



EU4Digital broadband strategies Towards a harmonized approach

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The World Bank

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Broadband is oxygen to a digital economy



Cloud Computing

Cloud computing has become a critical part of business today. The worldwide market for cloud-based SaaS offering will exceed US\$100 billion mark by 2018. Over 55% of companies in APAC are increasing their budget on cloud services in 2017.



Industry 4.0

Successful implementation of an Industry 4.0 strategy such as smart factories, is dependent on fast broadband as well as interconnections for machines, devices, sensors and people that connect and communicate with one another.



Mobile Internet

By 2020, 5.7bn unique mobile subscribers globally will rely on mobile access, with fixed backhaul to connect them to the world.



Streaming Video

Video is increasing its share of all data traffic, including on mobile, currently accounting for over 70% of the internet traffic in North America and 45% in Asia Pacific.

Every participant in the global digital economy increasingly relies on technologies that require *high speed* broadband connectivity (100 Mbps+)



AI, Machine-Learning

Some of the physical prerequisites for AI development are the Internet of Things (IoT) and machine-to-machine learning capability that are backed by always-on connectivity.



Internet of Everything

By 2017, 60% of global manufacturers were using analytics to sense and analyze data from connected products and manufacturing to optimize increasingly complex portfolios of product offerings.



Big Data and Analytics

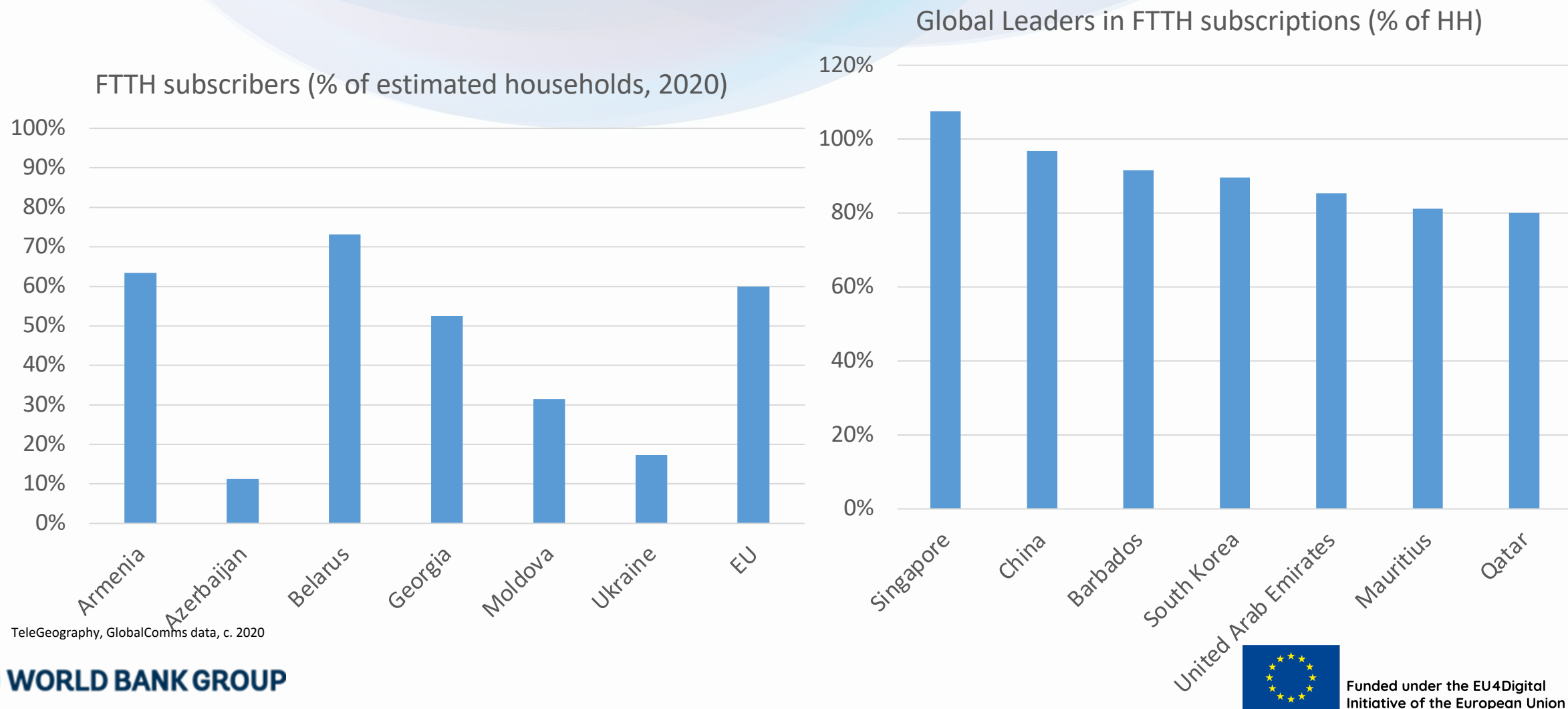
38% of CIOs state that big data analytics is their top 2017 IT initiative. Analytics rely on the computing and processing power provided by cloud services.



Gig Economy

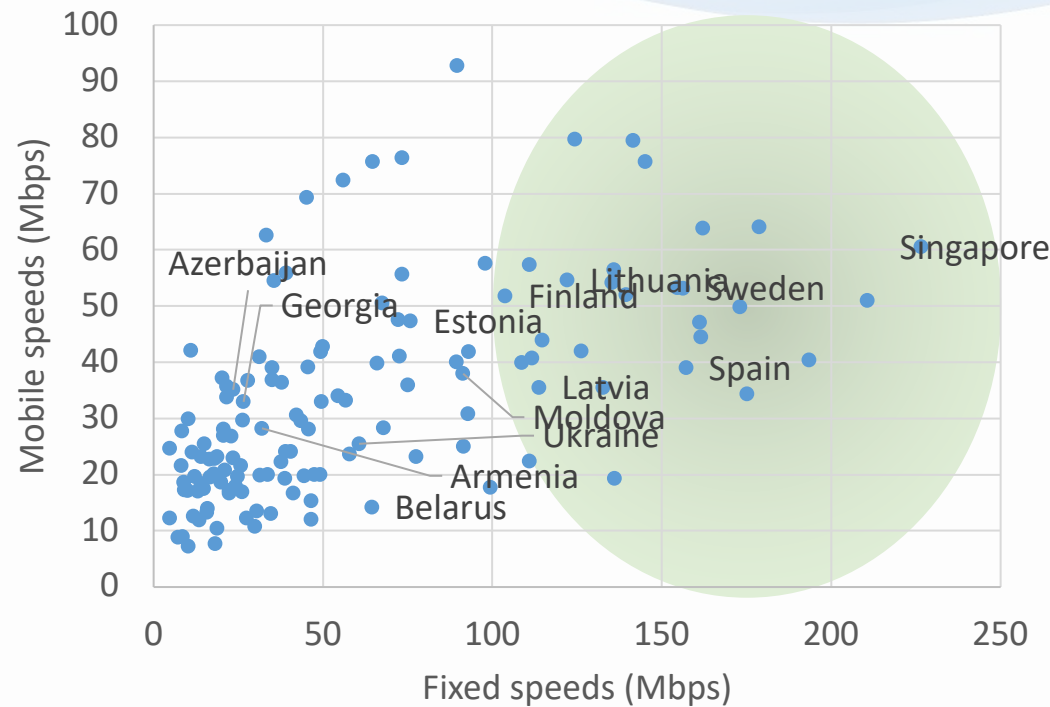
By 2025, online talent platforms could increase worldwide employment by 72 million full-time-equivalent positions. Up to 540 million people could benefit from online talent platforms by 2025.

The vision: Gigabit connectivity for all



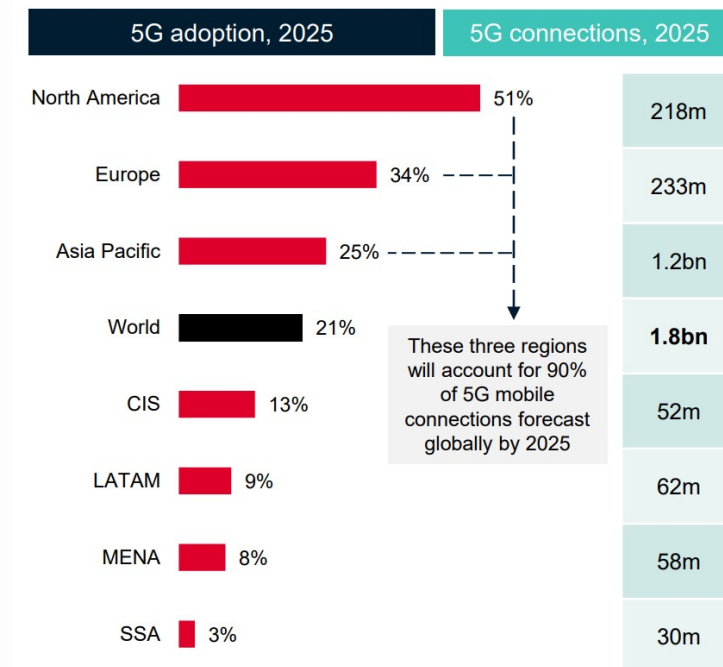
Global leaders accelerating

Global leaders in connection speeds



Speedtest results, September 2020

5G leaders emerging...



Data correct as of 31 June 2020
For updates, see gsmaintelligence.com

Gigabit Society: harmonized targets with individualized approaches

5G coverage in all urban areas
and major land transport paths

Access to 1Gbps for all socio-
economic drivers

Access to 100Mbps for all
households

National Broadband Strategy targets

1

Mobile broadband coverage in
all urban areas and along
major highways

2

Access to 1Gbps broadband for
all institutional entities

3

Access to 100Mbps broadband
for all households



*...and including UN Broadband Commission for Sustainable Development's
affordability target*



4

Entry-level broadband plans to cost less than 2% of GNI per capita

How to achieve the Gigabit Society targets through a Broadband Strategy?

Global experience and best practice highlight certain common themes that underpin well-functioning broadband markets, most notably:

Increase Competitive Pressure

- Strengthen and empower regulatory authorities
- Stimulate competition in wholesale and retail markets
- Strengthen quality of service monitoring
- Manage radio spectrum
- Harmonize sector statistics

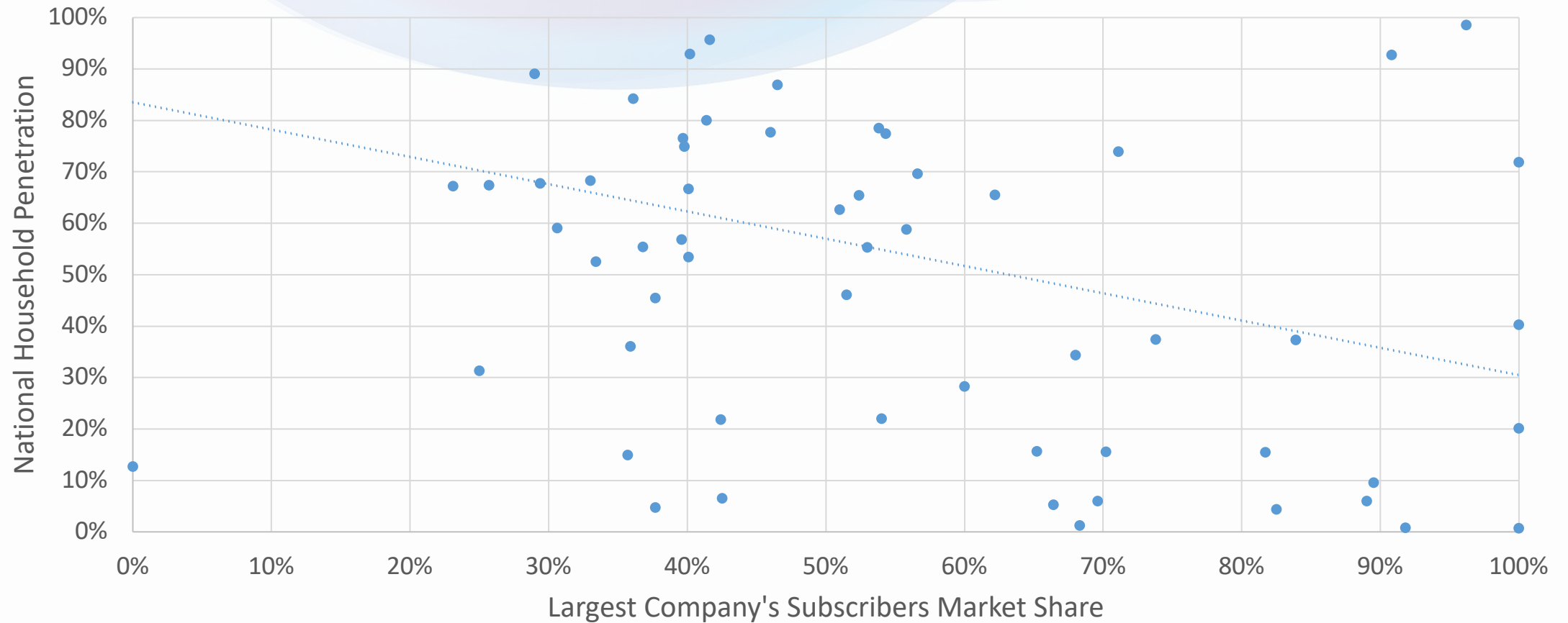
Attract Investment

- Accelerate network deployment through streamlined rules and procedures
- Promote infrastructure sharing and commercialize telecom-ready infrastructure
- Develop and implement state-aid programs to support sector priorities and private investment

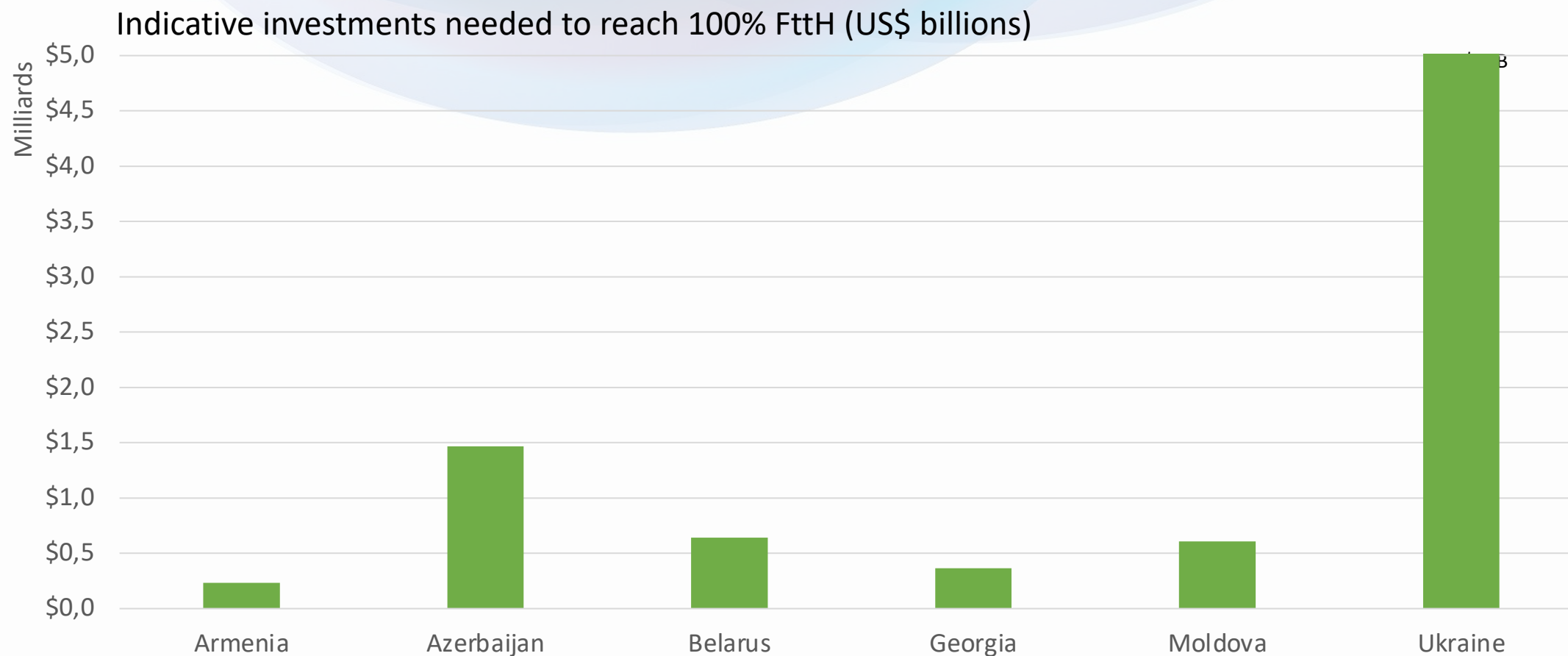
Build Digital Skills & Demand

- Create regional and local anchors (public institutions) to boost demand
- Develop digital skills through the education system and vocational training
- Promote the digital economy through adoption across sectors

Impact of competitive markets



Investment promotion



World Bank team estimates, based on TeleGeography data. Assuming connection cost of \$500-1000 per household.

Skills and demand stimulation

Georgia: Broadband for Development

Kosovo: WOW Project



Source: Georgia's Innovation & Technology Agency



Source: World Bank, Government of Kosovo

Emerging priorities to consider...

- Enabling environment improvements, for example

- Legal framework updates (5G, cost reduction, competition)
- *Ex ante* competition regulation
- Regulatory independence and capacity strengthening

- Investment support, for example

- Middle-mile connectivity

- Demand-side activities, for example

- Digital literacy, use-case promotion...

Mechanisms of support from the World Bank:

- Information sharing
- Support on reforms
- Consultation and engagement
- Investment support

... plus, working with other development partners.



Thank you!