



**Trends and Issues
in the Global Innovation
Ecosystems**

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Global Economic and Innovation Landscape

- The global economy is on a stronger footing in 2014 than it was in the years directly following the crisis
- The basic dilemma concerning the sources of future growth raised in previous years is even more topical
- Research & Development (R&D) expenditures and the economic crisis
 - Global R&D spending strong post-crisis recovery between 2010 & 2012
 - R&D growth slowing in 2013 and 2014, especially in higher-income economies, as public sector spending declines
 - Innovation expenditures: Resilient but in need of renewed attention.

What Is Innovation Today?

- Definition: *“An innovation is the implementation of a new or significantly improved product (good or service), a new process, a new marketing method, or a new organizational method in business practices, workplace organization, or external relations.” (Eurostat and OECD, 2005)*
- This definition reflects the evolution of the way innovation has been perceived and understood over the two decades
- Why Focusing on Innovation? Innovation is important for driving economic progress and competitiveness

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The Global Innovation Index



- Leading reference among innovation indices
- Benchmarking tool for action for policymakers, business leaders and others stakeholders, with the goal of improving countries' innovation performances
- Recognizes the key role of innovation as a driver of economic growth and well-being
- Goes beyond one-dimensional innovation metrics – a more holistic analysis of innovation drivers and outcomes
- Applicable to developed and emerging economies alike
- GII 2014: “The Human Factor in Innovation”

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The Global Innovation Index 2014



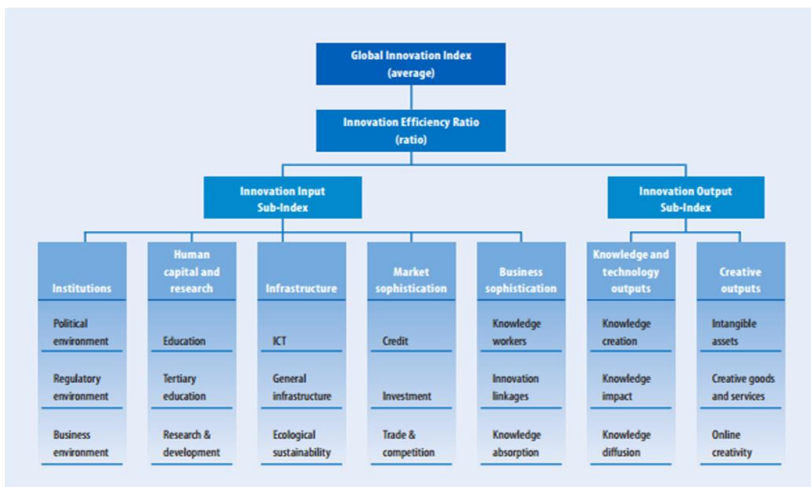
The Global Innovation Index 2014
The Human Factor in Innovation



- 7th edition
- Co Published by WIPO, Cornell University and INSEAD
- 143 country profiles
- Ranking of world economies' innovation capabilities and results
- 81 data tables for indicators from over 30 international and private sources, 56 of which are hard data, 20 composite indicators and 5 survey questions

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A Tool for Action Around 81 Metrics



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GII 2014 Rankings – Top 10

Input Sub-Index	Output Sub-Index	Efficiency Ratio	GII
1. Singapore	1. Switzerland	1. Moldova	2. United Kingdom
2. Hong Kong (China)	2. Netherlands	2. China	3. Sweden
3. United Kingdom	3. Sweden	3. Malta	4. Finland
4. USA	4. United Kingdom	4. Indonesia	5. Netherlands
5. Finland	5. Luxembourg	5. Viet Nam	6. USA
6. Sweden	6. Finland	6. Switzerland	7. Singapore
7. Switzerland	7. USA	7. Venezuela	8. Denmark
8. Canada	8. Germany	8. Nigeria	9. Luxembourg
9. Denmark	9. Iceland	9. Luxembourg	10. Hong Kong (China)
10. Australia	10. Malta	10. Côte d'Ivoire	

The Human Factor in Innovation

- Human factor is the essential spark to innovation
- For countries trying to bridge the innovation divide, human capital is often the critical obstacle
- As countries move up the scale of innovation sophistication, the quality of the human factor become even more critical
- Availability and mobility of human capital has improved
- Great efforts to foster the availability of scientists and engineers. Yet gaps remain between rich and poor countries
- Creative thinking and appetite for risk and entrepreneurship matter as much as qualifications

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The Human Factor in Innovation

- Economies that are catching up are more dependent on technology transfer than they are on original R&D
- R&D is generally unprofitable in countries with low levels of human capital
- Economies at the lowest levels of development may be trapped in a vicious circle: low economic development does not offer enough incentives for young people to pursue higher education, and without a skilled population, economies will not grow
- Education systems that narrowly focus on test-based academic performance and numbers of students enrolled in science and technology subjects are not necessarily those that produce young people with the creativity, critical thinking and communication skills that innovative society require.

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The Human Factor in Innovation

“As innovation becomes a global game, a growing number of emerging economies are confronted with complex issues whereby ‘brain gain’ can only be generated through a delicate balance between talents outflows (e.g. citizens seeking an education abroad) and inflows (whereby high performers return home to innovate and create local jobs, and diasporas contribute to national competitiveness). Around the world, we see encouraging signs that this is happening.”

Bruno Lanvin – Executive Director for Global Indices at INSEAD, and co-author of the GII report

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Fostering a Unique Innovation Ecosystem for a Knowledge Based Economy

- Attracting foreign talents is an important aspect of establishing and maintaining an innovative environment (Example of inventors in USA and CH are more likely to be immigrants than natives)
- The capacity of some countries to attract and support higher levels of extraordinary talent, allowing it to develop and flourish, is a consequence of many factors such as funding, facilities, international migration, strong local networks and clustering.
- An important element of a successful ecosystem of innovation is the encouraging and fostering of young entrepreneurs. One of the best way to do it is through mentoring.
- Cultural barriers to innovation – such as fear of failure and aversion to taking risks– can present serious difficulties and should be addressed

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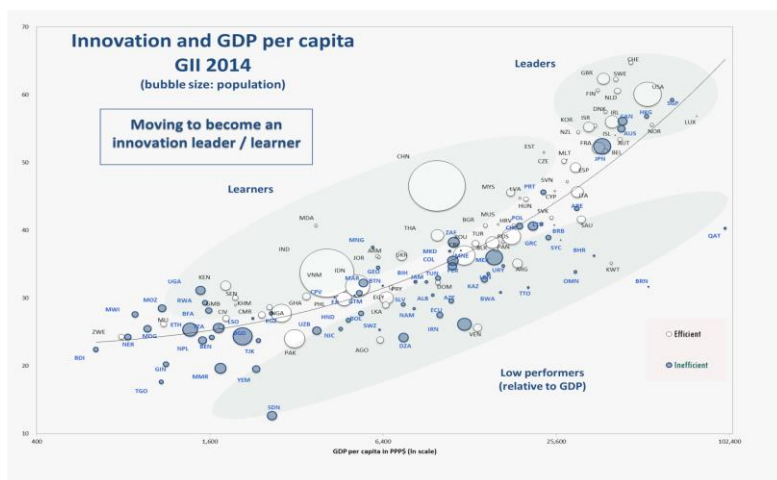
Retaining Top innovators

- Essential element of competitiveness for developing countries
- Mobility of talented people is critical to a system's capacity for learning, adapting and innovating
- The retention of innovators is a neglected but very important policy objective for developing countries
- Specific policies to help countries to retain, involve or attract talent through their skilled diaspora are needed

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Innovation Leaders and Learners:

The reward of leveraging strengths and addressing weaknesses



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Innovation Leaders

- Among the innovation leaders we find the top 25 countries
- They have succeeded in creating well-linked innovation ecosystems where investments in human capital thrive in fertile and stable innovation infrastructures to create impressive levels of innovation outputs.
- The top 10 economies exhibit clear strengths in all areas, and particularly the three areas where the divide between them and their followers has increased since 2013:
 - Infrastructure (information and communication technologies, general infrastructure, and ecological sustainability),
 - Business sophistication (knowledge workers, innovation linkages, and knowledge absorption), and
 - Creative outputs (Intangible assets, creative goods and services, and online creativity)

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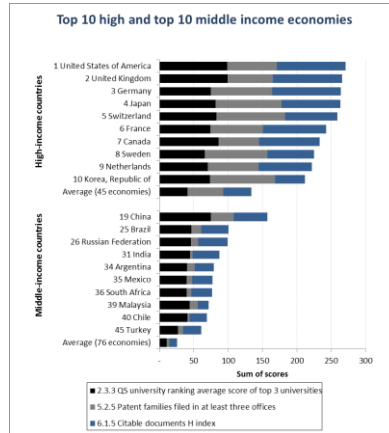
Innovation Learners

- Economies that perform at least 10% higher than their peers for their level of GDP are called “Innovation learners”
- 12 high and middle income countries outperforming other countries in their respective income groups are: Moldova, China, Mongolia, Vietnam, India, Jordan, Armenia, Senegal, Malaysia, Thailand, Ukraine and Georgia
- These innovation leaders demonstrate rising levels of innovation results because of improvements made to institutional frameworks, a skilled labor force with expanded tertiary education, better innovation infrastructures, a deeper integration with global credit investment and trade markets, and a sophisticated business community

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Innovation Quality Matters for Impact

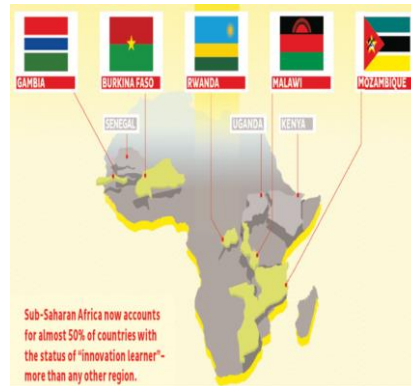
- Not all innovation inputs and outputs are of equal quality
- Innovation quality is measured by university performance, the reach of scholarly articles and the international dimension of patent applications
- Gap between high income and middle-income countries is largest in patent quality, followed by university quality, then the quality of publications.
- USA holds the top place within the high-income group, followed by Japan, Germany and Switzerland. Top-scoring middle-income economies are China, followed by Brazil and India



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Sub-Saharan Africa: A Region of Innovation Learners

- Five African economies: **Burkina Faso, Gambia, Malawi, Mozambique, and Rwanda** became part of the group of economies defined as **‘innovation learners.’**
- The Sub-Saharan African region makes up nearly 50% of the innovation learner economies.



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The BRICS: A contrasted picture

- Among the **BRICS** (Brazil, Russia, India, China, and South Africa), four improved their positions.
- The progress of **China** and the **Russian Federation** in the rankings is among the most notable of all countries.
- **China** is now comparable to that of high-income economies.
- **India** faces challenges, education being one of the most acute.

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Thank you for your attention

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