Building an innovation ecosystem

J Barnett

- Too much focus on role of public R&D institutions
- Important issues overlooked
  - Central role of business enterprises in generating and implementing innovation
  - Importance of enterprises in creating scientific and technological human resources for innovation
  - Key role played by innovation-generating activities other than R&D, especially in the services sector
  - Importance of articulated demand for innovation and new knowledge in driving the innovation process.
Key challenges

- Insufficiently developed provincial systems of innovation
  - “Innovation, stimulated, promoted and supported by regional systems of innovation, has the potential to stimulate economic growth and development in sub-national economies and related growth in employment opportunities.”

- Lack of integration between provincial and national systems

- Regional and local linkages are a necessary but not sufficient condition for innovation
  - Geographical proximity offers structures, organisation and institutions which improve the possibilities for local and regional innovation
Western region economically important for Eastern Cape:

- **43%** of provincial GGP; 4% of SA GDP
- Unemployment = **33.2%**

- Automotive (↓)
- Agro-processing (↑)
- Pharmaceuticals and plastics (↓)
- Maritime (emerging)
- Renewable energy (new)
Regional Innovation Forum

- Launch in 2011
  - A process not an event
- Loose association
  - 18 industry, academic and government stakeholders
  - Supported by the National Department of Science and Technology
- Spread the ‘innovation conversation’ between key stakeholders
- Interventions supported by all three sectors can flourish
- Managed, driven and partly financed by the private sector, university is a key stakeholder and shareholder, public sector funding provided the impetus for establishment.
Regional Innovation Forum

**BUSINESS = 45%**
- Individuals
- **Business chambers**
- Associations

**ACADEMIA = 35%**
- Individuals
- NMMU, RU
- CSIR

**GOVERNMENT = 20%**
- Individuals
- Agencies
- Local and regional government

Stimulate Support Promote Innovation
Stimulating, supporting, promoting

- **Stimulating innovation**
  - Bridge gap between research and industry
  - Highlight comparative and competitive advantages
  - Seek gaps and opportunities
  - Portal of projects
  - Find synergies through networking
  - Innovation competitions
  - Map, organise and drive
Stimulating, supporting, promoting

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Stimulating, supporting, promoting

- **Supporting innovation**
  - Creating links between role players
  - Providing enabling environment
  - Workshops
  - Assist with access to finance
  - Lobby for innovation seed fund
  - Develop Science / Research Park
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  - Proposal screening
  - Networking events
  - Develop incubator
Promoting innovation

- Lobbying – a voice for innovation
- Publicising success stories
- Publicise gaps
- Make innovation visible – events, portal
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Successes

- Networking events – 6 per year
  - 20 to 200 people
- Breaking down silos, sharing information
- Interaction with Business Chamber
- Volunteer-driven SteerCom
- Establishment of Incubator
  - DST funding of R270k per year
"This really is an innovative approach, but I'm afraid we can't consider it. It's never been done before."
Propella partnerships

Nelson Mandela Metropolitan University

Engeli Enterprise Development

GM

Industrial Development Corporation

Telkom

FutureMakers

BASF The Chemical Company

Algoa FM
Propella

- **Key target sectors**
  - Advanced manufacturing (renewable energy, automotive, nanotechnology)
  - ICT
  - Creative arts and textiles

- **Business support services**
  - Access to market, access to business support and mentorship and access to finances

- Facility-based services
- Physical or virtual incubation
- Access to NMMU expertise and equipment
Propella impact

- After one year of operation:

  Incubatee revenue
  285% ↑
  R2.6 million

  Incubatee employment
  192% ↑
  35 employees

  Private sector co-funding
  210% ↑
  R31 million
Benefits of multi-stakeholder collaboration

- Private sector:
  - Propella provides delivery mechanism for enterprise and supplier development

- Government:
  - Business development - “decent job” and wealth creation
  - Sustainability secured by private sector investment

- Academia:
  - Commercialisation of academic research and development
  - Return on investment for ESD spend

- Entrepreneurs:
  - Access to equipment and expertise

- RIF:
  - Support innovation-based economic opportunities
Creating an innovation ecosystem

- Lean, agile (inexpensive) structure
- Strong multi-helix networks and partnerships
- Flexibility in government-funded innovation programmes
- Incremental innovation-related infrastructure development
- Driven by the private sector, supported by research and academia, and enabled by the public sector.
- Geographical proximity
- Starting the conversation!