



Technical Meeting on the Justification, Planning and Development of Small and Medium Scale Accelerator Facilities

IAEA Headquarters, Vienna, Austria

1–4 October 2024

Ref. No.: EVT2304204

Information Sheet

Introduction

Accelerator-based facilities are used not only in fundamental research for an improved understanding of matter, but also in a wide spectrum of socio-economic applications related to health, environmental monitoring, food quality, cultural heritage, forensics, energy and aerospace technologies, among other fields. As such, these facilities have led the development of nuclear science and applications in many Member States and the services they provide have positive impacts on the lives of people.

Ion beam accelerators, one of the accelerator types, produce and accelerate beams of protons and ions. They can be linear (straight) or circular in shape and have many different sizes. Their scale is generally related to the energy of the accelerated ions. Hence, small-scale accelerators can accelerate ions up to ≈ 10 MeV per nucleon of the ion, whereas medium-scale accelerators can reach an energy around ≈ 100 MeV per nucleon. Small- and medium-scale facilities are usually but not exclusively hosted by universities or national research centres¹.

¹ International Atomic Energy Agency, Accelerator Knowledge Portal,
<https://nucleus.iaea.org/sites/accelerators/Pages/Interactive-Map-of-Accelerators.aspx> (May 2024)

In contrast to the large- or very large-scale accelerator facilities, like synchrotron light sources, heavy ion storage rings or colliders, the establishment and operation of small and medium scale ion beam accelerator facilities require investments that can be affordable by developing Member States, especially when they are combined with university-based research and education programs or when they result through joint ventures of institutions from both the public and private sector. In both cases, a sound justification and a thorough planning are required for the establishment, development or even upgrade of such facilities. These prerequisites² have been proven vital for success, otherwise efforts to achieve the aforementioned goals end up in incomplete projects and inefficient investments.

Under these conditions, lessons learnt from initial planning, developing and establishing as well as upgrading or further expanding small and medium scale accelerator-based facilities provide a very valuable source of information for scientists, project managers and policy makers in many Member States planning to establish ion beam accelerator facilities.

Objectives

The purpose of the event is to review, evaluate and document phases in planning and developing small and medium scale accelerator-based facilities through success stories and ongoing projects, and to provide guidance in the preparation of feasibility and other relevant studies for policymakers and stakeholders as well as the development of multidisciplinary user groups.

The event will also help to

- a) share experience in justifying the establishment of small and medium scale accelerator-based facilities,
- b) review success stories of planning of such facilities,
- c) document lessons-learnt and good-practices in developing and/or upgrading them, and
- d) elaborate and formulate a basic guide for achieving these goals and provide the associated baseline specifications and relevant financial figures.

Target Audience

The meeting is addressed to experts (scientific and/or technical personnel) and stakeholders (policy makers or facility managers) from IAEA Member States who, during the last five (5) years, were/are engaged in Justification, Planning and Development as well as in upgrades or refurbishment of small and medium scale ion beam accelerator facilities. Electron-beam machines or medical cyclotrons will not be covered in this meeting. The selection of participants will solely be based on submitted abstracts of their intended contributions.

² International Atomic Energy Agency, Specific Considerations and Guidance for the Establishment of Ionizing Radiation Facilities, IAEA Radiation Technology Series No. 7 (2023), <https://www.iaea.org/publications/15097/specific-considerations-and-guidance-for-the-establishment-of-ionizing-radiation-facilities>

Working Language(s)

English

Expected Outputs

- Technical Meeting report on the aforementioned objectives with recommendations to the IAEA relevant to its mission.
- Collection of contributions addressing the objective of the meeting to be used for the preparation of an IAEA publication

Structure

The meeting will start on Tuesday, October 1, 2024, and end on October 4, 2024. Subject to the number of participants, the first two days will be devoted to presentations by the IAEA, international experts, designated participants, whereas the last two days will focus on round table discussions, the preparation of a joint meeting report and the collection of contributions to be used for the preparation of an IAEA publication on the meeting scope.

Participation and Registration

All persons wishing to participate in the event have to be designated by an IAEA Member State or should be members of organizations that have been invited to attend.

In order to be designated by an IAEA Member State, participants are requested to send the **Participation Form (Form A)** to their competent national authority (e.g., Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) for onward transmission to the IAEA by **15 July 2024**. Participants who are members of an organization invited to attend are requested to send the **Participation Form (Form A)** through their organization to the IAEA by the above deadline.

Selected participants will be informed in due course on the procedures to be followed with regard to administrative and financial matters.

Participants are hereby informed that the personal data they submit will be processed in line with the [Agency's Personal Data and Privacy Policy](#) and is collected solely for the purpose(s) of reviewing and assessing the application and to complete logistical arrangements where required. The IAEA may also use the contact details of Applicants to inform them of the IAEA's scientific and technical publications, or the latest employment opportunities and current open vacancies at the IAEA. These secondary purposes are consistent with the IAEA's mandate.

Papers and Presentations

The IAEA encourages participants to give presentations on the work of their respective institutions that falls under the topics listed above.

Participants are expected to give a presentation and are requested to submit an abstract of their work. The abstract will be reviewed as part of the selection process for presentations. The abstract should be in A4 page format (Times New Roman, 11pt, single line-spacing), should extend to no more than two (2) pages (including figures and tables) and should not exceed 1000 words. It should be sent electronically to Mr Sotirios Charisopoulos, the Scientific Secretary of the event (see contact details below), not later than **15 July 2024**. Authors will be notified of the acceptance of their proposed presentations by **31 July 2024**.

In addition, participants have to submit the abstract together with the **Participation Form (Form A)** and the attached **Form for Submission of a Paper (Form B)** to their competent national authority (e.g., Ministry of Foreign Affairs, Permanent Mission to the IAEA or National Atomic Energy Authority) or their organization for onward transmission to the IAEA not later than **15 July 2024**.

Expenditures and Grants

No registration fee is charged to participants.

The IAEA is generally not in a position to bear the travel and other costs of participants in the event. The IAEA has, however, limited funds at its disposal to help meet the cost of attendance of certain participants. Upon specific request, such assistance may be offered to normally one participant per country, provided that, in the IAEA's view, the participant will make an important contribution to the.

The application for financial support should be made using the **Grant Application Form (Form C)**, which has to be stamped, signed and submitted by the competent national authority to the IAEA together with the **Participation Form (Form A)** by **15 July 2024**.

Venue

The event will be held at the Vienna International Centre (VIC), where the IAEA's Headquarters are located. Participants must make their own travel and accommodation arrangements.

General information on the VIC and other practical details, such as a list of hotels offering a reduced rate for IAEA participants, are listed on the following IAEA web page:

www.iaea.org/events.

Participants are advised to arrive at Checkpoint 1/Gate 1 of the VIC one hour before the start of the event on the first day in order to allow for timely registration. Participants will need to present an official photo identification document in order to be admitted to the VIC premises.

Visas

Participants who require a visa to enter Austria should submit the necessary application to the nearest diplomatic or consular representative of Austria at least four weeks before they travel to Austria. Since Austria is a Schengen State, persons requiring a visa will have to apply for a Schengen visa. In States where Austria has no diplomatic mission, visas can be obtained from the consular authority of a Schengen Partner State representing Austria in the country in question.

Key Deadlines and Dates

15 July 2024	Deadline for submission of Participation Form (Form A), Form for Submission of a Paper (Form B) and Grant Application Form (Form C) (if applicable) through the official channels through the appropriate governmental authority
15 July 2024	Deadline for submission of abstracts via e-mail to Mr Sotirios Charisopoulos (S.Charisopoulos@iaea.org)
31 July 2024	Notification of acceptance of proposed abstracts
1 October 2024	Event begins
4 October 2024	Event ends

Additional Requirements

The selection of participants will solely be based on submitted abstracts of their intended presentation. Abstracts focusing on electron-beam machines or cyclotrons for medical purposes will not be considered.

IAEA Contacts

Scientific Secretary:

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary/Secretaries and correspondence on other matters related to the event to the Administrative Secretary.

Event Web Page

Please visit the following IAEA web page regularly for new information regarding this event:

www.iaea.org/events/EVT2304204