

Enabling more countries to access space through the KiboCUBE opportunity The Mauritian Experience



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The Republic of Mauritius

FROM A MONOCROP ECONOMY TO A ROBUST, DIVERSIFIED, INNOVATIVE AND KNOWLEDGE DRIVEN ECONOMY



INCREASE IN GDP

GDP increased from USD 400 en 1968 to USD 12,000 in 2019;

STABLE POLITICAL ENVIRONMENT

Geopolitical situation opens many opportunities

INNOVATION DRIVEN ECONOMY

Diversitfication of sectors from ict-bpo, to enhancement of ocean economy, looking forward to become a space faring country in 2021

WELFARE STATE

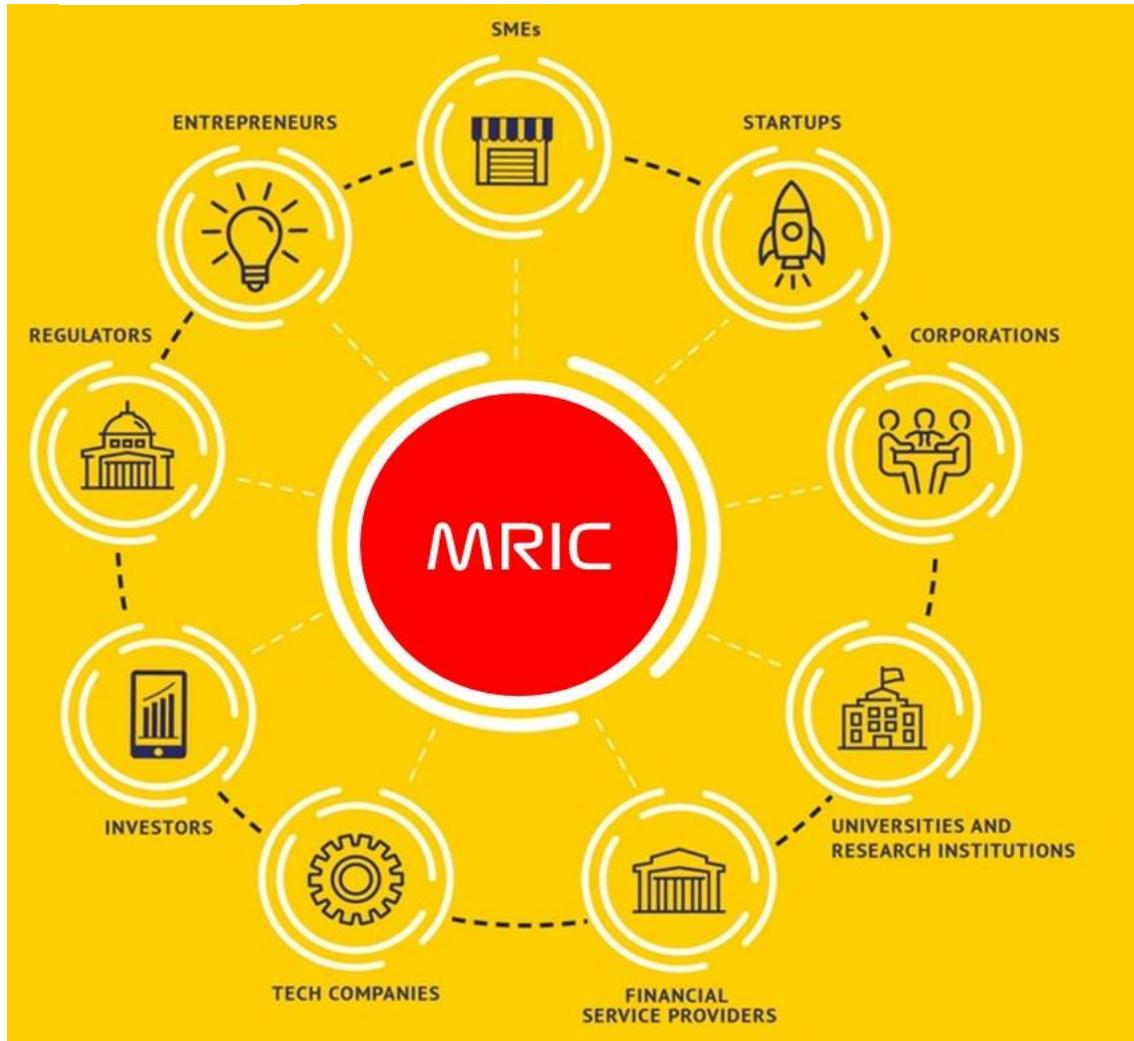
Health and Education free. High Literacy rate

MULTICULTURAL COUNTRY

A country where different cultures live together in peace and harmony



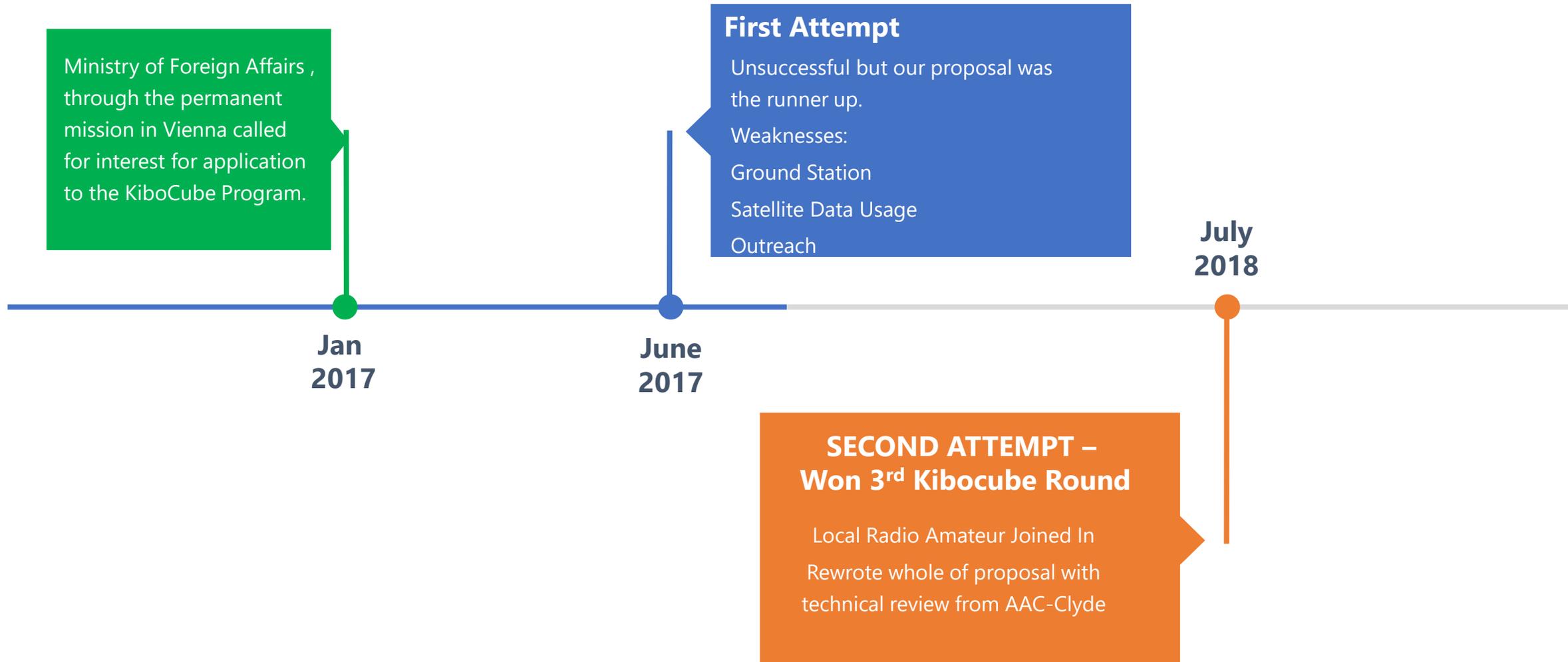
Mauritius Research and Innovation Council (MRIC)



- Apex body, advisor to Government of Mauritius on all matters pertaining to Science Research and Innovation;
- Manages the '**National Innovation Fund**' (MUR 100M) earmarked for financing research, development and innovative projects for the socio-economic benefit of Mauritius;
- Promotes collaboration between the 4 helices: Public private, academia and society;
- Fosters inclusive innovation, creation of new knowledge by Mauritians for Mauritius, builds capacity, engages into regional and international collaborations and seeks to explore new and emerging technologies for betterment of the lives and livelihood of Mauritians

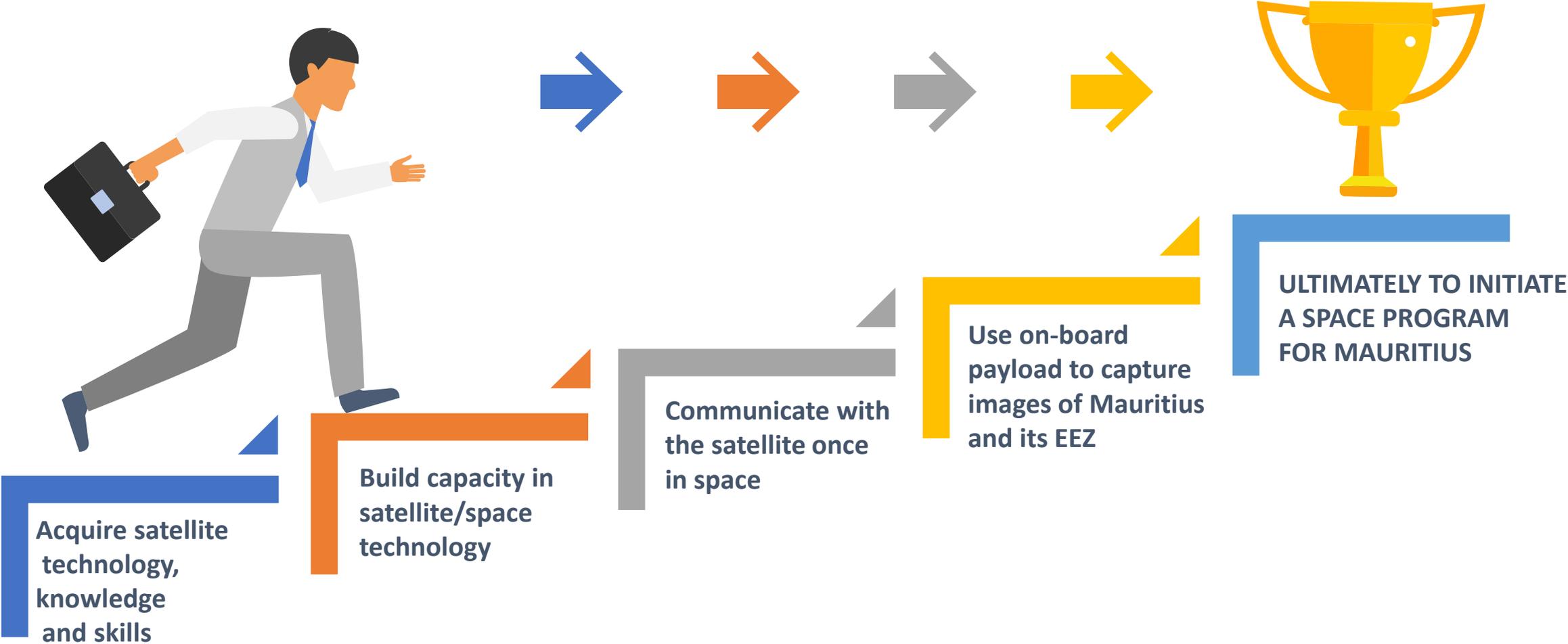
APPLYING TO THE KIBOCUBE PROGRAM

The second attempt was successful

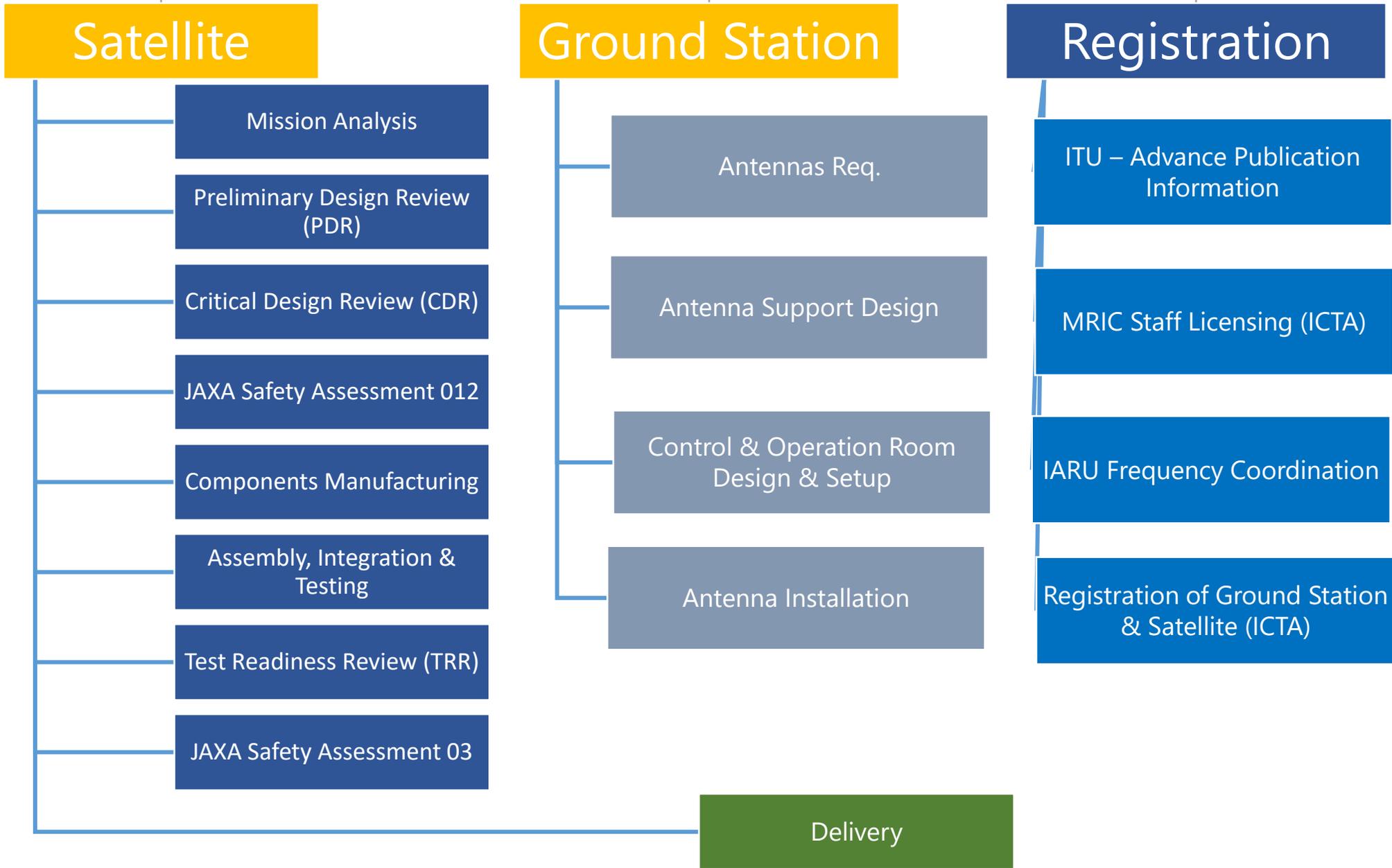


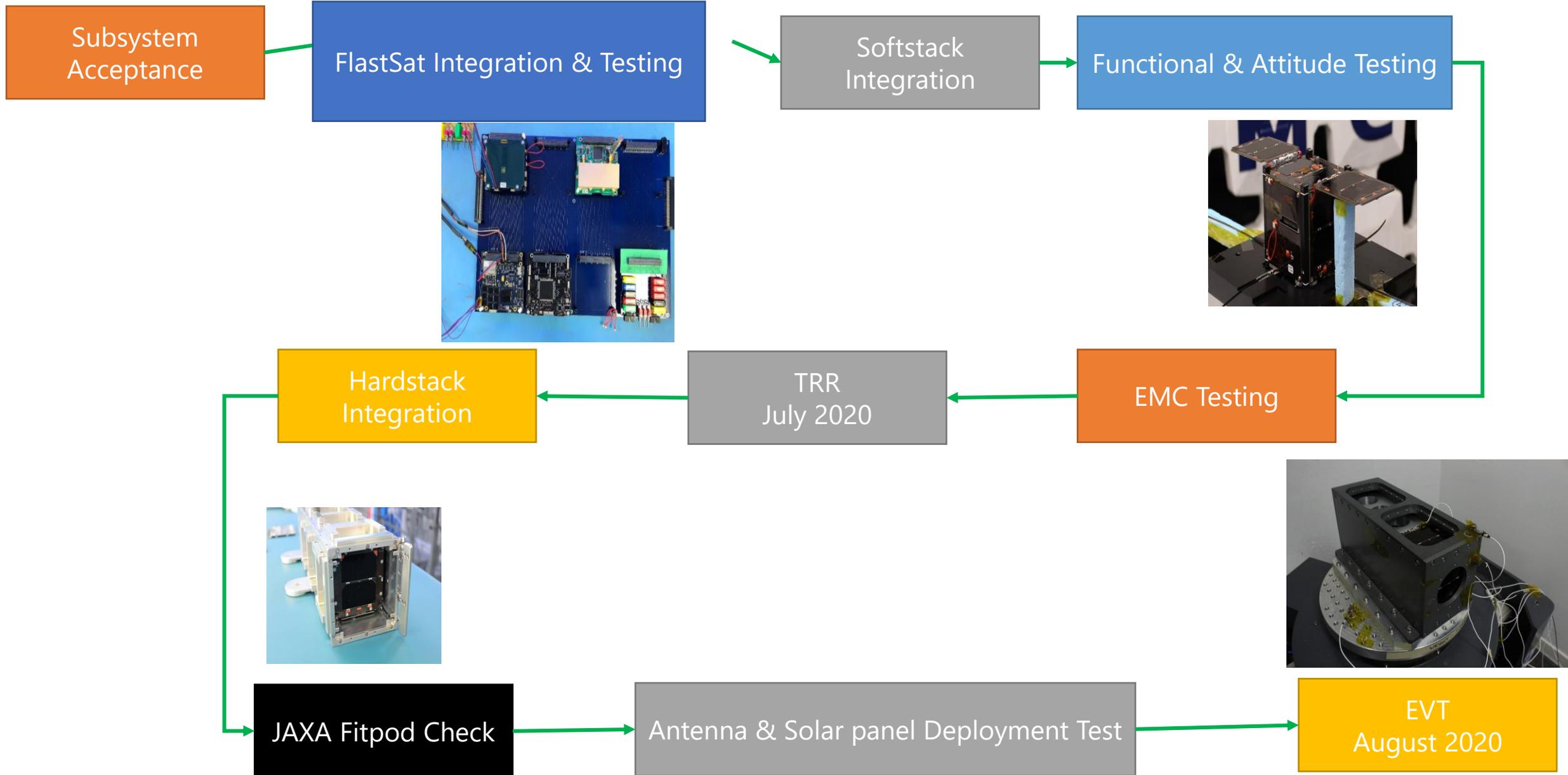
AIMS AND OBJECTIVES OF THE FIRST MAURITIAN SATELLITE

BUILDING CAPACITY IN SPACE AND SATELLITE TECHNOLOGY



MAURITIUS IMAGERY & RADIOCOMMUNICATION SATELLITE -1 (MIR-SAT1)





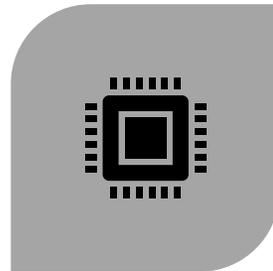
Registration



ITU – ADVANCE
PUBLICATION
INFORMATION (API)
FREQUENCY
COORDINATION



IARU COORDINATION
VHF – 145.9875 MHZ
UHF – 436.925 MHZ



REGISTRATION OF MIR-SAT1 &
MRIC GROUND STATION WITH
LOCAL AUTHORITY (ICTA)
MIR-SAT1: 3B8-MIR
MRIC GROUND STATION: 3B8-MRC

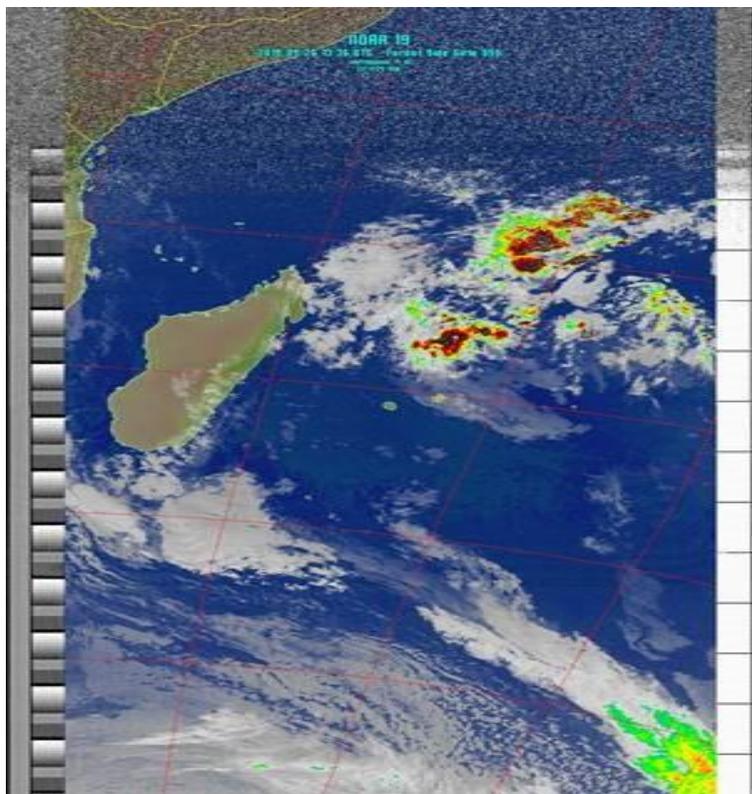


MRIC STAFF –
RADIO AMATEUR
LICENSE

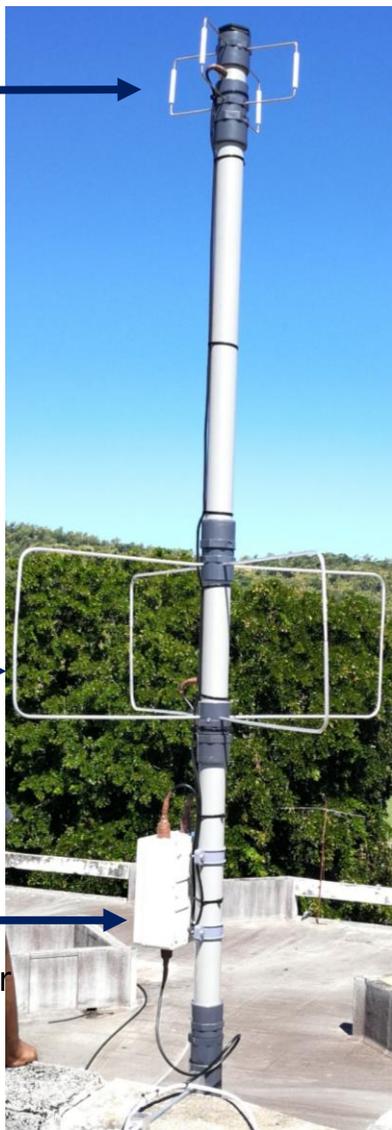
OUTREACH ACTIVITIES

INTRODUCING SECONDARY SCHOOL STUDENTS TO SATELLITE TECHNOLOGY

UHF antenna

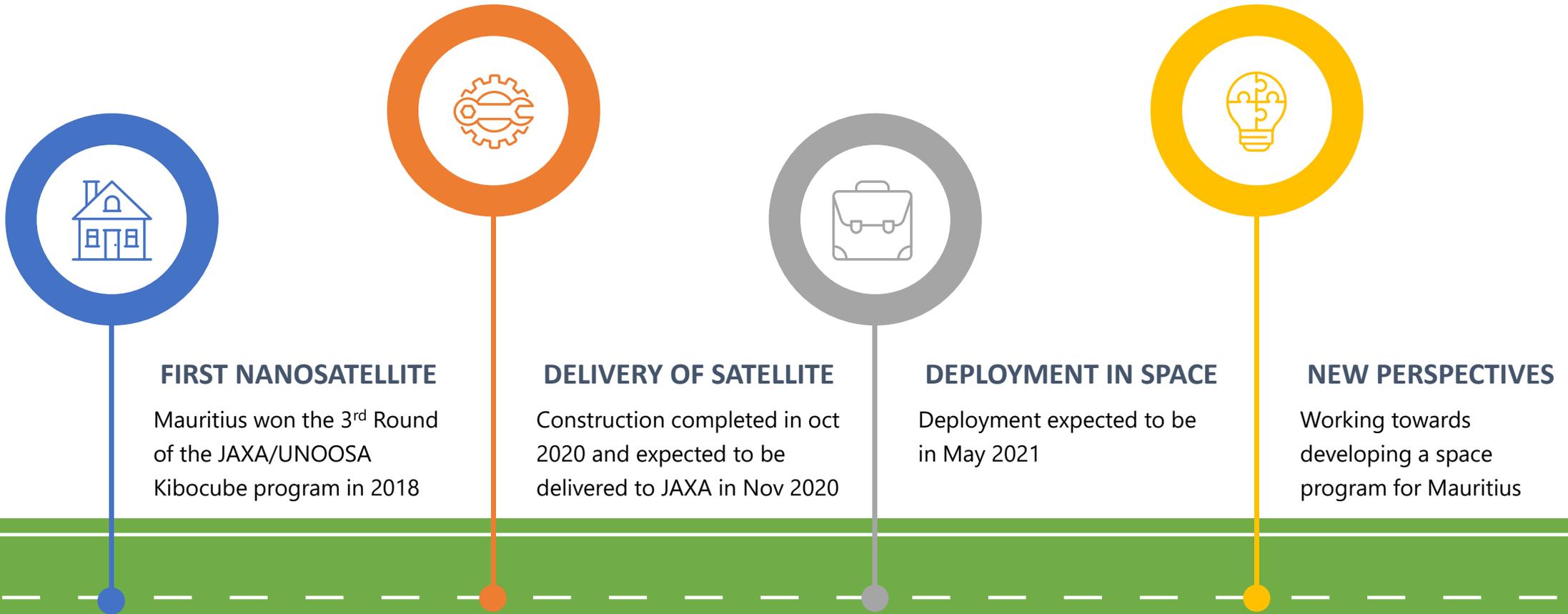


- Band pass filter
- Low Noise Amplifier



MAURITIUS – SOON TO BE A SPACE FARING COUNTRY

UNLOCKING NEW DEVELOPMENT OPPORTUNITIES THROUGH THE SPACE SATELLITE TECHNOLOGY



LESSONS LEARNT

JOURNEY TO SPACE ALTHOUGH NOT EASY BUT EXTREMELY REWARDING AND OFFERS HIGHLY PROMISING FUTURE

◆ MAURITIUS EMBARKS IN NEW SPACE ERA

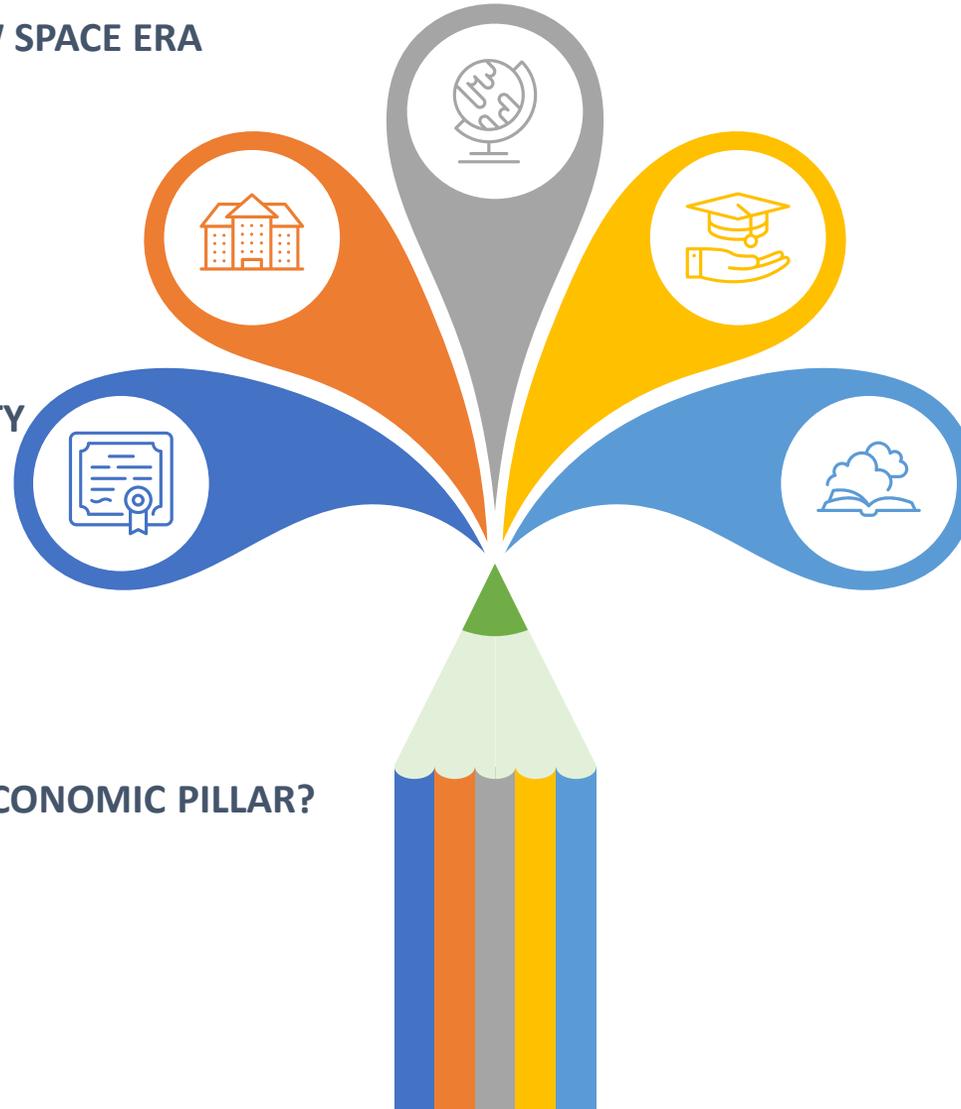
- Geolocation interesting for future space related activities
- More advanced space nations interested to collaborate

◆ BOOST IN TECHNICAL CAPACITY

- Building the satellite was highly technical
- We set up a sophisticated ground station for future missions
- Training of younger generation

◆ A POTENTIALLY NEW SOCIO-ECONOMIC PILLAR?

- We became aware of the numerous possibilities that space offers. Data analytics, opportunities for R&D, business opportunities, intergovernmental collaborations.



◆ ENTHUSIASTIC YOUNGSTERS

- The training program we initiated gave us an insight of the high level of enthusiasm for this new field. There is hope to enhance this interest further to build new capacity.

◆ GOVERNMENT FULLY SUPPORTIVE

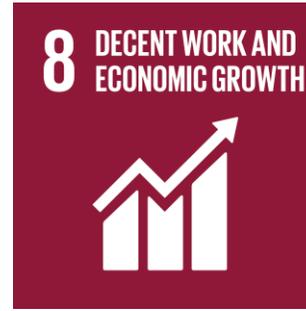
- This historical initiative for the Republic of Mauritius promises to unlock new opportunities for research, innovation and socio-economic development.

PROMOTING COLLABORATION AMONG SIDS

USING SPACE TO ADDRESS CHALLENGES FACED BY SIDS

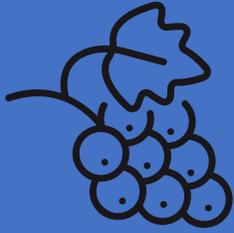


- As a SIDS Mauritius faces several challenges especially from Climate change
- We envisage using Space/Satellite technology to tackle:



SIDS AND SPACE

OPPORTUNITIES



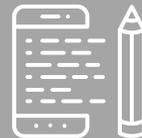
BELIEVE

We need to believe that we can do things on our own



OUR SITUATION = OUR UNIQUENESS

Unique geographical position of SIDS in ocean can provide opportunities for space exploration



INDEGENOUS KNOWLEDGE = OUR INNOVATION

Exchanges between SIDS important. Collaborating can lead to creation of new knowledge and showcasing our own indigenous knowledge



COLLABORATION AND EXCHANGE

SIDS have many commonalities and together we can address threats and find solutions

MEET THE MIR-SAT1 TEAM



Dr Vickram Bissonauth

Project Coordinator

Overall project management and coordination



Faraaz Shamutally

Aerospace Engineer

Principal Investigator



Ziyaad Soreefan

Aerospace Engineer

Co-Principal Investigator



Koushul Narrain

Research Assistant

Responsible for Ground Station Implementation



Kiran Tatoree

Research Assistant

Responsible for training of Students for Simplified Antenna and Ground station

CONTACT US



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