INNOVATION AGENDA FOR SOUTH AFRICA IN THE 21ST CENTURY:

TOWARDS AN ALTERNATIVE INCLUSIVE AND INTEGRATIVE MODEL

Presented at NSTF’s 46th Plenary and AGM
by Dr Lebs Mphahlele
17 October 2014
• Moswaramarapo / Programme Director
• Modulasetulo le maloko a makhuduthamaga a NSTF / NSTF Chairperson, Prof Ali Dhansay, and members of the EXCO
• Hlogo le bašomi ba NSTF / The Executive Director and staff of the NSTF
• Maloko a NSTF ao a le go fa / The Sectors represented at the NSTF
• Baeng / Honoured Guests
• Bahlomphegi le setšhaba kamoka / Ladies and Gentlemen

Ke a le dumediša / Good morning
On an occasion such as this 46th plenary and annual general meeting of the NSTF, I desire a praise-singer to welcome me to your proverbial stage. Such a praise singer would use the following abridged praise song to call upon the significant others to bless me with words of wisdom as I address you:

Ke Komane, Ke Ngwamorei’a Lehumo la Ngwamorei le Modirwadi’a Phaahle
Ke setlogoo sa Ngwamorei’a Phaahl’a Hlabirwa
Ke setlogolo sa ba bina Phuti e lego ba Mphahlele’a dileša tša Mašobana dipheta
Ke Mokgaga’ Mmakubela’ Moratha o rathago ka ntšhana pedi a boroka
A e je ditlhodi Phuti

The desire of African Humanism “... is to be rather than to conquer other souls” (Mphahlele, 2002: 126-128)
**My itch:** Exclusivist, linear, R&D-driven technological innovation that utilises measurement framework which does not recognise and resource people dimension of innovation and grass-roots, non-technological and intangible innovations.

**Why?**
- Potential to defeat goals of ‘enhanced human potential’ & ‘improved quality of life for all’.
- Scholarly work on how to conceptualise, design and ‘measure’ a broader notion of innovation needed.

**To relieve my itch:** I investigated appropriate conceptual framework of innovation with potential to realise normative policy intentions of post-Apartheid SA.

To achieve this, I
- analysed current notion/s of innovation
- analysed current innovation measurement framework
- investigated appropriate strategies to strengthen current model of innovation
Methodology

• **Point of departure**
  – STI paradigms, dominated by positivist & empiricist frameworks

• **Research methodology used was**
  – reflexive (rigorous self-examination)
  – Humanistic
  – indigenous
  – trans-disciplinary and co-operative

• **Research design**
  – was qualitative and used
  – grounded theory design to formulate theoretical ideas

• **Scope:**
  – innovation public policies
‘Genealogy’ of Innovation

- **Novelty** (new, progressive) acknowledged in science between 16\(^{th}\) and 17\(^{th}\) centuries
- **Imitation, invention** (1\(^{st}\) occurrence of idea) and then **innovation** (idea applied successfully)
- Different types of innovation are dependent on **selection environment**: viz. market and non-market selection environments
- In 20\(^{th}\) century, **technological innovation** (commercialisation of **technological inventions**) – driven by natural **sciences, economics, statistics** and R&D alliance
- Little attention on **non-technological innovation**
Innovation Evolution in post-Apartheid South Africa

- RDP
- S&T White Paper
- R&D
- Innovation Plan
- Technology Innovation Agency
- IKS
## Understanding our Innovation Landscape

| M | I | n | n | e | r | e | a | e | s | g | u | u | r | l | e | a | P | u | m | t | a | S | t | R | e | i | r | & | i | E |
| INNOVATION | K | D | t | n | a | d | m | n | v | S | l | i | a | s | i | u | g | g | r | e | m | i | o | n | s | t | n | a | t | i | o | n |


Understanding our Innovation Landscape

- **MIE**
- **S**
- **Rei**
- **&**
- **E**

### INNOVATION

- **K**
- **D**
- **t**
- **n**
- **a**
- **d**
- **m**
- **n**
- **v**

- **S**
- **l**
- **i**
- **a**
- **s**
- **i**
- **u**
- **g**
- **g**
- **r**
- **e**
- **m**
- **i**
- **o**
- **n**
- **s**
- **t**
- **n**
- **a**
- **t**
- **i**
- **o**
- **n**
Reflections

• Dominant model of innovation took the economistic turn in the 20\textsuperscript{th} century when it defined innovation as commercialisation of technical inventions
• Innovation policies recognise & legitimise linear, R&D-driven and technology innovation at the expense of indigenous and non-technological innovations
• Absence of people agenda in dominant innovation policies will not achieve normative intentions of post-Apartheid South Africa
• Policies designed for market selection environments do not meet all human needs
• Excluded “non-measurables” need to be part of a humanistic ‘measurement’ framework
• Multi-disciplinary, inter-disciplinary and trans-disciplinary approaches hold potential to promote inclusivity and integration
Conclusions

The empirical data confirmed that the current model of innovation is underpinned by the dominant paradigm which is characterised by:

- Disproportionate influence of the natural sciences;
- Objectivist world-view;
- Commodified knowledge;
- Commercialisation;
- Greco-Roman legal framework;
- Technological and R&D-driven innovation;
- Science-military-industrial nexus;
- Economistic measurement of the tangibles; and
- Viewing people as means to an end.
IN SHORT

Mainstream/Monetized World = people indebted to technological innovation

Competing relationships

Botho/Humane World = people use innovation to solve problems

Harmonious relationships
### Transformation, not reformation has a potential to achieve inclusive and integrated intentions

<table>
<thead>
<tr>
<th>Type of change</th>
<th>What to change</th>
<th>How to change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformative</td>
<td>Constitutive design</td>
<td>Change constitutive design into a new paradigm</td>
</tr>
<tr>
<td>Reformative</td>
<td>Regulatory Design</td>
<td>Change regulatory design within a paradigm</td>
</tr>
</tbody>
</table>

Constitutive norms refer to activities the existence of which are logically dependent on the norms. They exist in the form of systems.

Regulative norms regulate or control by rule or system. They exist in the form of formal policies and legislation that have been enacted to prescribe or control ‘behaviour’ within a paradigm.
An Inclusive and Integrative Constitutive Paradigm
Theoretical Propositions & Recommendations

Thesis 1: Innovation is constrained by the dominant science and technology paradigm.

Thesis 2: Inclusive and integrative innovation cannot exist within an exclusivist innovation paradigm.

Thesis 3: Transforming an exclusivist paradigm into an inclusivist paradigm requires change at constitutive level and not just at regulatory level.

Thesis 4: Synthesising an inclusive and integrative innovation requires creativity, open dialogue & imagination.

Recommendation: Make NSTF a discourse coalition to profile and promote engagements on inclusive and integrative model of innovation.
THANK YOU