



Framework Programme 7

Latvia, Riga
18 July 2011



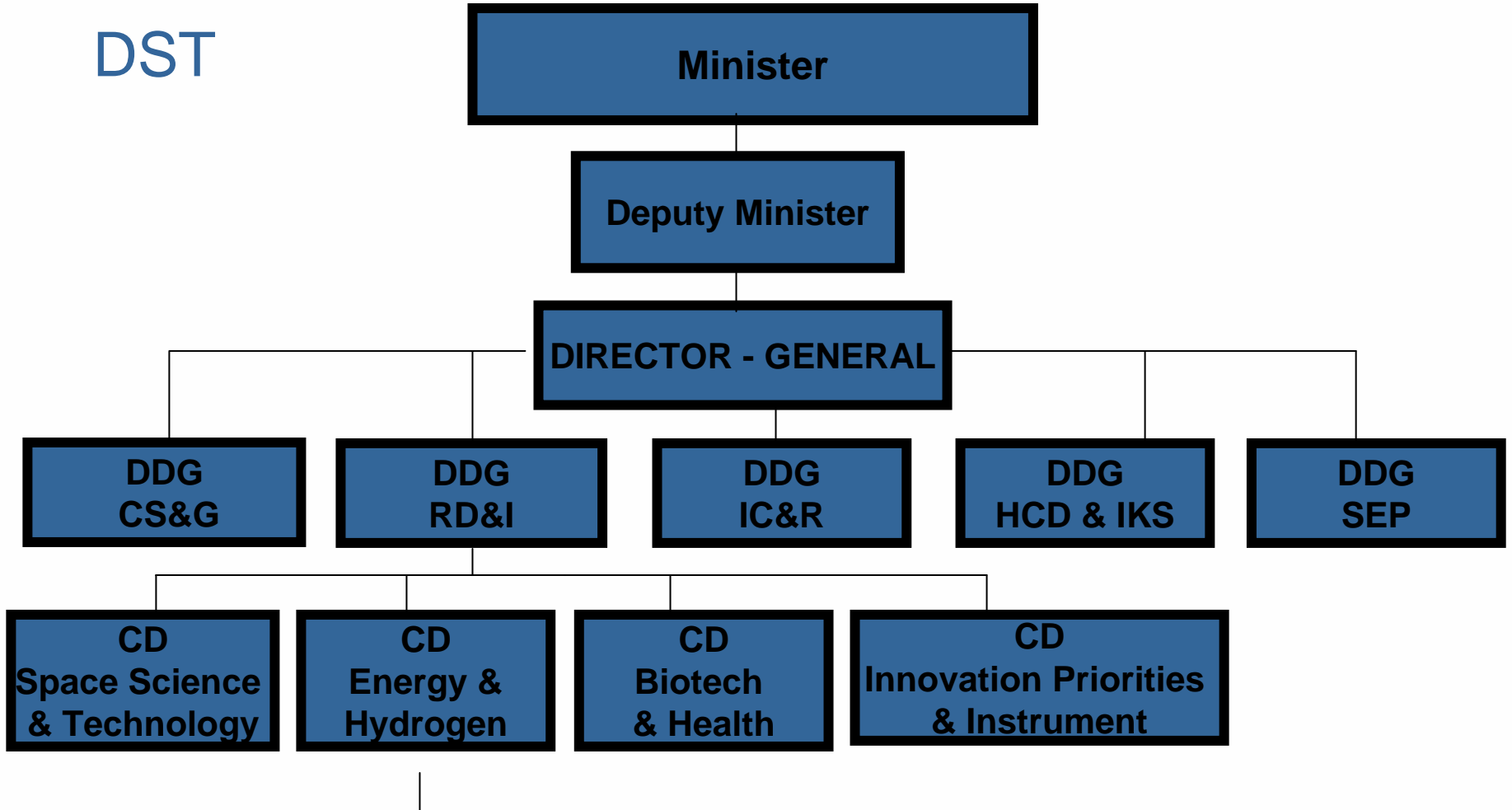
science
& technology

Department
Science and Technology
REPUBLIC OF SOUTH AFRICA



STRUCTURE

DST





National Space Strategy

Vision

For South Africa to be among the leading nations in the innovative utilisation of space science and technology that enhances economic growth and sustainable development in order to improve the quality of life for all



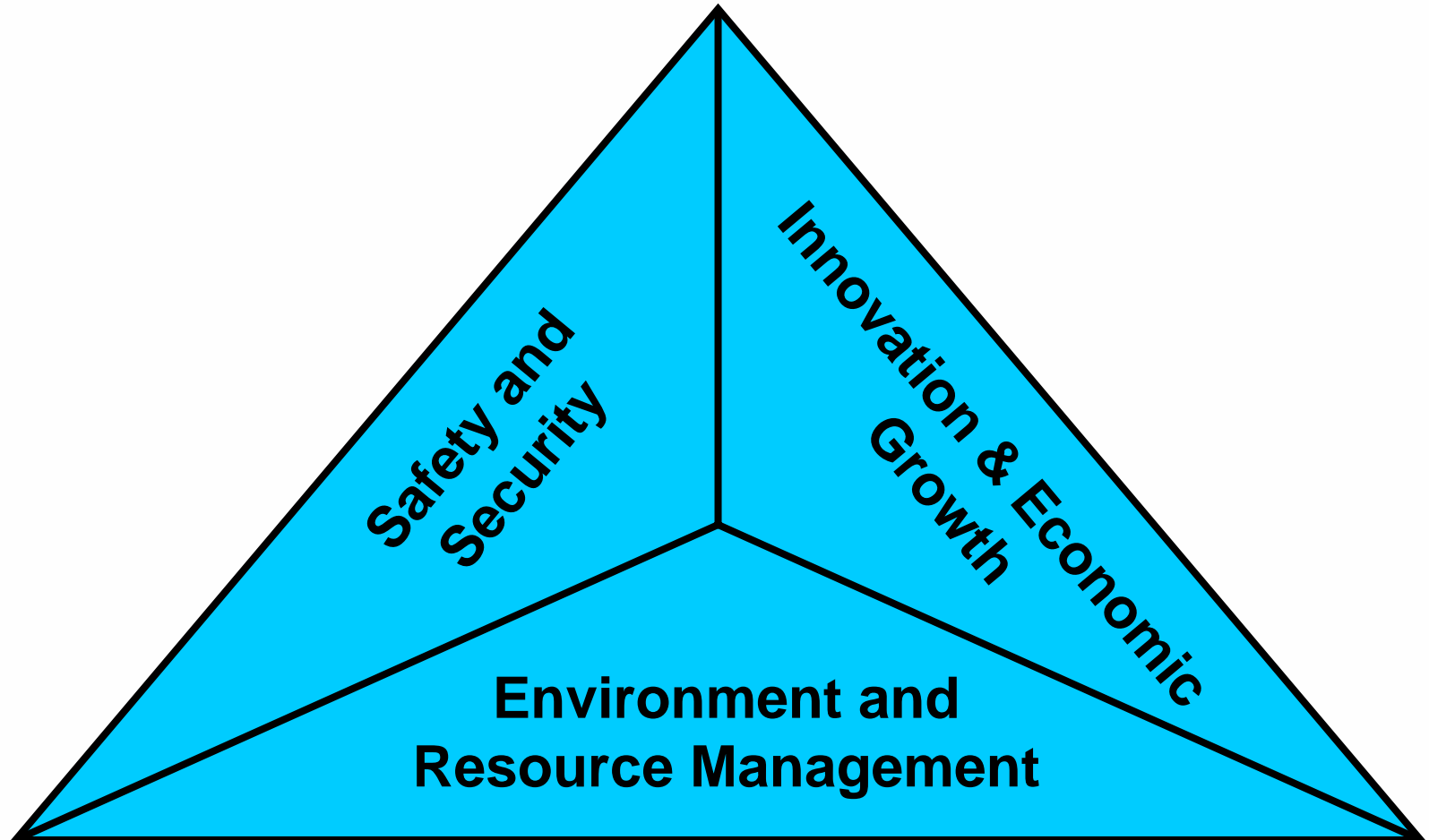
National Space Strategy

Mission

To address and inform national imperatives and policies through stimulating a sustainable space science and technology capability, growing human capital and applying scientific knowledge



Key Priority Areas





Safety and Security

- Disaster monitoring and relief
- Hazards forecasting and early warning
- Cross border risk
- Disease surveillance and health risk
- Asset monitoring
- Regulatory enforcement
- Defense, peacekeeping and treaty monitoring



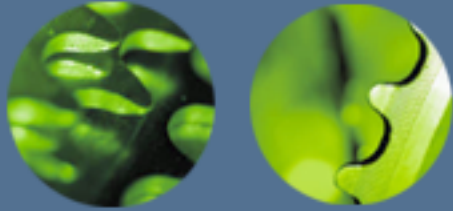
Environment & Resource Management

- Environmental and geospatial monitoring
- Ocean, coastal and marine management
- Land management
- Rural development and urban planning
- Topographic mapping
- Hydrological monitoring
- Climate change mitigation and adaptation
- Meteorological monitoring



Innovation & Economic Growth

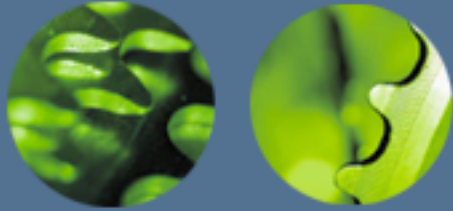
- Tourism and recreation
- Communications
- Space science and exploration
- Space technology transfer and spin-offs
- Development of the space industry



Centres of Excellence (CoE)

Centres of excellence are established over the years, mainly at the different universities, science councils with capabilities to apply space technology.

- University Cape Town (Radar technologies and oceanography applications)
- University of the Witwatersrand (pollution monitoring)
- University of Stellenbosch (Satellite Engineering – Sunsat and Sumbandila)
- RAU (Applications in Remote sensing)
- CSIR (Remote sensing: Meraka and NRE)
(Optronics Sensor Systems: DPSS)



Defence, Peace, Safety and Security (DPSS)

In the areas of:

- Infra-Red Electronic warfare
- Surveillance systems for day and night security applications
- Strategic Test and Evaluation equipment for day and night applications
- Pre and post launch calibration and validation of Earth Observing imagers
- Contact: Dr Dirk Bezuidenhout
+27 12 841 3451 dbezuide@csir.co.za



FP7 space call (DPSS)

Interested

- Area 9.1.2.2 The “S” in GMES – Security
- Area 9.1.2.4 Research and Development for the In-Situ Component
- Area 9.2.2.1 Key Technologies Enabling Observations In and From Space
- Area 9.3.1.1 Bringing terrestrial SME research into the space domain



CSIR Meraka & NRE

Focus on Information and Communication Technology

- ICT4EO and Remote Sensing Research Unit (RSRU).
(<http://www.csir.co.za/meraka/rsru/>)
- The mission of the RSRU is to conduct strategic remote sensing research, *develop world-class scientists and Earth Observation applications that benefit society.*
(e.g. the Advanced Fire Information System,
<http://afis.meraka.org.za/> and <http://wamis.co.za/>).



Meraka and NRE

Currently focusing on four main science themes:

- Time-series analysis of hyper-temporal, medium resolution satellite data for tracking environmental trends and land cover change
- Urban mapping and monitoring using Automated Feature Extraction
- Fire: active fire, burnt area mapping and fire danger modelling
- Near real-time applications using satellite direct broadcasting
- Contact: Dr Konrad Wessels
+27 12 841 3100 kwessels@csir.co.za



FP7 space call

Interested

- SPA.2012.1.1-05 Preparing take-up of GMES Sentinel data

Meraka and NRE would like to participate in the development of Sentinel 1, 2, 3 products, specifically fire related products, e.g automated burned area mapping using Sentinel 2, 3.



THANK YOU

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