

WIPO GLOBAL INNOVATION INDEX (GII): KEY TAKEAWAYS

On September 26, 2024, WIPO published the 17th edition of its Global Innovation Index (GII) 2024. The report offers a detailed examination of global innovation, encompassing technological developments, patent applications and the performance of various countries, including Argentina, Brazil, Mexico and Spain.

TECHNOLOGICAL ADVANCES

The report highlights the sustained growth in computing power in line with Moore's Law. The number of transistors in integrated circuits increased by over 150% between 2021 and 2023, exceeding the average growth of the last decade. However, this trend is expected to reach a limit when transistors between 1.5 and 1 nanometre are reached.

Despite the acceleration in processing speeds, the energy consumption of supercomputers remains a significant challenge. While there has been an increase in the processing speed of supercomputers, the issue of energy consumption remains a challenge. The energy efficiency of the 50 "greenest" supercomputers saw only a 14% improvement between 2022 and 2023. This is below the annual growth of 30% seen over the last decade.

The growth in technologies related to energy efficiency and renewable energy has not reached the anticipated rate. In particular, the cost reductions and energy efficiency of solar and wind energy, as well as supercomputer efficiency, have not reached the anticipated levels of growth over the past decade.

INTERNATIONAL PATENT FILINGS

The 2024 GII report indicates that international patent applications through the WIPO-administered Patent Cooperation Treaty (PCT) declined by approximately 2% in 2023, marking the first decrease since the 2009 financial crisis.

Notwithstanding this decline, China retained its position as the leading country of origin of PCT patent applications, followed by the United States and Japan, although both experienced more pronounced declines. Notably, India and Turkey demonstrated substantial growth in their patent applications, with increases of 44.6% and 8.5%, respectively.



COUNTRY PROFILES

ARGENTINA

The country ranks 76th in the overall innovation index. Business Sophistication: Argentina is placed 60th in this category, with a score of 27.7. It merits particular mention for its formal employee training, where it ranks

36th with a 40.2% share. In terms of knowledge and technology, the country's performance is ranked 71st in terms of knowledge creation and 67th in terms of knowledge impact.

There are areas where there is potential for improvement in R&D collaboration between universities and industry (ranked 84th) and in labor productivity growth (which decreased by 1.9%, placing it in 127th place).



COUNTRY PROFILES

BRAZIL

Brazil has maintained its position as a leader in Latin America and the Caribbean, ranking 50th overall. In terms of business sophistication, Brazil ranks 39th with a score of 36.2, with strengths in areas such as Intellectual Property payments (15th) and high-tech imports (19th).

In terms of outputs related to knowledge and technology, Brazil ranks 50th, with strengths in utility models (27th) and the H index of citable

documents (24th). One area where Brazil could improve is in university-industry collaboration, where it currently ranks 75th.



COUNTRY PROFILES

MEXICO

Mexico has achieved a ranking of 56th in the overall innovation index, representing a two-place improvement over the previous year. Notable achievements include:

- Mexico is the global leader in the export of creative goods.
- Mexico also performs well in high-tech trade, ranking 16th in the import of high-tech products and 11th in the export of high-tech products.
- In the field of high-tech manufacturing, Mexico ranks 15th which highlights the importance of the advanced manufacturing sector in the country.

However, there are areas for improvement, such as collaboration between industry and universities in research and development projects, where there is room for advancement.



COUNTRY PROFILES

SPAIN

Spain is positioned at 28th place in the overall innovation index.

In the area of business sophistication, Spain is in 31st position with a score of 41.8. This highlights the formal training of employees in companies, which accounts for 55.2% of the market and places it in 12th position.

In the area of knowledge and technology, Spain ranks 24th with a score of 36.4. While Spain performs well in many areas, it has room for improvement in the area of R&D collaboration between universities

and industry, where it ranks 69th. Furthermore, there is room for improvement in technology absorption, particularly in the areas of high-tech imports (rank 56th) and labour productivity, which decreased by 0.3% (rank 103rd).

