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ANNEX 2

to the Commission Implementing Decision on the Annual Action Plan for the European Instrument for International Nuclear Safety Cooperation for 2023

Action Document for Safe management of spent fuel and radioactive waste 2023

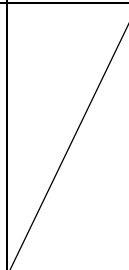
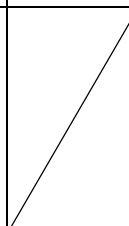
ANNUAL PLAN

This document constitutes the annual work programme within the meaning of Article 110(2) of the Financial Regulation, within the meaning of Article 7 of the INSC regulation.

1 SYNOPSIS

1.1 Action Summary Table

1. Title OPSYS reference Basic Act	Safe management of spent fuel and radioactive waste 2023 ACT-61682 & ACT-61683 Financed under the European Instrument for International Nuclear Safety Cooperation Regulation
2. Team Europe Initiative	No
3. Zone benefiting from the action	The action shall be carried out in various countries, in particular in Iran, Türkiye, Georgia and Ukraine
4. Programming document	European Instrument for International Nuclear Safety Cooperation Multiannual Indicative Programme (2021-2027) of 03 December 2021 (C(2021)8687)
5. Link with relevant MIP(s) objectives / expected results	This action contributes to the responsible and safe management of spent nuclear fuel and radioactive waste, including environmental remediation, in the partner countries or regions
PRIORITY AREAS AND SECTOR INFORMATION	
6. Priority Area(s), sectors	Responsible and safe management of spent nuclear fuel and radioactive waste, including environmental remediation
7. Sustainable Development Goals (SDGs)	Main SDG: 16 (strong institutions) Other significant SDGs: SDG 11 (Disaster Risk Reduction) and SDG 5 (Gender Equality)
8 a) DAC code(s)	23510 – Nuclear energy electric power plants and nuclear safety – 100%
8 b) Main Delivery Channel	10000 – Public sector institutions

9. Targets	<input type="checkbox"/> Migration <input type="checkbox"/> Climate <input type="checkbox"/> Social inclusion and Human Development <input checked="" type="checkbox"/> Gender <input type="checkbox"/> Biodiversity <input type="checkbox"/> Education <input type="checkbox"/> Human Rights, Democracy and Governance			
10. Markers (from DAC form)	General policy objective @	Not targeted	Significant objective	Principal objective
	Participation development/good governance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Aid to environment @	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Gender equality and women's and girl's empowerment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Trade development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reproductive, maternal, new-born and child health	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Disaster Risk Reduction @	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Inclusion of persons with Disabilities @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Nutrition @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	RIO Convention markers	Not targeted	Significant objective	Principal objective
	Biological diversity @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Combat desertification @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Climate change mitigation @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Climate change adaptation @	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	11. Internal markers and Tags	Policy objectives	Not targeted	Significant objective
Digitalisation @		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
digital connectivity digital governance digital entrepreneurship digital skills/literacy digital services		YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	NO <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
Connectivity @		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
digital connectivity energy transport health		YES <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	NO <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	

	education and research	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	Migration @ (methodology for tagging under development)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Reduction of Inequalities @ (methodology for marker and tagging under development)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Covid-19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BUDGET INFORMATION				
12. Amounts concerned	Budget line: 14.060100 Total estimated cost for 2023: EUR 23 500 000 Total amount of EU budget contribution for 2023: EUR 21 500 000 This action is co-financed in joint co-financing by Sweden and/or the United States for an indicative amount of EUR 2 000 000.			
MANAGEMENT AND IMPLEMENTATION				
13. Type of financing	Direct management through procurement for Components A (Iran) and B (Türkiye) Indirect management with: - the Swedish International Development Cooperation Agency (SIDA) for Component C (Georgia) - the Science and Technology Center in Ukraine (STCU) and/or the European Bank for Reconstruction and Development (EBRD) for Component D (Ukraine)			

1.2 Summary of the Action

The overall objective of the action is the safe management of radioactive waste according to best international standards. This action targets further improvements in radioactive waste management in Iran, Türkiye, Georgia and restoration of radioactive waste management in Ukraine.

2 RATIONALE

2.1 Context

The promotion of radiation protection and nuclear safety is a key priority for the EU since the early days of the European Economic Community and EURATOM. The European Instrument for International Nuclear Safety Cooperation¹ (INSC) is the specific tool of the EU addressing nuclear safety issues in partner countries, including candidate countries, complementing other financing instruments for external action such as the Neighbourhood, Development and International Cooperation Instrument – Global Europe (NDICI) and the Instrument for Pre-Accession Assistance (IPA III).

The international recognition of the added value of the Instrument was acknowledged in 2017 at the 7th IAEA Convention on Nuclear Safety review meeting where ‘the implementation of the Instrument for Nuclear Safety Cooperation Program for assisting non-EU countries’ was officially recognised world-wide as ‘good practice’. The final evaluation of the INSC 2014-2020² recognises the positive contribution of the Instrument, noticing its capability to respond swiftly to new needs. It acknowledged INSC's unique added value due to the institutional framework that allows the European Commission to act at a global level; the instrument is supporting

¹ Council Regulation (Euratom) 2021/948 of 27 May 2021 establishing a European Instrument for International Nuclear Safety Cooperation complementing the Neighbourhood, Development and International Cooperation Instrument – Global Europe on the basis of the Treaty establishing the European Atomic Energy Community, and repealing Regulation (Euratom) No 237/2014

² https://international-partnerships.ec.europa.eu/policies/climate-environment-and-energy/nuclear-safety_en

complementarities, coordination and synergies and is effective in leveraging financial resources for nuclear safety. The main target of this Action is to support partner countries in the safe management of radioactive waste and spent fuel, including the remediation of former legacy sites, according to the best international standards. The European Commission and the High Representative maintain a close working relationship with partner countries, in order to help ensure a coherent approach, taking the latest relevant developments into account. The action is in line with the EU Gender Action Plan 2021-2025 (GAP III)³ and its thematic areas of engagement “Promoting economic and social rights and empowering girls and women” as well as “Promoting equal participation and leadership”.

2.2 Problem Analysis

Component A: Iran – Support to the Atomic Energy Organisation of Iran (AEOI) in radioactive waste management and nuclear safety

The Joint Comprehensive Plan of Action (JCPOA), signed on 14 July 2015 between the Islamic Republic of Iran and the (at the time) E3/EU+3 (China, EU, France, Germany, the Russian Federation, the United Kingdom and the United States of America), describes in its Annex 3 the civil nuclear cooperation between the parties.

Since 2016, the European Commission has committed EUR 26 million (of which EUR 11 million for equipment to populate the Nuclear Safety Centre in Tehran specifically mentioned in the JCPOA) to fulfil the EU commitments. The corresponding INSC projects benefitted the Iranian Nuclear Regulatory Authority (INRA) and the operator of the Bushehr Nuclear Power Plant for the implementation of the stress test.

The continuous dialogue with AEOI identified a further need related to the management of radioactive waste in Iran for which the INSC could provide support in transferring EU expertise to Iran. The corresponding activities are based on detailed discussions with the organisation in charge of radioactive waste management in Tehran.

Component B: Türkiye – Cooperation with the Turkish organisation in charge of radioactive waste management

The Law on nuclear regulation (No. 7381 of 8 March 2022) establishes the organization and duties of the Nuclear Regulatory Authority of Türkiye. It also contains articles on radioactive waste and spent fuel management. The Presidential Decree No. 57 of 28 March 2020 on the Organization of Affiliated, Related, Associated Institutions and Organizations to Ministries and Other Institutions and Organizations replaced TAEK (Turkish Atomic Energy Authority) by TENMAK (Türkiye Energy, Nuclear and Mineral Research Agency).

TENMAK is responsible for preparing the National Radioactive Waste Management Plan. The first national plan was prepared and approved in 2020 and it must be updated every 5 years. Türkiye has adopted a radioactive waste classification system that envisages different disposal routes for each class of radioactive waste (e.g. short-lived low and intermediate level waste is destined for near-surface disposal). However, there are still elements in the national plan that are not fully aligned with the Council Directive 2011/70/Euratom and further improvement/enhancement of the national plan is needed. TENMAK is also in charge of the establishment and management of the national radioactive waste inventory, including current radioactive waste and future radioactive waste estimates. The organisation defines and operates a system suitable for the collection, characterization, transportation, storage, treatment and disposal of radioactive waste. On 30 November 2022, TENMAK officially requested the European Commission to consider cooperation under the INSC on radioactive waste management: *“TENMAK is responsible for the disposal of radioactive waste and the management of orphan sources. Türkiye does not have a radioactive waste disposal facility, thus it is our intention that we construct a near surface radioactive waste disposal facility within the next decade.”*

Radioactive waste in Türkiye originates from the TR-2 research Reactor, nuclear research laboratories, industrial and medical radioactive sources as well as Naturally Occurring Radioactive Materials (NORM). In addition, Türkiye is constructing its first nuclear power plant at the Akkuyu site that will produce additional radioactive waste and spent nuclear fuel in the near future.

Component C: Georgia – Improving radioactive waste management at the Saakadze centralised waste management centre and enhancing the Georgian regulatory capabilities

This intervention was included under INSC AAP 2021⁴, but Georgia was not in a position to timely prepare for the corresponding project within the INSC contracting deadline and officially requested the European Commission to

³ https://www.eeas.europa.eu/eeas/gender-action-plan-iii-towards-gender-equal-world_en

postpone the project. In line with EU's financial rules, the INSC AAP 2021 budget allocation for Georgia has been de-committed to be included again under the INSC AAP 2023.

The project remains identical and will provide support for the commissioning of new waste management facilities (storage and processing) and other measures to enhance the safety level in nuclear and radiation field in accordance with international standards and requirements. It includes support for equipping the Saakadze disposal site for commissioning and will bring Georgia's organisation, regulatory and technical ability in this area further up to international and European standards, particularly taking account of Georgia's new status of a country with a European perspective and therefore with an obligation to implement European standards.

Component D: Ukraine – Restoration of radioactive waste management

Following Russia's unprovoked war of aggression against Ukraine, the illegal occupation and seizure of Ukrainian nuclear installations by Russia, the reported shelling and bombarding of some installations, including Radon (radioactive waste management) facilities, nuclear safety, radiation monitoring and radioprotection measures have to be restored.

The activity with Ukraine will focus on supply and/or works for the restoration or replacement of radioactive waste management related equipment, installations and related services, focusing on the installations in the Chernobyl Exclusion Zone and other nuclear installations damaged, looted or lost in relation to Russia's unprovoked war of aggression against Ukraine, in full coordination with the Ukrainian regulator.

Identification of main stakeholders and corresponding institutional and/or organisational issues (mandates, potential roles, and capacities) to be covered by the action:

Component A - Iran: Atomic Energy Organisation of Iran (AEOI) and its subsidiaries, in particular the Iranian Nuclear Regulatory Authority (INRA).

Component B - Türkiye: Turkish Energy, Nuclear and Mineral Agency (TENMAK), who is in charge of radioactive waste management in Türkiye.

Component C - Georgia: Agency for Nuclear and Radiation Safety in Georgia (ANRS) and the Department for Radioactive Waste Management (DRWM), which operates the Centralized Storage Facility (CSF) and the Saakadze disposal site.

Component D - Ukraine: Ukrainian radioactive waste management operators, in particular the State Agency of Ukraine on Exclusion Zone Management (SAUEZM) and its subsidiaries, and the State Nuclear Regulatory Inspectorate of Ukraine (SNRIU).

3 DESCRIPTION OF THE ACTION

3.1 Objectives and Expected Outputs

The Overall Objective (Impact) of this action is to contribute to the safe management of spent fuel and radioactive waste according to best international standards.

The Specific Objectives (Outcomes) of this action are:

1. Effective radioactive waste management in Iran
2. Effective spent fuel and radioactive waste management in Türkiye
3. Effective radioactive waste management in Georgia
4. Restored spent fuel and radioactive waste management in Ukraine

The Outputs to be delivered by this action contributing to the corresponding Specific Objectives (Outcomes) are:

Contributing to Outcome 1 (Iran):

- 1.1 National radioactive waste management strategy and waste treatment routes defined
- 1.2 Enhanced capabilities in radioactive waste characterisation and treatment
- 1.3 Solutions for a radioactive waste disposal facility defined

Contributing to Outcome 2 (Türkiye):

- 2.1 Enhanced long-term national radioactive waste and spent fuel management strategy and related

⁴ Commission implementing decision of 15.12.2021 on the financing of the annual action programme for the European Instrument for International Nuclear Safety Cooperation for 2021; C(2021) 9175 final

capabilities
2.2 Plans and solutions developed facilitating and supporting establishment of a near-surface disposal facility
2.3 Expertise built for development of safety cases for disposal facilities
2.4 Enhanced safety and security expertise for radioactive waste processing and storage facility activities
Contributing to Outcome 3 (Georgia):
3.1 Effective implementation of national radioactive waste management strategy
3.2 Strengthened regulator's capabilities for conducting effective state regulations
Contributing to Outcome 4 (Ukraine):
4.1 Urgent support provided in restoration and strengthening of spent fuel and radioactive waste management functions, including decommissioning, and further alignment with EU <i>acquis</i>

3.2 Indicative Activities

Outcome 1: Effective radioactive waste management in Iran

Activities relating to Output 1.1:

- Support the production of the national radioactive waste management strategy and national radioactive waste inventory
- Organise information/awareness meetings about benefits of reusing materials e.g. in civil engineering projects (material for road construction, dams, etc.) or for disposal in landfills to reduce considerably the volume of radioactive waste needing a dedicated disposal facility
- Develop and deliver a programme of training and practical support to apply the methodology for the establishment of specific clearance levels
- Enhance the national regulatory framework related to nuclear and radioactive waste as well as spent nuclear fuel management

Activities relating to Output 1.2:

- Define and provide analytical equipment for radioactive waste characterisation based on radioactive waste categories by non-destructive assay techniques e.g. radioactive waste drum scanner, gamma spectrometry, liquid scintillation, alpha spectrometry, total alpha-beta counting system, etc.
- Provide hands-on training on radioactive waste characterisation and measurement techniques
- Define and provide radioactive waste treatment techniques as e.g. super compactor, incineration, decontamination, etc.

Activities relating to Output 1.3:

- Define a system for collection, transportation, storage, treatment and disposal of radioactive waste
- Review safety assessment and improve technical solutions
- Review disposal design
- Review waste acceptance criteria
- Visit to relevant EU radioactive waste disposal sites and exchange of experience

Outcome 2: Effective radioactive waste management in Türkiye

Activities relating to Output 2.1:

- Enhance the strategic plan for national spent fuel and radioactive waste management in line with Council Directive 2011/70/Euratom
- Increase knowledge and skills through workshops and continuous training (including on-the-job) on different aspects of radioactive waste management (e.g. radioactive waste acceptance criteria, characterisation, processing methods and techniques, etc.)
- Training on spent fuel management

Activities relating to Output 2.2:

- Prepare detailed technical specifications for the preferred design of the disposal facility
- Carry out studies related to the preliminary waste acceptance criteria and waste packaging options for the disposal facility
- Deliver expert consultancy on radioactive waste preliminary acceptance criteria for the disposal facility
- On-the-job training at relevant EU radioactive waste disposal sites and exchange of experience
- Deliver expert consultancy on the workflow of the disposal facility

Activities relating to Output 2.3:

- Develop and deliver training on preparing safety assessment reports for a near-surface disposal facility
- Prepare a generic security plan for a near-surface disposal facility
- On-the-job training in an environmental radiological monitoring programme, monitoring methods (e.g. sampling of soil, vegetation, water and air), measurement techniques, requirements, limits and tolerances

Activities relating to Output 2.4:

- Enhance the knowledge and skills of the workforce in managing and operating the waste processing facility through targeted training and capacity building initiatives including practical demonstration
- Training course on safety and security culture for radioactive waste storage and processing facilities

Outcome 3: Effective radioactive waste management in Georgia

Activities relating to Output 3.1:

- Conduct the commissioning of new radioactive waste management facilities at the centralized Saakadze site

Activities relating to Output 3.2:

- Upgrade the Integrated Management System (IMS) within ANRS
- Upgrade ANRS capabilities in the conduct of safety assessment, regulatory review, inspection of nuclear facilities and emergency response to international standards as defined by IAEA, EU *acquis* and the European Nuclear Safety Regulators Group (ENSREG)
- Provide technical support to ANRS (purchasing equipment, transport means, necessary software, office arrangement) to increase its effectiveness.

Outcome 4: Restored radioactive waste management in Ukraine

Activities relating to Output 4.1:

The main activities will provide support to Ukraine aiming at restoring and strengthening capabilities and capacities in the area of spent fuel and radioactive waste management. Considering the evolving situation, detailed activities will be defined based on the continuous assessment of the situation on the ground. Close coordination will be ensured with IAEA and other assistance programmes, in particular DG ECHO, STCU and EBRD.

Given the ongoing Russian war of aggression against Ukraine, the EU will provide systematic support to urgent emerging needs of the radioactive waste management organisation(s), in particular the State Agency of Ukraine on the Exclusion Zone Management (SAUEZM), which is in charge of the management of the Chornobyl Exclusion Zone. Other radioactive waste management facilities (e.g. Radon radioactive waste repositories in the cities) hit by the Russian war of aggression will also be considered if conditions on the ground will allow.

3.3 Mainstreaming

Environmental Protection & Climate Change

The activities contribute directly to the protection of the environment by enhancing the safe storage of radioactive waste and implementing environmental remediation of former uranium mining and milling sites.

Gender equality and empowerment of women and girls

Women are underrepresented in spent fuel and radioactive waste management, as well as in the nuclear field in general, so it is important to understand and tackle the barriers that women can face to joining and thriving in this field. The contribution of INSC to gender equality is mainly achieved through activities related to training and tutoring for which the European Commission strongly encourages the participation of women that in turn will provide additional opportunity for career development. Women are also underrepresented in STEM⁵ and leadership roles, even when considered in terms of their representation in the nuclear workforce.⁶ This action aims amongst others at gender balanced training and tutoring for safe management of radioactive waste as well as environmental remediation in partner countries. Studies and advisory services will fully integrate gender aspects. Gender-specific indicators and data disaggregated by sex, age and disability will be included, where relevant. This action will work with partners to ensure a balanced representation of women and men in all activities. Therefore, as per the OECD

⁵ STEM: Science, Technology, Engineering, Mathematics

⁶ [Gender Balance in the Nuclear Sector, Nuclear Energy Agency \(NEA\) 2023](#)

Gender DAC codes identified in section 1.1, this action is labelled as G1.

Human Rights

This action is designed and will be implemented taking into account the need to uphold national and international human rights and to respect the five working principles of the human rights-based approach: respecting all human rights, non-discrimination, accountability and transparency principles, as well as ensuring participation of all stakeholders.

Disability

As per OECD Disability DAC codes identified in section 1.1, this action is labelled as D0. This implies that the action is not considered relevant for inclusion of persons with disabilities. However, this action will ensure that rights of persons with disabilities will be respected and will encourage stakeholders and programme participants to take the initiatives to protect and ensure equal access of persons with disabilities. This action is in line with the Convention on the Rights of Persons with Disabilities (CRPD)⁷ and the EU Strategy for the Rights of Persons with Disabilities 2021-2030⁸.

Disaster Risk Reduction

This Action, through its focus on radioactive waste management, contributes to the safe and reliable nuclear power life cycle management, thus reducing the risk of disasters.

3.4 Risks and Lessons Learnt

Category	Risks	Likelihood (High/ Medium/ Low)	Impact (High/ Medium/ Low)	Mitigating measures
People and the organisation	Lack of political commitment and administrative support in partner countries	L	L	Continued dialogue with authorities at all levels in partner countries on the importance of INSC actions
People and the organisation	Insufficient or inadequate gender mainstreaming could reinforce gender inequalities and the non-realisation of human rights in the sector and hinder the efficiency and sustainability of the action	M	M	Use of available knowledge and tools of gender mainstreaming Gender-sensitive monitoring, use of sex-disaggregated data, and gender-sensitive indicators Gender mainstreaming in all phases of the intervention cycle

⁷ [Convention on the Rights of Persons with Disabilities \(CRPD\)](#)

⁸ [EU Strategy for the Rights of Persons with Disabilities 2021-2030](#)

External environment	Iran: Failure of international negotiations to restore the full implementation of the Joint Comprehensive Plan of Action (JCPOA)	L	H	Close collaboration with EEAS who coordinates the EU position on civil nuclear cooperation with Iran under Annex 3 of the JCPOA
External environment	Ukraine: Engaging will remain difficult because of the continuation of Russia's unprovoked war of aggression against Ukraine	H	H	Maximum flexibility will be applied
External environment	Ukraine: Needs for restoration of nuclear safety infrastructure will be much larger than can be covered by the INSC budget	H	H	Current budget will be allocated for priority emergencies and assessments Extra budget allocation will be sought

Lessons Learnt:

Extensive and broad experience has been gained in successfully implementing similar INSC projects in partner countries, both in the framework of the TACIS⁹ Nuclear Safety Programme and the Instrument for Nuclear Safety Cooperation (INSC). This experience is being used in optimising the design and implementation of this action.

Communication and support from the partners and end-users will remain a key element for successful implementation.

The findings, conclusions and recommendations of the report of the 'Evaluation of the Instrument for Nuclear Safety Cooperation 2014-2020'¹⁰ have informed the formulation of this Action.

Component A (Iran)

AAP 2022 included a EUR 5 000 000 project to support the Iran Radioactive Waste Management Co (IRWA). The additional contribution complements the INSC response to the identified needs and support provided through supply contracts under AAP 2018, AAP 2019 and AAP 2021.

Component B (Türkiye)

No previous INSC experience with Türkiye in the area of radioactive waste management.

Component C (Georgia)

In the period 2012-2015, two INSC projects "Support of the operators (G4.01/08 Survey and strategic assessment of Georgian radwaste disposal and interim storage sites (CSF))" and "G4.01/09 Support to the operators in the preparation of Safety Assessment Reports for Georgian radwaste disposal and interim storage sites (CSF)" were implemented. A follow-up project "G.4.01/19A Nuclear Safety Cooperation with Georgia 2020–2022" is under implementation and defining the precise infrastructure, including equipment, needed at the Saakadze site.

Component D (Ukraine)

⁹ Technical Assistance to the Commonwealth of Independent States

¹⁰ https://international-partnerships.ec.europa.eu/policies/climate-environment-and-energy/nuclear-safety_en

Since the start of the war with Russia on 24 February 2022, outputs and activities of ongoing INSC interventions had to be adapted, as well as their implementation modality and timeframe, due to dramatic events, e.g. extensive damage in the Chornobyl Exclusion Zone. Hence for Ukraine in particular, new INSC interventions should be defined with a broad enough scope and timeframe to allow for an easy and rapid adaptation to changing circumstances.

3.5 The Intervention Logic

The underlying intervention logic for this action is that all projects contribute to enhanced radiation safety levels in the partner countries and regions, and develop spent fuel and radioactive waste management systems in line with national strategies according to best international standards. By ensuring effective radioactive waste management in Iran, Türkiye and Georgia and by restoring radioactive waste management in Ukraine, the risk of unwarranted exposure to radiation of the public and the environment will be reduced.

3.6 Logical Framework Matrix

This indicative logframe constitutes the basis for the monitoring, reporting and evaluation of the intervention.

On the basis of this logframe matrix, a more detailed logframe (or several) may be developed at contracting stage. In case baselines and targets are not available for the action, they should be informed for each indicator at signature of the contract(s) linked to this AD, or in the first progress report at the latest. New columns may be added to set intermediary targets (milestones) for the Output and Outcome indicators whenever it is relevant.

- At inception, the first progress report should include the complete logframe (e.g. including baselines/targets).
- Progress reports should provide an updated logframe with current values for each indicator.
- The final report should enclose the logframe with baseline and final values for each indicator.

The indicative logical framework matrix may evolve during the lifetime of the action depending on the different implementation modalities of this action.

The activities, the expected Outputs and related indicators, targets and baselines included in the logframe matrix may be updated during the implementation of the action, no amendment being required to the Financing Decision.

PROJECT MODALITY (3 levels of Results / Indicators / Sources of Data / Assumptions - no activities)

Results	Results chain (@): Main expected results (maximum 10)	Indicators (@): (at least one indicator per expected result)	Baselines (values and years)	Targets (values and years)	Sources of data	Assumptions
Impact	To contribute to the safe management of spent fuel and radioactive waste according to best international standards	1. Number of regulatory documents produced in the partner countries with EU support 2. Quantity and type of radioactive waste with clear storage and disposal routes (per partner country) 3. Quantity and type of radioactive waste materials removed (per partner country)	1. 0 (2023) 2. Depending on country (2023) 3. Depending on country (2023)	1. TBD ¹¹ (2028) 2. Clear routes available for all waste types (2028) 3. TBD (2028)	1. Intervention documentation 2. National authorities, decommissioning operator 3. National authorities, decommissioning operator	<i>Not applicable</i>
Outcome 1 (Iran)	1. Effective radioactive waste management in Iran	1.1 Extent to which Iran has assigned adequate financial, human and technical resources for a safe management of radioactive waste comparable with the EU	1.1 Insufficient (2023)	1.1 Adequate (2028)	Project reports and reports in international fora	Status quo or improvements in restrictive measures against Iran

¹¹ TBD: To be determined

Outcome 2 (Türkiye)	2. Effective spent fuel and radioactive waste management in Türkiye	2.1 Extent to which Türkiye's national plan for radioactive waste and spent fuel management and its implementation is aligned with the EU standards and international best practice	2.1 Partial alignment (2023)	2.1 Well aligned (2028)	Project reports and reports in international fora	Government assigns sufficient budget to construct and operate the near-surface waste disposal site
Outcome 3 (Georgia)	3. Effective radioactive waste management in Georgia	3.1 Extent to which Georgia's national plan for radioactive waste management and its implementation is aligned with the EU standards and international best practice, taking account of Georgia's status as a country with a European perspective	3.1 Partial alignment (2023)	3.1 Well aligned (2028)	Project reports and reports in international fora	Government continues to assign importance and resources to radioactive waste management
Outcome 4 (Ukraine)	4. Restored spent fuel and radioactive waste management in Ukraine	4.1 Extent to which spent fuel and radioactive waste management features are in place and regularly functioning	4.1 Many destroyed by war (2023)	4.1 Mostly restored (2028)	Project reports Reports of SNRIU in international fora	No further major war damages
Output 1 relating to Outcome 1 (Iran)	1.1 National radioactive waste management strategy and waste treatment routes defined	1.1.1 Status of the national radioactive waste inventory 1.1.2 Number of attendants to information/awareness meetings with EU support about benefits of reusing materials in civil engineering projects or disposing them in landfills (by sex, age and disability) 1.1.3 Number of experts trained with EU support in methodologies for the establishment of specific clearance levels (by sex, age and disability) 1.1.4 Number of nuclear and radioactive waste regulatory documents approved after preparation with EU support	1.1.1 0 (2023) 1.1.2 0 (2023) 1.1.3 0 (2023) 1.1.4 1 (2023)	1.1.1 Developed (2028) 1.1.2 TBD (2028) 1.1.3 TBD (2028) 1.1.4 TBD (2028)	Project reports	

Output 2 relating to Outcome 1 (Iran)	1.2 Enhanced capabilities in radioactive waste characterisation and treatment	1.2.1 Degree to which equipment for non-destructive characterisation of radioactive waste streams is defined and/or supplied	1.2.1 0% (2023)	1.2.1 100% (2028)	Project reports	
		1.2.2 Number of experts trained with EU support on radioactive waste characterisation and measurement techniques (by sex, age and disability)	1.2.2 0 (2023)	1.2.2 TBD (2028)		
		1.2.3 Degree to which the equipment for radioactive waste treatment techniques (super compactor, incineration, decontamination, etc.) is defined and/or supplied	1.2.3 0% (2023)	1.2.3 100% (2028)		
Output 3 relating to Outcome 1 (Iran)	1.3 Solutions for a radioactive waste disposal facility defined	1.3.1 Design completed with EU support of a system for collection, transportation, storage and treatment and disposal of radioactive waste	1.3.1 None (2023)	1.3.1 Design complete (2028)	Project reports	
		1.3.2 Safety assessment and improved technical solutions reviewed with EU support	1.3.2 None (2023)	1.3.2 100% (2028)		
		1.3.3 Disposal designs reviewed with EU support	1.3.3 None (2023)	1.3.3 100% (2028)		
		1.3.4 Waste acceptance criteria reviewed with EU support	1.3.4 None (2023)	1.3.4 100% (2028)		
Output 1 relating to Outcome 2 (Türkiye)	2.1 Enhanced long-term national radioactive waste and spent fuel management strategy and related capabilities	2.1.1 Report on the update of the national plan for radioactive waste and spent fuel management and its alignment with the Council Directive 2011/70/Euratom	2.1.1 0 (2023)	2.1.1 100% (2027)	Project reports	
		2.1.2 Number of staff trained with EU support (by sex, age and disability)	2.1.2 0 (2023)	2.1.2 TBD (2027)		
		2.1.3 Number of trainings/workshops organized per topic with EU support	2.1.3 0 (2023)	2.1.3 TBD (2027)		

Output 2 relating to Outcome 2 (Türkiye)	2.2 Plans and solutions developed facilitating and supporting establishment of a near-surface disposal facility	2.2.1 Status of the design specifications of the disposal facility 2.2.2 Status of the review waste acceptance criteria and waste packaging 2.2.3 Status of determination of the preliminary waste acceptance criteria for the disposal facility 2.2.4 Number of staff trained on the job with EU support (by sex, age and disability) 2.2.5 Status of the disposal facility's operational guidelines on 1) workflow, and 2) environmental radiological monitoring programme	2.2.1 Not available (2023) 2.2.2 Not available (2023) 2.2.3 Not available (2023) 2.2.4 0 (2023) 2.2.6 Not available (2023)	2.2.1 Completed (2027) 2.2.2 Completed (2027) 2.2.3 Completed (2027) 2.2.4 TBD (2027) 2.2.6 Completed (2027)	Project reports	
Output 3 relating to Outcome 2 (Türkiye)	2.3 Expertise built for development of safety cases for disposal facilities	2.3.1 Number of staff trained with EU support (by sex, age and disability) 2.3.2 Number of staff certified following EU support (by sex, age and disability)	2.3.1 0 (2023) 2.3.2 0 (2023)	2.3.1 TBD (2027) 2.3.2 TBD (2027)	Project reports	
Output 4 relating to Outcome 2 (Türkiye)	2.4 Enhanced safety and security expertise for radioactive waste processing and storage facility activities	2.4.1 Number of staff trained with EU support (by sex, age and disability)	2.4.1 0 (2023)	2.4.1 TBD (2027)	Project reports	
Output 1 relating to Outcome 3 (Georgia)	3.1 Effective implementation of national radioactive waste management strategy	3.1.1 Level of commissioning of the new radioactive waste management facilities at the centralized Saakadze site	3.1.1 Design of the facility under way (2023)	3.1.1 TBD (2028)	Project reports	
Output 2 relating to Outcome 3 (Georgia)	3.2 Strengthened regulator's capabilities for conducting effective state regulations	3.2.1 Upgraded Integrated Management System (IMS) within ANRS 3.2.2 Number of ANRS staff trained with EU support (by sex, age and disability) 3.2.3 Level of equipment, transport means, necessary software, office arrangement available to ANRS for its effectiveness.	3.2.1 Existing but incomplete (2023) 3.2.2 0 (2023) 3.2.3 Partially available (2023)	3.2.1 IMS defined (2028) 3.2.2 TBD (2028) 3.2.3 All essential resources available (2028)	Project reports	
Output 1 relating to Outcome 4 (Ukraine)	4.1 Urgent support provided in restoration and strengthening of spent fuel and radioactive waste management functions, including decommissioning, and further alignment with EU <i>acquis</i>	4.1.1 Number of EU (co-)funded projects	4.1.1 0 (2023)	4.1.1 TBD (2028)	Project reports	

4 IMPLEMENTATION ARRANGEMENTS

4.1 Financing Agreement

In order to implement this action, it is envisaged to conclude a financing agreement with the partner country for component A.

In order to implement this action, it is not envisaged to conclude a financing agreement for components B, C and D with partner countries.

4.2 Indicative Implementation Period

The indicative operational implementation period of this action, during which the activities described in section 3 will be carried out and the corresponding contracts and agreements are implemented, is 84 months from the date of entry into force of the financing agreement for component A, and 84 months from the adoption by the Commission of this Financing Decision for components B, C and D.

Extensions of the implementation period may be agreed by the Commission's responsible authorising officer by amending this Financing Decision and the relevant contracts and agreements.

4.3 Implementation Modalities

The Commission will ensure that the EU appropriate rules and procedures for providing financing to third parties are respected, including review procedures, where appropriate, and compliance of the action with EU restrictive measures.¹²

4.3.1 Direct Management (Procurement)

Components A and B will contribute to enhancing the capabilities of Iran and Türkiye to levels comparable with those in the EU in the area of safe management of radioactive waste and spent fuel.

Subject	Indicative type (works, supplies, services)
Component A: Iran	services, supplies
Component B: Türkiye	services

4.3.2 Indirect Management with an entrusted entity

Component C (Georgia) of this action may be implemented in indirect management with the Swedish International Development Cooperation Agency (SIDA). This implementation entails all activities detailed under chapter 3.2 (Outcome 3). The envisaged entity has been selected using the following criteria: SIDA is co-financing the activities and is working with the Swedish Radiation Safety Authority (SSM) who has the necessary competences and privileges (e.g. tax exemptions) for project implementation.

If negotiations with the above-mentioned entity fail, that part of this action may be implemented in indirect management with the Science and Technology Center in Ukraine (STCU). The implementation by this alternative entity would be justified because of the following criteria: Strong expertise in managing nuclear safety related projects; close and productive working relationship with authorities in charge of nuclear safety; demonstrated management capacities under recent and on-going INSC interventions; necessary competences and privileges (e.g. tax exemptions) for project implementation; proven track record in efficient and effective implementation of nuclear safety projects.

Component D (Ukraine) of this action may be implemented in indirect management with the Science and Technology Center in Ukraine (STCU) and/or the European Bank for Reconstruction and Development (EBRD). This implementation entails all activities detailed under chapter 3.2 (Outcome 4). The envisaged entities have been selected using the following criteria:

- STCU: Strong expertise in managing nuclear safety related projects; close and productive working

¹² www.sanctionsmap.eu. Note that the sanctions map is an IT tool for identifying the sanctions regimes. The source of the sanctions stems from legal acts published in the Official Journal (OJ). In case of discrepancy the OJ prevails.

relationship with the Ukrainian authorities in charge of nuclear safety; demonstrated management capacities under recent and on-going INSC interventions; necessary competences and privileges (e.g. tax exemptions) for project implementation; proven track record in efficient and effective implementation of nuclear safety projects; up-to-date knowledge on the situation in Ukraine; and headquarters in Kyiv since 2005 with many of its staff based in Ukraine.

- EBRD: Strong expertise in managing funds linked to nuclear safety related programmes in Ukraine; Close relationship with the Ukrainian authorities in charge of nuclear safety; manager of the multi-donor fund (International Chernobyl Cooperation Account (ICCA), to which the EU is the main contributor, dedicated to the reconstruction of the nuclear safety capacities in Ukraine; demonstrated management capacities under recently closed and still ongoing multi-donor funds to which INSC contributed substantial amounts; necessary competences and privileges (e.g. tax exemptions) for project implementation; and proven track record in efficient and effective implementation of nuclear safety projects.

4.3.3 Changes from indirect to direct management mode (and vice versa) due to exceptional circumstances (one alternative second option)

In case of exceptional circumstances outside of the Commission's control preventing the implementation through indirect management for components C and D, the implementation modality under indirect management may be replaced by direct management through procurement.

In case of exceptional circumstances outside of the Commission's control preventing the implementation through direct management for components A and B, the implementation modality under direct management may be replaced by indirect management with an entrusted entity, which will be selected by the Commission's services using the following criteria: experience with nuclear safety related projects, demonstrated capacity to perform similar activities in the partner country or region and the willingness to agree to comply with the EU communication and visibility guidelines.

4.4 Scope of geographical eligibility for procurement and grants

The geographical eligibility in terms of place of establishment for participating in procurement and grant award procedures and in terms of origin of supplies purchased as established in the basic act and set out in the relevant contractual documents shall apply.

The Commission's authorising officer responsible may extend the geographical eligibility on the basis of urgency or of unavailability of services in the markets of the countries or territories concerned, or in other duly substantiated cases where application of the eligibility rules would make the realisation of this action impossible or exceedingly difficult (Article 11(8) INSC Council Regulation (Euratom) 2021/948 of 27 May 2021).

4.5 Indicative Budget

Indicative Budget components	EU contribution (amount in EUR)	Indicative third party contribution (amount in EUR)
Implementation modalities – cf. section 4.3		
SO 1 Effective radioactive waste management in Iran, composed of		
Procurement (direct management) – cf. section 4.3.1	2 500 000	
SO 2 Effective spent fuel and radioactive waste management in Türkiye, composed of		
Procurement (direct management) – cf. section 4.3.1	3 000 000	
SO 3 Effective radioactive waste management in Georgia, composed of		
Indirect management with SIDA – cf. section 4.3.2	5 500 000	2 000 000 Sweden + USA
SO 4 Restored spent fuel and radioactive waste management in		

Ukraine, composed of		
Indirect management with STCU and/or EBRD – cf. section 4.3.2	10 000 000	To be determined
Procurement – total envelope under section 4.3.1	5 500 000	
Indirect management – total envelope under section 4.3.2	15 500 000	2 000 000
Evaluation – cf. section 5.2 Audit – cf. section 5.3	may be covered by another Decision	
Contingencies	500 000	
Total	21 500 000	2 000 000

4.6 Organisational Set-up and Responsibilities

Each intervention will tentatively include a steering committee, set up with representatives of the key organisations, including the partner country and the implementing partner. Each steering committee provides support, guidance and oversight of the intervention and shall meet whenever deemed necessary by the end user, the European Commission, or the implementing partner.

As part of its prerogative of budget implementation and to safeguard the financial interests of the Union, the Commission may participate in the above governance structures set up for governing the implementation of the action.

5 PERFORMANCE MEASUREMENT

5.1 Monitoring and Reporting

The day-to-day technical and financial monitoring of the implementation of this action will be a continuous process, and part of the implementing partner's responsibilities. To this aim, the implementing partner shall establish a permanent internal, technical and financial monitoring system for the action and elaborate regular progress reports (not less than annual) and final reports. Every report shall provide an accurate account of implementation of the action, difficulties encountered, changes introduced, as well as the degree of achievement of its results (Outputs and direct Outcomes) as measured by corresponding indicators, using as reference the logframe matrix (for project modality) and the partner's strategy, policy or reform action plan list (for budget support).

The Commission may undertake additional project monitoring visits both through its own staff and through independent consultants recruited directly by the Commission for independent monitoring reviews (or recruited by the responsible agent contracted by the Commission for implementing such reviews).

Roles and responsibilities for data collection, analysis and monitoring:

- The indicators, corresponding data sources and baselines are indicated in the logframe above. Arrangements for monitoring and reporting will be specified in the individual contracts.

All monitoring and reporting shall assess how the action is considering the principle of gender equality, human rights-based approach, and rights of persons with disabilities.

5.2 Evaluation

Having regard to the nature of the action, an evaluation will not be carried out for this action or its components.

In case an evaluation is not planned, the Commission may, during implementation, decide to undertake such an evaluation for duly justified reasons either on its own decision or on the initiative of the partner.

All evaluations shall assess to what extent the action contributes to gender equality and women's empowerment and disability inclusion as well as how it is taking into account the human rights-based approach. Expertise on

gender equality, disability and human rights will be ensured in the evaluation teams.

The evaluation reports may be shared with the partners and other key stakeholders following the best practice of evaluation dissemination¹³. The implementing partner and the Commission shall analyse the conclusions and recommendations of the evaluations and, where appropriate, apply the necessary adjustments.

Evaluation services may be contracted under a framework contract. The financing of the evaluation may be covered by another measure constituting a Financing Decision.

5.3 Audit and Verifications

Without prejudice to the obligations applicable to contracts concluded for the implementation of this action, the Commission may, on the basis of a risk assessment, contract independent audit or verification assignments for one or several contracts or agreements.

6 STRATEGIC COMMUNICATION AND PUBLIC DIPLOMACY

The 2021-2027 programming cycle will adopt a new approach to pooling, programming and deploying strategic communication and public diplomacy resources.

In line with the 2022 “[Communicating and Raising EU Visibility: Guidance for External Actions](#)”, it will remain a contractual obligation for all entities implementing EU-funded external actions to inform the relevant audiences of the Union’s support for their work by displaying the EU emblem and a short funding statement as appropriate on all communication materials related to the actions concerned. This obligation will continue to apply equally, regardless of whether the actions concerned are implemented by the Commission, partner countries, service providers (duty bearers), grant beneficiaries (rights holders) or entrusted or delegated entities such as UN agencies, international financial institutions and agencies of EU member states.

However, action documents for specific sector programmes are in principle no longer required to include a provision for communication and visibility actions promoting the programmes concerned. These resources will instead be consolidated in Cooperation Facilities established by support measure action documents, allowing Delegations to plan and execute multiannual strategic communication and public diplomacy actions with sufficient critical mass to be effective on a national scale.

¹³ See best [practice of evaluation dissemination](#)

Appendix REPORTING IN OPSYS

A Primary Intervention¹⁴ (project/programme) is a coherent set of activities and results structured in a logical framework aiming at delivering development change or progress. Identifying the level of the primary intervention will allow for:

- Articulating Actions or Contracts according to an expected chain of results and therefore allowing them to ensure efficient monitoring and reporting of performance;
- Differentiating these Actions or Contracts from those that do not produce direct reportable development results, defined as support entities (i.e. audits, evaluations);
- Having a complete and exhaustive mapping of all results-bearing Actions and Contracts.

Primary Interventions are identified during the design of each action by the responsible service (Delegation or Headquarters operational Unit).

The level of the Primary Intervention chosen can be modified (directly in OPSYS) and the modification does not constitute an amendment of the action document.

The intervention level for the present Action identifies as:

Action level (i.e. Budget Support, blending)		
<input type="checkbox"/>	Single action	
Group of actions level (i.e. top-up cases, different phases of a single programme)		
<input type="checkbox"/>	Group of actions	
Contract level		
<input checked="" type="checkbox"/>	Single Contract 1	Contract under Component A (Iran)
<input checked="" type="checkbox"/>	Single Contract 2	Contract under Component B (Türkiye)
<input checked="" type="checkbox"/>	Single Contract 3	Contract under Component C (Georgia)
<input checked="" type="checkbox"/>	Single Contract 4	Contract under Component D (Ukraine)
Group of contracts level (i.e. series of programme estimates, cases in which an Action includes for example four contracts and two of them, a technical assistance contract and a contribution agreement, aim at the same objectives and complement each other)		
<input type="checkbox"/>	Group of Contracts 1	

¹⁴ For the purpose of consistency between terms in OPSYS, DG INTPA, DG NEAR and FPI have harmonised 5 key terms, including 'Action' and 'Intervention' where an 'Action' is the content (or part of the content) of a Commission financing Decision and 'Intervention' is a coherent set of activities and results which constitutes an effective level for the operational follow-up by the EC of its operations on the ground. See more on the concept of intervention.