

AGRICULTURAL BUSINESS INNOVATION SURVEY 2019-2021



For a more innovative South Africa

*INCLUDING FARMING, FORESTRY AND FISHERIES



science & innovation

Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA



HSRC
Human Sciences
Research Council



stats sa

Department:
Statistics South Africa
REPUBLIC OF SOUTH AFRICA



“Innovation is doing something new and different and getting it out there. Innovation is both new things and how one does new things. Innovation is what South Africa needs badly. Now.”¹

Professor Michael Kahn

¹ ‘2020 State of Innovation Address’, *Daily Maverick*, 13 February 2020. Available at: <https://www.dailymaverick.co.za/opinionista/2020-02-11-2020-state-of-innovation-address/>

Whether you're starting out, scaling up or steaming ahead, innovation is the creative engine that powers the future success of businesses in our country. It can also help to build up entire communities.

All across the world governments are spearheading efforts to measure innovation in their economies. Why? Because it is by working *with* businesses and innovators that they can figure out what policies are helping out or where improvements are needed. **Innovation data are vital for a more innovative South Africa.**

South Africa's second Agricultural Business Innovation Survey, covering the period 2019–2021, will examine the innovation activities in approximately 1 700 agricultural firms – from small to very large, and across a range of agricultural sub-sectors. In the same way that a company's financial statement is an essential tool for performance monitoring and planning, the Agricultural Business Innovation Survey will deliver a national picture about what innovations are taking place, how they occur at firm-level, and what can be done to enhance innovation capacity in this vital sector.

Your participation matters.

Dr Moses Sithole
Research Director
Centre for Science, Technology and Innovation Indicators

[Photo by: S. Khan, HSRC]



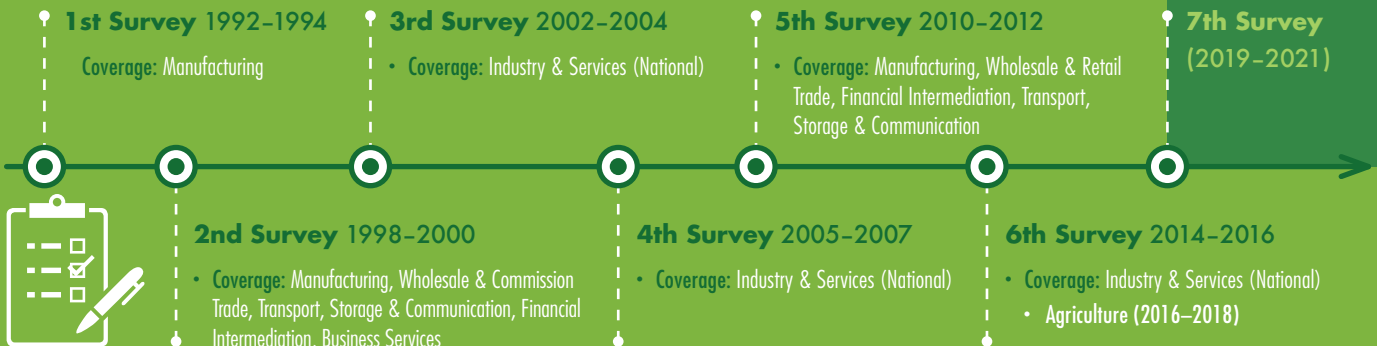


The story of the South African Agricultural Business Innovation Survey

Effective policy- and decision-making requires high quality evidence. The Department of Science and Innovation (DSI), as a partner within the national statistics system, is mandated to oversee the collection of statistics on science, technology and innovation. The Centre for Science, Technology and Innovation Indicators at the Human Sciences Research Council performs national business innovation surveys on behalf of the DSI. The Agricultural Business Innovation Survey contributes evidence for policymaking in this critical economic sector.

These surveys are based on the recommended methodology outlined in the Oslo Manual, an international best practice guide. Surveys require a large and dedicated team of fieldworkers, information technologists, data analysts, and statisticians. We rely on the time and energy of our respondents to provide accurate data timeously, so results can be released as quickly as possible

Your cooperation matters.



STATE OF AGRICULTURAL INNOVATION IN SOUTH AFRICA*

2016

WE SURVEYED BUSINESSES IN



FISHERIES



FORESTRY



AGRICULTURE

(includes farming of crops, animals or mixed)

WHAT WE
FOUND: **62%** of SA
BUSINESSES were



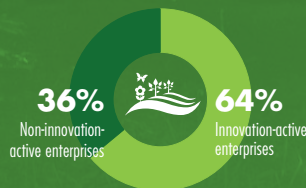
INNOVATION ACTIVE

FREQUENCY OF INNOVATION ACTIVITY

Most agricultural enterprises took technological, organisational or commercial steps to implement an innovation.

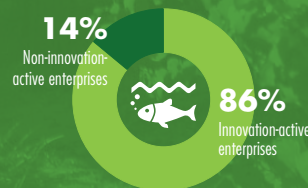
AGRICULTURE

Nearly two-thirds (64%) of enterprises in the agriculture sub-sector were **innovation-active**



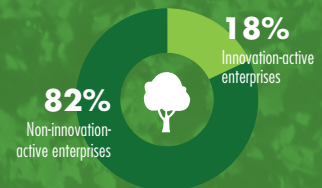
FISHERIES

Fisheries reported the **highest levels of innovation**



FORESTRY

Forestry, a mature 'low-tech' industry, had the **least innovation activity**



TOP 5 EFFECTS OF INNOVATION ON BUSINESS GOALS

1

Improvement in soil fertility

2

Increased varieties (e.g. cultivars)

3

Developed new intellectual property (IP)

4

Reached new markets

5

Reduced unit production costs

*Based on results of the Agricultural Business Innovation Survey 2016–2018.

Keen to learn more? Go to sabizinnovationsurvey.blog

Support for innovation in South Africa*

The South African government offers a variety of financial and non financial programmes, funds and incentives to promote innovation. These help firms of all sizes access diverse resources to support their product and process innovations.

Your engagement matters.

*As at February 2022

Programme/Sector Website URL	Government support for innovation
Agriculture  https://bit.ly/3JRH6pz	Support to develop agricultural technology innovations, commercialise de-risked technologies and improve the diffusion of appropriate agricultural technologies to small-scale and emerging farmers.
Agro-Processing Support Scheme (APSS)  https://bit.ly/3v6ibu8	A cost-sharing grant to stimulate investment in agro-processing / beneficiation (agri-business) enterprises to increase capacity, create employment, modernise machinery and equipment, improve competitiveness and productivity, and broaden participation.
Aquaculture Development and Enhancement Programme (ADEP)  https://bit.ly/3HbUF15	A reimbursable cost-sharing grant towards the costs of machinery and equipment; bulk infrastructure; owned land or buildings; leasehold improvements; and competitiveness improvement activities in marine and freshwater enterprises including fish hatcheries and fish farms, and the production, processing and preserving of aquaculture fish.
Automotive Investment Schemes (AISs)  https://bit.ly/35kWawU	To grow and develop the automotive sector through investment in new and replacement models and components to increase plant production volumes, sustain employment and strengthen the automotive value chain. It also offers a non-taxable cash grant for projects that include research and development.
Capital Projects Feasibility Programme (CPFP)  https://bit.ly/3p8xTRv	Facilitates feasibility studies likely to lead to high-impact projects to stimulate value-adding economic activities, including strengthening the international competitiveness of South Africa's capital goods sector and allied industries.
Clothing, Textiles, Footwear and Leather Growth Programme (CTFLGP)  https://bit.ly/3v8pbGQ	Support and funding to grow employment, improve overall competitiveness and grow the clothing, textiles, footwear, leather and leather goods manufacturing industries.
Commercialisation Support Fund  https://bit.ly/3veVpQZ	Prepares innovators for follow-on funding through limited support for market testing and validation.
CSIR Contract Research and Development  https://bit.ly/3va6ltx	Helps businesses and organisations deliver innovative solutions, in fields that include computer and information science, chemical sciences, biological and environmental sciences, engineering, nanotechnology and aeronautics, as well as medical and health sciences and agriculture.

Programme/Sector | Website URL

Government support for innovation

Enterprise Incubation Programme (EIP)

 <https://bit.ly/3Hbac1g>

Funding for early stage entities to supply local markets.

European South African Science and Technology Advancement Programme (ESASTAP)

 <https://bit.ly/3paYXzF>

A collaborative initiative between South Africa and the European Union to strengthen ties in science, technology and innovation. A range of funding options for projects is sourced from South Africa's Department of Science and Innovation and the European Commission.

Export Marketing and Investment Assistance Scheme (EMIA)

 <https://bit.ly/3h9keW8>

Assisting the development of export markets for South African products and services and recruiting new foreign direct investment into the country, including improving companies' competitiveness by supporting patent registrations, quality marks and product marks.

Global Cleantech Innovation Programme (GCIP)

 <https://bit.ly/3v5OE3B>

Part of a global initiative to promote clean technology innovation and support entrepreneurs to grow their small, medium and micro enterprises (SMMEs) and start-ups into viable, investment-ready businesses. Services include training, mentoring and access to capital.

Health Business Sector

 <https://bit.ly/3LV1QOY>

Stimulating and supporting the development, registration, manufacture and commercialisation of products and services which address the healthcare needs of the country and support local industry. Services include sourcing investments and providing funding for technologically innovative opportunities.

Industry Innovation Support

 <https://bit.ly/36riPlh>

The CSIR in collaboration with the Industry Innovation Partnership Fund gives participants access to large-scale prototyping and pre-commercial manufacturing infrastructure, equipment, expertise and access to business and technical networks. Research, development and innovation activities range from laboratory-scale validation to technology prototyping and pilot manufacture. Fields include biomanufacturing, nanomaterials, biorefining, mining, photonics and biocatalysis.

Innovation for Inclusive Development (IID)

 <https://bit.ly/3LT9toX>

The IID's Project Management Unit provides grant funding, technology development, IP support, business development support, and market access opportunities for grassroots innovators.

Innovation Skills Programme

 <https://bit.ly/3leFBkC>

Provides an enabling and innovation environment and training to build critical thinking competencies through access to international programmes and initiatives. Aims to support the progression of technologies from proof-of-concept stage to pre-commercialisation (technology readiness level 3–8).

Investments/funding for innovation










 <https://bit.ly/3saHM3h>

Sourcing investments and providing funding for technologically innovative opportunities and driving their commercialisation and exploitation.

Khoebo Innovation Promotion Programme (KIPP)

 <https://bit.ly/3M3z9zs>

Enabling early stage innovative SMMEs to penetrate the market with locally developed innovations, specifically offering capital and business support in the early stages of commercialisation with particular emphasis on township and rural entrepreneurs, grassroots innovators and locally developed innovations.

Programme/Sector Website URL	Government support for innovation
Manufacturing Competitiveness Enhancement Programme (MCEP)  https://bit.ly/3lejzP9	Loans to manufacturing companies to stimulate their competitiveness and ensure job retention in the sector.
Pre-commercialisation Support Fund  https://bit.ly/3JPondV	To support pre-commercialisation activities, e.g. market testing and validation of the technology in the potential customer environment, as well as bridging finance.
Research and Development Tax Incentive  https://bit.ly/3haZ365	Tax deductions offered under section 11D of the Income Tax Act (Act 58 of 1962). To be eligible a company of any size, in any sector of the economy, must engage in eligible R&D activities in South Africa. These must be approved by the Minister of Science and Innovation. At corporate tax rate of 28%, the incentive translates into 14 cents per Rand spent on R&D.
Sector funding through TIA  https://bit.ly/3LSi3o1	To source investment and provide funding for innovative technology development and commercialisation in key areas in specific sectors including: waste management, water and mining products and services; the energy industry (renewable energy, energy storage, distributed generation and hydrogen fuel cells in particular); ICT products and services; and the advanced manufacturing industry.
Small Enterprise Development Agency (SEDA) Technology Programme (STP) – Incubation Programme  https://bit.ly/3JJkNIN	Supports technology and market validation, process and product development, small-scale manufacturing, market entry and market development.
Small Enterprise Development Agency (SEDA) Technology Programme (STP) – Quality Standards and Technology Transfer Fund  https://bit.ly/35lzhZW	Provides funding to enhance the competitiveness and sustainability of small enterprise in South Africa by promoting quality and excellence as competitive tools for SMMEs.
Seed Fund  https://bit.ly/3lgDb56	To assist with bridging finance to translate research outputs into fundable ideas for commercialisation (technology readiness level 3–8).
Small Enterprise Finance Agency (SEFA) Fund of Funds  https://bit.ly/3vh6ssy	A portion of the fund targets SMMEs in innovative sectors, including technology as well as new and emerging industries, typically with locally developed IP and technologies with significant potential to scale. Funding provided is mainly in the early stages of development as SMMEs progress through the technology readiness and commercialisation stages. This will also be used as a catalyst to attract second-round funding and support for industrialisation of large-scale R&D initiatives. Funding provided will be a combination of debt and equity.
South African Bidesign Initiative (SABDI)  https://bit.ly/35kXmAo	Support for collaborative and integrative research projects focusing on functional genomics, structural biology, synthetic biology and systems biology and projects with cross-functional application (technology readiness level 2).

Programme/Sector | Website URL

Government support for innovation

Strategic Partnership Programme (SPP)

 <https://bit.ly/3Ha2YL2>

Develops and supports programmes or interventions aimed at enhancing the manufacturing and services capacity of suppliers with linkages to strategic partner supply chains, industries or sectors.

Support Programme for Industrial Innovation (SPII)

 <https://bit.ly/36rmQMN>

Provides financial assistance for the development of innovative products or processes, focussed specifically on the development phase, which begins at the conclusion of basic research and ends at when a pre-production prototype has been produced.

Technology Development Fund

 <https://bit.ly/3p8wg6y>

Supports the development of technologies from proof-of-concept leading to product prototype and ultimately demonstration in an operating environment (technology readiness level 4–7).

Technology Platform Programme (TPP)

 <https://bit.ly/35ip2FM>

Creating and enabling access to life science infrastructure and services, supporting development and commercialisation of life science research projects, products and services, and accelerating the commercialisation and uptake of platform research projects and technologies (technology readiness level 3–7).

Technology Innovation Cluster Programme

 <https://bit.ly/3lsjCHj>

Supporting the creation of multi-disciplinary clusters along a technology development value chain with stakeholders fulfilling different functions: technology incubatory access and support, business incubatory access and support, and access to funding.

Technology and Human Resource for Industry Programme (THRIP)

 <https://bit.ly/3h9UDw6>

A partnership programme of the dti that promotes collaboration between industry and academia and science councils, and enhances competitiveness in South African industries through new technology and skills generation.

Technology Localisation Implementation Unit

 <https://bit.ly/3BJ7sqX>

Raises the capabilities of local manufacturing companies so that they can earn a share of recapitalisation investments and, ultimately, enter export markets as competitive suppliers into Original Equipment Manufacturers (OEM) global supply chains.

Technology Stations Programme

 <https://bit.ly/3p79JHf>

A network of 18 centres with state-of-the-art equipment and experts in specialised fields located at universities of technology to provide science, engineering and technology services to SMMEs and entrepreneurs for product development, product improvement, prototype development and a range of other engineering services.

Technology Venture Capital (TVC)

 <https://bit.ly/33Kb4fl>

Providing business support and seed capital for the commercialisation of innovative products, processes and technologies.

Youth Technology Innovation Programme

 <https://bit.ly/33KbeUm>

 <https://bit.ly/3LT5Vmx>

Creates and enables access to infrastructure and services, mentoring and incubation, to support development and commercialisation of youth-led technology enterprises. Assistance also for innovators not linked to any science council, higher education institution or small, medium and micro enterprise. Offerings include prototype development at TIA Technology Stations and Technology Platforms, IPP, testing and product certification, stipends towards establishing an enterprise, business coaching and incubation services.

Survey Management Team

The Agricultural Business Innovation Survey 2019–2021 is performed by a team of specialist researchers and managers based in the Centre for Science, Technology and Innovation Indicators at the Human Sciences Research Council. Supported by dedicated research assistants, the survey team are committed to making sure each respondent's experience of completing the survey is smooth and efficient. Whether it's a phone call, email or tweet, we want to hear from you – and we'll do our best to attend to your question or comment as soon as we can.

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Your feedback matters.

[Photos by: S. Khan, HSRC]

