



Key achievements in Malta

- 2018: Malta adopts its Nuclear Safety and Radiation Protection Act and establishes a new regulatory authority.
- 2015: The Sir Anthony Mamo Oncology Centre installs advanced, highly specialised radiotherapy equipment to upgrade its cancer services.

Atoms for peace and development

Widely known as the world's 'Atoms for Peace and Development' organization within the United Nations family, the IAEA is the international centre for cooperation in the nuclear field. The Agency works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.

The IAEA's technical cooperation (TC) programme helps countries to use nuclear science and technology to address key development priorities in areas including health, agriculture, water, the environment and industry. The programme also helps countries to identify and meet future energy needs. It supports greater radiation safety and nuclear security, and provides legislative assistance.

Recent project successes

Human health

With IAEA support, Malta strengthened its cancer treatment services at the Sir Anthony Mamo Oncology Centre of the Mater Dei Hospital in Msida, improving their efficiency and effectiveness.

Radiotherapy staff were trained in advanced techniques and an advanced Patient Dose Verification System was procured to complement existing nuclear technologies used for patient-specific quality controls.

The equipment procured and the newly trained clinical staff are supporting the treatment of prostate cancer patients requiring radiotherapy.

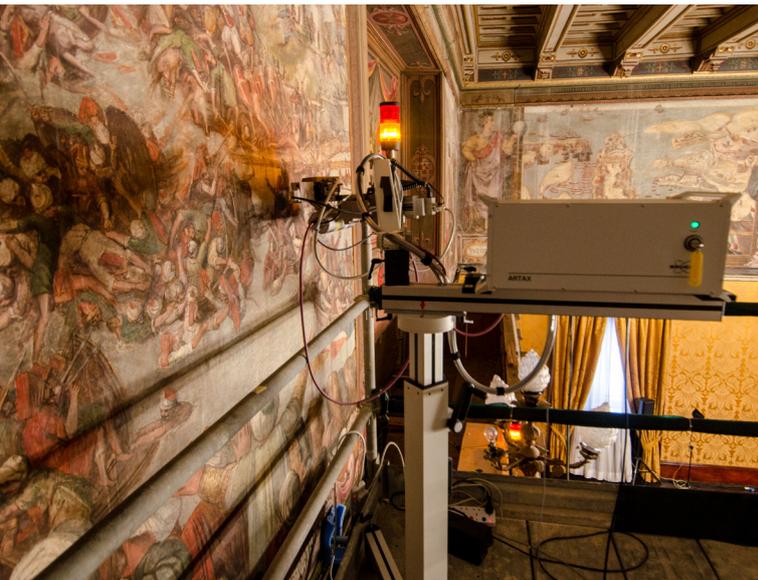
Nuclear safety regulatory framework

In 2015, the IAEA was invited to conduct an Integrated Regulatory Review Service mission to assess the country's nuclear regulatory infrastructure. Recommendations were provided to help establish a nuclear safety regulatory framework in line with the IAEA's General Safety Requirements. Using the mission's findings, Malta developed and enacted a Nuclear Safety and Radiation Protection Act in 2018 and established a nuclear regulatory authority.

Cultural heritage

The IAEA assisted Heritage Malta's Diagnostic Science Laboratory in Kalkara to upgrade its capacities for the preservation of historical artifacts. In 2019, an IAEA expert mission trained staff in the latest advances in x-ray techniques, the use of equipment, and qualitative and quantitative analysis, as well as discussing their benefits and limitations. Case studies in the x-ray diffraction (XRD) technology were analysed, accompanied by practical demonstrations.

The IAEA is now helping Heritage Malta to procure its first XRD system in order to strengthen the preservation of the country's cultural heritage.



With IAEA support, Malta used non-invasive nuclear techniques to analyse the pigments of Perez D'Aleccio's Great Siege fresco (1575-1581) in the Throne Room of the Grandmaster's Palace in Valletta.
(Photo: S. Psaila/Heritage Malta)

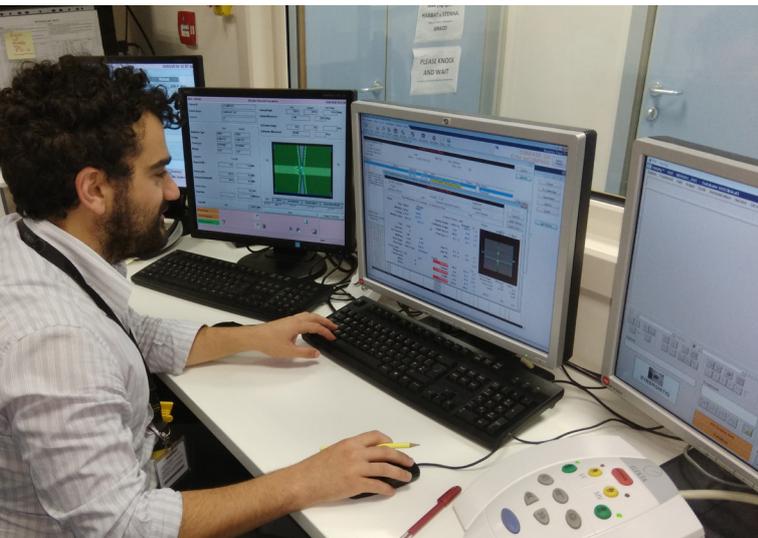
Active national projects

- Training and Upgrading of Technical Capabilities for Scientific Application in the Field of Cultural Heritage (MAT1001)
- Establishing Linear Accelerator Based Radiosurgery and Adaptive Radiotherapy and Needs Assessment for the Provision of Brachytherapy Services (MAT6009)
- Improving Nuclear Medicine Services at Mater Dei Hospital (MAT6010)
- Applying Isotope Hydrology to Groundwater Management (MAT7001)
- Developing New Regulatory Authority Structures (MAT9008)

Malta also participates in 27 regional projects, mostly in the areas of health and nutrition.

Previous IAEA support to Malta

Previous support has mainly focused on strengthening radiation safety infrastructure, and on the safe and effective management of radiotherapy services.



A medical physicist develops a 'volumetric modulated arc therapy' (VMAT) plan which delivers continuous doses of radiation to a cancer patient during their treatment. The IAEA supported the procurement of the system and provided training for staff at the Sir Anthony Mamo Oncology Centre at Mater Dei Hospital. (Photo: D. Anne Aquilina/SAMOC)

IAEA support to Malta, 2009–2019



120 trained
(including 42 women)

26 international
experts
provided

101 attended specialist
meetings
(including 39 women)

Priority areas of support

- Strengthening regulatory frameworks for safety and security
- Supporting cultural heritage
- Improving human health
- Supporting management of water and the environment

Malta's contribution to South-South and triangular cooperation, 2009–2019

1 training course
hosted

3 expert and lecturer
assignments provided
by Malta

Based on data available as of April 2020

Strategic documents supported

- Country Programme Framework 2018–2023, signed in October 2018
- Nuclear Safety and Radiation Protection Act, CAP 585, Act XVIII (published in May 2018)

www.iaea.org/technicalcooperation

The IAEA collaborates with National Liaison Officers and Permanent Missions to deliver its TC programme.