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.**

### Chile ranking in the Global Innovation Index 2023

> Chile ranks **52nd** among the 132 economies featured in the GII 2023.

> Chile ranks **43rd** among the 50 high-income group economies.

> Chile ranks **2nd** among the 19 economies in Latin America and the Caribbean.

### Chile GII Ranking (2020-2023)

The table shows the rankings of Chile over the past four years. 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 Chile in the GII 2023 is between ranks 49 and 53.

<table>
<thead>
<tr>
<th>Year</th>
<th>GII Position</th>
<th>Innovation Inputs</th>
<th>Innovation Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>54th</td>
<td>41st</td>
<td>66th</td>
</tr>
<tr>
<td>2021</td>
<td>53rd</td>
<td>44th</td>
<td>61st</td>
</tr>
<tr>
<td>2022</td>
<td>50th</td>
<td>43rd</td>
<td>57th</td>
</tr>
<tr>
<td>2023</td>
<td>52nd</td>
<td>48th</td>
<td>56th</td>
</tr>
</tbody>
</table>

Chile performs worse in innovation outputs than innovation inputs in 2023.

This year Chile ranks 48th in innovation inputs. This position is lower than last year.

Chile ranks 56th in innovation outputs. This position is higher than last year.
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, Chile’s performance is at expectations for its level of development.

Innovation overperformers relative to their economic development

GDP per capita, PPP logarithmic scale (thousands of $)
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.

Chile produces less innovation outputs relative to its level of innovation investments.

Relationship between innovation inputs and outputs

![Graph showing the relationship between innovation inputs and outputs.]
→ Overview of Chile's rankings in the seven areas of the GII in 2023

The chart shows the ranking for each of the seven areas that the GII comprises. The strongest areas for Chile are those that rank above the GII (shown in blue) and the weakest are those that rank below.

- **Highest rankings**
  - Chile ranks highest in Market sophistication (47th), Institutions (49th) and Infrastructure (52nd).

- **Lowest rankings**
  - Chile ranks lowest in Creative outputs (59th), Human capital and research, Knowledge and technology outputs (58th) and Business sophistication (55th).

* Infrastructure
** Human capital and research, Knowledge and technology outputs
Benchmark of Chile against other country groupings for each of the seven areas of the GII Index

The charts shows the relative position of Chile (blue bar) against other country groupings (grey bars), for each of the seven areas of the GII Index.

High-Income economies
Chile performs below the high-income group average in all the pillars.

Latin America And The Caribbean
Chile performs above the regional average in all the pillars.

Knowledge and technology outputs
- Top 10 | Score: 58.96
- High income | Score: 38.62
- Chile | Score: 24.31
- LCN | Score: 17.14

Creative outputs
- Top 10 | 56.09
- High income | 40.27
- Chile | 26.84
- LCN | 18.91

Business sophistication
- Top 10 | 64.39
- High income | 46.38
- Chile | 29.81
- LCN | 26.15

Market sophistication
- Top 10 | 61.93
- High income | 46.42
- Chile | 38.94
- LCN | 29.74

Human capital and research
- Top 10 | 60.28
- High income | 46.30
- Chile | 33.04
- LCN | 24.92

Infrastructure
- Top 10 | 62.83
- High income | 55.85
- Chile | 46.43
- LCN | 35.88

Institutions
- Top 10 | 79.85
- High income | 68.16
- Chile | 56.68
- LCN | 41.12
Innovation strengths and weaknesses in Chile

The table below gives an overview of the indicator strengths and weaknesses of Chile in the GII 2023.

Chile’s main innovation strengths are Applied tariff rate, weighted avg., % (rank 5), Trademarks by origin/bn PPP$ GDP (rank 10) and Tertiary enrolment, % gross (rank 12).

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>Code</td>
</tr>
<tr>
<td>5</td>
<td>4.3.1</td>
</tr>
<tr>
<td>10</td>
<td>7.1.2</td>
</tr>
<tr>
<td>12</td>
<td>2.2.1</td>
</tr>
<tr>
<td>14</td>
<td>5.3.1</td>
</tr>
<tr>
<td>19</td>
<td>4.1.2</td>
</tr>
<tr>
<td>21</td>
<td>6.2.3</td>
</tr>
<tr>
<td>22</td>
<td>2.1.1</td>
</tr>
<tr>
<td>24</td>
<td>2.1.3</td>
</tr>
<tr>
<td>25</td>
<td>5.3.4</td>
</tr>
<tr>
<td>30</td>
<td>3.1.3</td>
</tr>
</tbody>
</table>
2.1.1 Expenditure on education, % GDP
was equal to 5.62% GDP in 2019, up by 0.15 percentage points from the year prior – and equivalent to an indicator rank of 22.

2.2.2 Graduates in science and engineering, %
was equal to 21.41% of total tertiary graduates in 2020, up by 0.84 percentage points from the year prior – and equivalent to an indicator rank of 63.

2.3.1 Researchers, FTE/mn pop.
was equal to 511.96 FTE/mn pop. in 2020, up by 1.15% from the year prior – and equivalent to an indicator rank of 70.

2.3.2 Gross expenditure on R&D, % GDP
was equal to 0.337% GDP in 2020, down by 0.0052 percentage points from the year prior – and equivalent to an indicator rank of 72.

2.3.4 QS university ranking, top 3
was equal to an average score of 42.6 for the top 3 universities in 2022, up by 3.073% from the year prior – and equivalent to an indicator rank of 31.

3.1.1 ICT access
was equal to a score of 9.19 in 2021, down by 0.22% from the year prior – and equivalent to an indicator rank of 33.
4.1.1 Finance for startups and scaleups was equal to an average perception score of 3.77 in 2022, equivalent to an indicator rank of 64.

4.2.4 VC received, value, % GDP was equal to 0.00167% GDP in 2022, up by 0.000029 percentage points from the year prior – and equivalent to an indicator rank of 44.

4.3.2 Domestic industry diversification was equal to an index score of 0.23 in 2017, down by 30.87% from the year prior – and equivalent to an indicator rank of 80.

5.1.1 Knowledge-intensive employment, % was equal to 31.88% in 2022, up by 0.38 percentage points from the year prior – and equivalent to an indicator rank of 48.
Innovation outputs in Chile

6.1.1 Patents by origin
was equal to 0.4 Thousands in 2021, up by 8.065% from the year prior – and equivalent to an indicator rank of 68.

6.1.5 Citable documents H-index
was equal to an index value of 492 in 2022, up by 9.091% from the year prior – and equivalent to an indicator rank of 38.

6.2.2 Unicorn valuation, % GDP
was equal to 0.719 % GDP in 2023 – and equivalent to an indicator rank of 36.

6.2.3 Software spending, % GDP
was equal to 0.539% GDP in 2022, up by 0.063 percentage points from the year prior – and equivalent to an indicator rank of 21.

6.2.4 High-tech manufacturing, %
was equal to 23.87% of total manufacturing output in 2017, up by 17.83 percentage points from the year prior – and equivalent to an indicator rank of 55.

6.3.1 Intellectual property receipts, % total trade
was equal to 0.043% total trade in 2021, down by 0.011 percentage points from the year prior – and equivalent to an indicator rank of 70.
6.3.2 Production and export complexity
was equal to a score of -0.242 in 2020, down by 5.75% from the year prior – and equivalent to an indicator rank of 75.

6.3.3 High-tech exports
was equal to 1,264,181,333 USD in 2021, down by 7.59% from the year prior – and equivalent to an indicator rank of 70.

7.1.1 Intangible asset intensity, top 15, %
was equal to 42.22% in 2022, down by 5.66 percentage points from the year prior – and equivalent to an indicator rank of 60.

7.1.3 Global brand value, top 5,000
was equal to 11.75 bn USD in 2023, up by 7.19% from the year prior – and equivalent to an indicator rank of 41.

7.2.1 Cultural and creative services exports
was equal to 216,520,000 USD in 2021, up by 1.44% from the year prior – and equivalent to an indicator rank of 70.

7.2.2 National feature films/mn pop. 15-69
was equal to 1.26 films/mn pop. 15–69 in 2021, down by 11.27% from the year prior – and equivalent to an indicator rank of 57.
7.3.4 Mobile app creation bn PPP $ GDP
was equal to 124,357.9 Apps/bn PPP $ GDP in 2022, up by 40.52% from the year prior – and equivalent to an indicator rank of 71.
→ Chile's innovation top performers

> 2.3.4 QS university ranking of Chile's top universities

<table>
<thead>
<tr>
<th>Rank</th>
<th>University</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE (UC)</td>
<td>54.90</td>
</tr>
<tr>
<td>187</td>
<td>UNIVERSIDAD DE CHILE</td>
<td>47.50</td>
</tr>
<tr>
<td>465</td>
<td>UNIVERSIDAD DE SANTIAGO DE CHILE (USACH)</td>
<td>25.40</td>
</tr>
</tbody>
</table>

Source: QS Quacquarelli Symonds Ltd (https://www.topuniversities.com/university-rankings/world-university-rankings/2023). Note: QS Quacquarelli Symonds Ltd annually assesses over 1,200 universities across the globe and scores them between [0,100]. Ranks can represent a single value “x”, a tie “x=“ or a range “x-y”.

> 6.2.2 Top Unicorn Companies in Chile

<table>
<thead>
<tr>
<th>Rank</th>
<th>Unicorn Company</th>
<th>Industry</th>
<th>City</th>
<th>Valuation, bn USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NOTCO</td>
<td>Consumer &amp; retail</td>
<td>Santiago</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>BETTERFLY</td>
<td>Artificial intelligence</td>
<td>Santiago</td>
<td>1</td>
</tr>
</tbody>
</table>


> 7.1.1 Top 15 intangible-asset intensive companies in Chile

<table>
<thead>
<tr>
<th>Rank</th>
<th>Firm</th>
<th>Intensity, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SOCIEDAD QUIMICA Y MINERA DE CHILE SA</td>
<td>88.11</td>
</tr>
<tr>
<td>2</td>
<td>ANTOFAGASTA PLC</td>
<td>32.62</td>
</tr>
<tr>
<td>3</td>
<td>BANCO DE CHILE</td>
<td>38.44</td>
</tr>
</tbody>
</table>


> 7.1.3 Top 5,000 companies in Chile with highest global brand value

<table>
<thead>
<tr>
<th>Rank</th>
<th>Brand</th>
<th>Industry</th>
<th>Brand Value, mn USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>EMPRESAS COPEC</td>
<td>Oil &amp; Gas</td>
<td>1,481.5</td>
</tr>
<tr>
<td>2</td>
<td>BANCO DE CHILE</td>
<td>Banking</td>
<td>1,331.3</td>
</tr>
<tr>
<td>3</td>
<td>ENTEL</td>
<td>Telecoms</td>
<td>1,023.3</td>
</tr>
</tbody>
</table>

Source: Brand Finance (https://brandirectory.com). Note: Rank corresponds to within economy ranks.
Global Innovation Index 2023

Chile

Output rank 56  Input rank 48  Income High  Region LCN  Population (mn) 19.6  GDP, PPP$ (bn) 575.5  GDP per capita, PPP$ 28,887.5

Score / Value Rank

Business sophistication 29.8 55

5.1 Knowledge workers 33.2 64
5.1.1 Knowledge-intensive employment, % 31.9 48
5.1.2 Firms offering formal training, %
5.1.3 GERD performed by business, % GDP
5.1.4 GERD financed by business, %
5.1.5 Females employed w/advanced degrees, %
5.2 Innovation linkages 17.5 88
5.2.1 University-industry R&D collaboration
5.2.2 State of cluster development
5.2.3 GERD financed by abroad, % GDP
5.2.4 Joint ventures/strategic alliance deals/bn PPP$ GDP
5.2.5 Patents families/bn PPP$ GDP
5.3 Knowledge absorption 38.7 48
5.3.1 Intellectual property payments, % total trade
5.3.2 High-tech imports, % total trade
5.3.3 ICT services imports, % total trade
5.3.4 FDI net inflows, % GDP
5.3.5 Research talent, % in businesses
5.4 Knowledge and technology outputs 24.3 58
6.1 Knowledge creation 16.6 61
6.1.1 Patents by origin/bn PPP$ GDP
6.1.2 PCT patents by origin/bn PPP$ GDP
6.2.1 Labor productivity growth, %
6.2.2 Unicorn valuation, % GDP
6.2.3 Software spending, % GDP
6.2.4 High-tech manufacturing, %
6.3 Knowledge diffusion 17.7 84
6.3.1 Intellectual property receipts, % total trade
6.3.2 Production and export complexity
6.3.3 High-tech exports, % total trade
6.3.4 ICT services exports, % total trade
6.3.5 ISO 9001 quality/bn PPP$ GDP
6.4 Creative outputs 26.8 59
7.1 Intangible assets 39.2 46
7.1.1 Intangible asset intensity, topl 15%
7.1.2 Trademarks by origin/bn PPP$ GDP
7.1.3 Global brand value, top 5,000
7.1.4 Industrial designs by origin/bn PPP$ GDP
7.2 Creative goods and services 6.6 80
7.2.1 Cultural and creative services exports, % total trade
7.2.2 National feature films/mn pop, 15-69
7.2.3 Entertainment and media market/#/h pop, 15-69
7.2.4 Creative goods exports, % total trade
7.3 Online creativity 22.3 59
7.3.1 Generic top-level domains (TLD)s/h pop, 15-69
7.3.2 Country-code TLDs/h pop, 15-69
7.3.3 GitHub commits/mn pop, 15-69
7.3.4 Mobile app creation/bn PPP$ GDP

Score / Value Rank

Human capital and research 33.0 58

2.1 Education 52.8 62
2.1.1 Expenditure on education, % GDP
2.1.2 Government funding/pupil, secondary, % GDP/cap
2.1.3 School life expectancy, years
2.1.4 PISA scales in reading, maths and science
2.1.5 Pupil-teacher ratio, secondary
2.2 Tertiary education 32.7 59
2.2.1 Tertiary enrolment, % gross
2.2.2 Graduates in science and engineering, %
2.2.3 Tertiary inmobility, %
2.3 Research and development (R&D)
2.3.1 Researchers, FTE/mn pop.
2.3.2 Gross expenditure on R&D, % GDP
2.3.3 Global corporate R&D investors, top 3, mn US$
2.3.4 QS university ranking, top 30*

Infrastructure 46.4 52

3.1 Information and 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*
3.2 General infrastructure
3.2.1 Electricity output, GWh/mn pop.
3.2.2 Logistics performance*
3.2.3 Grass capital formation, % GDP
3.3 Ecological sustainability 30.2 54
3.3.1 GDP/unit of energy use
3.3.2 Environmental performance*
3.3.3 ISO 14001 environment/bn PPP$ GDP

Market sophistication 38.9 47

4.1 Credit
4.1.1 Finance for startups and scaleups*
4.1.2 Domestic credit to private sector, % GDP
4.1.3 Loans from microfinance institutions, % GDP
4.2 Investment 13.9 47
4.2.1 Market capitalization, % GDP
4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP
4.2.3 VC recipients, deals/bn PPP$ GDP
4.2.4 VC received, value, % GDP
4.3 Trade, diversification, and market scale 62.9 47
4.3.1 Applied tariff rate, weighted avg., %
4.3.2 Domestic industry diversification
4.3.3 Domestic market scale, bn PPP$ 57.5 44

Score / Value Rank

Institutions 56.7 49

1.1 Institutional environment 56.5 43
1.1.1 Operational stability for businesses* 59.0 48
1.1.2 Government effectiveness* 54.0 43
1.2 Regulatory environment 64.1 62
1.2.1 Regulatory quality* 66.8 32
1.2.2 Rule of law* 66.5 31
1.2.3 Cost of redundancy dismissal 27.4 111
1.3 Business environment* 49.4 55
1.3.1 Policies for doing business* 46.8 65
1.3.2 Entrepreneurship policies and culture*

NOTES: ● indicates a strength; ○ a weakness; ⋄ an income group strength; ⋆ an income group weakness; * an index; † a survey question, ○ indicates that the economy’s data are older than the base year; see appendices for details, including the year of the data, at https://www.wipo.int/gii-ranking. Square brackets [ ] indicate that the data minimum coverage (DMC) requirements were not met at the sub-pillar or pillar level.
> Data availability

The following tables list indicators that are either missing or outdated for Chile.

> Chile has missing data for two indicators and outdated data for seven indicators.

> Missing data for Chile

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Economy Year</th>
<th>Model Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1.3</td>
<td>Loans from microfinance institutions, % GDP</td>
<td>n/a</td>
<td>2021</td>
<td>International Monetary Fund, Financial Access Survey (FAS)</td>
</tr>
<tr>
<td>5.1.2</td>
<td>Firms offering formal training, %</td>
<td>n/a</td>
<td>2019</td>
<td>World Bank Enterprise Surveys</td>
</tr>
</tbody>
</table>

> Outdated data for Chile

<table>
<thead>
<tr>
<th>Code</th>
<th>Indicator name</th>
<th>Economy Year</th>
<th>Model Year</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1</td>
<td>Expenditure on education, % GDP</td>
<td>2019</td>
<td>2021</td>
<td>UNESCO Institute for Statistics</td>
</tr>
<tr>
<td>2.3.1</td>
<td>Researchers, FTE/mn pop.</td>
<td>2020</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>2.3.2</td>
<td>Gross expenditure on R&amp;D, % GDP</td>
<td>2020</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>4.3.2</td>
<td>Domestic industry diversification</td>
<td>2017</td>
<td>2020</td>
<td>United Nations Industrial Development Organization</td>
</tr>
<tr>
<td>5.1.3</td>
<td>GERD performed by business, % GDP</td>
<td>2020</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>5.3.5</td>
<td>Research talent, % in businesses</td>
<td>2020</td>
<td>2021</td>
<td>UNESCO Institute for Statistics; Eurostat; OECD; RICYT</td>
</tr>
<tr>
<td>6.2.4</td>
<td>High-tech manufacturing, %</td>
<td>2017</td>
<td>2020</td>
<td>United Nations Industrial Development Organization</td>
</tr>
</tbody>
</table>
The Global Innovation Index (GII) is published by the World Intellectual Property Organization (WIPO), a specialized agency of the United Nations.

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.