

Regional coordination of coastal emergency preparedness and response arrangements for port and maritime radiological emergencies for Member States in the Mediterranean region of Africa and the Middle East

THE CHALLENGE

The IAEA is productively working with all Member States in the Mediterranean region of Africa and the Middle East on the development, enhancement and testing of national capabilities for nuclear and radiological emergency preparedness and response. Even so, some functional and infrastructural areas require further improvement in the region.

IAEA RESPONSE

This project aims to help Member States to enhance their capabilities to respond to radiological emergencies occurring in coastal ports and within the Mediterranean basin. This will be achieved through a combination of regional and national activities focused on improving existing arrangements, harmonizing them with international standards for emergency preparedness and response, and establishing coordination arrangements through the development of a Regional Maritime Emergency Response Plan.

The IAEA is also developing guidance on preparedness and response for maritime emergencies in collaboration with the International Maritime Organization, as well as developing coordination arrangements for the Response and Assistance Network to enhance the provision of international assistance in case of maritime radiological emergencies.



PROJECT ACTIVITIES

- **Self-assessment.** Each participating country will conduct self-assessment on preparedness and response in the case of port and maritime radiological incidents and emergencies and on regional coordinating mechanisms.
- **Capabilities and resources** from other Mediterranean States. A list will be compiled of the support that could be provided to participating countries when responding to port and maritime radiological emergencies in the Mediterranean basin, within the framework of the Response and Assistance Network.
- **Regional emergency response plan.** This will address the coordination of participating countries responding to port and maritime radiological emergencies, as well as coordination with the IAEA and other Mediterranean States.
- **Pilot training for responders.** Training will focus on preparedness for and response to port and maritime radiological emergencies.
- **Regional exercise.** An exercise will be held to test the regional emergency response plan and verify the success of the project.

DURATION

Four years

BENEFICIARY COUNTRIES

IAEA Member States in the Mediterranean region of Africa and the Middle East



EXPECTED RESULTS

The project is expected to contribute to the enhancement of the preparedness and response arrangements and capabilities of beneficiary countries to port and maritime radiological emergencies within the Mediterranean basin, in order to be effective, coordinated and consistent with international safety standards. It will also generate effective arrangements to use regional and international assistance through a regional plan and the IAEA's Response and Assistance Network.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	189 390
2017	146 590
2018	322 825
2019	41 195
Total	700 000

Building a safety framework for uranium production – remediation of existing sites and prevention of future legacy sites

THE CHALLENGE

Interest and activity in uranium production is increasing in many countries. However, it is often not matched by the regulatory framework and technical infrastructure to ensure appropriate control of uranium production. In the past, uranium production frequently left behind an environmental legacy. Going forward, such unsafe and costly legacies need to be prevented. There is a need to offer a comprehensive package of training for countries new to uranium production, as well as for countries already engaged in uranium production to assist them in ensuring compliance with international safety standards.

IAEA RESPONSE

The project's aim is to assist Member States that are new to, re-entering, or engaged in retrospective licensing for uranium production in strengthening the regulatory framework for safety, and in ensuring that lessons learned from past uranium production are disseminated. It will include all aspects of regulatory requirements and radiological safety assessment that are needed for the remediation of past production sites, as well as for the planning and design of new uranium production facilities. A specific challenge within life-cycle management is the assessment of radiological impacts.



PROJECT ACTIVITIES

- **Model regulations.** These will cover all aspects of uranium mining and processing life-cycle activities, including remediation.
- **Assessment methodology.** For estimating radiological impact in order to support decision making related to uranium production, including remediation, decommissioning and long term management.
- **Safety Assessment Tool.** For evaluating the radiological impact of uranium mining and processing activities.
- **Training materials.** Preparation of a training manual and accompanying lectures, and exercises to support the proposed training.
- **Workshops.** These will help test and refine the materials developed.

DURATION

Three years

BENEFICIARY COUNTRIES

IAEA Member States in Africa, Asia, Eastern Europe and Latin America with existing uranium mining activities

IAEA Member States planning to expand uranium production and exploration



EXPECTED RESULTS

This project will promote better understanding of how uranium resources can be exploited in a safe and sustainable manner, and how to reduce potential problems for uranium legacy sites. It will also aid assessment of site-specific radiological impact on people and the environment arising from uranium production, as well as the remediation and long-term management of sites.

The regulatory framework and infrastructure of Member States will also be strengthened, while the availability of training materials will benefit future training events.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	265 717
2017	319 217
2018	174 767
Total	759 700

Coordination Group for Uranium Legacy Sites (CGULS)

THE CHALLENGE

In the early days of uranium production, little thought was given to the environmental and social impact of its large-scale exploitation. Mine tailings, waste rock, contaminated water and chemical processing wastes were not managed up to the level of today's standards, and many uranium mines and mills were abandoned with little or no decommissioning. Since the mid-1990s, there has been growing recognition of the human and environmental consequences of historic uranium production. These include threats to human health and environmental degradation. The need for closer coordination has been recognised by all organizations working in the field.

IAEA RESPONSE

IAEA Member States have been working towards mitigating risks from uranium legacy sites in a manner that is environmentally sound, socially responsible and systematic. The objective of the Coordination Group for Uranium Legacy Sites is to promote co-operation among Member States and national or international organizations involved in the management and remediation of legacy sites.



PROJECT ACTIVITIES

- **Mission report and/or recommendations** pursuant to expert missions. These are to support specific technical aspects of the programmes of Member States and international organizations, upon request.
- **Annual coordination meetings.** These will provide a coordinated regional platform for information exchange and an updated strategic action plan for the Coordination Group for Uranium Legacy Sites, as required.
- **Topical coordination meetings and workshops.** To coordinate specific activities between partners, and to assist Member States in the development of national regulatory and strategic frameworks for remediation, safety assessment and the regulatory review of remediation plans.
- **Focal point for information exchange.** Development of a website for the Coordination Group for Uranium Legacy Sites.
- **Strategic Master Plan.** Presently focused on the remediation of uranium legacy sites in Central Asia. Development of the Strategic Master Plan will be facilitated by the IAEA with critical inputs from Central Asian Member States and international partners.

DURATION

Four years

BENEFICIARY COUNTRIES

IAEA Member States in Central Asia that have to prepare, plan and implement the remediation of uranium legacy sites

IAEA Member States embarking upon remediation of uranium legacy sites



EXPECTED RESULTS

The project will help establish a comprehensive picture of the uranium legacy site activities of national and international organizations. It will also enhance technical coordination, optimize utilization of resources and support the application of IAEA safety standards as well as internationally recognized best practices in remediation activities.

Further expected results include raising awareness of uranium legacy site issues with future potential donors and the identification and prioritization of hazards associated with the sites. The IAEA will assist Member States to enhance strategic planning of programmes and projects for remediation of uranium legacy sites.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	437 095
2017	315 245
2018	134 820
2019	12 840
Total	900 000

Responsible and safe management of radioactive waste and spent fuel

THE CHALLENGE

A wide range of activities, such as the operation of nuclear installations, the medical use of ionizing radiation in diagnostics and therapy, and the use of radionuclides in science and for industrial purposes, generates radioactive waste that has to be safely managed. Despite best efforts, a safety regime for the management of radioactive waste and spent nuclear fuel is not fully implemented in all countries.

IAEA RESPONSE

In collaboration with Member States and international organisations, the IAEA is working to establish a global safety regime for the management of radioactive waste and spent nuclear fuel, which is continuously reviewed and, if necessary, revised for further improvement.

This project is focused on identifying remaining challenges and assisting Member States with the development and application of safety regimes for radioactive waste management, including predisposal and disposal management, and the radiological impact on workers and the public. It also aims to support Member States with the development and implementation of strategies that address the long-term management of spent nuclear fuel, including disposal of high-level waste and spent fuel considered as waste. It will also help to disseminate experience and know-how in radioactive waste and spent nuclear fuel management and support the build-up of capacities in participating countries.



PROJECT ACTIVITIES

- **Planning and development** of national radioactive waste and spent nuclear fuel management programmes. Providing assistance to participating countries.
- **Evaluate the status** of radioactive waste management. This includes identifying steps still to be taken by participating countries for the development of safe waste management programmes.
- **Development and achievement** of safe management solutions. Providing assistance in respect of all types of radioactive waste and spent fuel in participating countries.
- **Model safety cases** for radioactive waste disposal facilities. These will be developed to build competence in both regulators and operators.
- **Assessment** of post-closure radiological impact. Internationally agreed methods will be developed and disseminated for the assessment of the radiological impact on people and the environment.

DURATION

Four years

BENEFICIARY COUNTRIES

All IAEA Member States developing safety regimes for radioactive waste and spent nuclear fuel management and disposal.



EXPECTED RESULTS

The project will identify needs and provide the necessary assistance to Member States in the safe and comprehensive management of radioactive waste and spent nuclear fuel, in line with international safety standards. Ultimately, it will assist all targeted countries to reach a high level of safety in the management of all types of waste, including its disposal.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	130 005
2017	141 240
2018	196 655
2019	32 100
Total	500 000

Enhancing the use of seismic experience data

THE CHALLENGE

Seismic capacity assessment is a well-established procedure to increase confidence in robustness against seismic events. The assessment is based on equipment performance data, which are derived from testing or seismic experience information collected after the occurrence of strong earthquakes. The seismic experience information tends to be stored with the owner or operator of the installation, thus the availability of such information in existing databases is limited.

New seismic experience data become available following major earthquakes affecting industrial facilities, including nuclear power plants. Therefore, collecting, updating and processing the new seismic experience data after the occurrence of strong earthquakes, and expanding the existing database, is of high importance.

IAEA RESPONSE

Responding to this need, the IAEA will collect and disseminate information to enhance the use of seismic experience data for establishing the seismic safety margins of new and existing nuclear installations and for supporting preparedness for plant restart after an earthquake. It will also extend the current knowledge of seismic safety evaluation needed for both new and existing nuclear installations.

A further objective of the project is to use data from past observed seismic performance to assist Member States in improving seismic design, and to support their seismic safety evaluation and seismic margin assessment for new and existing nuclear installations.



PROJECT ACTIVITIES

- **Procedures** put in place for seismic experience data collection.
- **Conduct seismic walk-downs** for collection of seismic experience data.
- **Report.** This will summarize the seismic performance of different classes of equipment, point out the most common failure modes, and provide the derived rules for good seismic performance.
- **Database of seismic experience data.** This could be integrated with existing databases.
- **Guidelines document.** For the application of seismic experience data for the seismic safety evaluation of nuclear installations.

DURATION

Three years

BENEFICIARY COUNTRIES

All IAEA Member States with operating nuclear installations

IAEA Member States embarking on a new nuclear power programme



EXPECTED RESULTS

By the addition of recent experience data, it is expected to enhance the seismic experience database specification for broadening current knowledge of the seismic performance of structure, systems and components that are installed in nuclear installations. This project will also assist Member States establish the potential vulnerabilities of specific structures, systems and components. In addition, the project will assist Member States in enhancing the efficiency for seismic safety evaluation and plant restart after seismic events exceeding the current seismic design basis. For embarking countries, the seismic experience database can be used for the evaluation and review of seismic robustness and seismic safety of selected nuclear technology.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	214 000
2017	214 000
2018	107 000
Total	535 000

Building capacity in Member States for enhancing control of natural radiation in buildings

THE CHALLENGE

Long-term exposure to radon has been acknowledged by the World Health Organization as the second leading cause of lung cancer after smoking, resulting in 3-14% of all lung cancers worldwide. Requirements for the protection of the public against exposure to radon indoors were strengthened in the revision of the International Basic Safety Standards completed in 2011. This project is aimed at including radon exposure in other building types and exposure to both radon and gamma radiation from building materials.

IAEA RESPONSE

The IAEA is already implementing a programme to help Member States address the challenges of radon in homes. It will now facilitate the formulation of an extended radon policy and a policy for controlling the radionuclide content of building materials in participating countries, working closely with the World Health Organization and other relevant organizations and agencies.

Through this project, the IAEA will assist countries with an emerging system of radiation protection to comply with the requirements of the International Basic Safety Standards for the protection of the public from natural sources of radiation, specifically radon in buildings and gamma radiation emitted by building materials.



PROJECT ACTIVITIES

- **Training courses/workshops.** These will cover the basic requirements for developing effective radiation protection of the public against increased exposure to radon, reflecting also building materials.
- **Training material.** This will be focused on the control of radionuclides in building materials.
- **Expert missions** to Member States upon request.
- **Educational kits.** Natural radioactivity and radioactivity in the environment will be the focus of these kits, intended for schools.
- **E-learning.** Intended for higher education of building professionals.
- **Training materials.** Intended for doctors.

DURATION

Three years

BENEFICIARY COUNTRIES

IAEA Member States with emerging national radon action plans

IAEA Member States considering developing or adopting national radon action plans



EXPECTED RESULTS

This project will result in the improved capability of participating countries to control public exposure to radon and gamma radiation in dwellings. It will also increase awareness of radon among doctors and young people through the provision of targeted information material.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	162 640
2017	248 240
2018	162 640
Total	573 520

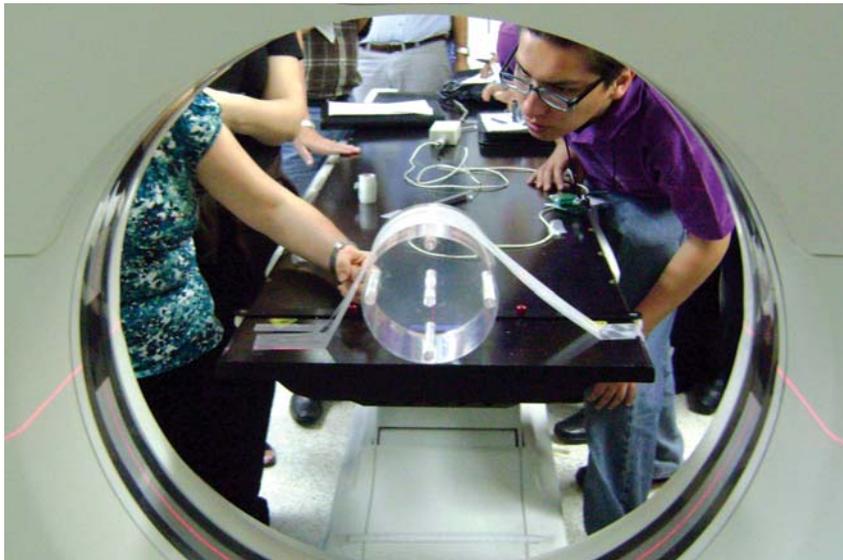
Strengthening radiation protection in medical radiation practices

THE CHALLENGE

Medical exposure to radiation differs from occupational and public exposure in that people are deliberately, directly and knowingly exposed for their benefit. Two principles of radiation protection apply to medical exposure – justification and optimization. More actions are needed to promote the AAA approach (awareness, appropriateness and audit) recognized by the IAEA to be effective in facilitating justification of medical exposure. In addition, practical tools need to be developed for the optimization of radiation protection and safety of individuals undergoing medical exposure. The potential for accidents when using radiation in medicine may increase as procedures are often highly complex, requiring input from many different staff groups.

IAEA RESPONSE

The IAEA has developed effective tools for information and knowledge exchange through the dedicated Radiation Protection of Patients website, as well as the resources to support education and training of healthcare professionals. The objective of this project is to assist Member States in strengthening the implementation of justification and optimization and improving prevention of medical radiation incidents and accidents. In particular, the future plan is to address the specific needs of professionals who are not yet fully involved in training despite using high dose imaging procedures.



PROJECT ACTIVITIES

- **Training packages and e-learning modules.** These will be produced in different languages and will focus on specific aspects of radiation protection and safety in medical uses, to support the education and training of health professionals.
- **Multi-media informational material.** Providing information to health professionals, patients and the public on the benefits and risks of radiation in medicine.
- **Diagnostic Reference Levels.** Tools will be developed to support patient exposure monitoring and tracking, as well as the establishment and use of diagnostic reference levels.
- **Further development of educational reporting systems on accidents in medical uses of radiation.**
- **Tools for strengthening competences and skills.** These tools will be developed to support regulatory officers in evaluating radiation protection and safety infrastructure in the medical uses of ionizing radiation.

DURATION

Two years

BENEFICIARY COUNTRIES

All IAEA Member States



EXPECTED RESULTS

The project is expected to result in the development and implementation of practical approaches and effective tools to support Member States' efforts in strengthening the implementation of justification and optimization of radiation protection and safety in medical uses of ionizing radiation.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	236 470
2017	202 230
Total	438 700

Support the development of the governmental and regulatory infrastructure for safety for countries embarking on a nuclear power programme

THE CHALLENGE

A growing number of countries embarking on a nuclear power programme recognise the importance of establishing a well-functioning and effective regulatory framework, in particular for the licensing process. The IAEA has developed a specific safety guide Establishing the Safety Infrastructure for a Nuclear Power Programme, which forms the basis for IAEA assistance to embarking countries. Support is also needed to enhance the competence of regulatory body staff with responsibility for nuclear safety, especially during the early phase of a nuclear power programme.

IAEA RESPONSE

This project aims at helping Member States that are expanding or embarking on a nuclear power programme to build effective regulatory infrastructure for safety. It focuses on training, including dedicated workshops on the regulatory framework and safety regulations for regulatory bodies and relevant stakeholders, e-learning modules and self-assessment tools for evaluating regulations in line with internationally recognized safety standards.



PROJECT ACTIVITIES

- **Deliver safety training workshops for regulators.** These will support the development of the legal, governmental and regulatory framework for safety.
- **Develop a management level e-learning module for regulators.** This will be based on elements of nuclear safety regulations.
- **Develop a self-assessment support tool for the assessment of national regulations.** This will be based on relevant IAEA safety standards and can be used during the licensing process for nuclear power programmes.

DURATION

Two years

BENEFICIARY COUNTRIES

Regulatory bodies of IAEA Member States expanding existing programmes or embarking on a new nuclear power programme



EXPECTED RESULTS

The knowledge of regulatory body staff in developing the regulatory framework for licensing is expected to increase. Awareness and knowledge of the practical implementation of IAEA recommendations for developing a nuclear safety infrastructure will be enhanced among regulatory body staff and decision makers. At the same time, regulatory body staff are expected to enhance their capabilities of assessing the regulatory framework in line with IAEA safety standards.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	304 950
2017	304 950
Total	609 900

Enhancing research reactor safety through establishing effective regulatory supervision programmes and improving safety oversight in operating organizations

THE CHALLENGE

A comprehensive licensing basis and regulatory inspection of compliance are fundamental to ensuring the safety of a research reactor. IAEA activities on research reactor safety have identified that improvements in these areas need to be made in some Member States. The necessary technical capabilities to review and assess safety documents for licensing, as well as the established programmes for systematic regulatory inspections to allow independent verification of safety, are not in place in many regulatory bodies. Similarly, many operating organizations have neither the technical expertise to fully develop and update the licensing documents for their research reactors nor established safety committees with terms of reference for safety management and oversight.

IAEA RESPONSE

The IAEA is optimally positioned to assist Member States in improving their capacity for regulatory supervision of research reactors due to its well-established safety standards and safety review services, and its previous work with Member States in these areas. This project is designed to provide that assistance by enhancing inspection programmes and technical capabilities and ensuring effective management of safety by operating organizations.



PROJECT ACTIVITIES

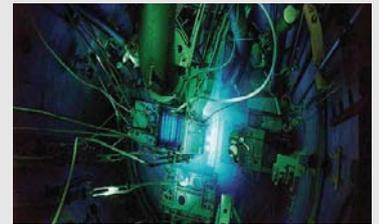
- **Regional workshops.** These will focus on the regulatory supervision and safety management of research reactors.
- **Peer and safety review missions.** Aimed at regulatory bodies and research reactor operating organizations, upon request.
- **Reports.** Recording meetings of the regional advisory safety committees for research reactors.
- **Development of training package.** Focus will be on the regulatory review and assessment of safety documents.

DURATION

Three years

BENEFICIARY COUNTRIES

IAEA Member States with research reactors, and those planning a new research reactor project



EXPECTED RESULTS

The project will assist Member States in enhancing the capacity of regulatory bodies for supervision of research reactors. It will also assist operating organizations in improving their capacity for the safety management of research reactors.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	304 950
2017	337 050
2018	192 600
Total	834 600

Establishing a virtual international school for radiation and nuclear safety regulations

THE CHALLENGE

Member States and their regulatory bodies are responsible for developing their own nuclear safety regulations. However, an increasing number of Member States are requesting IAEA support for developing, amending or expanding their national safety regulations to be consistent with IAEA safety standards. This may be due to the lack of a national safety infrastructure or to the introduction or expansion of a nuclear power programme. It is also due, in part, to the recent revision of major IAEA safety standards.

IAEA RESPONSE

In response to this need, and with a view to optimizing resources and maximizing the benefits, virtual schools will be organized to assist Member States in drafting regulations in line with IAEA safety standards and to address the different needs of Member States based on their level of knowledge and experience in developing regulations. Ten such schools have been organized in the last five years. This project aims to enhance and formalize the methodology and the operation of the International Virtual School for Nuclear and Radiation Safety Regulations. The virtual school will be offered as a regular service to all Member States in need of developing or revising national regulations, related to all nuclear facilities and activities.



PROJECT ACTIVITIES

- **Operating documentation.** Coordination and production of documents governing the operation of the school.
- **Multi-annual and modular programme.** Consultancy meetings to define and develop the school's programme, including detailed syllabus and modules addressing all aspects of safety that have to be regulated.
- **Training material.** To be produced and made available for the various modules of the school.
- **Organization** of a first series of classes.

DURATION

Three years

BENEFICIARY COUNTRIES

All IAEA Member States



EXPECTED RESULTS

It is expected that a virtual international school for radiation and nuclear safety regulations that operates on a periodic basis will become a used and recognized mechanism to assist Member States in improving their national safety regulations.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	160 500
2017	214 000
2018	267 500
Total	642 000

Assisting States to establish and implement a national strategy for strengthening radiation safety infrastructure

THE CHALLENGE

The peaceful application of nuclear energy and radiation technologies brings many benefits to society, including in medicine, industry, research and agriculture. While the vast majority of radiation sources are utilized in a safe and controlled manner, accidents have happened leading to exposure of people to high levels of radiation and/or the contamination of land and property. In addition, mining and mineral processing of uranium and other materials may result in radioactive residues and increased levels of radiation.

An analysis of the national radiation safety infrastructure of Member States receiving technical assistance from the IAEA showed that while some countries have made good progress in building and strengthening safety infrastructure, others need to make further efforts.

IAEA RESPONSE

A group of international experts has developed a strategic approach for establishing and strengthening national infrastructure for radiation, transport and waste safety. It proposes that each Member State takes a holistic approach to strengthening radiation safety by developing its own tailor-made national strategy based on identified needs, while at the same time considering all national and internationally available resources to maximize synergies and reduce overlaps. A new safety guide developed by the IAEA will be used during this project to help Member States establish their national strategies.



PROJECT ACTIVITIES

- **Develop national strategies.** This activity focuses on the methodology for establishing and implementing a national strategy to strengthen radiation safety infrastructure.
- **Regional workshops.** Aimed at senior decision-makers, a series of workshops will explain the importance of a radiation safety infrastructure and the key factors to consider when developing and implementing a national strategy.

DURATION

Two years

BENEFICIARY COUNTRIES

All IAEA Member States



EXPECTED RESULTS

This project is expected to assist Member States in strengthening national radiation safety infrastructure. It will also provide the general public, workers and patients with increased protection against the harmful effects of radiation.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	160 500
2017	160 500
Total	321 000

Enhancing nuclear safety infrastructure through the establishment of nuclear safety knowledge management programmes under the Global Nuclear Safety Network

THE CHALLENGE

The IAEA is providing support to a growing number of countries embarking on nuclear power programmes or wishing to expand or enhance existing programmes. It also assists countries in strengthening radiation protection capacity for facilities using nuclear techniques in agriculture, industry, medicine and research and development. Even so, requests from Member States for enhanced support in nuclear safety capacity building are increasing.

IAEA RESPONSE

Knowledge management has been identified as a key factor in the safe and secure operation of nuclear installations and radiation facilities. It is also recognized that nuclear safety knowledge management contributes to the sustainability of capacity building programmes.

The objective of this project is to provide a framework and platform to connect all corporate knowledge management efforts and tailor the Global Nuclear Safety Network platform to respond to the needs of Member States.



PROJECT ACTIVITIES

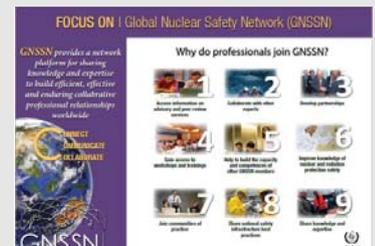
- Integrated Nuclear Safety Capacity Building Plan.** This database will assist Member States to apply a structured and holistic approach to nuclear safety capacity building as well as enabling increased coordination between the IAEA, Member States and potential donors.
- National Nuclear Safety Knowledge Management Programme.** This will develop guidance on how to evaluate, build and sustain a nuclear safety knowledge management framework using the National Nuclear Safety Knowledge Platforms as a tool.
- Learning Management System.** The system will be embedded in the Global Nuclear Safety Network extranet for the enrolment, documentation, tracking, reporting and delivery of online and face-to-face training programmes.
- Global Nuclear Safety Network website.** Development of a new design with improved visibility and navigability, supporting mobile functionality and devices.

DURATION

Three years

BENEFICIARY COUNTRIES

All IAEA Member States



EXPECTED RESULTS

The project is expected to produce a comprehensive and robust framework for coordination and harmonization of global strategies and policies pertaining to nuclear safety knowledge management programmes. It will also help to develop sustainable and efficient capacity building programmes in Member States.

A holistic approach to nuclear safety capacity building and efficient coordination between the IAEA, Member States and potential donors will result in improved nuclear safety infrastructure.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	263 220
2017	161 570
2018	172 270
Total	597 060

Develop safety assessment competencies of Member States embarking on nuclear power programmes

THE CHALLENGE

The ability to effectively assess the safety of a nuclear power plant is essential for owner/operators, regulatory bodies and other stakeholders. The IAEA has established safety requirements that place responsibilities on national organizations regarding the assessment of nuclear power plants to ensure a high level of design safety. This requires a robust set of competences and technical knowledge on the part of the staff of these organizations. Implementing sustainable training programmes in the areas of design safety and assessment, in line with IAEA safety standards, is essential in building sound capacity in Member States embarking on a new nuclear power programme.

IAEA RESPONSE

This project will provide support to Member States embarking on new nuclear power programmes in obtaining or enhancing the levels of technical safety assessment competence needed for the successful planning, licensing, construction and operation of new nuclear facilities. The primary goal with respect to safety assessment infrastructure is to establish a robust staff competence level that will give the beneficiary organizations the ability to make well informed and sound decisions in licensing and operation, as well as the ability to request, review and judge safety assessment work performed by others.



PROJECT ACTIVITIES

- **Safety assessment capacity building** for staff in embarking countries. Based on the Safety Assessment Education and Training Programme, this will assist Member States in improving knowledge of nuclear power programme design safety and safety assessment requirements, as well as conducting and reviewing safety analysis documentation for nuclear installations.
- **Safety Assessment Education and Training Programme.** The programme's curriculum, training materials and training packages will be enhanced, updated and tailored to the needs of embarking countries.

DURATION

Two years

BENEFICIARY COUNTRIES

IAEA Member States embarking on new nuclear power programmes



EXPECTED RESULTS

The project will enhance the design safety and safety assessment technical knowledge and skills needed for reviewing the safety documentation at all stages of nuclear power programmes. This will enable Member States to progress in technical depth in accordance with the IAEA Milestones Approach, minimizing the inherent risk related to the harmful effects of ionizing radiation on people and the environment.

TOTAL ESTIMATED BUDGET

Year	Budget (EUR) with 7% PSC included
2016	280 618
2017	216 932
Total	497 550