SEE IIST
South East European International Institute for Sustainable Technologies

A LARGE-SCALE COMPETITIVE RESEARCH INFRASTRUCTURE

South East European International Institute for Sustainable Technologies (SEEIIST)

https://seeiist.eu

- develop a regional center of excellence in South East Europe
- support socio-economic development
- decrease or even reverse brain drain

Core of SEEIIST: a state-of-the-art 'Facility for Tumour Therapy and Biomedical Research with Protons and Heavier Ions'

SCIENCE FOR DIPLOMACY
SCIENCE FOR SOCIETY

South East European International Institute for Sustainable Technologies (SEEIIST) in the spirit of 'Science for Peace'

First official support of such an initiative by the Government of Montenegro in March 2017, following the original proposal by Prof. Herwig Schopper, former Director General of CERN

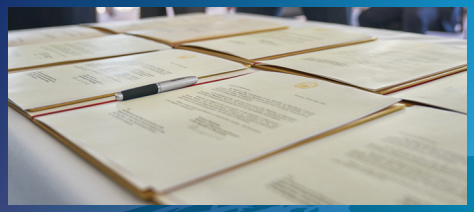
Positive reception by a number of organizations and institutions

Summary of the main missions of the SEEIIST Project

- Science for Diplomacy
- Scientific Excellence
- International Collaboration
- Sustainable development of society
- Improving health of citizens
- Accelerating knowledge and innovation
- Reversal of brain drain
- Green Infrastructure

Important first political step: Declaration of Intent signed at CERN on October 25, 2017

Signed by eight parties:
Albania, Bosnia and Herzegovina, Bulgaria, Kosovo*, Montenegro, North Macedonia, Serbia and Slovenia.
Croatia agreed 'ad referendum', Greece took an observer status.



SEEIIST Initiative transformed into a Regional Project

SEE Ministers of Science / Corresponding Ministers or their representatives at CERN

Candidate Members for the South-East European International Institute for Sustainable Technologies

Republic of Albania
Bosnia and Herzegovina
Republic of Bulgaria
Republic of Croatia
Hellenic Republic
Kosovo*
Montenegro
Rep. of North Macedonia
Republic of Serbia
Republic of Slovenia

Signed a Declaration of Intent
Agreed 'ad referendum'
Observer

* This designation is without prejudice to positions on status and is in line with UNSC 1244/1999 and the ICJ opinion on the Kosovo Declaration of Independence

Major milestone in January 2018

Forum held at the ICTP/Trieste under the auspices of the UNESCO, IAEA and EPS

More that 100 participants

Representatives from the EC, ESFRI, IAEA, EPS, RCC, CERN, FAIR-GSI, HIT, CNAO, DESY, SESAME.... including 40 Users from the Region

Central goal of the Forum: Scientific Concept Study for the Institute presented for the first time to the public

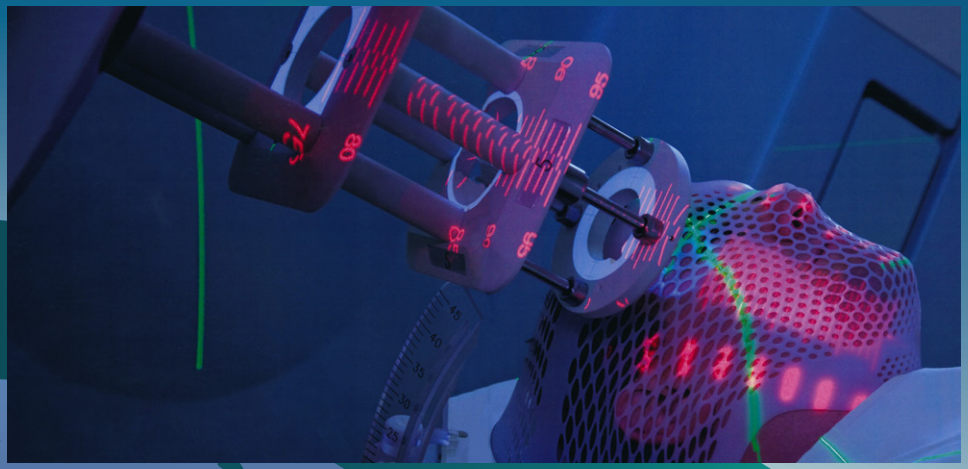
Executive Summary of the Concept Study prepared for the Forum

Main elements of a Business Plan:
- technical parameters of the facilities
- time schedule
- investment costs
- operation costs

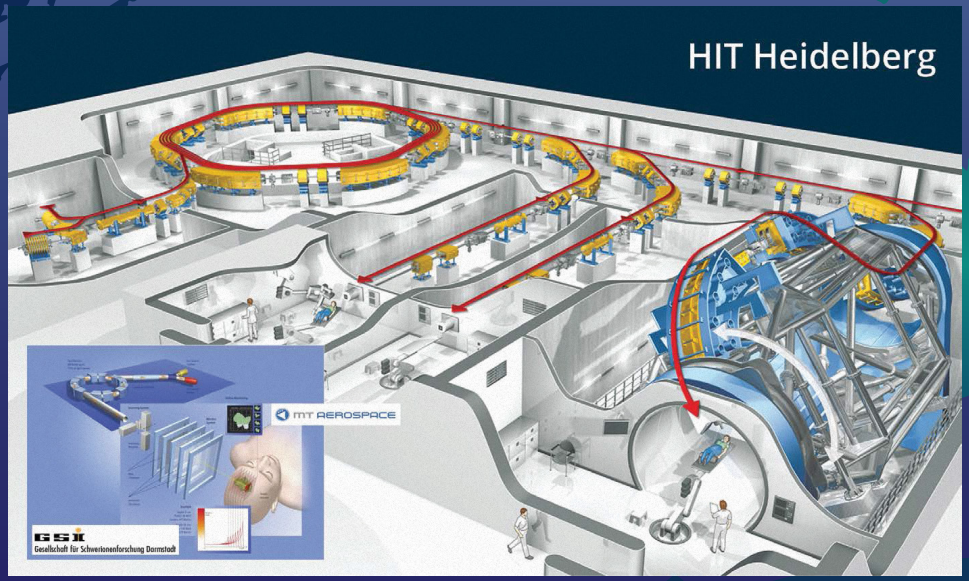
Concept Study published as a CERN Yellow Report (available under seeiist.eu)

Facility for Tumour Therapy and Biomedical Research with Protons and Heavier Ions


Virtual center, source http://enlight.web.cern.ch/media



About 500 patients per year to be treated as needed for a population of 20M. In parallel, 50% of the beam time dedicated to cancer research with a wide range of different ions beyond protons and C-ions as presently used, making the SEEIIST project unique in the world. Capacity for about 1000 researchers, including a major number from outside the SEE region.



Particle therapy centers in Europe
Big hole in South East Europe

Important further Political step Formation of an Intergovernmental Steering Committee

1st Meeting January 2018, Sofia
- Election of Chairperson: Dr. S. Damjanovic, Minister of Science of Montenegro

2nd Meeting March 2018, Tirana
- Project selection: Facility for Tumour Therapy and Biomedical Research with Protons and Heavier Ions; Draft Memorandum of Cooperation approved

3rd Meeting July 2018, Skopje
- Distribution of tasks for the next Preparatory Phase of the Project

4th Meeting November 2018, IAEA, Vienna
- Coordinator of the Preparatory Group elected

5th Meeting June 2019. Sarajevo
- Distribution of tasks for the Preparatory Phase

6th Meeting September 2019, Budva
- SEEIIST obtained a legal status as a Swiss Association

7th Meeting January 2020, Ljubljana
- Preparation of Convention for the establishment of SEEIIST

8th Meeting will be held in Switzerland under the patronage of the Swiss Federal Department of Foreign Affairs - FDFA

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Preparatory Group for the SEEIIST Design Study Phase set up

European Commission – Directorate General for Research and Innovation (EC DG-RTD)

- First direct financial support of 1 MEUR for the SEEIIST Design Study Phase

CERN – European Organization for Nuclear Research

- To host the Working Group 1 – Accelerator Design – part of the SEEIIST Design Study Phase
- Great benefit from long experience in the design of medical accelerators

GSI-FAIR – Facility for Antiproton and Ion Research

- To host the Working Group 2 – R&D and Scientific Aspects of the SEEIIST Design Study Phase
- Great benefit from long experience in Bio- and Medical Physics

IAEA – International Atomic Energy Agency

- Support by the IAEA for the Capacity building program
- Open Call for the first IAEA Fellowships

Setting up the Preparatory Group for the SEEIIST Design Study Phase

Overall Responsibility: SEEIIST Steering Committee

Overall coordinator of the Preparatory Group Dr. Horst Wenninger

- Working Group 1 Accelerator Design at CERN
- Working Group 2 R&D/Scientific Aspects at FAIR-GSI
- Working Group 3 Legal Aspects + Business Plan SEEIIST SC

No matter where SEEIIST will be located – National Benefits across the whole Region –

Treatment of patients: all participating parties will have their share for treatment of patients

Involving the local industry: the construction of the Facility would require more than 200 companies. The production of many different components can preferentially be assigned to our local industry.

Powerful digital networks and big data handling - to reach the clinical and scientific goals two Networks will be set up, a **Clinical Network** and a **Scientific Network**, to be located in different parts of the region.

Building innovative capacities in the SEE region in a cutting edge field such as Hadron Therapy: - funding from IAEA (TC-RER Project 0.5 MEUR approved); -H2020 EU (COST and MC-ITN -'TREASURE for Fighting Cancer' submitted)

Timeline of the SEEIIST Project

For SEEIIST up to 200 MEUR required, guaranteeing competitivity in Europe. Multiple sources of financing necessary: EU Structural and cohesion funds, IPA funds, some contributions from member-states, other funds. We also hope for the support by the Berlin Process.

2017-2018
Concept Study

2019
• Start of the Design Study Phase at CERN
• Set-up of a legal entity

2020
• Selection of the site
• Application for the ESFRI Road Map

2022
Start construction of the Facility

2028
First patient treatments

Another Milestone for SEEIIST: Memorandum of Cooperation signed by six Prime Ministers of the Region

Signature at the 6th **Summit of the Berlin Process** on 5 July, 2019 in Poznan Poland. Memorandum signed by six Prime Ministers: Albania, Bosnia and Herzegovina, Bulgaria, Kosovo*, Montenegro and North Macedonia.

Special Event - "Start of the SEEIIST Design Phase" on 18 September 2019 in Budva, Montenegro

Start of the SEEIIST Design Phase marked by the Kick-off event held in Budva

Prime Minister of Montenegro opened the event

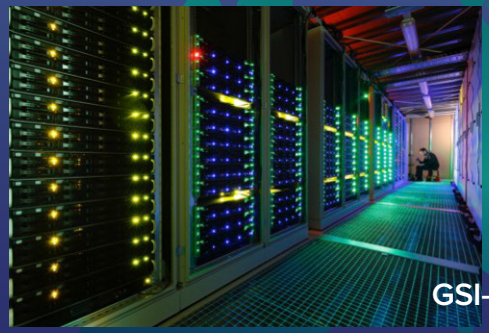
Purpose of the event - to inform the public about the advancement of SEEIIST which has moved from its Conceptual to the Design Phase

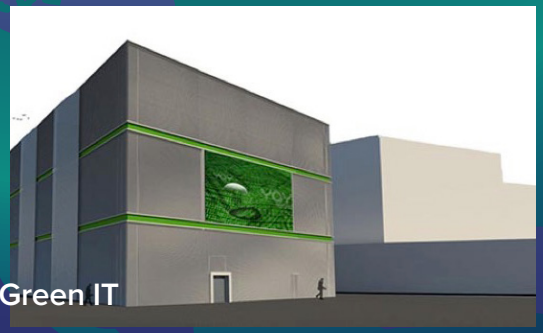
More than 120 people met to discuss the further developments of the SEEIIST Project

Green Concept for the SEEIIST Project

SEEIIST
will be
First Green Particle Therapy

SEEIIST First Green Particle Cancer Therapy and Research





Action in Place – preparing a convincing concept of SEEIIST as a Green Infrastructure: Green Energy – Green IT ....

Special event 'SEEIIST meets Industry' on 1-3 April 2020 in Sarajevo, B&H

One of the Important SEEIIST missions - to involve the local industry
All details about the event available under: https://indico.cern.ch/event/839930/

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