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Communications Regulatory Authority of Namibia

Importance of Digitization: Bridging the Economic Gap

Festus K Mbandeka
CEO: Communications Regulatory Authority of Namibia
ICT Summit 7 – 9 October 2019

70% of govt schools without internet

Kuzeeko Tjitemisa

WINDHOEK - Close to 70 percent of government schools are still not connected to the internet, parliament heard on Tuesday.

Of the 1 897 government schools across the country, only 590 schools are connected to the internet, Deputy Minister of Education, Arts and Culture, Anna Nghipondoka told lawmakers.

Nghipondoka acknowledged the challenge this posed for the schools in question, and told members of parliament (MPs) that the ministry had raised the issue with Cabinet.

"For education purposes it's urgently needed for ICT integration in education as teachers and learners rely on ICT for subject content. Our dream is to digitalise content through our publisher who owns copyright on our books for which we are quality and relevance assured," she told MPs. Deputy Minister of Information and Communication Technology

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Engel Nawatiseb announced recently in parliament that government aims to achieve 95 percent broadband coverage by 2024.

Nawatiseb said this when tabling the Broadband Policy and its Implementation Action Plan in parliament.

He added that government also aims at 100 percent broadband connections and usage to all primary and secondary schools in the country to allow e-learning by 2024.

Similarly, he said government intentions are also to have 90 percent broadband connection and usage of 70 percent at health facilities in the country to allow e-health by 2024.

"Nations are digitalising their services to ease the way of service delivery to the citizens. This requires high-speed internet access," he said.

Nawatiseb said the role of broadband services as an enabler of economic and social development in countries is widely recognised in various studies and in documents such as the report of the United Nations (UN) Broadband Commission.

According to him the fifth annual edition of the Alliance for Affordable Internet (A4AI) Report of 2018 indicates that affordable internet to low- and middle-income countries is where one gigabyte (GB) of mobile broadband data is priced at two percent or less of average monthly income.

"High-speed internet access, or broadband, is critical to economic opportunities, job creation, education, and civic engagement. But there are too many parts of this country where broadband is unavailable in both urban and rural areas," he stressed.

Connection needed... Out of 1 897 government schools only 590 are connected to the internet. Photo: File

He said the broadband ecosystem is deemed to stimulate interaction amongst role players to provide incentives for further innovation and investment in broadband.

Thus, he said, in 2014 the United Nations Broadband Commission for Sustainable Development in its annual report recommended that countries should aim at launching national broadband plans; monitor, review and update ICT regulations and utilise the Universal Access Services Funds (UASFs) to close the digital divide.

He said a meeting in 2015 of the SADC ministers responsible for information and communication technologies (ICTs) directed member states to develop their national broadband strategies and policies.

To this end, the deputy minister said, the government responded to the Broadband Commission's recommendations and the SADC ministers' directives by securing technical assistance from the International Telecommunication Union (ITU) to develop the Broadband Policy and its Implementation Action Plan (IAP).

"The policy and its IAP have been developed through stakeholders' consultative workshops and they are aligned to the structure of Public Policy Document as adopted by Cabinet," he told lawmakers.

Background

- It has long been accepted that **ICT is a catalyst for economic growth**.
- ICTs are also **catalytic drivers that enable** the achievement of all the **Sustainable Development Goals** (SDGs) through the following:
  - Quality **Education**
  - Good **Health and Well being**
  - Gender Equality
  - Industry, innovation and Infrastructure
  - Boosting **Food production**
  - Clean Water and Sanitation
  - **Affordable and Clean Energy**; and
  - **Sustainable** Cities and Communities.

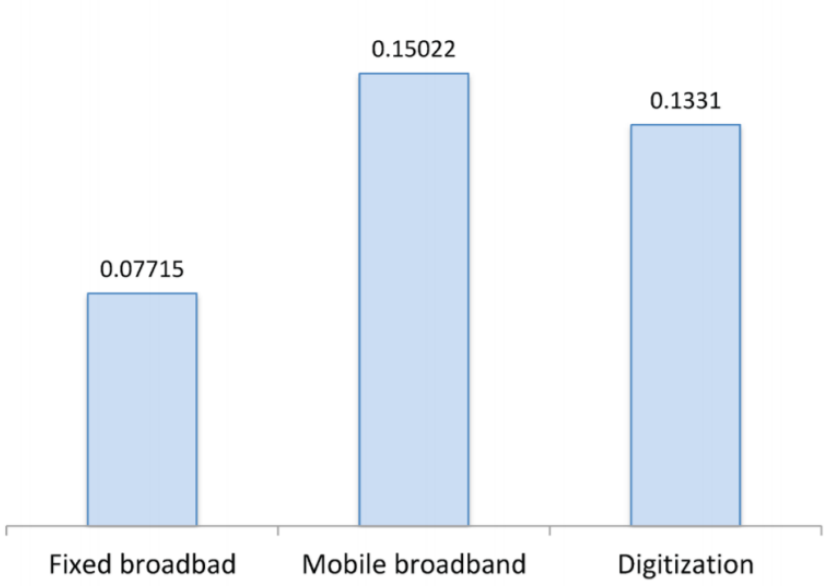
Definition

- What is a digital economy?
  - It's the **economic activity** that results **from** billions of **everyday online connections** among people, businesses, devices, data and processes.
  - The **backbone** of the **digital economy is hyper connectivity due to the** growing **interconnectedness** of **people, organisations and machines** that results from the Internet, mobile technology and the internet of things (IoT).

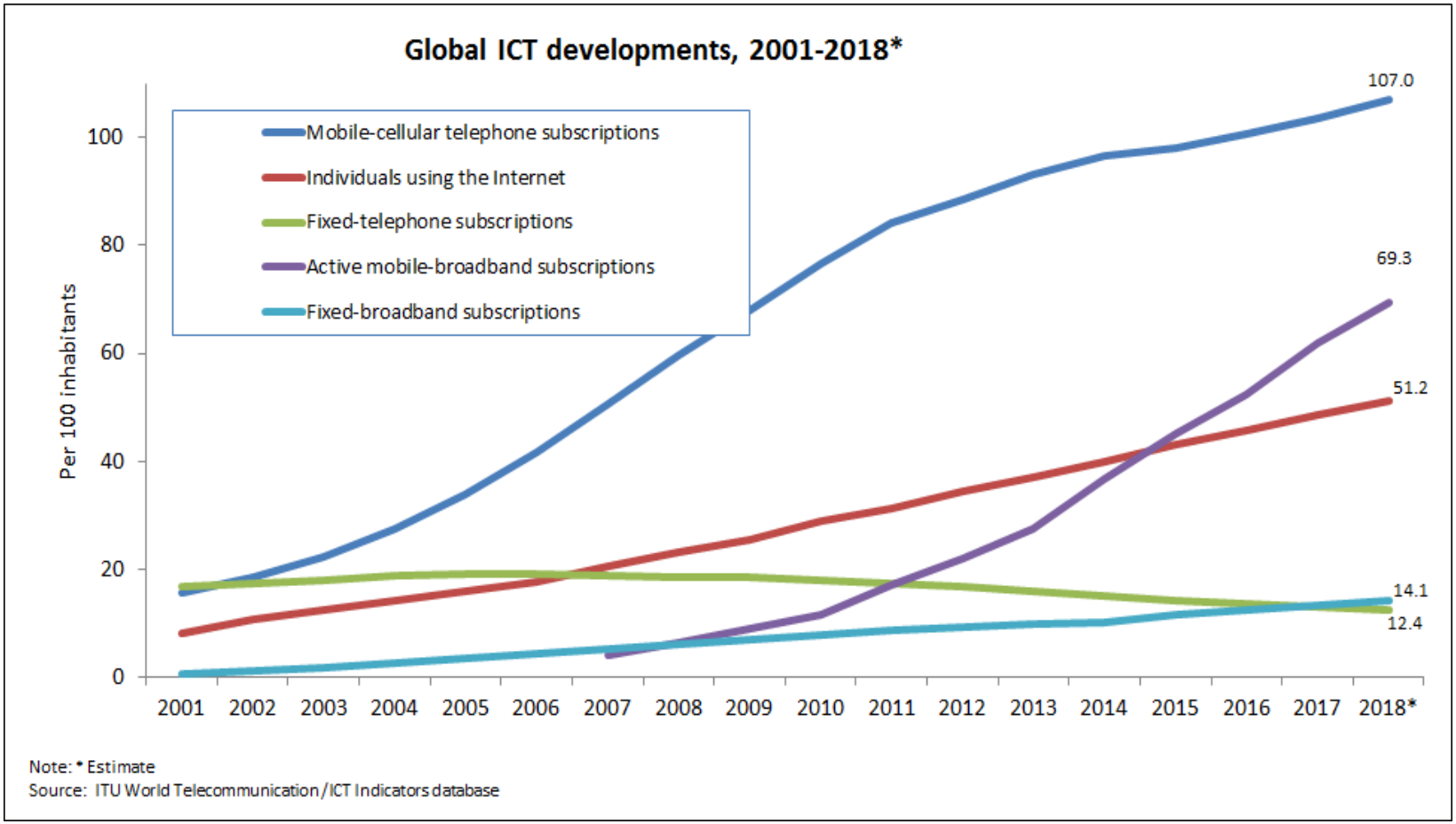
Economic Impact of Digitization

Studies show that the economic **impact of digitization (and mobile broadband) on GDP is higher than the one from fixed broadband**. Furthermore, the impact is also higher on more advanced countries. And it also recognises that the **digital ecosystem** has an economic **impact on productivity**.

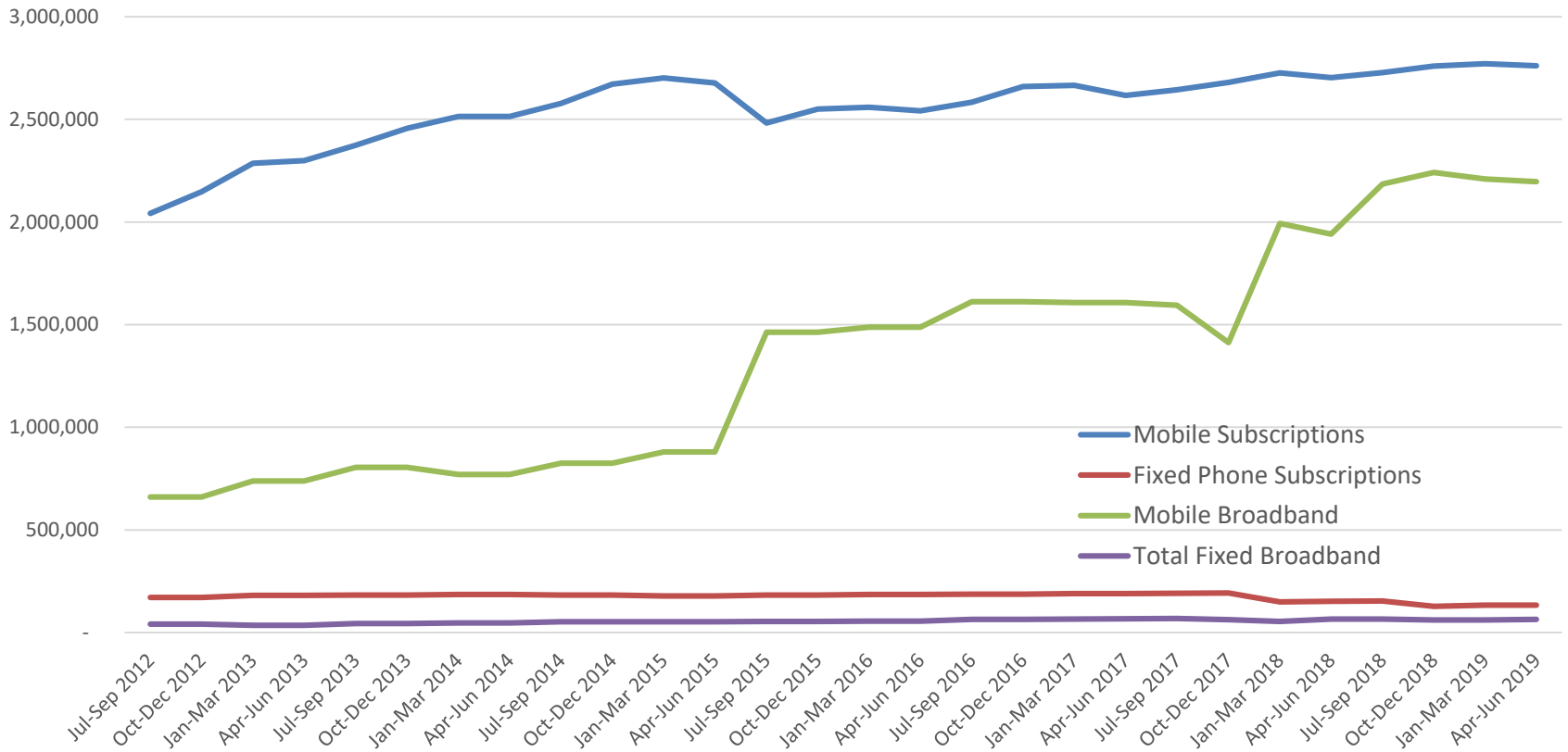
Impact on GDP of 1% increase in independent variable (2004-2015)



ICT Developments Worldwide



ICT Developments in Namibia



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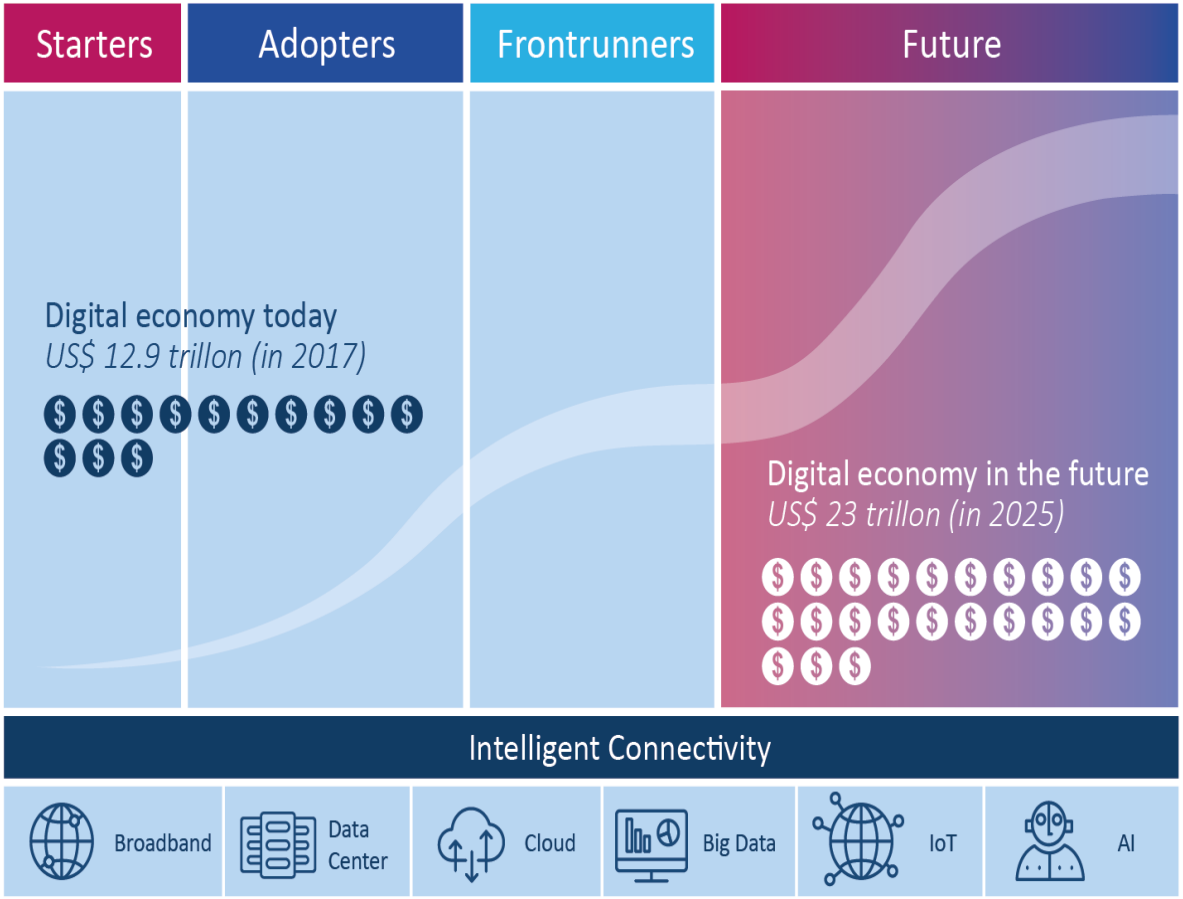
Intelligent Connectivity

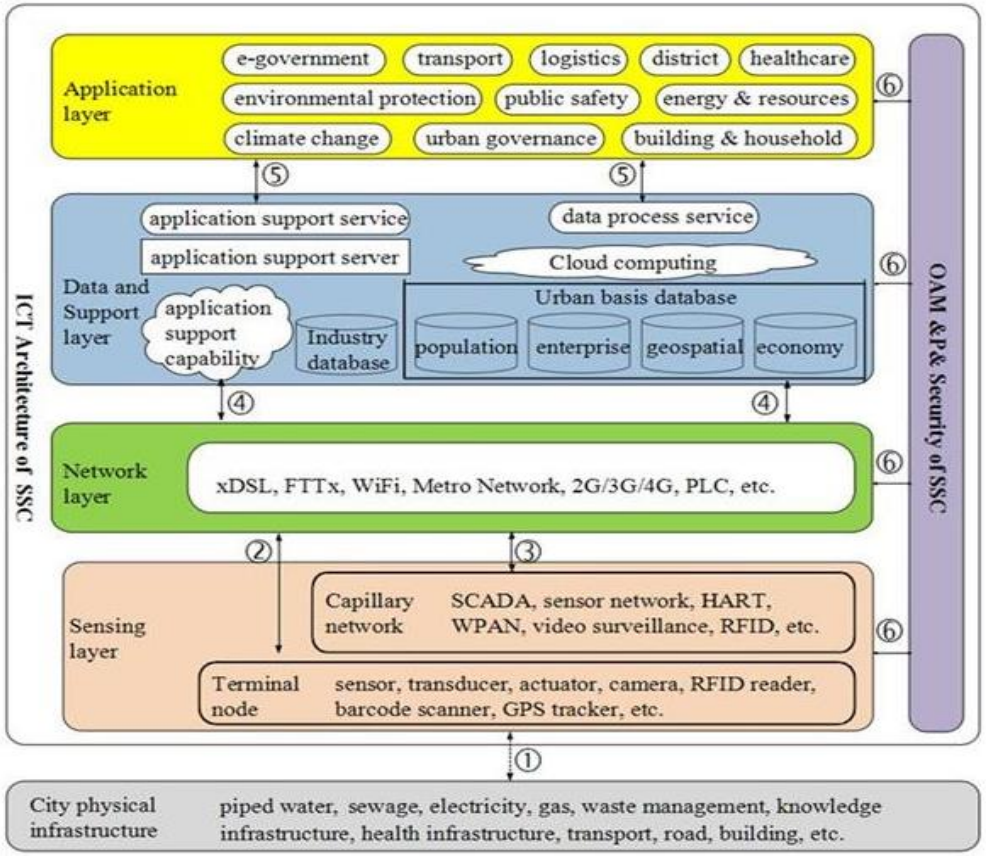
ICT infrastructure maturity and GDP growth, the 2018 Global Connectivity Index (GCI)

GDP returns among countries with concentrated adoption of ICT infrastructure is higher whilst Countries with less proactive investment have seen less stellar results.



Source: Huawei

Digital Society



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Enabling Environment , Digital Inclusion

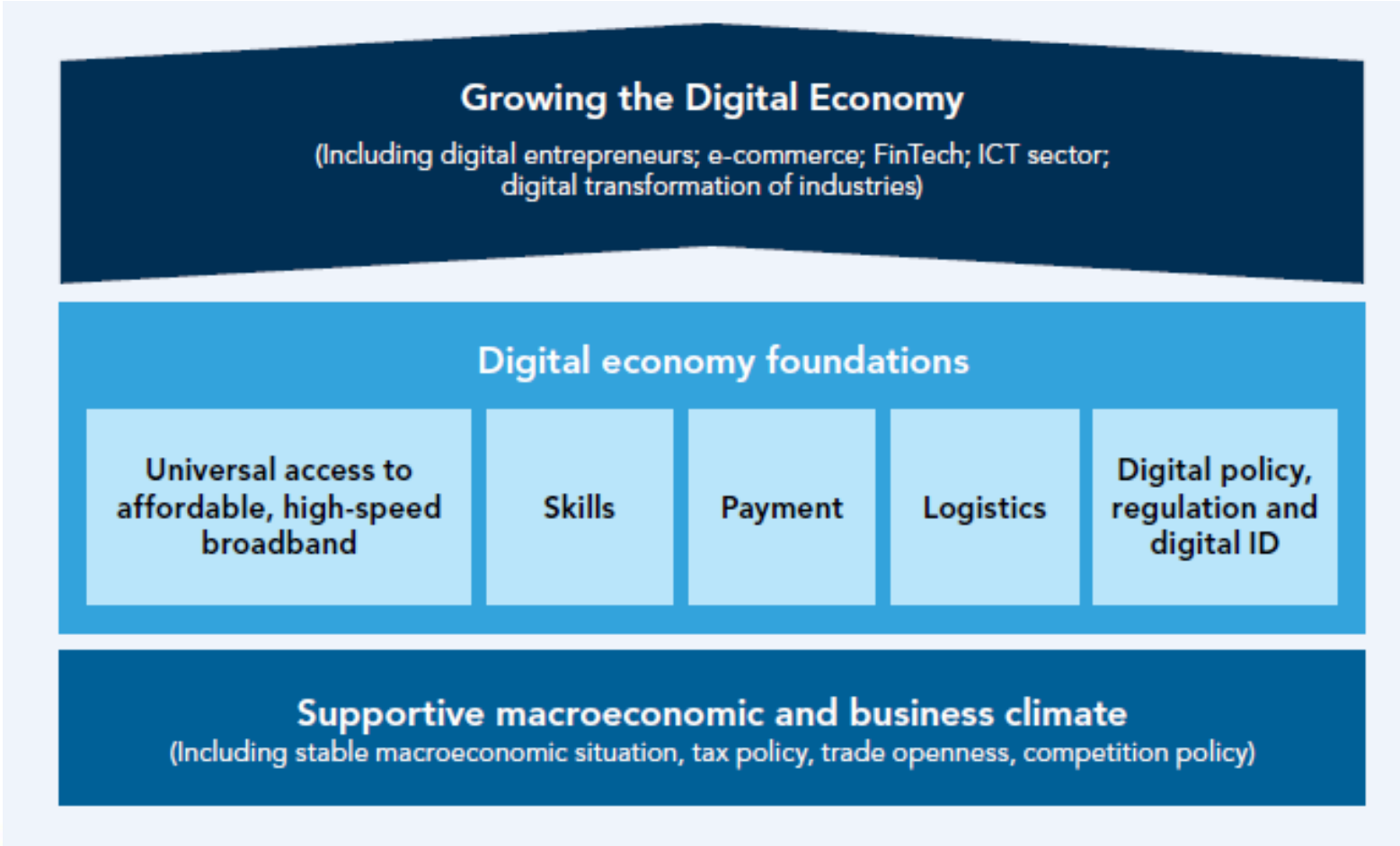
Skills and capacity Building

Innovation

Source: ITU-T Focus Group on Smart Sustainable Cities

Digital Transformation Roadmap

Growing the Digital Economy



Advantages of the Digital Economy

- **Promotes Use of Internet** - there is a dramatic rise in the investment on i.e. : hardware, technological research, software, services, digital communication etc. And so this economy has ensured that the internet is here to stay and so are web-based businesses.
- **Gives rise in E-Commerce –** economic activities such as, buying, distribution, marketing, selling have all become easier due to the digital economy.

Advantages of the Digital Economy cont..

- **Digital Goods and Services** - certain goods and services i.e. banking, insurance etc. would be completely digitised.
- **Promotes Transparency –** in that most transactions and payments happen online. Cash transactions are becoming rare. This may helps **reduce** dealing in the **black money/market** and corruption and make the **economy** more **transparent**.

Challenges of the Digital Economy

- **Loss of Employment** – examples in the banking and other broadcasting sector.
- **Lack of Experts -** Digital economy requires complex processes and technologies. Therefore, building and maintenance of the platforms requires experts and highly trained professionals. **These are not readily available in less advanced economies, especially in rural and semi-rural areas**.

Challenges of the Digital Economy Cont..

- **Heavy Investment -** Digital economy requires a strong infrastructure, high functioning Internet, strong mobile networks and telecommunication systems. In a **developing country** like ours, infrastructure and network **is a very slow, tedious and costly process.**

Barriers in Digital Transformation

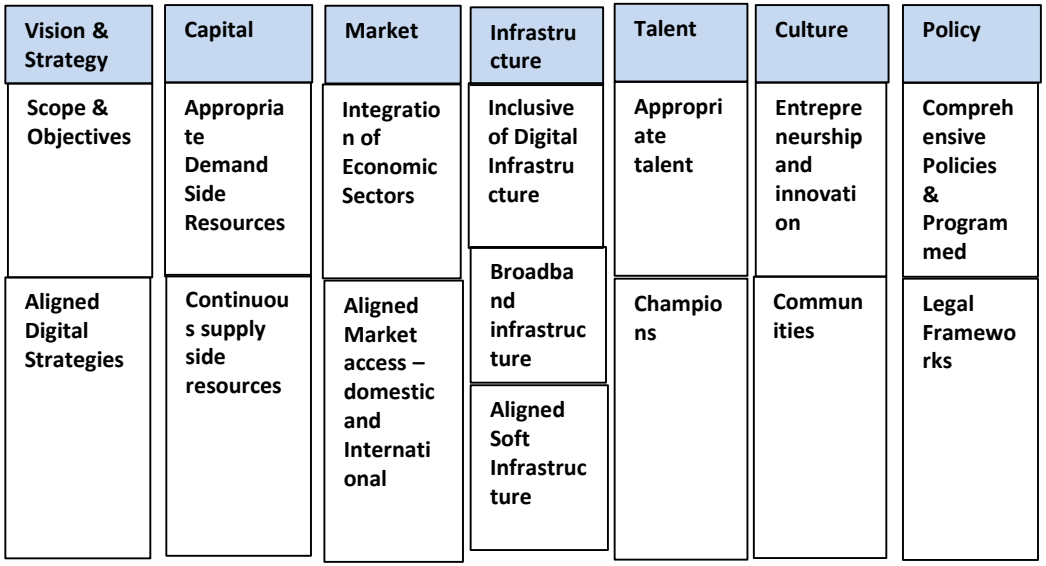
ITU innovation research has identified **some barriers to digital transformation,** notably:

- **Lack of coordination** of mechanisms to develop contextual and relevant policies supporting digital innovation and entrepreneurship;
- **Unclear roles or engagement of stakeholders** in developing their innovation ecosystem;
- **Missing innovation capabilities**, especially soft infrastructure;
- Suboptimal **integration of innovation ecosystems into key sectors** of the economy; and
- **Impact of the fast-changing ICT**/telecommunication environment.
- **Digital literacy** required for active participation in a digital economy.

Digital Transformation: Opportunities and barriers

ITU's Digital Innovation Framework defines the **seven critical pillars of an innovation ecosystem:** vision and strategy, capital, market, infrastructure, talent, culture and policy. They need to be assessed to obtain a comprehensive view of the system's performance.

Understanding the issues pertaining to each pillar through the lens of the stakeholders' journey helps identify the opportunities of, and barriers to digital transformation.



Key factors and components that enhance, foster and facilitate digital transformation

Source: ITU

Regulatory Interventions

To promote Digital Economy to grow, **Regulators should continue to level the playing field by promoting policy predictability; ensuring regulatory certainty and a secure cyber space**. Some regulatory interventions needed to accelerate the deployment of emerging technologies are:

- Adoption of **technology neutral licensing frameworks** that promote the Digital Economy and long term investments in ICTs;
- Making **more spectrum available for Broadband** in the Low Bands (for coverage), Medium Bands and High Bands for throughput;
- Ensuring that **Spectrum is allocated for such emerging technologies such 5G** in large contiguous blocks so as to avoid spectrum fragmentation;
- Promoting **efficient use of spectrum** particularly by ensuring its put to its highest value use;
- **Development** and **Implementation** of **National Broadband Plans**;
- **Open Access and Infrastructure Sharing** Policies and Regulations;
- **Use of Universal Service and Access Funds for network deployments** in **underserved** marginal **areas** with no service provider viability;
- **Ensuring standards and interoperability and service quality** and continuity to users; and
- **Provide reliable Data Protection and Cyber Security**.

Conclusion

In the Digital Economy, “light touch” or “hands off/ self regulation” regulatory regimes would not be advisable given the expected heavy data usage and intensity of connections. However, consideration should be made of the following:

- Regulators should **recognise that flexible and innovative policy and regulatory approaches can support and incentivize digital transformation**.
- **Best practices in this regard would allow us to respond to the changing landscape** and **address the continuing need for secure, affordable access to reliable ICT infrastructure and digital services**. Therefore we need to focus on:
  - **Fostering the potential of emerging technologies for digital transformation**
  - **Business and investment models to support digital transformation**
  - **Policy and regulatory approaches for continued innovation and progress**

"The digital economy is an increasingly important driver of economic growth and can play a significant role in accelerating development, embracing productivity of existing industries, cultivating new markets and industries, and achieving inclusive, sustainable growth"

President Cyril Ramaphosa, SADC Summit, Whk, August 2018

Thank you