# G:ENESIS

# Implementation/impact evaluation of the Support Programme for Industrial Innovation

Presentation to the dti Executive Board

28 August 2014

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## Introduction



The DPME and **the dti** issued a ToR for an impact evaluation of the Support Programme for Industry Innovation



The purpose of the evaluation was to assess the workings of the programme, to determine its impact and how the beneficial impacts can be strengthened



The programme is evaluated at a national level, with a focus on the Western Cape, KwaZulu-Natal and Gauteng



The evaluation covers a thirteen year period 2000/01 - 2012/13 The over-arching purpose of the evaluation was to provide insight into the effectiveness and efficiency of SPII's implementation, assess the impact of SPII and to determine how the beneficial impacts can be strengthened.

#### **Guiding evaluation questions**

- What is the impact of SPII on South Africa's innovation landscape and South Africa's economic development?
- Do industry partners and South Africa as a whole realise a return on investment from SPII?
- What happens to the Intellectual Property from complete SPII projects?
- Is SPII still relevant when considering other instruments in the innovation landscape?
- What factors in the South African context enable or constrain the beneficial impact of SPII?
- Is the current model of delivering SPII cost effective in comparison to alternative models?
- What effect do institutional mechanisms have on the efficiency and effectiveness the programme?
- How does SPII's performance compare to similar programmes nationally and internationally?

Many of these questions relate to the implementation rather than the impact of SPII.

There was insufficient data to answer many of the impact questions.

Although initially planned as an impact evaluation, the focus shifted to an implementation/impact

evaluation.

## Overview of the Support Programme for Industry Innovation



- Non-repayable grant
- SMMEs targeted
- 50 to 85% funding
- Up to R2 000 000



- Non-repayable grant
- SMEs targeted
- 50 to 75% funding
- Up to R5 000 000



- Conditionally repayable grant
- Larger enterprises targeted
- 50% funding
- Minimum of R10 000 000



#### Introduction

## Approach to the study

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# Methodology

#### A multi-method approach was undertaken to collect data for the evaluation

Document and data review	Online survey	Key informant interviews	Case studies
<ul> <li>Documents and publications on innovation and SPII</li> <li>SDU records and</li> </ul>	Online survey sent to all applicants of SPII	Telephonic or face-to- face interviews	<ul> <li>20 case studies were conducted in Johannesburg, Cape Town &amp; Durban</li> </ul>
SPIT records and annual reports			
<ul> <li>Project reporting data for 401 projects.</li> </ul>			

Instrument	Response	Response rate
Key informant interviews	33 interviewees	76.7%
Survey of SPII applicants	220 respondente	34.5%
(approved and rejected)		
Case studies of SPII funded prejects	20 detailed case studies (8 in Gauteng, 8 in	
	Western Cape and 4 in KwaZulu-Natal)	
Completed project reporting data review	219	54.4% (of the 401 completed
	210	projects only 218 had sales data)

#### Limitations

- Limited reporting data

-Unavailability of some stakeholders - Low response rate to the survey

- Majority of companies interviewed received funding pre-2012 thus do not reflect changes made to SPII post-2012

#### Limited the team's ability to attribute impact.

Evaluation focused instead on the implementation factors that either enhance or dilute SPII's impact.

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## Impact of SPII on South Africa's competitiveness and broader development objectives

### Commercialisation

- Successful commercialisation is an indicator of achievement.
- 25% of PPD projects and 53% of SPII matching scheme projects were commercialised.
- The use of a probit model indicated success is positively correlated with receiving SPII funding and turnover.
- Bridging the gap between the pre-production prototype and commercialisation is the greatest barrier to success.



#### Tax revenue

## **Relevance of SPII**

- 47% of respondents who received SPII support could not have continued without SPII.
- 57% of rejected applicants reported to not have continued with their project.

### Job creation and skills development



Approximately **3000** direct permanent jobs

- R208 000 per job
- SPII, according to its objectives, does not aim to generate employment, but merely to stimulate innovation.
- Job figures relate to those created directly within SPII companies and do not include indirect jobs.
- The majority of survey respondents trained between one and five employees for their project.
- Training is usually on-the-job training and product specific

	2010/2011	2009/2010	2008/2009	2007/2008	2006/2007
Taxes paid –	P11 1m	R6.2m	R35.1 million	R1/0.3m	P223.3m
company tax		1\0.2111		1/149.011	11223.311

#### the dti Macro DST Technology Innovation Agency THRIP Meso Support Programme Technology Venture Capital Fund for Industry Innovation National Research (SPII) Foundation (NRF) Seven statutory science councils (excl. NRF) Micro Universities and other research institutions National research Industry and business facilities Production Research Development Commercialisation & Market

## Impact and relevance of SPII in the South African innovation landscape

- SPII fills an important gap where traditional funding is difficult to obtain
- Availability of financing, the cost of innovation and the length of pay-off period associated with innovation are perceived to be the greatest barriers to innovation in South Africa
- SPII attempts to address these
- TIA and SPII both provide funding for prototype development
- These should be used in a complimentary manner however SPII is said to be the dominant player in this space

### Achievement of and constraints to SPII's objectives

- Objectives are not clearly defined.
- IDC and the dti meet to make targets every year based on previous spend and number of projects funded.
- When assessed against these targets, SPII has met its annual targets.
- However this is a narrow interpretation of a programme's effectiveness.



#### Institutional efficiency as it relates to the impact of SPII

#### Application and contracting processes

- Efficient as long as consultant/account manager is skilled.
- Could be improved if migrated to an online platform.
- · Respondents would like to be present at the presentation of their proposals.
- Smaller enterprises incur greater additional costs, such as legal fees and consultants.
- Factors to determine if application is approved are economic merit and level of innovation these are open to interpretation.

#### **Reporting and disbursements**

- Reporting requirements are appropriate for larger companies; however, for smaller companies they can be arduous and resource consuming.
- SPII's follow-up reporting is limited to financials and employment figures unable to establish progress on commercialisation.

#### Management and structure of the programme

- Management of the SPII programme was noted by industry stakeholders to be better than the other innovation programmes in South Africa.
- Well suited and qualified account managers/consultants are pivotal to the programme's success.
- Administrators listed the following constraints:
  - · Arduous legal and financial compliance requirements reduce the risk appetite of SPII
  - Lack of funding

## Sustainability

#### Sustainability of SPII's budget

- SPII struggles to meet demand for funding with limited budget
- Already accessing IDC's capital
- PII is not sustainable given the size of grants
- Grants best form of funding mechanism for innovation
- Sustainability of funds is not well addressed with a pure grant
- Other mechanisms can stifle innovation by reducing the risk appetite of the innovator

#### The success of the projects which SPII has funded

 If recipients are offered business support or mentorship- it is more likely that their projects will succeed and be sustained into the future

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# Analysis

#### What is the impact of SPII on innovation activity in South Africa?

- SPII is one of the stronger innovation incentive programmes in South Africa.
- SPII overcomes the greatest constraint to innovation in South Africa access to finance.
- Majority of applicants would not have been able to continue without SPII funding.

# What impact does SPII have on economic development through technology transfer and technology development?

- An innovation project can only contribute to economic development if it is commercialised.
- SPII funding ends at the pre-commercialisation prototype phase thus economic development cannot be directly attributed to SPII.
- Despite this, SPII funding is associated with a higher chance of success than a project that does not receive SPII funding and SPII projects have realised substantial sales figures.

### Do SPII recipients realise a positive ROI?

- 57% of projects have not yet been commercialised, and thus have not produced a ROI
- Time it takes to generate a profit means that many enterprises report a negative ROI for the 3 year reporting period
- SPII should not be evaluated on ROI because of insufficient data and the time it takes to realise a positive ROI

# Analysis

Does South Africa realise a ROI from SPII investments against the cost of the programme?

- SPII's objectives are not focused on employment or economic growth but rather on stimulating innovation.
- SPII does not contribute to economic development directly only once projects are commercialised do they
  contribute to these broad objectives.
- Need to enhance projects' chances of success through linkages, support mechanisms etc.



#### Is SPII still relevant when considering other instruments in the innovation landscape?

- SPII is one of the only programmes funding projects in the pre-commercialisation prototype stage of innovation.
- SPII highly relevant when other funding instruments are considered.

#### What factors in the South African context enable or constrain the beneficial impact of SPII?

- Support gaps in the innovation landscape.
- The lack of business skills, particularly in small companies.
- · Low levels of education across the country.
- Undeveloped risk capital market.
- SPII lacks clearly defined objectives and targets.
- SPII's alignment with Outcome 4 and job creation indicates a degree of policy confusion in relation to innovation, investment, growth and employment.

#### SPII's model in terms of cost effectiveness and process efficiency

- The IDC's management fees make up 3.8% of the total amount committed
- Based on national and international benchmarks, SPII is relatively cost effective in comparison to other programmes in the innovation space.
- SPII's administrative processes are generally considered to be efficient relative to other programmes

## SPII performance compared to similar programmes nationally and internationally

	BEST PRACTICE	SPII PERFORMANCE	BEST PRACTICE	SPII PERFORMANCE
(1 a	Clear vision, mission and objectives	SPII has a vision and mission, but no objectives or targets	5 Strong linkages with other programmes	Lacks strong linkages with other programmes and industry initiatives
(1 b	Vision is unambiguous and comprehensive	No definition of successful innovation	6 Value maximising appraisal process	Funding is not allocated on a competitive basis
2	Open to all industries. Evaluated by project	No sectoral restrictions on funding	7 Selection of projects with impact potential	Projects selected only on their 'economic merit' and level of innovation
3	Simple management structure	Simple, but account managers are over burdened	8 Appropriate funding mechanisms	Non-repayable grants address a gap too risky for the private sector
4	Simple administrative processes	Can be onerous for firms lacking business skills and capabilities	9 Comprehensive 9 monitoring, reporting, evaluation and learning	Limited standard reporting data, no data for un- commercialised projects

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## Recommendations

Ultimately SPII is a good programme and should continue given the important and relevant role it plays in the innovation landscape

# Policy and programme design recommendations

#### Clearly define SPII's objectives, with corresponding targets, to be measured regularly

SPII's mandate to enhance innovation should not be overwhelmed by a mandate to address direct job creation

SPII must continue to stimulate innovation in products/services and in geographical areas where the opportunities are the greatest

#### Implementation recommendations

#### Application and funding processes

- · Processes should be tailored according to scheme and thus size of the company
- Include prospect of commercialisation as an application criterion
- · Consider applications at defined intervals
- · Allocate disbursement values per funding round per scheme
- · Pursue a targeted marketing approach
- Assign account managers according to sector expertise and allow applicants to be
  present at to the investment committee meeting

#### Linkages support

- · Encourage linkages with other innovation actors and programmes
- · Address lack of business skills through improved linkages

#### **Formalise internal learnings**

Formalise internal processes that generate lessons from applications, projects and applicants' feedback

#### Management information system

Implement a web-based platform for applications, appraisals and reporting

#### Monitoring and evaluation

- · Improve accountability of recipients to report on projects once funding has ended
- Introduce a set of indictors to measure the performance of SPII itself;

#### Implementing agency

• SPII should remain a specialised innovation fund and be located within a specialised fund management institution

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