



Policy, Innovation, and the Future of South African Cities

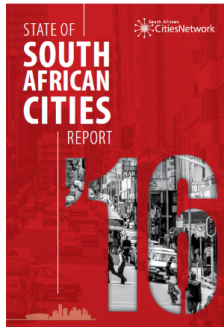
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Leveraging the transition to
sustainability



Towards Sustainable Cities

“A city that **meets its developmental responsibility** (social justice and urban safety) in a sustainable, spatially transformed and resource-efficient way (natural and economic resources, and human capacity) that **takes into account the limited biophysical planetary boundaries** (environmental thresholds). Living sustainably means grappling with the “perfect storm” : **the inseparability of water, food, energy and climate change**”

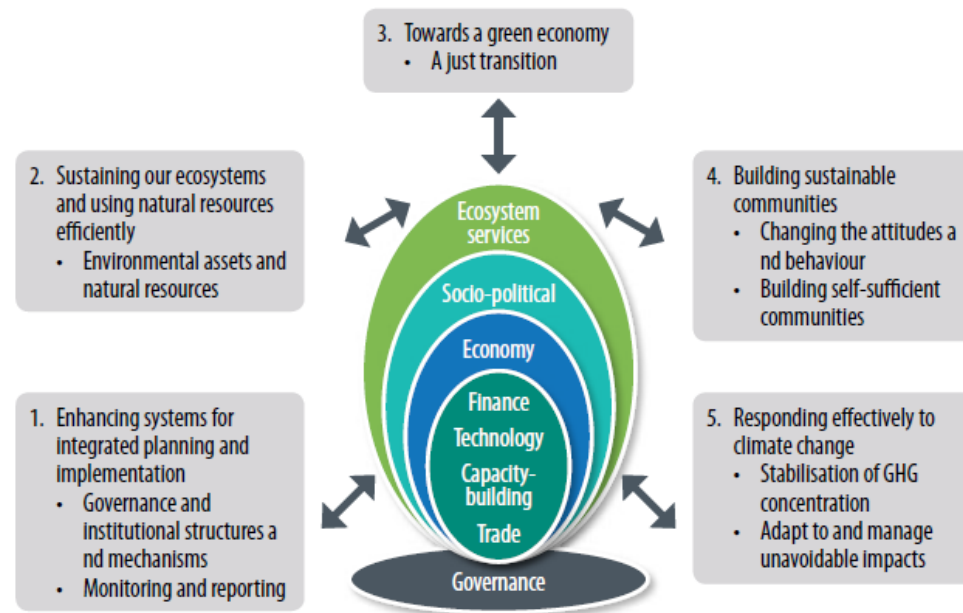


Figure 5.1: Sustainable development priorities and means of implementation

Source: DEA (2011a)





The unique challenge of developing cities

- Cities need to ensure that development is **productive, inclusive, sustainable** and **well-governed**, with an emphasis on these outcomes occurring together. This is complex.
 - The Paris climate agreement on cities at COP211 (2015) emphasised that, unlike cities in the developed world, African cities, as key drivers of growth, will not have the luxury of riding an environmental Kuznets curve (i.e., to pollute now and implement sustainability practices later).
- Developing cities will need to have **low-emissions growth and development trajectories** that **work smartly** within an increasingly **resource-constrained** world.
- South Africa's *Integrated Urban Development Framework* (IUDF 2016) echoes this
- Despite a relatively high level of expressed political commitment, South African cities are not transitioning to sustainability quickly enough. Leadership remains fragmented and divided, struggling to gain access to (or coordination of) local resources, and focused on short-term gains.



The need for Innovation

- SOCR expresses the clear developmental (social, economic, environmental) and institutional Need
- SA is a strong S&T performer in the continent (research activity, collaboration, patents, etc)
- Main destination for students in Africa – Southern African students are amongst the most mobile in the world.y
- Great achievements in building skills (ST&I) – but with strong racial, class and gender bias
- Concentrated ‘islands of excellence’ – few innovative leading businesses, research organizations and universities; hosting the SKA (largest radio telescope), astronomy skills
- Traditional and indigenous knowledge systems disconnected from research/scientific knowledge systems

The need for Innovation...2

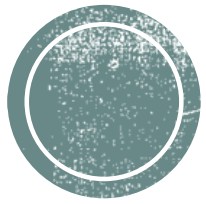
YET...

- “South Africa’s NSI is making insufficient contribution to poverty reduction and wider inclusion in the mainstream economy” and “The role of business (particularly MSMEs) needs greater attention and has been inadequately included in the conceptualisation of the NSI.”

- *OECD Review*

- The state’s investment on innovation has been biased towards “big science” and inadequate focus had been placed on requirements for meeting the social development priorities
- The role of social innovation in the NSI is under-conceptualised and under-developed;
- Supply-side thinking was prevalent and this contributed to continuing poor responses to market and social demand.

- *SA Ministerial Review (DST)*

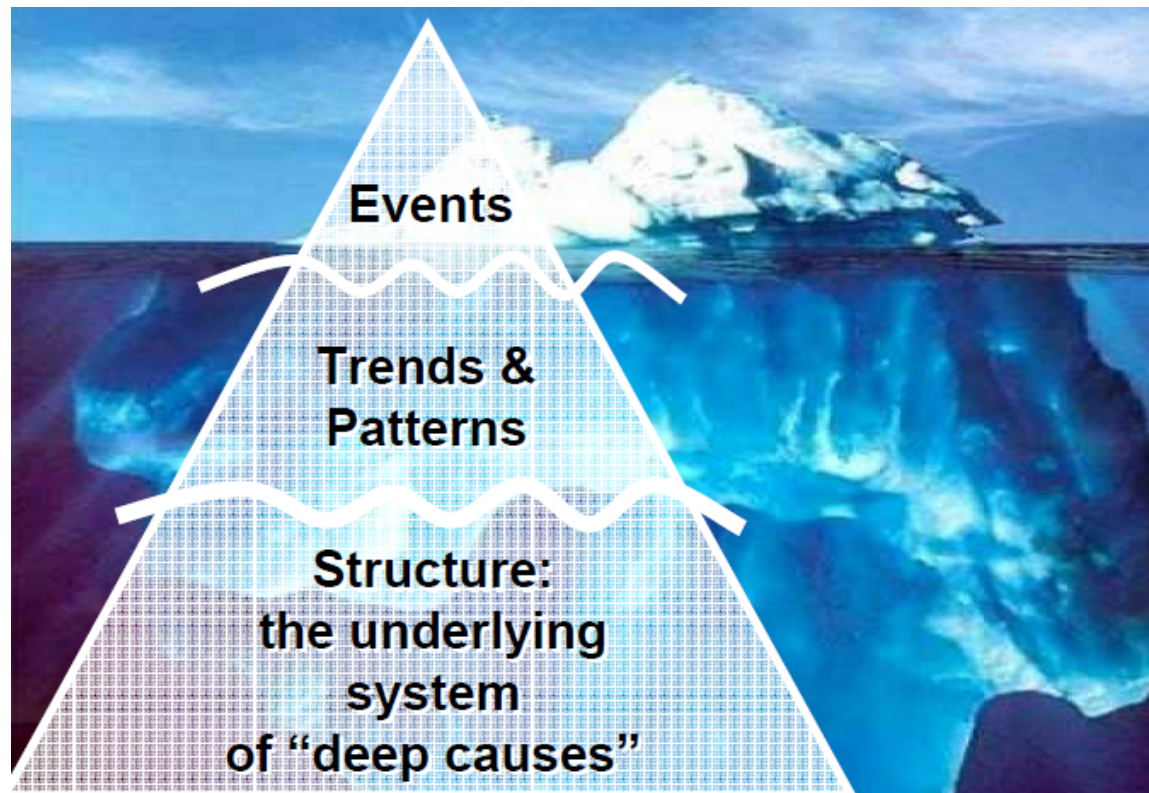


“The trouble with our times is that
the future is not what it used to be.”

- Paul Valery



“Deep Causes”

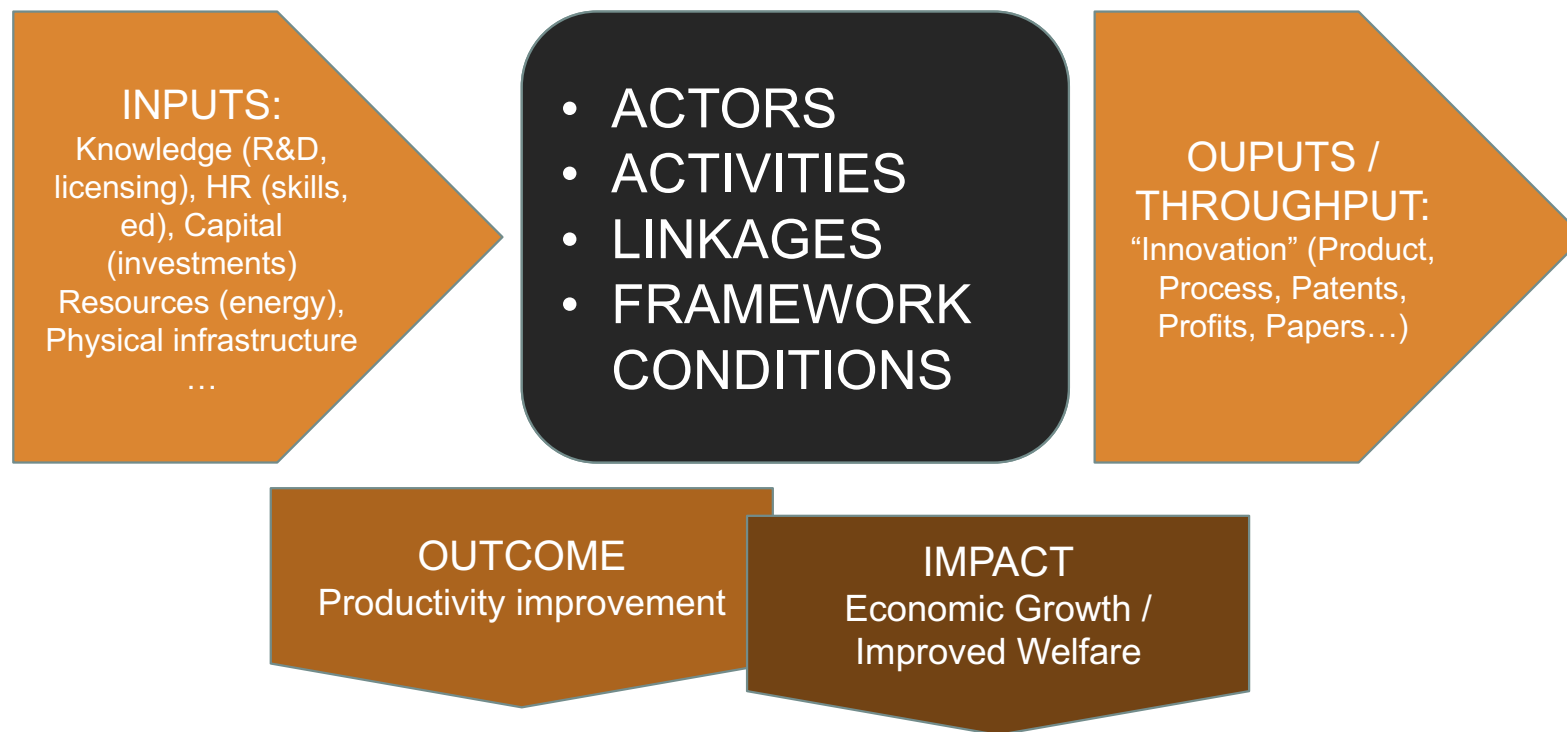


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- 1. Litany:**
what is the pop image or idea?
What is the common but superficial understanding of issue
- 2. Systemic Causes:**
what systems sustain the situation?
research on how existing structures, policy and systems maintain issue / problem
- 3. Worldview and Discourse:**
what culture supports the situation?
the complex of ideas and assumptions that give legitimacy to the policy level

- 7. Measuring:**
how do we know we are going in the new direction?
new indicators measure the changes we desire
- 6. New Systems:**
what systemic enablers are needed to create new story?
new structures, policies and strategies
- 5. New Culture:**
what culture emerges from new story?
how are the values, attitude, perspective different?

4. Myth, metaphor and narrative:
expresses the problem or issue through image, art, story
What is an alternative image, metaphor or story?

“Innovation Systems”

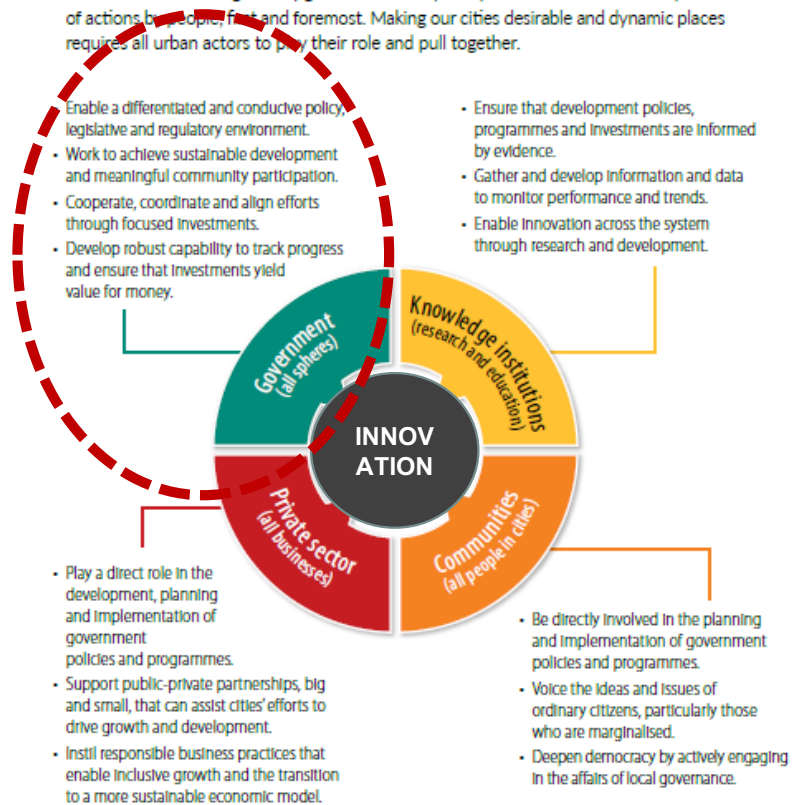


Actors Activities Linkages

What this means for you: A CALL TO ACTION

Governance ≠ Government

Cities are not made or grown by government. They are systems that are the consequence of actions by people, first and foremost. Making our cities desirable and dynamic places requires all urban actors to play their role and pull together.



“Public sector innovation”?

- *The implementation by a public-sector organisation of new or significantly improved operations or products* (OECD, Oslo Manual, MEPIN)
- Crucial role of governments in:
 - **Framework conditions** - Social and economic infrastructure; Institutions (peace and stability, rule of law, human capital, administration); Demand and supply structure (fiscal policies, regulation); Culture, history, awareness
 - **Enablement of innovation** – “build, finance, incentivize, cajole & incubate” innovation ecosystems
 - Significant **improvements to public administration and/or services** – affecting all stages of: Problem identification > Idea generation > Solutioneering / Proposals development > Projects Implementation & Monitoring > Evaluation > Diffusion & learning
 - In modern age, also requires public sector **information management** – Sourcing [DIK] – availing, combining > Exploiting – transforming, using > Sharing – inside and outside > Feedback loops – collaborating, evolving systems

Lessons from Policy Evaluations

- OECD, Fostering Innovation in the Public Sector (2017)
- Lessons focusing on government within itself:
 - There are recognised *barriers and constraints* to organisations' capacity to innovate - Governments should assess, understand and systematically address barriers to innovation
 - *Organisational culture matters* – treatment of risk, employee empowerment to experiment and learn from experiments
 - *Using public budgets to enable innovation* – flexibility, outcomes-based performance, dedicated funds, capacity building
 - *Structural responses* (units) can help, but often face tension between authority (close - to core) and flexibility (open, radical innovation - at the periphery)
 - *Risk management strategy* is important – understand context and goals, secure pre-conditions

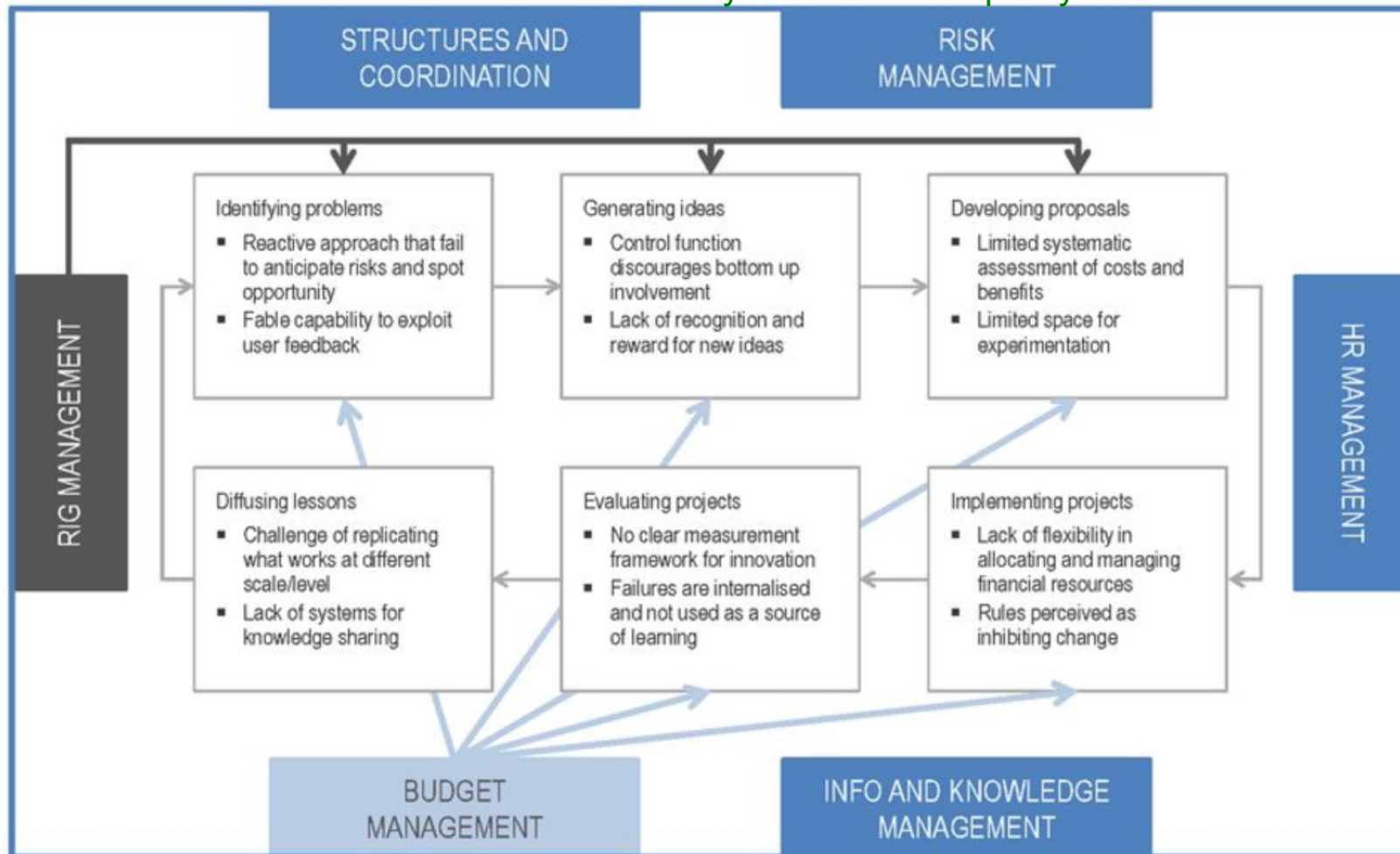
Lessons...2

Framework for country analysis of central enablers of innovation

1. **People matter** – invest in people as catalysts of innovation
2. **Knowledge is power** – facilitate free flow of information, data and knowledge, and use creatively to respond to new challenges and opportunities
3. **Working together solves problems** – advance new structural and partnership approaches to enhance and share energy, risks, resources
4. **Rules and processes to support not hinder** – balance risk mitigation with protecting resources and enabling innovation

Lessons...3

Governments should assess, understand and systematically address barriers to innovation across their lifecycle and related policy tools



Lessons...4

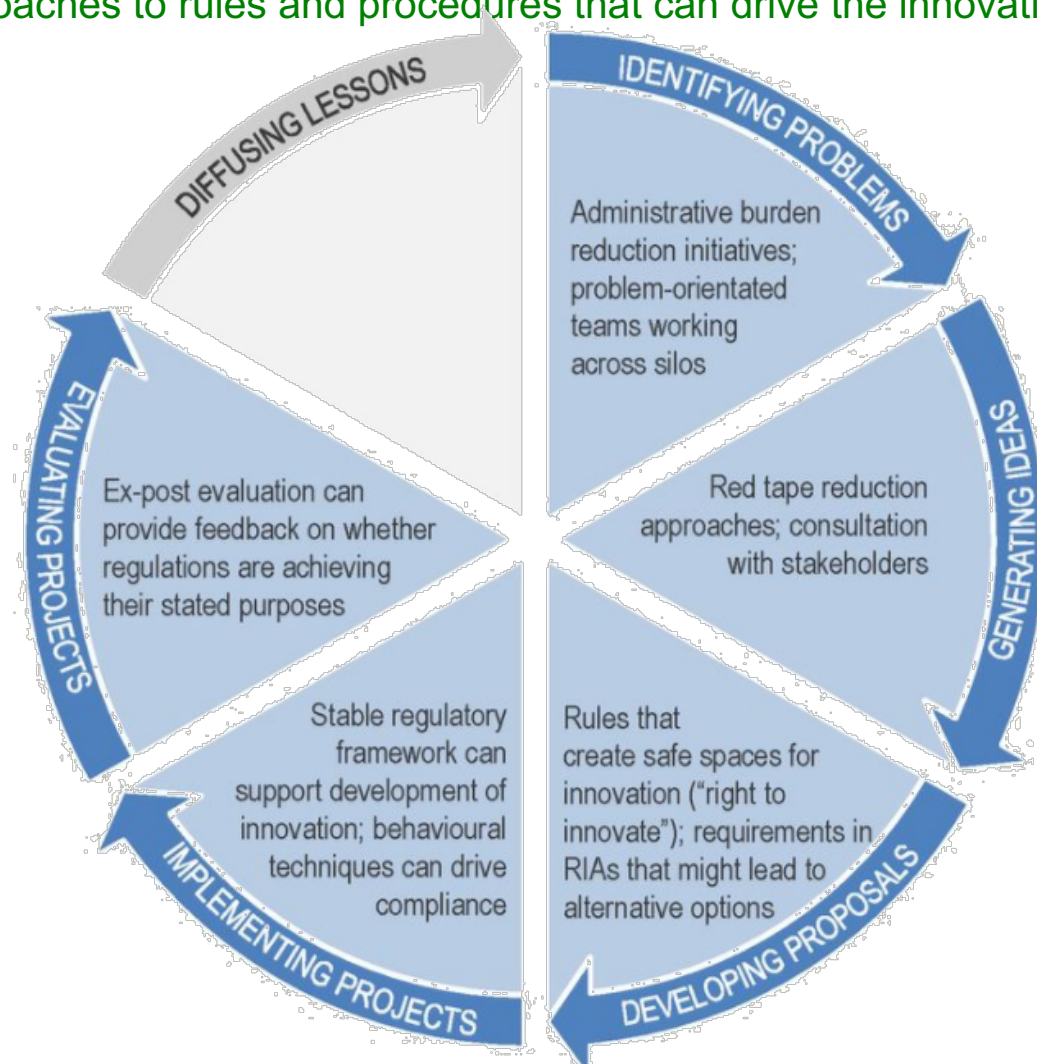
Organisational culture matters:

Tensions between the characteristics of bureaucracy and innovation

BUREAUCRACY		INNOVATION
Regulated continuity	↔	Space for risk-taking
Functional specialisation	↔	Cross-silo collaboration
Hierarchical organisation	↔	Diffused accountability “Auftragstaktik”?
Expert officialdom	↔	Multi-dimensional skill sets
Rules: Administrative controls Tight regulations Rigid regulations Formal rules		

Lessons...5

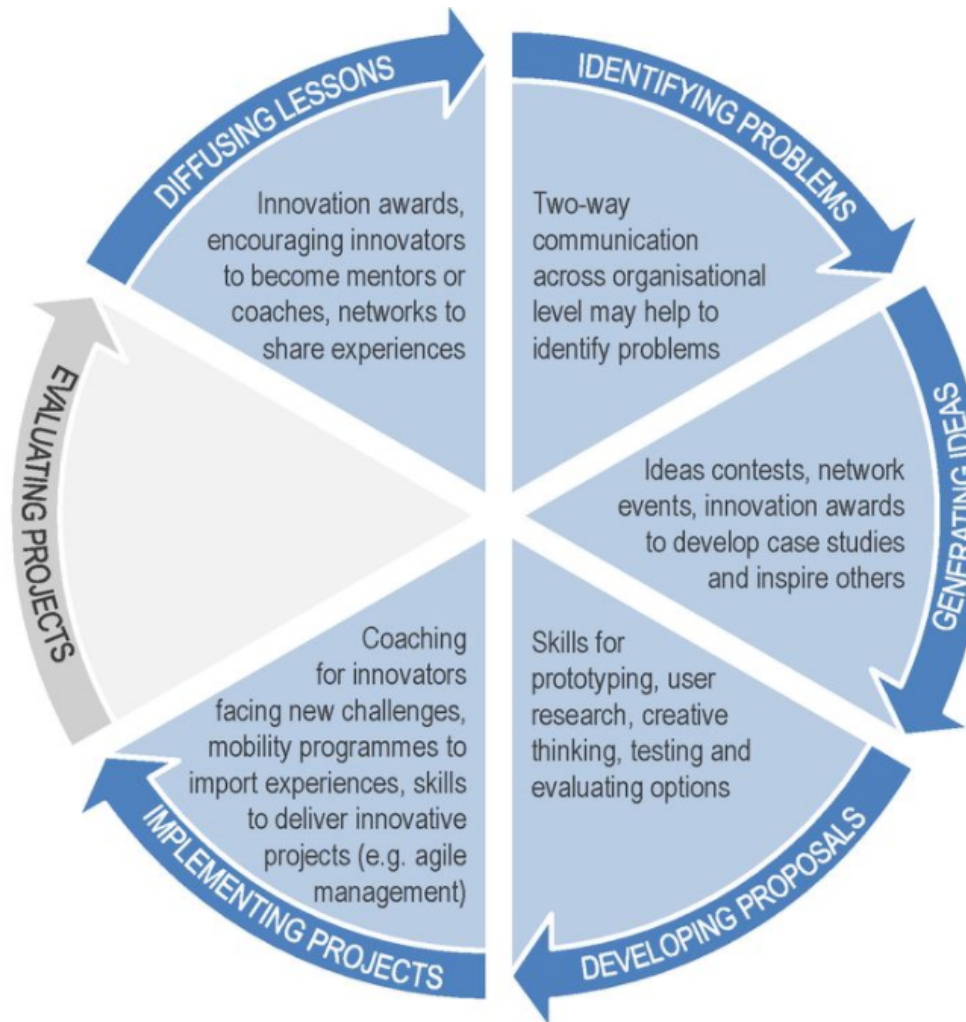
Approaches to rules and procedures that can drive the innovation cycle



Lessons...5

How HR management can support the innovation lifecycle

Innovation Skill Area
Iteration
Data literacy
User-centeredness
Curiosity
Storytelling
Insurgency



Lessons from Policy Evaluations

- *Get and maintain the basics in place:* Build the critical mass needed of skills, financing, productivity, and appropriate governance. Also have explicit and contextually relevant National Systems of Innovation (NSI) policies, and Science, Technology and Industry agendas
- *Align key systems to achieve the virtuous cycle:* Get the politics, policies, programmes, platforms, people and partnerships right. Ensure that national development agendas are pro-innovation, stakeholders are moving in the same direction, and encourage that innovation be demand-led
- *Scarcity requires that we be resourceful and responsive:* Be creative in using scarce resources, funding, core competencies, talent. Leverage all available knowledge resources, build home-grown solutions, learn from others, and be very creative in building towards endogenous innovation systems that are robust, efficient and productive
- *Promote experimentation:* Build systems that encourage trial and erroring order to build knowledge and insight
- *Learning and collaboration:* Create platforms to promote and invest in quality education and research; new approaches to learning for today's 'networked/knowledge economy'; standards and systems of accreditation; collaboration within and between educational institutions and industry; and regional collaboration and cooperation in building innovation systems
- *Everyone must be engaged:* Recognise that there are critical roles that government, industry, academia and communities must play. Within each of the groups, it is important to have 'creative entrepreneurs' that forge and promote the necessary disruptions to stimulate innovation

- Africa Innovation Summit (2014)

Roles

Government	Academia	Private Sector	Communities
<ul style="list-style-type: none"> . Political will and alignment of intent & action . No single blueprint; making smart strategic choices Policy experimentation . Commitment to evidence based policy . Long term vision and consistency . Horizontal coordination and policy coherence . Promote social innovation & address barriers to entry 	<ul style="list-style-type: none"> . Demand-driven education & research. . New types of scientists that understand social needs. Inter- and trans-disciplinarity. . Creative innovations and reforms in the education and research systems . Collaboration and learning without boundaries (using ICTs, Regional collaboration, Mobility, Diaspora) 	<ul style="list-style-type: none"> . Identify and nurture entrepreneurship from an early stage . Mentorship & coaching . Align skill formation to business needs . Identify and pursue social impact markets . Recognize non-tech & non-R&D-based innovation . Role of brokerage across innovation cycle . Bridging the gap to the market. . Promote value chain upgrading and integration 	<ul style="list-style-type: none"> . Communities are active actors for innovation; raise this awareness and capacity to articulate . Creative approaches for knowledge appropriation and open innovation . Communication strategies for the dissemination of research and innovation achievements . Support "learning communities" or learning platforms



Is Innovation = Luxury?



Reflection

- “For Policymakers, there is no historical data” (Riel Miller)
- Our Anticipatory Assumptions:
 - Hope = desires, wishes, visions, blueprints
 - Think = available information, prediction, extrapolation
 - Hierarchical
 - Symptomatic
 - Presumptive
- The Real World:
 - Complex
 - Emergent
 - Heterarchical
 - Unknowable
- Approaches for the future:

“Significant **innovation** across the board is required – **creativity, experimentation, agility**, and a culture of **learning**” (SOCR 2016)

 - Responsive and responsible (why)
 - Inclusive (who)
 - Improvisational and efficient (how)



THANK YOU