

# A strategy for EO and National Plans

M Making sure it's possible

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science & innovation

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA

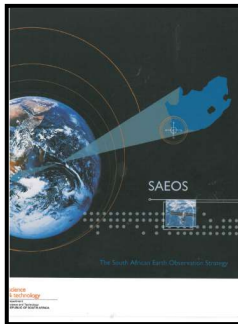




# Policy Instruments

# New White paper on Science Technology and Innovation 2019 & Decadal Plan

- The white paper on Science and Technology and Innovation (March, 2019) emphasises the “core themes of inclusivity, transformation, and partnerships” and “to foster an NSI wherein creativity, learning and entrepreneurship can flourish.”



- Socio-economic impact
- New innovations and technologies
- Value chain approach
- Targeting the marginalized
- Partnering or “working together”
- DeSTs, Products and Services
- Training (Space Engineers, Software Developers, RS specialists etc )
- Start-ups

- South Africa’s Science, Technology and Innovation Decadal Plan is an instrument for enabling Africa’s reawakening and inclusive and sustainable development.



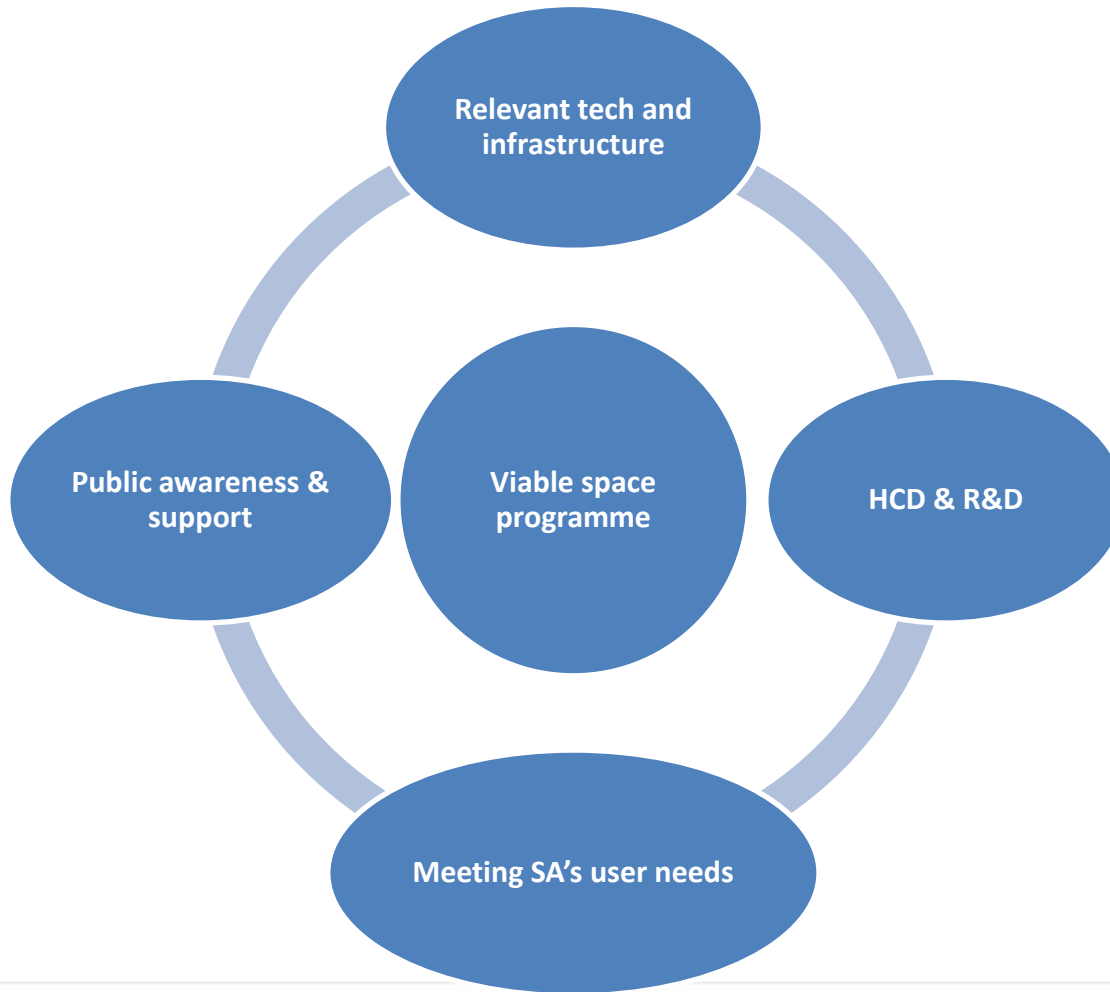
# STI Decadal Plan overview

- Aligns with National Development Plan (NDP) 2030
- Aims for inclusive, coherent, and coordinated National System of Innovation (NSI)
- Five system goals:
  1. Inclusive NSI
  2. Expanded research system
  3. Increased human capabilities
  4. Enabling innovation environment
  5. Increased funding for STI

# Space and Earth Observation in the Decadal Plan

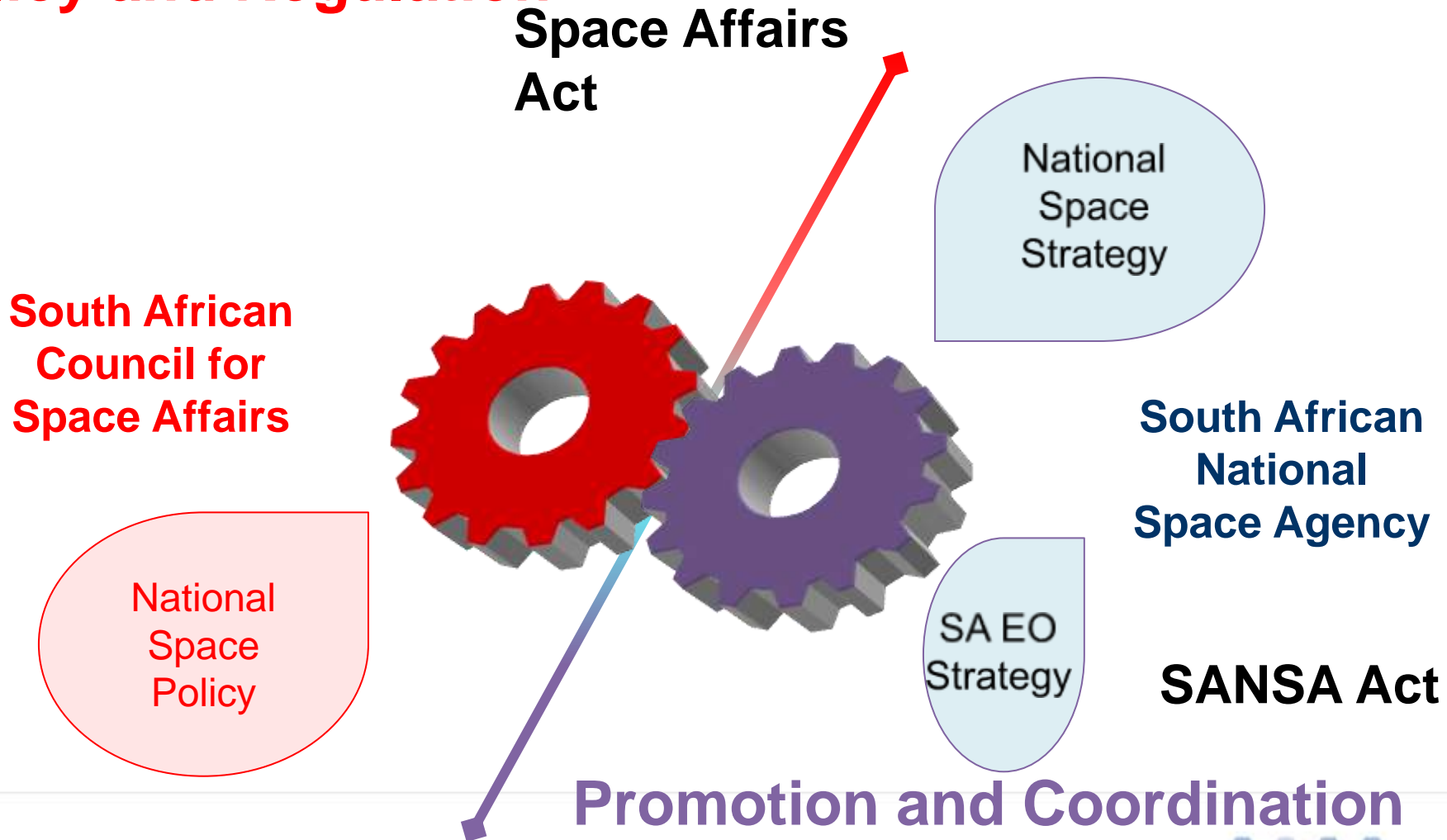
- Vital role of Space and Earth Observation in STI priorities:
  - Monitoring environmental sustainability
  - Advance manufacturing
  - Climate change assessment and mitigation
  - Supporting education and skills development
  - Enhancing research and innovation through data insights
- Contributes to achieving STI system goals:
  - Environmental sustainability (Goal 3)
  - Expanded and transformed research system (Goal 2)
  - Enabling innovation environment (Goal 4)

# SST Strategic purpose

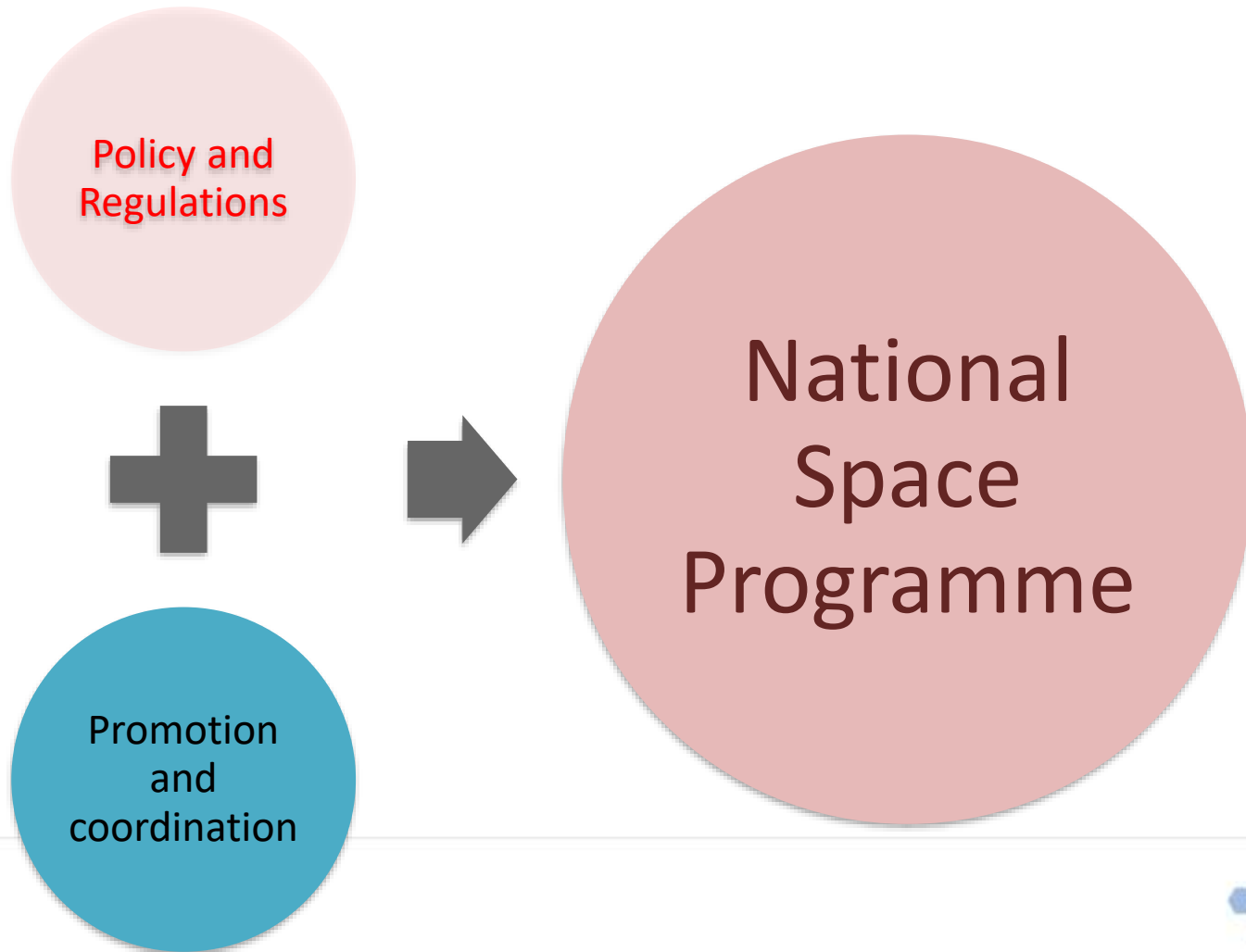


# SACSA versus SANSA

## Policy and Regulation



# Linking Policy and Strategy







# Snapshot of the South African Space Industry 2017/18

## Development Factors



**8 Universities**  
Space related degrees  
Space projects



**96 Graduates**  
DTech, MTech,  
MSc, PhD



**R1.21 billion**  
DST, the dti,  
DTPS



**R315 million**  
Income #  
183 Employees



**R308 million**  
Turnover

**R114 million**  
Export revenue



**181**  
Employees

**26**  
Companies



## Upstream Segment



### GAUTENG



9 SMMEs  
3 Facilities

### WESTERN CAPE



16 SMMEs  
8 Facilities

## Downstream Segment



Telecommunications

**R204 billion**  
Turnover



**51 993**  
Employees



Navigation\*

**R1.598 billion**  
Turnover



**1 142**  
Employees



Earth Observation^

**R34 million**  
Turnover



**26**  
Employees

## End Users

**R415 million**  
SPOT agreement savings



**R2.3 billion**  
OCIMS potential savings



**R80.2 million p.a**  
Sumbandila Sat savings



**R35 million p.a**  
Investment



**R33-44 million p.a**  
Investment



**R63 million p.a**  
Investment

\* Only ATNS data available.

^ Only remote sensing companies responded to survey.

# Contract revenue, parliamentary grant, research grants, ring-fenced transfers and interest & other income

**Increase**  
In connected schools

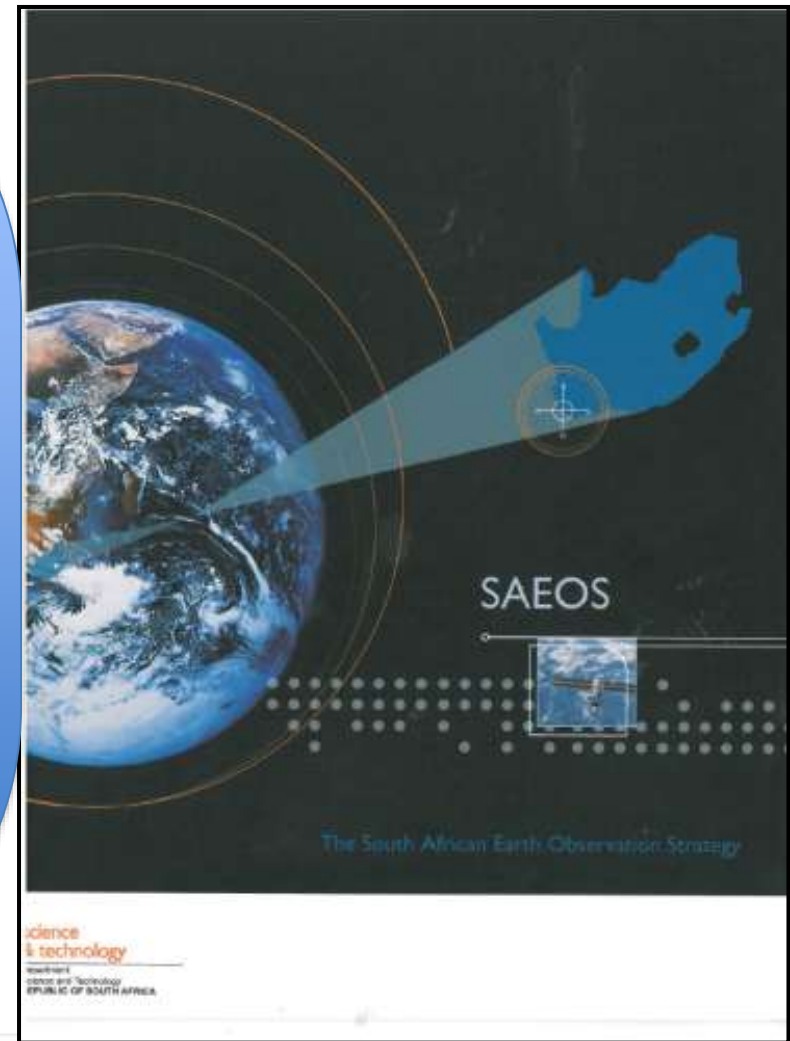


**2016 2017**  
2 862 5 238



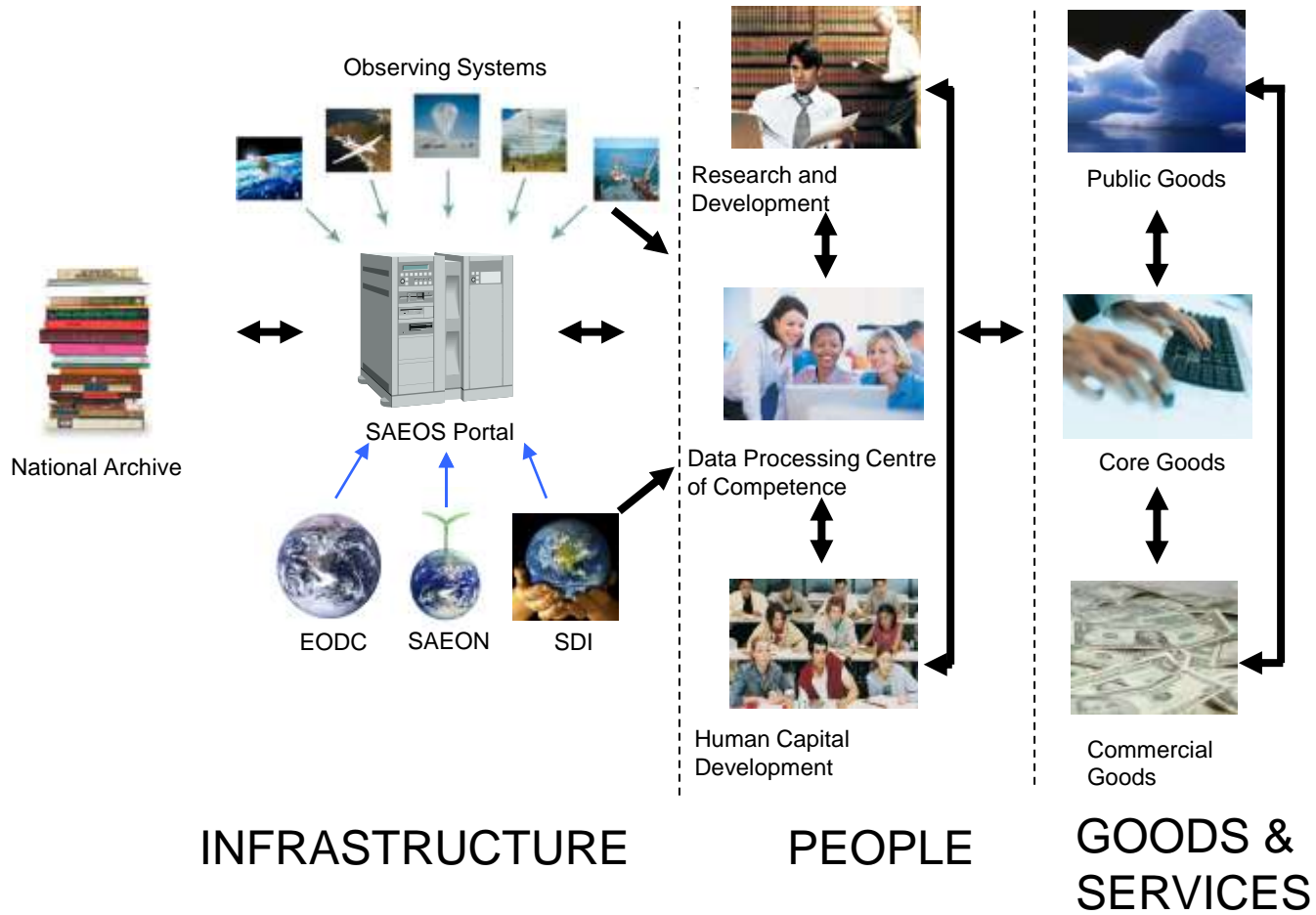
# South African Earth Observation Strategy (SAEOS)

- Co-ordinate the collection, assimilation, storage and dissemination of EO data
- Used for Policy, Decision-making, Economic growth and Sustainable Development.
- Development of DeSTs, Products and services
- SA-GEO & NEOSS are part of implementation





# SPACE APPLICATIONS VALUE CHAIN





# National Instruments

# SANSA



**SANSA** was officially launched on 09 December 2010

**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.

SANSA OPS



HOUWTEQ



HartRAO



SANSA SS





# National Earth Observation and Space Secretariat

- NEOSS Provides secretariat services for SA-GEO and its CoPs, and provides the conduit between the SA-GEO community, the DSI and GEO/GEOSS.
- Continue to Support the industry through projects, CoPs engagements
- Strengthen SA GSC and SA GSN
- National Space Conference

## Communities of Practice



Agriculture and Food Security



Circular Economy and Natural Resources Management



Climate Action



Data Governance

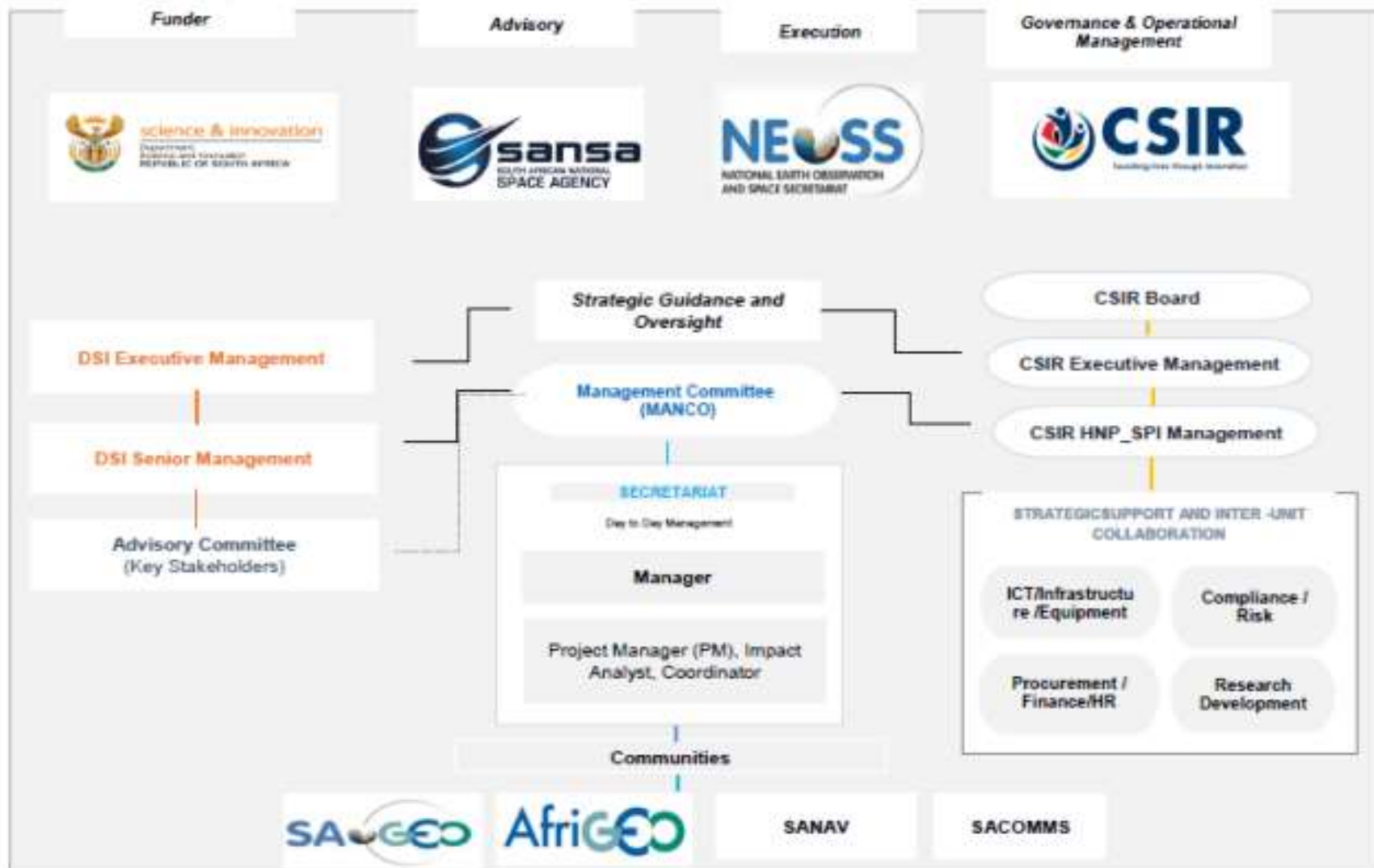


Earth Observations Infrastructure



Satellite Communications and Navigations

# NEOSS Programme overview



# The South African Group on Earth Observations

## ❖ WHAT IS SA-GEO?

SA-GEO is an initiative of the South African community in GEO aimed at providing a coordination framework and platform for South Africa's participation in the AfriGEO and GEO. In addition, it is:



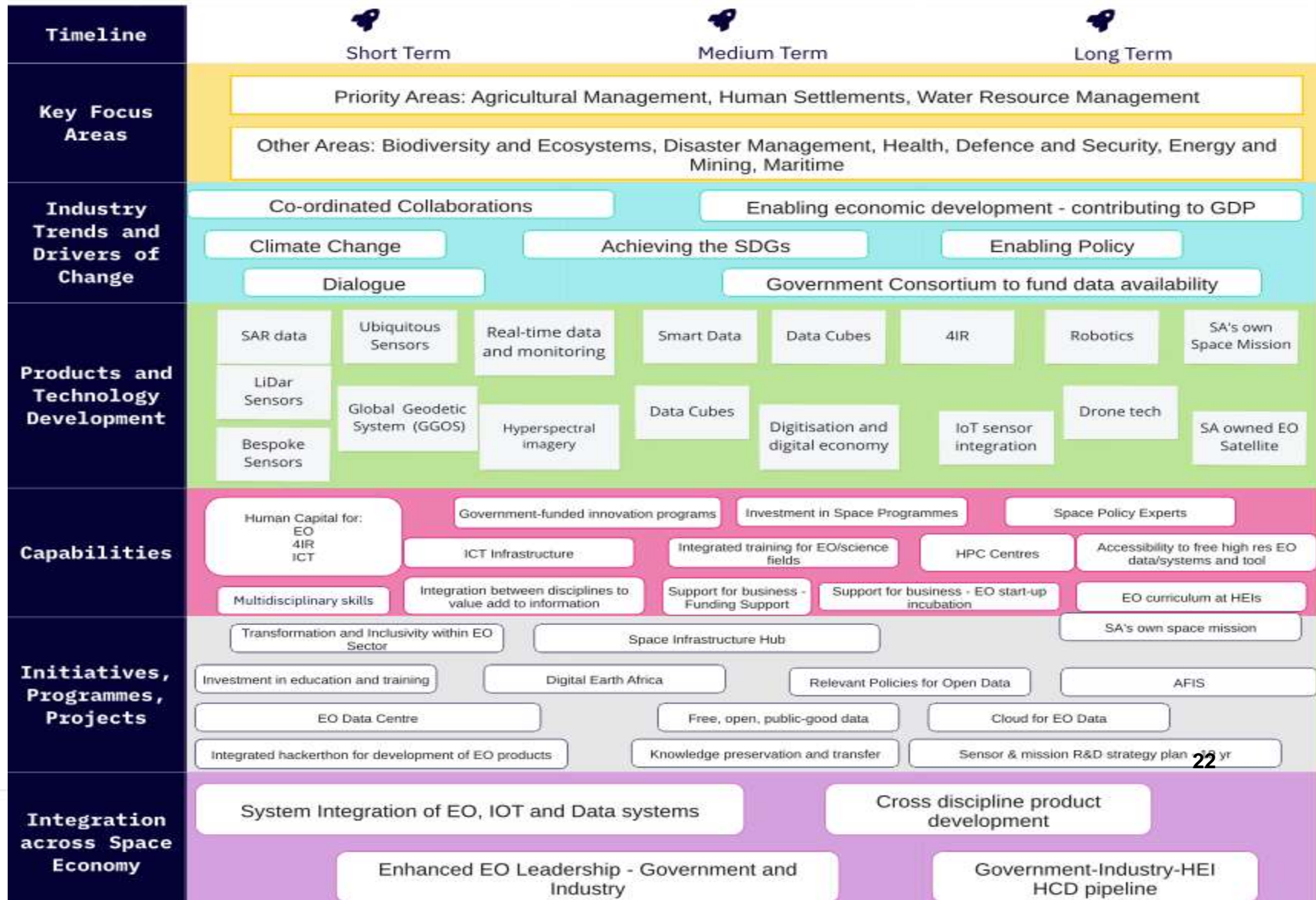
- A support mechanism for the implementing of the GEO objectives and programmes in South Africa through the mandate of the SAEOS.
- SAEOS responds to the implementation of GEOSS
- Managed by NEOSS
- Framework for strengthening partnerships and collaborations within south Africa





# National Space Programme Phase 2 Roadmap

Version 1.0



Co-ordinated, all-embracing Earth Observation information and service towards economic transformation, inclusive growth and sustainability for the benefit of all in Africa.



**Dankie**

**Enkosi**

**Ha khensa**

**Re a leboga**

**Ro livhuwa**

**Siyabonga**

**Siyathokoza**

**Thank you**