

Selected achievements

2020–2024: Radiotherapy services are enhanced with equipment and training.

2019: Cultural heritage preservation techniques are upgraded through training and providing equipment.

2015: An IRRS mission leads to the establishment of a regulatory framework in 2018 based on IAEA safety requirements.

National priorities

- Government and regulatory framework for safety and security
- Human health
- Cultural heritage
- Water and the environment

Main areas of IAEA support

- Nuclear medicine services
- Groundwater management
- Regulatory authority

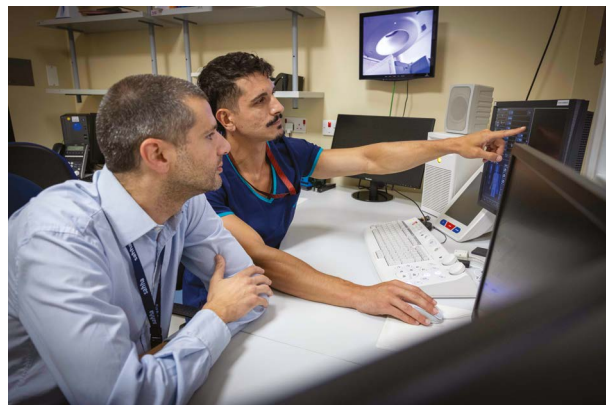
Project successes

Human health

With IAEA support, Malta has enhanced its cancer treatment services at the Sir Anthony Mamo Oncology Centre of the Mater Dei Hospital in Msida, especially for prostate cancer patients requiring radiotherapy.

Cancer patients in Malta now have access to improved cancer treatment thanks to a new computed tomography (CT) scanner installed in 2020 at the country's Sir Anthony Mamo Oncology Centre (SAMOC).

Several patients have already undergone therapy planning on the scanner, which replaced an ageing, ten-year-old machine. It was installed following years of IAEA support and guidance and put into operation following IAEA-organized virtual and on-site training on how to operate



In 2020, a new CT scanner was installed at Malta's Sir Anthony Mamo Oncology Centre in Mater Dei Hospital with IAEA support. Here, radiotherapy experts are discussing radiotherapy planning for a cancer patient. (Photo: Health-Mater Dei Hospital)

the new equipment safely and effectively. The Oncology Centre is home to Malta's only CT scanner dedicated to radiotherapy planning.

Nuclear safety regulatory framework

In 2015, the IAEA conducted an Integrated Regulatory Review Service (IRRS) mission to assess Malta's nuclear regulatory infrastructure.

Findings from the mission informed the need for further development of a nuclear safety regulatory framework in line with IAEA safety requirements.

This formed the basis for the Nuclear Safety and Radiation Protection Act enacted by Malta in 2018 and resulted in a dedicated nuclear regulatory authority being established.

Cultural heritage

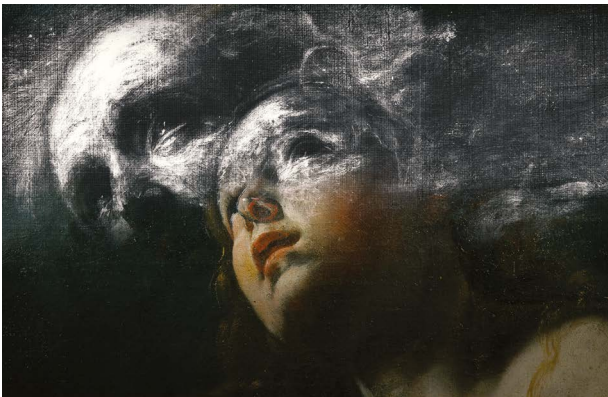
The IAEA has been working with Heritage Malta's Diagnostic Science Laboratory in Kalkara to support their efforts in the preservation of historical artefacts.

In 2019, the IAEA trained staff on the latest advancements in X ray techniques, how to operate scientific equipment, methods of qualitative and quantitative analysis and how to interpret findings.

During the training, the benefits and limitations of different methods of analysis were discussed and practical demonstrations were used to complement case studies in X ray diffraction (XRD) technology.

With IAEA support, Heritage Malta has acquired its first micro XRD system in order to further strengthen the preservation of the country's cultural heritage. The advanced system is used to analyse and understand the material, age and provenance of ancient artefacts without touching objects, thereby eliminating the risk of contamination. Knowing these details enables the team at Heritage Malta to identify the most appropriate preservation methods for the relics.

Leveraging the training and XRD equipment provided, Heritage Malta staff concluded a regional training course in Valletta in June 2022 to transfer their newly-honed skills and share their experiences with experts from eight countries in Europe and Central Asia.

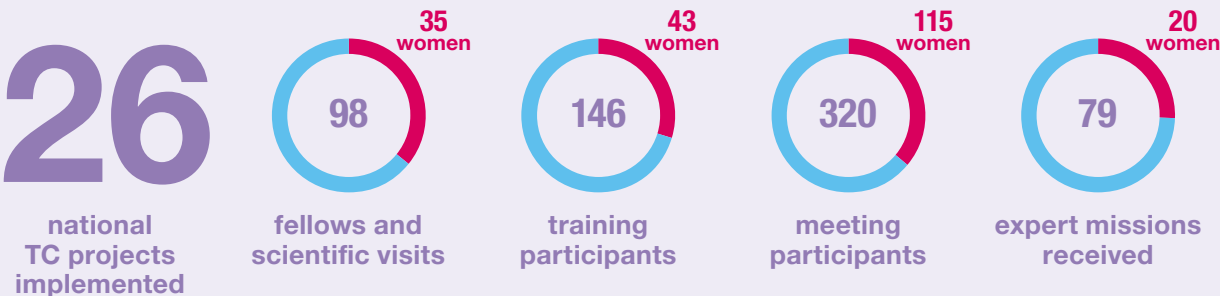


With IAEA support, Heritage Malta has been using X ray techniques to uncover information about paintings of historical value. The advanced system is used to analyze and understand the material, age and provenance of ancient artefacts by micro-analysis, reducing sample volume to the size of a needle head, thereby preserving better objects' originality. (Photo: IAEA)

Participation in the major initiatives

- ZODIAC

IAEA support received in the 21st century



Contributions to South-South and triangular cooperation

