

Strengthening European research reactor safety and utilization

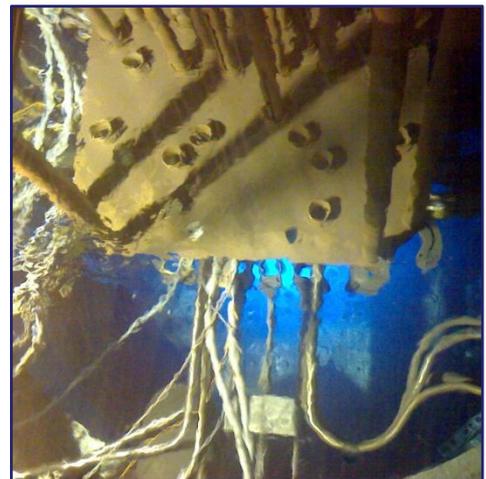
The challenge...

The research reactor community in Europe has a long history of both productive and safe operations, with important contributions to scientific and technical research, production of isotopes for medical and industrial purposes, and provision of important support to nuclear power programmes. However, most research reactors operating in the European region are currently underutilized. They face critical sustainability issues and important decisions about their future operation. Today, research reactors must broaden their stakeholder base and define their mission in the open market economy and the new science, technology and innovation environment, and at the same time constantly improve their operational safety.

The project...

Through this regional project, the IAEA assisted in coordinating networks and coalitions, and helped their members to apply IAEA safety standards and to look for common interests and fields of cooperation. The coalitions bring together countries with research reactors and countries that do not have them, thus enabling access to services through the initiative. Each coalition has defined, or is in the process of defining, its main field of collaboration: education and training, radioisotope production, neutron activation analysis, material research, etc.

The project has also contributed to IAEA efforts to improve the operational safety and regulatory supervision of research reactors in participating Member States. Member States were helped to establish a Regional Advisory Safety Committee for Research Reactors that will contribute to improved networking and regional cooperation to solve important safety issues for research reactors.



The impact...

The project has enabled the establishment of four subregional research reactor networks and/or coalitions: Eastern European Research Reactor Initiative, Eurasia Research Reactor Coalition, the Baltic Research Reactor Network and the Mediterranean Research Reactor Network. The Eastern European Research Reactor Initiative has already established a joint training programme that provides unique hands-on training courses, attracting participants from the four continents. The Eurasia Research Reactor Coalition is currently developing a technical and economic feasibility study for the production of a vital medical radioisotope, ⁹⁹Mo. All coalitions and networks have established web pages, initiated their joint strategic and business plans, and scheduled publication of promotional brochures to strengthen their communication and planning.

Today, research managers are sitting together and openly discussing their business, the safety issues of their reactors, research programmes, strengths and difficulties – a remarkable step forward from 20 years ago. This open communication helps all network members to fill the gaps they may have in order to enhance safe operation of the reactors and to develop further both their research programmes and revenue generating plans and activities. The project has also allowed countries without research reactors to benefit from research reactor services.