



South East European  
International Institute  
for Sustainable Technologies



# Sarajevo Linac Project

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meeting with High Voltage Engineering Europa B.V.  
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# The project goal

The goal of the project is to build, at University of Sarajevo, a **low energy accelerator** for:

- research (eg. IBA),
- education,
- training of accelerator engineers and physicists,
- investigate medical radioisotope production,
- testbench for SEEIIST multiple ion sources.

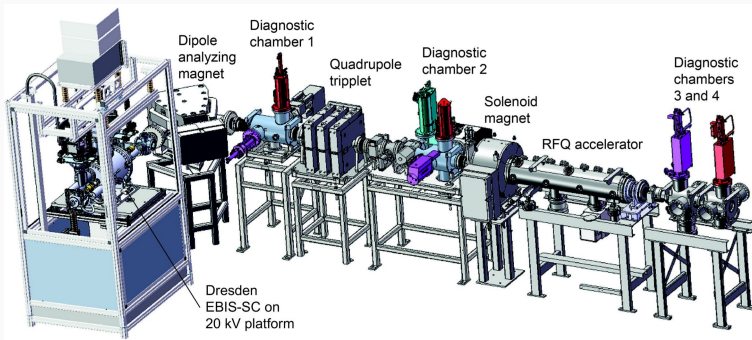
The machine will be run by a local experts. They are being hired and trained. **Budget for phase 1 is assured.**

<https://seeiist.eu>



# Possible final layout

The layout will be similar to the test stand, build at Heidelberg Ion Therapy Center (HIT). Main elements: ion source, analyzing dipole, focusing magnets, diagnostics, RFQ<sup>1</sup>.



<sup>1</sup>RFQ is foreseen for phase 2

# Phase 1

- Ion source capable of producing several hundreds  $\mu A$  of proton, helium, carbon(?) beams: duoplasmatron or ECR or EBIS.
- Analyzing magnet.
- Vacuum system.
- Beam optics to allow matching to RFQ.
- Instrumentation.

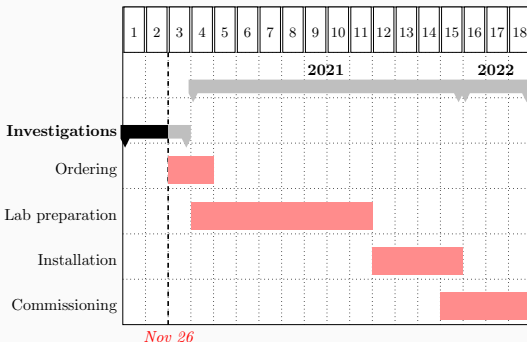
We want to involve local companies: i-tech and Cosylab.

Therefore, we have special considerations about the control system and instrumentation electronics.

# Phase 1 plan

## Phase one:

- ion source and LEPT.
- start: October 1st, 2020.
- end: March 31st, 2022.
- currently: research on available ion sources and possible other scopes of the project.



The schedule assumes (almost) turn-key bench acquisition.  
Work on phase 2 should start already in early 2021.