

## TC FIELDS OF ACTIVITY (FoAs)

Code	TC Fields of Activity (FoA)	Suggested duration	Requirements/preconditions additional to Central Criterion	Potential partnerships
<b>01</b>	<b>Capacity establishment, programme knowledge management and facilitation of cooperation among Member States</b>			
	Under this FoA, the IAEA supports Member States in developing and maintaining essential knowledge and skills in the results-based management of the TC programme. Activities include fostering collaboration and networking among Member States, strengthening regional and cooperative agreements/frameworks/profiles, enhancing TC Programme knowledge management, and supporting upstream project development.	2–4 years depending on the topic	It is essential that the minimum infrastructure and human resources with relevant background exist in the country.	ICTP, WNU, WiN, UN System Organizations, Regional/ Cooperative Agreements
<b>02</b>	<b>Reference products for science and trade</b>			
	Under this FoA, the IAEA provides guidance and assistance to Member States' laboratories on practical issues of sample collection and analysis for radionuclides, stable isotopes, trace metals and trace organic contaminants, as well as on the use of nuclear analytical techniques. Major areas for assistance are in sample collection and preparation approaches, validated analytical procedures, quality assurance (QA)/quality control (QC) procedures, inter-laboratory comparison exercises, and the provision of reference materials for calibration and quality control.	Minimum of 3 years for projects related to reference materials and proficiency testing. Minimum of 2 years for other projects.	Reference materials and inter-laboratory comparison activities are very suitable for regional and interregional projects. Existence of supporting analytical capability in the country or region is a prerequisite.	IUPAC, ILAC, CITAC or BIPM, EC Joint Research Centre (JRC), International Committee for Radionuclide Metrology (ICRM)
<b>03</b>	<b>Building national nuclear legal infrastructures</b>			
	Under this FoA, the IAEA supports Member States in establishing appropriate legal infrastructures consistent with the relevant binding and non-binding international legal instruments, as well as with the IAEA safety standards. To that end, overall legislative assistance in the areas of nuclear safety, radiation protection, mining and milling of radioactive ores, emergency preparedness and response (see FoA 16), transport of radioactive material, spent fuel and radioactive waste management (see FoA 19), physical protection, non-proliferation and safeguards and nuclear liability will be provided under this FoA. In this context, the IAEA will also promote to Member States the relevant international legal instruments adopted under its auspices.	5 years	Commitment at the government high level to the establishment of a national legal infrastructure governing peaceful uses of nuclear energy and ionizing radiation; assessment of the need for legislative assistance by government authorities.	CTBTO, UNODC

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<b>04</b>	<b>Energy planning</b>			
	Under this FoA, the IAEA supports Member States in capacity building in energy and electricity planning at national and regional levels to determine what energy sources would be best suited for the country, taking into account energy security, economy and environmental aspects (e.g. climate change).		Commitment by counterparts to establish a sufficiently staffed (minimum four persons) and funded national energy analysis and planning group (with representation of major stakeholders).	Royal Institute of Technology KTH-DESA (CLEW modelling), UNIDO, UNDESA, FAO, UNEP, IRENA, IIASA, Stockholm Environment Institute (SEI)
<b>05</b>	<b>Introduction of nuclear power</b>			
	Under this FoA, the IAEA supports Member States that are considering introducing nuclear power to ensure that all relevant infrastructure needs are considered and met at the appropriate time in the planning, preparation and implementation phases. This includes providing support for assessment of nuclear power infrastructure through assessment missions such as Integrated Nuclear Infrastructure Reviews (INIRs) and developing integrated work plans to coordinate IAEA assistance addressing all 19 elements of the 'Milestones approach' to enable the country to build capacity to handle industrial, technical and regulatory issues connected to the safe, secure and efficient development of nuclear power.	4 years	Nuclear power should be included as an option in the national energy policy of the requesting Member State. Countries considering the introduction of nuclear power should participate in regional and interregional workshops for awareness building, and in due course conduct a self-evaluation based on Agency publication (NG-T-3.2 – Rev.1) and develop a national action plan or strategic roadmap. Countries that have made a decision should prepare integrated work plans and consider cost sharing and coordination with bilateral partners.	WANO, OECD/NEA, EC, IFNEC, INPO
<b>06</b>	<b>Nuclear power reactors</b>			
	Under this FoA, the IAEA provides support to Member States developing and/or operating nuclear power reactors. Support can be provided on assessing and improving the reliability, effectiveness and operational safety of the facilities, methods for safety assessment, efficient management systems and lifetime management of the facilities. It will also take into account the needs for radiation protection, radioactive waste management (see FoA 19), emergency preparedness and transport that are covered under other FoAs. Support will also be provided on advancement and innovation of technology for nuclear power plant systems and their fuel cycles.		Countries requesting support under this FoA should have existing or shut down nuclear reactors, or plans for expansion of their nuclear programme.	WANO, OECD/NEA/ WNA, EC, IFNEC, GIF, INPO, EPRI

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<b>07</b>	<b>Nuclear fuel cycle</b>			
	Under this FoA, the IAEA supports Member States that are engaged in or planning to be engaged in the different steps of the nuclear fuel cycle, from uranium production to spent fuel management, including fuel engineering. (i) Uranium production includes exploration, mining and milling; (ii) Fuel engineering includes fuel design, manufacturing and assessment of fuel performance in normal and incidental conditions; and (iii) Spent fuel management includes short and long term storage in wet and/or dry conditions, reprocessing and recycling for waste minimization. Support can be provided on assessment of technical and safety aspects of these activities, as well as on strategy development. Account should be taken of the needs for radiation protection, radioactive waste management (see FoA 19), emergency preparedness and response (see FoA 16), and transport that are covered under other FoAs.		Compliance with the IAEA's safety standards applicable to fuel cycle facilities. Contracting party to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. Commitment from both licensee and regulatory authority.	OECD/NEA, WNA
<b>08</b>	<b>Research reactors</b>			
	Under this FoA, the IAEA supports Member States that are operating research reactors or planning to do so. Support can be provided on all aspects related to the planning of research reactors, including site evaluation and support in building the technical and safety infrastructure for the operating organizations, and the review of the design provisions from both the safety and utilization points of view. It will also take into account the safe and effective utilization, operation and maintenance of research reactors and issues connected to research reactor fuel and fuel management. Such support also includes international peer reviews related to the IAEA safety standards and the Code of Conduct on the Safety of Research Reactors, and assessment missions such as Integrated Research Reactor Infrastructure Assessment (IRRIA) missions and Operation and Maintenance Assessment of Research Reactors (OMARR) missions.	4 years	Preconditions include application of safe and efficient operation practices, commitment to develop and implement strategic utilization plans, and, in the case of newcomer countries, formation of a competent team to interact with the IAEA and manage the research reactor project.	EC, OECD/NEA, ICTP
<b>09</b>	<b>Governmental and regulatory infrastructure for radiation safety</b>			
	Under this FoA, the IAEA supports Member States in establishing or enhancing the governmental and regulatory infrastructures needed to ensure radiation safety in accordance with IAEA safety standards and legal instruments such as the Code of Conduct on the Safety and Security of Radioactive Sources. Projects on high-level education and training in radiation safety are included under this FoA.	2 years for national projects, 4–6 years for regional projects	Completion of a self-assessment. The project proposal should also include an assessment of the change resulting from the project.	EU, USNRC, WHO
<b>10</b>	<b>Safety of nuclear installations, including siting and hazard characterization</b>			
	Under this FoA, the IAEA supports Member States in ensuring the safety of nuclear installations and fuel cycle facilities. This comprises selection of suitable sites for the construction of nuclear installations, including the establishment of siting criteria, supporting regulatory guidance and subsequent engineering activities, management of safety and safety culture, safety assessment and capacity building for countries introducing nuclear power, nuclear fuel facilities and research reactors. Specific issues on operational safety are included in services offered under the FoAs 'nuclear power reactors', 'nuclear fuel cycle' and 'research reactors'.			EC, INPO, EPRI

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<b>11</b>	<b>Governmental and regulatory infrastructure for nuclear installations safety</b>			
	Under this FoA, the IAEA supports Member States in establishing or enhancing the governmental and regulatory infrastructures needed for nuclear safety in accordance with IAEA safety standards and relevant legal instruments. It covers the regulatory aspects of nuclear safety in relation to nuclear power plants, research reactors and fuel cycle facilities.			EC
<b>12</b>	<b>Radiation protection of workers and the public</b>			
	Under this FoA, the IAEA supports Member States in ensuring that appropriate radiation protection of workers and the general public is considered when using radiation sources and applying nuclear technologies. The radiation protection of workers is a cross-cutting issue for all types of facilities and activities following the requirements of GSR Part 3- "Basic Safety Standards" and GSR-Part 4-"Safety Assessment for facilities and activities". This FoA covers implementation of requirements related to safety assessment, optimization of protection, management systems, safety culture and ORPAS appraisal service at both the End-Users (operators) and technical support organizations (TSO). For activities that could involve releases to the environment, the protection of the general public also needs to be considered (see FoA 16). Exposure of the public due to radon in buildings as well as radionuclides in food, drinking water and other commodities in existing exposure situation is also covered.		Application of the Basic Safety Standards and subsequent safety guides and safety reports.	ILO, FAO, UNSCEAR, OECD/NEA, EC
<b>13</b>	<b>Transport safety</b>			
	Under this FoA, the IAEA supports Member States in a wide variety of issues connected to transport of nuclear and radioactive material involved in any nuclear/radiation technology or application. These issues range from helping countries to establish national regulations. in line with IAEA Safety Standards and Guidance. This FoA covers the safe transport of all types of radioactive material.	1–2 years for national projects, minimum of 4 years for regional projects.	Completion of a self-assessment. The project proposal should also include an assessment of the change resulting from the project.	IMO, ICAO, UNECE, WHO, PACT, IATA, WNTI, WNA, ICHCA and TIC
<b>14</b>	<b>Nuclear security</b>			
	Under this FoA, the IAEA supports Member States in improving the security of (i) nuclear and other radioactive material in their use, storage and transport, as well as (ii) associated facilities; and in detecting and responding to lost, missing or stolen radioactive material that may be used for criminal acts, or unauthorized acts with nuclear security implications.		Requests for support related to nuclear security should be mainly made directly through the Division of Nuclear Security.	UNODC

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<b>15</b>	<b>Water resources management</b>			
	Under this FoA, the IAEA helps Member States to meet their water security objectives by applying environmental stable and radioisotope techniques to inform sustainable management of ground and surface water resources. Environmental isotope tracers are used to map areas of sustainable and non-renewable ground water supplies, determine aquifer replenishment rates, surface water budgets, and assess ground and surface water resources pollution issues at both regional and national levels. Comprehensive isotopic mapping and modeling of water resources, ground water, lakes and rivers, and precipitation helps inform national and regional strategies for adaptation to climatic and land use changes that may impact future water availability and quality. Member State capacity strengthening in isotope hydrology is supported through expert advice, trainings and relevant laboratory support assistance including sample analysis to support Member States in their efforts to achieve self-reliance in the application of environmental isotopes for water resources investigations.	Minimum of 5 years for regional projects, 3-4 years for national projects	Completion of a self-assessment of national or regional water resource priorities, including environmental isotope analytical capability, staff and field support competences, and the involvement of key national water authorities or research institutions.	UN-Water, EC, GEF, UNESCO, WMO, World Bank
<b>16</b>	<b>Emergency preparedness and response</b>			
	Under this FoA, the IAEA supports Member States in establishing or enhancing national capabilities and arrangements for preparedness and response to nuclear and radiological incidents and emergencies irrespective of initiating cause in accordance with the IAEA safety standards. Support can be provided in all areas of emergency preparedness and response. In particular, it will include activities to establish and maintain capacity for building, improving and strengthening competence and infrastructure for emergency preparedness and response to nuclear and radiological incidents and emergencies at the national and regional levels.	Minimum of 2 years for national projects; minimum of 4 years for regional projects	A prerequisite for successful project implementation is awareness on the part of the participating Member State government(s) of the significance of proper radiation emergency preparedness arrangements in the country and a commitment to provide the available domestic resources that are needed for the establishment/upgrading of the relevant capabilities and competence.	EC, FAO, IMO, OECD/NEA, PAHO, WMO, WHO, UNEP
<b>17</b>	<b>Marine, terrestrial and coastal environments</b>			
	Under this FoA, the IAEA supports Member States in capacity building in methodologies for measuring and assessing radionuclides and other pollutants in the environment in order to identify sources, to evaluate levels, trends and effects, to study transfer processes and environmental change. Major areas for assistance are environmental monitoring and assessment for radionuclides and non-radioactive contaminants, the study of contaminants in ecosystems and of the impact of pollution on living resources. Support in this FoA includes seafood safety and the risk-based assessment of the impact of the disposal of industrial and municipal wastes on marine life, as well as the collection of data on bioaccumulation in marine biota to determine possible health risks arising from the consumption of seafood. It also includes the use of nuclear techniques to assess changes in the terrestrial, aquatic and atmospheric environments and the identification of suitable and sustainable remediation strategies. Within the framework of this FoA, support to Member States is provided in the use of radioisotopes for understanding and monitoring key phenomena that help regulate today's climate and offer important information about ongoing climate shifts and their effects, such as ocean acidification, coastal environment changes and desertification.	2-4 years depending on the topic	Requirements depend on the scope of the project, and the experience and equipment in participating Member States. Ship time (if needed) has to be provided by the requesting Member State(s).	UNEP, UNESCO-IOC, IMO, FAO, WMO, ICTP, EC, Regional Maritime Conventions, universities, UN-Oceans, EPOCA

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<b>18</b>	<b>Radioisotopes and radiation technology for industrial, health-care and environmental applications</b>			
	Under this FoA, the IAEA supports Member States in using radioisotopes and radiation technology in industrial applications; for studying transfer and tackling pollutants from industrial and municipal effluents; for improving industrial process management; for protecting the environment in its industrial components and for creating advanced materials. The main areas of support include the deployment of radiation technology and establishing radiation facilities such as electron beam and gamma irradiators for sterilization, materials processing, preservation of cultural heritage artefacts, food irradiation and cleaner environment and industry, as well as implementing and enhancing QA/QC and QMS in irradiation facilities. Support is extended to the use of radiation technologies for measurements in industry (radiotracers, radiation sealed sources, Non Destructive Testing) and the setting up of the required infrastructures for internationally harmonized QA/QC for the use of nuclear technology and the certification/accreditation of personnel.	5 years (required for setting up facilities and building capacity)	Existence of basic infrastructure and manpower in the country or region. Usually these projects are part of bigger national projects and the commitment from the counterpart and government is a prerequisite for implementation and sustainability of the project after completion.	UNIDO, National Cleaner Production Centers (NCPs), local industries
<b>19</b>	<b>Radioactive waste management, decommissioning and remediation of contaminated sites</b>			
	Under this FoA, the IAEA supports Member States in the protection of workers, the public and the environment from the adverse effects of ionizing radiation. Support is provided to (i) Member States that must safely manage radioactive waste, whether from the use of radioisotopes or radiation sources in medicine or research or from the operation of existing or planned research and power reactors; (ii) Member States that are planning or implementing the decommissioning of nuclear and radiological facilities including legacy issues; and (iii) Member States planning or implementing environmental remediation of contaminated sites areas. Under this FoA, assistance may include technical, regulatory and safety oriented aspects involved in the management of different kinds of radioactive waste, ranging from the generation and classification of the waste, treatment, conditioning and storage, disposal (including spent fuel if declared as waste and disused sealed radioactive sources) in appropriate and safe disposal facilities. It also includes the development of strategies for regulating discharges to the environment, decommissioning and environmental remediation of contaminated sites, management of radioactive residues, as well as planning and implementing necessary measures for the safe management of these activities in accordance with the IAEA safety standards and good practices.	2–4 years	Recipient countries can be countries with existing or legacy nuclear programmes or nuclear applications or countries planning to introduce nuclear power or nuclear applications.	UNDP, World Bank, UNIDO, ADB, EC, OECD/NEA, EBRD



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<b>20</b>	<b>Crop production</b>			
	Under this FoA, the IAEA supports Member States in enhancing food security through sustainable crop production. Support is provided to Member States in the use of nuclear technologies for the sustainable intensification of crop production systems, in the implementation of modern and competitive plant breeding programmes using radiation induced mutation and efficiency enhancing biotechnologies such as in vitro techniques, molecular markers, genomics, reverse genetics, phenomics, and accelerated breeding for the improvement of adaptation strategies for agriculture in relation to local climatic conditions.	4 years	A national breeding programme should be in place in the requesting Member State.	FAO, CGIAR, Centres (CIAT, IRRI, ICRISAT, CIMMYT) and NARS universities
<b>21</b>	<b>Agricultural water and soil management</b>			
	Under this FoA, the IAEA supports Member States to improve land and water management through enhancing crop water productivity (more crops per drop of water) and better irrigation technologies and soil water conservation; enhancing soil fertility and quality to conserve nutrients and water quality. Isotopic and nuclear techniques and related conventional techniques are used to develop climate smart agricultural practices for both rainfed and irrigated agriculture that make agriculture resilience to drought and flood events, reduce emissions of greenhouse gases and land degradation (soil erosion and salinization) and to capture more atmospheric nitrogen (N) via biological N fixation for sustainable crop and integrated cropping livestock production systems.	4 years	The medium and long term commitment from the local government to expand the findings from the requested project into farming communities (technology transfer component and socio-economic assessment) should be indicated in the project proposal. It is also essential to have the involvement and collaboration of various national institutions (such as the Ministry of Agriculture) in the proposed project.	FAO, universities CG-Centres, NARS, UNCCD, IWMI
<b>22</b>	<b>Livestock production</b>			
	Under this FoA, the IAEA supports Member States in the enhancement of global food security through the implementation of sustainable livestock production systems using nuclear and nuclear related techniques. It assists Member States in improving livestock productivity through the efficient use of locally available feed resources, adequate management practices and breeding programmes for indigenous and upgraded animals, and diagnostic tools and prophylactic measures for the control and prevention of animal and zoonotic diseases, especially for the early and rapid diagnosis and control of transboundary animal diseases.	5 years (Initial 3 years followed by a 2-year extension)	It is important that the ministries responsible for agriculture, veterinary science and technology are committed to the project and that they are consulted by the authorities responsible for atomic energy or science and technology.	CG-Centres; OIE; FAO; AU; CIRAD; USDA; USAID; AusAID; WHO; GALVmed
<b>23</b>	<b>Insect pest control</b>			
	Under this FoA, the IAEA supports Member States in the use of nuclear methods to control major insect pests, particularly in the implementation of environmentally-friendly and sustainable methods to control major insect pests of agricultural, veterinary and human importance, especially transboundary plant pests and diseases. The main goals are to help Member States reduce crop/livestock losses and insecticide use, as well as to overcome phytosanitary barriers to agricultural trade and to deal with invasive pest species outbreaks.	2–3 years (feasibility and capacity building); 2–3 years (preparatory phases); 4 years (once the final sterile insect technique (SIT) operational phase is initiated).	It is essential that the relevant ministries (agriculture for plant pests; livestock for animal pests; health for mosquito projects) are involved and committed to the project in addition to the authorities responsible for atomic energy or science and technology. Direct involvement of farmer associations and other stakeholders is also advantageous in operational projects.	FAO, CGIAR, CIRAD and IRD (France), IICA, national and regional animal health and plant protection organizations, USDA, WHO (for mosquito projects)

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<b>24</b>	<b>Food safety</b>			
	Under this FoA, the IAEA supports Member States in the use of nuclear and related analytical techniques to ensure food safety and quality for protection of consumers and to facilitate international trade. The main areas of support are: post-harvest applications of irradiation for food safety, quality and quarantine purposes; the development of analytical capacities in Member States for food traceability, authenticity and contaminant control systems, including detection of residues and contaminants, verification of origins and control of the public health and economic implications of food fraud and food adulteration; and responses to radionuclide contamination of foodstuffs arising from nuclear and radiological emergencies.	4 years	It is essential that the IAEA receive an official request for support from the Ministry of Agriculture or the Ministry of Health (addressed through the National Liaison Office) to ensure the involvement and commitment of the national food safety regulatory authorities.	FAO, WHO, CGIAR Centres, universities and NARSs, Greater Mekong Subregion Working Group on Agriculture (ADB), EU
<b>25</b>	<b>Comprehensive Cancer Control</b>			
	Under this FoA, the IAEA supports Member States in cancer control related activities such as: comprehensive cancer control assessment (imPACT Reviews); direct resource mobilization for unfunded cancer related activities planned under TC projects; indirect resource mobilization such as assistance in the development of project proposals or bankable documents for fundraising; and support for the development of strategic documents such as comprehensive National Cancer Control Plans (NCCPs).	4 years	It is essential that the IAEA receives an official request for support originating from the Ministry of Health (addressed through the National Liaison Office) to ensure the involvement and commitment of the national health authorities.	WHO, IARC, UICC
<b>26</b>	<b>Radiation oncology in cancer management</b>			
	Under this FoA, the IAEA supports Member States in the technical aspects of curative treatments, palliative treatments, and developments in advanced radiotherapy. There are specific safety and quality considerations in some Member States with regard to guidelines for good practice, and the need for validated, affordable treatment protocols for many common cancer types. Many new physical, biological and pharmaceutical tools have become available in recent years that promise to make radiotherapy safer and more effective. The main areas of support are in curative and palliative cancer management using radiotherapy, advanced techniques for cancer radiotherapy, health economic aspects, and applied radiation biology.	3–4 years		WHO, PAHO, IARC, UICC, ESTRO, ALATRO, ASTRO, other professional or international organisations, national policy bodies, academic institutions.



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<b>27</b>	<b>Nuclear medicine and diagnostic imaging</b>			
	Under this FoA, the IAEA supports Member States in the application of both nuclear medicine and radiology techniques in the workup of medical conditions with emphasis on chronic diseases, in particular cardiovascular and cancer. Therapeutic applications using radiopharmaceuticals are also covered in this FoA. Planning, establishing and/or upgrading nuclear medicine facilities including SPECT, SPECT-CT, PET/CT and PET-MR (hybrid imaging) as well as a variety of radiology techniques including X-ray, mammography, CT and in selected cases MR and US along with interventional radiology form a major part of the support provided in this FoA. Appropriate use of diagnostic imaging modalities in the different clinical conditions; enhancing safety and quality of practice; quality management applied to diagnostic imaging practices and human resources development are also a priority in this FoA. In selected cases the implementation or upgrade of non-imaging nuclear or nuclear derived techniques such as polymerase chain reaction (PCR) or radioimmunoassay could be supported.	3–5 years		WHO, professional scientific societies such as WFNMB, EANM, SNMMI, AOFNMB, ALASBIMN, ASNC, ESR, ISR, RSNA, etc.
<b>28</b>	<b>Radioisotopes and radiopharmaceuticals production for medical applications</b>			
	Under this FoA, the IAEA supports Member States in strengthening national capabilities in the production of reactor, accelerator (cyclotron) and generator based radioisotopes and radiopharmaceuticals to be used in medical applications, including planning and establishing cyclotron facilities including PET radiopharmacy, radionuclides/radiopharmaceutical production and QA/QC laboratories, according to current regulations. The IAEA's role is to strengthen QA practices and regulatory compliance, and to facilitate human resources development, in order to economically produce radioisotopes and diagnostic and therapeutic radiopharmaceuticals and to bring these medical isotopes within the reach of a greater number of patients in developing Member States.	5 years (necessary to set up cyclotron facilities and radiopharmaceutical production laboratories with good manufacturing practices, and to build capacity)	Existence of basic infrastructure and human resources in the country or region: usually these projects are part of bigger national projects and the commitment from the counterpart and government is a prerequisite for implementation and sustainability of the project after completion.	Professional societies

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<b>29</b>	<b>Dosimetry and medical physics</b>			
	<p>Under this FoA, the IAEA supports (i) reference hospitals in Member States in developing and implementing Quality Assurance procedures in radiation therapy and diagnostic imaging, including equipment quality control and dosimetry, in order to achieve high standards of diagnostic services and of treatment planning, delivery and verification; (ii) reference hospitals and Member States in the establishment of national systems for comprehensive clinical audits in radiation oncology, nuclear medicine and diagnostic radiology; (iii) Member States to strengthen medical physics capacities as the safety and effectiveness of radiation medicine is ensured only with the professional support of qualified medical physicists; (iv) Member States in establishing national academic and clinical training programmes in medical physics; (v) Member States in establishing or upgrading national calibration laboratories to ensure traceability of all radiation measurements through the provision of calibration services and dosimetry audits for end-users.</p>	<p>2–3 years (support to established and functional institutions); minimum of 4 years (support to planned institutions)</p>	<ol style="list-style-type: none"> <li>1. For established and functional institutions: medical physics support to hospitals: (i) licensed facilities (radiation protection) (ii) recognized medical physics profession.</li> <li>2. For established and functional dosimetry and national calibration laboratories: recognized as a national calibration laboratory and linked to national metrology programme.</li> <li>3. For planned institutions: national commitment to the establishment of the new facilities with complete construction plan and planning completion date.</li> <li>4. For medical physics education programmes: (a) only national programmes and (b) hospital–university partnerships for clinical training.</li> </ol>	<p>WHO for QA/QC; professional societies, especially for medical physics education programmes</p>
<b>30</b>	<b>Nutrition for improved health</b>			
	<p>Under this FoA, the IAEA supports Member States in generating evidence that informs nutrition programming to combat malnutrition in all its forms with a specific focus on: infant and young child feeding including breastfeeding promotion, maternal and adolescent nutrition, diet quality, prevention and control of Non-Communicable Diseases, healthy aging and health effects of the environment. Proper nutrition is fundamental to health for all age groups. The IAEA contributes technical expertise in the use of nuclear techniques to design, monitor and evaluate the impact of nutrition interventions in close collaboration with other UN agencies and major stakeholders in nutrition and health. These nuclear techniques, in particular non-radioactive stable isotope techniques, are objective tools and improve the specificity and sensitivity of nutritional evaluations such as the assessment of intake of human milk in infants and exclusive breastfeeding, body composition (fat and lean mass), total energy expenditure, vitamin A status, and bioavailability of micronutrients from foods. The support provided in this FoA includes capacity building, laboratory upgrading and consumables, networking and knowledge sharing and quality of data produced through interlaboratory studies. .</p>	<p>5 years</p>	<p>Partnerships must be established to obtain funding for field implementation of nutrition assessments. Projects need to address country priorities in nutrition as defined by national nutrition strategies and action plans, and need to align with the Sustainable Development Goals. In Scaling Up Nutrition (SUN) countries, the involvement of the SUN focal points is essential.</p>	<p>Scaling Up Nutrition (SUN) focal points, Ministries of Health, universities, academic and research institutions UNICEF, WHO, WFP, FAO, NGOs</p>

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<b>31</b>	<b>Radiation protection in medical uses of ionizing radiation</b>			
	Under this FoA, the IAEA supports Member States in ensuring that appropriate radiation protection of patients, workers and the public is considered when using radiation sources and applying nuclear technologies in medicine. This FoA covers strengthening of the knowledge, skills and competence of health professionals for justified and optimized use of ionizing radiation and prevention of unintended exposure in medical facilities in diagnostic and interventional radiology, nuclear medicine and radiation therapy as well as improvement of the safety culture in medical settings.		Application of the Basic Safety Standards and subsequent safety guides and safety reports.	WHO, PAHO, ILO, EC
<b>32</b>	<b>Accelerator technology</b>			
	Under this FoA, the IAEA supports Member States that are operating accelerators or planning to do so. Support can be provided on all aspects related to the planning, establishment, maintenance and upgrade of accelerator facility and its nuclear electronics and detector systems. Key areas are included: facility requirements, strategical planning, research and development in different application areas and corresponding infrastructure, analytical service, operational and safety infrastructure. Support also includes knowledge management and knowledge transfer.	2–3 years depending on the topic	Preconditions include commitment to develop and implement strategic utilization plans, application of safe and efficient operation practices and in the case of newcomer countries, formation of a competent team to interact with the IAEA and manage the accelerator project.	EC, ICTP, UNESCO, OECD/NEA
<b>33</b>	<b>Nuclear Instrumentation</b>			
	Under this FoA, the IAEA provides guidance and assistance to Member States' on practical issues of maintenance, development, calibration and certification of nuclear instrumentation, monitoring, acquisition and control systems for laboratories and facilities handling or exposed to radioisotopes. Major areas for assistance are quality assurance (QA)/quality control (QC) procedures, spares and repairs, lifetime expiry and obsolescence phasing and the provision of electronic equipment and procedures for calibration and quality control.	2–3 years depending on the topic	Existence of basic infrastructure and manpower in the country or region. Usually these projects are part of bigger national projects and the commitment from the counterpart and government is a prerequisite for implementation and sustainability of the project after completion.	EC, ICTP, OECD/NEA, EPRI