

## THE IAEA ION BEAM FACILITY (IBF) PROJECT

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Due to their unique analytical and irradiation capabilities, ion beam accelerators play a major role in solving problems of modern society related to environmental pollution and monitoring, climate change, water and air quality, forensics, cultural heritage, agriculture, development of advanced materials for energy production via fission or fusion, and many other fields.

In order to assess actual needs and potential impact accelerator technologies could make, a feasibility study for an ion beam accelerator facility at the IAEA laboratories in Seibersdorf was performed. Forty Member States took part in questionnaire and quantified their needs. Their evaluation showed high demand in training in accelerator technologies and associated Ion Beam Analysis (IBA) techniques, as well as in analytical services in almost all areas of IBA applications. An appropriate accelerator design, matching the IAEA's programme for capacity building and provision of products and services across many fields of interest for the Member States, was identified.

The main objective of the Ion-Beam Facility (IBF) project is to establish a state-of-the-art accelerator facility at the IAEA laboratories in Seibersdorf to cover the identified Member States' needs for training scientists and engineers in operating and applying ion beam accelerator technologies and to provide a range of associated services. The expected outcome of the project is to enhance the capacity and capability of the IAEA to address the rising demand of Member States to provide assistance in promotion of applied research using accelerator technologies for a large variety of medical and industrial applications.

Details on the feasibility study, the instruments, and facilities to become available through the IBF project, including preliminary estimates of the resources, will be presented.