

# SOUTH AFRICAN NATIONAL SPACE AGENCY (SANSA)

*SPACE EDUCATION UNIT Flagship 1*

*SPACE AND THE FUTURE: WEALTH CREATOR ENTREPRENEURS*

*INAUGURAL NATIONAL SPACE CONFERENCE, CSIR ICC*

*Mr. Daniel A. Matsapola (ISSA ALUMNUS)*



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REPUBLIC OF SOUTH AFRICA



**SANSA**  
SOUTH AFRICAN NATIONAL  
SPACE AGENCY

# Space Education: Core Business

Create awareness of space

- The Space Science & Technology promise.
  - Earth (land, oceans, atmosphere)
  - Rich space heritage (spacefaring)
  - Space Ambassadors
  - Space Economy

Stimulate multidisciplinary thinking

- Support STEM education
- Drive digital literacy (4IR)
- 21<sup>st</sup> century Space careers fuel dreams
- Collaborate globally (ISEB/UNOOSA/BRICS)
- Tools of the trade
- Champion Educators

Public Engagement

- Tshwane Space Centre for public engagement.
- SANSA website.
- National satellite campaigns
- Space in SAASTEC Centres
- Friends of SANSA
- Inspire the nation flagships

Space  
Education  
Team

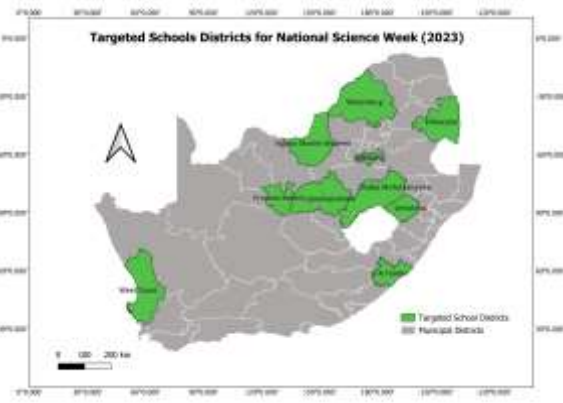
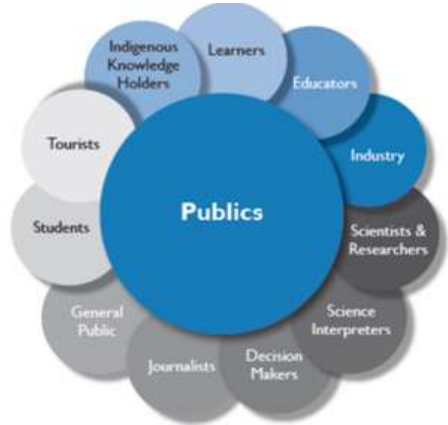


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### Starting a science club

Both primary schools and high schools are encouraged to start science clubs.

Learners from Grade 4 to 7 are encouraged to take the lead and start a club, with the assistance of a club champion (a keen teacher).

At high schools learners from Grade 8 to 11 are all encouraged to take the lead to establish a club. The club champion can be any educator namely a maths, science, life science, geography, language, or life orientation teacher.

A small group of learners with the support of at least one teacher can start a club. Decide where and when you meet, and go ahead to plan your first club activity.

**Read further for more ideas for club activities.**



### Vision and Mission

**VISION**

*An integrated National Space Capability that responds to socio-economic challenges in Africa by 2030*

**MISSION**

*To provide leadership in unlocking the potential of Space for the advancement and benefit of humanity*

- PROVINCIAL PARTNERS**
- Department of Education - EASTERN CAPE
  - Department of Education - FREE STATE PROVINCE
  - Department of Education - KWAZULU-NATAL
  - Department of Education - LIMPOPO
  - Department of Education - MPUMALANGA PROVINCE
  - Department of Education - NORTHERN CAPE
  - Department of Education and Sport Development - NORTH WEST PROVINCE
  - Western Cape Government

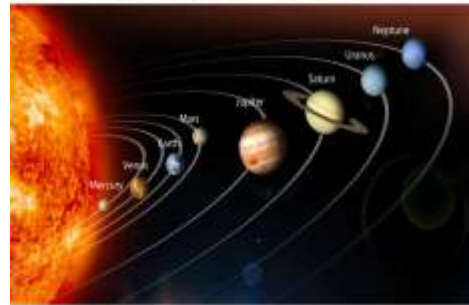
# The African Youth Demographic Dividend

AGENDA 2063 – THE AFRICA WE WANT



I live on the satellite...

...which had one satellite until...



## Earth Observation via Satellite



## 22 years spacefaring



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# Space Education: DRIVERS

## 1. NATIONAL DEVELOPMENT PLAN – VISION 2030

- TARGET TO PRODUCE **450 000** SCIENCE GRADUATES ANNUALLY, LEADING TO YEAR 2030
  - SANSA SPACE EDUCATION DELIVERS **45 000** DIRECTLY ENGAGED YOUTH
  - SCIENCE LEARNER, SCIENCE STUDENT, SCIENCE GRADUATE, SCIENCE PRACTITIONER

## 2. DSI-DoBE NATIONAL AGREEMENT TO SUPPORT STEM EDUCATION

- IMPROVE LEARNER PERFORMANCE IN MATHS & SCIENCE SUBJECTS
  - **SCIENCE CLUBS:** TO IMPROVE LEARNER ATTITUDE TOWARDS MATHS & SCIENCE SUBJECTS
  - **SPACE ROLE MODELS:** FROM RURAL TO GLOBAL CITIZEN

## 3. NATIONAL SPACE PROGRAM – FUTURE WORKFORCE FOR KNOWLEDGE ECONOMY

- CRITICAL MASS OF SKILLS NEEDED FOR REGIONAL SPACE INITIATIVES
  - INTEGRATED HUMAN CAPITAL DEVELOPMENT PIPELINE MODEL
  - FROM LEARNER – STUDENT – GRADUATE/ARTISAN – PRACTITIONER – CAPTAIN OF INDUSTRY
  - LEVERAGE SPACE INDUSTRY PARTNERSHIPS (**EBSI MODEL**)

# Unemployment & youth mindset

- Unemployment is the result of the systematic production of more job seekers than job and value creators. Developing the entrepreneurial mindset in Africa's school-based youthful population is one way to reverse the negative effects of high youth unemployment and fast-track the harvesting of the African youth demographic dividend decades before the year 2063.
- Intrapreneurship offers early space career professionals an opportunity to grow their space portfolios and fast-track their journey across the Space Human Capital Development Pipeline to becoming (FINANCIALLY FREE) captains of the space industry.
- This presentation will look at inculcating the entrepreneurial mindset in learners, students, science interpreters, scientists and researchers, as well as decision makers across the space value chain so as to multiply the economic benefits to society from investments made in space infrastructure.
  - LEVERAGE SPACE INDUSTRY PARTNERSHIPS (**EBSI MODEL**)



# The ISSA Opportunity 1998 - 2005



## INSTITUTE FOR SATELLITE & SOFTWARE APPLICATIONS (ISSA)

ISSA is based at the Houwteq satellite integration facility in Grabouw. It offers post-graduate qualifications in Engineering and Information and Communication Technology. Research conducted at ISSA includes satellite engineering, and excellent facilities are available for designing and testing small satellites.

Tel: (021) 859-7300, Fax: (021) 859-7324,

[www.issa.org.za](http://www.issa.org.za)



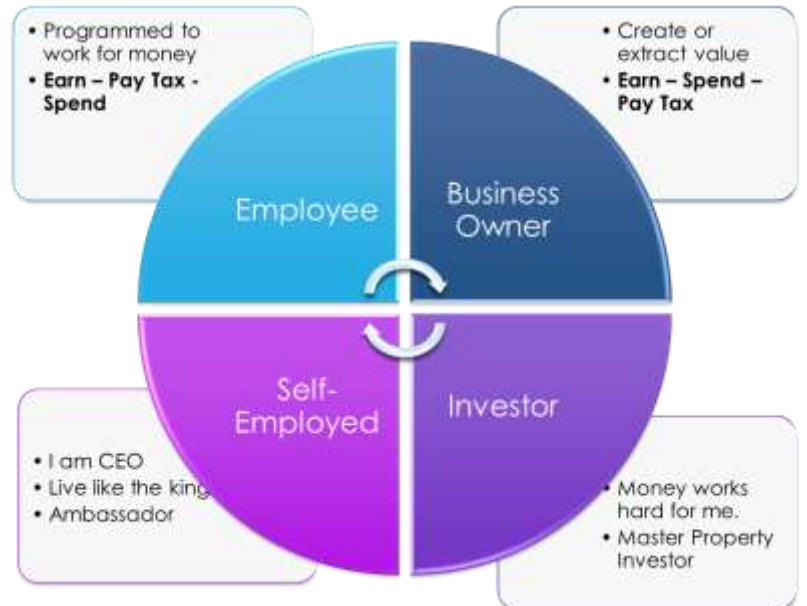
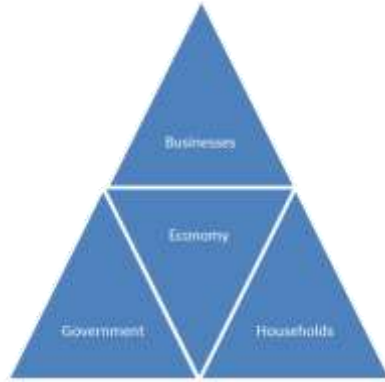
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# YOUTH FINANCIAL LITERACY IS CRITICAL



This SARS tax pocket guide provides a summary of the most important information relating to taxes, duties and levies for 2023/24.

## INCOME TAX: INDIVIDUALS AND TRUSTS

Tax rates from 1 March 2023 to 29 February 2024:

Individuals and special trusts

Taxable Income (R)	Rate of Tax
1 – 237 100	18% of taxable income
237 101 – 370 500	42 678 + 26% of taxable income above 237 100
370 501 – 512 800	77 362 + 31% of taxable income above 370 500
512 801 – 673 000	121 475 + 36% of taxable income above 512 800
673 001 – 857 900	179 147 + 39% of taxable income above 673 000
857 901 – 1 817 000	251 258 + 41% of taxable income above 857 900
1 817 001 and above	644 489 + 45% of taxable income above 1 817 000

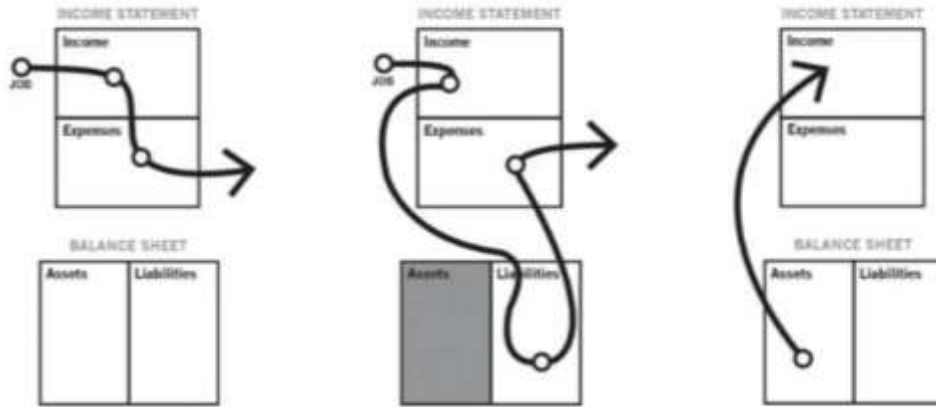
Trusts other than special trusts: rate of tax 45%

### Rebates

Primary	R17 235
Secondary (Persons 65 and older)	R9 444
Tertiary (Persons 75 and older)	R3 145

Age Tax Threshold

Below age 65	R95 750
Age 65 to below 75	R148 217
Age 75 and over	R165 689



RICH DAD.

Buyer	Seller	Buyer Growth
R50.00	R100.00	100%
R10.00	R50.00	400%
R1.00	R10.00	900%
R0.00	R1.00	Infinite Growth

**A JOB IS NOT AN ASSET. A JOB PUTS MONEY IN YOUR POCKET ONLY WHEN YOU WORK. YOU STOP WORKING, THE MONEY STOPS COMING. DEPENDENCE.**



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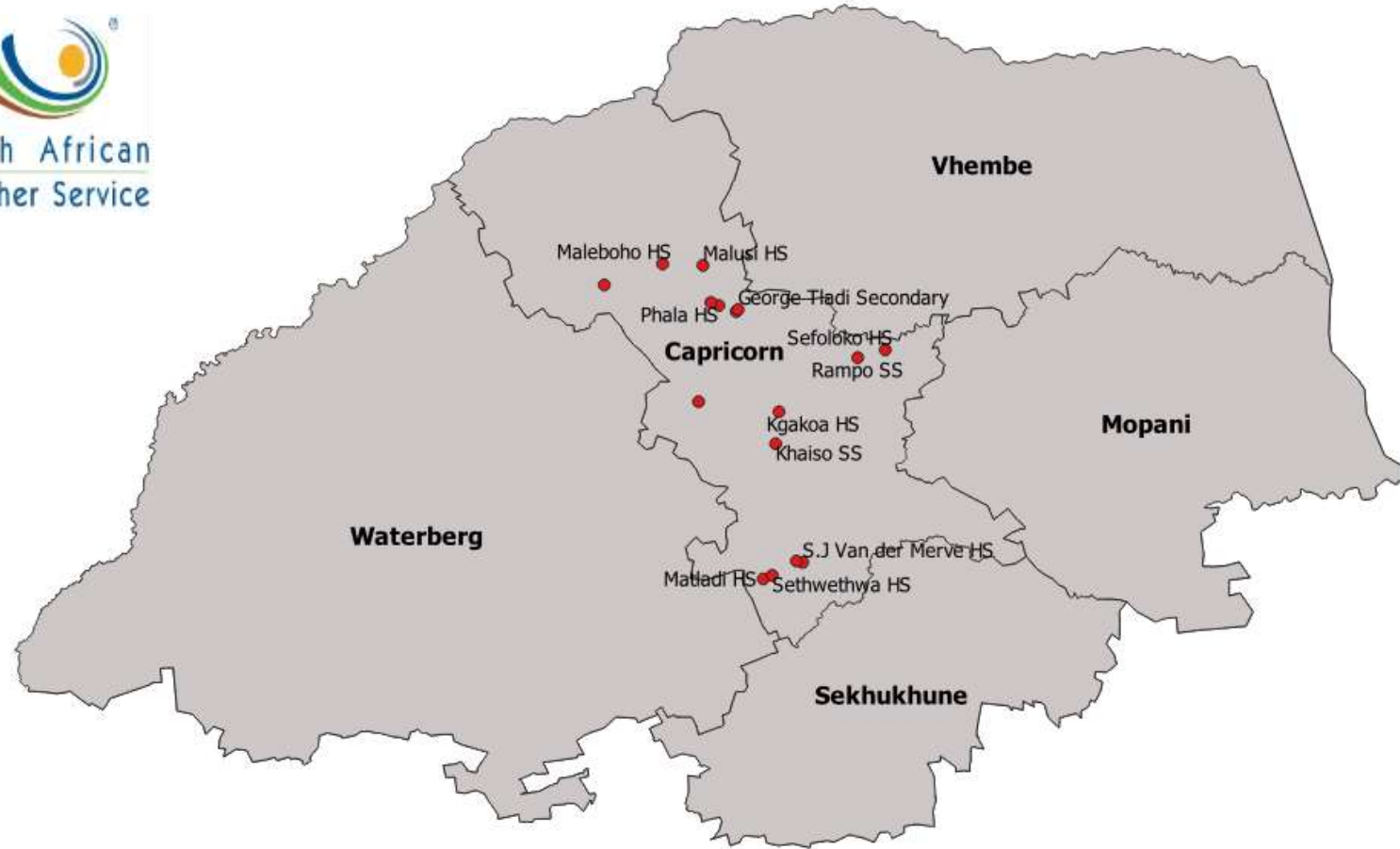
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# Concluding remarks

- Every child is born with the gift of value to become the answer to questions that will be asked in their lifetime.
- The purpose of education is to polish this gift by training the mind to think. The missing link.
- Understand our historical and current programming (the first step)
- Understand the purpose of a job – the mandate of work (means **to reveal oneself to the world**)
- The Maturity Continuum (Dependence, Independence, Interdependence) provides guidance
- Profits are far better than wages – active vs. passive income.
- Employment leads to perpetual dependence
  - Dependence on parents (primary, secondary, tertiary\*)
  - Substitute parents with employer (intermediary phase)
  - Substitute employer with pension fund at retirement
  - No intergenerational wealth achieved. **You can't pass your job to your grandchildren.**
- The EBSI model provides a powerful alternative that needs transformational leaders to support.
- Futureproofing education means that we go back to the basics to develop “an educated person”
- African youth should **MIND THEIR OWN BUSINESS** to realize the African Youth Demographic Dividend.

# Space for Disaster Management



**Priority 3 of the Sendai Framework on Disaster Risk Reduction: Investing in Disaster Risk Reduction for Resilience.**



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THANK YOU



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