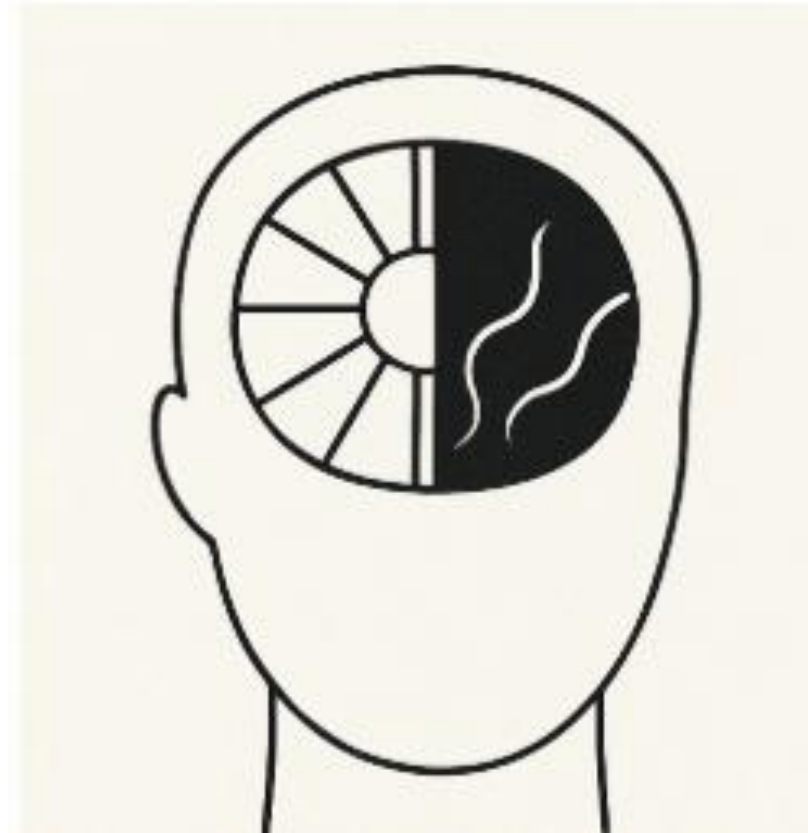


CHIPS Digital Economy Assessment - Sri Lanka Expert Consultation

Deepak Mishra & Aarti Reddy
ICRIER, July 17, 2026

Many of us carry two competing ideas in our mind regarding the digital economy

There is an entire literature on technology leapfrogging by developing countries...

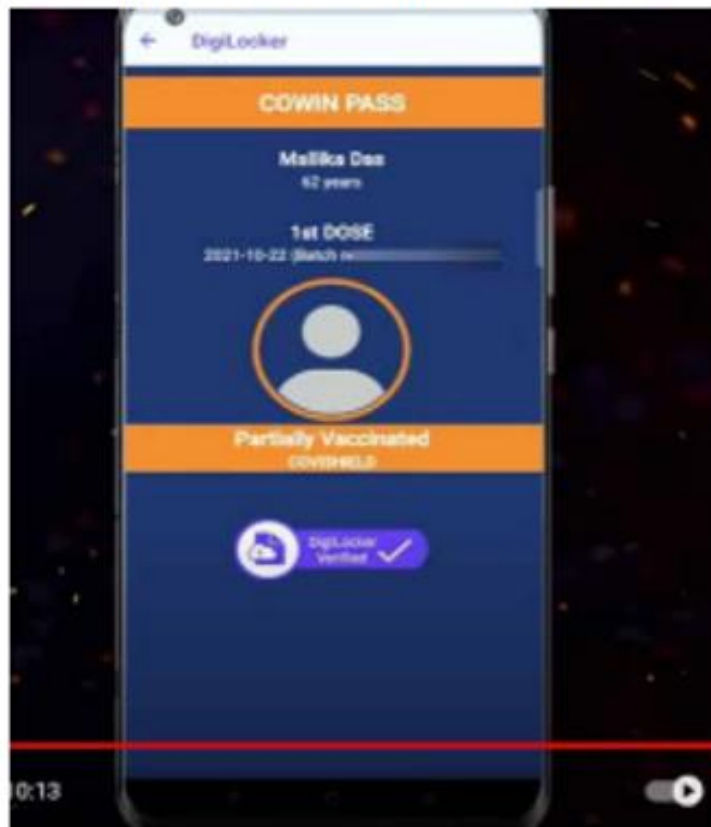


...yet, almost no rankings of digital economies show developing countries featuring in the top spots

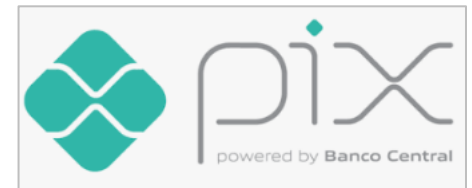
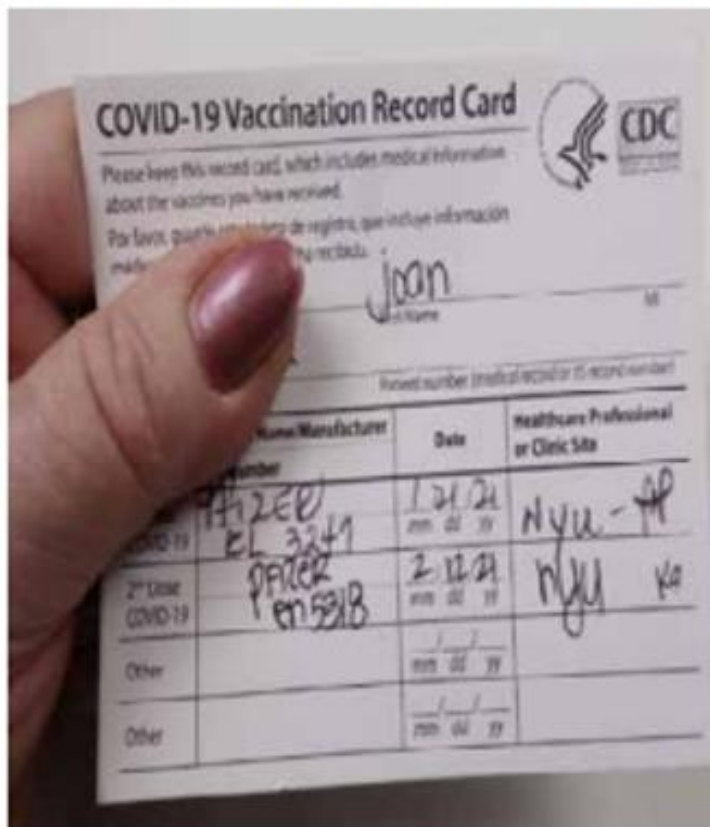
To see innovative digital products and services, head to the Global South!

Digital India, Analogue America?

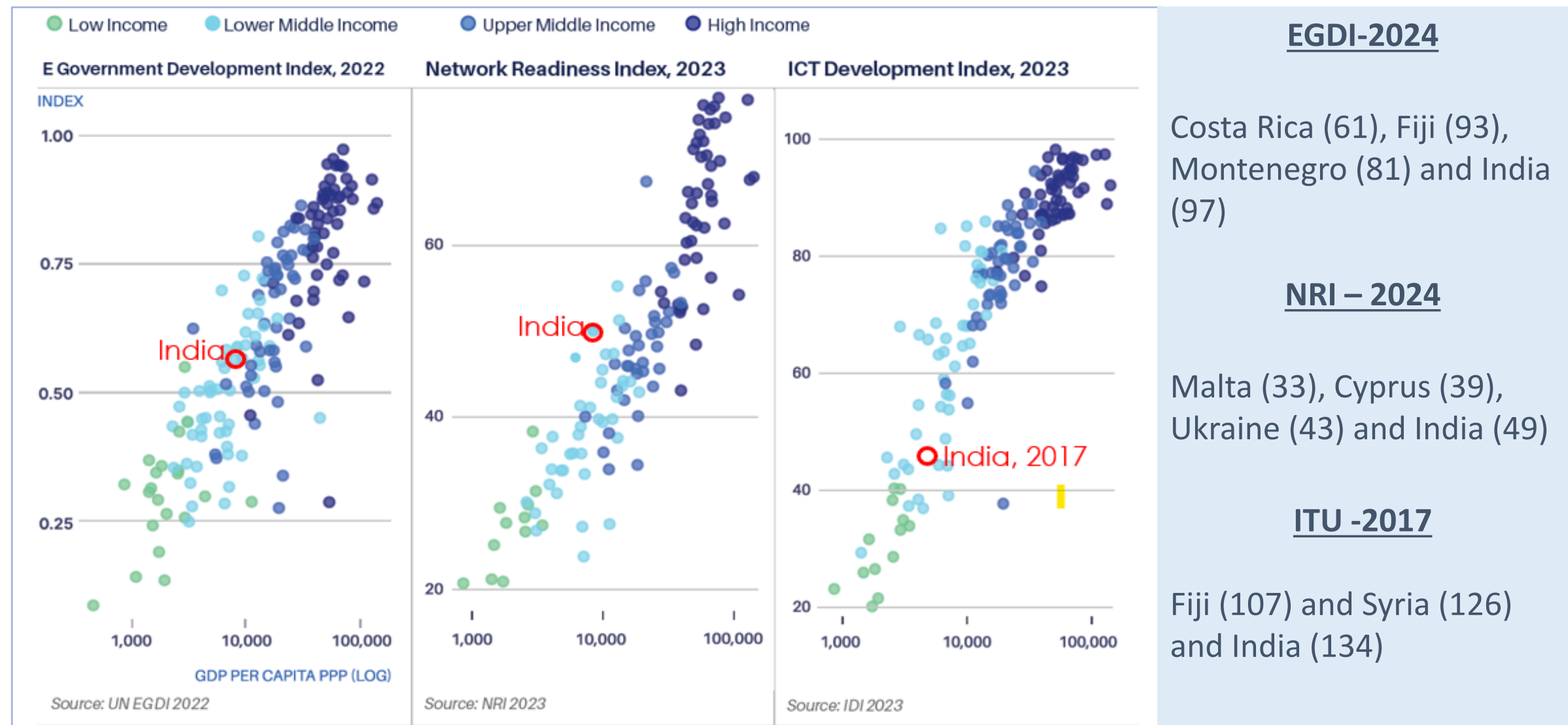
Co-WIN vaccination certificate in India



CDC certified vaccination card in the USA

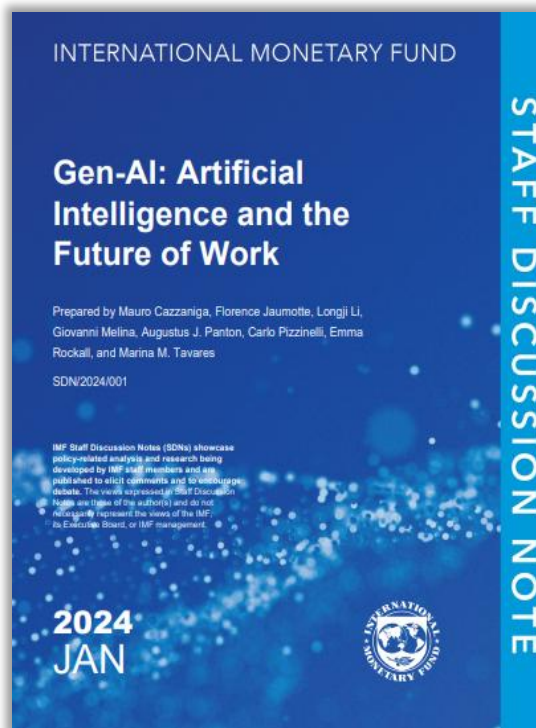


Yet none of that progress is reflected in global indices measuring the adoption and impact of digital technologies

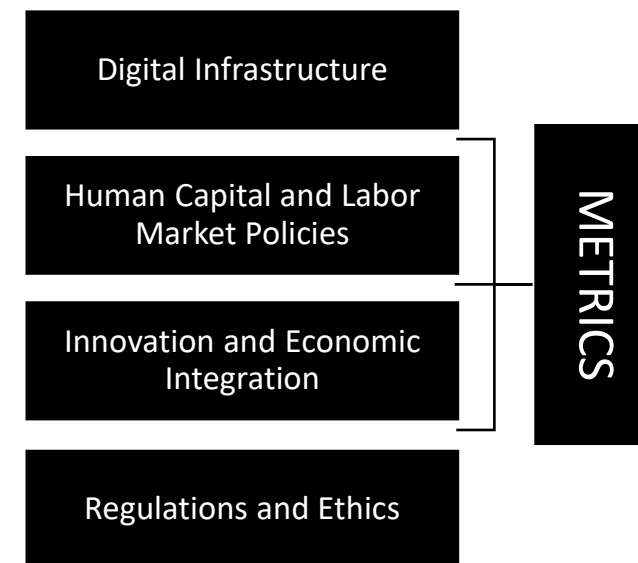


Worryingly, some of the same outdated approach is now being carried forward to measuring AI

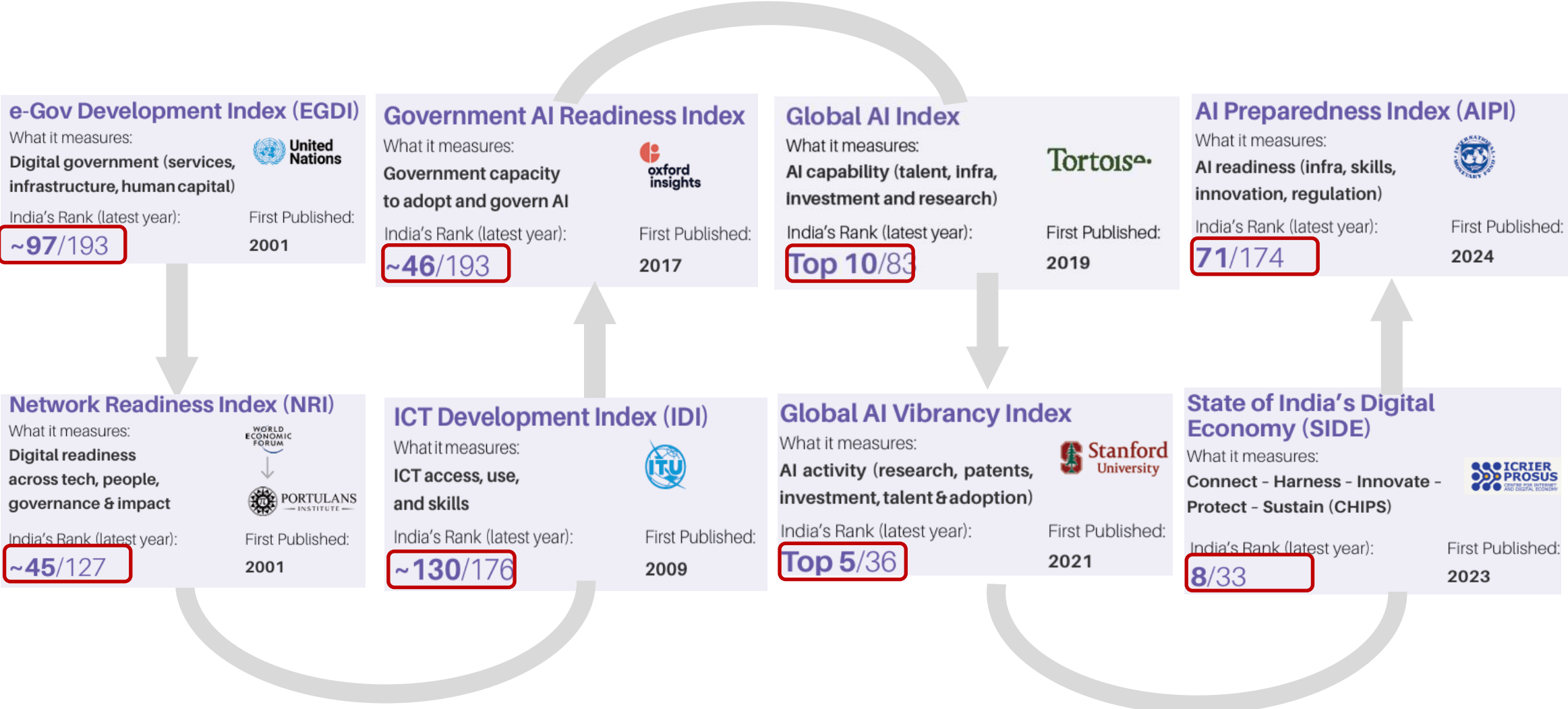
IMF (2024): Seven of the top 10 countries on AI are European, while large emerging markets are lagging behind



Ranking	Country
1	Singapore
2	Denmark
3	United States
4	Netherlands
5	Estonia
6	Finland
7	Switzerland
8	New Zealand
9	Germany
10	Sweden
30	China
60	Indonesia
65	Brazil
71	India



India's Position Across Key Global Digital & AI Indices



Digitalisation has made dramatic progress, but the way it is being measured has not we wanted to change that



Feb 2023



Feb 2024



March 2025



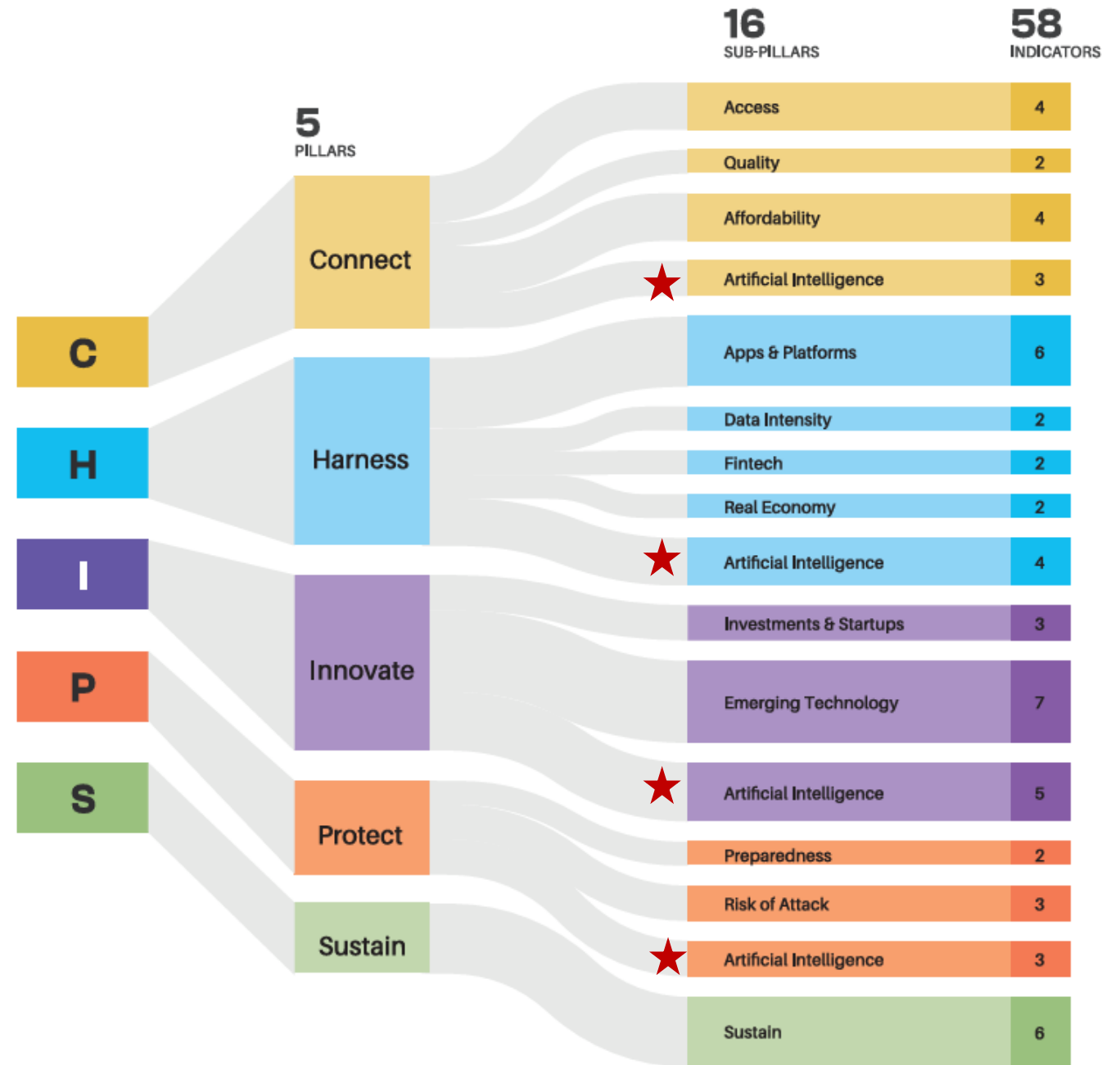
Dec 2025



May 2026

The CHIPS Framework, Upgraded for the AI Era

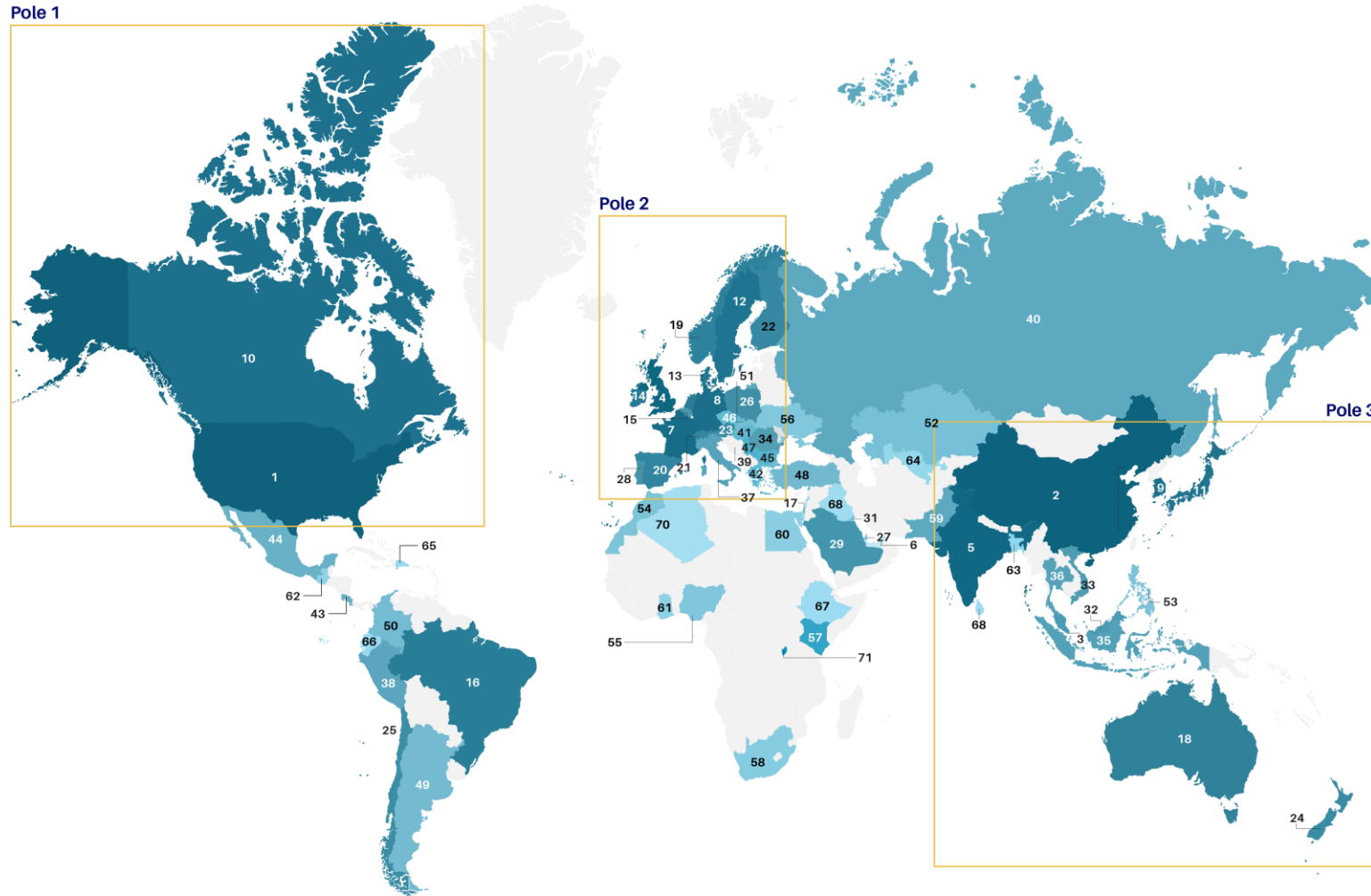
- Integrates AI indicators into CHIPS (Connect–Harness–Innovate–Protect–Sustain)
- 5 pillars: Connect, Harness, Innovate, Protect and Sustain
- 16 sub-pillars and 58 indicators (15 AI-related)
- Modular approach: Can benchmark at pillar, theme and overall levels
- Focus on both scale (economy-wide) and intensity (per user)
- Emphasis on outcome indicators rather than just inputs
- Country coverage expanded from 32 to 71 (96% of global GDP, 86% of internet users)



The Global Digital Map: Some Key Findings

Global Digital Leadership is shifting from North-Atlantic to Indo-Pacific

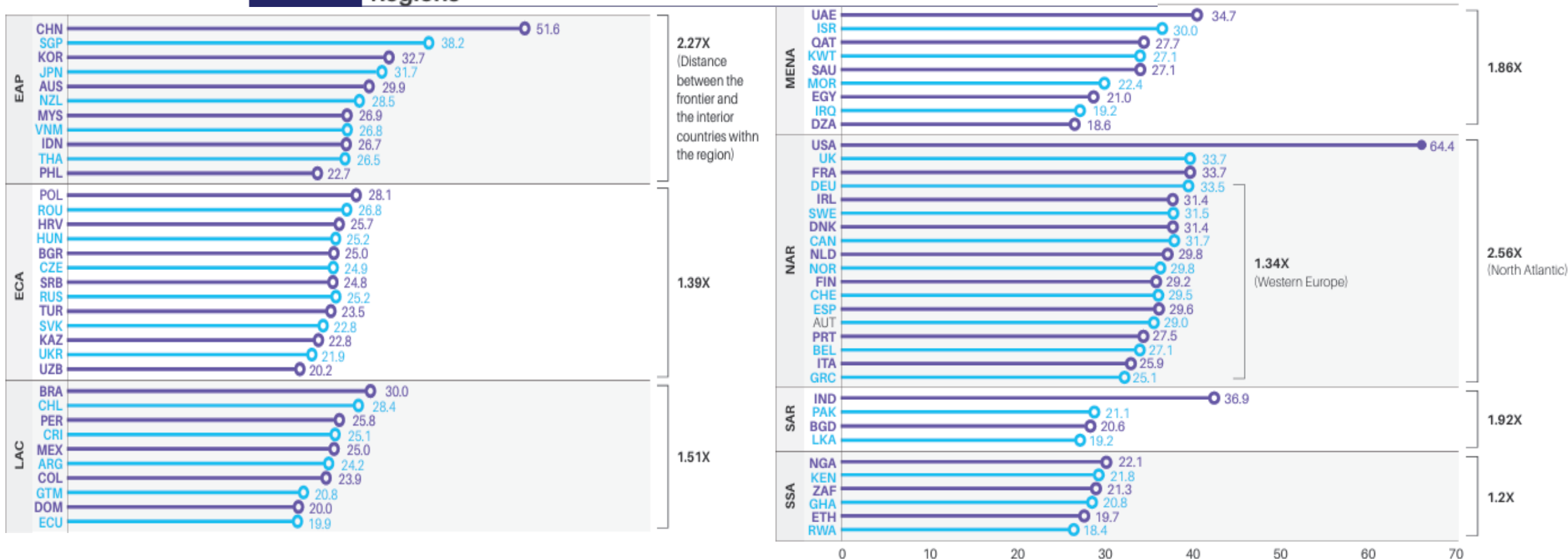
Map 1 Global Digital Map 2026—An Increasingly Tripolar World



- Digital leadership no longer confined to North America and Western Europe
- Top 5: US, China, Singapore, UK, India
- Three poles: North Atlantic, Indo-Pacific, Continental Europe
- Indo-Pacific hosts 3 of the top 5 digital economies

Digitalisation Shows Weak Regional Spillovers

Figure 4 Considerable Variation in the Level of Digitalisation Across and Within Regions

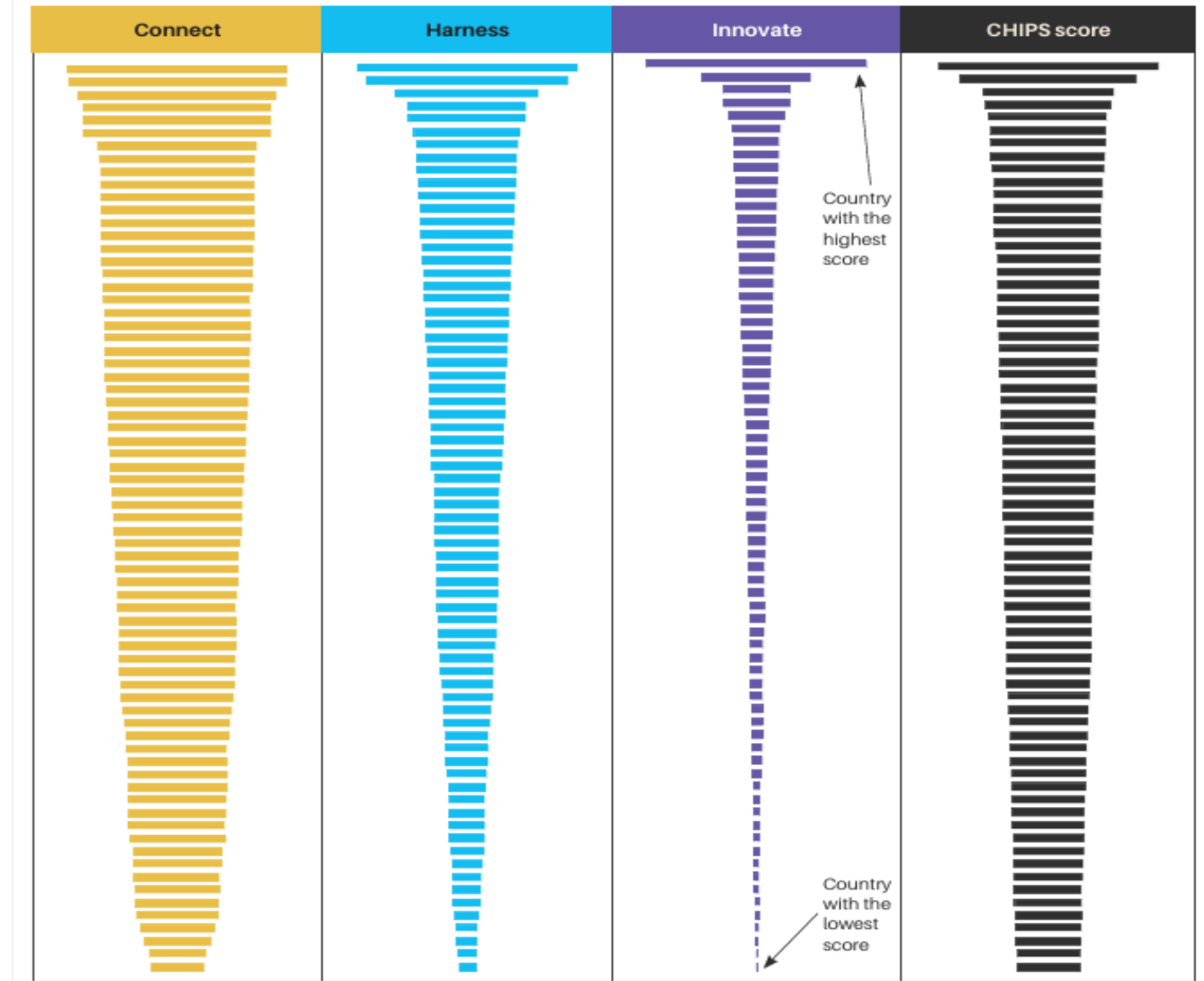


- Large disparity in digitalisation within regions
- Digital leaders do not automatically pull neighbouring countries forward
- Domestic policies, institutions, and private sector dynamism matter more than geography

Uneven Distribution Across CHIPS Pillars

- Connect: most inclusive—basic connectivity is now widespread
- Harness: moderate dispersion—countries differ in how productively they use digital tech
- Innovate: least inclusive—advanced innovation and R&D concentrated in few economies
- Highlights importance of “analogue” foundations for harnessing and innovation

Figure 6 Uneven Distribution of Digital Capabilities Across Countries

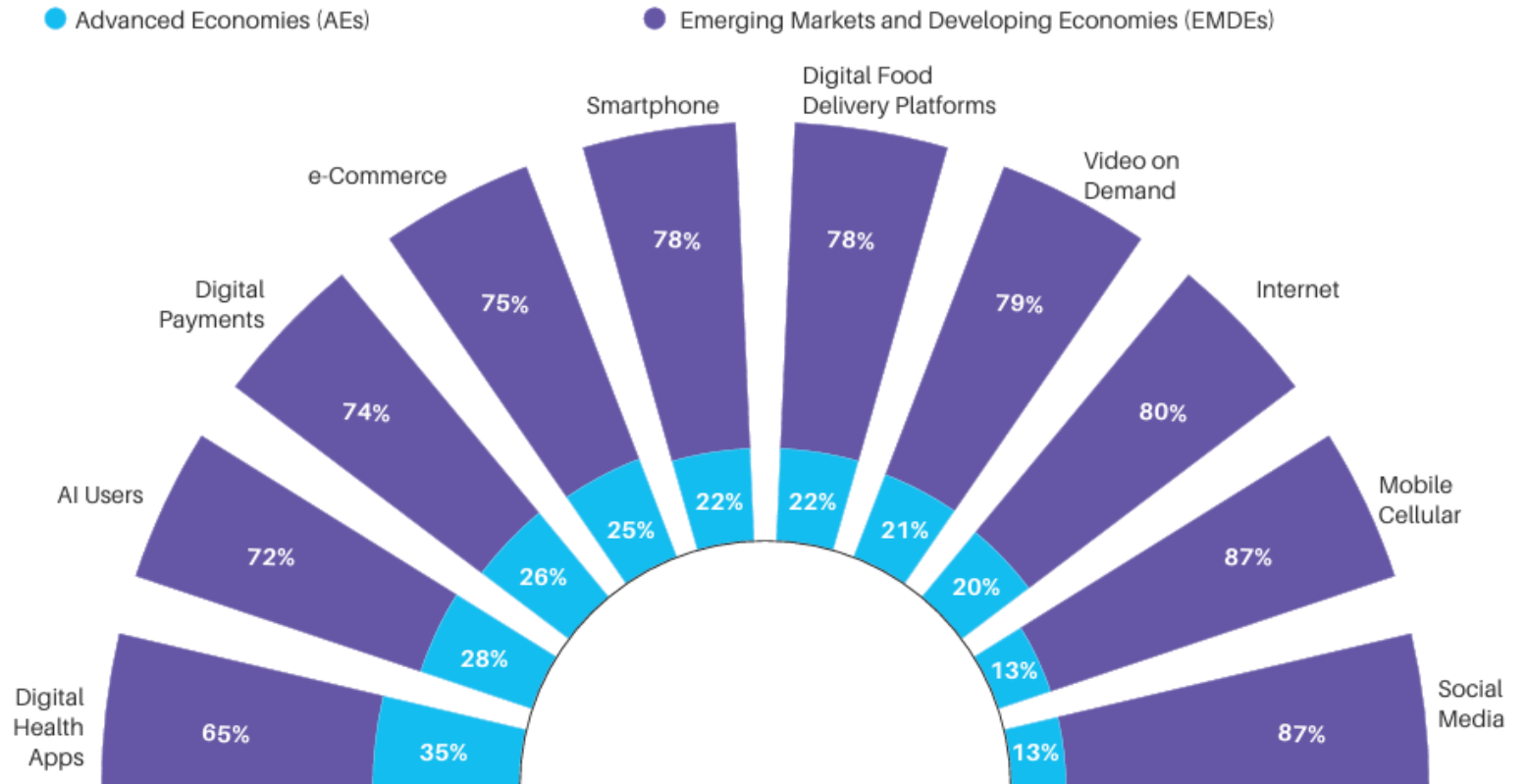


Diffused Users, Concentrated Producers

- Digital technologies (e.g., internet, smartphone, e-commerce and AI) have diffused faster than income
- Access is inclusive; value capture is not
- Frontier production (advanced chips, cloud, LLMs, platforms) in a few countries and firms
- Explanations: Missing analogue foundation; theory of weakest link

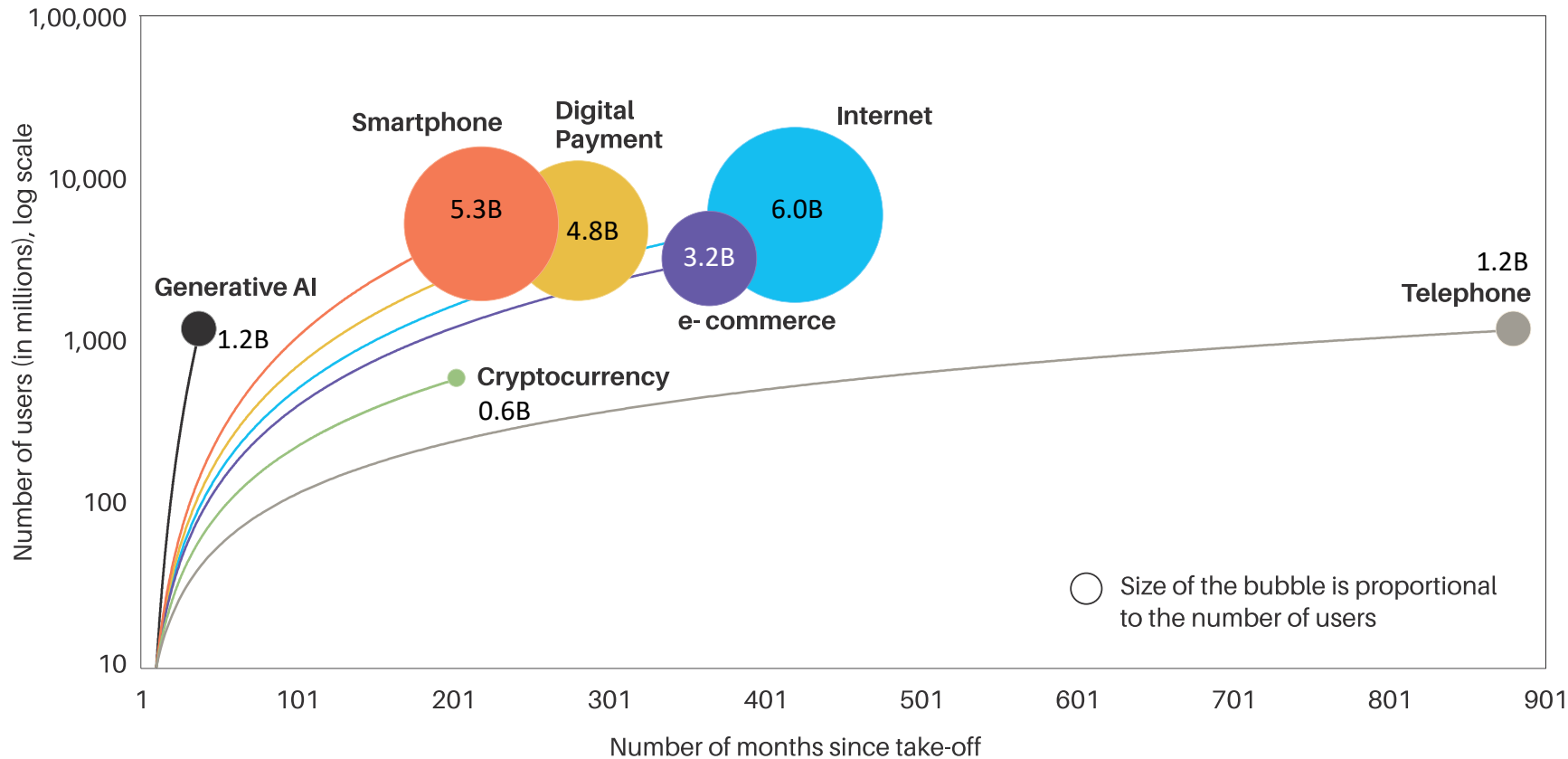
Figure 15 Most Digital Technology Users Live Outside Advanced Economies

(User share across various technologies)



Will GenAI Transform the Economies as Rapidly as it is Diffusing?

Figure 9 GenAI is the Fastest-Diffusing Technology in History

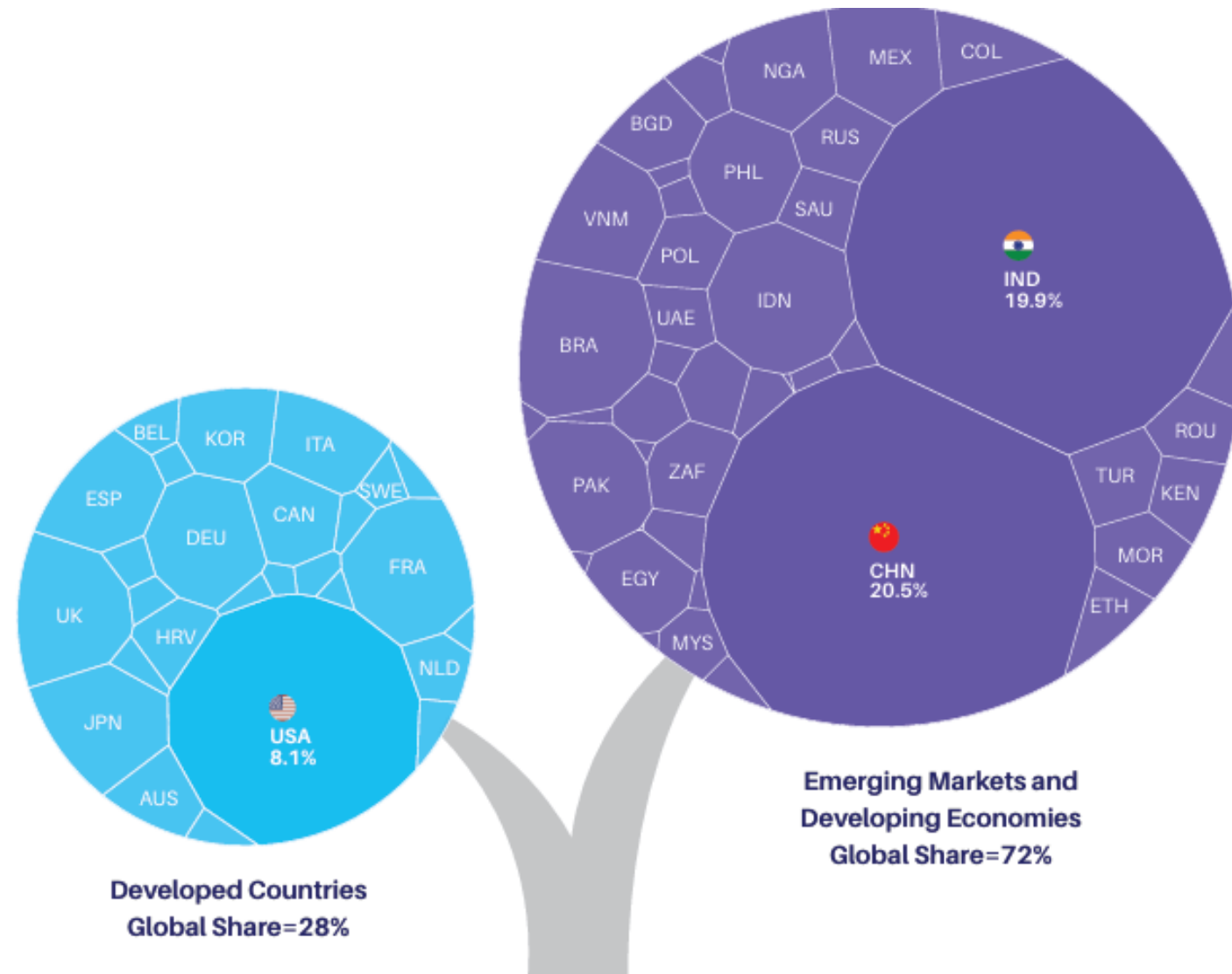


- Reached around a billion users in ~3 years
- Much faster adoption than internet, smartphones, e-commerce, or digital payments
- Marks a new phase: rise of the “intelligent digital economy”
- Makes tracking AI capabilities and usage critical

Developing Countries Account for Nearly Three-Fourths of Global AI Users

- EMDEs account for 72% of global AI users
- China and India together account for nearly two-fifths of global AI users
- Contrast with early internet era, when advanced economies dominated uptake
- Creates opportunity for EMDEs to shape AI applications and use cases

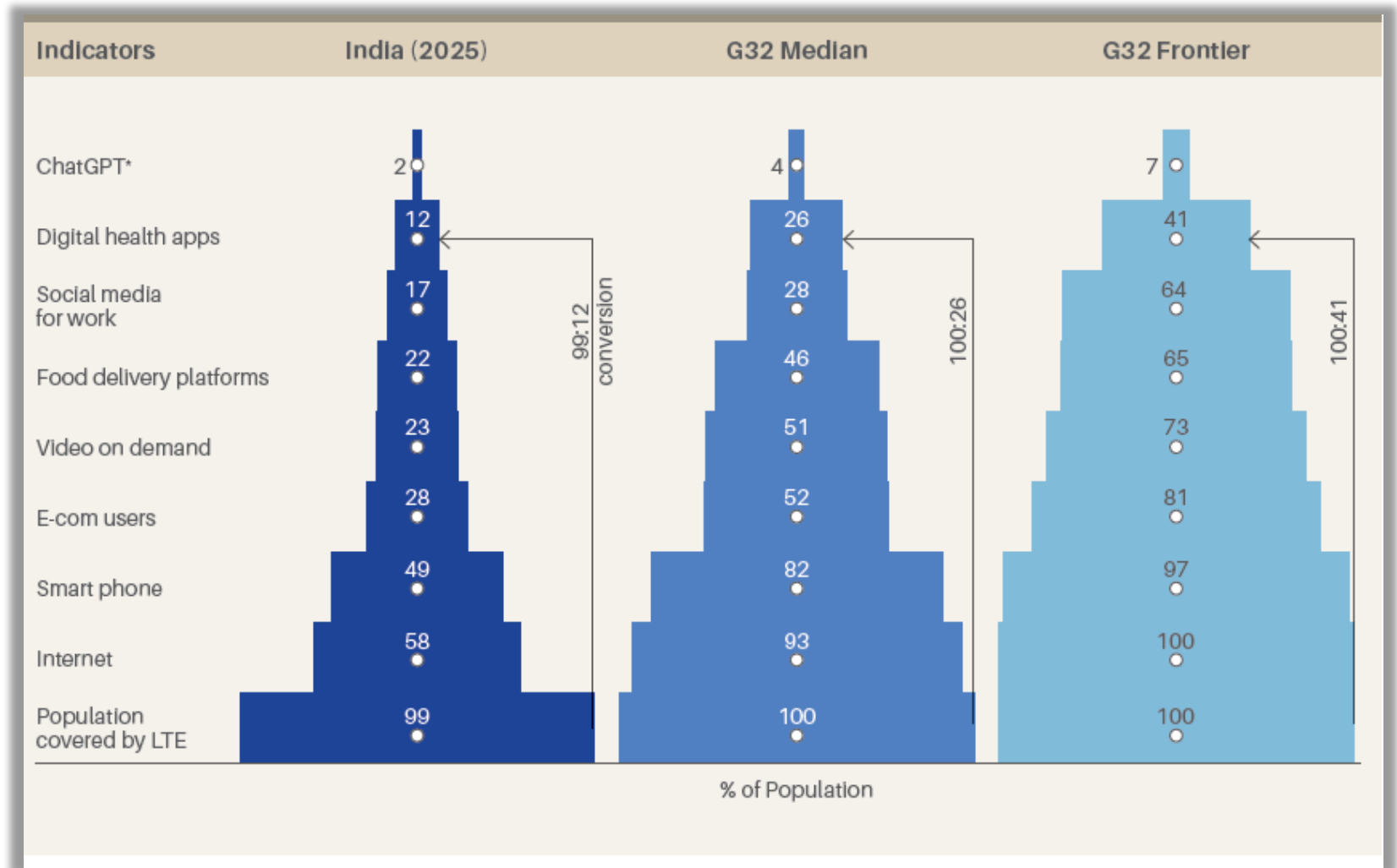
Figure 10 Developing Countries Account for Nearly Three-Fourths of Global AI Users



CHIPS As a Policy Tool

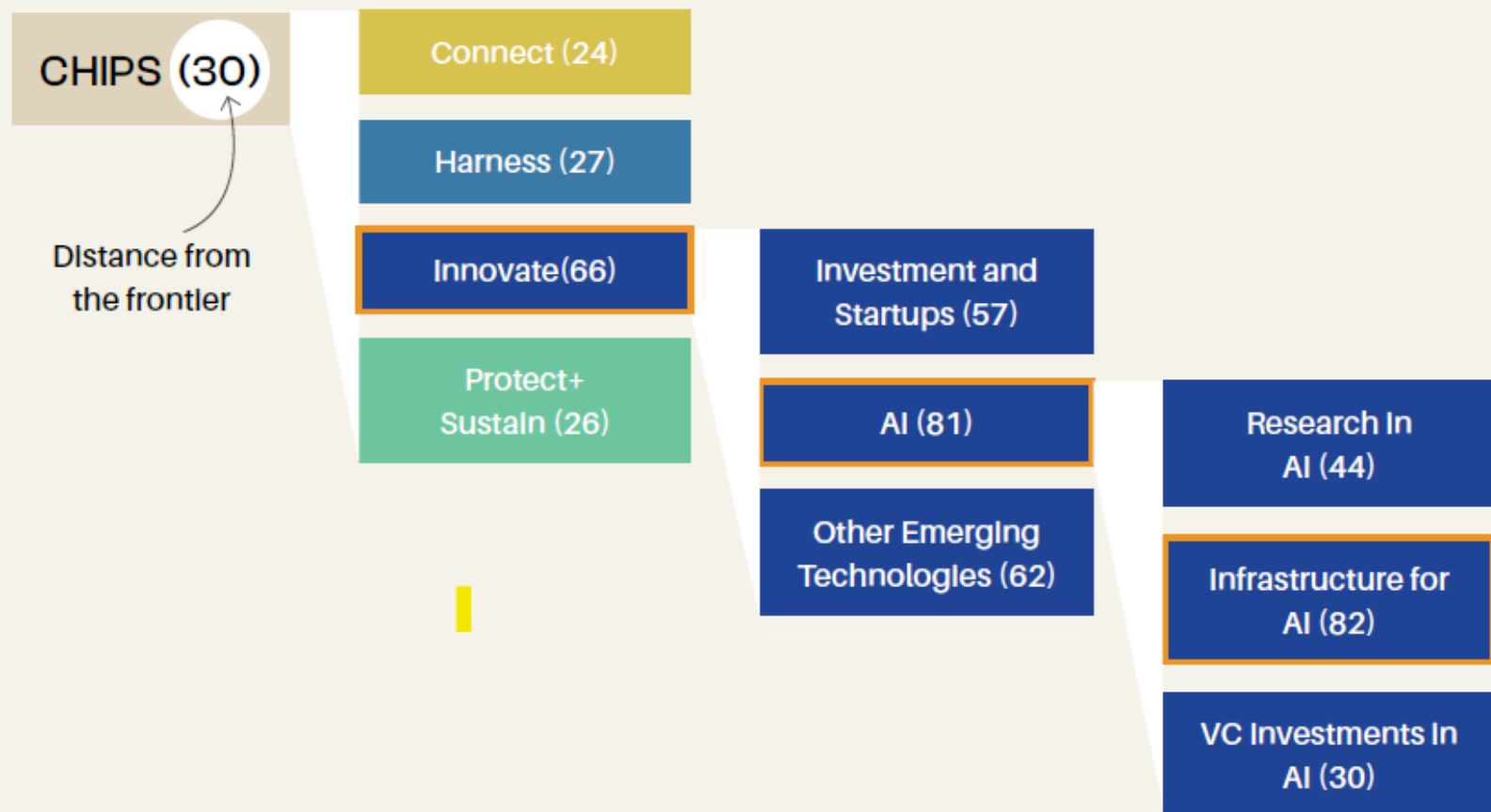
Digital Diffusion Pyramids (DDPs)

- ❖ India's digital diffusion pyramids (DDP) shows that while 99 percent of people are covered by LTE, only 58 percent access the internet. For digital health apps, about 88 percent population is left behind.
- ❖ India's skinny pyramid is also a huge opportunity to expand adoption of services



Digital Drill-Downs (DDD)

Fig. 7.3 Digital Drill Down for India



- ❖ Let's say an Indian policy-maker is interested in finding out the indicator that will give us the highest marginal return? Or, the indicator that is farthest from the global frontier?
- ❖ The CHIPS framework makes this complex task fairly straightforward
- ❖ In DDD, one starts by looking at the pillar that is farthest from the frontier, then look for the sub-pillar that is farthest from its corresponding frontier, and finally finds the indicator that is farthest from its frontier

Key Takeaways

- ❑ Digital innovation is increasingly coming from the Global South, but conventional global indices often fail to capture it.
- ❑ The CHIPS framework offers a broader and more policy-relevant way to measure digitalisation.
- ❑ Global digital leadership is becoming more multipolar and shifting towards the Indo-Pacific.
- ❑ Digital transformation depends primarily on domestic capabilities rather than regional spillovers.
- ❑ Digital technologies have spread much faster than digital dividends.
- ❑ CHIPS is not only a measurement framework; it can also serve as a practical policy and management tool

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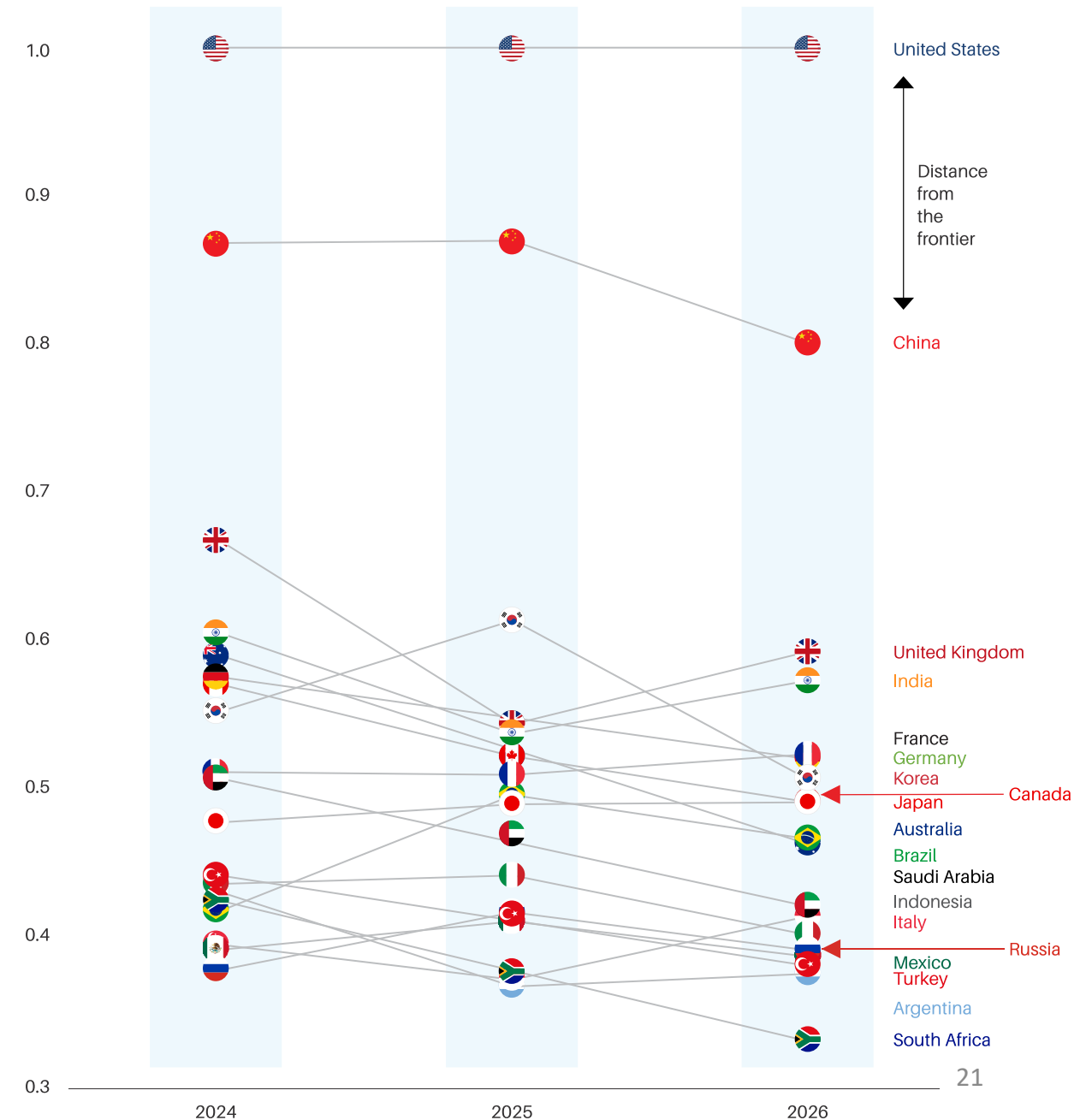
Agrima Khanduri
Research
Assistant, ICRIER

Thank You!

Widening Distance from the Frontier

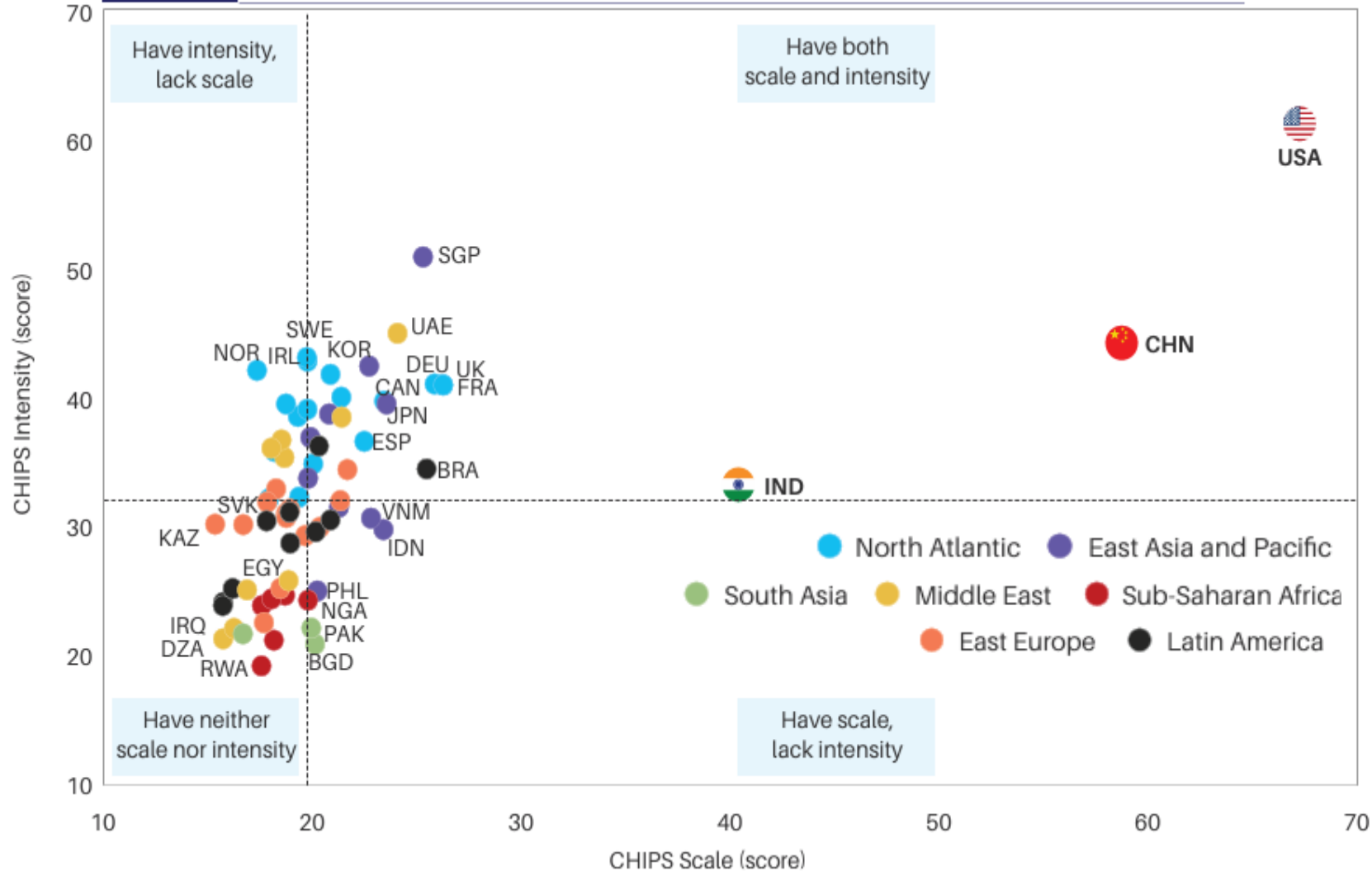
- US continues to move the frontier outward
- China's relative position to the US has weakened recently
- Many G20 countries are drifting further from the frontier over 2024–2026
- Sustained convergence with the frontier is rare

Figure 3 Cross-Country Digital Disparities are Widening Over Time



Digital Leadership Needs Both Scale and Intensity

Figure 8 High-Income Countries Lead in Intensity, while EMDEs Exhibit Greater Scale

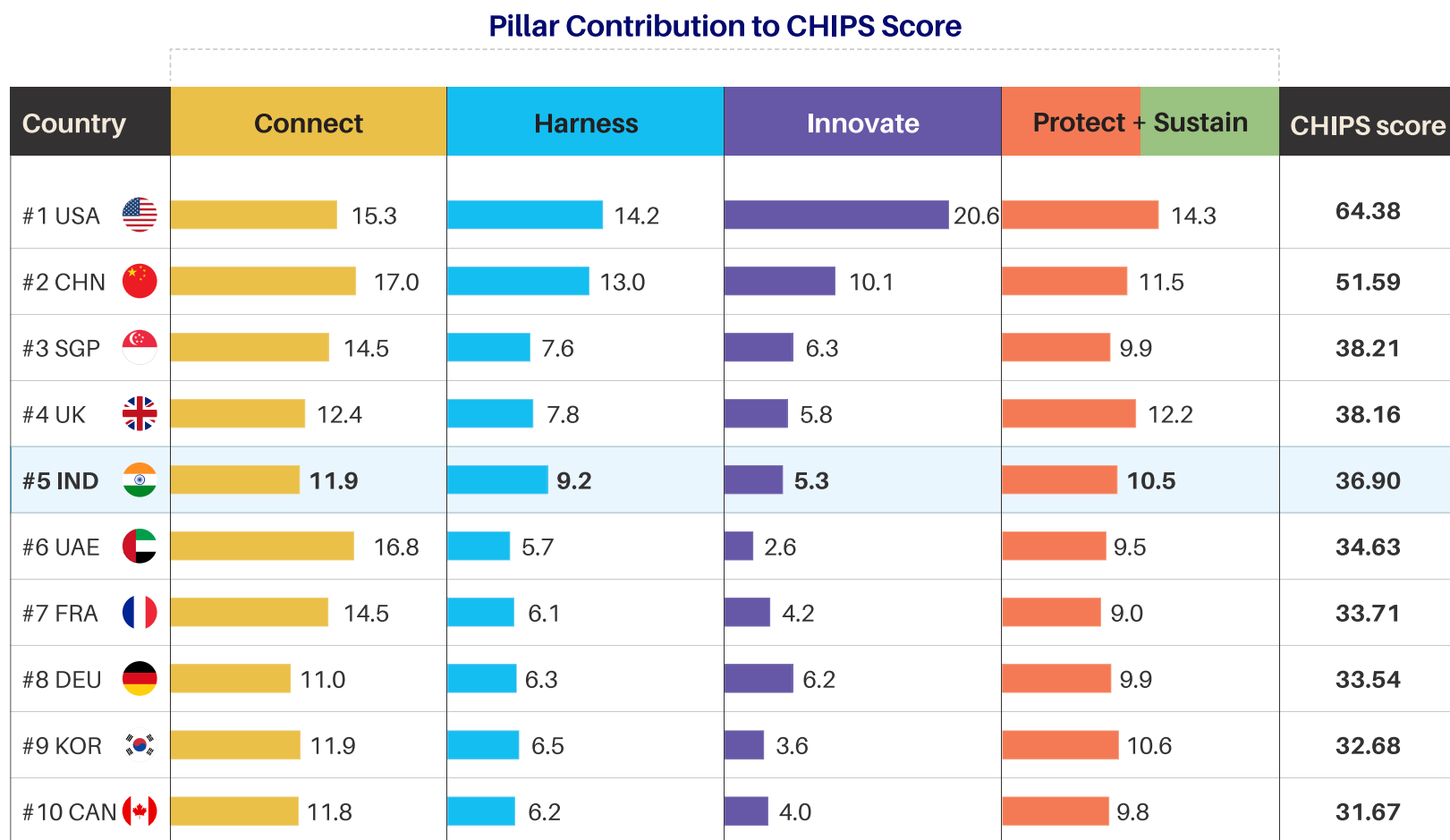


State of India's Digital Economy 2026 – ICRIER-Prosus Centre
for Internet and Digital Economy (IPCIDE)

- Scale of digitalisation is closely tied to population size
- Intensity (per user/firm) is strongly related to per capita income
- Combined CHIPS scores depend meaningfully on both scale and intensity
- High-income countries: strong intensity; large EMDEs: strong scale; few have both

Global Digital Rankings: India Joins the Top Five

Figure 2 Global Digital Rankings—Top 10 Countries

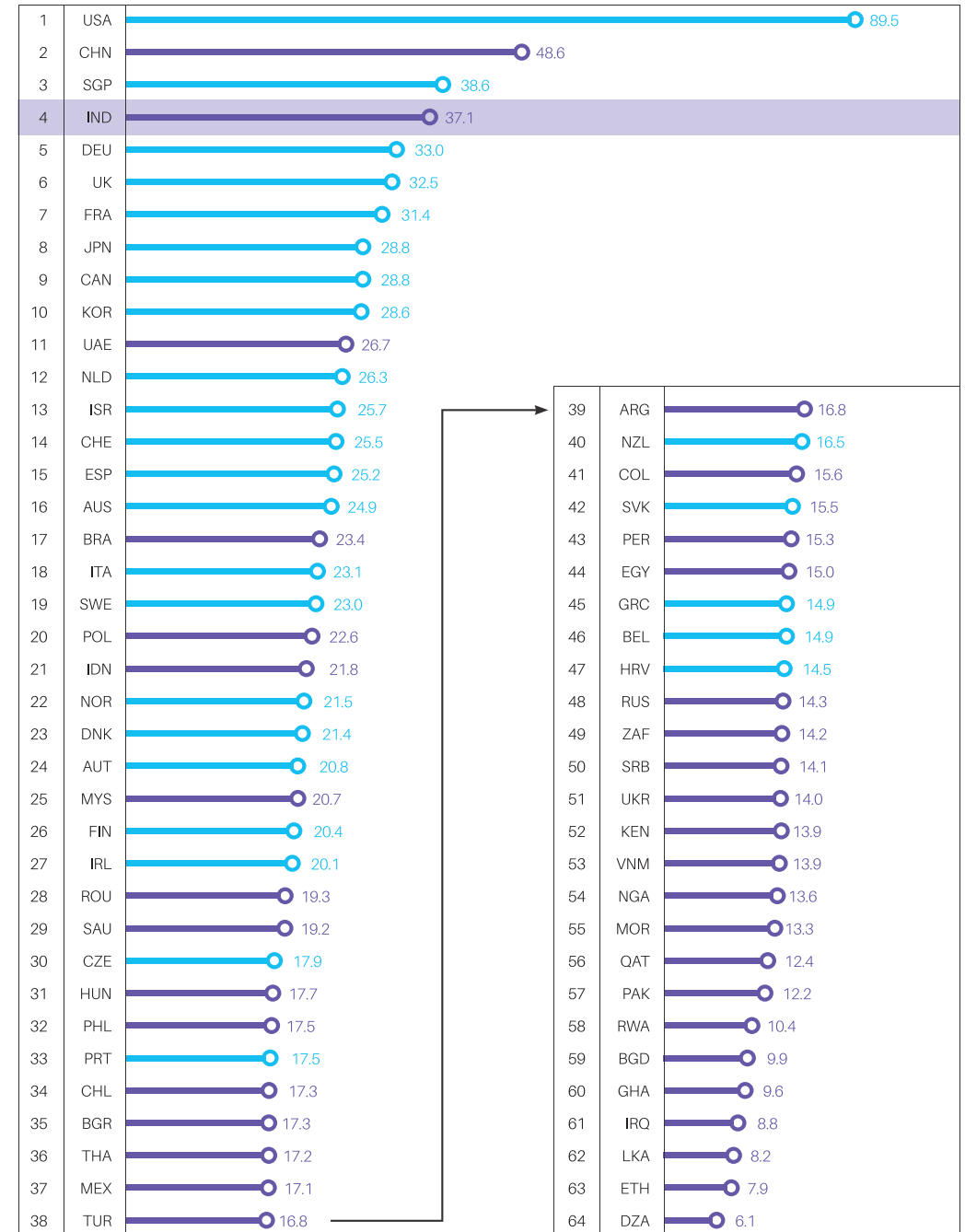


- US is clear digital frontrunner (CHIPS score 64.4)
- China second (51.6) and now the most connected country
- Singapore, UK, and India form the next competitive tier in the high-30s
- India ranks 5th, ahead of many advanced economies
- Why India's Rank Improved?

India Ranks 4th on the AI Index

- US, China, Singapore occupy the top three positions
- India ranks 4th—above Germany, France, Japan, Canada, and Korea
- Several EMDEs (e.g., Brazil) also feature relatively high
- Some advanced European economies underperform on AI relative to their digital base

Figure 11 Country Rankings by AI Score: India is in the Fourth Position



Countries Are Playing to Their Strengths in the AI Race

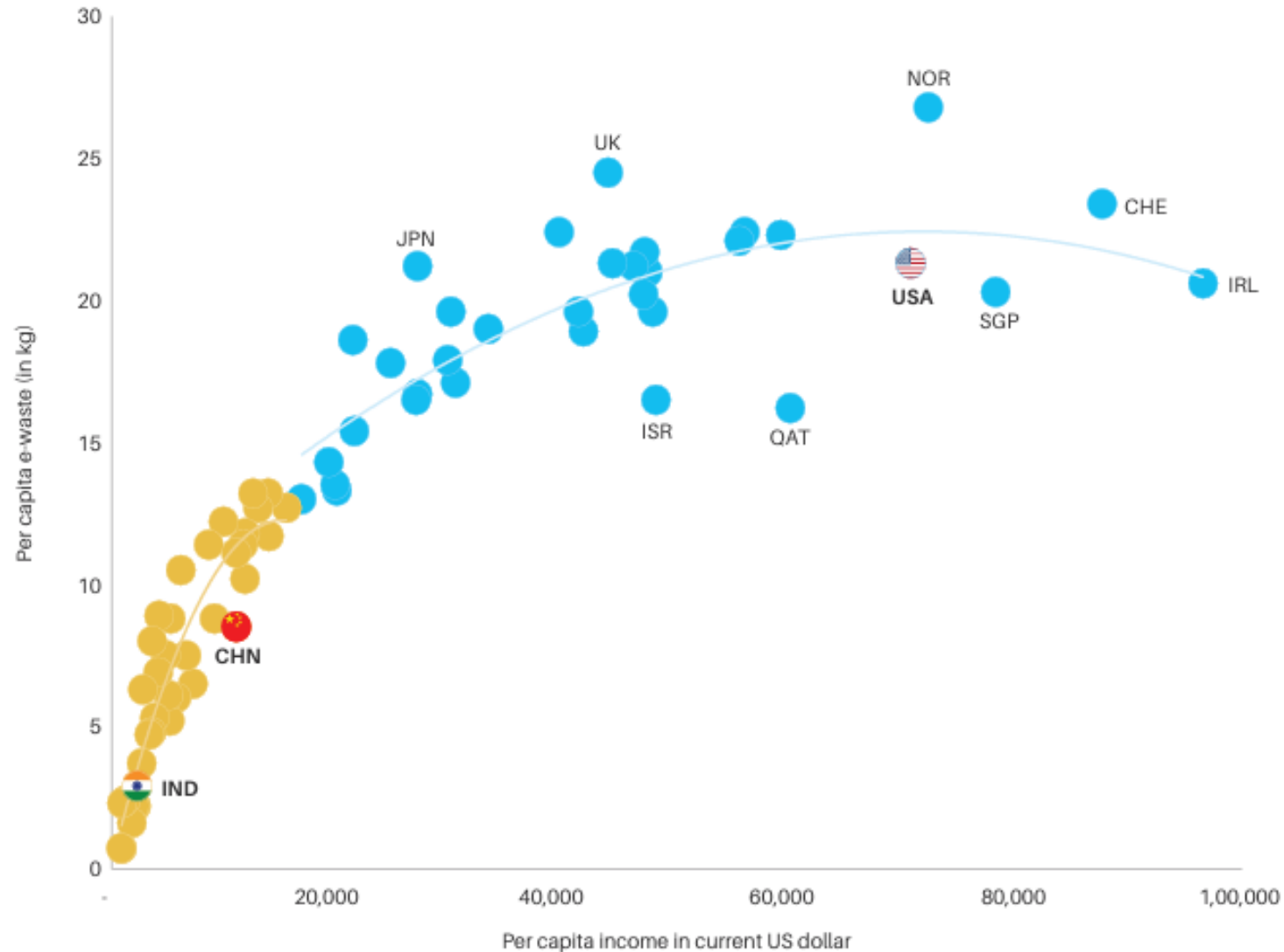
- US: Makes up the frontier in 9 of the 15 indicators/sub-pillars including safety, R&D, compute, infrastructure, models, talent, and investment
- China: strong on AI users, compute, AI R&D, safety and security
- India: strong AI-skilled population, talent, public trust, but lower on private investment, innovation and research
- Singapore: leading on safety and security and open data score

Figure 13 Countries are Playing to their Strengths in the AI Race

Indicators/ Scores	USA	China	Singapore	India
Safety and security	100	100	100	78.0
AI R&D	100	89.9	7.0	36.8
Compute capacity	100	88.5	44.9	52.3
AI Infrastructure	100	65.8	49.5	14.1
AI Innovation Research	100	54.0	25.0	10.0
AI commercial	100	48.0	27.0	14.0
Responsible AI	100	40.0	5.7	6.1
Open Source Models	100	26.2	18.7	0.7
AI Talent	100	25.3	29.3	41.4
AI Skilled population	94.9	N/A	21.8	100
Open Data score	80.6	17.7	100	41.9
Private Investment	75.7	7.7	10.8	2.7
Newly Funded AI Companies	70.8	21.2	39.3	20.0
Number of AI users	40.1	58.7	47.9	57.5
Public Trust Score	N/A	33.0	55.6	83.4

Digitalisation's Hidden Costs: E-Waste

Figure 21 As Incomes Rise, e-waste Rises Sharply



E-waste per person rises sharply with income; India low per capita, high in aggregate

Developing countries should build early e-waste systems and cybersecurity capabilities

Digitalisation's Hidden Costs: Cybercrime

Figure 17 Every Second Enterprise Ransomware Victim was in the United States

(Number of ransomware victims in 2025)

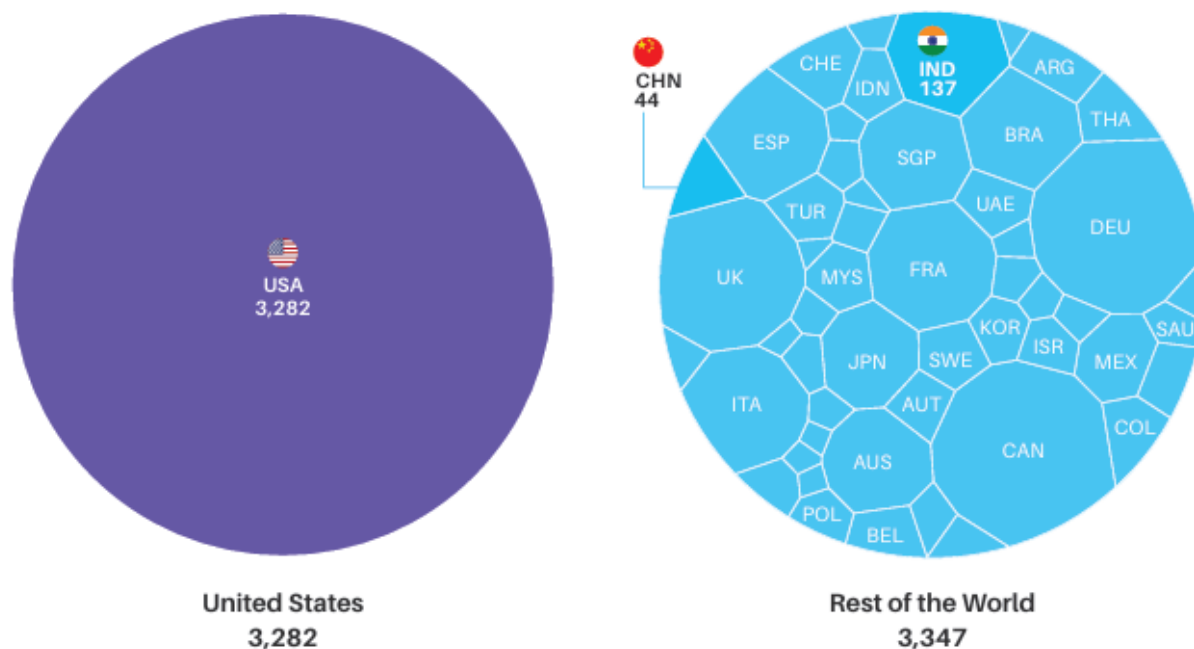
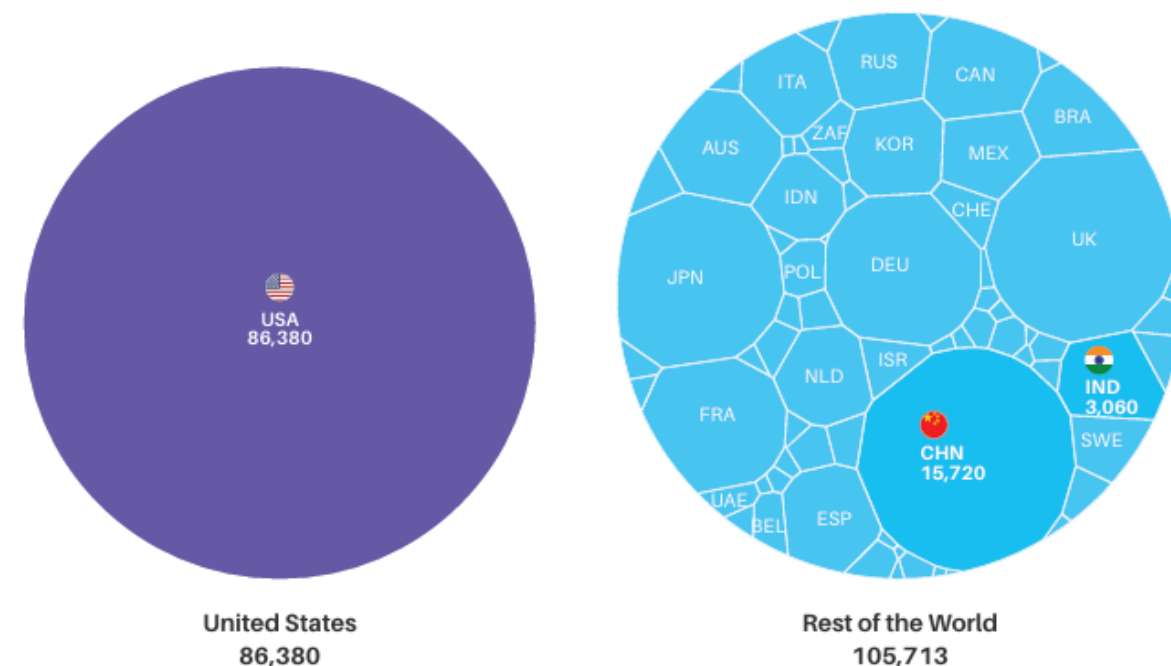


Figure 19 Revenue from Cybersecurity Spending (in million US\$)



- Cyber risks grow with scale and connectivity
- High-income, highly connected countries are most exposed to ransomware and leaks