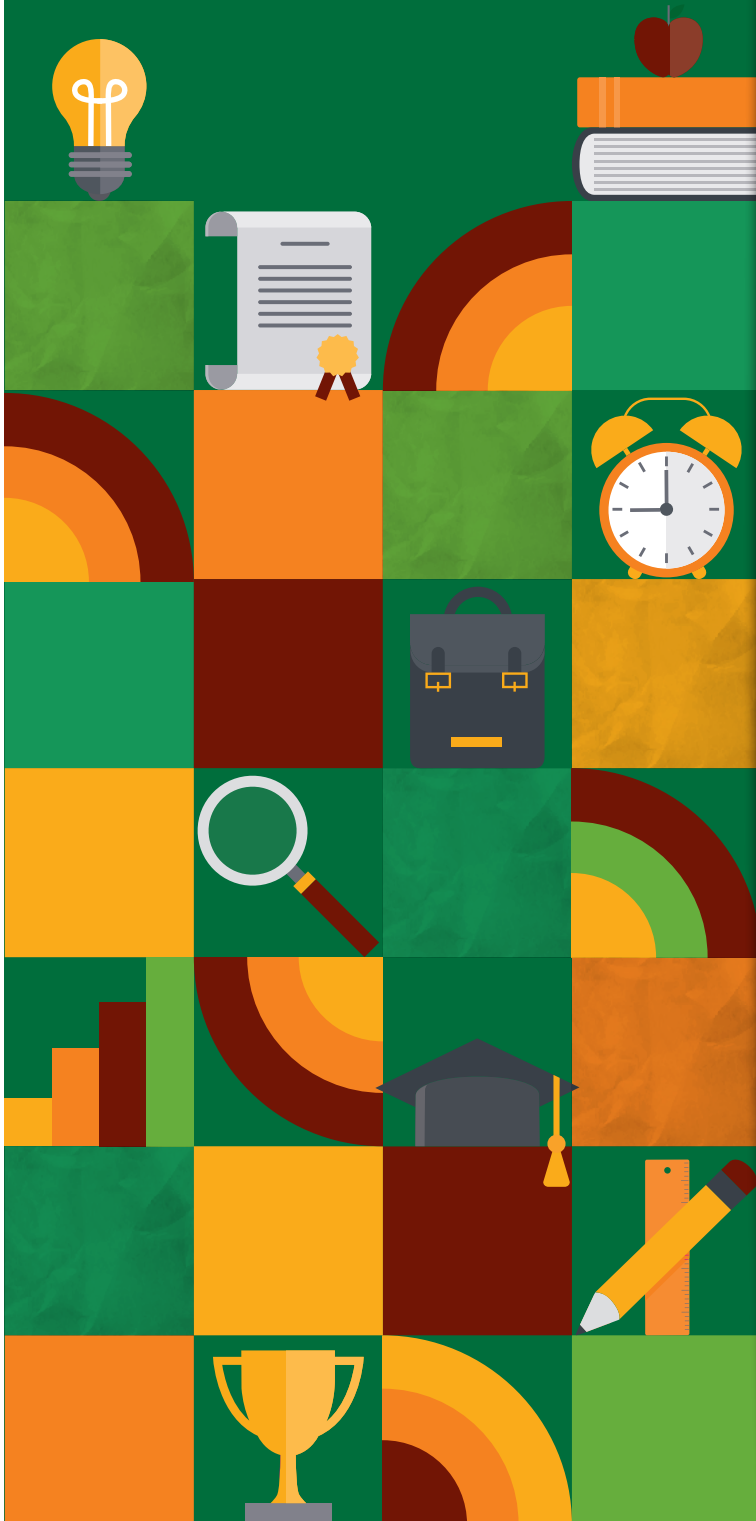


MARCH 2023

FACTSHEET



SOUTH AFRICA'S 2022 GLOBAL COMPETITIVENESS RANKINGS



BACKGROUND

The International Institute for Management Development (IMD)¹ World Competitiveness Centre publishes the World Competitiveness Yearbook (WCY), an annual report that presents the World Competitive Ranking, or global rankings of countries' competitiveness.² The report uses a combination³ of hard statistics and survey data to compute countries' rankings, based on how they manage their competencies towards achieving long-term competitiveness. The 2022 World Competitiveness Ranking, released on 15 June 2022, explores multiple factors that affect the prosperity of 63 countries' economies.

The indicators used to measure countries' competitiveness are organised into four primary factors whose data is analysed to rank countries according to the way they exhibit their competency for value creation.



higher education
& training

Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

FOUR FACTORS AND THEIR RELATED SUB-FACTORS:



Economic performance



Government efficiency



Business efficiency



Infrastructure

The four factors and their related sub-factors are as follows:

1. **Economic performance:** domestic economy, foreign investment, employment and prices.
2. **Government efficiency:** finance, tax policy, institutional framework, business legislation and societal framework.
3. **Business efficiency:** productivity and efficiency, labour market, finance, management practices, and attitude and values.
4. **Infrastructure:** basic infrastructure, technological infrastructure, scientific infrastructure, education and training, and health and environment.

The primary sub-factor of relevance to the mandate of the Department of Higher Education and Training (DHET) is **education and training**, and its related indicators. These indicators cover issues such as employee training, total expenditure on education (as a percentage of gross domestic product [GDP]), higher education achievement, graduates in science, women with degrees, and pupil-to-teacher ratio (tertiary education).



PURPOSE

The purpose of this Fact Sheet is to provide an overview of South Africa's global competitiveness ranking based on the 2022 World Competitiveness Ranking report released by the IMD World Competitiveness Centre.⁴ It focuses on the **education and training** dimension of South Africa's global competitiveness ranking. The Fact Sheet presents rankings of overall competitiveness for South Africa and selected nations. It also presents South Africa's competitiveness rankings of the knowledge factor and its associated sub-factors (education and training, scientific concentration and talent), and indicators of the education and training sub-factor.



METHODOLOGY

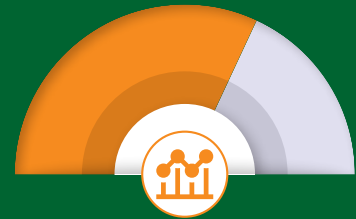
DATA⁵

For its 2022 report, the IMD World Competitiveness Centre used primary and secondary data collected across 63 economies to compute rankings. The primary data were selected based on the availability of comparable international statistics and collaborations that the IMD had with Partner Institutes. The secondary data comprised hard statistics collected from several official sources (see Appendix 2), while primary survey data was collected through an Executive Opinion Survey (EOS) conducted among business executives by Partner Institutes operating in the countries studied.

The IMD's South African Partner Institute, Productivity SA,⁶ surveyed business executives for their perspectives on a range of issues, such as management practices, adaptive attitudes, corruption and the agility of firms. Samples of respondents in each surveyed country were representative of their entire respective economies, and covered cross-sections of business communities in all economic sectors of each economy studied.

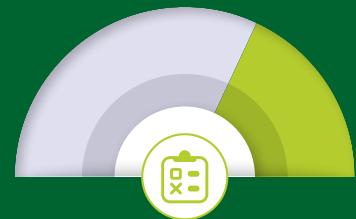
A total of 255 indicators were used to compute countries' rankings. Of these, 163 indicators (64%), the majority, were **hard statistics** indicators, while 92 indicators (36%) were derived from **survey data**. In 2022, 6 031 responses were received from the 63 economies surveyed, averaging about 100 responses per nation. Secondary data (hard statistics) were collected from several international organisations (see Appendix 2).

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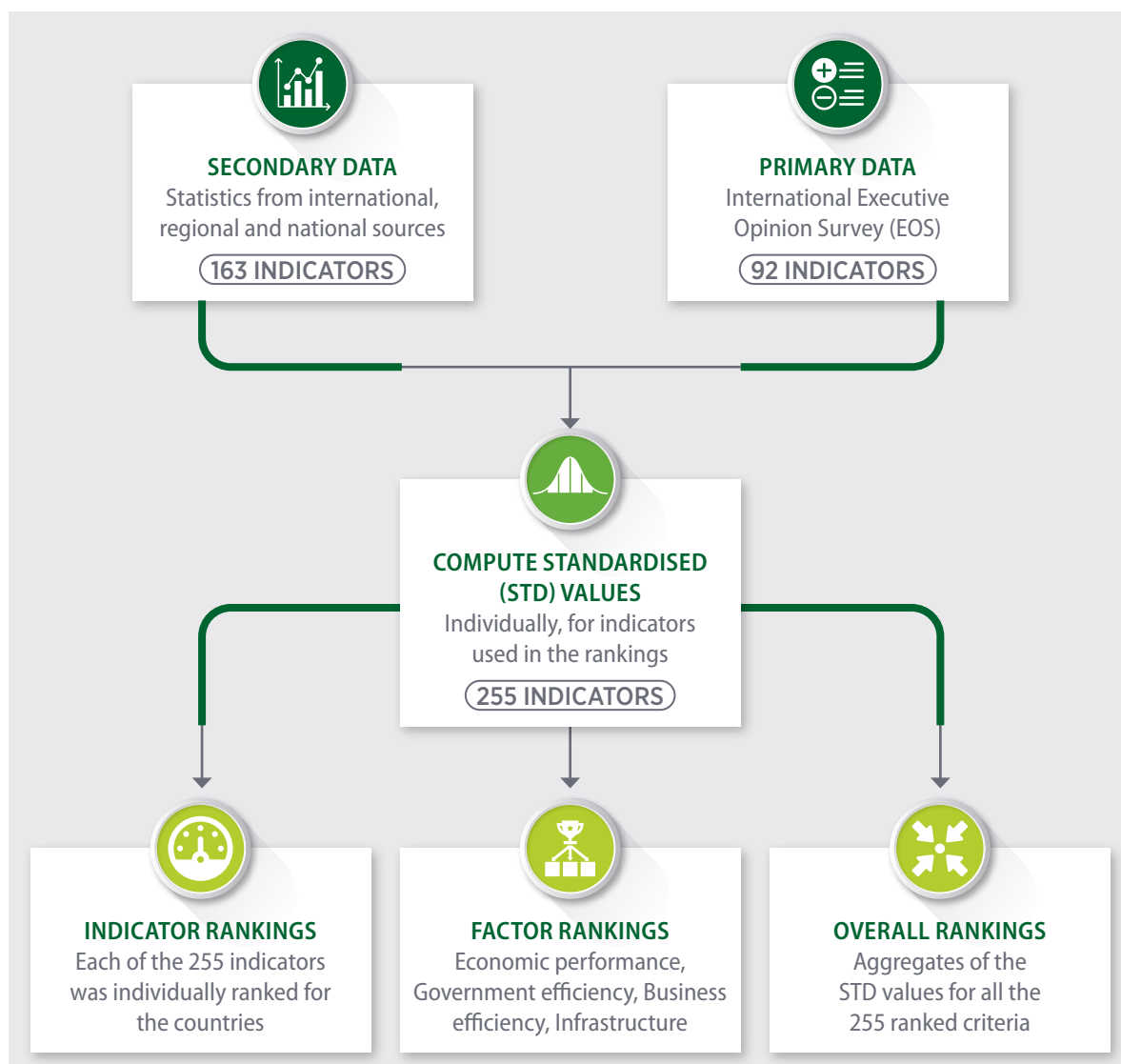
92 indicators
were derived from
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COMPUTATION OF THE RANKINGS

Standardised values for indicators were computed using the data available for **all** economies. Countries were then ranked based on the aggregation of a combination of primary and secondary data. In most cases, a higher standardised value was better; for example, GDP: an economy with the highest standardised value was ranked first, while a country with the lowest standardised value was ranked last.

However, the inverse was true for some indicators, where the lowest value indicated the most competitive position; for example, software piracy: an economy with the highest standardised value was ranked last, while a country with the lowest standardised value was ranked first. Standardised statistics of all economies were aggregated to compute indices. Index values were used to compute overall competitiveness rankings, competitiveness factor rankings and sub-factor rankings. Figure 1 presents the data and approach used to compute the rankings.

FIGURE 1: Data and approach used to compute the rankings





INDICATORS MEASURING THE EDUCATION AND TRAINING SUB-FACTOR



EMPLOYEE TRAINING

Training provided to employees by companies employing them.

EDUCATION EXPENDITURE

Total public expenditure on education, as a percentage of the GDP.

HIGHER EDUCATION ACHIEVEMENT

Percentage of 25-34-year-old persons in the population that have attained at least tertiary education.

PUPIL-TO-TEACHER RATIO

Ratio of students to teaching staff (tertiary education).

WOMEN WITH A DEGREE

Share of women in the 25-65-year-old population who have a degree.

GRADUATES IN SCIENCES

Percentage of graduates in Information and Communications Technology (ICT), Engineering, Mathematics and Natural Sciences.



SUMMARY OF FINDINGS

Figure 2 shows South Africa's overall and factor competitiveness rankings among the 63 countries surveyed in 2021 and 2022. Of the 63 countries surveyed in 2022, South Africa ranked 60th in terms of its overall competitiveness, an improvement of 2 positions from 62nd in 2021. South Africa's biggest improvement occurred in government efficiency, moving up 8 positions from 61st in 2021 to 53rd in 2022. In 2022, South Africa's ranking improved in business efficiency (from 58th to 56th), in economic performance (from 61st to 59th) and in infrastructure (from 61st to 60th).

FIGURE 2: South Africa's overall and factor competitiveness rankings, 2021-2022

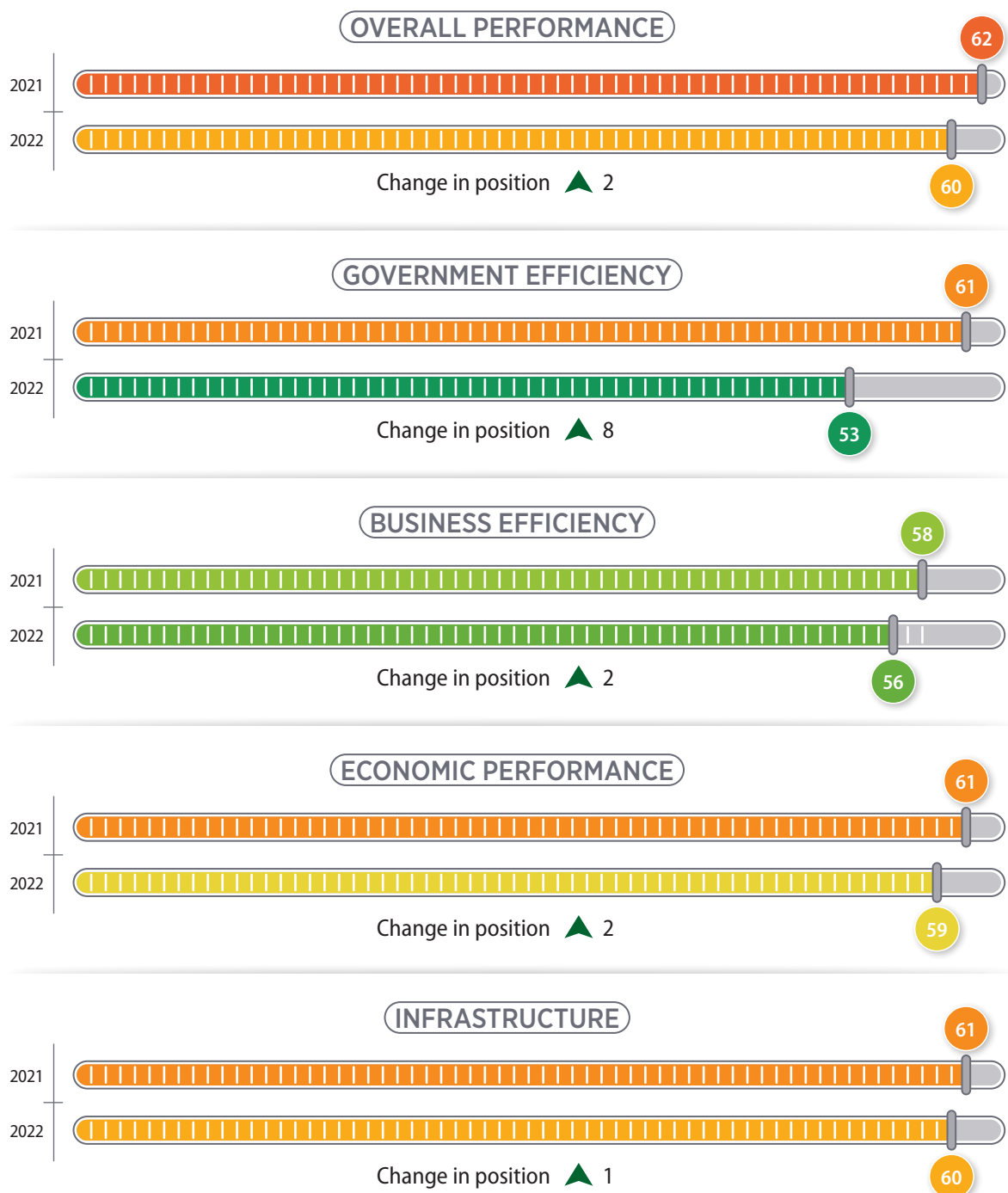
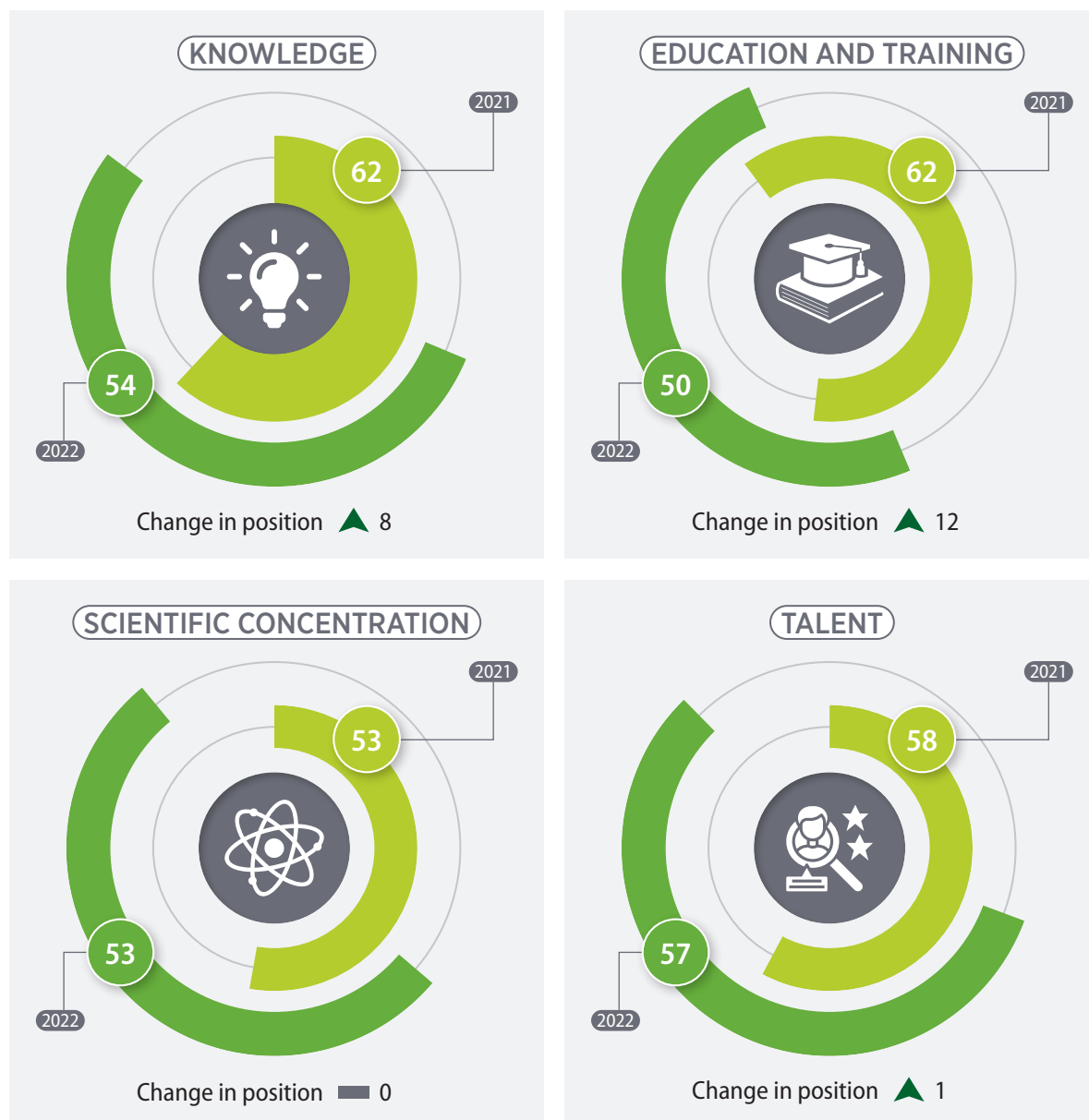


Figure 3 presents South Africa’s global competitiveness rankings for the knowledge factor and its sub-factors (education and training, scientific concentration and talent) in 2021 and 2022. In 2022, the country ranked 54th in the **knowledge** factor and 50th in the **education and training** sub-factor; the latter reflects the greatest improvement, up by 12 positions from 62nd in 2021. **Scientific concentration** remained constant at 53rd, while **talent** ranked 57th out of 63 countries in 2022.

FIGURE 3: South Africa’s knowledge and associated sub-factor rankings, 2021–2022



Note 1: Education and training comprises the following indicators: employer training, total public expenditure, higher education, pupil-to-teacher ratio (tertiary education), graduates in sciences and women with degrees.

Note 2: Scientific concentration consists of the following indicators: total expenditure of research and development (R&D), total R&D personnel per capita, female researchers, R&D productivity by publication, high-tech patent grants, scientific and technical employment, and robots in education and R&D.

Note 3: Talent comprises the following indicators: educational assessment Programme for International Student Assessment (PISA) – Math, international experience, foreign highly-skilled personnel, management of cities, digital/technical skills, and net flow of international students.

Figure 4 compares countries' global competitiveness rankings on **education and training** in 2021 and 2022. South Africa ranked 50th out of 63 countries for the education and training sub-factor in 2022, improving by 12 positions from 62nd in 2021. South Africa's ranking in 2022 was relatively close to that of Brazil (51st) but far below middle-income countries like Malaysia (10th) and China (33rd), and much lower than that of Botswana (39th).

FIGURE 4: Countries' education and training rankings, 2021–2022

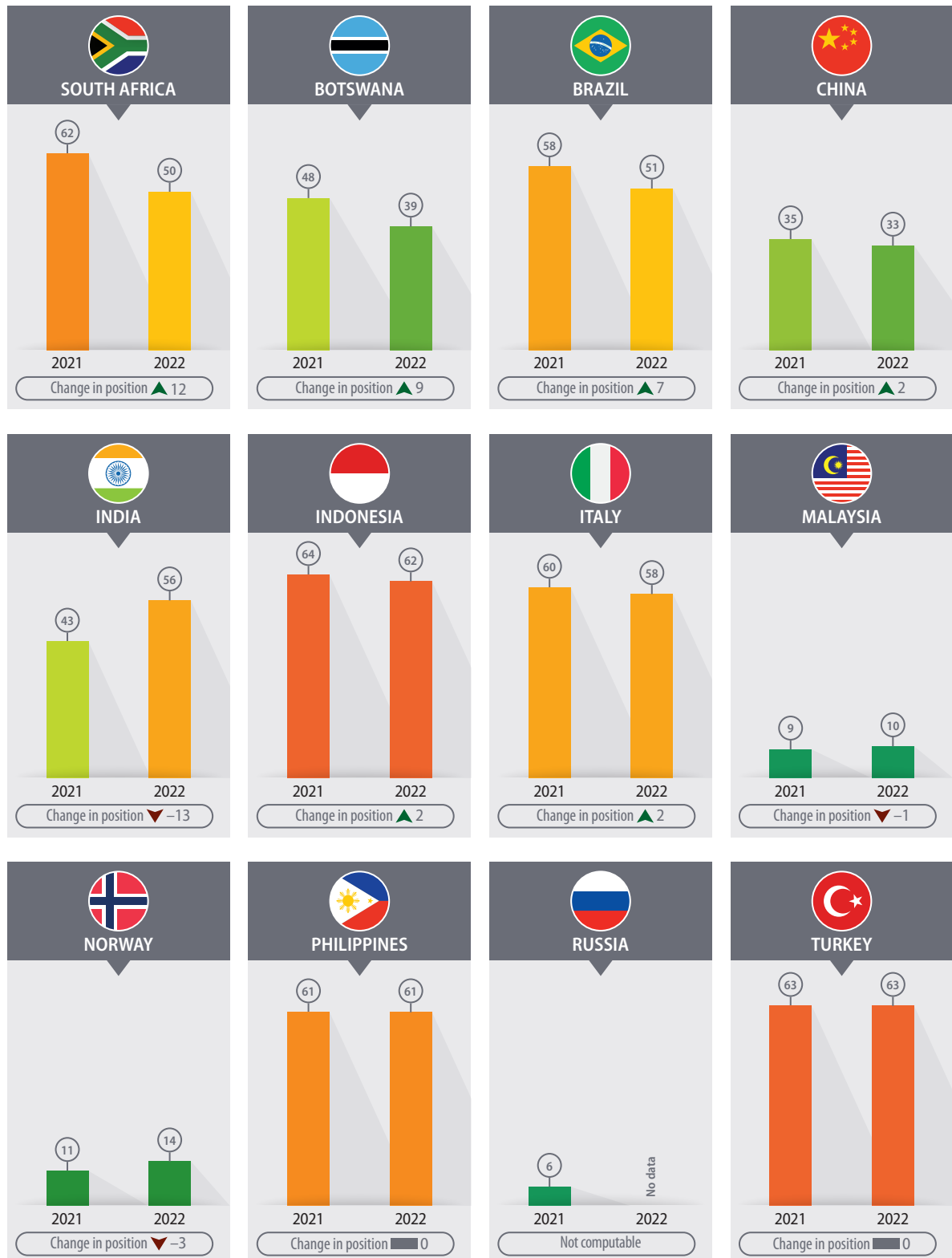


Figure 5 shows South Africa's ranking for **education and training** indicators for 2021 and 2022. While South Africa ranked 2nd globally in both 2021 and 2022 for the indicator **total public expenditure on education as a percentage of GDP**, it ranked dismally in other education and training indicators, such as **higher education achievement** (60th), **graduates in sciences** (56th), **employee training** (55th), **women with degrees** (54th) and **pupil-to-teacher ratio (tertiary education)** (37th). These statistics reveal that South Africa's investment in education and training is at great odds with its performance therein. South Africa also ranks very low with respect to the indicator on **employee training**, despite billions of rands collected from employers for skills levies and the existence of an elaborate skills levy regime.

FIGURE 5: South Africa's education and training sub-factor indicators rankings, 2021–2022

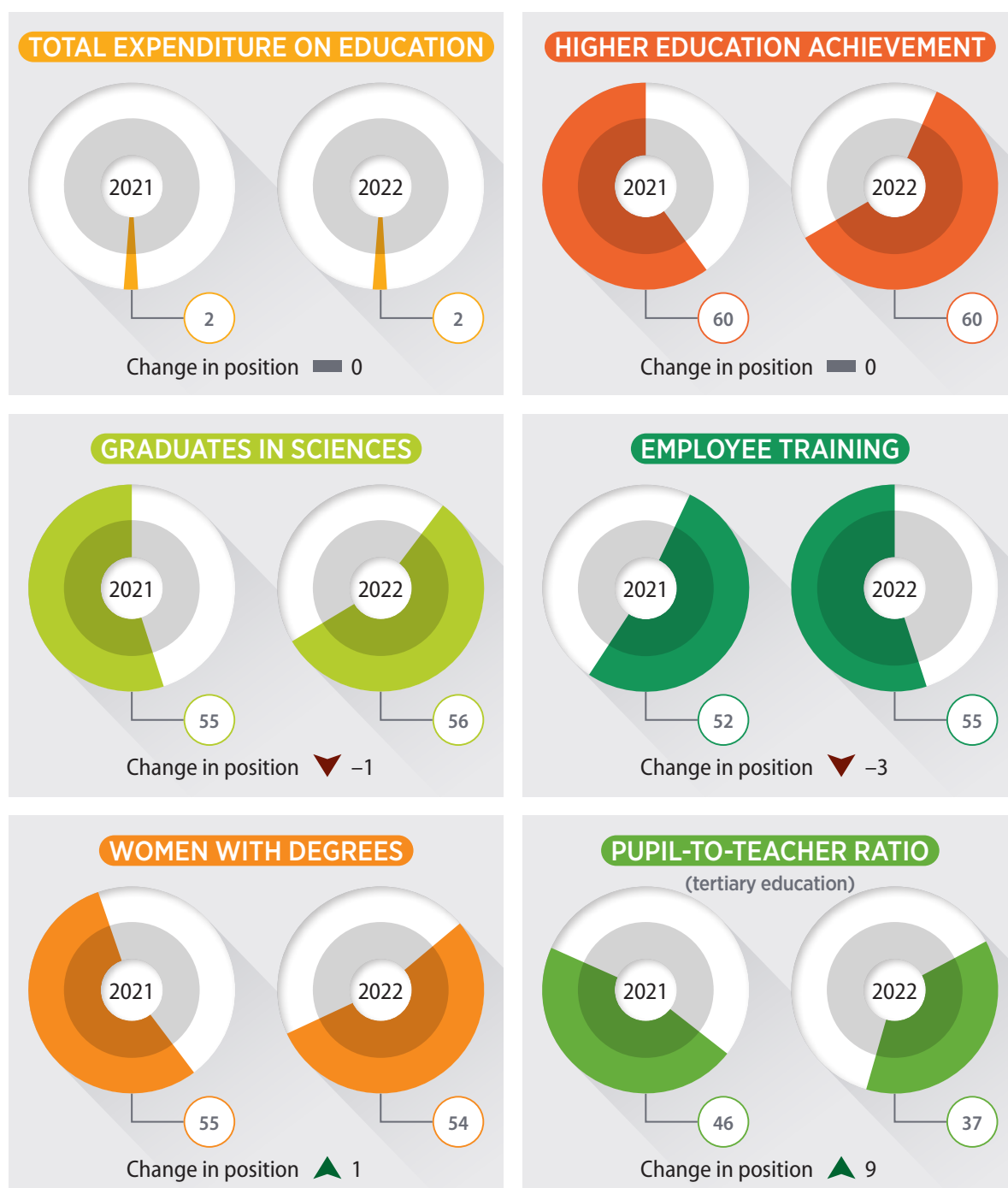


Figure 6 presents countries' global competitiveness rankings on **scientific concentration** between 2021 and 2022. Out of 63 countries, South Africa's ranking remained constant at 53rd in 2021 and 2022. South Africa's competitiveness ranking in 2022 was relatively close to that of the Philippines (57th), Indonesia (54th) and India (50th), but significantly below other BRICS countries, such as China (9th) and Brazil (25th).

FIGURE 6: Countries' scientific concentration rankings, 2021-2022

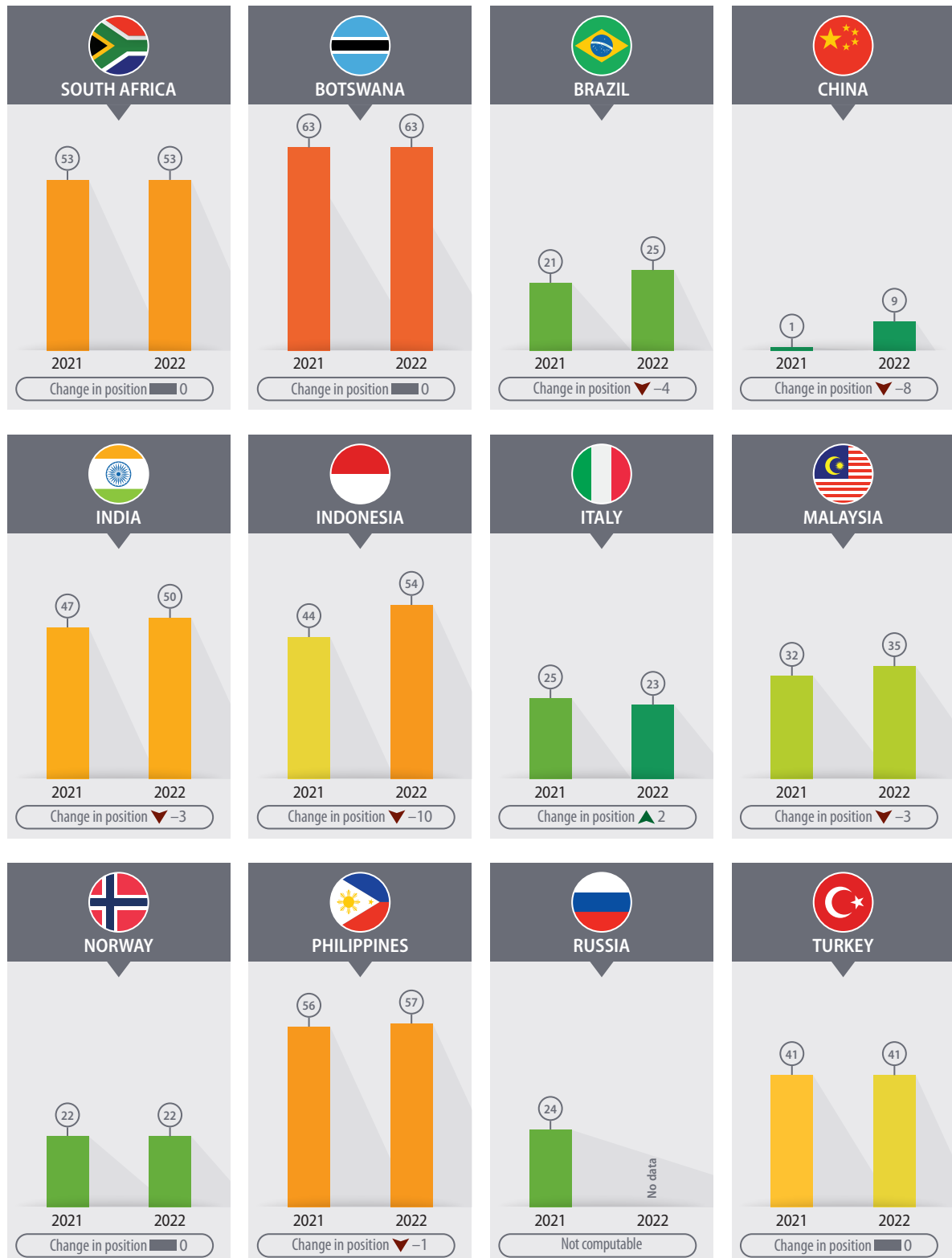


Figure 7 shows countries' rankings on talent in 2021 and 2022. Of the 63 countries surveyed, South Africa ranked 57th in 2022, improving by one position from 58th in 2021. South Africa's ranking in 2022 was marginally higher than that of Brazil, which ranked 62nd, but far below other countries, such as Malaysia (36th), India (34th) and China (12th).

FIGURE 7: Countries' talent rankings, 2021-2022



SOUTH AFRICA'S GLOBAL COMPETITIVENESS PERFORMANCE IMPROVED IN EDUCATION AND TRAINING



CONCLUSION

The performance of a country's education system serves as a key indicator of global competitiveness. While recognising South Africa's marginal improvement by 12 positions from 62nd in 2021 to 50th in 2022 in **education and training**, the only education and training indicator in which the country performed very well is **total expenditure on education**. South Africa maintained its second-place rank in both 2021 and 2022 on total expenditure on education but ranked very poorly in all other education and training indicators, pointing to an imbalance between investment and achievement. The indicators in which the country's performance ranked markedly poorly in 2022 include graduates in sciences, women with degrees and employee training.

Although South Africa's competitiveness ranking on education and training in 2022 was relatively close to that of Brazil, it was, however, below the rankings of middle-income countries like Malaysia and China, and far below that of Botswana. The need to improve South Africa's competitiveness, especially in education and training, is thus quite evident. Moreover, there is a need to improve how education and training resources are used in the country. Research⁷ shows that dropout rates are high in South Africa, while throughput rates are poor, suggesting low levels of efficiency in the South African education and training system, and hence the need for appropriate policy interventions.



APPENDICES

APPENDIX 1: Rankings of world competitiveness factors and criteria of data used, 2021

| FACTORS AND ELEMENTS | RANK | HARD STATISTICS (ranked) | SURVEY DATA (ranked) | BACKGROUND DATA (not ranked) | TOTAL |
|------------------------------|-----------|--------------------------|----------------------|------------------------------|------------|
| Economic performance | 59 | | | | |
| Domestic economy | 58 | 9 | 1 | 16 | 26 |
| International trade | 34 | 12 | 0 | 13 | 25 |
| International investment | 41 | 10 | 1 | 4 | 15 |
| Employment | 62 | 8 | 0 | 2 | 10 |
| Prices | 6 | 5 | 0 | 1 | 6 |
| | | 44 | 2 | 36 | 82 |
| Government efficiency | 53 | | | | |
| Public finance | 57 | 4 | 3 | 3 | 10 |
| Tax policy | 18 | 6 | 1 | 4 | 11 |
| Institutional framework | 55 | 7 | 7 | 2 | 16 |
| Business legislation | 57 | 6 | 13 | 0 | 19 |
| Societal framework | 51 | 9 | 4 | 3 | 16 |
| | | 32 | 28 | 12 | 72 |
| Business efficiency | 56 | | | | |
| Productivity and efficiency | 53 | 3 | 4 | 3 | 10 |
| Labour market | 55 | 11 | 10 | 3 | 24 |
| Finance | 48 | 9 | 7 | 3 | 19 |
| Management practices | 54 | 4 | 10 | 0 | 14 |
| Attitude and values | 55 | 0 | 7 | 0 | 7 |
| | | 27 | 38 | 9 | 74 |
| Infrastructure | 60 | | | | |
| Basic infrastructure | 61 | 8 | 5 | 7 | 20 |
| Technological infrastructure | 59 | 10 | 7 | 0 | 17 |
| Scientific infrastructure | 46 | 15 | 3 | 4 | 22 |
| Health and environment | 61 | 15 | 5 | 8 | 28 |
| Education and training | 56 | 12 | 4 | 3 | 19 |
| | | 60 | 24 | 22 | 106 |
| Total Criteria | | 163 | 92 | 79 | 334 |

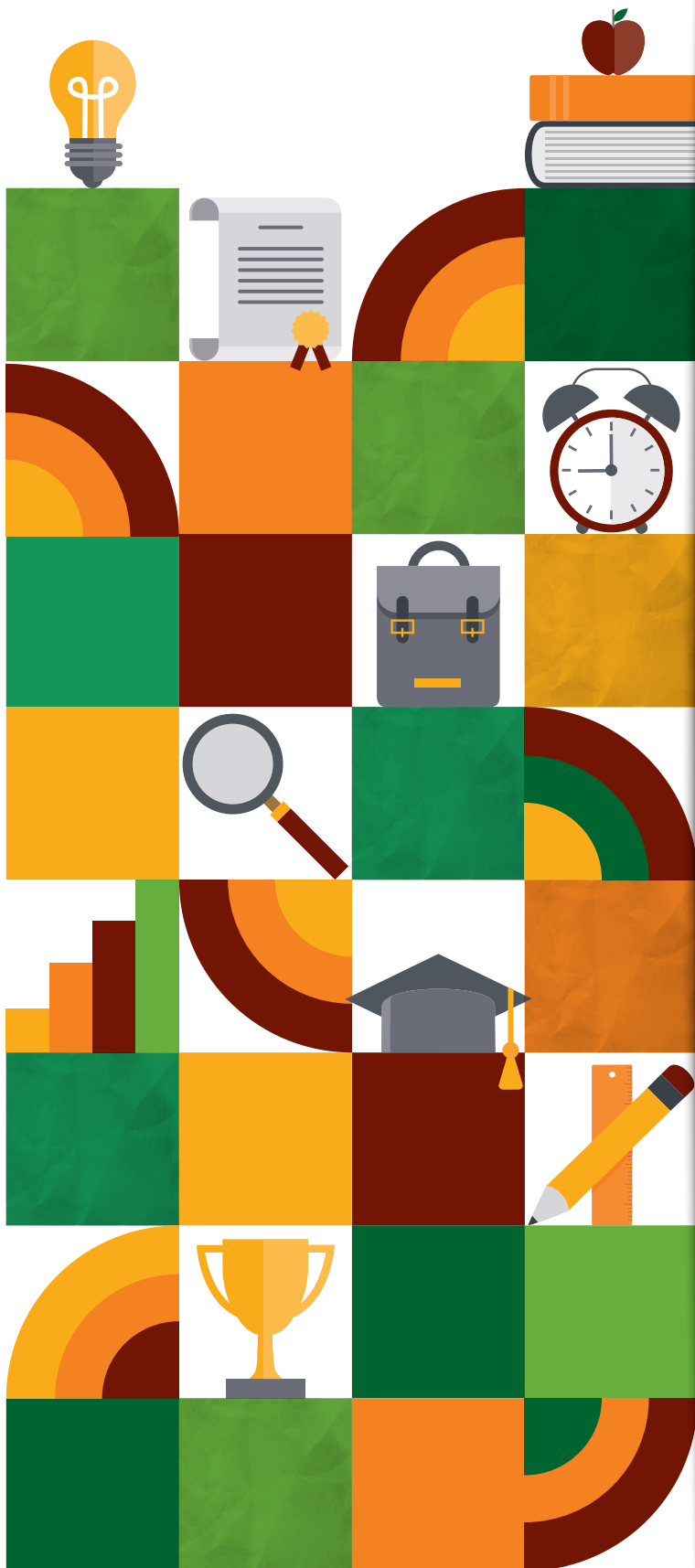
APPENDIX 2: International organisations' sources of hard data

- BMi Research,
- Educational Testing Service (ETS),
- Economist Intelligence Unit (EIU),
- Euromonitor International,
- Eurostat,
- Fitch Ratings,
- Food and Agriculture Organization of the United Nations (FAO),
- Global Entrepreneurship Monitor (GEM),
- Global Footprint Network (GFN),
- International Civil Aviation Organization (ICAO),
- International Energy Agency (IEA),
- International Labour Office (ILO),
- International Monetary Fund (IMF),
- International Union of Railways (UIC),
- Moody's,
- Organisation for Economic Co-operation and Development (OECD),
- PricewaterhouseCoopers (PWC),
- Reporters Without Borders (RSF),
- Standard and Poor's (S&P) Global Ratings,
- Thomson Reuters,
- Times Higher Education World University Rankings,
- United Nations Conference on Trade and Development (UNCTAD),
- United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS),
- United Nations Industrial Development Organization (UNIDO),
- United Nations World Tourism Organization (UNWTO),
- World Bank,
- World Health Organization (WHO),
- World Intellectual Property Organization (WIPO),
- World Justice Project, and
- World Trade Organization (WTO).



ENDNOTES

1. The IMD is an independent academic institution founded by business leaders 75 years ago in Switzerland.
2. 'Competitiveness' refers to a country's productivity level, defined by a set of institutions, policies and production factors.
3. See Appendix 1 for the totals of indicators of hard statistics, survey data and background data per each factor.
4. IMD World Competitiveness Centre. *World Competitiveness Ranking*. Available: <https://www.imd.org/centers/world-competitiveness-center/rankings/world-competitiveness/>
5. See Appendix 1 for the totals of indicators of hard statistics, survey data and background data used for computations.
6. Productivity SA is established in terms of Section 31(1) of the Employment Services Act No. 4 of 2014 as a juristic person with a mandate to promote employment growth and productivity.
7. Department of Higher Education and Training. 2020. *2000 to 2007 first time entering undergraduate cohort studies for public higher education institutions*. Republic of South Africa. Available: <https://www.dhet.gov.za/HEMIS/2000%20TO%202017%20FIRST%20TIME%20ENTERING%20UNDERGRADUATE%20COHORT%20STUDIES%20FOR%20PUBLIC%20HEIs.pdf>

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