EXECUTIVE SUMMARY

The big picture

#1 Less than two-thirds of South African businesses were innovation-active during 2019-2021 and a significant proportion had innovation activities that did not result in product or process innovations.

- Only 61.8% of South African businesses tried to innovate and 17% of these businesses did not have innovations by the end of 2021.

#2 The computer sector had the highest proportions of businesses with innovation activities and innovations.

#3 Businesses reported a range of effects from the Covid-19 pandemic on their innovation activities, requiring them to adjust their innovation strategies to cope in a difficult business environment.

- Key strategies innovation-active businesses used to mitigate Covid-19 impacts included cutting expenditure, reprioritising budgets, and delaying or abandoning innovation activities.

Comparing innovation-active with non-innovation active businesses

#4 Innovation-active and non-innovation active businesses did not differ considerably by sector and size class but there were some differences in geographic location.

- Most of South Africa's innovation-active businesses were in Gauteng (55% of innovation-active businesses) and the Western Cape (30% of innovation-active businesses).

#5 Innovation-active businesses had more skilled labour, had greater access to external knowledge, and were more connected to global markets compared to non-innovation active businesses.

Businesses with innovation activities

#6 Building human capabilities was an important component of innovation activity.

- Training was the most frequently reported innovation activity (by 47% of innovation-active businesses), followed by software and database activities (29% of innovation-active businesses) and marketing and brand equity activities (25% of innovation-active businesses).

#7 Set against South Africa's current working-age demographic profile statistics[1], the demographic profile of employees involved in innovation activities did not reflect an inclusive working environment in innovation-active businesses.

- Only 38 in 100 workers involved in innovation activities were female, 62 in 100 were African, and 17 in 100 were white. 70 in 100 were aged 35 years or younger.

#8 Collaboration and the nature of innovation activities were associated with different patterns of innovation outcomes.

- Businesses that did not carry out formal innovation activities (R&D or patenting), and did not collaborate with other institutions, were most likely to have abandoned or not completed their innovation activities in 2019-2021.

#9 The most important sources of information for innovation-active firms were other businesses that were clients or customers.

Businesses with innovations

#10 Innovative businesses mainly had a combination of both product and process innovations.

#11 Product innovations were more likely to be incremental, and new to the firm only than new to the market or world.

- More businesses with product innovations reported improving existing goods and services rather than making new goods and services available to their customers.
- 10% of product innovators and 6% of process innovators had new to the world innovations. By contrast, 51% and 63% of these innovators had new to the firm only innovations, respectively.

#12 Innovators developed most innovations on their own.

- Only 28% of product innovators and 17% of process innovators developed their innovations by working with other businesses or institutions.

#13 Businesses with more novel product innovations and operating in international markets were more likely to fall into the technical sectors.[2]

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[1] Statistics South Africa (2023). Census 2022 Statistical Release P0301.4. Available at: https://census.statssa.gov.za/assets/documents/2022/P03014_Census_2022_Statistical_Release.pdf. Last accessed 21 February 2024. Also: Statista (2024). Population of working age in South Africa from Q1 2019 to Q1 2020, by population group (in 1,000s). Available at: https://www.statista.com/statistics/1129144/population-of-working-age-by-population-group-in-south-africa/. Last accessed 21 February 2024.

[2] The technical subsectors include computer and related activities, R&D, technical testing and analysis, and architectural and engineering activities.

#14 **Businesses with more novel product innovations and operating in international markets were more likely to be medium sized.**

- 58% of businesses that introduced new to market product innovations and operated in international markets had 50-249 employees.

#15 **Businesses with more in-house capabilities and greater levels of product innovation novelty had higher turnover.**

- 18% of businesses that introduced new to market product innovations and operated in international markets were in the largest turnover size class.

#16 **Businesses that introduced new to market product innovations and operated in international markets faced less competition.**

- On the other hand, 41% of businesses that operated in domestic markets only and modified already existing innovations from elsewhere had more than 50 competitors.

#17 **Businesses that were more connected to global markets, and had more novel product innovations, had more intellectual property rights.**

#18 **80% of all innovative businesses used or developed technologies classified as Internet of Things.**

#19 **The most successful innovation outcomes were quality rather than cost related.**

- Improved working conditions, improved quality of goods and services, and improved quality of life and well-being were among the most important outcomes of innovations.

#20 **Cost- and market-related factors were the most important barriers to business innovation among innovative businesses.**

- 36% of all innovative businesses considered high costs to innovation as being a highly important barrier.