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.

Austria ranking in the Global Innovation Index 2023

> Austria ranks 18th among the 132 economies featured in the GII 2023.

> Austria ranks 17th among the 50 high-income group economies.

> Austria ranks 10th among the 39 economies in Europe.

Austria GII Ranking (2020-2023)

The table shows the rankings of Austria 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 Austria in the GII 2023 is between ranks 14 and 18.

<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>19th</td>
<td>18th</td>
<td>23rd</td>
</tr>
<tr>
<td>2021</td>
<td>18th</td>
<td>16th</td>
<td>24th</td>
</tr>
<tr>
<td>2022</td>
<td>17th</td>
<td>17th</td>
<td>21st</td>
</tr>
<tr>
<td>2023</td>
<td>18th</td>
<td>18th</td>
<td>15th</td>
</tr>
</tbody>
</table>

Austria performs better in innovation outputs than innovation inputs in 2023.

This year Austria ranks 18th in innovation inputs. This position is lower than last year.

Austria ranks 15th 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.

Austria is an innovation leader, ranking in the top 25 of the GII.

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.

> Austria produces more innovation outputs relative to its level of innovation investments.

Relationship between innovation inputs and outputs

The chart above 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.

> Austria produces more innovation outputs relative to its level of innovation investments.
Overview of Austria’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 Austria are those that rank above the GII (shown in blue) and the weakest are those that rank below.

→ Highest rankings
Austria ranks highest in Human capital and research (11th), Infrastructure (12th), Institutions, Creative outputs (13th) and Knowledge and technology outputs (17th).

→ Lowest rankings
Austria ranks lowest in Market sophistication (39th), Business sophistication (19th) and Knowledge and technology outputs (17th).

* Institutions, Creative outputs

The full WIPO Intellectual Property Statistics profile for Austria can be found on this link.
Benchmark of Austria against other country groupings for each of the seven areas of the GII Index

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

> High-Income economies
Austria performs above the high-income group average in Knowledge and technology outputs, Creative outputs, Business sophistication, Human capital and research, Infrastructure, Institutions.

> Europe
Austria performs above the regional average in all the pillars.

Knowledge and technology outputs
- Top 10 | Score: 58.96
- Austria | Score: 45.30
- Europe | Score: 38.80
- High income | Score: 38.62

Creative outputs
- Top 10 | 56.09
- Austria | 48.91
- High income | 40.27
- Europe | 39.87

Business sophistication
- Top 10 | 64.39
- Austria | 55.71
- High income | 46.38
- Europe | 44.61

Market sophistication
- Top 10 | 61.93
- High income | 46.42
- Austria | 44.42
- Europe | 43.65

Human capital and research
- Top 10 | 60.28
- Austria | 57.97
- High income | 46.30
- Europe | 44.05

Infrastructure
- Top 10 | 62.83
- Austria | 60.36
- High income | 55.85
- Europe | 54.69

Institutions
- Top 10 | 79.85
- Austria | 78.46
- High income | 68.16
- Europe | 61.69
### Innovation strengths and weaknesses in Austria

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

> Austria’s main innovation strengths are **Cost of redundancy dismissal** (rank 1), **Domestic industry diversification** (rank 3) and **GERD financed by abroad, % GDP** (rank 5).

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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</thead>
<tbody>
<tr>
<td><strong>Rank</strong></td>
<td><strong>Code</strong></td>
</tr>
<tr>
<td>1</td>
<td>1.2.3</td>
</tr>
<tr>
<td>3</td>
<td>4.3.2</td>
</tr>
<tr>
<td>5</td>
<td>5.2.3</td>
</tr>
<tr>
<td>6</td>
<td>1.3.1</td>
</tr>
<tr>
<td>7</td>
<td>6.3.2</td>
</tr>
<tr>
<td>7</td>
<td>5.1.3</td>
</tr>
<tr>
<td>7</td>
<td>1.2.2</td>
</tr>
<tr>
<td>8</td>
<td>6.2.3</td>
</tr>
<tr>
<td>8</td>
<td>3.3.2</td>
</tr>
<tr>
<td>8</td>
<td>2.3.2</td>
</tr>
<tr>
<td>9</td>
<td>7.3.2</td>
</tr>
</tbody>
</table>
Austria’s innovation system

As far as practicable, the plots below present unscaled indicator data.

Innovation inputs in Austria

2.1.1 Expenditure on education, % GDP was equal to 5.22% GDP in 2019, down by 0.01 percentage points from the year prior – and equivalent to an indicator rank of 30.

2.1.1 Expenditure on education, % GDP

---

2.2.2 Graduates in science and engineering, % was equal to 30.58% of total tertiary graduates in 2020, down by 0.82 percentage points from the year prior – and equivalent to an indicator rank of 16.

2.2.2 Graduates in science and engineering, %

---

2.3.1 Researchers, FTE/mn pop. was equal to 6,163 FTE/mn pop. in 2021, up by 5.71% from the year prior – and equivalent to an indicator rank of 9.

2.3.1 Researchers, FTE/mn pop.

---

2.3.2 Gross expenditure on R&D, % GDP was equal to 3.19% GDP in 2021, down by 0.01 percentage points from the year prior – and equivalent to an indicator rank of 8.

2.3.2 Gross expenditure on R&D, % GDP

---

2.3.4 QS university ranking, top 3 was equal to an average score of 44.13 for the top 3 universities in 2022, down by 0.38% from the year prior – and equivalent to an indicator rank of 27.

2.3.4 QS university ranking, top 3

---

3.1.1 ICT access was equal to a score of 9.22 in 2021, up by 1.32% from the year prior – and equivalent to an indicator rank of 31.

3.1.1 ICT access
4.1.1 Finance for startups and scaleups was equal to an average perception score of 5.09 in 2022, equivalent to an indicator rank of 31.

4.2.4 VC received, value, % GDP was equal to 0.00225% GDP in 2022, down by 0.00034 percentage points from the year prior – and equivalent to an indicator rank of 35.

4.3.2 Domestic industry diversification was equal to an index score of 0.084 in 2020, up by 1.19% from the year prior – and equivalent to an indicator rank of 3.

5.1.1 Knowledge-intensive employment, % was equal to 44.26% in 2022, up by 0.77 percentage points from the year prior – and equivalent to an indicator rank of 24.
Global Innovation Index 2023

> Innovation outputs in Austria

6.1.1 Patents by origin
was equal to 4.19 Thousands in 2021, down by 5.31% from the year prior – and equivalent to an indicator rank of 11.

6.1.5 Citable documents H-index
was equal to an index value of 841 in 2022, up by 7.41% from the year prior – and equivalent to an indicator rank of 18.

6.2.2 Unicorn valuation, % GDP
was equal to 1.61 % GDP in 2023 – and equivalent to an indicator rank of 27.

6.2.3 Software spending, % GDP
was equal to 0.666% GDP in 2022, up by 0.15 percentage points from the year prior – and equivalent to an indicator rank of 8.

6.2.4 High-tech manufacturing, %
was equal to 45.7% of total manufacturing output in 2020, down by 0.69 percentage points from the year prior – and equivalent to an indicator rank of 19.

6.3.1 Intellectual property receipts, % total trade
was equal to 0.641% total trade in 2021, down by 0.064 percentage points from the year prior – and equivalent to an indicator rank of 26.
6.3.2 Production and export complexity was equal to a score of 1.7 in 2020, down by 3.41% from the year prior – and equivalent to an indicator rank of 7.

6.3.3 High-tech exports was equal to $21,281,208,725 USD in 2021, up by 33.12% from the year prior – and equivalent to an indicator rank of 23.

7.1.1 Intangible asset intensity, top 15, % was equal to 53% in 2022, down by 8.55 percentage points from the year prior – and equivalent to an indicator rank of 46.

7.1.3 Global brand value, top 5,000 was equal to $35,506 bn USD in 2023, up by 21.6% from the year prior – and equivalent to an indicator rank of 29.

7.2.1 Cultural and creative services exports was equal to $2,990,227,000 USD in 2021, up by 15.075% from the year prior – and equivalent to an indicator rank of 24.

7.2.2 National feature films/mn pop. 15-69 was equal to 769 films/mn pop. 15–69 in 2021, up by 88.48% from the year prior – and equivalent to an indicator rank of 11.
7.3.4 Mobile app creation/bn PPP$ GDP
was equal to 393,345.9 Apps/bn PPP$ GDP in 2022, down by 3.72% from the year prior – and equivalent to an indicator rank of 48.
> Austria’s innovation top performers

> 2.3.3 Global corporate R&D investors from Austria

<table>
<thead>
<tr>
<th>Rank</th>
<th>Firm</th>
<th>Industry</th>
<th>R&amp;D</th>
<th>R&amp;D Growth</th>
<th>R&amp;D Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>277</td>
<td>AMS-OSRAM</td>
<td>Technology Hardware &amp; Equipment</td>
<td>688</td>
<td>45</td>
<td>14</td>
</tr>
<tr>
<td>762</td>
<td>KONTRON</td>
<td>Technology Hardware &amp; Equipment</td>
<td>211</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>851</td>
<td>AT&amp;S AUSTRIA TECHNOLOGIE &amp; SYSTEMTECHNIK</td>
<td>Electronic &amp; Electrical Equipment</td>
<td>187</td>
<td>42</td>
<td>12</td>
</tr>
<tr>
<td>903</td>
<td>VOESTALPINE</td>
<td>Industrial Metals &amp; Mining</td>
<td>174</td>
<td>13</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: European Commission’s Joint Research Centre ranks the top 2,500 firms by R&D investment annually.

> 2.3.4 QS university ranking of Austria’s top universities

<table>
<thead>
<tr>
<th>Rank</th>
<th>University</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>151</td>
<td>UNIVERSITY OF VIENNA</td>
<td>50.80</td>
</tr>
<tr>
<td>179</td>
<td>TECHNISCHE UNIVERSITAT WIEN</td>
<td>45.70</td>
</tr>
<tr>
<td>284</td>
<td>GRAZ UNIVERSITY OF TECHNOLOGY</td>
<td>36.10</td>
</tr>
</tbody>
</table>

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=x” or a range “x-y”.

> 6.2.2 Top Unicorn Companies in Austria

<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>BITPANDA</td>
<td>Fintech</td>
<td>Vienna</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>GOSTUDENT</td>
<td>Edtech</td>
<td>Vienna</td>
<td>4</td>
</tr>
</tbody>
</table>

### 7.1.1 Top 15 intangible-asset intensive companies in Austria

<table>
<thead>
<tr>
<th>Rank</th>
<th>Firm</th>
<th>Intensity, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VERBUND AG</td>
<td>70.55</td>
</tr>
<tr>
<td>2</td>
<td>OMV AG</td>
<td>14.69</td>
</tr>
<tr>
<td>3</td>
<td>ANDRITZ AG</td>
<td>72.16</td>
</tr>
</tbody>
</table>

Note: Brand Finance only provides within economy ranks.

### 7.1.3 Top 5,000 companies in Austria 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>RED BULL</td>
<td>Soft Drinks</td>
<td>6,961.6</td>
</tr>
<tr>
<td>2</td>
<td>ERSTE</td>
<td>Banking</td>
<td>3,677.8</td>
</tr>
<tr>
<td>3</td>
<td>A1</td>
<td>Telecoms</td>
<td>2,185.5</td>
</tr>
</tbody>
</table>

Note: Rank corresponds to within economy ranks.
Global Innovation Index 2023

Austria

<table>
<thead>
<tr>
<th>Output rank</th>
<th>Input rank</th>
<th>Income Region</th>
<th>Population (mn)</th>
<th>GDP, PPP$ (bn)</th>
<th>GDP per capita, PPP$</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>18</td>
<td>High EUR</td>
<td>8.9</td>
<td>599.5</td>
<td>66,800.1</td>
</tr>
</tbody>
</table>

**Institutions**

- **Global**
  - 1.1 Institutional environment: Score 78.5, Rank 13
    - 1.1.1 Operational stability for businesses: 76.2, Rank 15
    - 1.1.2 Government effectiveness: 80.1, Rank 11
    - 1.2 Regulatory environment: 92.3, Rank 6
      - 1.2.1 Regulatory quality: 77.1, Rank 20
      - 1.2.2 Rule of law: 92.1, Rank 7
    - 1.2.3 Cost of redundancy dismissal: 8.0, Rank 1
    - 1.3 Business environment: 66.9, Rank 25
      - 1.3.1 Policies for doing business: 82.4, Rank 6
      - 1.3.2 Entrepreneurship policies and culture: 51.5, Rank 35

**Human capital and research**

- 2.1 Education: Score 62.0, Rank 24
  - 2.1.1 Expenditure on education, % GDP: 5.2, Rank 30
  - 2.1.2 Government funding/pupil, secondary, % GDP/cap: 25.4, Rank 18
  - 2.1.3 School life expectancy, years: 16.0, Rank 37
  - 2.1.4 PISA scales in reading, maths and science: 491.0, Rank 27
  - 2.1.5 Pupil-teacher ratio, secondary: 9.4, Rank 23
  - 2.2 Tertiary education: 55.6, Rank 5
    - 2.2.1 Tertiary enrolment, % gross: 87.2, Rank 15
    - 2.2.2 Graduates in science and engineering, %: 30.6, Rank 16
    - 2.2.3 Tertiary inbound mobility, %: 18.0, Rank 10
  - 2.3 Research and development (R&D): Score 56.3, Rank 17
    - 2.3.1 Researchers, FTE/mn pop.: 6,163.0, Rank 9
    - 2.3.2 Gross expenditure on R&D, % GDP: 3.2, Rank 8
    - 2.3.3 Global corporate R&D investors, top 3, mn US$: 59.2, Rank 25
    - 2.3.4 QS university ranking, top 3*: 44.7, Rank 27

**Infrastructure**

- 3.1 Information and communication technologies (ICTs): Score 86.3, Rank 17
  - 3.1.1 ICT access*: 88.4, Rank 31
  - 3.1.2 ICT use: 93.1, Rank 13
  - 3.1.3 Government’s online service: 87.0, Rank 19
  - 3.1.4 E-participation*: 76.7, Rank 21
  - 3.2 General infrastructure: Score 49.8, Rank 18
    - 3.2.1 Electricity output, GW/h/mn pop.: 7,480.7, Rank 23
    - 3.2.2 Logistics performance*: 86.4, Rank 7
    - 3.2.3 Gross capital formation, % GDP: 27.1, Rank 36
  - 3.3 Ecological sustainability: Score 45.0, Rank 26
    - 3.3.1 GDP/unit of energy use: 13.7, Rank 33
    - 3.3.2 Environmental performance*: 80.7, Rank 8
    - 3.3.3 ISO 14001 environment/bn PPP$ GDP: 2.8, Rank 34

**Market sophistication**

- 4.1 Credit: Score 47.9, Rank 32
  - 4.1.1 Finance for startups and scaleups*: 61.3, Rank 31
  - 4.1.2 Domestic credit to private sector, % GDP: 92.8, Rank 32
  - 4.1.3 Loans from microfinance institutions, % GDP: n/a, n/a
  - 4.2 Investment: Score 17.8, Rank 41
    - 4.2.1 Market capitalization, % GDP: 28.7, Rank 46
    - 4.2.2 Venture capital (VC) investors, deals/bn PPP$ GDP: 0.3, Rank 23
    - 4.2.3 VC recipients, deals/bn PPP$ GDP: 0.1, Rank 33
    - 4.2.4 VC received, value, % GDP: 0.0, Rank 35
  - 4.3 Trade, diversification, and market scale: Score 67.5, Rank 24
    - 4.3.1 Applied tariff rate, weighted avg, %: 1.5, Rank 20
    - 4.3.2 Domestic industry diversification: 98.4, Rank 3
    - 4.3.3 Domestic market scale, bn PPP$: 599.5, Rank 41

**Business sophistication**

- 5.1 Knowledge workers: Score 54.0, Rank 25
  - 5.1.1 Knowledge-intensive employment, %: 44.3, Rank 24
  - 5.1.2 Firms offering formal training, %: 42.6, Rank 29
  - 5.1.3 GERD performed by business, % GDP: 2.2, Rank 7
  - 5.1.4 GERD financed by business, %: 50.6, Rank 27
  - 5.1.5 Females employed w/advanced degrees, %: 13.4, Rank 56

**Knowledge and technology outputs**

- 6.1 Knowledge creation: Score 45.2, Rank 18
  - 6.1.1 Patents by origin/bn PPP$ GDP: 7.8, Rank 11
  - 6.1.2 PCT patents by origin/bn PPP$ GDP: 2.4, Rank 12
  - 6.1.3 Utility models by origin/bn PPP$ GDP: 0.5, Rank 31
  - 6.1.4 Scientific and technical articles/bn PPP$ GDP: n/a, n/a
  - 6.1.5 Oatile documents H-index: 44.4, Rank 18

**Creative outputs**

- 7.1 Intangible assets: Score 50.1, Rank 25
  - 7.1.1 Intangible asset intensity, % GDP: 53.0, Rank 46
  - 7.1.2 Trademarks by origin/bn PPP$ GDP: 58.2, Rank 39
  - 7.1.3 Global brand value, top 500: 7.5, Rank 29
  - 7.1.4 Industrial designs by origin/bn PPP$ GDP: 5.9, Rank 17

- 7.2 Creative goods and services: Score 37.3, Rank 17
  - 7.2.1 Cultural and creative services exports, % total trade: 1.1, Rank 24
  - 7.2.2 National feature films/mn pop. 15-69: 7.7, Rank 11
  - 7.2.3 Entertainment and media market/mn pop. 15-69: 83.2, Rank 7
  - 7.2.4 Creative goods exports, % total trade: 1.2, Rank 42

- 7.3 Online creativity: Score 58.0, Rank 15
  - 7.3.1 Generic top-level domains (TLDs)/mn pop. 15-69: 421.1, Rank 18
  - 7.3.2 Country-code TLDs/mn pop. 15-69: 68.2, Rank 9
  - 7.3.3 GitHub commits/mn pop. 15-69: 50.7, Rank 20
  - 7.3.4 Mobile app creation/bn PPP$ GDP: 71.0, Rank 48
Data availability

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

>Austria has missing data for one indicator and outdated data for one indicator.

### Missing data for Austria

<table>
<thead>
<tr>
<th>Code</th>
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<th>Economy Year</th>
<th>Model Year</th>
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<tbody>
<tr>
<td>4.1.3</td>
<td>Loans from microfinance institutions, % GDP</td>
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<td>International Monetary Fund, Financial Access Survey (FAS)</td>
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### Outdated data for Austria

<table>
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<th>Model Year</th>
<th>Source</th>
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</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>
</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.