

Foreword



Daren Tang, Director General,
World Intellectual Property Organization
(WIPO)

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Welcome to the 16th edition of WIPO's Global Innovation Index (GII), where we take the pulse of global innovation and reveal the innovative performance of 132 countries, as well as the world's top 100 science and technology clusters.

In 2023, we find the innovation environment mixed, with significant opportunities and sizeable challenges on the horizon.

On the one hand, ground-breaking technological progress continues unabated. As identified in last year's GII, two promising innovation waves are making their presence felt across economies and societies: a digital innovation wave, built on artificial intelligence (AI), supercomputing and automation, and a deep science innovation wave, based on biotechnologies and nanotechnologies.

Many of the key indicators of technological progress are trending positively. Computing power continues to increase in line with Moore's Law. Green supercomputing is becoming more efficient. Renewable energy is increasingly affordable. And the cost of genome sequencing continues to decline. Spurred on by the scale of the possibilities before us, top corporate R&D expenditure exceeded USD 1 trillion for the first time last year, with ICT firms the primary drivers.

On the other hand, anemic growth and high inflation, coupled with the lingering effects of the pandemic, are hampering global innovation. After a remarkable boom in 2021, innovation finance fell back dramatically last year, with the value of venture capital (VC) investments declining by 40 percent. While it is important to stress that, at USD 380 billion, deal value in 2022 is higher than at any point over the past decade (apart from the 2021 boom), the overall VC outlook remains uncertain.

A key challenge is converting the potential of novel innovation waves into tangible benefits that flow to everyone, everywhere. Technology adoption might be growing – more people have access to the internet, safe sanitation and drive electric vehicles than ever before – but take-up is not yet fast enough. For a second consecutive year, the GII finds that the socio-economic impact of innovation has stalled.

In this polarized innovation environment, supporting countries at all stages of development to grasp opportunities and strengthen innovation ecosystems continues to be a key objective for WIPO. While it is encouraging that many middle-income and emerging economies are climbing the GII ranks, with 21 countries overperforming on innovation relative to their level of development this year, it is still too early to determine whether the pandemic will have a lasting impact on innovation, especially in the Global South.

What we know for sure is that the data, trends and approaches featured in this year's report shine new light on global innovation performance. Whether you are from the private or public sector, are a policymaker, diplomat, researcher, investor, innovator or creator, we hope that the information contained in these pages enables you to draw informed conclusions and acts as a powerful tool for pro-innovation policymaking the world over.

Despite all the uncertainties we are currently facing, future advances in AI, energy, medicine and transport are in sight. WIPO will continue to support all Member States in their pursuit of innovation-led growth to promote job creation, development and opportunities so that new breakthroughs and discoveries can reach everyone and work for us all.