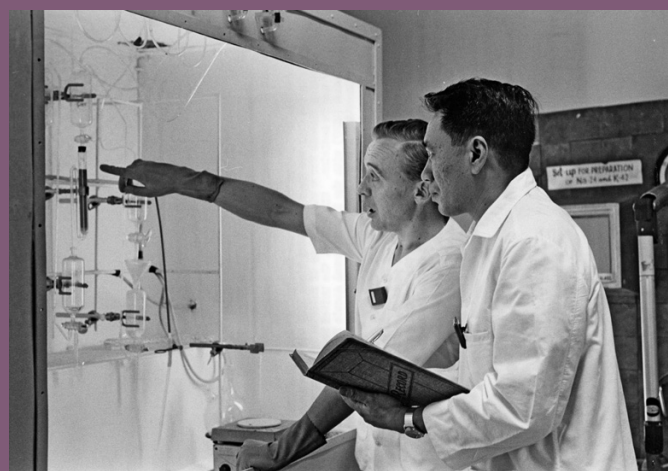


# INDUSTRIAL APPLICATIONS

Many safe, tested nuclear techniques are used to identify and assess the properties of materials, measure pollution levels, sterilize and disinfect components, monitor and optimize industrial processes and change chemical, physical and biological properties to produce novel materials. Radiation can be used for the analysis and processing of substances. The IAEA supports Member States in the application of nuclear and isotopic techniques across a wide range of industries.



The radioisotope production unit at the Philippine Atomic Research Centre in Quezon City, in operation since 1965, meets increasing demand for a wide variety of radioisotopes, particularly for use in medicine.

Photo: IAEA

## IAEA NUCLEAR APPLICATIONS LABORATORIES

The IAEA has 12 dedicated specialist laboratories located in Vienna, Seibersdorf (Austria) and Monaco, which help Member States tackle fundamental development issues such as food security, water resource management, human health and the monitoring and management of environmental radioactivity and pollution.

Workers at a radiopharmaceutical manufacturer ensuring the safe sealing and packaging of radiopharmaceuticals in Amersham, United Kingdom, in 2011.

Photo: IAEA



# INDUSTRY



At Vienna's Museum of Fine Arts in 2006, conservation scientists, trained at the IAEA, aim precise X-ray beams at the 16th century Italian golden table sculpture known as the Saliera. Nuclear-based techniques are used to study works of art.

Photo: IAEA





Radiation technologies are used to make wires and cables stronger and more resistant to chemicals and fire at the Nuclear and Energy Research Institute (IPEN) in São Paulo, Brazil, in 2015.

Photo: IAEA

State-of-the-art technology used to produce radiopharmaceuticals in Viet Nam developed with IAEA support, in 2014.

Photo: IAEA



Gamma irradiation is used to sterilize human tissues prior to transplant at a tissue bank at the Santa Casa de São Paulo Hospital in Brazil, in 2015.

Photo: IAEA

