VIET NAM

42nd

Viet Nam ranks 42nd among the 131 economies featured in the GII 2020.

The Global Innovation Index (GII) ranks world economies according to their innovation capabilities. Consisting of roughly 80 indicators, grouped into innovation inputs and outputs, the GII aims to capture the multi-dimensional facets of innovation.

The following table shows the rankings of Viet Nam over the past three years, noting that data availability and changes to the GII model framework influence year-on-year comparisons of the GII rankings.

The statistical confidence interval for the ranking of Viet Nam in the GII 2020 is between ranks 41 and 50.

<table>
<thead>
<tr>
<th>Year</th>
<th>GII</th>
<th>Innovation inputs</th>
<th>Innovation outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>42</td>
<td>62</td>
<td>38</td>
</tr>
<tr>
<td>2019</td>
<td>42</td>
<td>63</td>
<td>37</td>
</tr>
<tr>
<td>2018</td>
<td>45</td>
<td>65</td>
<td>41</td>
</tr>
</tbody>
</table>

• Viet Nam performs better in innovation outputs than innovation inputs in 2020.
• This year Viet Nam ranks 62nd in innovation inputs, higher than last year and higher compared to 2018.
• As for innovation outputs, Viet Nam ranks 38th. This position is lower than last year and higher compared to 2018.

1st

Viet Nam ranks 1st among the 29 lower middle-income group economies.

9th

Viet Nam ranks 9th among the 17 economies in South East Asia, East Asia, and Oceania.
Heading the lower middle-income group, Viet Nam ranks 42nd for a second consecutive year – up from 71st back in 2014. Taking the past years together, Viet Nam is among those GII economies in the top 50 to have made the most significant progress in ranking over time. It also holds the record, together with only three other economies, of having been an innovation achiever – a select group of economies whose innovation performance is above expectations for its level of development – for 10 consecutive years.

Viet Nam is among the lower middle-income economies efficiently getting much more outputs relative to innovation inputs. It continues to score above average for its income group in all seven GII areas, and has scores in Market and Business sophistication, as well as in both the output pillars, that are even above average for the upper middle-income group.

Viet Nam’s innovation system is characterized by its excelling in the areas of market and business sophistication, where access to credit, in particular Domestic credit to private sector (15) and Microfinance gross loans (11), thrive. Viet Nam’s Knowledge absorption (10) and Knowledge diffusion (14) are two other areas of strength, thanks to its leadership in High-technology imports (4), High-technology exports (2) and foreign direct investment (FDI) inflows (19). Viet Nam also performs well in several areas related to Creative outputs, namely, Mobile app creation (10), Creative goods exports (11) and Trademarks by origin (20). Other indicators where Viet Nam ranks among the top 10 include productivity growth (4) and R&D expenditures financed by business (8). It also continues to improve in High- and medium-high-technology manufacturing (23).

This year, Viet Nam makes notable progress in Innovation linkages, with improved performance in University–industry collaboration and State of cluster development. Its ICT infrastructure also improves, making notable progress in ICT access and ICT use.

With 33 brands in the top 5,000, Viet Nam ranks 19th in the new GII indicator, Global brand value, led by telecommunications company Viettel Telecom.
EXPECTED VS. OBSERVED INNOVATION PERFORMANCE

The bubble chart below shows the relationship between income levels (GDP per capita) and innovation performance (GII score). The trend line gives an indication of the expected innovation performance according to income level. Economies appearing above the trend line are performing better than expected and those below are performing below expectations.

Relative to GDP, Viet Nam’s performance is above expectations for its level of development.
EFFECTIVELY TRANSLATING INNOVATION INVESTMENTS INTO INNOVATION OUTPUTS

The chart below shows the relationship between innovation inputs and innovation outputs. Economies above the line are effectively translating costly innovation investments into more and higher-quality outputs.

Viet Nam produces more innovation outputs relative to its level of innovation investments.
BENCHMARKING VIET NAM AGAINST OTHER LOWER MIDDLE-INCOME ECONOMIES AND SOUTH EAST ASIA, EAST ASIA, AND OCEANIA

Viet Nam’s scores in the seven GII pillars

Lower middle-income group economies

Viet Nam has high scores all GII pillars, which are above average for the lower middle-income group.

South East Asia, East Asia, and Oceania

Compared to other economies in South East Asia, East Asia, and Oceania, Viet Nam performs:

- above average in two out of the seven pillars: Knowledge & technology outputs and Creative outputs; and
- below average in five out of the seven pillars: Institutions, Human capital & research, Infrastructure, Market sophistication and Business sophistication.
OVERVIEW OF VIET NAM RANKINGS IN THE SEVEN GII AREAS

Viet Nam performs best in Market sophistication and its weakest performance is in Institutions.

*The highest possible ranking in each pillar is 1.

INNOVATION STRENGTHS AND WEAKNESSES

The table below gives an overview of the strengths and weaknesses of Viet Nam in the GII 2020.

### Strengths

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Credit</td>
<td>9</td>
</tr>
<tr>
<td>4.1.2</td>
<td>Domestic credit to private sector, % GDP</td>
<td>15</td>
</tr>
<tr>
<td>4.1.3</td>
<td>Microfinance gross loans, % GDP</td>
<td>11</td>
</tr>
<tr>
<td>5.1.4</td>
<td>GERD financed by business, %</td>
<td>8</td>
</tr>
<tr>
<td>5.3</td>
<td>Knowledge absorption</td>
<td>10</td>
</tr>
<tr>
<td>5.3.2</td>
<td>High-tech imports, % total trade</td>
<td>4</td>
</tr>
<tr>
<td>5.3.4</td>
<td>FDI net inflows, % GDP</td>
<td>19</td>
</tr>
<tr>
<td>6.2.1</td>
<td>Growth rate of PPP$ GDP/worker, %</td>
<td>4</td>
</tr>
<tr>
<td>6.3</td>
<td>Knowledge diffusion</td>
<td>14</td>
</tr>
<tr>
<td>6.3.2</td>
<td>High-tech net exports, % total trade</td>
<td>2</td>
</tr>
<tr>
<td>7.1.1</td>
<td>Trademarks by origin/bn PPP$ GDP</td>
<td>20</td>
</tr>
<tr>
<td>7.2.5</td>
<td>Creative goods exports, % total trade</td>
<td>11</td>
</tr>
<tr>
<td>7.3.4</td>
<td>Mobile app creation/bn PPP$ GDP</td>
<td>10</td>
</tr>
</tbody>
</table>

### Weaknesses

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.3</td>
<td>Cost of redundancy dismissal, salary weeks</td>
<td>103</td>
</tr>
<tr>
<td>1.3.2</td>
<td>Ease of resolving insolvency*</td>
<td>106</td>
</tr>
<tr>
<td>2.2.3</td>
<td>Tertiary inbound mobility, %</td>
<td>104</td>
</tr>
<tr>
<td>2.3.3</td>
<td>Global R&amp;D companies, top 3, mn US$</td>
<td>42</td>
</tr>
<tr>
<td>3.3.2</td>
<td>Environmental performance*</td>
<td>110</td>
</tr>
<tr>
<td>4.2</td>
<td>Investment</td>
<td>112</td>
</tr>
<tr>
<td>5.1.1</td>
<td>Knowledge-intensive employment, %</td>
<td>97</td>
</tr>
<tr>
<td>5.3.3</td>
<td>ICT services imports, % total trade</td>
<td>126</td>
</tr>
<tr>
<td>6.3.3</td>
<td>ICT services exports, % total trade</td>
<td>126</td>
</tr>
<tr>
<td>7.2.1</td>
<td>Cultural &amp; creative services exports, % total trade</td>
<td>97</td>
</tr>
<tr>
<td>7.2.3</td>
<td>Entertainment &amp; Media market/th pop. 15–69</td>
<td>52</td>
</tr>
</tbody>
</table>

NOTES: * indicates an index; † indicates a survey question. Strengths and weaknesses are listed for pillars and/or sub-pillars where the data minimum coverage (DMC) requirements were not met. For the sake of caution, these ranks are shown in square brackets [ ] in the country profile. This is to ensure that incomplete data coverage does not lead to erroneous conclusions being made about strengths or weaknesses, in particular about strong or weak sub-pillar rankings.
STRENGTHS

Gil strengths for Viet Nam are found in four of the seven Gil pillars.

- Market sophistication (34): has strengths in the sub-pillar Credit (9) and in the indicators Domestic credit to private sector (15) and Microfinance gross loans (11).
- Business sophistication (39): displays strengths in the sub-pillar Knowledge absorption (10) and in the indicators GERD financed by business (8), High-tech imports (4) and FDI net inflows (19).
- Knowledge & technology outputs (37): reveals strengths in the sub-pillar Knowledge diffusion (14) and in the indicators Productivity growth (4) and High-tech net exports (2).
- Creative outputs (38): has strengths in the indicators Trademarks by origin (20), Creative goods exports (11) and Mobile app creation (10).

WEAKNESSES

Gil weaknesses for Viet Nam are found in all seven Gil pillars.

- Institutions (83): exhibits weaknesses in the indicators Cost of redundancy dismissal (103) and Ease of resolving insolvency (106).
- Human capital & research (79): has weaknesses in the indicators Tertiary inbound mobility (104) and Global R&D companies (42).
- Infrastructure (73): the indicator Environmental performance (110) is a weakness.
- Market sophistication (34): the sub-pillar Investment (112) is a weakness.
- Business sophistication (39): demonstrates weaknesses in indicators Knowledge-intensive employment (97) and ICT services imports (126).
- Knowledge & technology outputs (37): the indicator ICT services exports (126) is a weakness.
- Creative outputs (38): has weaknesses in the indicators Cultural & creative services exports (97) and Entertainment & Media market (52).
VIET NAM

GI 2020 rank

42

GII 2019 rank

42

Output rank: 38
Input rank: 62
Income rank: SEAO
Region: Lower middle
Population (mn): 96.5
GDP, PPP$ 770.2
GDP per capita, PPP$: 7,041.6

INSTITUTIONS

Score/Value Rank

1.1 Political environment

1.1.1 Political and operational stability

1.1.2 Government effectiveness

1.2 Regulatory environment

1.2.1 Regulatory quality

1.2.2 Rule of law

1.2.3 Cost of redundancy dismissal, salary weeks

1.3 Business environment

1.3.1 Ease of starting a business

1.3.2 Ease of resolving insolvency

Score/Value Rank

58.5 83

BUSINESS SOPHISTICATION

Score/Value Rank

5.1 Knowledge workers

5.1.1 Knowledge-intensive employment

5.1.2 Firms offering formal training

5.1.3 GERD performed by business, % GDP

5.1.4 GERD financed by business, % GDP

5.1.5 Females employed in advanced degrees

5.2 Innovation linkages

5.2.1 University-industry research collaboration

5.2.2 State of cluster development

5.2.3 GERD financed by abroad, % GDP

5.2.4 JV-strategic alliance deals/nn PPP$ GDP

5.2.5 Patent families/2 offices/nn PPP$ GDP

Score/Value Rank

34.5 39

HUMAN CAPITAL & RESEARCH

26.0 79

2.1 Education

2.1.1 Expenditure on education, % GDP

2.1.2 Government funding/pupil, secondary, % GDP

2.1.3 School life expectancy, years

2.1.4 PISA scales in reading, maths, & science

2.1.5 pupil-teacher ratio, secondary

Score/Value Rank

48.4 [60]

2.2 Tertiary education

2.2.1 Tertiary enrolment, % gross

2.2.2 Graduates in science & engineering, %

2.2.3 Tertiary inbound mobility

Score/Value Rank

22.7 87

2.3 Research & development (R&D)

2.3.1 Researchers, FTE/1000 popn

2.3.2 Gross expenditure on R&D, % GDP

2.3.3 Global R&D companies, avg. exp. top 5, mn $US

2.3.4 QS university ranking, average score top 5

Score/Value Rank

7.0 69

INFRASctructURE

38.4 73

3.1 Information & communication technologies (ICTs)

3.1.1 ICT access

3.1.2 ICT use

3.1.3 Government’s online service

3.1.4 E-participation

Score/Value Rank

62.8 76

3.2 General infrastructure

3.2.1 Electricity output, kWh/mn pop

3.2.2 Logistics performance

3.2.3 Gross capital formation, % GDP

Score/Value Rank

29.3 55

3.3 Ecological sustainability

3.3.1 GDP/unit of energy use

3.3.2 Environmental performance

3.3.3 ISO 14001 environmental certificates/nn PPP$ GDP

Score/Value Rank

23.0 86

MARKET SOPHISTICATION

53.0 34

4.1 Credit

4.1.1 Ease of getting credit

4.1.2 Domestic credit to private sector, % GDP

4.1.3 Microfinance gross loans, % GDP

Score/Value Rank

67.6 9

4.2 Investment

4.2.1 Investment in protecting minority investors

4.2.2 Market capitalization, % GDP

4.2.3 Venture capital deals/nn PPP$ GDP

Score/Value Rank

25.9 112

4.3 Trade, competition, and market scale

4.3.1 Applied tariff rate, weighted avg., %

4.3.2 Intensity of local competition

4.3.3 Domestic market scale, bn PPP$ GDP

Score/Value Rank

65.5 49

NOTES: * indicates a strength; o a weakness; i an income group strength; w an income group weakness; n an indicator; q a survey question. Indicates that the economy’s data are older than the base year; see Appendix I for details, including the year of the data, at http://globalinnovationindex.org. Square brackets [ ] indicate that the data minimum coverage (MIC) requirements were not met at the sub-pillar or pillar level.
DATA AVAILABILITY

The following tables list data that are either missing or outdated for Viet Nam.

### Missing data

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Country year</th>
<th>Model year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.2</td>
<td>Government funding/pupil, secondary, % GDP/cap</td>
<td>n/a</td>
<td>2016</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>2.1.3</td>
<td>School life expectancy, years</td>
<td>n/a</td>
<td>2017</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>5.3.1</td>
<td>Intellectual property payments, % total trade</td>
<td>n/a</td>
<td>2018</td>
<td>World Trade Organization</td>
</tr>
<tr>
<td>6.3.1</td>
<td>Intellectual property receipts, % total trade</td>
<td>n/a</td>
<td>2018</td>
<td>World Trade Organization</td>
</tr>
</tbody>
</table>

### Outdated data

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Country year</th>
<th>Model year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.4</td>
<td>PISA scales in reading, maths &amp; science</td>
<td>2015</td>
<td>2018</td>
<td>OECD Programme for International Student Assessment (PISA)</td>
</tr>
<tr>
<td>2.2.1</td>
<td>Tertiary enrolment, % gross</td>
<td>2016</td>
<td>2017</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>2.2.2</td>
<td>Graduates in science &amp; engineering, %</td>
<td>2016</td>
<td>2017</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>2.2.3</td>
<td>Tertiary inbound mobility, %</td>
<td>2016</td>
<td>2017</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Researchers, FTE/mn pop.</td>
<td>2017</td>
<td>2018</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators</td>
</tr>
<tr>
<td>2.3.2</td>
<td>Gross expenditure on R&amp;D, % GDP</td>
<td>2017</td>
<td>2018</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators</td>
</tr>
<tr>
<td>4.1.3</td>
<td>Microfinance gross loans, % GDP</td>
<td>2017</td>
<td>2018</td>
<td>Microfinance Information Exchange</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Firms offering formal training, %</td>
<td>2014</td>
<td>2018</td>
<td>World Bank</td>
</tr>
<tr>
<td>5.1.3</td>
<td>GERD performed by business, % GDP</td>
<td>2017</td>
<td>2018</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators</td>
</tr>
<tr>
<td>5.3.2</td>
<td>High-tech imports, % total trade</td>
<td>2017</td>
<td>2018</td>
<td>United Nations, COMTRADE</td>
</tr>
<tr>
<td>5.3.3</td>
<td>ICT services imports, % total trade</td>
<td>2017</td>
<td>2018</td>
<td>World Trade Organization</td>
</tr>
<tr>
<td>5.3.5</td>
<td>Research talent, % in business enterprise</td>
<td>2017</td>
<td>2018</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD – Main Science and Technology Indicators</td>
</tr>
<tr>
<td>6.2.2</td>
<td>New businesses/th pop. 15–64</td>
<td>2016</td>
<td>2018</td>
<td>World Bank</td>
</tr>
<tr>
<td>6.3.2</td>
<td>High-tech net exports, % total trade</td>
<td>2017</td>
<td>2018</td>
<td>United Nations, COMTRADE</td>
</tr>
<tr>
<td>6.3.3</td>
<td>ICT services exports, % total trade</td>
<td>2017</td>
<td>2018</td>
<td>World Trade Organization</td>
</tr>
<tr>
<td>7.2.2</td>
<td>National feature films/mn pop. 15–69</td>
<td>2011</td>
<td>2017</td>
<td>UNESCO Institute for Statistics</td>
</tr>
</tbody>
</table>
ABOUT THE GLOBAL INNOVATION INDEX

The Global Innovation Index (GII) is co-published by Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations. In 2020, the GII presents its 13th edition devoted to the theme *Who Will Finance Innovation?*

Recognizing that innovation is a key driver of economic development, the GII aims to provide an innovation ranking and rich analysis referencing around 130 economies. Over the last decade, the GII has established itself as both a leading reference on innovation and a “tool for action” for economies that incorporate the GII into their innovation agendas.

The Index is a ranking of the innovation capabilities and results of world economies. It measures innovation based on criteria that include institutions, human capital and research, infrastructure, credit, investment, linkages; the creation, absorption and diffusion of knowledge; and creative outputs.

The GII has two sub-indices: the Innovation Input Sub-Index and the Innovation Output Sub-Index, and seven pillars, each consisting of three sub-pillars.