
SAIF

SOUTH
AFRICAN
ISOTOPE
FACILITY



UPDATE ON SAIF February 2020:

SAIF: The South African Isotope Facility remains the overall strategic flagship project of iThemba LABS. With the research agenda of iThemba LABS currently accomplished largely through the use of a Separated Sector Cyclotron (SSC), a particle accelerator that produces particle beams for research, as well as for the commercial production of radioisotopes, the current over-subscription of beam time on the SSC naturally limits the capacity of iThemba LABS as a research facility to fully discharge its research mandate. To secure its current and future sustainability, iThemba LABS has therefore developed a robust and holistic strategy that is designed to preserve the existing SSC cyclotron for dedicated research and training, and to enable a significant increase in the production of exotic radioisotopes to a fast-growing local and international market by creating the South African Isotope Facility (SAIF) through new capital investments..

The first phase of the SAIF project requires the establishment of the RIF (Radioisotopes Facility) and the LERIB.0 (phase 0 of the Low Energy Radioactive Ion Beams). The RIF will migrate the existing radioisotope production programme from the existing SSC to a proposed newly acquired 70 MeV cyclotron that will be dedicated to radioisotope production. The substantial increase in beam time availability from the SSC will allow embarking into the LERIB project but only through its first phase (phase 0).

The current status and milestones already accomplished towards the realization of SAIF include:

- i. The signing in September 2019 of a contract with IBA Radiopharma Solutions for supply of a new 70 MeV cyclotron and beam lines installation with delivery and commissioning earmarked for 2022.
- ii. Appointment on 30 August 2019 of Consulting engineers (CSM Consulting Services) for the infrastructure design development and construction, inclusive of civil, electrical, and mechanical works.
- iii. Detailed technical designs for Development of a Target station dedicated for radioisotope production,
- iv. Regulatory approval on 4 November 2019 of a license to import the 70 MeV cyclotron