



# Systemic Assessment of Innovation Interventions

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# Overview

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- Introduction
- Assessment Instruments
- Illustration of Systemic Assessment
- Conclusion



# Introduction

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- Systemic Assessments
  - Support and enhance development of an inclusive knowledge intensive economy
- Four complementary tools
  - Innovation System Scoreboards
  - Innovation Policy Scoreboards
  - Innovation System Appraisals
  - Innovation Policy Appraisals



# Systemic Assessments

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- Enhance governance systems
  - Assists managers (public & private) in assessing effectiveness and impact of activities and how to improve performance
- Creates body of evidence for programme & policy improvement
  - Demonstrates value and promotes accountability

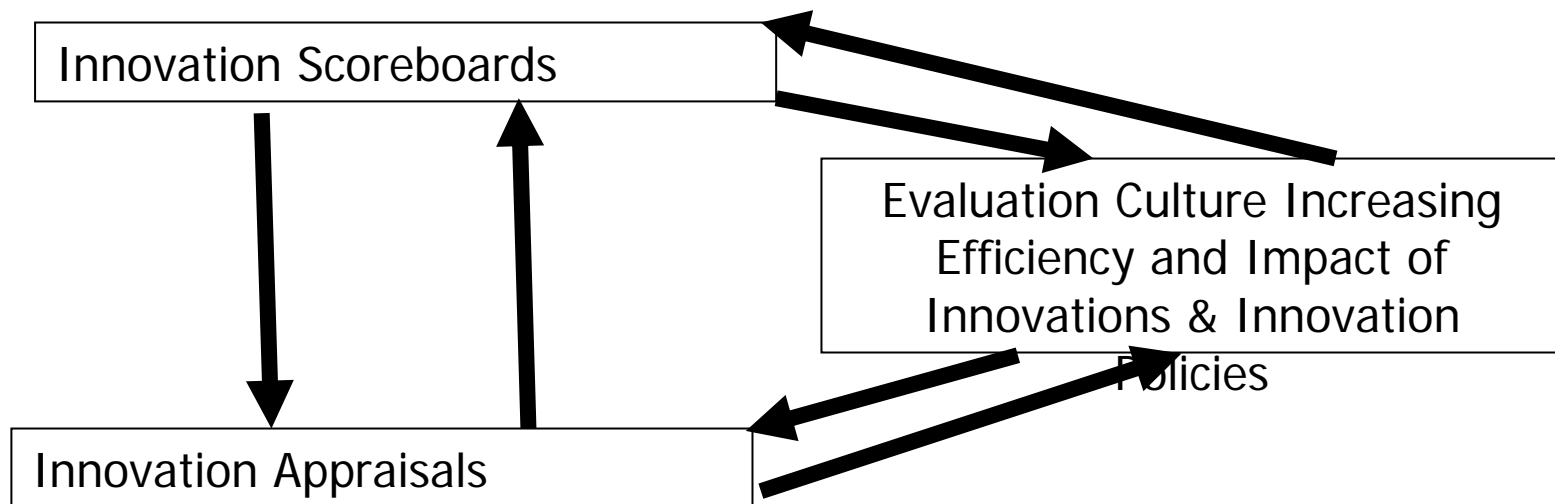


# Systemic Assessments

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- Integral to programme & policy planning
  - Contribute evidence to decision-making on priorities and resource allocation
- Facilitates co-ordination of multitude of agents to enhance system of innovation
  - Important to bridge traditionally compartmentalised areas of policy – DST, DTI, DoL, DoE, HEIs, Science Councils, et al.

# Overview of Systemic Assessments





# Components in assessments

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- Innovation System Scoreboards
- Innovation Policy Scoreboards
- Innovation System Appraisals
- Innovation Policy Appraisals

# Innovation System

## Scoreboards

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- Knowledge Demand
- Knowledge Mobilization
- Knowledge Inputs
- Knowledge Outputs
- Knowledge Flows



# Knowledge Demand Indicators

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- Socio-economic context in which innovation occurs
- Demand led innovation
- Nature of formal economy production
- Nature of informal economy production
- Resource endowments
- Poverty, Inequality and Development



# Knowledge Mobilization Indicators

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- Human Resources in Society
- Basic Education System
- Higher Education System
- Participation in Lifelong learning
- Learning Resources: ICTs, Libraries, Museums



# Knowledge Input Indicators

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- R&D Expenditures
- Researchers
- Innovation Expenditures
- Policy incentives
- Inward FDI
- Domestic Fixed Capital Investment



# Knowledge Output Indicators

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- Frequency of innovations
- Impact of innovation
- Patents
- Entrepreneurship
- Technologies
- Publications



# Knowledge Flow Indicators

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- Investment Networks
- Social Capital
- Human Resource Mobility Patterns
- Innovation Networks

# Innovation Policy

## Scoreboards

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- Governance, Horizontal Research and Innovation Policies
- Research & Technology Policies
- Education & Skills Policies
- Innovative Enterprise Policies
- Policies Supporting an Innovative Culture

# Governance, Horizontal Research and Innovation Policies



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- Strategy policy documents
- Activities of official advisory and consultative forum
- Policy advisory services (foresight, scoreboard, cluster mapping, sectoral studies of innovation)
- Strategic research policies (long-term research agendas)
- Innovation strategies
- Cluster framework policies
- Measures in support of financing



# Research & Technology Policies

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- Policy measures concerning excellence, relevance and management of research & technology
- Research and Technology Organisations (private & non-profit)
- Knowledge Transfer Policies (contract research, licences, research and IPR issues in public/academic/non-profit institutes)
- R&D cooperation (joint projects, PPP with research institutes)
- Direct support of business R&D (grants and loans)
- Indirect support to business R&D (tax incentives and guarantees)



# Education & Skills Policies

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- Awareness creation and science education policies
- Policies stimulating production of PhDs
- Policies to facilitate recruitment of researchers (e.g. fiscal incentives)
- Mobility of researchers policies (e.g. brain-gain, transferability of rights )



# Innovative Enterprise Policies

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- Technology transfer policies
- Policies supporting innovation management and advisory services
- Policies supporting organisational innovation incl. E-Business, new forms of work organisations, etc
- Policies supporting risk capital



# Policies Supporting an Innovative Culture

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- Support to the creation of favourable innovation climate (ex. roadshows, awareness campaigns)
- Innovation prizes incl. design prizes
- Fiscal incentives in support of the diffusion of innovative technologies, products and services
- Impact assessments (on research and innovation issues) of new legislative or regulatory proposals in any policy field
- Measures to raise awareness and provide general information on IPR



# Innovation System Appraisals

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- Institutional environment
- Resources
- Framework rules and policy
- Research system



# Innovation System Appraisals

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- Innovation networks
- Infrastructure and technical services
- Human resource development
- Critical socio-economic agents and interests
- Performance



# Innovation Policy Appraisals

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- Innovation System and its Governance
- Policy Objectives and Trends
- Policy Challenges & Opportunities



# Innovation System and its Governance

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- Dynamics of Governance Systems
- Appraisal of Governance System



# Policy Objectives and Trends

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- Macroeconomic and Market Dynamics
- Trends in Innovation Performance
- Objectives & Targets of Innovation Policy
- Overview of Innovation Policy Mix
- Dynamics of Innovation Policy



# Policy Challenges & Opportunities

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- Main Policy Challenges
- Policy Responses to Challenges
- Main Policy Successes
- Lessons from Policy Implementation



# Illustration of assessment within COFISA initiative

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- Use of ISS at a project level
- Contribution to evaluative culture
- Not a blueprint
- Communications facilitated through interchange



# Conclusions

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- South Africa developing systemic innovation system MEL culture
- Data and information constraints
- Diagnostic → Developmental → Evolutionary



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