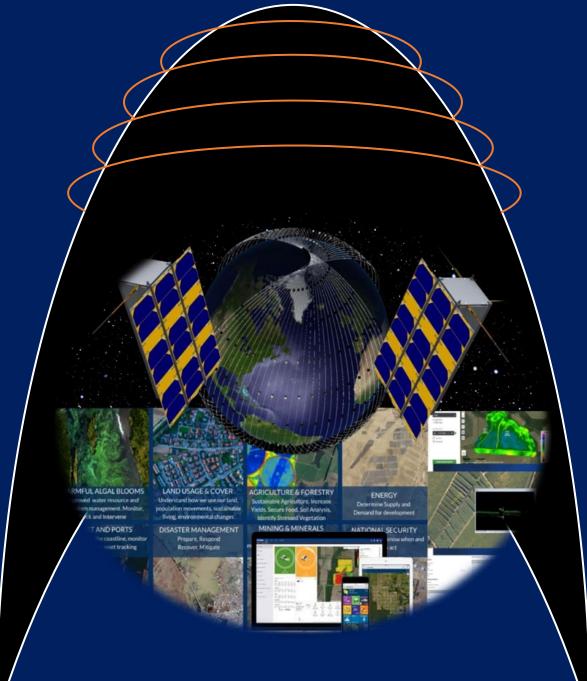


**Industry-Driven Space Internship Programs** 

### WHO ARE WE?



## ASTR\*FICA TECHNOLOGIES

Astrofica Technologies is a high-technology services and solutions provider with a keen interest in commercializing actionable solutions from partner and proprietary spaceborne and ground-based assets.

### **KEY FACTS**

- o Founded in 2017 by Khalid Manjoo and Jessie Ndaba
- o More than 50 years Space industry experience
- o More than 30 years Telecoms sector experience
- Core skills in System Engineering, Project Management, Hardware and Software System Integration and Testing, Data Solutions, Applications Development, Business Intelligence, RF and Spectrum Monitoring, Space Commercialization





BscEng (Electrical) UCT

2005

DESIGN ENGINEERING. ASSEMBLY INTEGRATION TESTING (AIT)

2007

KHALID JOINS SPACE ADVISORY COMPANY AS SENIOR AIT ADVISOR, LATER **ENGINEERING MANAGER** ON INTERNATIONAL PROJECT 2013 - 2018

> 2017 **TECHNOLOGIES** Founded

2019 **OUIT DAY JOB FULL-TIME BUILDING ASTROFICA** SIGNED ON POTENTIAL VC

**INVESTOR** 





**SPECTRUM MONITORING** FOR CITC (KSA)





BscEng (Electrical) WITS

2006



INTERNS SUNSPACE





2009 - 2012

JESSIE PART OF SUNSPACE PMO, KHALID AIT LEAD SUMBANDILA-SAT LAUNCH CAMPAIGN

2013 - 2018





**CPUT** DTI-BLUEPRINT ZACUBE-2 SA SPACE AIT DEVELOPMENT **FRAMEWORK** 

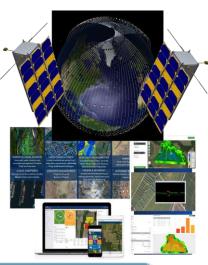
MDA-SAT 1 2020 -PM and AIT

AEROSPACE AND DEFENSE PRESIDENTIAL MASTER PLAN

2020 SPACE INTERNSHIP **PROGRAM** 



**SELLING SPACE 2021 - INFORMATION AS** A SERVICE



Successfully delivered satellites: 8 (Local and International, total mass range > 1,500 kgs) Projects Completed: 15 | Jobs Created: 50+ | Awards Won: 1

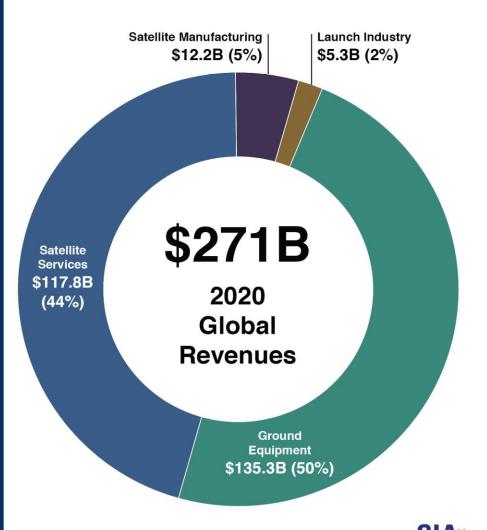


### HOW THE GLOBAL SPACE ECONOMY IS GROWING



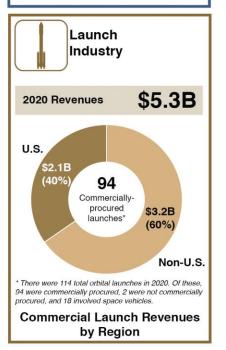
The strong market and demand for critical decision informing data, only available from Space, already exists and is growing exponentially!

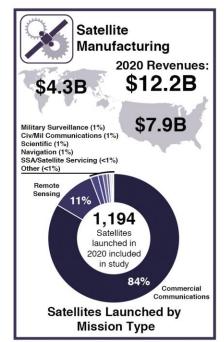
### 2020 Top-Level Global Satellite Industry Findings





Satellite Services						
2020 Revenues:						
\$117.8B						
Television	\$88.4B					
Radio	\$6.3B					
Broadband	\$2.8B					
	Ψ2.00					
Fixed	\$15.7B					
Mobile	\$2B					
	ΨΖΟ					
Remote Sensing	\$2.6B					







## SPACE IS AN ESSENTIAL ENABLER

Of the Global Economy at Large

Without Space, economies will become less and less competitive over time. Competitive capability for financial traders is down to the difference in parts of a second in being able to access data.

Of the Currently Disadvantaged People

Without Space there can be no connectivity for the currently disadvantaged, and no access to data. This perpetuates inequality, poverty and excludes too many from the economy.

 Of Government and Government Agency Efficiencies

Earth observation provides quality data for better decision making, management of national resources, and services, saving billions per annum.

• It is Growing Very Fast. Timing Is Important

CAGR in certain areas over 100%, EBITDA over 15%. There is collective capability on the continent and amongst global partners, it can be leveraged with the right support, quickly!



ASTR\*FICA in partnership **TECHNOLOGIES** 













### **DEFINE YOUR FUTURE AT ASTROFICA**

We are looking for innovative thinkers that are passionate about solving everyday challenges using Space-based technologies. At Astrofica you will get the opportunity to work with some of the best minds and leaders in the South African Space Industry, exposed to cutting-edge technologies together with hands-on experience to holistically develop your professional skills and competencies. Come and experience our unique work environment and business culture!

APPLY NOW AT: www.astrofica.com/careers

Application Deadline: 20 December 2019









Astrofica Technologies (Pty) Ltd | www.astrofica.com | info@astrofica.com



### 2020 Space Internship

PROJECT TIMELINE



Policy, Admin, Access The Space Value Chain **Acquisition Management** Systems Engineering

Product Engineering Project Management

May 2020 **Ground Segment** 

Software and Data Handling

Space Ops 2020; IAA African Symposium on Small

Satellites

June 2020

August 2020 July 2020

Split into groups for broader ecosystem exposure and experience Astrofica; AmayaSpace/CPUT; Denel Spaceteq; Cubespace; Newspace Systems; Simera Group,

DeltaV, Cognitive Systems

Visits to SKA; SAOO; SANSA Space Sciences VIP Guests - DSI, DTI, SANSA, Global Industry



September 2020

Assembly Integration and Testing

System Verification Planning **Environmental Testing** Satellite Facilities



October 2020

**Data Applications** Earth Observation

**Data Analytics** 



November 2020 Space Policy

Regulations

**Entrepreneurship and Business Development** 



January 2021



December 2020

Team Project - Design a Space-based mission and solution to solve a critical challenge in South Africa

# 2020 Of Class



























































# Some Stats

Enrollment Statistics										
Total number of interns	30									
Countries	South Africa (29) - Sponsors Criteria ; USA (1) - UI + VaCorps									
Interested Countries	Nigerian, Kenya, Uganda, Ethiopia, Zimbabwe and Mozambique									
Demographics										
Age Groups	20-24 25-30		30			31 - 34				
	7	,	2		2					
Gender	Males	Females	Males	Female	Females			Females		
	4	3	10	11	2		0			
Residential Area		Rural	Urban/Suburban							
		12	18							
Educational background	WIL	Post-GR1	2 NDip	BSc/BTech		MSc/MTech		PhD		
	4	1	10	:	13		1	1		
Space Industry Experience	3									
Dropout/Replacements	1 (Q1 – presented with an opportunity to pursue a career in full-stack development)									
Post Internship Status Quo	Space Sector		Other Sectors		Further Studies		Unemployed (Part-Time)			
	7	,	15	3		5				

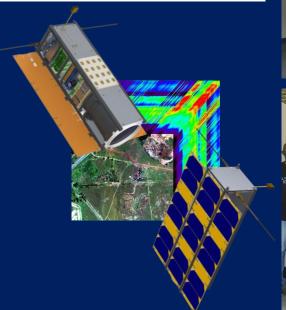
# Highlights Some





















## ASTR\*FICA TECHNOLOGIES



210 Main Road Somerset West Cape Town 7130



www.astrofica.com +27 (0) 82 824 4580 khalid@astrofica.com

