WORLD COMPETITIVENESS RANKING 2019

All data are available from the World Competitiveness Online.

Visit our eShop
SOUTH AFRICA

OVERALL PERFORMANCE (63 countries)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tbody>
<tr>
<td>Rank</td>
<td>53</td>
<td>52</td>
<td>53</td>
<td>53</td>
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</tr>
</tbody>
</table>

CHALLENGES IN 2019

- High and increasing unemployment, especially youth unemployment.
- Low economic growth and falling contributions of primary and secondary sectors.
- Uncertainty surrounding the impending land reform programme.
- Failure of state-owned enterprises and uncovering of corruption.
- Ongoing electricity problems and adverse rolling load shedding and blackouts.

Provided by:
Productivity SA

COMPETITIVENESS LANDSCAPE

<table>
<thead>
<tr>
<th>Economic Performance</th>
<th>Government Efficiency</th>
<th>Business Efficiency</th>
<th>Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

PEER GROUPS RANKINGS

EUROPE - MIDDLE EAST - AFRICA (40 countries)

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
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<tr>
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</table>

POPULATIONS > 20 MILLION (29 countries)

<table>
<thead>
<tr>
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</table>

Provided by:
Productivity SA
COMPETITIVENESS EVOLUTION & ATTRACTIVENESS INDICATORS

SOUTH AFRICA

COMPETITIVENESS EVOLUTION

The criteria below highlight the 15 biggest Improvements and the 15 biggest Declines in the overall performance of the economy. They are determined by the largest percentage changes in the value of each criterion from one yearbook to the next.

<table>
<thead>
<tr>
<th>IMPROVEMENTS</th>
<th>WCY 2018</th>
<th>WCY 2019</th>
<th>DECLINES</th>
<th>WCY 2018</th>
<th>WCY 2019</th>
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</thead>
<tbody>
<tr>
<td>4.1.07 Population - growth</td>
<td>1.09</td>
<td>2.13</td>
<td>1.1.15 Real GDP growth per capita</td>
<td>0.22</td>
<td>-1.31</td>
</tr>
<tr>
<td>2.4.18 Immigration laws</td>
<td>3.23</td>
<td>4.52</td>
<td>1.1.18 Gross fixed capital formation - real growth</td>
<td>1.62</td>
<td>-1.44</td>
</tr>
<tr>
<td>2.3.12 Bureaucracy</td>
<td>1.84</td>
<td>2.35</td>
<td>2.3.08 Exchange rate stability</td>
<td>0.036</td>
<td>0.083</td>
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<tr>
<td>2.3.10 Adaptability of government policy</td>
<td>2.59</td>
<td>3.29</td>
<td>1.2.02 Current account balance</td>
<td>-2.27</td>
<td>-3.36</td>
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<tr>
<td>2.3.11 Transparency</td>
<td>3.23</td>
<td>4.10</td>
<td>4.3.16 Patent applications per capita</td>
<td>7.32</td>
<td>3.85</td>
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<tr>
<td>2.4.03 Public sector contracts</td>
<td>3.87</td>
<td>4.89</td>
<td>4.5.08 Higher education achievement</td>
<td>10.1</td>
<td>6.0</td>
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<tr>
<td>2.4.09 State ownership of enterprises</td>
<td>3.28</td>
<td>4.10</td>
<td>1.1.14 Real GDP growth</td>
<td>1.3</td>
<td>0.8</td>
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<tr>
<td>3.2.22 Foreign highly-skilled personnel</td>
<td>4.20</td>
<td>5.19</td>
<td>4.1.16 Energy infrastructure</td>
<td>4.46</td>
<td>2.81</td>
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<tr>
<td>4.1.04 Access to water</td>
<td>4.33</td>
<td>5.29</td>
<td>2.4.02 Protectionism</td>
<td>5.38</td>
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<tr>
<td>2.1.10 Tax evasion</td>
<td>3.10</td>
<td>3.77</td>
<td>4.4.28 Number of patents in force</td>
<td>29.6</td>
<td>23.0</td>
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<tr>
<td>3.4.07 Use of big data and analytics</td>
<td>4.66</td>
<td>5.52</td>
<td>4.3.18 Quality of life</td>
<td>6.32</td>
<td>4.97</td>
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<tr>
<td>2.4.13 Creation of firms</td>
<td>5.19</td>
<td>6.13</td>
<td>2.5.01 Justice</td>
<td>6.84</td>
<td>5.48</td>
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<tr>
<td>3.1.03 Labor productivity (PPP)</td>
<td>19.26</td>
<td>22.63</td>
<td>4.4.18 Renewable energies (%)</td>
<td>11.5</td>
<td>9.3</td>
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<tr>
<td>3.2.23 International experience</td>
<td>4.03</td>
<td>4.71</td>
<td>3.3.10 Stock market capitalization (%)</td>
<td>326.96</td>
<td>268.83</td>
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<tr>
<td>2.1.09 Public finances</td>
<td>2.03</td>
<td>2.35</td>
<td>4.4.04 Health infrastructure</td>
<td>3.70</td>
<td>3.06</td>
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</tbody>
</table>

KEY ATTRACTIVENESS INDICATORS

From a list of 15 indicators, respondents of the Executive Opinion Survey were asked to select 5 that they perceived as the key attractiveness factors of their economy. The chart shows the percentage of responses per indicator from the highest number of responses to the lowest.

![Chart showing key attractiveness indicators]

Effective legal environment: 58.1%
Cost competitiveness: 53.2%
Quality of corporate governance: 48.4%
Open and positive attitudes: 45.2%
Access to financing: 43.5%
Dynamism of the economy: 40.3%
Reliable infrastructure: 38.7%
Business-friendly environment: 25.8%
Competitive tax regime: 22.6%
Skilled workforce: 21.0%
Policy stability & predictability: 21.0%
Effective labor relations: 14.5%
High educational level: 14.5%
Strong R&D culture: 14.5%
Competency of government: 4.8%
WORLD COMPETITIVENESS
DIGITAL RANKING 2018

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SOUTH AFRICA

OVERALL PERFORMANCE (63 countries)

OVERALL & FACTORS - 5 years

<table>
<thead>
<tr>
<th></th>
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<td>Future readiness</td>
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<td>48</td>
<td>47</td>
<td>42</td>
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</table>

COMPETITIVENESS & DIGITAL RANKINGS

N.B. This graph provides only a comparison of the country’s performance in the two rankings.

PEER GROUPS RANKINGS

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<td>18</td>
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<td>19</td>
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</table>

The direction of the triangle indicates the performance change from the last year:
△ improved or stable
▼ declined

N.B. This graph provides only a comparison of the country’s performance in the two rankings.
### FACTORS BREAKDOWN - STRENGTHS AND WEAKNESSES

#### SOUTH AFRICA

### KNOWLEDGE

<table>
<thead>
<tr>
<th>Subfactors</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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</thead>
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<tr>
<td>Talent</td>
<td>49</td>
<td>48</td>
<td>53</td>
<td>52</td>
<td>54</td>
</tr>
<tr>
<td>Training &amp; education</td>
<td>34</td>
<td>36</td>
<td>38</td>
<td>37</td>
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<tr>
<td>Scientific concentration</td>
<td>51</td>
<td>51</td>
<td>50</td>
<td>49</td>
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</tbody>
</table>

#### Talent

- Educational assessment PISA - Math -
- International experience 56
- Foreign highly-skilled personnel 46
- Management of cities 50
- Digital/Technological skills 55
- Net flow of international students 27

#### Training & education

- Employee training 32
- Total public expenditure on education 3

#### Scientific concentration

- Total expenditure on R&D (%) 41
- Total R&D personnel per capita 53
- Female researchers 15
- R&D productivity by publication 26
- Scientific and technical employment -
- High-tech patent grants 52

### TECHNOLOGY

<table>
<thead>
<tr>
<th>Subfactors</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tr>
<td>Capital</td>
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<tr>
<td>Technological framework</td>
<td>52</td>
<td>55</td>
<td>56</td>
<td>57</td>
<td>58</td>
</tr>
</tbody>
</table>

#### Regulatory framework

- Starting a business 57
- Enforcing contracts 53
- Immigration laws 63
- Development and app. of technology 33
- Scientific research legislation 32
- Intellectual property rights 33

#### Capital

- IT & media stock market capitalization 3
- Funding for technological development 47
- Banking and financial services 25
- Investment risk 50
- Venture capital 47
- Investment in Telecommunications 16

#### Technological framework

- Communications technology 54
- Mobile Broadband subscribers 55
- Wireless broadband 54
- Internet users 59
- Internet bandwidth speed 54
- High-tech exports (%) 56

### FUTURE READINESS

<table>
<thead>
<tr>
<th>Subfactors</th>
<th>2014</th>
<th>2015</th>
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<th>2017</th>
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<td>Adaptive attitudes</td>
<td>52</td>
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<tr>
<td>Business agility</td>
<td>50</td>
<td>36</td>
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<tr>
<td>IT integration</td>
<td>45</td>
<td>46</td>
<td>47</td>
<td>42</td>
<td>39</td>
</tr>
</tbody>
</table>

#### Adaptive attitudes

- E-Participation 52
- Internet retailing 55
- Tablet possession 55
- Smartphone possession 39
- Attitudes toward globalization 38

#### Business agility

- Opportunities and threats 24
- Innovative firms -
- Agility of companies 34
- Use of big data and analytics 36
- Knowledge transfer 44

#### IT integration

- E-Government 54
- Public-private partnerships 49
- Cyber security 28
- Software piracy 20
WORLD TALENT RANKING 2018

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OVERALL PERFORMANCE (63 countries)

Investment & Development

- Total public expenditure on education: Percentage of GDP 7.0% 2018 Rank 3
- Government expenditure on education per student: Percentage of GDP per capita (secondary education) 21.0% 2018 Rank 32
- Pupil-teacher ratio (primary education): Ratio of students to teaching staff 32.77 ratio 2018 Rank 62
- Pupil-teacher ratio (secondary education): Ratio of students to teaching staff 27.51 ratio 2018 Rank 61
- Apprenticeships: are sufficiently implemented 2018 Rank 61
- Employee training: is a high priority in companies 2018 Rank 32
- Female labor force: Percentage of total labor force 46.69% 2018 Rank 23
- Health infrastructure: meets the needs of society 2018 Rank 50

Appeal

- Cost-of-living index: Index of a basket of goods & services in the main city, including housing (New York City = 100) 53.60 index 2018 Rank 1
- Attracting and retaining talents: is a priority in companies 2018 Rank 38
- Worker motivation: in companies is high 2018 Rank 60
- Brain drain: (well-educated and skilled people) does not hinder competitiveness in your economy 2018 Rank 55
- Quality of life: is high 2018 Rank 36
- Foreign highly-skilled personnel: are attracted to your country’s business environment 2018 Rank 46
- Remuneration in services professions: Gross annual income including supplements such as bonuses, US$ 19,087 US$ 2018 Rank 34
- Remuneration of management: Total base salary plus bonuses and long-term incentives, US$ 49,528 US$ 2018 Rank 58
- Effective personal income tax rate: Percentage of an income equal to GDP per capita 1.51% 2018 Rank 3
- Personal security and private property rights: are adequately protected 2018 Rank 52

Readiness

- Labor force growth: Percentage change 1.68% 2018 Rank 22
- Skilled labor: is readily available 2018 Rank 58
- Finance skills: are readily available 2018 Rank 46
- International experience: of senior managers is generally significant 2018 Rank 56
- Competent senior managers: are readily available 2018 Rank 53
- Educational system: The educational system meets the needs of a competitive economy 2018 Rank 52
- Science in schools: is sufficiently emphasized 2018 Rank 53
- University education: meets the needs of a competitive economy 2018 Rank 41
- Management education: meets the needs of the business community 2018 Rank 38
- Language skills: are meeting the needs of enterprises 2018 Rank 35
- Student mobility inbound: Foreign tertiary-level students per 1000 inhabitants 0.79 number 2018 Rank 49
- Educational assessment - PISA: PISA survey of 15-year olds - Average -
IMD is ranked 1st in open programs worldwide – 7 years in a row.
Financial Times 2012 – 2018

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Transforming organizations
Impacting your future

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