

## **AN OVERVIEW OF THE SOUTH AFRICAN ISOTOPE FACILITY (SAIF) PROJECT**

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The South African Isotope Facility (SAIF) is a new radioisotope production facility currently under construction at iThemba LABS in Cape Town and scheduled for completion in 2022.

A commercial 70 MeV proton cyclotron from IBA with a number of beam lines equipped with isotope production stations, are being installed in retrofitted concrete vaults. The facility will be supported by new infrastructure and services which are being constructed. The completion of SAIF will greatly increase the radioisotope production capability of iThemba LABS and enable the existing Separated Sector Cyclotron to be dedicated to nuclear research activities.

An overview of the SAIF project from the inception phase through to the construction phase is provided here, discussing all related workstreams and progress made to date. A more detailed discussion of some specific systems is given, including the design of the isotope production stations, target handling system, and a new radioactive waste management facility.