Conceptualisation, thoughts and emerging issues regarding the impact of research and innovation

Dr Sibusiso Manzini, WRC Research Symposium, Sandton, 12 September 2019
Outline

• More reports – less understanding?
• An analysis of innovation indicators
• The South African Innovation Index
• The 2019 STI Indicators Report
• Uncalled-for criticism of indicators
• South Africa in 2019
• Concluding thoughts
More reports – less understanding?
Measurement of Innovation in South Africa: An analysis of survey metrics and recommendations. 2015. SAJS, Volume 111 Issue 11/12 (Pages 77-84)
PURPOSE

• Critique SA indicators

• Broaden perspectives on innovation

• Demonstrate the implications of a broader innovation perspective

• Propose new metrics for South Africa’s NSI
Gaps & Shortcomings in Indicators

- Poor definition of non-technological innovation
- Emphasis on inputs rather than outputs
- Lack of regional and sectoral analysis
- Limited attention to innovation diffusion
- Subject to respondent interpretation
- Ignored the wider conditions of innovation
- No attention to linkages and learning
Different types of innovation

Figure 1: An illustration of the overlapping types of innovation.
Proposed new indicators

- Social cohesion
- Social impact of innovations
- Innovation in the public sector
- Knowledge and technological intensity of manufactured goods
- Contribution to the manufacturing trade balance
- Licensing of patents
- Entrepreneurship
- Participation in lifelong learning
- Innovation networks
- Knowledge mobilisation
- Knowledge application
- Knowledge flow
- Knowledge impact
The South African Innovation Index

- Have you read it?
- Do you know why it was adopted?
- Is it helping us to understand?
- Did it address the shortcomings?
Numbers don’t lie – or do they?

- GERD – 0.82%
- STI Human Capital - ?
- Publications – 350/mil
- Patents – 38/mil
- Technology exports
- Human Development Index – 113/161
Blame it on the mirror

A growing chorus of uncalled-for criticisms

• “Indicators are decontextualized”
• “They don’t take into account the roles of local institutions.”
• “They advantage institutions in the developed world.”
• “Indicators essentially seek to homogenise.”
Meanwhile, South Africa in 2019

GP and WC had the lowest proportion of adults living in poverty

Men, Women and Children: Findings of the Living Conditions Survey 2014/15

<table>
<thead>
<tr>
<th>Province</th>
<th>Poverty Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSA</td>
<td>49.2%</td>
</tr>
<tr>
<td>LP</td>
<td>67.5%</td>
</tr>
<tr>
<td>EC</td>
<td>67.3%</td>
</tr>
<tr>
<td>KZN</td>
<td>60.7%</td>
</tr>
<tr>
<td>NW</td>
<td>59.6%</td>
</tr>
<tr>
<td>MP</td>
<td>54.6%</td>
</tr>
<tr>
<td>NC</td>
<td>54.3%</td>
</tr>
<tr>
<td>FS</td>
<td>48.9%</td>
</tr>
<tr>
<td>WC</td>
<td>33.2%</td>
</tr>
<tr>
<td>GP</td>
<td>29.3%</td>
</tr>
</tbody>
</table>

Source: Stats SA

THE SOUTH AFRICA I KNOW, THE HOME I UNDERSTAND
Who should we listen to?

- Ministers, DGs, CEOs, Annual Reports: “We are doing fine.”

- How do we know whether investments in research and innovation are working for SA?

- Who should we hear from? Whose report should we trust?
We cannot just do research, nje!

- Publicly funded research cannot ignore these realities: poverty, inequality and unemployment

- Private research with any sense of social justice or ethics ought to address these chronic national challenges

- We have to value our people - including those who are skilled