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in the service of society*

# **Insights into South Africa's Participation in FP7 for Research and Technological Development of the European Commission**

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SA-EU Information Sharing Session  
7 December 2015

# Introduction

- With a budget > € 50 billion over 7 years (2007-2013), FP7 one of the largest sources of funding for scientific research in the world (additional €2.7 billion for Euratom)
- Budget for the FP7 represented a 41% increase from FP6 at 2004 prices
- FP7 was designed to support research activities of importance to EU
- FP7 was initially established to address employment needs and competitiveness

**Table 2: South Africa's FP7 applications per research priority area together with success rates (based on data up to 2012)**

FP7 priority areas	Number of applicants	Success rate (applicants)	Requested EC contribution (€m)	Success rate (requested EC contribution)
Health	157	25.5%	49.71	25.1%
Environment (incl. climate change)	156	20.5%	29.51	14.1%
Marie Curie actions	150	40.0%	n/a	n/a
Food, agriculture & fisheries, and biotechnology	144	22.9%	24.38	17.7%
ICT	98	17.4%	19.53	8.4%
Socio-economic sciences and humanities	83	14.5%	16.06	11.6%

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**Table 3: South Africa's FP7 applications per organisation type together with success rates (based on data for 2012)**

Organisation type	Number of applicants	Success rate (applicants)	Success rate (requested EC contribution)
Higher education sector	530	25.1%	19.3%
Research organisations	226	26.5%	17.6%
Private for profit (excl. education)	112	32.1%	21.0%
Other	66	25.8%	15.6%
Public body (excl. research and education)	61	41.0%	36.2%

- More than 50% applications from Universities
- Universities received bulk of funds - € 14.82 m in 2013

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Public institutions had the highest rate of success





# Breakdown of Projects by Programme

- 122 FP7 projects classified according to programme and sub-programme
  - 95 SP1 Co-operation projects – 22 in Environment & 19 in KBBE
  - 3 SP3 People projects
  - 24 SP4 Capacities projects
  - 3 SP5 Euratom projects
- 153 SA institutional participations
  - CSIR        30
  - DST         14
  - UCT         12
  - UKZN        10
  - SU           8

**Table 4: Breakdown of 122 FP7 projects (completed by 2014) in terms of programme and sub-programme classifications**

FP7 programmes	Sub-programmes				Total
	SP1- Cooperation	SP3- People	SP4- Capacities	SP5- Euratom	
FP7-Energy	2	0	0	0	2
FP7-Environment	22	0	0	0	22
FP7-Euratom-Fission	0	0	0	3	3
FP7-Health	15	0	0	0	15
FP7-ICT	12	0	0	0	12
FP7-Inco	0	0	8	0	8
FP7-Infrastructures	0	0	8	0	8
FP7-KBBE	19	0	0	0	19
FP7-NMP	2	0	0	0	2
FP7-People	0	3	0	0	3
FP7-Security	2	0	0	0	2
FP7-SIS	0	0	2	0	2
FP7-SME	0	0	3	0	3
FP7-Space	9	0	0	0	9
FP7-SSH	5	0	0	0	5
FP7-Transport	7	0	0	0	7
<b>Total</b>	<b>95</b>	<b>3</b>	<b>21</b>	<b>3</b>	<b>122</b>

# Data Sources

The study used three data sources:

- Community Research and Development Information Service (**CORDIS**) database - public repository and portal used to disseminate information on all EU-funded research and their results → **122 FP7 projects** that involved SA participation
- **Focus group** with officials from DST
- Two **web surveys**
  - SA participants in FP7 projects
  - International coordinators of FP7 projects with SA participation

# South Africa's Participation

Analysis of CORDIS records showed that SA's participation in FP7 can be interpreted as result of:

- SA's expertise in a specific area of interest
- Established networks/collaborations enable SA researchers to be automatically drawn into collaboration
- Inclusion of SA and Africa to strengthen the global character of FP7 projects
- Geographic location of Africa requires inclusion of scientific experts from the region

# Benefit and Potential Impact of Participation in FP7 Projects

- Project administrators (DST) acquired skills that enhanced their knowledge on policy, administration and funding mechanisms
- Opportunities for institutional learning which resulted in better programme offerings
- SA integration in international networks
- Strengthening collaboration with other African countries and BRICS countries
  - 15% and 11% of SA FP7 projects collaborated with Kenya & Egypt
  - 16% and 15% of SA FP& projects collaborated with China and Brazil

# Conclusions & Recommendations for Horizon 2020

## Initial responses

- Of 9 FP7 respondents, 3 would not participate in Horizon 2020
- March 2015 – 20 contracts signed involving 31 SA participants
- CSIR and SU currently lead
- Total investment by EC currently 4.6 million Euros

# SA Participants in Horizon 2020 Projects

CSIR	4
Stellenbosch University	4
MINTEK	3
University of Cape Town	2
University of Pretoria	2

1 project each

- Government department DST,
- Government agency/SOE WRC, NRF, Armscor, Pikitup Pty Ltd
- Industry Agri Protein Tech, Esteq Engineering
- Non-profit/charity Divers Alert Network SA, E-Waste Assoc of SA, Geological Society of SA, SA SAN Institute Trust
- Private research institute K-RITH
- University CPUT, NWU

# EC Contribution to Horizon 2020 Projects with SA Participation

Project EC Hierachy	# SA Participants	Total Amt (€)	Mean Amt per SA Participant (€)
Climate action & resource efficiency	6	523 316	87 219
Excellent science	12	1 339 973	111 664
H2020 env & resources	4	327 913	81 978
Health	4	1 636 689	409 172
Industrial leadership & societal challenges	2	116 250	58 125
International cooperation	1	672 052	336 026
Total	29	4 616 194	153 873 (8750 to 829 562)



# Single most important challenge

Challenges experienced by SA researchers

- Geographic remoteness to attend meetings and workshops – other participants within 2hr flight
- Availability of students with competence/interest
- Access to data
- Administrative, project and financial management overheads
- Collaboration with and participation of SA stakeholders
- Cumbersome reporting system and paperwork
- Administration undertaken by EU partners – otherwise would have been a deterrent
- Producing internationally acceptable data
- Understanding and following the EU FP7 rules and practices

# Challenges of SA Participation in EU Projects

Challenges as reported by international coordinator of FP7 projects

- At times, slow administration; SA PI left academia before completing project tasks; position not replaced quickly enough to be of value to project
- Cooperate as a small team within extensive European network
- Delay compliance
- Complications of EU financing system and loss of funding because of currency movements
- Access to synthetic genes – these had to be provided via the EU rather than directly to SA team

# Strengthening Future Participation by SA Participants

Suggestions for strengthening SA participation as reported by international coordinators

- Establish a 'cell' in SA research council to advise on financial & administrative requirements
- Better approach in large project management
- Develop a funding strategy that allows outcome of EU projects to be followed up
- Improve EU awareness of SA environmental science and improve exchange
- Need more commitment to projects in which they are involved

# Recommendations

1. Strategic Partnership Division of the DST should receive **capacity enhancement** wrt grant management to improve efficiency and effectiveness
2. Attention should be devoted to **project management** challenges:
  - Support project website beyond project time frame
  - Further dissemination of the project outputs
  - Support SA participants in addressing EC financial & admin requirements
3. Explore the extent of assistance from NCPs in **aligning proposal to national priorities** & investigate feasibility of a process of **national endorsement** of projects

4. Improve **data management** of projects for the purpose of impact-oriented monitoring (IOM)
- Develop a database of SA projects in Horizon2020 that is updated on regular basis until 3 years after completion
  - The DST should compile a clear and unambiguous list of the national priorities for STI that that is easily accessible to assist in alignment and can be incorporated into the IOM approach
  - The DST should adapt the IOM approach, or elements thereof, for Horizon2020 to monitor impacts

# Acknowledgements

- European Commission
- ESATAP Plus Consortium
- DST
- Ms Dorothy Ngila
- Dr Nelius Boshoff
- Survey respondents

THANK YOU