***Subprogramme 4.2.1 Other Verification Activities*** covers the verification and monitoring of the nuclear-related commitments of the Islamic Republic of Iran as set out in the JCPOA, in light of United Nations Security Council resolution 2231 (2015), as well as activities to maintain Agency's enhanced readiness to play its essential role in verifying the DPRK's nuclear programme.

**Objectives, Outcomes and Performance Indicators by Programme**

| **Programme 4.2 Other Verification Activities** | |
|---|---|
| ***Objectives:*** | |
| — *To assist with other verification tasks, in accordance with the Agency's Statute, as requested by States and approved by the Board of Governors.* | |
| **Outcomes** | **Performance Indicators** |
| • Timely response to requests by States to carry out verification tasks, approved by the Board of Governors. | • Percentage of approved verification tasks carried out in a timely manner. |

| **Subprogramme 4.2.1 Other Verification Activities** | |
|---|---|
| ***Objectives:*** | |
| — *To implement effective verification and monitoring of the nuclear-related commitments of the Islamic Republic of Iran as set out in the JCPOA.*<br>— *To maintain the Agency's enhanced readiness to play its essential role in monitoring and verifying the DPRK's nuclear programme.*<br>— *To follow any developments in verification agreement(s) to be concluded between the Agency and States when requested by States and as approved by the Board of Governors.* | |
| **Outcomes** | **Performance Indicators** |
| • Verification and monitoring activities performed in relation to the nuclear-related commitments of the Islamic Republic of Iran as set out in the JCPOA. | • Timely reports to the Board of Governors and, in parallel to the United Nations Security Council. |
| • Maintained enhanced readiness to implement safeguards under INFCIRC/403 and to conduct other verification activities in the DPRK, as requested by States and approved by the Board of Governors. | • Timely reports to the Board of Governors and General Conference.<br>• Percentage of required documents and plans in place to allow for verification activities in the DPRK. |
| • Necessary legal framework, verification approaches and equipment to conduct verification related to specific verification agreement(s), if concluded. | • Percentage of required arrangements, approaches and systems in place to allow for verification related to specific verification agreement(s), if concluded. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***4.2.1.001 Verification activities in the Democratic People's Republic of Korea*** | Regular updates provided to the Board of Governors and General Conference; SER; knowledge management and training; plans to implement safeguards or other monitoring and/or verification measures under different scenarios. |
| ***4.2.1.002 Verification and monitoring of Iran's nuclear related commitments*** | Regular updates provided to the Board of Governors and, in parallel to the United Nations Security Council. |

**Major Programme 4 — Nuclear Verification**
Summary of Programme Structure and Resources
*(excluding Major Capital Investments)*

| | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| **Programme/Subprogramme/Project** | **Regular Budget** | **Unfunded** | **Regular Budget** | **Unfunded** |
| 4.0.0.001 Overall management and coordination | 3 480 468 | 1 364 077 | 3 480 468 | 1 364 077 |
| 4.0.0.002 Safeguards effectiveness evaluation | 1 057 834 | - | 1 057 834 | - |
| 4.S Corporate shared services | 13 510 842 | 270 286 | 13 510 843 | 270 286 |
| | **18 049 144** | **1 634 363** | **18 049 144** | **1 634 363** |
| 4.1.1.001 Partnerships and planning | 826 275 | 1 420 982 | 809 428 | 898 954 |
| 4.1.1.002 Safeguards concepts and approaches | 3 721 838 | 392 843 | 3 721 838 | 392 843 |
| 4.1.1.003 Quality management | 1 702 097 | 117 684 | 1 702 097 | 117 684 |
| 4.1.1.004 Safeguards staff training | 2 277 182 | 1 427 011 | 2 294 029 | 1 408 985 |
| 4.1.1.005 Member States training | 961 786 | 3 596 890 | 961 786 | 2 973 002 |
| **4.1.1 Concepts and Planning** | **9 489 178** | **6 955 410** | **9 489 178** | **5 791 467** |
| 4.1.2.001 Verification for States with a CSA and an AP in force | 18 709 726 | - | 18 709 727 | - |
| 4.1.2.002 Verification for States with a CSA in force | 341 585 | - | 341 585 | - |
| 4.1.2.003 Verification for States with a VOA and an AP in force | 507 866 | - | 507 866 | - |
| **4.1.2 Safeguards Implementation for States under the Responsibility of Division SGOA** | **19 559 176** | **-** | **19 559 177** | **-** |
| 4.1.3.001 Verification for States with a CSA and an AP in force | 9 251 798 | - | 9 251 798 | - |
| 4.1.3.002 Verification for States with a CSA in force | 6 084 752 | - | 6 084 752 | - |
| 4.1.3.003 Verification for States with an INFCIRC/66-type agreement in force | 3 531 736 | - | 3 531 736 | - |
| 4.1.3.004 Verification for States with a VOA and an AP in force | (0) | 844 900 | (0) | 844 900 |
| 4.1.3.005 Verification for Iran (CSA (in force) and AP (as applicable)) | 10 454 079 | - | 10 454 079 | - |
| **4.1.3 Safeguards Implementation for States under the Responsibility of Division SGOB** | **29 322 365** | **844 900** | **29 322 365** | **844 900** |
| 4.1.4.001 Verification for States with a CSA and an AP in force | 18 434 771 | - | 18 434 771 | - |
| 4.1.4.002 Verification for States with a CSA in force | 295 088 | - | 295 088 | - |
| 4.1.4.003 Verification for States with a VOA and an AP in force | 1 023 620 | 571 711 | 1 023 620 | 571 711 |
| **4.1.4 Safeguards Implementation for States under the Responsibility of Division SGOC** | **19 753 479** | **571 711** | **19 753 479** | **571 711** |

## Major Programme 4 — Nuclear Verification

Summary of Programme Structure and Resources

*(excluding Major Capital Investments)*

| | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| **Programme/Subprogramme/Project** | **Regular Budget** | **Unfunded** | **Regular Budget** | **Unfunded** |
| 4.1.5.001 Declared information analysis | 2 887 017 | 752 239 | 2 924 338 | 752 239 |
| 4.1.5.002 Nuclear fuel cycle information analysis | 4 033 861 | 1 227 085 | 3 988 820 | 1 168 278 |
| 4.1.5.003 State infrastructure analysis | 2 937 259 | 1 695 866 | 2 944 978 | 1 687 606 |
| 4.1.5.004 Information collection and analysis | 4 523 580 | 1 560 508 | 4 523 580 | 1 560 508 |
| **4.1.5 Information Analysis** | **14 381 717** | **5 235 697** | **14 381 717** | **5 168 631** |
| 4.1.6.001 Provision of Safeguards Instrumentation and Services | 22 160 510 | 7 462 139 | 22 160 510 | 6 872 233 |
| 4.1.6.002 Development of Safeguards Instrumentation | 2 811 202 | 1 272 639 | 2 811 202 | 1 272 639 |
| **4.1.6 Provision and Development of Safeguards Instrumentation** | **24 971 711** | **8 734 778** | **24 971 711** | **8 144 872** |
| 4.1.7.001 Analytical services and sample analysis | 12 611 673 | 3 420 790 | 12 611 674 | 2 108 537 |
| **4.1.7 Analytical Services** | **12 611 673** | **3 420 790** | **12 611 674** | **2 108 537** |
| 4.1.8.001 Develop and implement a safeguards approach for J-MOX | 789 053 | - | 789 053 | - |
| 4.1.8.002 Integrated Life Cycle Management of Safeguards Assets (ILSA) | 1 084 869 | - | 1 084 869 | - |
| **4.1.8 Special Projects** | **1 873 922** | **-** | **1 873 922** | **-** |
| 4.1.9.001 ICT development | 8 008 894 | 1 969 049 | 8 008 894 | 1 969 049 |
| 4.1.9.002 ICT infrastructure and support | 8 099 703 | 5 248 748 | 8 099 703 | 2 976 068 |
| 4.1.9.003 Security | 2 064 161 | 567 256 | 2 064 161 | 664 008 |
| **4.1.9 Safeguards Information and Communication Technology (ICT)** | **18 172 758** | **7 785 053** | **18 172 758** | **5 609 125** |
| **4.1 Safeguards Implementation** | **150 135 980** | **33 548 340** | **150 135 980** | **28 239 243** |
| 4.2.1.001 Verification activities in the Democratic People's Republic of Korea | 900 815 | 346 072 | 900 815 | 346 072 |
| 4.2.1.002 Verification and monitoring of Iran's nuclear related commitments | 2 333 930 | 4 644 453 | 2 333 930 | 4 644 453 |
| **4.2.1 Other Verification Activities** | **3 234 745** | **4 990 525** | **3 234 745** | **4 990 525** |
| **4.2 Other Verification Activities** | **3 234 745** | **4 990 525** | **3 234 745** | **4 990 525** |
| **Major Programme 4 - Nuclear Verification** | **171 419 868** | **40 173 228** | **171 419 869** | **34 864 131** |

# Major Programme 4 — Nuclear Verification

Activities unfunded in the Regular Budget

*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 4.0.0.001 Overall management and coordination | Overall management and coordination | 1 364 077 | 1 364 077 |
| 4.1.1.001 Partnerships and planning | Strategic planning, Partnerships, Member States Support Programme (MSSP) coordination, Safeguards Symposium | 1 420 982 | 898 954 |
| 4.1.1.002 Safeguards concepts and approaches | Safeguards concepts and approaches | 392 843 | 392 843 |
| 4.1.1.003 Quality management | Quality management system performance and improvement | 117 684 | 117 684 |
| 4.1.1.004 Safeguards staff training | Staff training implementation; Development and evaluation of safeguards training courses | 1 427 011 | 1 408 985 |
| 4.1.1.005 Member States training | COMPASS package, SRA and SSAC training, Traineeship Programme | 3 596 890 | 2 973 002 |
| 4.1.3.004 Verification for States with a VOA and an AP in force | Verification in States with voluntary offer agreements | 844 900 | 844 900 |
| 4.1.4.003 Verification for States with a VOA and an AP in force | Verification in States with voluntary offer agreements | 571 711 | 571 711 |
| 4.1.5.001 Declared information analysis | Development activities and methodology and support tasks | 752 239 | 752 239 |
| 4.1.5.002 Nuclear fuel cycle information analysis | Development activities and methodology and support tasks | 1 227 085 | 1 168 278 |
| 4.1.5.003 State infrastructure analysis | Development activities and methodology and support tasks | 1 695 866 | 1 687 606 |
| 4.1.5.004 Information collection and analysis | Development activities and methodology and support tasks | 1 560 508 | 1 560 508 |
| 4.1.6.001 Provision of Safeguards Instrumentation and Services | Provision of Safeguards Instrumentation and Services | 7 462 139 | 6 872 233 |
| 4.1.6.002 Development of Safeguards Instrumentation | Development of Safeguards Instrumentation | 1 272 639 | 1 272 639 |
| 4.1.7.001 Analytical services and sample analysis | Coordinate and support the provision of analytical services | 3 420 790 | 2 108 537 |
| 4.1.9.001 ICT development | Keeping Safeguards Information and Communication Technology (ICT) updated | 1 969 049 | 1 969 049 |
| 4.1.9.002 ICT infrastructure and support | Information and Communication Technology (ICT) operations, business continuity and disaster recovery | 5 248 748 | 2 976 068 |
| 4.1.9.003 Security | Information Security, Comprehensive Security Management for Safeguards | 567 256 | 664 008 |
| 4.2.1.001 Verification activities in the Democratic People's Republic of Korea | Maintain readiness and preparedness to implement safeguards under INFCIRC/403 and to conduct other verification activities in the DPRK, as approved by the Board of Governors | 346 072 | 346 072 |
| 4.2.1.002 Verification and monitoring of Iran's nuclear related commitments | Nuclear related commitments | 4 644 453 | 4 644 453 |
| 4.S Corporate shared services | Corporate shared services | 270 286 | 270 286 |
| **Grand Total** | | **40 173 228** | **34 864 131** |

# Major Programme 5
# Policy, Management and Administration Services

## Introduction

Under the leadership, direction and authority of the Director General, the Agency's programmes seek to achieve the objectives of the Agency's Member States. This requires effective guidance on priorities; quality assurance; interactions with Member States; services provided to the Policy-Making Organs (PMOs) in line with the relevant cross cutting issues. Furthermore, an independent Ethics function continues to promote and sustain an ethical organizational culture of integrity, accountability and transparency, and continues to assist the Director General in ensuring that all staff members observe and perform their functions consistent with the highest standards of integrity.

To help achieve the Agency's mandate, a wide range of administrative, managerial, oversight and legal services continues to support Agency programmes, enabling efficient and effective programme delivery to Member States.

The Office of Internal Oversight Services (OIOS) provides independent and objective assurance and advice to the Director General, management, Member States and other stakeholders through the activities of OIOS — including audits, evaluations, investigations and the provision of advisory support to senior management and Member States — as well as through the Secretariat's support to the External Auditors.

The Office of Legal Affairs (OLA) continues to provide comprehensive legal services across the Agency in the development and implementation of Agency activities.

Ensuring the sustainable operation of facilities maintained or used by the Agency, such as its laboratories at Seibersdorf and the Vienna International Centre (VIC), remains important. Approximately a quarter of the Major Programme 5 budget is related to the cost of common security services and the cost of the United Nations Industrial Development Organization (UNIDO) operated management of the VIC premises that are expected to continue to increase. Adequate funding is needed to cover the maintenance of the infrastructure of the VIC. At the same time, the Agency's contribution to these common buildings management services must also consider the current budget climate.

The demand for services of Major Programme 5 is constantly increasing from all programmes. This includes requests for introducing new IT tools, develop training programmes and improving data visualization, as well as establishing new common infrastructure platforms that can be leverages across the organization. There is also a continuous need to enhance the agility of services, ensure efficiency and optimize service delivery, including through the use of innovative technologies and AI, where applicable. Ensuring transparent and effective financial management of all Agency resources remains important, with strong support for Member States and managers.

The increased use of advanced IT services and tools enhances both efficiency and effectiveness across the Agency by streamlining processes and enabling the data-driven management of operations. The growing complexity of and reliance on IT, along with the evolving information security landscape, requires a continued focus on addressing information security risks. Therefore, it is essential to continue building and maintaining a secure IT infrastructure and to ensure that robust and appropriate measures are in place.

The Office of Procurement Services continues to optimize the delivery of core services to both the regular and the TC programme, ensuring that the Agency maintains its capacity to deliver rapid response assistance to Member States as required. There is also a focus on providing innovative solutions to support programmes, for example, in their cooperation with non-traditional partners.

Further expansion of multilingualism and outreach remains a priority, including diversifying the range of output formats for publications and other materials and increasing the use of e-publishing and electronic dissemination of conference materials.

Human resources management remains focused on identifying opportunities to promote the Agency as an employer of choice, enhancing a culture of accountability and improving the agility and effectiveness of the Agency's work force.

| ***Objectives:*** | |
|---|---|
| — *To provide guidance and continuously improve the results based management approach to ensure the quality, relevance, effectiveness and efficiency of all Agency programmes and the use of resources.*<br>— *To enhance understanding of the work of the Agency and to ensure timely access by stakeholders to relevant scientific and technical information.* | |
| **Outcomes** | **Performance Indicators** |
| • Improved planning, implementation, assessment and evaluation of the Agency's programme in a fully coordinated manner, following the results based approach. | • Degree of achievement of high quality implementation of Agency planned programme. |
| • Optimized timeliness and quality of administrative and legal services provided in relation to the scientific and technical programmes of the Agency. | • Timeliness and quality of legal services.<br>• Timeliness and quality of administrative services. |
| • Enhanced efficiency and effectiveness of information support services and communications. | • Number of outreach activities to media and the public on the activities of the Agency. |

## Programmatic changes and trends

***Subprogramme 5.0.1 Executive Leadership and Policy*** will continue to provide guidance for planning and implementation to ensure that all activities are undertaken within the Agency's statutory mandate and in line with the guidance of the PMOs. The results based culture across the Agency will continue to be strengthened to ensure timely and effective implementation of the Agency's programmes and delivery of concrete results, with consistent integration of cross-cutting issues. In addition, the Agency will continue its collaboration with the wider UN system and other international actors, with the aim of contributing to and continuously learning from best practices in results based management for better results. The use of results based techniques and tools, as well as the dissemination of results and lessons learned, is central to the collection, preservation, codification, transfer and communication of knowledge generated. To this end, the coordination of knowledge management will continue to be integrated into the Agency's results based management framework. The Agency will continue to review the implementation of Departmental knowledge management action plans to further strengthen CKM in the Agency. The Agency will continue to make progress in improving its risk management system and processes throughout the programme cycle and to support accountability and decision-making. The Agency will continue to follow a harmonized, corporate approach towards resource mobilization and to seek new initiatives, partnerships and innovative sources of funding to enable the expansion of services offered to Member States. This includes leveraging Country Programme Frameworks to establish partnership and results matrices in order to support Member States in identifying potential partners for the implementation of projects. The independent Ethics function will continue ensuring that all staff members observe and perform their functions consistent with the highest standards of integrity.

***Subprogramme 5.0.2 Legal Services*** will continue to provide support across the Agency in response to the steadily increasing number of requests for legal advice. The increase in requests over the past ten years is expected to continue, in particular with regard to the extension of existing, or the establishment of new, partnerships with traditional and non-traditional partners, including partnerships with universities for the development of educational programmes on nuclear law, as well as the development of training for staff at appropriate levels in management skills and the administrative framework. Outreach to Member States to raise awareness about the treaties for which the Director General is depositary, development of training and reference material, and support to Member States in the implementation of international agreements and the preparation of corresponding national nuclear legislation is also expected to continue to increase, and webinars and other high-quality virtual tools will be used to facilitate these efforts. Substantial work in support of Agency safeguards and verification, and nuclear safety and security activities, including the development of templates related to the Agency's emergency preparedness and response framework, will continue. Increasing programmatic demands are being met through staffing stabilized during the previous biennium, as well as efficiencies achieved through the internal knowledge management strategies of the OLA, such as digitizing OLA records, developing a modern documents management system (including the use of automation and artificial intelligence tools), modernizing the internal database for legislative assistance activities and optimizing the use of the logbook (including enhanced reporting options), which have optimized work planning and the timeliness of response.

***Subprogramme 5.0.3 Oversight Services*** will continue to support the Agency in delivering efficient, effective, high quality results; in managing risk; and in demonstrating accountability to Member States. Through its investigations and advisory services, OIOS also contributes to the Agency's focus on ensuring that it operates in an ethical working environment in line with its values.

***Subprogramme 5.0.4 Public Information and Communications*** will continue to promote the Agency's activities and achievements, using existing communication channels (e.g. web, social media, events, media relations, multimedia and podcasts) as well as communication campaigns. Particular attention will be given to creating content providing scientific information with visuals (e.g. photos, videos, animations and infographics) to be easily disseminated by Member States and stakeholders to increase knowledge and understanding among the media, stakeholders and the general public about the safe, secure and peaceful uses of nuclear science and technologies and the work of the Agency. The Agency will continue its efforts to provide public information in the six official IAEA languages; Arabic, Chinese, English, French, Russian and Spanish and will explore the development of tools to create efficiencies especially for multilingual content on the website and social media. Media and social media monitoring could be reinforced using a digital impact measurement tool, which would also provide quality data analysis on digital content reach and engagement, including in other languages.

***Subprogramme 5.0.5 Management and Administrative Services*** will continue to support the Agency to achieve further efficiencies and to strengthen the results based approach in all areas of the Agency's work to provide high quality support to Member States. This is particularly relevant as the financial situation of many Member States remains challenging. Member States' requirements and the operating environment of the Agency are dynamic, and the ability to swiftly respond to emerging challenges remains critical. The subprogramme will also continue to ensure the efficient and effective operation of the support services that underpin all other programmes. In addition, it will support the transformation of processes and the introduction of new working models by leveraging new technology and innovation, where possible and appropriate.

***Subprogramme 5.0.6 Information and Communication Technology*** will continue investing in IT to address, as the highest priority, the continuing growth and sophistication of IT and information security threats. Where possible, commercial and cloud platforms and industry-standard technologies will be leveraged to drive efficiency and effectiveness in how technology investment is managed. The Agency will continue to assess the utilization of robotic process automation and artificial intelligence to identify opportunities to optimize programme performance where applicable.

***Subprogramme 5.0.7 Financial Management and Services*** will continue to support the Agency regarding proper and transparent financial management. A focus will be on optimization of resources, mainly through efficiencies. Efforts to promote innovative and effective operation of budget and finance will continue.

***Subprogramme 5.0.8 Human Resources Management*** focuses on identifying opportunities to promote the Agency as an employer of choice; enhancing a culture of accountability; fostering a respectful workplace; creating an agile workforce; increasing process efficiencies; and providing excellent client services. In addition, the health and well-being of staff is being assessed, including the monitoring of occupationally exposed workers and a focus on mental health issues.

***Subprogramme 5.0.9 General Services*** will continue to face increased demand for the provision of services, especially at the Seibersdorf site, where the focus will be on optimization of operational efficiency to ensure energy sustainability and cost-effective maintenance through the comprehensive administration of the site, including security and site-wide engineering and infrastructure functions. Modernization efforts will continue to take advantage of innovative technologies to enhance the Agency's document retention and preservation, retrieval and archiving practices. Furthermore, improved systems for space management and service are expected to produce efficiencies. The costs related to the VIC common Buildings Management Services (BMS) operated by UNIDO have been increasing significantly over the past years. Energy costs have been a driving factor but, although energy prices are still unpredictable, the BMS-related cost is expected to remain at a similar level to the previous biennium. The Agency will continue to closely coordinate with the other VIC based organizations on this topic.

***Subprogramme 5.0.10 Conference, Language and Publishing Services*** will continue to strengthen the application of IT to their processes. This will include further diversifying the range of output formats of publications and other material, a greater use of e-publishing and electronic dissemination of conference materials, enhancing and streamlining the processing of official documents, including summary records, as well as continuously improving internal processes and electronic workflows. The focus will be on maintaining the appropriate timeliness and high quality of documentation and correspondence submitted to Member States. Alternative sourcing options for appropriate tasks in the publishing and language areas will continue to be

evaluated to achieve greater efficiency.

***Subprogramme 5.0.11 Procurement Services*** will continue to explore innovative, efficient options to ensure continued improvements in programmatic activities, emergency procurement, sustainable procurement and the optimization of procurement tools and systems (iProcurement). In particular, the focus on non-traditional partners requires innovative solutions such as publishing requests for donation and contributions in kind.

**Objectives, Outcomes and Performance Indicators by Subprogramme**

| **Subprogramme 5.0.1 Executive Leadership and Policy** | |
|---|---|
| ***Objectives:*** | |
| — *To provide leadership and guidance for Agency activities at the executive level, and to continuously strengthen an integrated, results based management approach.* | |
| **Outcomes** | **Performance Indicators** |
| • Improved effectiveness, efficiency and transparency in the execution of Agency programmes and activities relevant to Member States. | • Member State satisfaction with the efficiency, effectiveness and transparency of the programme delivered. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***5.0.1.001 Executive leadership*** | Direction and leadership; guidance for Secretariat activities; liaison with Member States, and intergovernmental and non-governmental organizations. |
| ***5.0.1.002 Policy-Making Organs*** | Servicing of meetings of PMOs and subsidiary bodies, in alignment with Member States' current expectations on the conduct of PMO meetings, including interpretation; assistance to presiding officers; documents for PMO meetings; assistance to Member States on PMO issues; coordination with in-house Departments; compilation of PMO decisions/resolutions. |
| ***5.0.1.003 Ethics function*** | Prevention, outreach and training activities; strengthening of the ethics framework; provision of advice to staff members and other personnel and management on ethics issues; administration of the protection against retaliation provisions under the Agency's Whistle-blower Policy; administration of the Agency's financial/conflict of interest disclosure programme. |

| **Subprogramme 5.0.2 Legal Services** | |
|---|---|
| ***Objectives:*** | |
| — *To provide the highest standard of legal services to the Director General, Secretariat, PMOs and Member States in the development and implementation of Agency activities.* | |
| **Outcomes** | **Performance Indicators** |
| • Consistently timeliness and high quality of legal services provided to the Director General, Secretariat, PMOs and Member States in the development and implementation of Agency activities. | • Percentage of requests for legal services addressed on time.<br>• Percentage of feedback from clients that is positive. |

| **Projects** | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***5.0.2.001 Legal services*** | Provision of legal services to the Director General, Secretariat, PMOs and Member States in the development and implementation of Agency activities. |

| **Subprogramme 5.0.3 Oversight Services** | |
|---|---|
| ***Objectives:*** | |
| — *To provide the Director General, management, Member States and other stakeholders with independent, objective advice and assurance that Agency activities are carried out efficiently, effectively and in compliance with regulations and rules and with sound management practice.* | |
| **Outcomes** | **Performance Indicators** |
| • Consistently high-quality and timely assurance and advice provided by OIOS to help the Agency manage its risks, strengthen its activities, and demonstrate its accountability and transparency. | • Percentage of OIOS assignments finalized within the work plan cycle.<br>• Percentage of satisfactory stakeholder feedback on the quality and utility of OIOS assignments. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***5.0.3.001 Oversight services*** | Reports and advice on the efficiency, effectiveness and compliance with rules and regulations and sound management practice of the work of the Agency. |

| **Subprogramme 5.0.4 Public Information and Communications** | |
|---|---|
| ***Objectives:*** | |
| — *To increase positive recognition of the Agency's work — externally and internally — and its contribution to accelerate and enlarge the contribution of nuclear science and technology for peace and development.* | |
| **Outcomes** | **Performance Indicators** |
| • Enhanced efficiency and effectiveness of public information and communication support services. | • Number of materials produced, and events held internally for staff and externally for the media and the public, on the activities of the Agency. |
| • Increased knowledge and reporting of nuclear issues and the Agency's mission, activities and achievements by its stakeholders and the media. | • Number and accuracy of media articles about or related to the Agency and its activities.<br>• Number of participants in public events, including the Long Night of Research, World Cancer Day and the Scientific Forum. |
| • Increased public knowledge of and engagement on nuclear issues and the Agency's mission, activities and achievements through direct communication channels. | • Monthly audience on website.<br>• Monthly audience on social media. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***5.0.4.001 Public information and communications*** | Press conferences; media briefings; interviews; press releases; replies to media and public queries; web articles; print and digital publications; social media posts; multimedia products (e.g., videos and animations, photos, and infographics); campaigns; events; presentations for visitors; internal communication. |

| Subprogramme 5.0.5 Management and Administrative Services | |
|---|---|
| ***Objectives:*** | |
| — *To provide coordination of all management activities, ensuring that various support services can continuously improve and 'deliver as one', in order to achieve efficient and effective implementation of the Agency's programme in line with the established policies.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased efficiency and client satisfaction in respective programme support functions. | • Satisfaction with the services provided by the Department of Management. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***5.0.5.001 Management and administrative services*** | Overarching direction for support services and related communication including coordination of the Programme and Budget; optimization of operational efficiency; liaison with United Nations system organizations and the Host Government; reviews of security and coordination with other VIC based organizations. |
| ***5.0.5.002 United Nations common system contribution*** | Coordination with other United Nations system organizations. |

| Subprogramme 5.0.6 Information and Communication Technology | |
|---|---|
| ***Objectives:*** | |
| — *To provide a secure IT environment and solutions that enable the efficient and effective delivery of the Agency's programme.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased security and efficiency of IT services and infrastructure. | • Percentage of Agency employees who have completed the latest information security training.<br>• Percentage of processes simplified, streamlined and automated. |
| • Enhanced consistency in supporting the Agency's programme through reliable IT services and infrastructure. | • Availability of critical IT applications and infrastructure services.<br>• Percentage of Agency staff expressing satisfaction with IT services in a survey. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***5.0.6.001 Information and communication technology*** | IT end-user services; IT infrastructure services; IT solutions; IT security; IT programme management; IT processes and procedures. |

| Subprogramme 5.0.7 Financial Management and Services | |
|---|---|
| ***Objectives:*** | |
| — *To ensure the continued confidence of Member States in the financial management of the Agency, and to deliver relevant services efficiently and effectively in support of all Agency programmes.* | |
| **Outcomes** | **Performance Indicators** |
| • Enhanced timeliness and reliability of financial planning and budgeting; relevant, accurate and reliable financial reporting. | • Percentage of official budget and financial documents issued within Board of Governors and General Conference deadlines.<br>• Unqualified opinion by the External Auditor of the Agency's annual Financial Statements. |

| Outcomes | Performance Indicators |
|---|---|
| • Increased efficiency and effectiveness of the financial administration of the Agency that supports all Agency programmes. | • Percentage of staff expressing satisfaction with financial services. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***5.0.7.001 Financial management and services*** | The Agency's Programme and Budget; the Agency's Financial Statements; reports to governing bodies and donors; effective delivery of financial services. |

**Subprogramme 5.0.8 Human Resources Management**

***Objectives:***

— *To provide a modern, strategic, client focused and solution oriented human resources management function.*

— *To achieve operational excellence and higher productivity in the human resources management function.*

— *To promote the occupational health and well-being of staff.*

| Outcomes | Performance Indicators |
|---|---|
| • Improved human resources function with a strong client orientation and efficient workflows. | • Percentage of customers satisfied with the quality of human resources services.<br>• Percentage of transactions processed within agreed timeframe. |
| • Adequate gender parity. | • Jointly with other Departments/Offices, maintain gender parity in the Professional and higher categories.<br>• Percentage of staff trained to increase awareness, knowledge and skills in relation to adequate gender parity. |
| • Improved occupational health and well-being of staff. | • Total number of work-related accidents, incidents and illnesses.<br>• Percentage of customers satisfied with the service provided by the VIC Medical Service. |

**Projects**

| Title | Main Planned Outputs |
|---|---|
| ***5.0.8.001 Human resource advisory and administration services*** | Organizational development; workforce planning; contract administration; talent management; service level agreements; documents on human resources procedures; medical evaluations, surveillance assessments and statistics on health. |

**Subprogramme 5.0.9 General Services**

***Objectives:***

— *To provide effective and efficient facilities management services, including safety and security.*

— *To ensure timely delivery of services related to logistics and travel as well as to coordinate matters related to privileges and immunities.*

— *To ensure the consistent application of harmonized records and mail management policies and procedures.*

| Outcomes | Performance Indicators |
|---|---|
| • Improved customer satisfaction with quality of general support services. | • Percentage of customers satisfied with the quality of general support services provided. |
| • Effective delivery and coordination of customer oriented service support. | • Percentage of service requests processed on time. |

| **Projects** | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***5.0.9.001 General services management*** | Visa applications; customs forms; office moves; completed facility maintenance requests; insurance contracts; records archived; mail processed. |
| ***5.0.9.002 Buildings Management Services and United Nations Security and Safety Service costs*** | Buildings management and safety and security services provided. |

| **Subprogramme 5.0.10 Conference, Language and Publishing Services** | |
|---|---|
| ***Objectives:*** | |
| — *To enable effective exchange and dissemination of knowledge and information relevant to the Agency's work and mandate between the Secretariat and Member States by organizing and managing events, issuing documents in the six official languages of the PMOs, and producing and disseminating publications.* | |
| **Outcomes** | **Performance Indicators** |
| • Enhanced and efficient multilingual dialogue and communication between the Secretariat, Member States and major stakeholders. | • Productivity as measured by number of words translated per hour worked.<br>• Percentage of clients satisfied with the Agency's conference services. |
| • Strengthened exchange of scientific and technical information on peaceful uses of atomic energy. | • Percentage of manuscripts published within agreed timelines.<br>• Percentage of clients satisfied with the conference, language and publishing services. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***5.0.10.001 Conference, language and publishing services*** | Organizational support, and administrative and logistical services for Agency events; translated documents and summary records in six official languages of the PMOs; production of scientific and technical publications and other materials. |

| **Subprogramme 5.0.11 Procurement Services** | |
|---|---|
| ***Objectives:*** | |
| — *To support achievement of the Agency's programmatic goals and objectives through procurement services.*<br>— *To achieve best value for money through fair, transparent and effective competition.* | |
| **Outcomes** | **Performance Indicators** |
| • Enhanced Agency procurement system (iProcurement) and achievement of best value for money to support the Agency's programmatic activities through efficient processes in procuring goods and services, and through fair, transparent and effective competition. | • Number of enhancements to the Agency's procurement system (iProcurement and/or other systems or tools).<br>• Savings to the Agency in the procurement of goods and services. |
| • Achievement of client satisfaction in procurement services. | • Percentage of customers satisfied with the quality of services provided by the Office of Procurement Services.<br>• Number of departmental client coordination and review meetings per year. |
| **Projects** | |
| **Title** | **Main Planned Outputs** |
| ***5.0.11.001 Procurement services*** | Procurement strategies based on prioritization, standardization and consolidation, purchase orders, agreements, service orders, long term agreements and service level agreements; alignment of policies, processes and procedures with best procurement practices; on-site installation and training. |

## Major Programme 5 — Policy, Management and Administration Services

Summary of Programme Structure and Resources

*(excluding Major Capital Investments)*

| Programme/Subprogramme/Project | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| | Regular Budget | Unfunded | Regular Budget | Unfunded |
| 5.0.1.001 Executive leadership | 5 918 904 | 947 762 | 6 096 490 | 947 762 |
| 5.0.1.002 Policy-Making Organs | 2 978 068 | 124 000 | 2 800 482 | 124 000 |
| 5.0.1.003 Ethics function | 382 671 | 235 367 | 382 671 | 235 367 |
| **5.0.1 Executive Leadership and Policy** | **9 279 643** | **1 307 129** | **9 279 643** | **1 307 129** |
| 5.0.2.001 Legal services | 3 427 049 | 447 493 | 3 427 049 | 447 493 |
| **5.0.2 Legal Services** | **3 427 049** | **447 493** | **3 427 049** | **447 493** |
| 5.0.3.001 Oversight services | 3 877 122 | 669 367 | 3 877 122 | 669 367 |
| **5.0.3 Oversight Services** | **3 877 122** | **669 367** | **3 877 122** | **669 367** |
| 5.0.4.001 Public information and communications | 4 238 576 | 974 768 | 4 238 576 | 974 768 |
| **5.0.4 Public Information and Communications** | **4 238 576** | **974 768** | **4 238 576** | **974 768** |
| 5.0.5.001 Management and administrative services | 922 399 | 145 846 | 922 399 | 145 846 |
| 5.0.5.002 United Nations common system contribution | 394 227 | - | 394 227 | - |
| **5.0.5 Management and Administrative Services** | **1 316 626** | **145 846** | **1 316 626** | **145 846** |
| 5.0.6.001 Information and communication technology | 11 508 589 | 1 005 688 | 11 508 589 | 1 005 688 |
| **5.0.6 Information and Communication Technology** | **11 508 589** | **1 005 688** | **11 508 589** | **1 005 688** |
| 5.0.7.001 Financial management and services | 7 676 376 | 893 135 | 7 676 376 | 893 135 |
| **5.0.7 Financial Management and Services** | **7 676 376** | **893 135** | **7 676 376** | **893 135** |
| 5.0.8.001 Human resource advisory and administration services | 7 669 189 | 1 343 575 | 7 669 188 | 1 343 575 |
| **5.0.8 Human Resources Management** | **7 669 189** | **1 343 575** | **7 669 188** | **1 343 575** |
| 5.0.9.001 General services management | 9 407 278 | 288 187 | 9 407 279 | 288 187 |
| 5.0.9.002 Buildings Management Services and United Nations Security and Safety Service Costs | 22 086 309 | - | 22 086 309 | - |
| **5.0.9 General Services** | **31 493 587** | **288 187** | **31 493 588** | **288 187** |
| 5.0.10.001 Conference, language and publishing services | 5 626 950 | - | 5 626 950 | - |
| **5.0.10 Conference, language and publishing services** | **5 626 950** | **-** | **5 626 950** | **-** |
| 5.0.11.001 Procurement services | 2 383 631 | 1 096 512 | 2 383 631 | 1 096 512 |
| **5.0.11 Procurement Services** | **2 383 631** | **1 096 512** | **2 383 631** | **1 096 512** |
| **5.S Corporate shared services** | 6 079 528 | 165 977 | 6 079 527 | 165 977 |
| **Major Programme 5 - Policy, Management and Administration Services** | **94 576 866** | **8 337 678** | **94 576 865** | **8 337 678** |

**Major Programme 5 — Policy, Management and Administration Services**
Activities unfunded in the Regular Budget
*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 5.0.1.001 Executive leadership | General guidance and management | 947 762 | 947 762 |
| 5.0.1.002 Policy-Making Organs | Policy-Making organs | 124 000 | 124 000 |
| 5.0.1.003 Ethics function | Ethics function | 235 367 | 235 367 |
| 5.0.2.001 Legal services | Legal services | 447 493 | 447 493 |
| 5.0.3.001 Oversight services | Oversight services | 669 367 | 669 367 |
| 5.0.4.001 Public information and communications | Public information and communications | 974 768 | 974 768 |
| 5.0.5.001 Management and administrative services | General coordination and management | 145 846 | 145 846 |
| 5.0.6.001 Information and communication technology | Information and communication technology | 1 005 688 | 1 005 688 |
| 5.0.7.001 Financial management and services | Financial management and services | 893 135 | 893 135 |
| 5.0.8.001 Human resource advisory and administration services | Human resources advisory and administration services | 1 343 575 | 1 343 575 |
| 5.0.9.001 General services management | General services management | 288 187 | 288 187 |
| 5.0.11.001 Procurement services | Procurement services | 1 096 512 | 1 096 512 |
| 5.S Corporate shared services | Corporate shared services | 165 977 | 165 977 |
| **Grand Total** | | **8 337 678** | **8 337 678** |

# Major Programme 6
# Management of Technical Cooperation for Development

## Introduction

Major Programme 6 supports the management, development and implementation of technical cooperation (TC) projects within the framework of the TC programme. The TC programme is developed jointly with Member States to respond to their developmental priorities through effective programme management, in accordance with strategic objective. TC Programme will continue to serve as the vehicle for the transfer of nuclear technology and to build capacity in nuclear applications in Member States, with an emphasis on human resource development, contributing to Member States' effort to achieve the Sustainable Development Goals (SDGs).

The TC programme is a cross-cutting Agency programme that supports Member States' sustainable development needs and priorities, including in the areas of human health, especially for cancer control; food and agriculture; irradiation technology and processing; energy planning and nuclear power development; and water resources management and the environment. The TC programme helps enhancing Member States preparedness in preventing and combating zoonotic diseases, in responding to emergencies related to disease outbreaks, extreme climate events and natural disasters; combating plastic pollution; and promoting greater engagement of women in the nuclear field. The programme includes partnership building, supports knowledge sharing, and builds and reinforces scientific networking and delivered through national, regional and interregional projects funded from the Technical Cooperation Fund (TCF), extrabudgetary resources and in-kind contributions. TC projects are developed through a consultative process with Member States and address national development priorities outlined in Country Programme Frameworks (CPFs) and national development plans, as well as issues of common interest and needs identified through various regional frameworks. Under the 2026–2027 TC programme cycle, a total of 152 Member States and territories (including 37 least developed countries) will have national TC projects. For planning purposes, it is assumed that the overall rate of attainment of the TCF will reach 94%.

The TCP for the 2026–2027 cycle is formulated with an emphasis on the following:

- Enhancing dialogue with, and participation of, Member States at all stages of the programme cycle, in particular in the planning, design, implementation, monitoring and reporting of TC projects;
- Ensuring the provision of adequate support to meet the growing demand and needs of Member States in using nuclear technology for sustainable development, including supporting their efforts to achieve the SDGs, particularly SDGs 2, 3, 6, 7, 9, 13, 14, 15 and 17;
- Supporting Member States in capacity building related to the early detection and control of zoonotic diseases;
- Supporting Member States that require assistance with building and expanding cancer care capacity by integrating radiotherapy, diagnostic imaging and nuclear medicine services into a comprehensive cancer control programme;
- Supporting Member States in addressing global challenges such as climate change and plastic pollution;
- Supporting Member States in addressing food safety and security;
- Supporting Member States in energy planning, long term operation of nuclear power plants and the development of nuclear power infrastructure, including for small modular reactors (SMRs);
- Supporting Member States to build and strengthen their regulatory and safety infrastructures for the safe and secure use of nuclear science and applications;
- Promoting cooperation among Member States in response to evolving development challenges through information and knowledge exchange utilizing, in particular, the expertise available regionally;
- Ensuring the Agency's continued capacity to plan and deliver the programme and to swiftly and adequately respond to Member States' emerging and urgent requests for support through the TC programme;
- Enhancing the effectiveness, efficiency and quality of the TC programme by further strengthening the results based approach, increasing in-house coordination with technical Departments, and streamlining TC projects to optimize their impact;
- Supporting the upscaling of results achieved through the TC programme through the major initiatives focusing on development;
- Enhancing partnerships and resource mobilization efforts with traditional and non-traditional donors and public–private partnerships;
- Supporting South–South and triangular cooperation with Member States, financial institutions and official

development agencies to develop and implement projects related to the application of nuclear technology;
- Strengthening the visibility and role of the TC programme in nuclear technology transfer and development through outreach efforts; and
- Promoting participation of women in TC activities.

| ***Objectives:*** | |
|---|---|
| — *To manage, develop and implement a needs-based, responsive technical cooperation programme in an effective and efficient manner, and thus to strengthen the technical capacities of Member States in the peaceful application and safe use of nuclear technologies for sustainable development.* | |
| **Outcomes** | **Performance Indicators** |
| • Increased effectiveness and efficiency of the TC programme. | • Number of Member States with national TC projects that have valid CPFs.<br>• Number of TC projects closed during the previous year. |
| • Improved quality of the TC programme. | • Percentage of projects meeting quality criteria.<br>• Percentage of projects with an annual progress assessment report. |
| • Strengthened partnerships and resource mobilization. | • Number of valid partnership agreements.<br>• Mobilization of additional resources for the TC programme. |

## Programmatic changes and trends

***Subprogramme 6.0.1 Management of the Technical Cooperation Programme.*** Requests for TC programme are expected to increase in 2026–2027, driven, inter alia, by an increase in the number of Member States with national TC projects and increased demand for the application of nuclear technology for sustainable development. Member States' efforts to achieve the SDGs — including in the areas of human health, especially for cancer control; nuclear energy, including SMRs; food and agriculture in support of food safety and security; and water resources management and the environment — are also contributing to increased demand for TC assistance. Strengthening regulatory and safety infrastructures remains a priority for Member States, in particular those that have joined the Agency in recent years, and it is expected that there will be an increase in requests for assistance in coping with disease outbreaks, in particular those related to zoonotic diseases, or with natural disasters, as well as in addressing global challenges such as climate change and plastic pollution.

### Main Planned Outputs by Project

| **Projects** | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***6.0.1.001 Overall management and strategic guidance*** | Technical cooperation related guidance, criteria and procedures; statements at major meetings and events; reports to the Agency's Policy-Making Organs; Technical Cooperation Reports; Technical Assistance and Cooperation Committee (TACC) documentation; contribution to relevant United Nations reports; Peaceful Uses Initiative reports; concept notes and papers; strategic analyses; high TCF rate of attainment; extrabudgetary resources mobilized. |
| ***6.0.1.002 Coordination of and support to the TC programme*** | Development and implementation of the TC programme supported through the provision of services to the TC regional Divisions, including the Programme of Action for Cancer Therapy (PACT); TACC documentation; support documents for the Agency's Policy-Making Organs; partnerships established and strengthened; extrabudgetary resources mobilized. |

| **Projects** | |
|---|---|
| **Title** | **Main Planned Outputs** |
| ***6.0.1.003 Management of the TC programme for Africa*** | Drafted/signed/updated CPFs; regional strategic cooperative framework; TACC documentation; Country Programme Notes; expert missions; fellowships; training courses; procurement of equipment; programming and monitoring reports; partnership documents; extrabudgetary resources mobilized. |
| ***6.0.1.004 Management of the TC programme for Asia and the Pacific*** | Drafted/signed/updated CPFs; TACC documentation; Country Programme Notes; expert missions, fellowships, training courses, procurement processed; programming and monitoring reports; partnership documents; extrabudgetary resources mobilized. |
| ***6.0.1.005 Management of the TC programme for Europe*** | Effective and timely delivery of all components of the TC programme in the region, including human resource and equipment components; preparation of all relevant documentation, including, inter alia, new and updated CPFs; TACC documentation, annual reports, Country Programme Notes; partnership documents; extrabudgetary resources mobilized. |
| ***6.0.1.006 Management of the TC programme for Latin America and the Caribbean*** | Drafted/signed/updated CPFs; regional strategic cooperative framework; TACC documentation; Country Programme Notes; expert missions, fellowships, training courses, procurement processed; programming and monitoring reports; partnership documents; extrabudgetary resources mobilized. |
| ***6.0.1.007 Procurement services*** | Procurement strategies based on prioritization, standardization and consolidation; purchase orders, agreements, service orders, long term agreements and service level agreements; alignment of policies, processes and procedures with best procurement practices; on-site installation and training. |
| ***6.0.1.008 Coordination of and support to the PACT*** | imPACT Reviews; expert advisory missions; technical support on national cancer control plans; extrabudgetary resources mobilized; partnerships established; proposals; bankable project documents. |

## Major Programme 6 — Management of Technical Cooperation for Development
Summary of Programme Structure and Resources
*(excluding Major Capital Investments)*

| Programme/Subprogramme/Project | 2026 at 2026 Prices | | 2027 at 2026 Prices | |
|---|---|---|---|---|
| | Regular Budget | Unfunded | Regular Budget | Unfunded |
| 6.0.1.001 Overall management and strategic guidance | 1 251 099 | - | 1 251 099 | - |
| 6.0.1.002 Coordination of and support to the TC programme | 4 613 122 | 156 055 | 4 613 122 | 156 055 |
| 6.0.1.003 Management of the TC programme for Africa | 5 881 564 | 373 246 | 5 881 564 | 373 246 |
| 6.0.1.004 Management of the TC programme for Asia and the Pacific | 4 813 405 | 490 930 | 4 813 405 | 490 930 |
| 6.0.1.005 Management of the TC programme for Europe | 4 017 780 | 490 930 | 4 017 780 | 490 930 |
| 6.0.1.006 Management of the TC programme for Latin America and the Caribbean | 3 938 561 | 490 930 | 3 938 561 | 490 930 |
| 6.0.1.007 Procurement services | 1 951 460 | - | 1 951 460 | - |
| 6.0.1.008 Coordination of and support to the PACT | 2 801 188 | 893 550 | 2 801 188 | 893 550 |
| **6.0.1 Management of the Technical Cooperation Programme** | **29 268 180** | **2 895 641** | **29 268 180** | **2 895 641** |
| 6.S Corporate shared services | 1 807 209 | 55 013 | 1 807 209 | 55 013 |
| **6.0 Management of Technical Cooperation Programme** | **31 075 389** | **2 950 654** | **31 075 389** | **2 950 654** |
| **Major Programme 6 - Management of Technical Cooperation for Development** | **31 075 389** | **2 950 654** | **31 075 389** | **2 950 654** |

## Major Programme 6 — Management of Technical Cooperation for Development
Activities unfunded in the Regular Budget
*(excluding Major Capital Investments)*

| Project | Tasks | 2026 Unfunded | 2027 Unfunded |
|---|---|---|---|
| 6.0.1.002 Coordination of and support to the TC programme | Management of the TC programme | 156 055 | 156 055 |
| 6.0.1.003 Management of the TC programme for Africa | Management of the TC programme for Africa | 373 246 | 373 246 |
| 6.0.1.004 Management of the TC programme for Asia and the Pacific | Management of the TC programme for Asia and the Pacific | 490 930 | 490 930 |
| 6.0.1.005 Management of the TC programme for Europe | Management of the TC programme for Europe | 490 930 | 490 930 |
| 6.0.1.006 Management of the TC programme for Latin America and the Caribbean | Management of the TC programme for Latin America and the Caribbean | 490 930 | 490 930 |
| 6.0.1.008 Coordination of and support to the PACT | Coordination of and support to the PACT | 893 550 | 893 550 |
| 6.S Corporate shared services | Corporate shared services | 55 013 | 55 013 |
| **Grand Total** | | **2 950 654** | **2 950 654** |

# ANNEXES

# Annex 1. List of Acronyms

| | |
|---|---|
| $^{225}$Ac | actinium-225 |
| AI | artificial intelligence |
| AIPS | Agency-wide Information System for Programme Support |
| AIP | annual implementation plan |
| ALMERA | Analytical Laboratories for the Measurement of Environmental Radioactivity |
| AP | additional protocol |
| ARTEMIS | Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation |
| ARRTIS | Advanced Radiation Monitoring Technology Infrastructure |
| ASHI | After-service health insurance |
| AWCR | advance watercooler reactor |
| CA | complementary access |
| CD | communicable disease |
| CIP | Capital Investment Plan |
| CNS | Convention on Nuclear Safety |
| COMPASS | IAEA Comprehensive Capacity-Building Initiative for SSACs and SRAs |
| ConvEx-3 | Level 3 Convention Exercise |
| ConvEx-1 | Level 1 Convention Exercise |
| COVID-19 | Coronavirus disease 2019 |
| CPF | Country Programme Frameworks |
| CPPNM | Convention on the Physical Protection of Nuclear Material |
| CRP | coordinated research project |
| CSA | comprehensive safeguards agreement |
| CT | computed tomography |
| 64Cu | Copper-64 |
| D&IS | development and implementation support |
| DIV | design information verification |
| DOL | Dosimetry Laboratory |
| DPRK | Democratic People's Republic of Korea |
| DSRS | Disused Sealed Radioactive Sources |
| EPGR | encapsulation plant and geological repository |
| EPR | emergency preparedness and response |
| EPRIMS | Emergency Preparedness and Response Information Management System |
| FAO | Food and Agriculture Organization of the United Nations |
| FR26 | Fast Reactors and Related Fuel Cycles |
| FTE | full-time equivalent |
| 68Ga | gallium-68-Generator |
| GNIP | Global Network of Isotopes in Precipitation |
| GNIR | Global Network of Isotopes in Rivers |
| GSR | General Safety Requirements |
| HABs | harmful algal blooms |
| HALEU | high assay low enriched uranium |
| HELCOM | Baltic Marine Environment Protection Commission |
| HEU | high enriched uranium |
| HRD | human resources development |
| HTGR | high temperature gas cooled reactor |
| IACRNE | Inter-Agency Committee on Radiological and Nuclear Emergencies |
| IBF | ion beam accelerator facility |
| ICERR | IAEA designated International Centre based on Research Reactor |
| ICT | Information and Communication Technology |
| ICTP | International Centre for Theoretical Physics |
| ILNA | Integrated Life Cycle Management of NA Assets |
| ILSA | Integrated Life Cycle Management of Safeguards Assets |
| IMAGINE | IAEA Medical Imaging and Nuclear Medicine Global Resources Database |
| INFCIRC | Information Circular |
| INIR | Integrated Nuclear Infrastructure Review |

| | |
|---|---|
| INIR-RR | Integrated Nuclear Infrastructure Review for Research Reactors |
| INIS | International Nuclear Information System |
| INPRO | International Project on Innovative Nuclear Reactors and Fuel Cycles |
| INSEN | International Nuclear Security Education Network |
| INSSP | Integrated Nuclear Security Sustainability Plan |
| IPSAS | International Public Sector Accounting Standards |
| IRL | Internet Reactor Laboratory |
| IRRS | Integrated Regulatory Review Service |
| IRS | International Reporting System for Operating Experience |
| IT | Information Technology |
| ITDB | Incident and Trafficking Database |
| IUPCR | Integrated Uranium Production Cycle Review |
| IWAVE | IAEA Water Availability Enhancement Project |
| JCPOA | Joint Comprehensive Plan of Action |
| J-MOX | Japan Mixed Oxide Fuel Fabrication Plant |
| LEU | low enriched uranium |
| LTO | long term operation |
| 177Lu | lutetium-177 |
| MARiS | IAEA Marine Information System |
| MCIF | Major Capital Investment Fund |
| MCIP | Major Capital Investment Plan |
| 99Mo | molybdenum – 99 |
| MORC | material out of regulatory control |
| MOX | mixed oxide |
| MRRF | Major Repairs and Replacement Fund |
| MSCFP | Marie Sklodowska Curie Fellowship Programme |
| MSSP | Member State Support Programme |
| 99mTc | technetium-99m |
| NCD | Non-Communicable Diseases |
| NES | Nuclear Energy System |
| NESA | Nuclear Energy System Assessment |
| NFCF | nuclear fuel cycle facility |
| NHSI | Nuclear Harmonization and Standardization Initiative |
| NKM | nuclear knowledge management |
| NORM | naturally occurring radioactive material |
| NPP | nuclear power plant |
| NSF | Nuclear Security Fund |
| NSIL | Nuclear Science and Instrumentation Laboratory |
| NSS | IAEA Nuclear Security Series |
| NSSC | Nuclear Security Support Centre |
| NWAL | Network of Analytical Laboratories |
| OA-ICC | IAEA Ocean Acidification International Coordination Centre |
| OECD | Organisation for Economic Co-operation and Development |
| OIOS | Office of Internal Oversight |
| OLA | Office of Legal Affairs |
| OMARR | Operation and Maintenance Assessment for Research Reactors |
| OSART | Operational Safety Review Team |
| PACT | Programme of Action for Cancer Therapy |
| PCMF | Programme Cycle Management Framework |
| PET | positron emission tomography |
| PET/CT | positron emission tomography-computed tomography |
| PMO | Policy-Making Organs |
| PPE | personal protective equipment |
| R&D | research and development |
| RDT | remote data transmission |
| RSTSL | IAEA Radiation Safety Technical Services Laboratory |
| RR | research reactor |
| RWM | radioactive waste management |
| SAGNE | Standing Advisory Group on Nuclear Energy |

| | |
|---|---|
| SAGSI | Standing Advisory Group on Safeguards Implementation |
| SALTO | Safety Aspects of Long Term Operation |
| SDG | Sustainable Development Goals |
| SEED | Site and External Events Design |
| SER | State evaluation report |
| SGOA | Safeguards Division of Operations A |
| SGOB | Safeguards Division of Operations B |
| SGOC | Safeguards Division of Operations C |
| SIT | sterile insect technique |
| SLA | State-Level safeguards approach |
| SMR | small and medium sized or modular reactors |
| SQP | small quantities protocol |
| SRA | State or regional authorities responsible for safeguards implementation |
| SSAC | State system of accounting for and control of nuclear material |
| SSG | Specific Safety Guide |
| STEP | Sandwich Training Educational Programme |
| TACC | Technical Assistance and Cooperation Committee |
| TC | Department of Technical Cooperation |
| TCF | Technical Cooperation Fund |
| TCP | technical cooperation programme |
| TECDOC | IAEA Technical Document |
| ThDEPO | World Thorium Deposits and Resources |
| TSR | Technical Safety Review |
| UDEPO | World Distribution of Uranium Deposits |
| UN | United Nations |
| UNEP | United Nations Environment Programme |
| UNESCO | United Nations Educational, Scientific and Cultural Organization |
| UNIDO | United Nations Industrial Development Organization |
| VIC | Vienna International Centre |
| VOA | voluntary offer agreement |
| WASSC | Waste Safety Standards Committee |
| WCF | Working Capital Fund |
| 3E | Energy Economy Environment |
| ZODIAC | Zoonotic Disease Integrated Action |
| ZRG | zero real growth |

# Annex 2. Organizational Chart

(as of 1 January 2025)


* The Abdus Salam International Centre for Theoretical Physics (ICTP) operates under a tripartite agreement with the Italian Government, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Agency. Administration is carried out by UNESCO on behalf of all parties.

** With the participation of UNEP and Intergovernmental Oceanographic Commission (IOC).

## Annex 3. Cost Savings and Efficiencies

1. As established by the Director General, the process of identifying cost-savings and efficiencies has been embedded at every stage in the preparation of the programme and budget, which were reinvested to meet the increased costs and growing demands.
2. Feedback from the assessment of programme performance for the biennium 2022–2023 and the recommendations of Member States guided the preparation of The Agency's Programme and Budget 2026–2027.
3. Building on previous efforts to identify sustainable efficiencies achieved in the last two biennial programme and budget, further cost saving and efficiency measures amounting to approximately €4.4 million (at 2025 prices) has been identified, which include the following:
    - Rigorous reprioritization resulting in abolition of a number of posts by streamlining and automation of business processes and redistribution of tasks. As a result, 17.5 General Services FTEs[1] could be abolished in 2026–2027. After offsetting this with the new posts created to address the growing demands, the level of FTEs at the end of 2027 will remain unchanged. This is in addition to the 47.4 FTEs abolished in the last two biennia.
    - Rationalization of travel will continue to be applied by optimising number and length of trips and the number of participants, while continuing to advance the use of digital technology, where appropriate, to contain the costs related to events and travel without compromising quality of programmatic delivery.
    - Continue leveraging advanced digital technologies such as AI for more efficient administrative and business process while implementing better solutions for reducing costs for software maintenance and their license.
    - Purchases of supplies and equipment will be optimized, where possible through inter alia, centralization of purchasing and further enhancement of procurement planning.
    - Optimization of costs for training, printing and contracts.

[1] Full-time equivalent (FTE) is a measure of planned volume of human resources devoted to the implementation of specific Agency programmatic activities, where one FTE means that the staff member is equivalent to a full-time worker.

# 2026–2027 Programme and Budget Efficiencies

The process of identifying cost-savings and efficiencies has been embedded at each stage of the preparation of the programme and budget.

- Increased demand is to be partially absorbed through additional cost-savings and efficiencies;
- Cost savings and efficiencies should not compromise the quality and output of the Agency`s performance in delivering on its mandate.

**€4.4m (at 2025 Prices) additional efficiencies to cover growing demands as follows:**

**Human Resources:** Following the reduction of 47.4 FTEs in past two biennia, through rigorous reprioritization, the number of FTEs have been kept at the same level as 2025. Within the same overall number of FTEs, €1.5 million in cost reductions were achieved through a number of GS and P position changes (reclassification, repurposing and abolishment) to meet the increasing demand for Agency services.

**869.0**
**General Services Staff FTEs**

**17.5 FTEs**
(2.0%) decrease

**1405.3**
**Professional Staff FTEs**

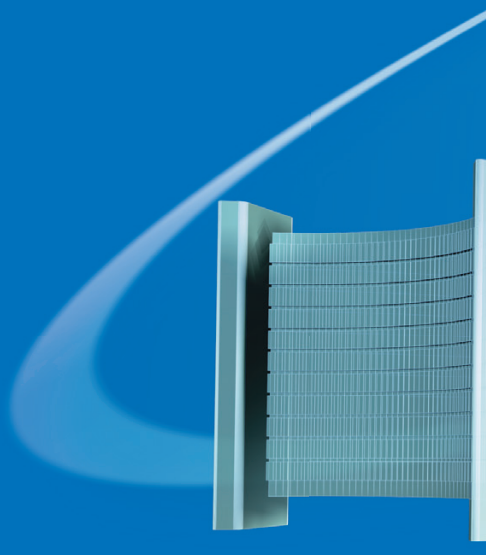
**17.5 FTEs**
1.3% increase

Cost savings and efficiencies (€2.9 million) for non-Human Resources items:

**Travel and events**
resulting from optimizing the number of days per event and organizing events with a virtual component.

**Process improvements**
(e.g. use of technology for enhancing operational efficiency, electronic journals), optimizing consultants and purchases.

**General operating costs**
through modernization and optimization of license costs.



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