

South Africa-European Union Space Dialogue: South African Policy context for Space sector Skills Development



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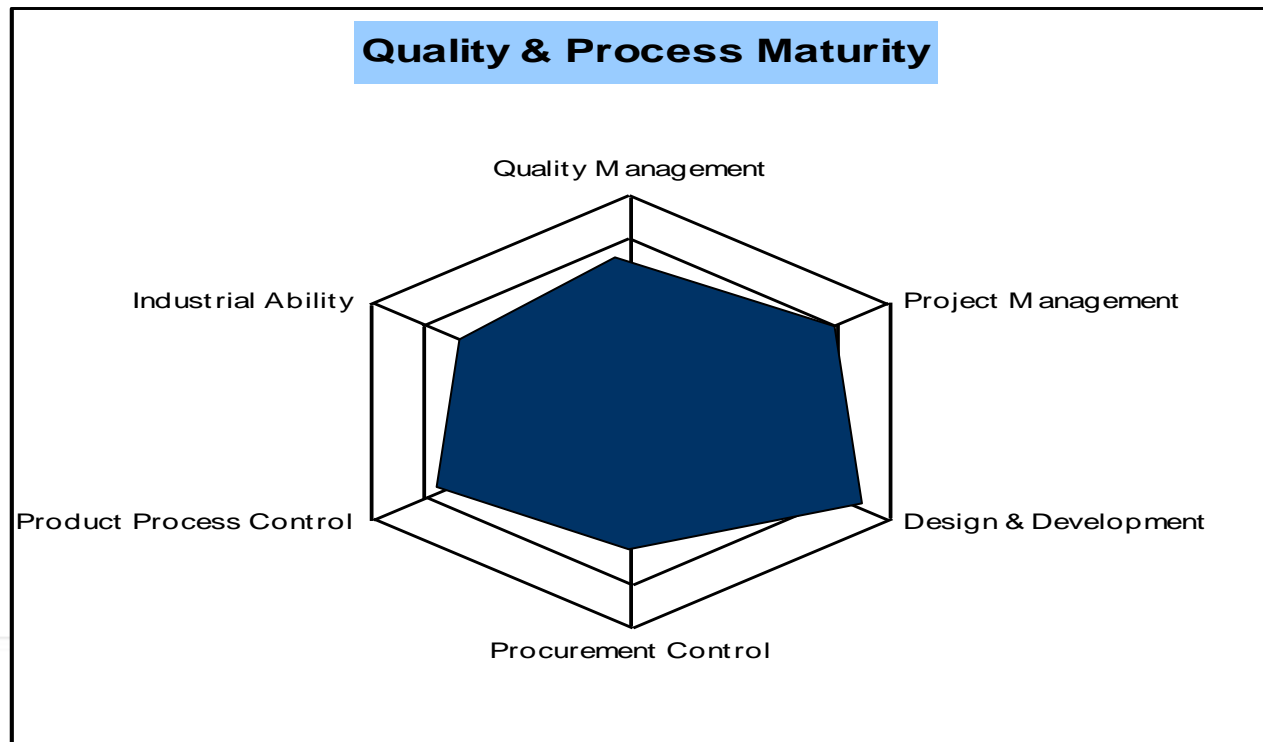


science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

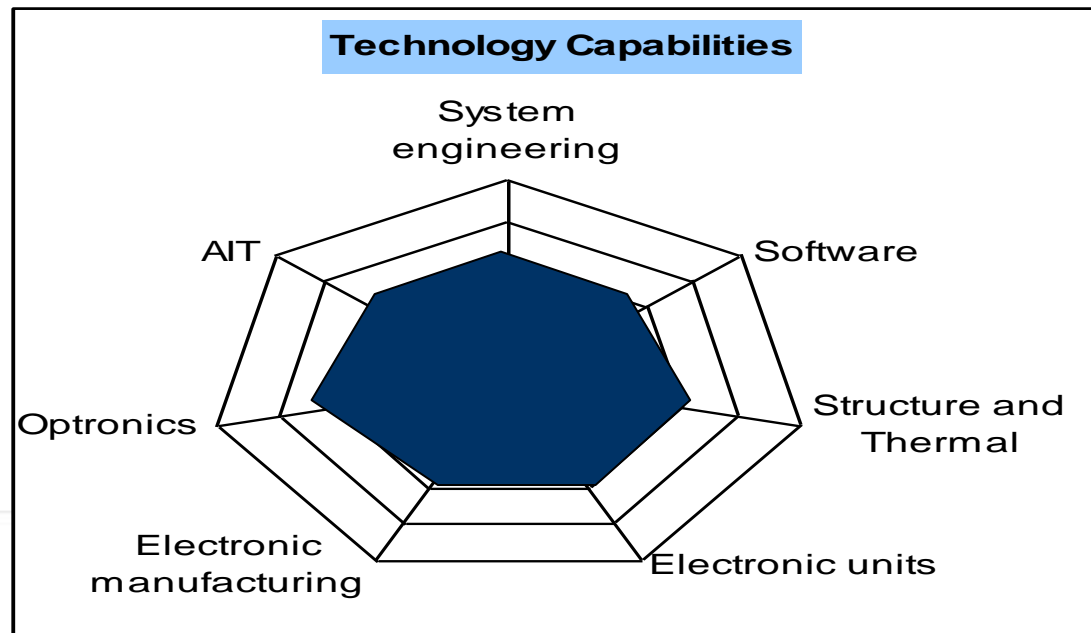
Quality & Process Maturity

- 2 ISO 9001 (Normal Standard)
- 3 EN 9100 (Aeronautic standard)
- 5 CMMI Level 3 (High level standard)

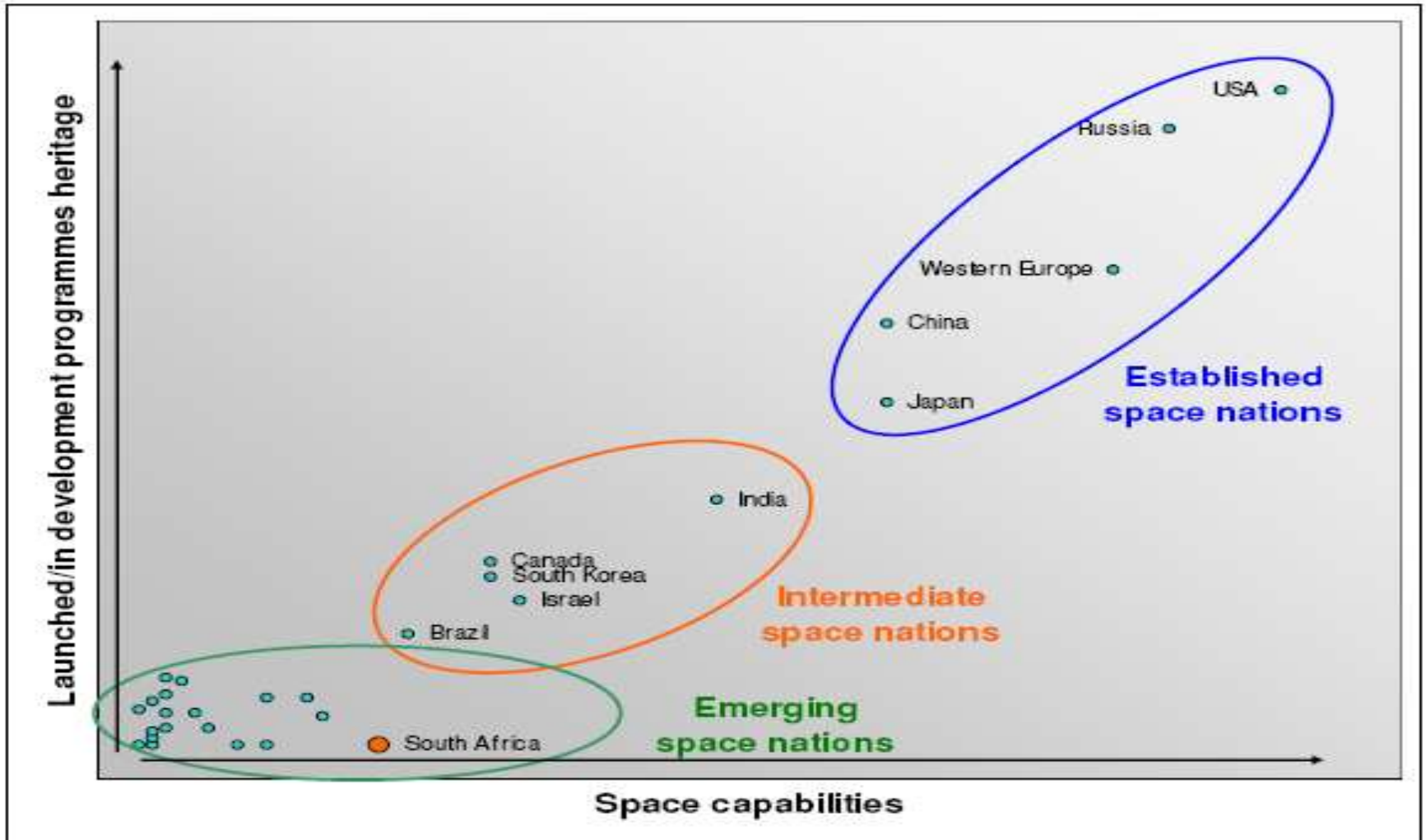


Technological Capacity

- 1 For ground fixed application
- 2 For embedded ground/naval application (automotive, marine)
- 3 For embedded aeronautic application (airplane, missile....)
- 4 For space application (nano or micro satellite)
- 5 For space application (large operational satellite)



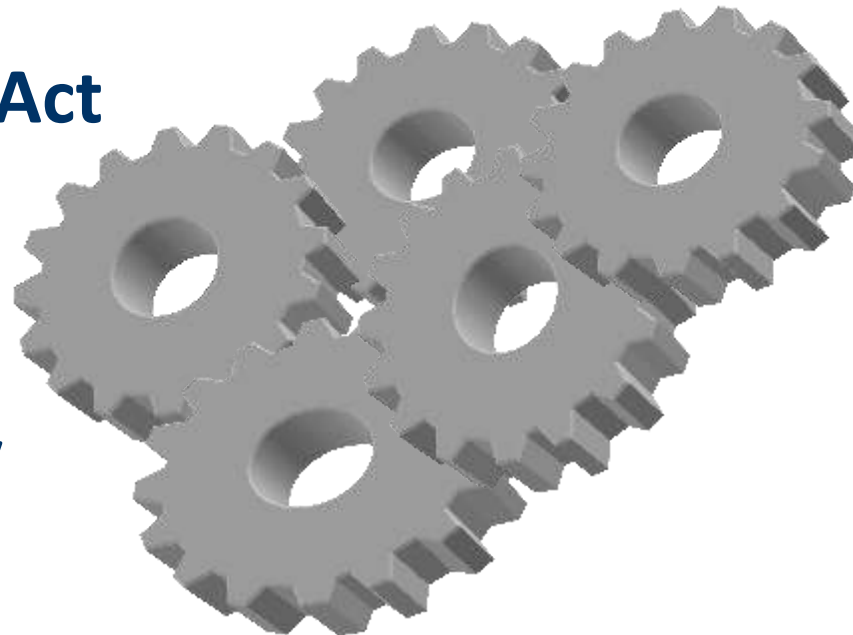
Global Position



South African Earth Observation Strategy

Space Affairs Act

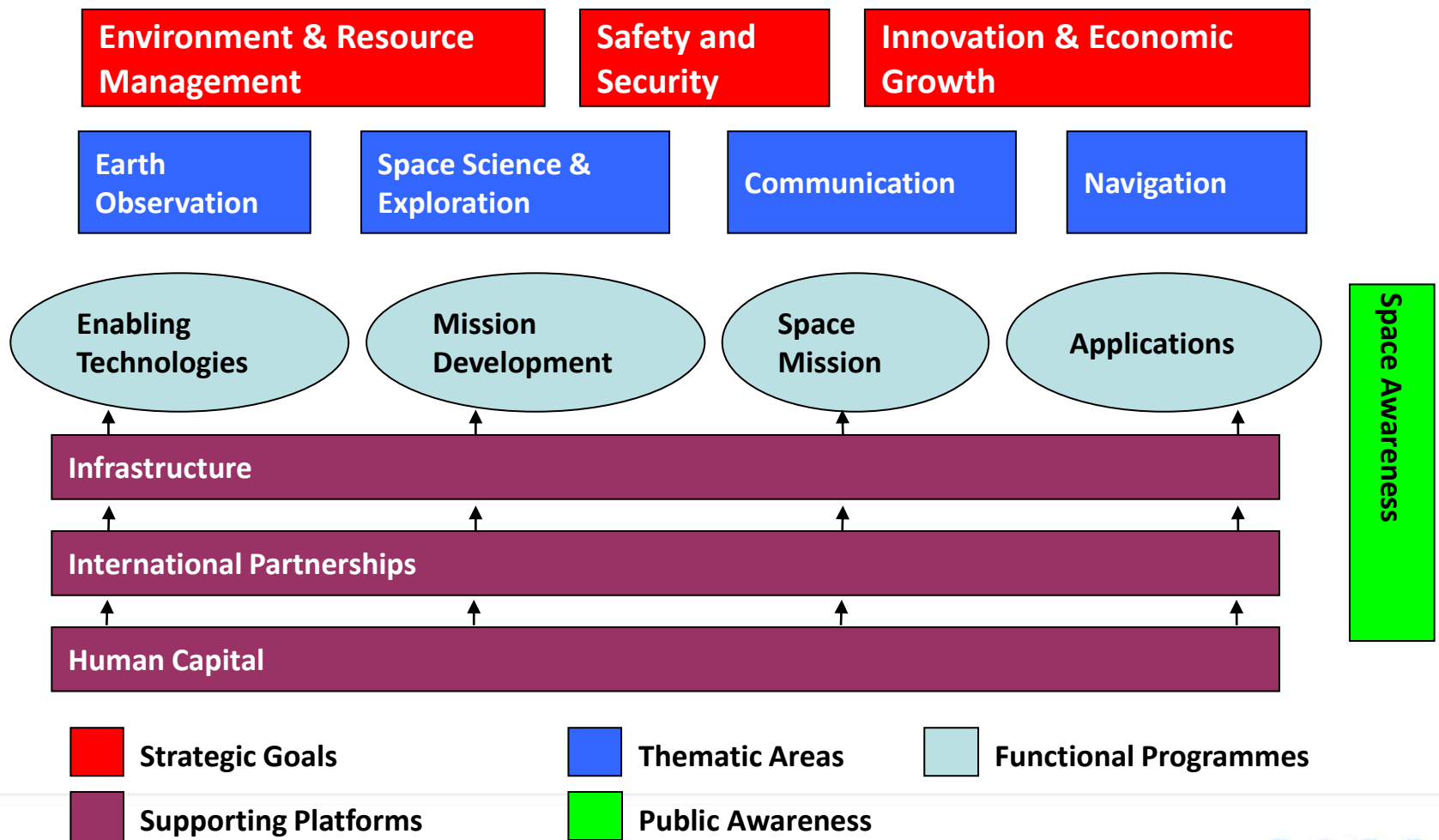
National
Space Policy



National
Space
Strategy

South African National Space
Agency Act

National Space Strategy Building Blocks



Mission Development

- SumbandilaSat programme
 - Outreach and awareness
 - SumbandilaSat naming competition
 - Outreach programmes
 - Internship programme
 - The postgraduate programme
 - Applications development
 - The engineering experiences
 - Mission Control Capability
- ZA-ARMC1 programme

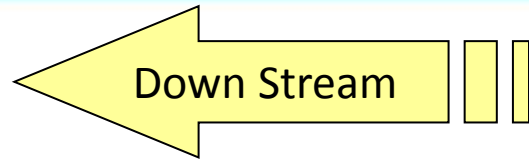




Human Capital Development Programmes

- MoU signed with IEEE in 2008/9 to for HCD in EO applications:
 - HCD capability audit in South Africa done in 2009
 - Benchmarking done by IEEE in 2010
 - Workshops held with academia, science councils and Industry from the recommendations of IEEE and recommendations report was submitted to DST in 2012
 - Roadmap for implementing space applications audit
- CPUT Satellite Engineering Programme





Schools

Public Awareness

Pre Grade 9

Post Grade 9

Career Decision

Space School

Space Cadet

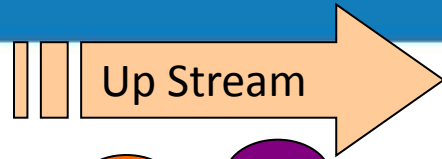
Media Campaigns

Promotional Material

Exhibitions





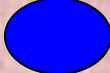
Teacher Training



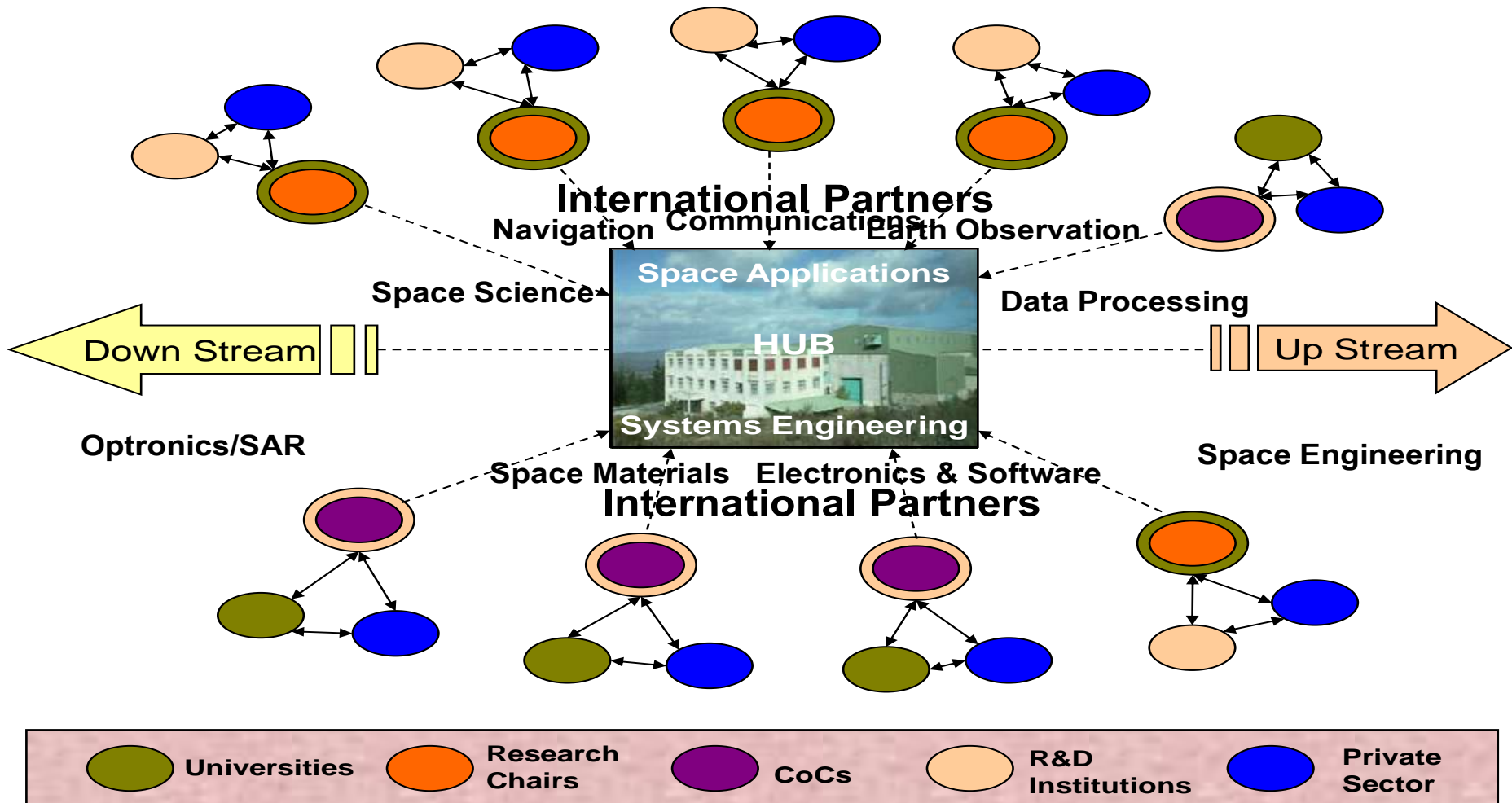


Annual Space Forum

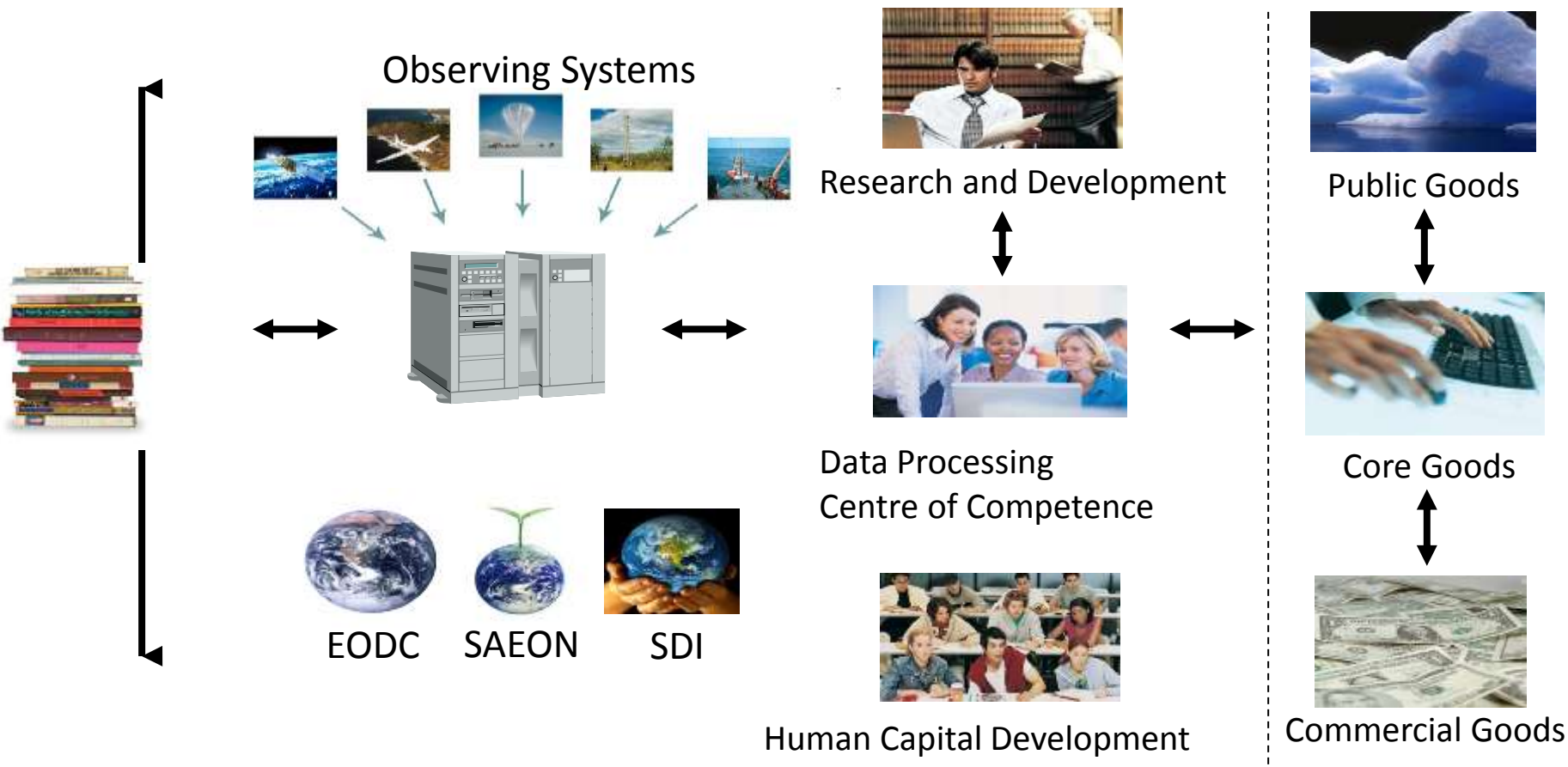


-  Universities
-  Research Chairs
-  CoCs
-  R&D Institutions
-  Private Sector

Hub and Spoke Model



Space Application Value Chain



INFRASTRUCTURE

PEOPLE

GOODS &
SERVICES



Focus areas

- Strengthen the NSP strategic case
 - Need for increased system linkages and coordination to support HCD
- SST will focus on building more capacity in emerging areas such as:
 - hyperspectral imaging;
 - LIDAR;
 - synthetic aperture radar (SAR);
 - Big data
 - crowdsourcing & development of open source GIS software and modelling human-environment interactions (for future cutting edge research and applied remote sensing and GIS applications development); and citizen science
- SST will foster innovative applications development and modelling in:- rural development, urban planning and human settlement, infrastructure monitoring, environmental monitoring health, education, food security amongst others;
- SST will enhance information richness by developing and integrating space applications with that of satellite communications and navigation and *in-situ* systems
- Contribute to national government priorities and frameworks such as: New Growth Path, National Development Plan, Industrial Policy Action Plan - Manufacturing Competitiveness Enhancement Programme





Thank You

