



**Western Cape
Government**

Economic Development
and Tourism

A FOCUS ON INNOVATION

Cape Town | Bianca Mpahlaza-Schiff | 16 September 2016 |

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‘To be open to new ideas and develop creative solutions to challenges in a resourceful way.’
(WCG Corporate Communications July 2015):

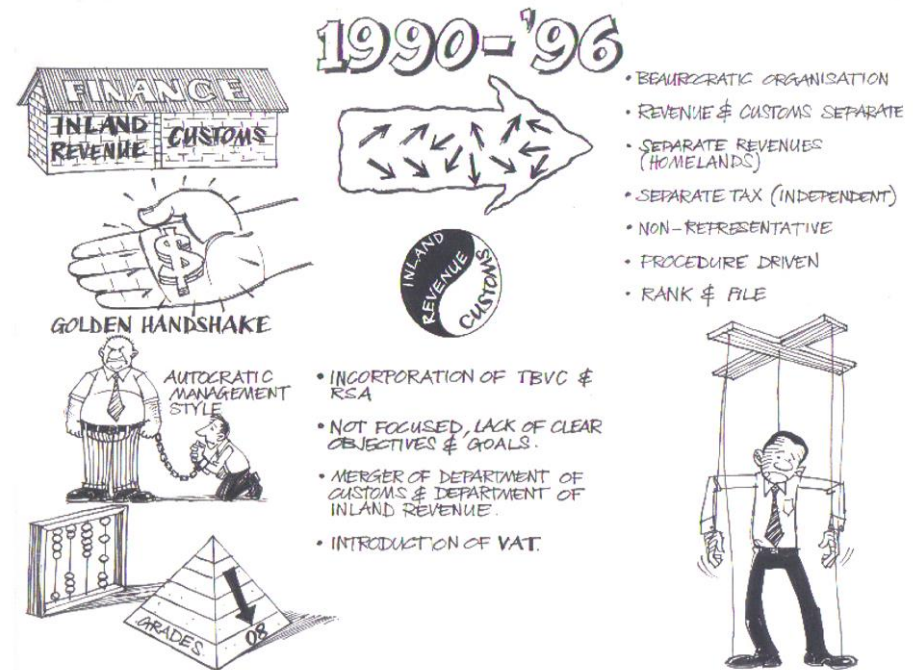
Case study of innovation in Government: SARS

Organisation: Silo-ed, functionally structured (as opposed to strategically), internally focused and conflict prone

People: individually focused, low levels of self esteem, autocratic management; and little investment in development & limited capacity resulting in high recruitment of consultants.

Processes: beaurocratic; unfocused; low levels of technology application & system integration; capacity; and low trust levels.

Delivery: poor collection and loss of revenue with an ever widening income gap.



Case study of innovation in Government: SARS



Project **SIYAKHA...**

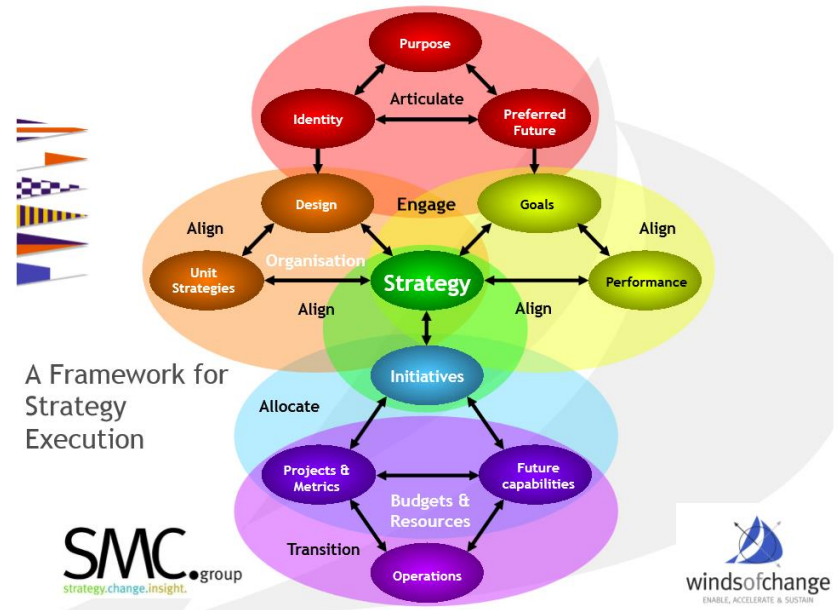
- maximum collection of **revenue**
- efficient taxpayer **services**

SIYAKHA is aimed at:

- **creating** a more efficient SARS benefiting all employees
- **rethinking** how SARS should operate
- **ensuring** that employee skills are utilized more effectively
- **providing** existing employees with more appropriate skills



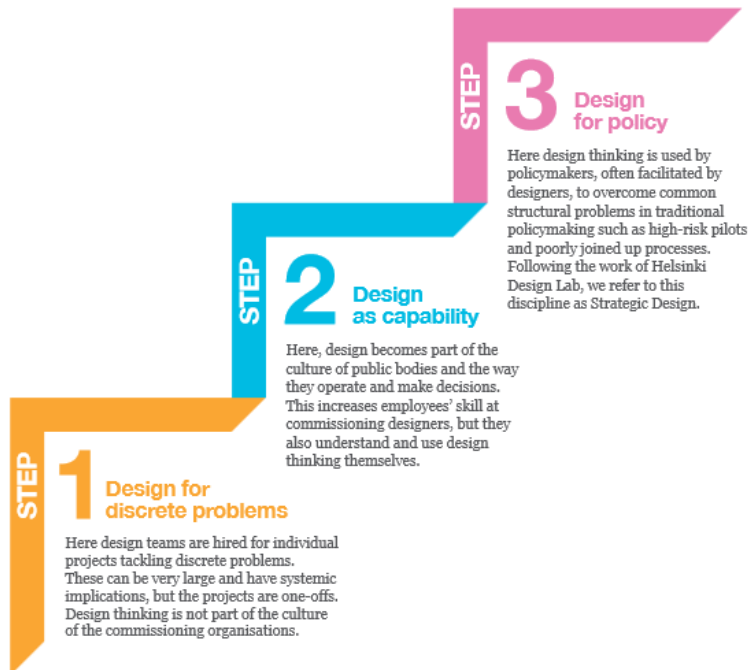
building **HIGH PERFORMANCE** teams



Tools used for innovation

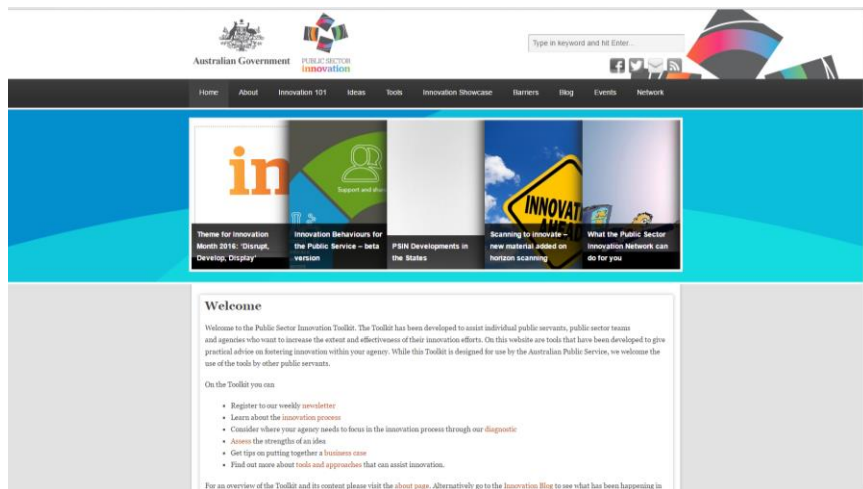
The Public Sector Design Ladder

Design-led innovation can be used for everything from relatively small interventions to complex policy decisions. We can visualise the different levels of application using a ladder, as follows:



1. Design thinking
2. Innovation systems thinking
3. Data
4. Science
5. Technology
6. Engineering
7. Principles of sustainability
8. Spaces
9. Procurement
10. Common sense

What we have learnt from other countries



1. Internal and external research (support, distribution or commissioning)
2. Policy and legislation (Relief or implementation)
3. Internal and external business and skills programmes
4. Funding; procurement and incentives
5. Internal and external challenges (e.g. SPACEX)
6. Skills and tools provided to officials
7. Policy labs or design and systems thinking interventions

Who is in the national innovation system?

Draft Integrated Report

4.3 National System of Innovation (NSI)

This following figure schematically presents the key stakeholders that form part of the National System of Innovation (NSI), and that have direct or indirect influence on technology commercialisation activities in the country. It also clarifies the stages of the innovation value chain that these stakeholders operate in.

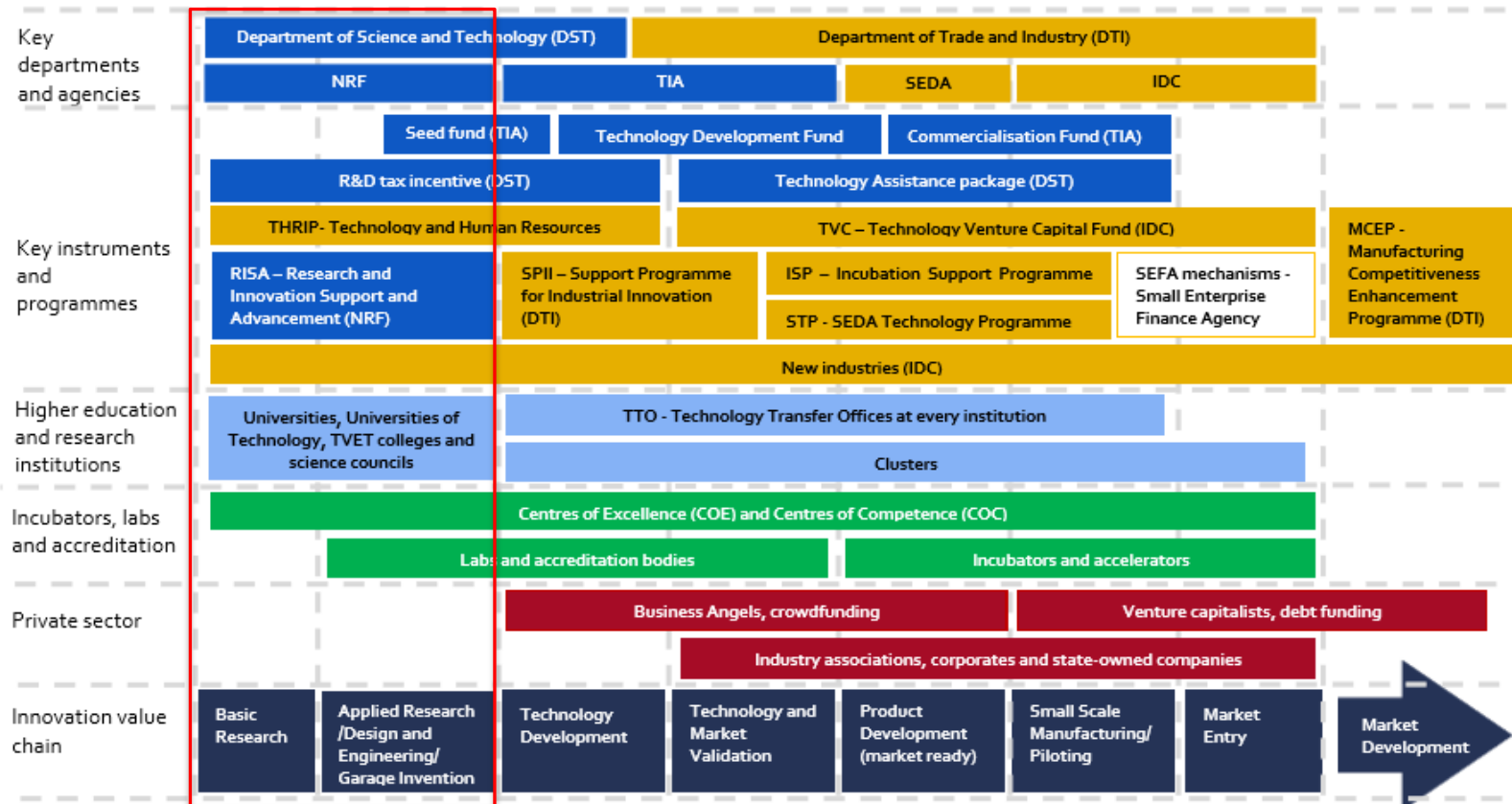


Figure 4-2: Key stakeholders of the NSI that operate along the innovation value chain and influence technology commercialisation

What have we learnt about our region?

»»» CURRENT R&D CAPACITY (CONTINUED)

Table 2.10: Most Prolific Organisations in Publishing in Higher Education; Science Councils and Business Sector

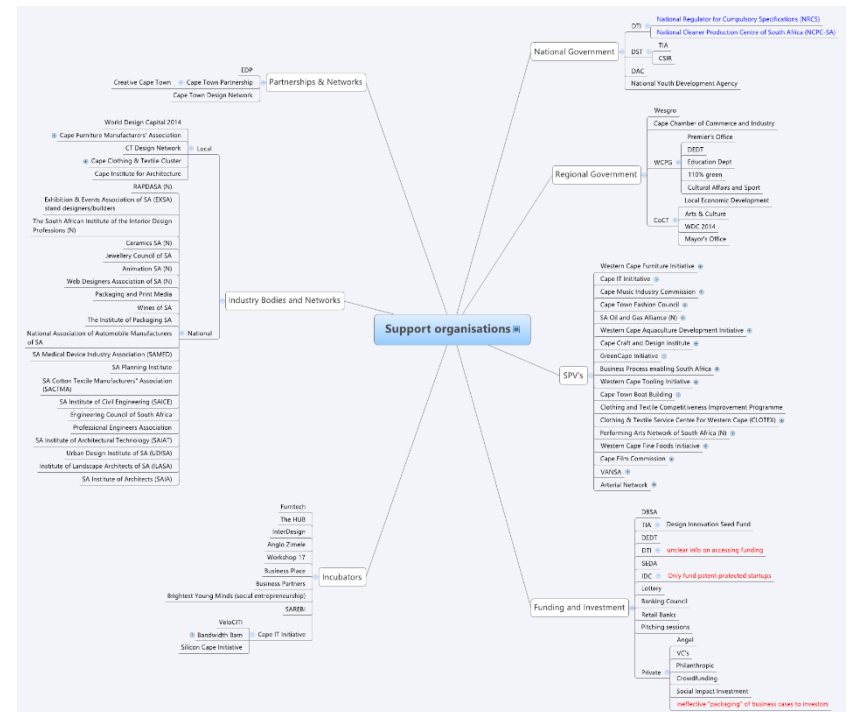
Major University Performers (2009 - 2013)	
Universities	Record Count
University of Cape Town	11 278
University of Witwatersrand	8 409
Stellenbosch University	7 686
University of Pretoria	7 494
University of KwaZulu Natal	7 150

Major Research Council Performers (2009 -2013)	
Research Councils	Record Count
National Research Foundation	3 617
Council for Scientific and Industrial Research	1 847
MRC	1 209
ARC	387
MIITEK	139

Major Business Sector Performers (2009 - 2013)	
Business Sector	Record Count
Sasol	187
Necsa	89
PBMR	35
Clinvet Int Pty Ltd	30
GAD Consulting Serv	28
Element Six	28

Table 2.10 shows the most prolific organisations in the three sectors and the number of articles they produced during the 2009 - 13 period. Universities produce the largest and business organisations the smallest number of publications. Under the ambit of the National Research Foundation, the national research facilities reporting to it are included (e.g. SAAO).

Table 2.11 shows the inter-sectoral co-authorship outputs for three five-year periods: 1999 - 2003;



What have we learnt from PSG 1 Departments?

“The major barriers to innovation result not from failures of individual genius but from failures of collaboration—the inability to exploit existing capabilities in revolutionary ways.”

1. Each PSG Department views Innovation differently
2. Similar challenges exist within PSG1 Departments to stimulate innovation
3. Departments acknowledge the importance of innovation, but also the risks
4. Some are further ahead than others
5. Most have focused on external innovations in response to their client/ citizen base needs

What we agree an innovative government is

Creation of an enabling space to be innovative in – physical, virtual and supportive space

Innovation cannot be compartmentalised, or allowed to mature in a controlled environment

Innovation should allow for failure to happen

Innovation requires a collaborative approach involving strong linkages across the WCG broadly and with key stakeholders

The use of innovation and innovation tools should evolve to the point where it becomes part of mandates and is considered good practice

Common challenges identified...

Key challenges faced in facilitating innovative processes include unwillingness by client departments to implement innovative processes

Innovation requires room for failure but the PFMA does not allow this

No innovation network within the WCG and a lack of collaboration between Departments

Regulatory constraints such as the SITA Act and NEMA

Officials are not adequately incentivised or skilled to be innovative

Are also opportunities.

How is a culture of innovation created within government and what are the tools required to create such a culture

The use of technology is of paramount importance to process innovation/improvement but not without consideration of the user.

Innovation can play a pivotal role in sustainable procurement

To commercialise IP, it is recommended that a SPV is created centrally in Govt and profits generated to be ploughed back into PT

Creating the correct collaborative environment for innovation in the WCG

These findings are aligned to global thought

- Essential pre-conditions for innovation include:
- Culture, strategy and human capital
- Strong leadership
- Organisational capability and agility
- Incentives and rewards

We need to provide the public service with access to the tools to deliver greater access to information, innovation and collaboration ... We need to reward innovation in the public service as much as we do in other areas of society.

Finance Minister Tanner, 2009

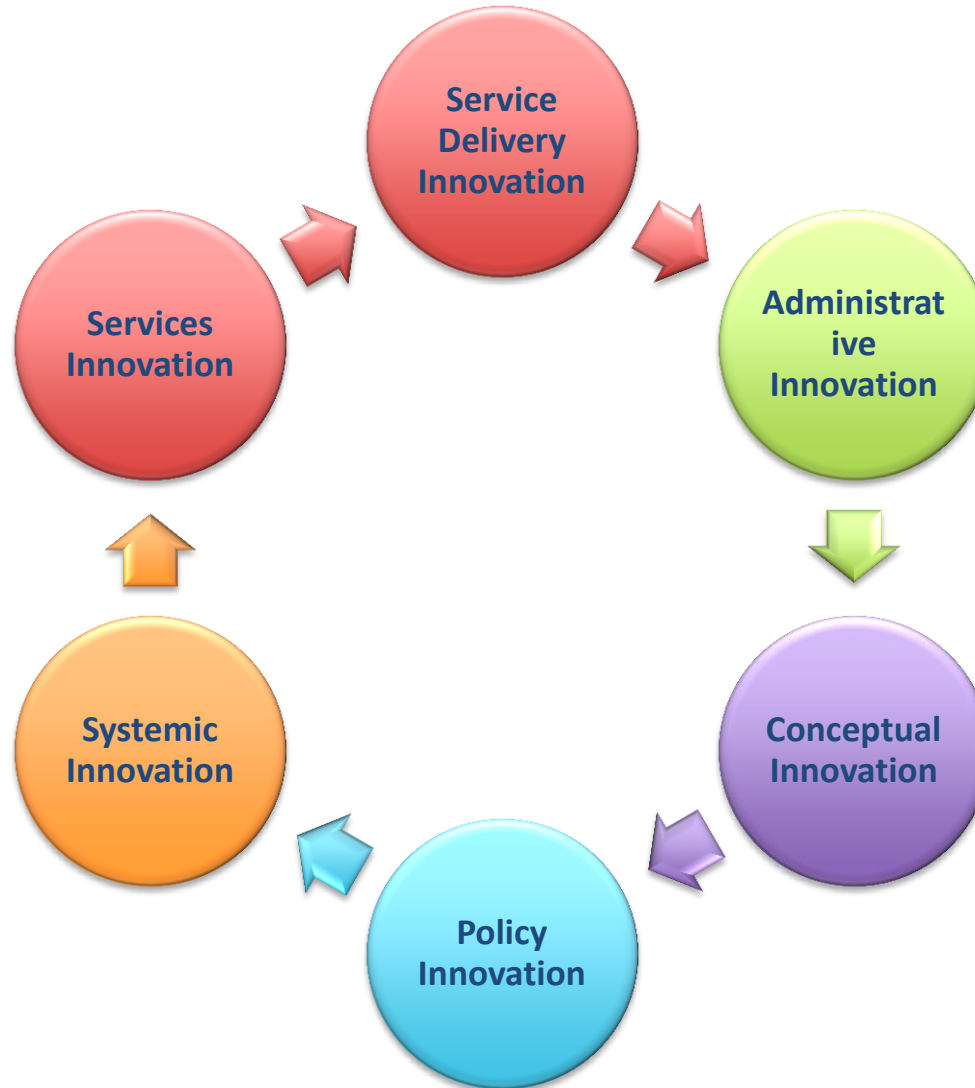
Principles of the Australian Innovation Framework

- **Integrate innovation into an department's strategy and planning:** What are the agency's key priorities and challenges, what opportunities do they present for innovation and how can the need for innovation and its attendant risk be communicated internally and externally;
- **Foster and attract innovative people:** Seek to recruit and nurture people who are motivated to innovate and have relevant skills and capacities;
- **Tap into the ideas and experience of stakeholders:** Build an organization capable and desirous of interacting with partners, customers and citizens and draw on their innovative potential;
- **Develop organizational capacity to facilitate and manage innovation:** Build expertise and experience in managing innovation in a Public Sector environment and work to identify and address any unnecessary impediments to innovation that may exist;
- **Provide 'safe spaces':** Provide areas and programmes where innovation can be channeled, where experimentation is expected and where 'failures' are regarded as legitimate;

Principles of the Innovation Framework (Cont.)

- **Facilitate networking:** Build communities of practice and networks of trust within and outside of Government;
- **Build a supportive culture:** Reward and encourage innovation and give agency staff both the means and the permission to innovate;
- **Use Government's influence and advantages to spur innovation:** Use the Government's procurement power, its role as a regulator and its leverage with other jurisdictions to develop and realize innovative solutions;
- **Measure and evaluate your results and share what you learn:** Monitor the return on your innovation investment and evaluate the outcomes; sharing such learnings across the Public Sector will improve the quality and speed of the innovation process; and
- **Make public information accessible:** Public Sector information and data is a valuable resource for innovation, both internally and externally and therefore publicly funded data sets should be publicly available unless there is a good reason for confidentiality.

OPPORTUNITIES FOR INNOVATION



LATEST INSIGHTS GAINED

We attended the 10th Public Sector Innovation Conference and learnt that:



- Successful Public Sector Innovators are creators, resilient, persistent, reflective, adaptive and risk taking
- The challenge to the Public Sector is how to deliver improved services, in better ways, with tighter budgets, in a risk averse culture, **to citizens with increasingly higher expectations**
- Adding value and realising public good should be the criteria for 'good' innovation in the Public Sector
- Innovation flourishes in spaces that **cultivate strong employee relations, look for ideas everywhere, acknowledge results, share everything** and **focusses on users/citizens and offers something valuable**

PSG 1 NURTURING INNOVATION FRAMEWORK OUTLINE

Why the need for a framework

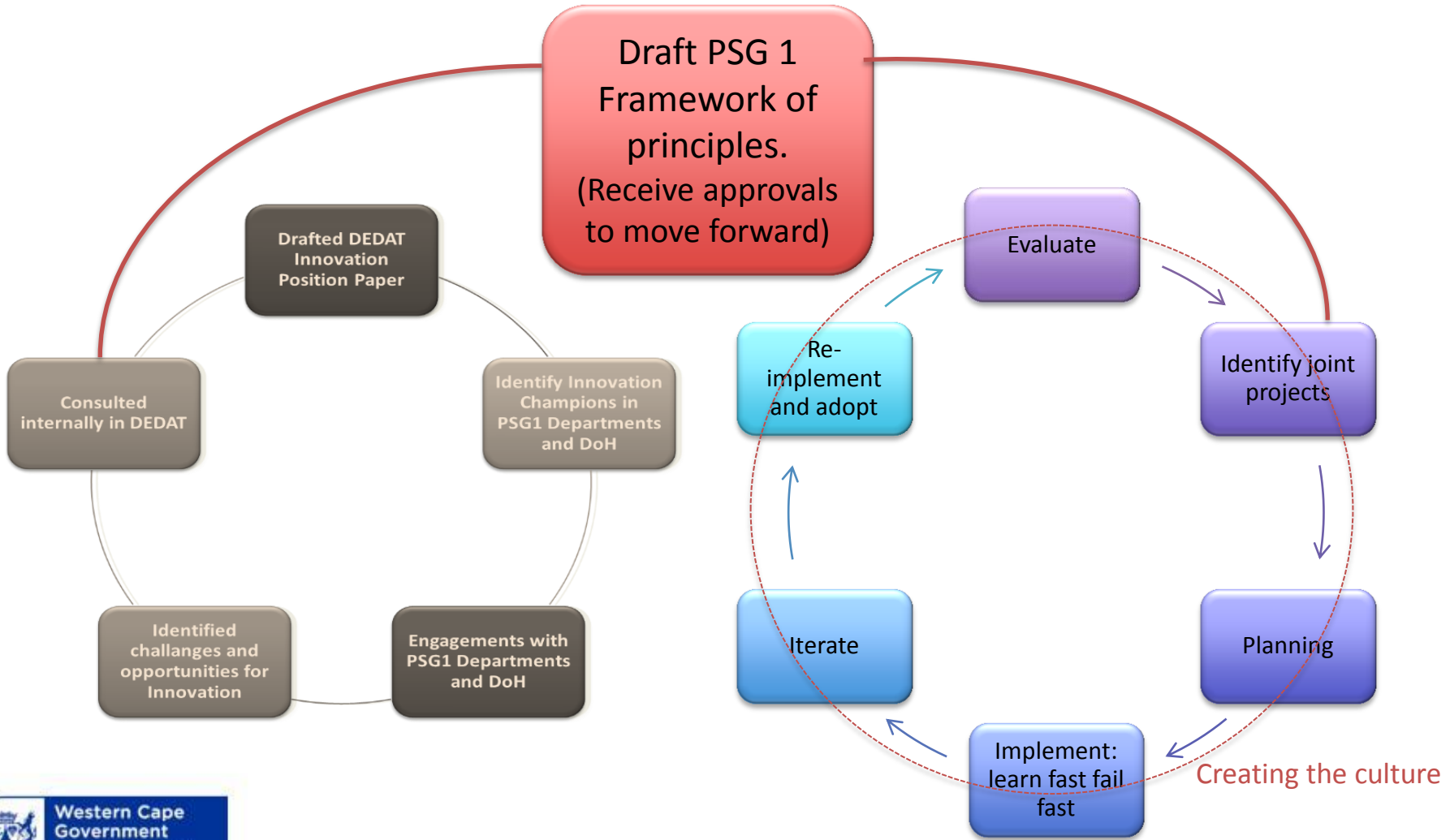
- To identify what Departments are already doing and leverage off that expertise and knowledge
- To see how we can collaborate
- To identify common challenges
- To find solutions to common challenges in the form of projects
- All to deliver better services to citizens, create improved efficiencies or to achieve cost savings / income generation

“**Innovation** has become nothing less than a **survival strategy.**”



Tim Brown, IDEO

Our journey



WCG (value) principles

1. We seek to implement new ideas, create dynamic service options and improve services.
2. We strive to be creative thinkers who view challenges and opportunities from all possible perspectives.
3. We are citizen-centric and have the ability to consider all options and find a resourceful solution.
4. We value employees who question existing practices with the aim of renewing, rejuvenating and improving them.
5. We foster an environment where innovative ideas are encouraged and rewarded.
- 6. We are the catalyst for an innovative economy**

To do so we will use the following tools and inputs

1. WCG innovators
2. Design thinking and innovation systems thinking processes
3. Data
4. Technology
5. Science
6. Engineering
7. Sustainability principles
8. Spaces
9. Procurement
10. Common sense



And we will strive to be collaborative by

We can work together with:

Departmental employees

Citizens

Internal partners

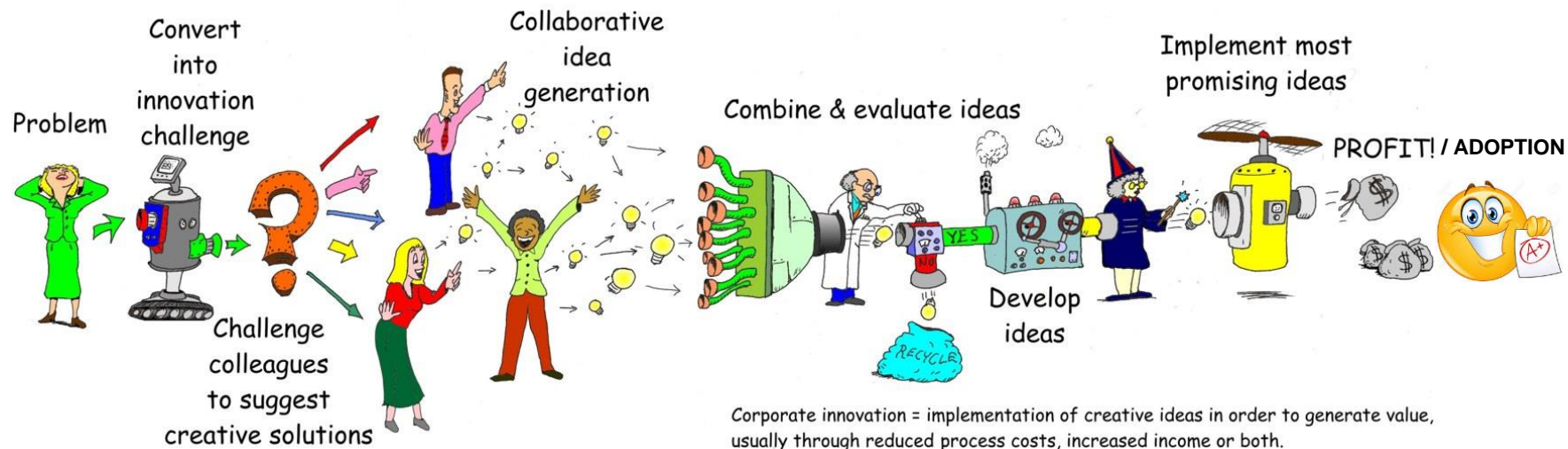
External partners

Figure 2: Sources of innovation in government



We'll know we are making a difference when

1. Challenge/ ideas are identified
2. New/ improved products and/or services are developed collaboratively taking into account the end-users and the context they are in.
3. Adoption of new/ improved product/ service across a Department/ uptake by citizens.



Because in Nurturing Innovation, we aim to achieve

1. Improved efficiencies
2. Improved service delivery
3. Cost savings/ income generation

All of which leads to growth
in the Economy



How we are already catalysing innovation

Information led innovation

Departmental data (M&E)	DoTP & Departments
Big Data	DEDAT & Departments
Open data	DEDAT & Departments
GIS & 'Agri-tools' data	DoA
Transport and infrastructure data & GIS	DTPW
Environmental data & GIS	DEADP
Economic Data & GIS	DEDAT
Health data	DoH
Information systems	CEI & Departments

Removing barriers/ protecting innovation

Red Tape Reduction/ Ease of doing business	DEDAT
Policy Unit	DoTP & relevant Departments
WCG policy & legislation development	All Departments & Legal Services

How we are already catalysing innovation

Capabilities support to the Citizen/ Client

Skills development programmes	All Departments & Game changer
Client support programmes	All Departments
Innovators' support	DoA

Direct funding, resources & incentives

Innovation awards	Batho Pele (DoTP)
Premier's Entrepreneurship Awards	DEDAT
Innovation seed fund	DEDAT & TIA
Support to Universities through MOA's	All
Procurement	All

How we are already catalysing innovation

Crowd sourcing new ideas (Challenges)

Better Living Challenge	DEDAT and DoHS
Better Working Challenge	DEDAT
Red Tape Challenge	DEDAT

Skills and tools for Government officials

Innovators' support	DoA
Innovation toolkit, and position paper	DEDAT
Innovation unit; tracking system and position paper	DoH
Innovation sessions	DEADP
Information systems	CEI & Departments

How we are already catalysing innovation

Other interventions

Sustainable procurement	DEADP
Process improvements	DoTP (OD)
Intellectual Property for Government	DEDAT & DoH
Innovative building technologies	DTPW
Research and development physical spaces	DoA, DoH & DEDAT

And apparently we can even do more...

- Collaboration between DOH and DEADP: medical waste disposal;
- Free good-quality drinking water for all;
- Data sharing and integrating inter-departmental data;
- Improved communication systems;
- HR incentives to promote innovation;
- Improved procurement; and
- Inter-departmental IP development and commercialisation.

WAY FORWARD

1. Innovation baseline study
2. Innovation toolkit and information platform
3. Communications project as collaborative project.

Thank you

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