

SOUTH AFRICAN NATIONAL SURVEY OF RESEARCH AND EXPERIMENTAL DEVELOPMENT 2017/18

KEY SECTOR RESULTS AND TRENDS



R&D performance in the South African formal business sector is vital to the national system of innovation and the future growth of the economy. This fact sheet shows that business spent nearly R16 billion on R&D in 2017/18, equivalent to 0.34% of the country's GDP. Three quarters of this investment was concentrated in the natural sciences, technology and engineering. The lion's share (93.5%) of all business sector R&D expenditure is for *applied research and experimental development research*, geared to solving problems at firm-level.

FACT SHEET NO. 21

THE BIG PICTURE



THE VALUE OF
SOUTH AFRICA'S GROSS
DOMESTIC PRODUCT
(GDP) IN 2017/18



R **4 653.579**
BILLION

THE SHARE OF GDP
SPENT ON R&D



0.83%

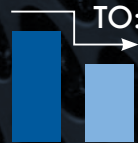
SOUTH AFRICA'S
ANNUAL R&D SPEND
HAS INCREASED OVER
THE PAST DECADE:

R **21.041**
BILLION
IN 2008/09

R **38.725**
BILLION
IN 2017/18

THE BUSINESS
SECTOR'S SHARE
OF THE TOTAL SPEND
DECREASED FROM:

58.6%
IN 2008/09



41%
IN 2017/18

VALUE OF BUSINESS
SECTOR R&D SPEND
IN 2017/18



R **15.859**
BILLION

GEOGRAPHIC CONCENTRATION



IN 2017/18 BUSINESS
SECTOR R&D WAS
CONCENTRATED IN
THREE PROVINCES:



GAUTENG **52.2%**

KWA ZULU NATAL **10.6%**

WESTERN CAPE **18.5%**

R&D SPENDING PATTERNS IN 2017/18



BREAKDOWN OF BUSINESS SECTOR R&D SPEND BY TYPE OF RESEARCH:



APPLIED RESEARCH
66.5%



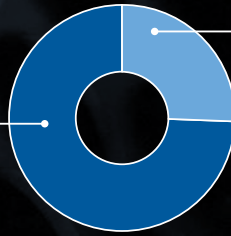
EXPERIMENTAL DEVELOPMENT RESEARCH
27%



BASIC RESEARCH
6.4%

CONCENTRATION OF BUSINESS R&D SPEND BY DOMAIN:

NATURAL SCIENCES, TECHNOLOGY & ENGINEERING 74.4%



SOCIAL SCIENCES & HUMANITIES 25.6%



THREE QUARTERS (75.6%) OF R&D SPENDING WAS TARGETED WITHIN JUST FOUR RESEARCH AREAS:

75.6%



ICT (16.3%)

ENGINEERING SCIENCES (18.7%)

SOCIAL SCIENCES (25.6%)

MEDICAL & HEALTH SCIENCES (15%)

R&D PERSONNEL IN 2017/18



17 554

THE NUMBER OF R&D PERSONNEL IN THE BUSINESS SECTOR IN 2017/18, OF WHICH 886 HOLD PhDs (5.05%)

	TOTAL	MALE	FEMALE
RESEARCHERS	7 142	4 515	2 627
TECHNICIANS	5 655	3 839	1 816
OTHER R&D PERSONNEL	4 757	2 893	1 864

BEHIND THE NUMBERS

The annual South African National Survey of Research and Experimental Development (R&D Survey) is conducted by the Centre for Science, Technology and Innovation Indicators (CeSTII) at the Human Sciences Research Council (HSRC), on behalf of the Department of Science and Innovation (DSI). R&D statistics are collected in terms of the Statistics Act No. 6 of 1999, and are quality assured by Statistics South Africa. Data collected through the Survey, and its historic data series, helps to inform decision-makers on investment planning, policy making, advocacy, and research in South Africa. Data also adds to benchmarking and performance comparisons with our international counterparts.

Access previous survey reports: <http://www.hsrc.ac.za/en/departments/CeSTii/reports-cestii>

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