



G20 OECD-BNCT WORKSHOP
Bioeconomy in the OECD countries
Presidency of council of Ministers
July 16, 2021

Panel 1:
Bioeconomy strategies in the different
OECD countries: comparison of their
objectives, priorities, governance and
implementation guidelines



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Implementing the SA Bio-economy Strategy



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South Africa

1. Which sectors comprise your national bioeconomy?

NB. The South African Bioeconomy Strategy (2013) focusses on deriving socio-economic value from bio-innovations & biotechnologies.

Support to innovations contributing to:

- **Agriculture** – including the broader definition ranging from primary production, agro-processing, food/feed, forestry & fisheries (incl. CC adaptation)
- **Health** - diagnostics, therapeutics, biologics, devices, precision medicine related to the burden of disease
- **Industry** - Biorefineries, biocatalysis, biomaterials, bioprocessing support, environmental applications including wastewater, biowaste, etc
- **Indigenous Knowledge based Innovation** (a cross-cutting application) – African Natural Medicines, Cosmeceuticals, Neutraceuticals, health beverages.

These were identified as the main areas where bioinnovations can have a more profound socio-economic impact (including livelihoods, job multiplier effect, competitiveness, social relevance).



2. How is the strategy on bioeconomy in your country implemented?

The Department of Science & Innovation (DSI) takes the lead for the national Bioeconomy Strategy (2013), and implements a National System of Innovation approach. Under the two White Papers on Science, Technology and Innovation (1996 & 2019), there is strong focus on repurposing the NSI to address the post-apartheid challenges and societal needs.

- A variety of instruments have been created or harnessed for the strategy (including funding instruments, Centres of Excellence, Research Chairs, High End Infrastructures, and some of these are managed by the appropriate agencies (the National Research Foundation, the Technology Innovation Agency, the Council for Scientific and Industrial Research, and the SA Medical Research Council)).
- Each of the funding instruments has a committee comprising Industry, government and academia to coordinate and guide the funding initiatives.



3. What are the missing policies, current needs and opportunities for your national bioeconomy?

- Arguably, inter-Ministerial coordination/guidance is still lacking, but as per the WP on STI, such a structure is anticipated. (Various policy & Master plans (eg. the National Development Plan (2017))
- The South African bioeconomy strategy focuses heavily on harnessing bioinnovations for improving livelihoods of South Africans. Whilst not blind to the circular (renewable) and sustainable aspects of a bioeconomy, these are currently of lesser importance.
- Resourcing of RD&I remains sub-optimal (SA GERD ~ 0.7% GDP), particularly under the Covid-19 pandemic situation.

Opportunities:

- Linking the recycling/circular bioeconomy approach (towards environmental sustainability) of many countries of the global north, with the need for industrial / economic development in the global south.
- Indigenous Knowledge -based technology innovation (incorporating traditional knowledge holders, communities, scientists and business objectives) has significant opportunity.