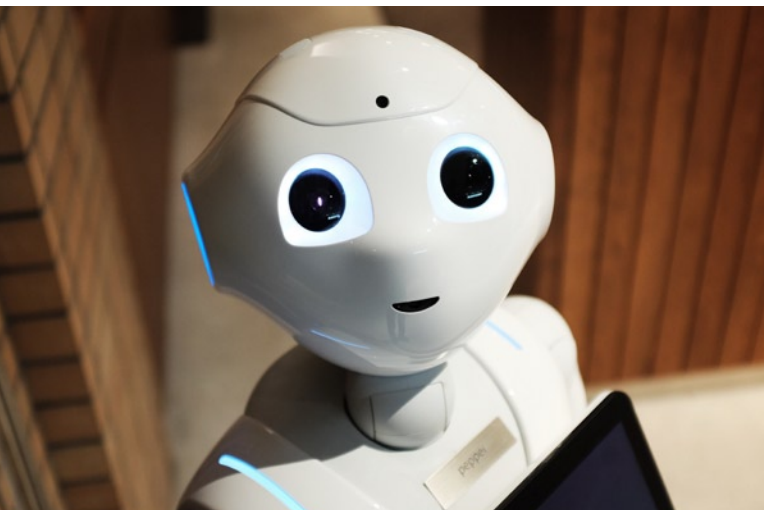




# HIGHER EDUCATION SECTOR R&D AT A GLANCE

South Africa's higher education (HE) sector plays a pivotal role in the national system of innovation—it houses the largest R&D workforce in the country with two-thirds of total R&D personnel working in this sector. This fact sheet shows that in 2019/20, higher education was responsible for 41.4% of total R&D spending in the country, overtaking business sector spending on R&D. The natural sciences, technology and engineering, and the social sciences continue to dominate higher education research. Researchers from other countries make up almost a quarter of the total in higher education, most of them postgraduate students.



FACT SHEET NO. 39

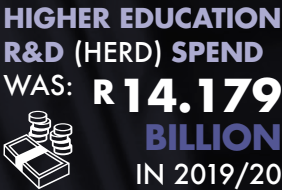
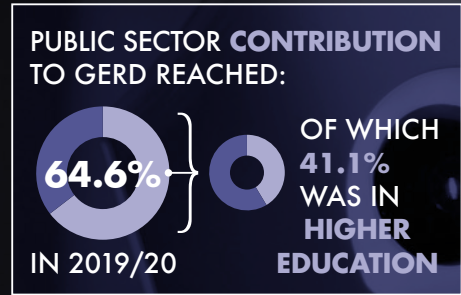
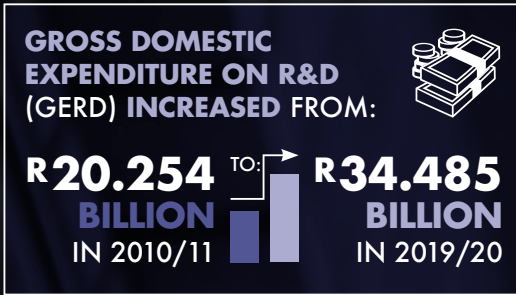
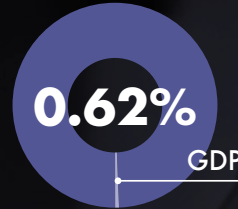
# THE BIG PICTURE



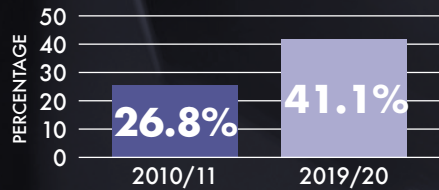
THE VALUE OF SOUTH AFRICA'S GROSS DOMESTIC PRODUCT (GDP) IN 2019/20



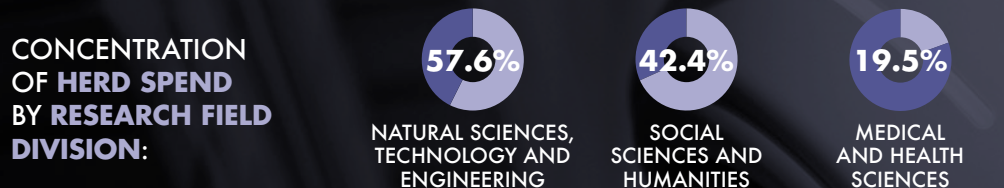
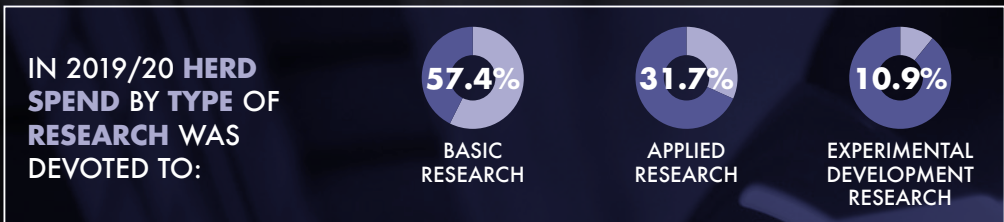
THE SHARE OF GDP SPENT ON R&D



HERD PROPORTION OF GERD INCREASED FROM:



# R&D SPENDING PATTERNS



# R&D PERSONNEL



**MORE THAN TWO-THIRDS (73.3%) OF ALL R&D PERSONNEL IN SOUTH AFRICA ARE IN THE HIGHER EDUCATION SECTOR**



**TOTAL RESEARCHERS IN SA:**

**62 002**

OF WHICH:



SOUTH AFRICAN: 30 107 | 48.6%

POST-DOCTORAL FELLOWS & DOCTORAL STUDENTS: 27 644 | 44.6%

NON-SOUTH AFRICAN: 4 251 | 6.9%

**OF THE TOTAL RESEARCHERS IN HE:**

TOTAL RESEARCHERS  
**53 371**



POST-DOCTORAL FELLOWS & DOCTORAL STUDENTS:  
**51.8%**

STAFF:  
**48.2%**

**WOMEN RESEARCHERS IN 2019/20 ACCOUNTED FOR:**



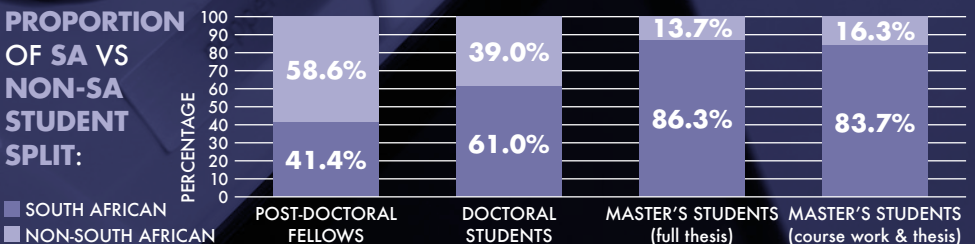
**47.6%**

**OF RESEARCHERS IN THE HE SECTOR**

## PROPORTION OF MALE AND FEMALE STUDENTS:

| OCCUPATION & QUALIFICATION  | SUBTOTAL: MALE | SUBTOTAL: FEMALE | TOTAL         |
|---|----------------|------------------|---------------|
| POST-DOCTORAL FELLOWS   | 1 693          | 1 174            | 2 867         |
| DOCTORAL STUDENTS   | 13 139         | 11 638           | 24 777        |
| MASTER'S STUDENTS (full research master's)                          | 13 507         | 16 071           | 29 578        |
| MASTER'S STUDENTS (course work plus thesis with research component) | 14 019         | 15 905           | 29 924        |
| <b>GRAND TOTAL</b>  | <b>42 358</b>  | <b>44 788</b>    | <b>87 146</b> |

## PROPORTION OF SA VS NON-SA STUDENT SPLIT:





## 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>

Data and analysis for this publication was prepared by Theo Sass and Anele Slater.



## CONTACT US

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