

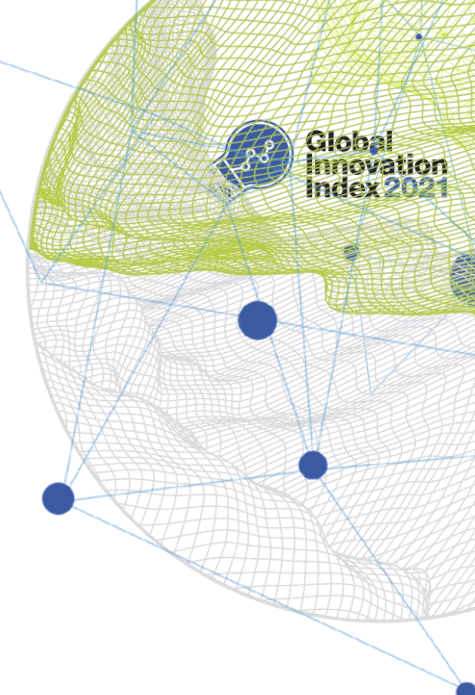


Global Innovation Index 2021

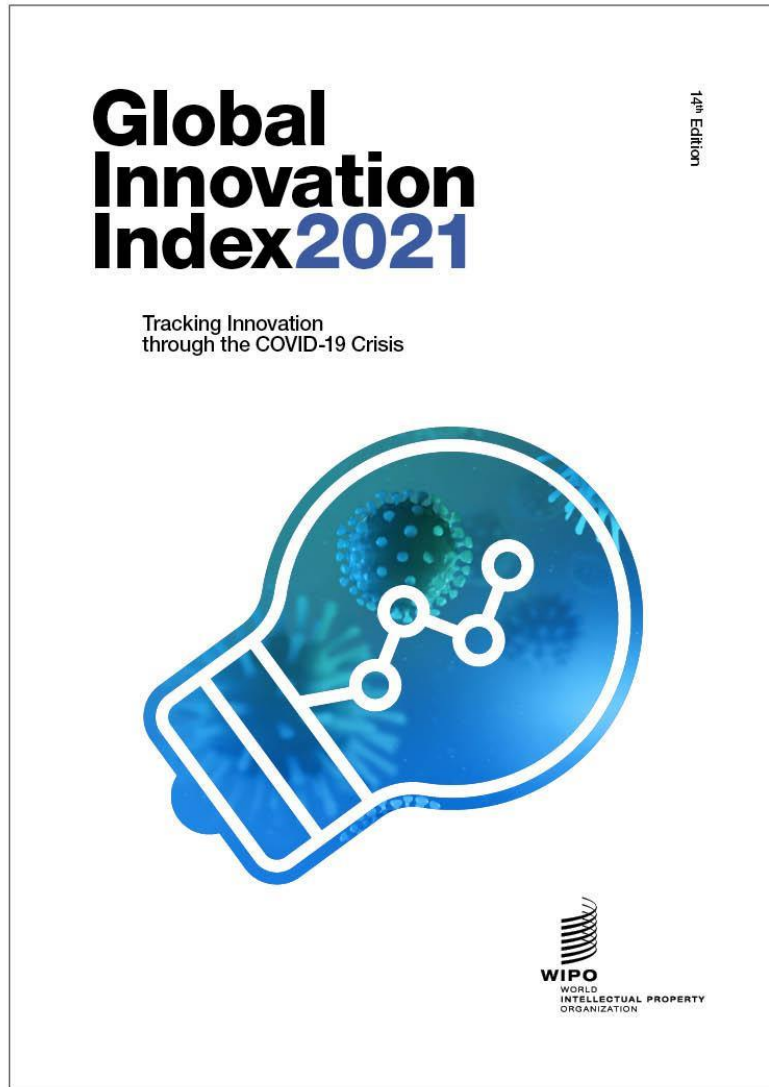
Tracking Innovation
through the COVID-19 Crisis

LANÇAMENTO 2021 GLOBAL
INNOVATION INDEX NO BRASIL

Sacha Wunsch-Vincent
21/9/21



Rationale and impact of the GII

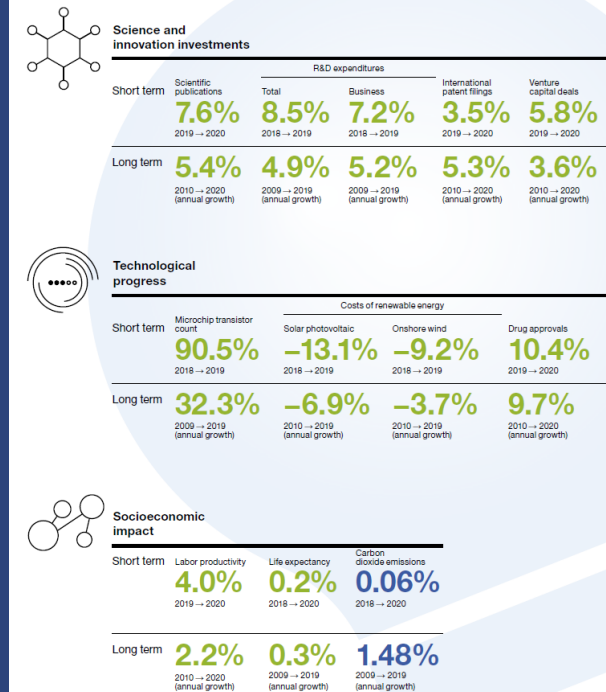


The GII helps countries assess their **innovation performance** & make informed **policy decisions**.

1. **Policymakers are referring regularly to GII as part of their innovation and economic policy strategies**
 - Innovation policy legislations use the GII as “yardstick” for innovation performance.
 - Cross-ministerial task forces pursue GII matters in a “whole of government” approach.
 2. **Allows economies to use the GII to design innovation and intellectual property (IP) policies.**
 3. **Gives impetus to collect innovation metrics.**
- Fits mandate of *WIPO IP and Innovation Ecosystems* Sector.

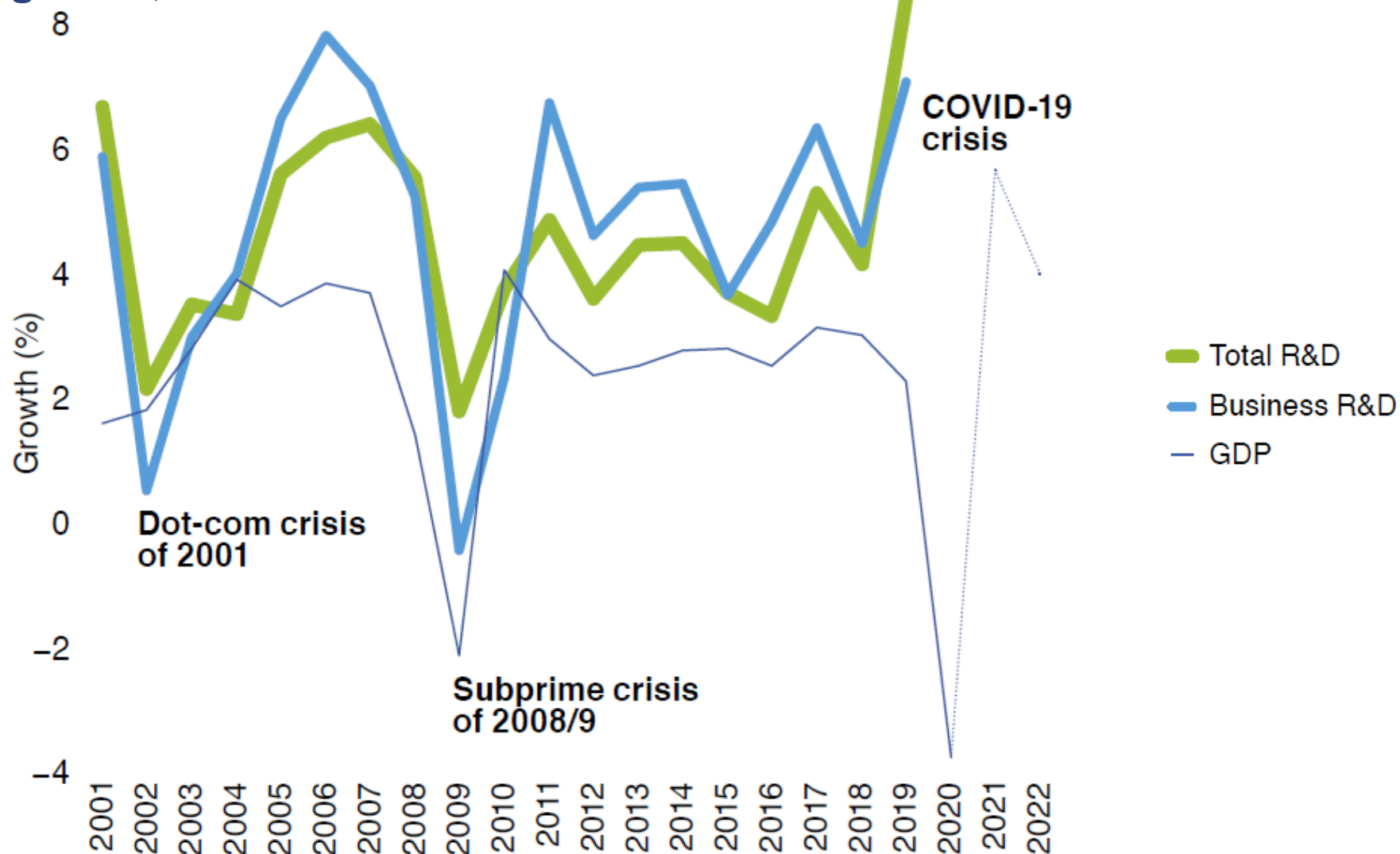
Global Innovation Tracker

What is the global state of innovation?
Has the pandemic slowed or accelerated
investments in innovation?



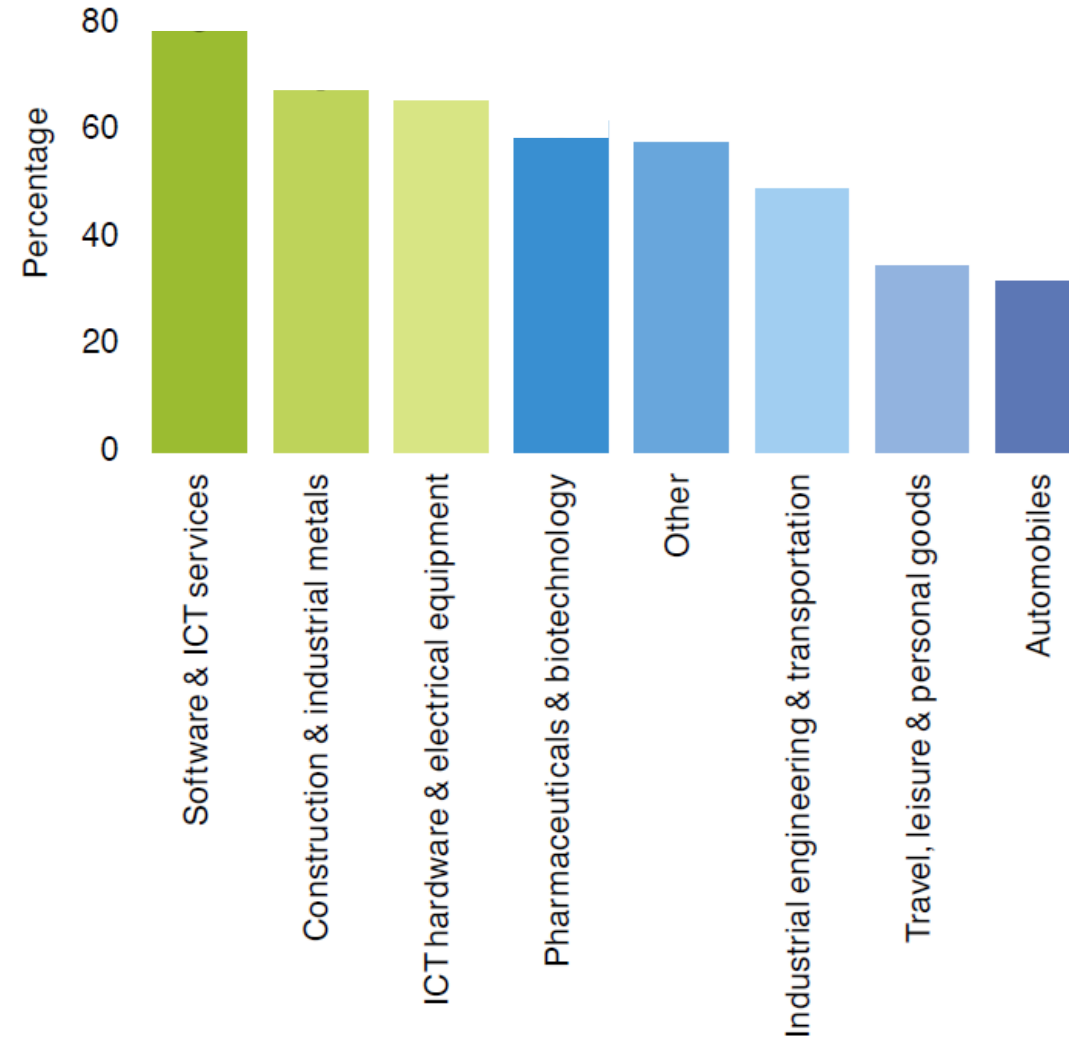
1. Investment in innovation has shown great resilience during the COVID-19 pandemic

R&D and GDP growth, 2001-2022



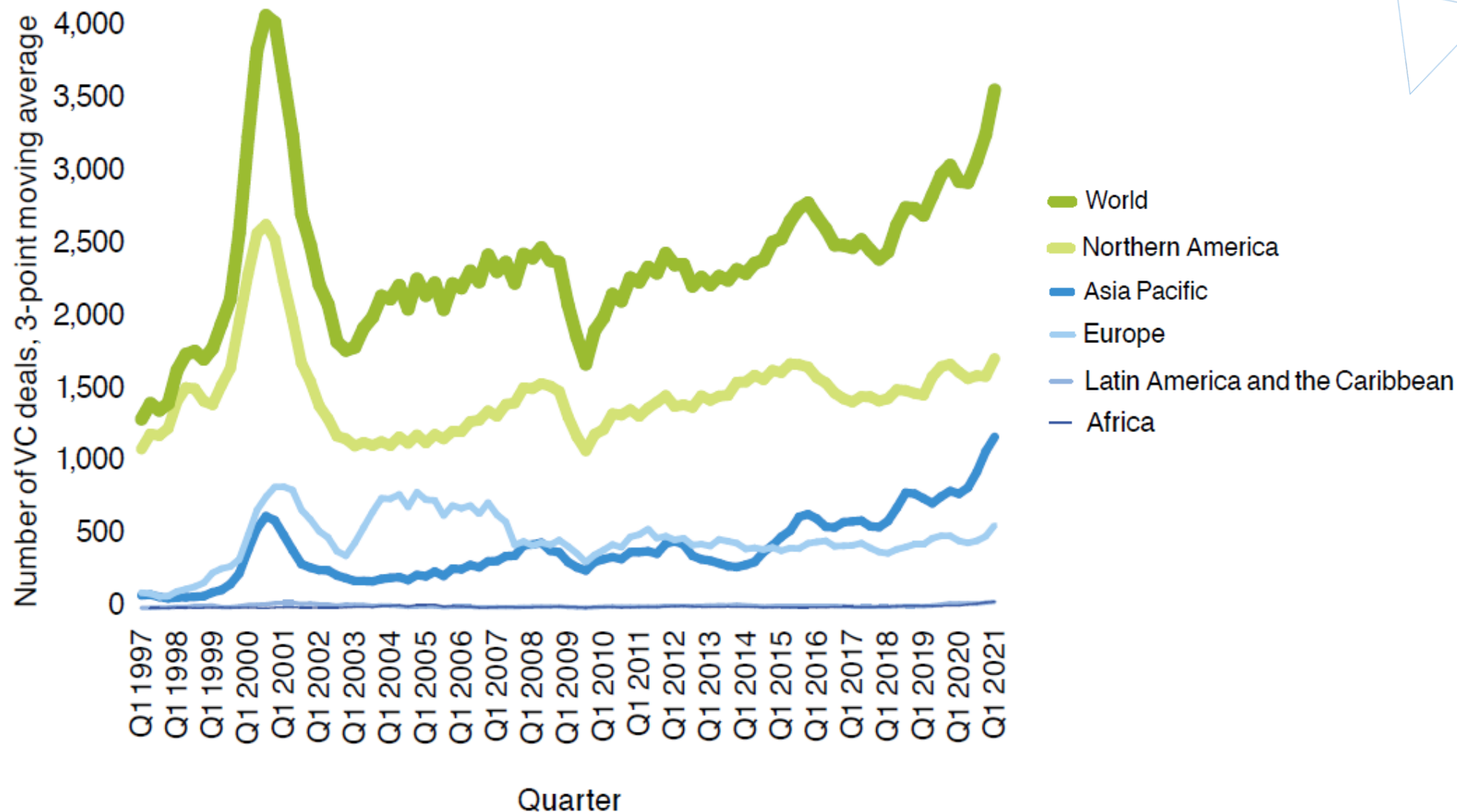
... But investments vary across sectors

Share of firms reporting R&D expenditure increases, 2020

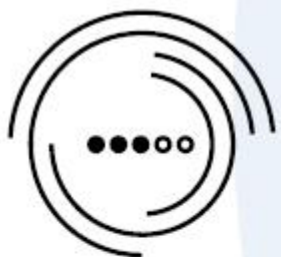


... But investments vary across regions

Number of VC deals by region, three-point moving average, 1997-2021



2. Technological progress at the frontier holds substantial promise



Technological progress

Costs of renewable energy				
Short term	Microchip transistor count 2018 → 2019	Solar photovoltaic 2018 → 2019	Onshore wind 2018 → 2019	Drug approvals 2019 → 2020
	90.5%	-13.1%	-9.2%	10.4%
Long term	2009 → 2019 (annual growth)	2010 → 2019 (annual growth)	2010 → 2019 (annual growth)	2010 → 2020 (annual growth)
	32.3%	-6.9%	-3.7%	9.7%

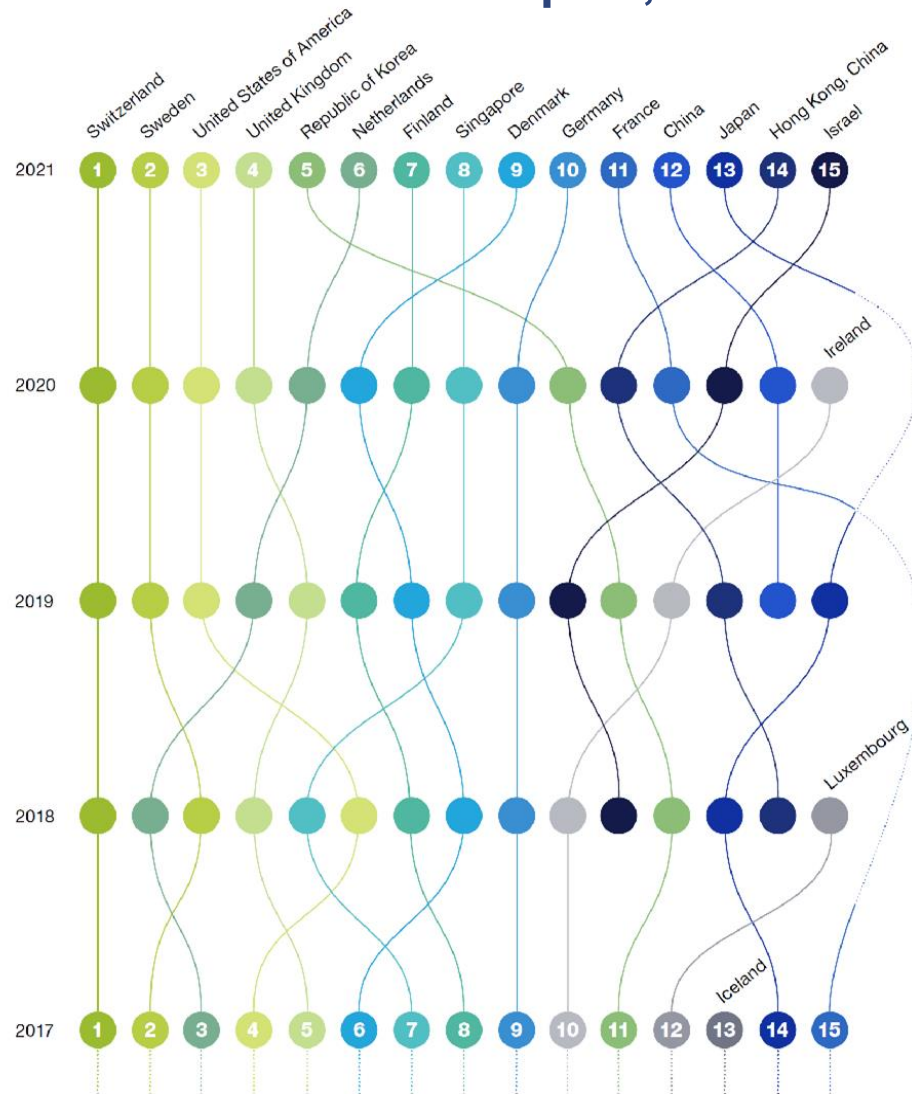
GII 2021 results

The GII helps create an environment that evaluates innovation factors continuously.

In 2021, it provides innovation metrics for 132 economies.

3. Only a few economies have consistently delivered peak innovation performance

Movement in the GII top 15, 2017-2021



Top three innovation economies by income group

High-income

1. Switzerland
2. Sweden
3. United States of America

Upper middle-income

1. China
2. Bulgaria ↑
3. Malaysia ↓

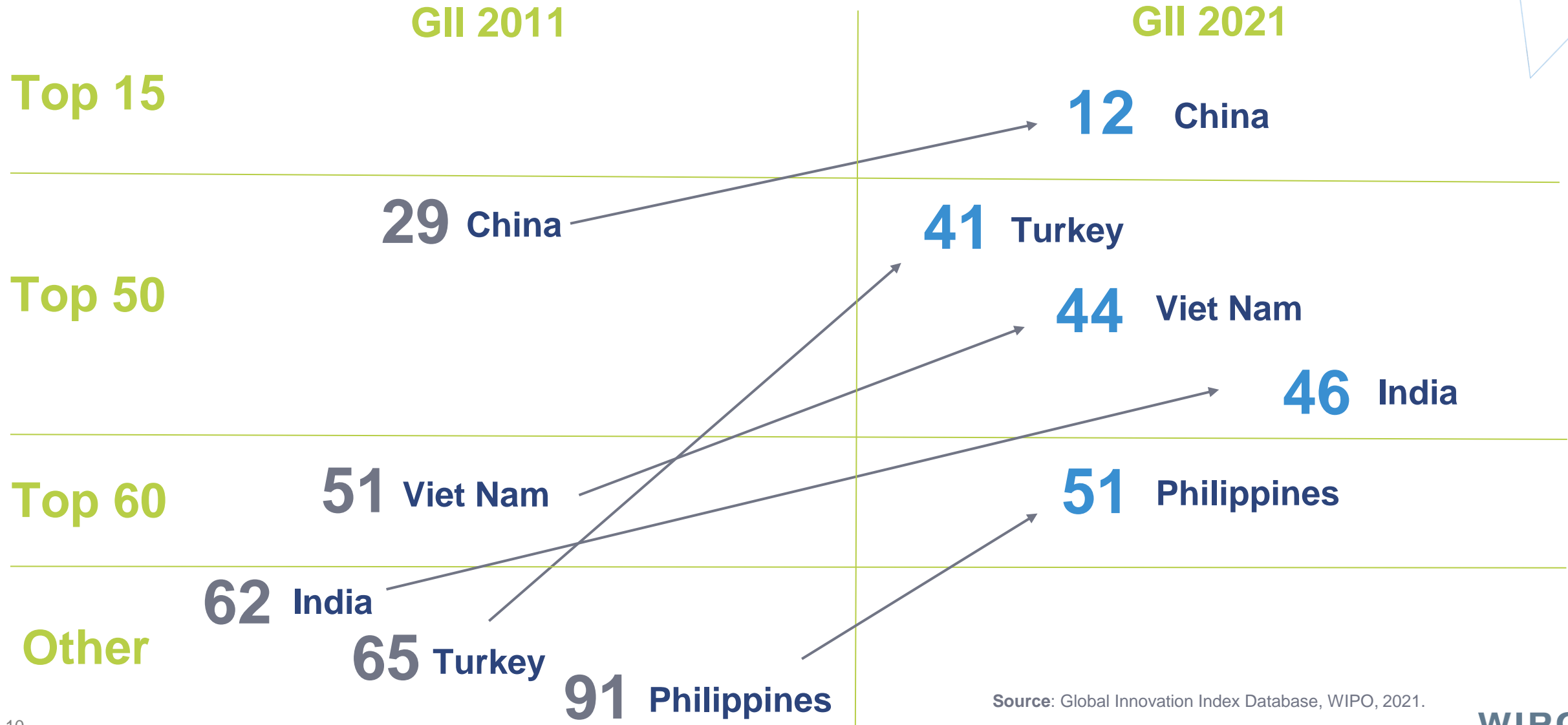
Lower middle-income

1. Viet Nam
2. India ↑
3. Ukraine ↓

Low-income

1. Rwanda ↑
2. Tajikistan ☆
3. Malawi ☆

4. Selected middle-income economies are changing the innovation landscape (TVIPs)



5. Several economies are out-performing on innovation relative to development

Years as an innovation achiever	Economies
11	India Kenya Republic of Moldova Viet Nam
9	Malawi Mongolia Rwanda Ukraine
Newcomers	Brazil Iran (Islamic Rep. of) Peru

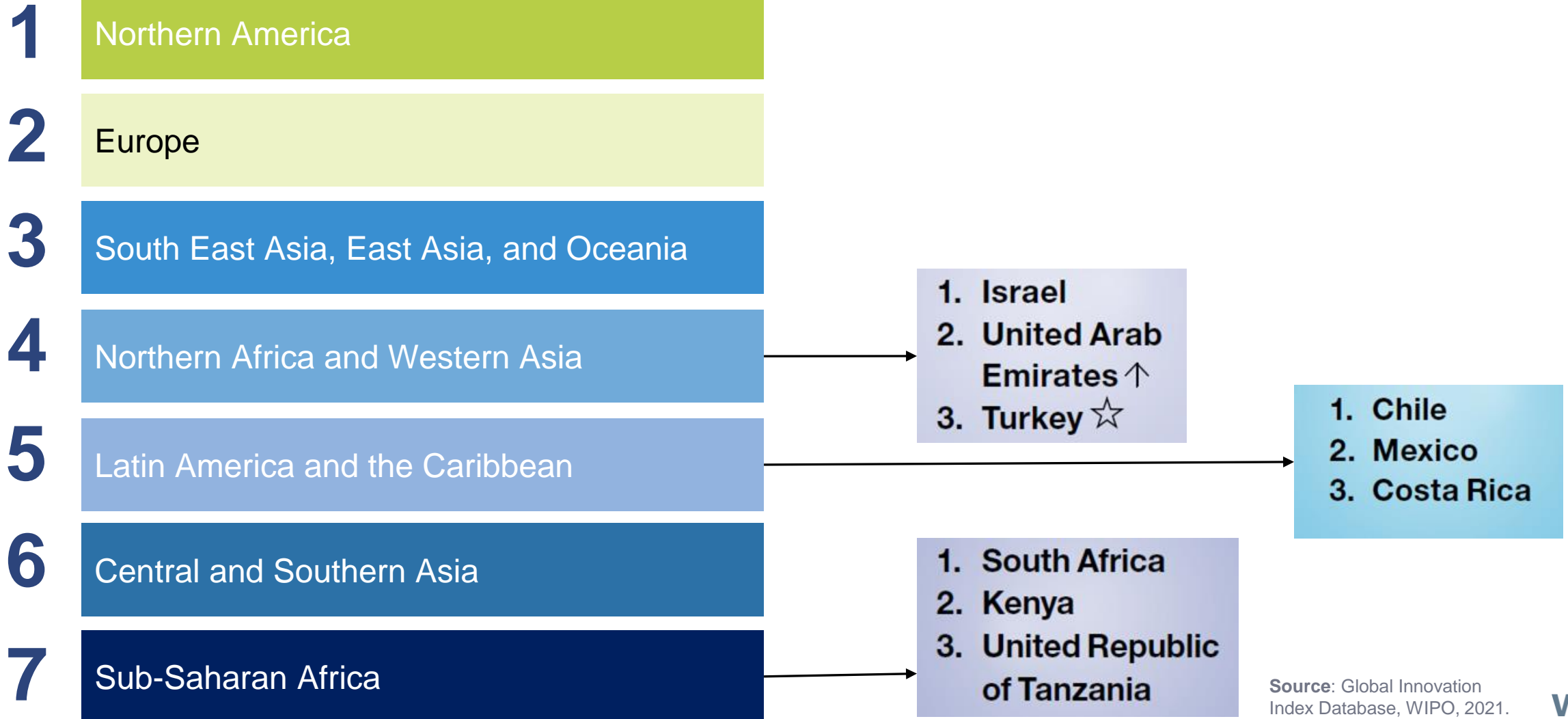


Source: Global Innovation Index Database, WIPO, 2021.
Note: Bubbles sized by population.

6. The geography of innovation is changing unevenly



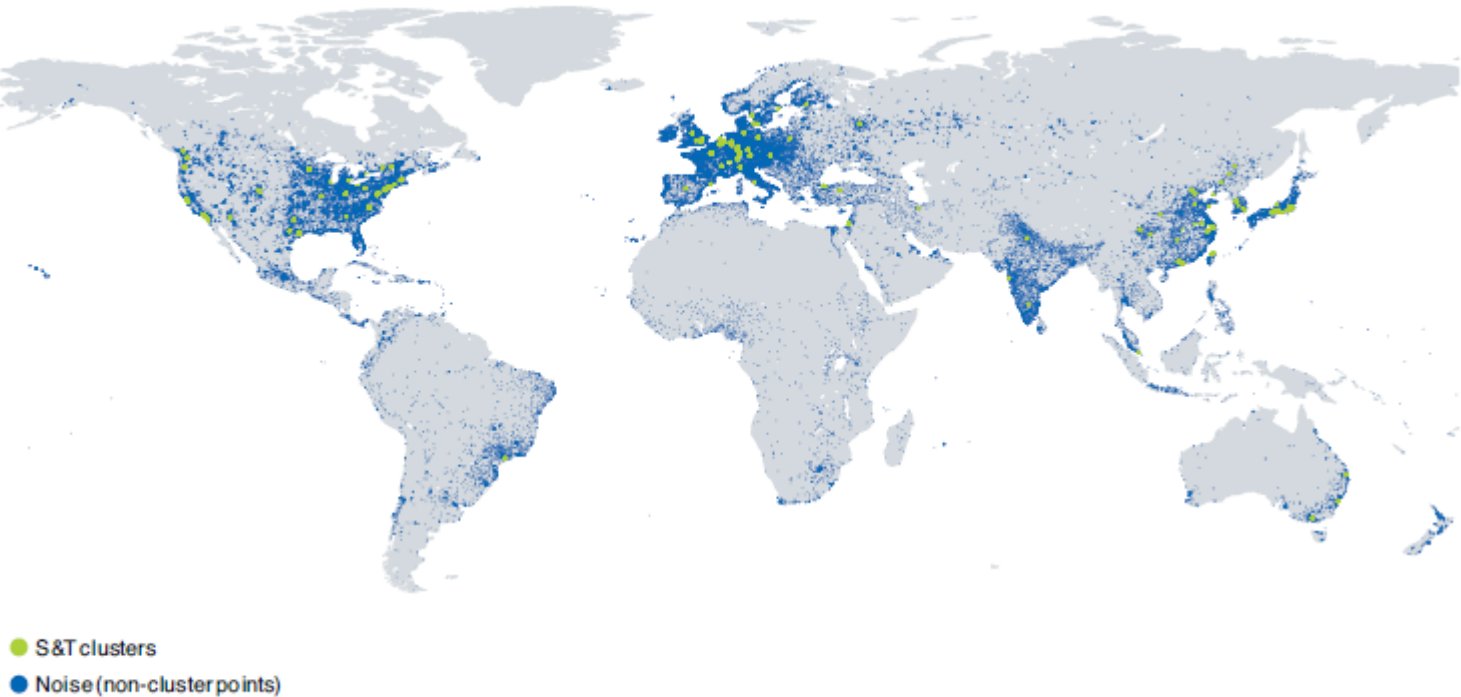
Ranking of world regions by innovation performance, 2021



Source: Global Innovation Index Database, WIPO, 2021.

7. New Science and Technology (S&T) clusters are emerging, but only in a handful of economies

Top 100 clusters worldwide



Source: WIPO Statistics Database, April 2021.

Top S&T cluster of each economy or cross-border region, 2021

Rank	Cluster name	Economy	Rank change
1	Tokyo–Yokohama	JP	0
2	Shenzhen–Hong Kong–Guangzhou	CN/HK	0
3	Beijing	CN	1
4	Seoul	KR	–1
5	San Jose–San Francisco, CA	US	0
10	Paris	FR	0
15	London	GB	0
19	Amsterdam–Rotterdam	NL	–1
20	Cologne	DE	–1
27	Tel Aviv–Jerusalem	IL	–3
28	Taipei–Hsinchu	TW	–1
29	Singapore	SG	–1
31	Melbourne	AU	4
32	Moscow	RU	0
35	Stockholm	SE	–2
36	Eindhoven	BE/NL	–2
40	Toronto, ON	CA	–1
41	Tehran	IR	2
43	Brussels	BE	–2
46	Madrid	ES	–1
48	Milan	IT	0
49	Istanbul	TR	2
50	Zürich	CH/DE	–1
56	Copenhagen	DK	–2
62	Bengaluru	IN	–2
66	São Paulo	BR	–5
71	Vienna	AT	–1
74	Helsinki	FI	–6
92	Lausanne	CH/FR	–3
100	Warsaw	PL	–1

www.wipo.int/gii

www.globalinnovationindex.org

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