



CERN Baltic Group

“Advanced Particle Therapy Center for the Baltic states” Feasibility Study Strategy Group

Meeting #1

Minutes of the meeting

Agenda for the meeting:

- Organizational introduction
 - Schedule of the upcoming meetings
 - Estonian stakeholder engagement
- Review of current comments
 - Schedule of the upcoming meetings
 - Estonian stakeholder engagement
- Discussion on financing options of Feasibility Study
 - Proposed funding mechanisms and discussion
- Planning of next meeting. “*Any other business*”

Main discussion points:

1. Schedule of the upcoming meetings

- As proposed by Convener (Erika Korobeinikova (*LSMU*)) and Deputy Convener (Kristaps Paļskis (*RTU*)) of the Working group – meetings should be held bi-weekly in order to manage the creation of the Feasibility Study proposal document until June 2025;
- Agreement between Working Group members to host the next meeting in two weeks’ time and adapt the schedule of subsequent meetings as needed;

2. Engagement of Estonian Stakeholders

- As pointed out by Convener, unfortunately, Estonian stakeholders are still under-represented in the Working Group;
- Contact has been made with prof. Sergei Nazarenko (*TalTech*), prof. Peeter Ross (*TalTech*) and dr. Eduard Gershkevitch (*North Estonia Medical Centre – non-CBG institution*);
- Prof. Sergei Nazarenko participates in the Meeting #1, though mentions that does not have an official nomination from TalTech yet. Convener and Deputy Convener proposed to have an off-line meeting to discuss the current status of the initiative as presented in the Inaugural meeting.

- Dr. Eduard Gershkevitsh has contributed significantly to the previous developments of the Proposal document, though currently cannot commit to the Working Group due to his schedule. Alternative representatives might be proposed by dr. Gershkevitsh.
- Working Group members are invited to share contacts of Estonian stakeholders, with engagement activities to be continued.

3. Review of current comments on the Proposal with a focus on Economics motivation

- Comments made by Working Group members on the current iteration of Feasibility Study proposal document were presented by the Convener.
- Largest fraction of the comments is made on the section of economical motivation of the document by dr. Giedrė Kvedaravičienė (*VMU*):
 - motivation based on possible healthcare cost savings and increased labour productivity might not be a sufficient driving argument;
 - potential spillover from R&D of the facility needs to be argued as a strong economic motivation;
 - market used for economic analysis should be expanded in a multi-disciplinary way – beyond ion therapy, while also looking at other ion beam technology deployment markets (*such as ion implantation*);
- As pointed out by prof. Sergei Nazarenko (*TalTech*), based on his experience in various healthcare related projects, economically the emphasis should be on possible reduction of economic and social burden related to cancer. Technology proposed for the facility is novel and therefore – quantitative evaluations of this reduction are still to be made. Although quantitative information cannot be provided at this stage, possibilities to reduce this burden by investments in healthcare technology can still be foreseen.
- Dr. Jonas Venius (*NCI*) points out that a large fraction of these quantitative estimates is to be the part of the Feasibility Study itself, though initial motivation is needed in the proposal.
- Dr. Giedrė Kvedaravičienė (*VMU*) adds that the proposal needs to be cautious to a certain degree in order not to “promise too much” in terms of economic healthcare perspective.
- As proposed by Convener and Deputy Convener of the Working group, the economic motivation should be updated by an expert in the economics domain. Dr. Giedrė Kvedaravičienė (*VMU*) has agreed to update the section.
- Deputy Convener posed the question on how much quantitative data should we provide in the proposal document, as this information is to be investigated in detail during the Feasibility Study, and what could be alternatives to reference for a strong enough economical argument. Dr. Giedrė Kvedaravičienė (*VMU*) suggested different EU policies and cancer management strategies as references for the argument.
- As Dr. Giedrė Kvedaravičienė (*VMU*) pointed out, due to the ambitious scope and possible large costs of the project, counterarguments against the initiative could be raised by political stakeholders. Ministries and political stakeholders should be approached by a multitude of possible gains of the initiative (such as modern technology deployment) in the multi-disciplinary domains covered by the initiative,

while putting healthcare as priority. These arguments are crucial for future discussions with policymakers.

4. On FCC Feasibility Study experience from Poland

- Brief discussion on CERN Future Circular Collider (FCC) initiative and its Feasibility Study took place, as Dr. Giedrė Kvedaravičienė (*VMU*) had previously shared the document with Working Group members.
- Although the scope of FCC project is different from APTCB, the structure of the feasibility study document could be taken as an example. As pointed out by dr. Alberto Degiovanni (*RTU*), initial APTCB Feasibility Study proposal structure was indeed based on this document, adapting for the medical application foreseen for APTCB.
- Deputy Convener briefly shared on-going discussions between CERN and scientific community of Poland on possible novel radioisotope production facility development.
- As pointed out by prof. Maija Radziņa (*UL, RSU*), it would be important to investigate closer feasibility studies or related investigations on project like APTCB. Identification of the targets, tasks and other information in these similar investigations could be of great benefit for APTCB initiative, in order to build upon the existing experience.

5. Task structure and commitment of institutional members

- A comment upon reviewing the document was made by asoc. prof. Elina Pajuste (*UL*) if there was a necessity to separate the tasks in the “3 pillars”, as lot of the tasks are interdependent. Deputy Convener stressed the role of transversal tasks to ensure the information flow necessary to address these interdependencies. Dr. Giedrė Kvedaravičienė (*VMU*) agreed the separation between the task groups into pillars with overarching transversal tasks is a good approach to manage the work of the Feasibility Study. Working group members agreed not to change the Task structure proposed at the current stage.
- Prof. Kristaps Jaudzems (*UL*) pointed out that it would be of importance for the Working Group members and CBG institutions to indicate their possible contributions within the tasks proposed in the plan. This aspect is crucial in general project proposal preparation. Convener and the Deputy Convener proposed to create an editable document for the Working Group members to indicate their possible contributions.

6. Organization and financing pathways for the Feasibility Study

- Convener presented the currently proposed financing schemes of the Feasibility Study – “centralized-centralized”, “centralized-decentralized” and “decentralized-decentralized”. Discussion on the subject matter took place.
- Many points against the “centralized-centralized” approach, involving unified finances and research re-location for the Feasibility Study duration, were made:
 - prof. Kristaps Jaudzems (*UL*) expressed that this approach would be more expensive, harder to plan and to manage, especially given the need for re-location of clinical medicine experts;
 - dr. Giedrė Kvedaravičienė (*VMU*) expressed that centralized-centralized approach is virtually impossible due to CERN Baltic Group not being a formal legal unit, thus unable to centralize finances;

- prof. Maija Radziņa (*UL, RSU*) expressed that centralization of finances and having a unified fund would not be possible. She also stressed that due to the fact that each country could have different focus of contributions within Feasibility Study (clinical, technical, economic, research) – funding approach would differ in each country by the funding sector;
- Asoc. prof. Brigita Abakevičienē (*KTU*), chair of CERN Baltic Group, proposed that the financing scheme should be decided in collaboration the governments of the Baltic States and relevant policy makers. Feasibility Study proposal should provide the different funding pathways.
- It was also discussed that as representation of the Baltic countries is present in the Working Group, members have certain knowledge of funding possibilities in each country and/or institution. This experience should be unified and used for decision making on financing.
- In terms of organization, as was proposed by prof. Maija Radziņa (*UL, RSU*) and dr. Giedrē Kvedaravičienē (*VMU*), the idea of pillar leadership should be abandoned, while having leading institutions separately for each Task and overall management by CERN Baltic Group. This approach would avoid possible issues in regard to ownership or attracting funding.
- Based on these discussions, asoc. prof. Brigita Abakevičienē (*KTU*) proposed to reformulate the organizational structure in the Feasibility Study Proposal.

7. Important milestones

- Asoc. prof. Brigita Abakevičienē (*KTU*) pointed out that the on-going work within the APTCB FSSG Working Group should be presented at 15th CERN Baltic Group General meeting, foreseen in April 2025. The proposal should be finalized soon enough to approach relevant policy makers for the possible launch of the Feasibility Study.

Closing remarks

- Next APTCB FSSG working group meeting will be held on 24th of January, 2025 at 11:00 (EET);
- Dr. Giedrē Kvedaravičienē (*VMU*) agreed to prepare updates for the economic motivation section of the Feasibility Study proposal;
- Convener and Deputy Convener will prepare and send out a document for Working group members to identify their possible contributions in tasks proposed for the Feasibility Study;
- Convener reminded the Working group members to continue providing information on their respective expertise areas in context of the Feasibility Study;
- Separate meetings will be organized with Estonian stakeholders to provide updated information on current status of the initiative and Feasibility Study preparation process.

Prepared by:

Erika Korobeinikova and Kristaps Paļskis

Convener and Deputy Convener of APTCB Feasibility Study Strategy Group