



**Internationalisation of the Research Platform
- Innovative Partnerships and Increased Impact -**

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South Africa's Human Capital Development (status and challenges)



- SA is ranked 29th on the 2010 GCI
- 1.5 researchers per 1000 people employed
- 0.93% GERD
- Produce 27 PhDs/ mill. population each year
- Contribute 0.55% of global R&D output
- Target 1% of global output
- International benchmarks: 100 – 250 PhDs/ mill. [Switzerland (454), Sweden (427), UK (288), Australia (264), United States (201), France (172), Japan (132), Germany (105), Turkey (48), Mexico (28), Chile (13)]
- SSA share of world scientific papers – decline from 1% to 0.7%
 - 75% of this from 3 countries (SA, Egypt, Nigeria)
- Achieving the target
 - 5-fold increase in PhD production (1 200 to 6 000 per annum)
 - Previous success of investments illustrated by increasing publication output with international collaborators

NRF Mandate – NRF Act



Promote and support research

through

funding, human resource development and the provision of the necessary research facilities

in order to

facilitate the creation of knowledge, innovation and development in all fields of science and technology, including indigenous knowledge

and thereby to

contribute to the improvement of the quality of life of all the people of the Republic

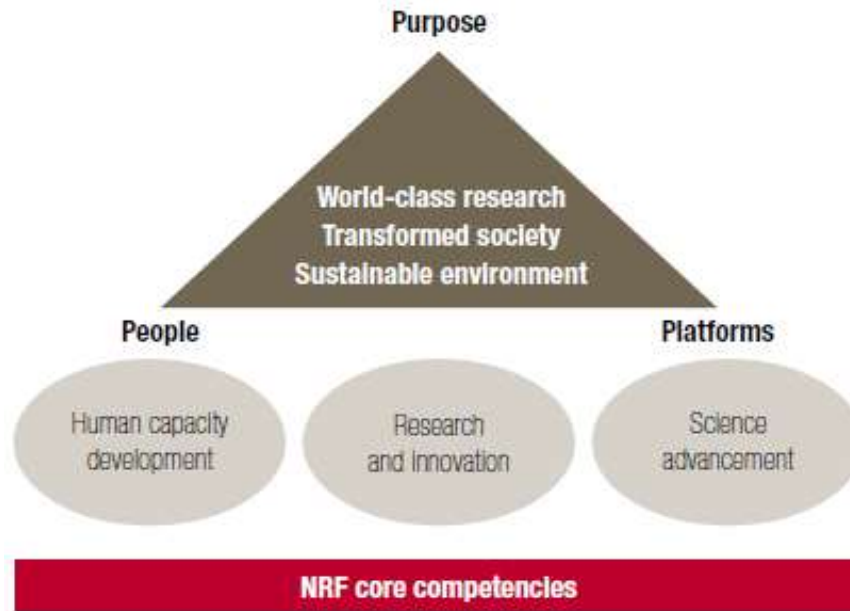


Strategic Plan

of the National Research Foundation



February 2008



NRF VISION

2015

System Goals

A prosperous and sustainable African landscape

Strategic Goals

Internationally competitive science, technology and innovation system

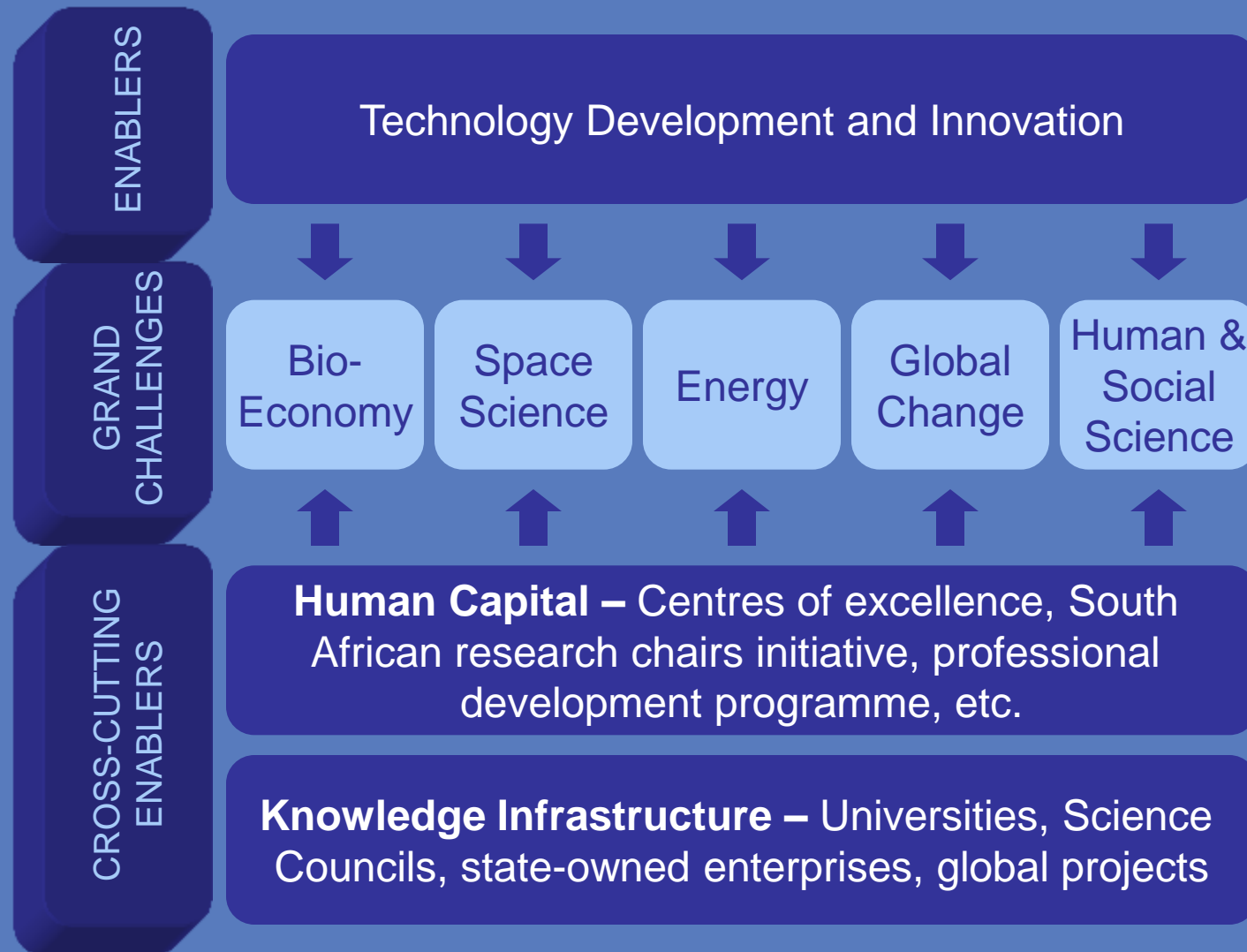
Representative research and technical workforce in SA

World-class science benchmarking and grant systems

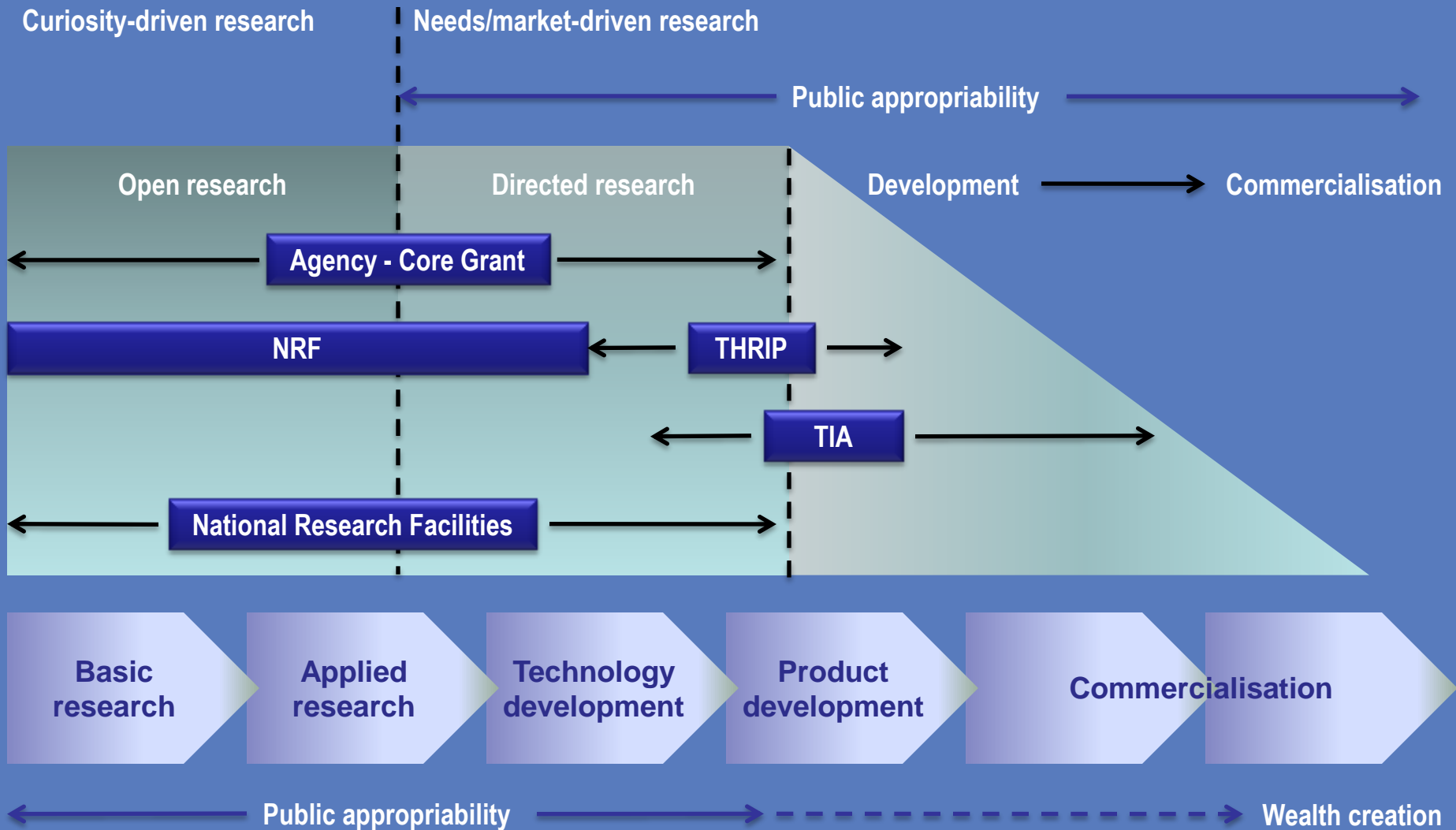
Leading edge research, technology and innovation platforms

Vibrant national science system

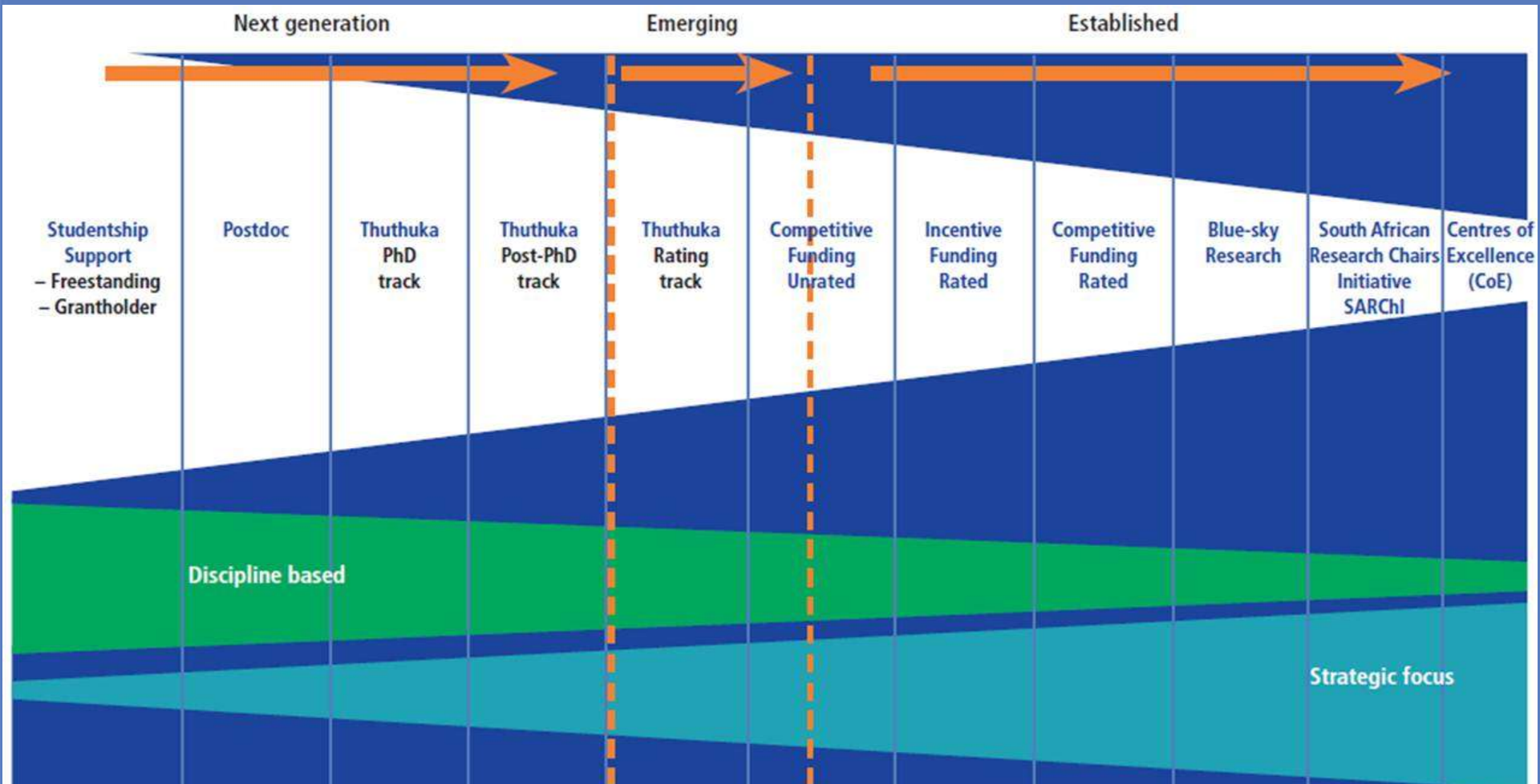
DST 10-yr Innovation Plan: Grand Challenges



Innovation System Value Chain

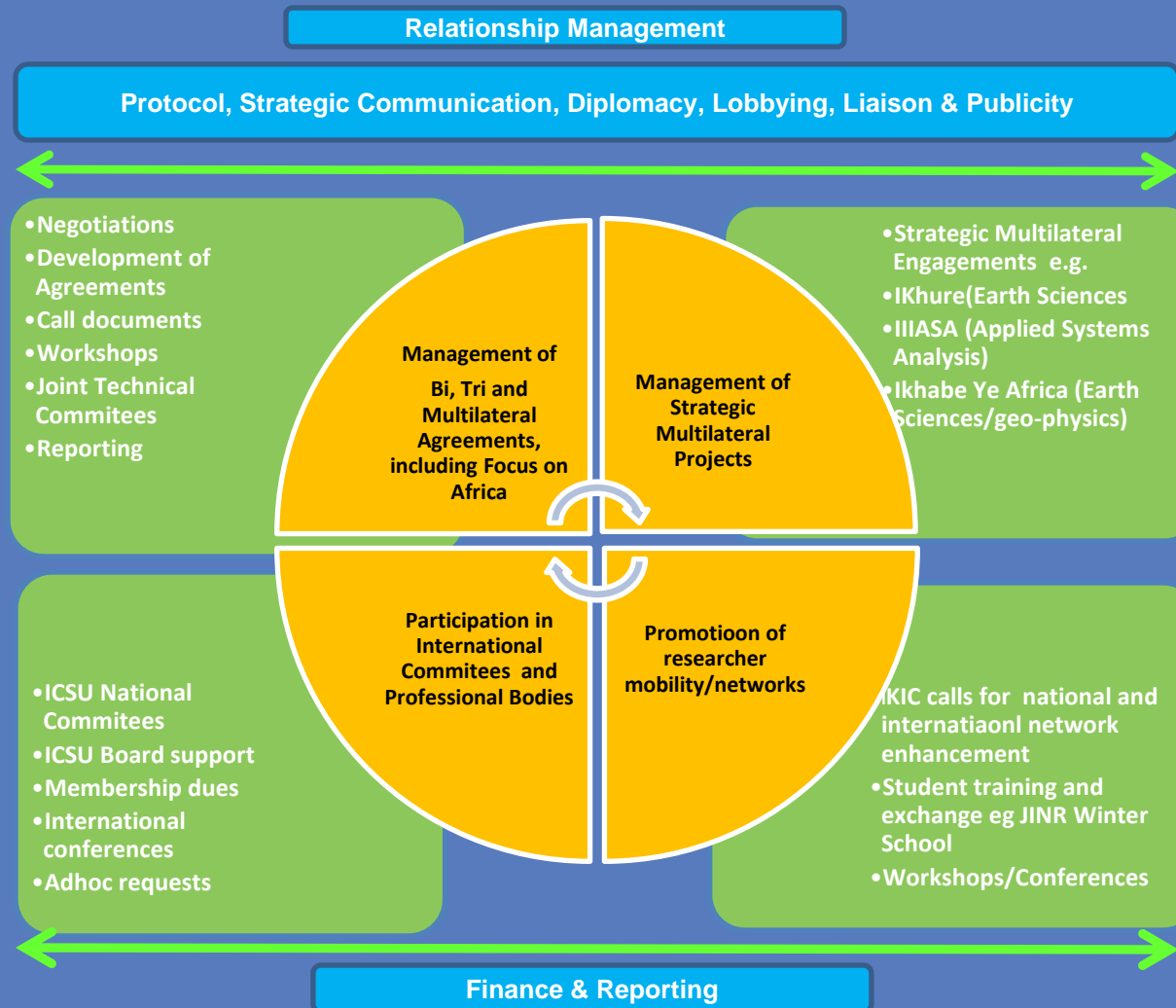


Human Capacity Development Excellence Pipeline



Main Activity Areas

International relations and Cooperation



Budgeting & Projections, Contracts, Expenditure Monitoring, Supply Chain Management, Programme Reporting

Overseas Cooperation Engagement strategy



Bi-nationals

Country-to-Country
Agreements for S&T
cooperation – e.g. Europe,
Americas, Asia & Middle East

Bi-laterals

Agency (NRF)-to-Agency
Agreements for S&T cooperation,
not flowing out of Bi-national
Agreements – e.g. JSPS (Japan),
RCN (Norway), DAAD
(Germany), ASCR (Czech
Republic), etc.

Multilaterals

Only the South-South
collaboration – e.g. IBSA and
BRICS

Mobility Grants

Accorded to SA and counterpart
researchers on an annual basis to
allow travel between SA & other
countries (exposure for scientists)

“Special Projects”

Various international
engagements not fitting the
groupings indicated

Overseas bilateral agreements



Asia	Americas	Europe	Gulf	Agency-to-Agency	'Special Projects'
China	Argentina	Belarus	Iran	CNRS (France)	!Khure (France)
India	Brazil	Czech Rep.	Oman	FAS (Finland)	Inkaba Ye Africa (Germany)
Japan	Cuba	Finland		FWO (Flanders)	IIASA (Netherlands)
Malaysia	Mexico	Flanders		NSF (USA)	JINR (Russia)
South Korea	USA	France		RFBR (Russia)	KIC
Taiwan		Germany		ASCR (Czech Rep.)	SNSF (Switzerland)
		Hellenic (Greece)		DFG (Germany)	IBSA
		Hungary		JSTA (Japan)	
		Italy		JSPS (Japan)	
		Netherland		NOW (Netherlands)	
		Norway		NSFC (China)	
		Poland		DAAD (Germany)	
		Romania			
		Russia			
		Slovakia			
		Spain			
		Sweden			
		Switzerland			
		United Kingdom			
		Ukraine			

Supported Thematic Areas (Calls)

	Belarus	Czech Republic	Germany	Hungary	Italy	Poland	Norway	Sweden	Switzerland
Astronomy			X						
Bio and Nanotech							X		X
Space Sciences & Remote Sensing				X	X	X		X	
ICT			X			X	X	X	
Engineering			X	X	X	X		X	
Biosciences & Biotech			X	X	X	X		X	
Health Sciences			X	X	X	X	X	X	X
Social Sciences & Humanities		X	X	X	X	X	X	X	X
Geosciences & Mineral Resources			X	X	X	X	X	X	
Energy			X				X	X	X
Environment & Climate Change			X	X	X	X	X		
Mathematical Sciences			X	X		X	X	X	
Agriculture				X	X	X	X	X	
Laser Technology	X		X					X	
Physical Sciences	X	X	X	X	X	X	X	X	
Life Sciences		X	X	X		X	X	X	

Supported Thematic Areas (Calls)



	IIASA (Austria)	UK	Spain	Russia	Flanders	France	Finland	Netherlands	Denmark
Astronomy					X				
Bio and Nanotechnology					X				
Material Science and Nanotech									
Space Sciences & Remote Sensing								X	
ICT	X				X				
Engineering	X	X	X		X	X		X	
Biosciences & Biotech									
Health Sciences	X	X	X		X	X			
Social Sciences & Humanities	X	X			X	X	X		
Geosciences & Mineral Resources		X			X	X			
Energy									
Global Change / Environment & Climate Change	X				X				
Physical Sciences	X	X	X		X	X			X
Mathematical Sciences		X	X		X	X			
Agriculture		X				X			
Laser Technology									
Life Sciences	X	X	X		X	X			

Strategic Pointers

- **PhD as key driver**
 - Innovations to support and expand
 - Strategic partnerships
- **Next generation focus** (emerging researchers)
- **Small grants with marginal impact**
 - Impact – science for society
- **Poor coordination of research opportunities**
 - Inadequate R&I management capacity – SARIMA (COEUR4Life)
 - Not institutionalised – both macro- and micro-levels
 - By default an exclusive model of collaboration
 - Insightful mobility support
 - SA – ‘internal competitiveness’
- **Innovative partnership modalities**
- **True co-investment**
 - Joint laboratories
 - Joint Chairs or CoE
- **NEW areas of investment**

PARTNER with us
Realise the **POTENTIAL**



**Enkosi, Thank you,
Re a leboga, Siyabonga,
Dankie**

