MID Annual Status Update Meeting

MID sITF – Plans for 2022

Benjamin Lunsky

10 May 2022

Agenda

- The MID System Integration Test Facility (sITF) Team

- 2022 Timeline

- sITF Work for next 6-9 months

- sITF Test Environment and Test Equipment
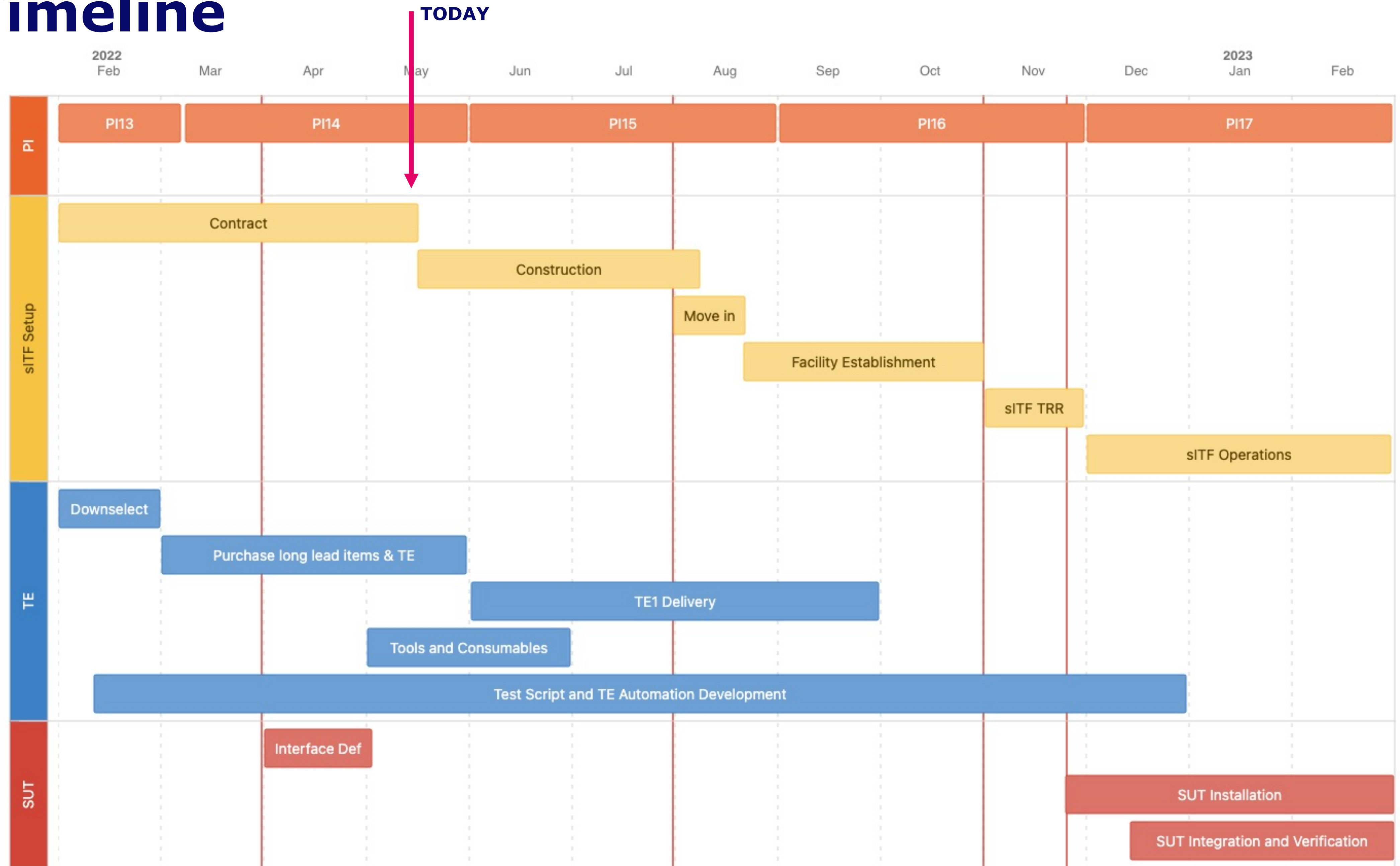
- sITF Floorplan

MID sITF Team

- Benjamin Lunsky – MID sITF Manager

- Vhulahani (Vhuli) Manukha – Verification Engineer

- Monde Manzini – Verification Engineer

- All based in Cape Town

2022 Timeline

sITF Work for next 6-9 months

- Test Equipment Software development in Python -> Tango?

- sITF Requirements and Test Case Definition -> Jama

- Understanding System under Test (SuT) Interfaces and Components

- Test Equipment Purchasing

- Rack Area and Workshop Components and Consumables

- Sourcing suppliers; navigating Procurement and Finance

- Construction preparation

- Documentation (sITF Plan)

- Training

Test Environment (TE)

- Rack Server Area (6 racks for TE and SUT)

- TE purchasing round 1 complete, round 2 underway

- Workshop

- Storage Space

- Office space

- Option for RFI / EMC testing at SARAO Reverb Chamber

Test Equipment

- Primary Function: Simulate RF from Feed into 4 Signal Chains

- Key instruments (subset of the full TE):

  - Signal Generator (20 GHz)

  - Wideband Noise Source

  - Arbitrary Waveform Generator

  - Spectrum Analyser

- All stakeholders will have the ITF available to them: (sAIV, ITF, SCV, Product Suppliers, Engineering, Operations, Software, DA, etc)

- Users will remotely access and drive the Test Equipment and run tests on the System under Test (signal chain from SPFRx through to the SDP).

- Characterise and verify performance of signal chain and debug problems prior to AA0.5 (and after).

- MID and LOW ITF are working together closely to create similar remote experience for users.

Interim SOC and sITF at Black River Park

Interim SOC and sITF at Black River Park 2

Thank you!

We recognise and acknowledge the Indigenous peoples and cultures that have traditionally lived on the lands on which our facilities are located.

SKAO

www.skao.int