

US holds steady in global race to innovate as Asia surges ahead in key areas

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Recent warnings about the health, or lack thereof, of the US patent system may sound alarmist to some but they are not without support. Studies and data maintained by the World Intellectual Property Organization show a still-dominant US, but with China, Singapore and others closing the innovation gap. The US will need to shore up its incentives to invent to keep its place among the world's top-three.

There was good news for US stakeholders in the World Intellectual Property Organization's 2024 Global Innovation Index, or GII

The US remains among the most innovative economies in the world, leading all others in software spending, IP receipts and intangible asset intensity.

But a close look at the report, which tracks the performance of 133 economies across 78 innovation indicators, could give cause for concern

- Distracted industries -

The US's overall score dropped a full point amid backslides in innovation input, such as investments in education, and output, such as labor productivity. The US ranks in the bottom half of all economies for student-to-teacher ratio and STEM degrees, and in the bottom quarter for environmental and quality management systems.

Still, the US held on to its third-place spot in 2024 behind Switzerland and Sweden.

That's why Paul Keller of Crowell & Moring tells MLex he's "not concerned — yet."

He singles out the US's recent focus on geopolitics and the COVID-19 pandemic as potential distractions for industries that are now, or soon will be, part of the past. "Ebbs and flows" in the GII are to be expected, Keller said. "I don't think we've stalled."

David Kappos, former director of the US Patent and Trademark Office and now of Cravath, Swaine & Moore, told MLex that while nothing in the GII is indicative of a US in crisis, the "risk of falling behind" is real, especially in emerging technologies.

"Could we be doing better? That's where I would say yes. We need a stronger and more effective IP system. Especially on the patent side," he said.

- Dramatic gains -

With more technology clusters — geographic areas with a high density of inventors and scientific authors — than any other economy, China is closer than ever to cracking the GII's top 10 after seeing its score improve by a full point. It leads the world in the registration of utility models and industrial designs, while expanding its adoption of robotic technology at a time when robotics use in the US and elsewhere is trending down.

Even more dramatic gains are taking place in the Republic of Korea, which moved from 10th to 6th this year and improved its score by more than two points.

India's economy is experiencing exponential growth in its intangible assets sector, skyrocketing 27 places in the GII over the past decade and besting all other countries in the exportation of information and communication technology services as a percent of its overall trade.

Singapore, meanwhile, stormed to the top spot in 14 of 78 innovation indicators — the most of any economy, a title the US claimed in 2023 — on its way to a 4th place ranking. While it is likely years away from mounting a serious challenge



for third, Singapore enjoys a sizable lead over the US in policy stability and regulatory quality while ranking first in the world in venture capital received and venture capital investment.

The Asian economies on the rise in the GII have more in common than geography. WIPO characterizes each as emerging markets with the potential for rapid growth, benefiting from diverse economic structures and with a heavy integration in global value chains and high-tech trade.

- Private-public bargain -

Since stepping down from the US Court of Appeals for the Federal Circuit in 2010, former judge Paul Michel has been sounding the alarm that the US is conceding valuable ground that will be difficult to reclaim.

Nowhere is that more apparent than in the tech transfer sector, an important link in the US innovation chain that is showing signs of struggle. Under the private-public bargain, universities, laboratories and other organizations backed by taxpayer funding conduct critical research, and then license their breakthroughs to others for commercialization.

AUTM, formerly known as the Association of University Technology Managers, says that despite a 10% increase in federal funding and a 13% rise in research expenditures in 2023, licensing income dropped from \$3.8 billion to \$3.6 billion and the formation of startups to take university and research institution-led technologies to market declined 11% over 2022.

That jives with Michel's experience on the board of the University of Virginia Tech Transfer Committee, where he recently said* patents are perceived as "too undependable, too easy to invalidate, too hard to enforce and too expensive," to pursue.

- Crippled incentives -

The rate at which patents are filed is generally viewed as one of the most reliable measures of innovation.

WIPO's data dashboard shows a slowdown in international applications, or PCTs, in 2023 for most economies except Korea, but the US — which filed 5.5% fewer PCTs — outpaced China, with 0.6% fewer. Conversely, national patent applications are up worldwide, but the US, with 2.5% growth over 2022, reported less than half of Korea's gain of 5.7%.

India, meanwhile, upped its national patent applications by 15.7%.

— Jury out —

The question of whether the US has placed too many barriers in the path of good ideas is open to debate but evidence of stronger IP protections in Asia, coinciding with uncertain patent rights in the US, is not.

"We're not doing ourselves any favors," Kappos told MLex, "and the jury remains out as to whether we can recover, or whether we will continue to continue to slip."

To get "back on our game" and "resume global leadership" Kappos said legislators will need to pass three bills intended to shore up critical weaknesses in the US patent system. The PERA Act, which addresses patent eligibility, is already through the Senate Judiciary Committee, while the PREVAIL and RESTORE Acts will follow behind.

All three, in theory, could become law in the next session of Congress — a scenario Kappos calls a "dream come true."

*American Intellectual Property Law Association, National Harbor, Maryland, October 25, 2024.

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