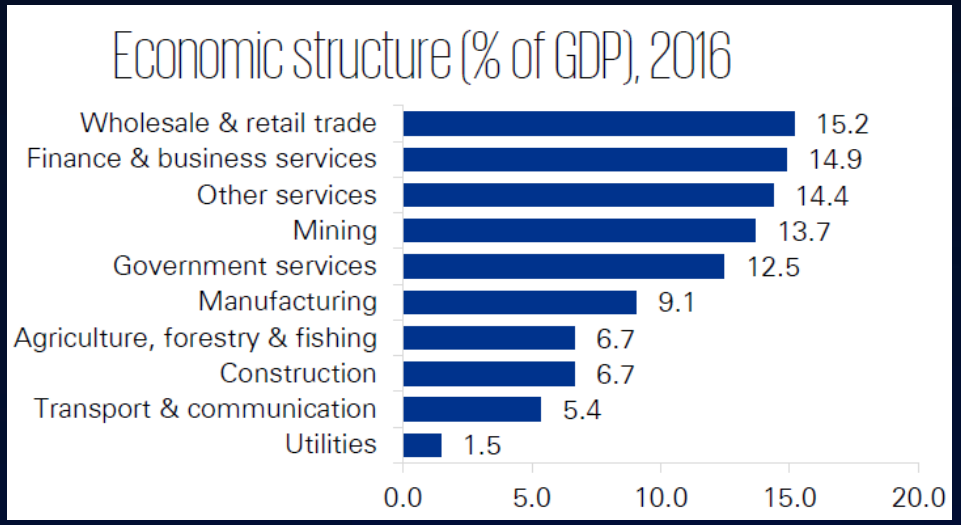
ICT Summit 2018

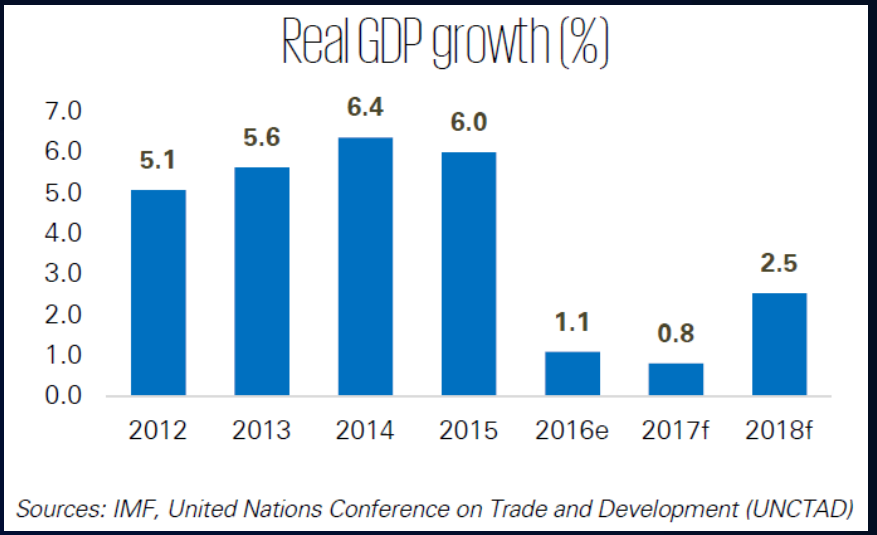
"Digital Transformation for an ICT smart Namibia"

2018-10

1. Current Position

Namibia Macroeconomic Snapshot





Sources: IMF, United Nations Conference on Trade and Development (UNCTAD)

Telecoms:

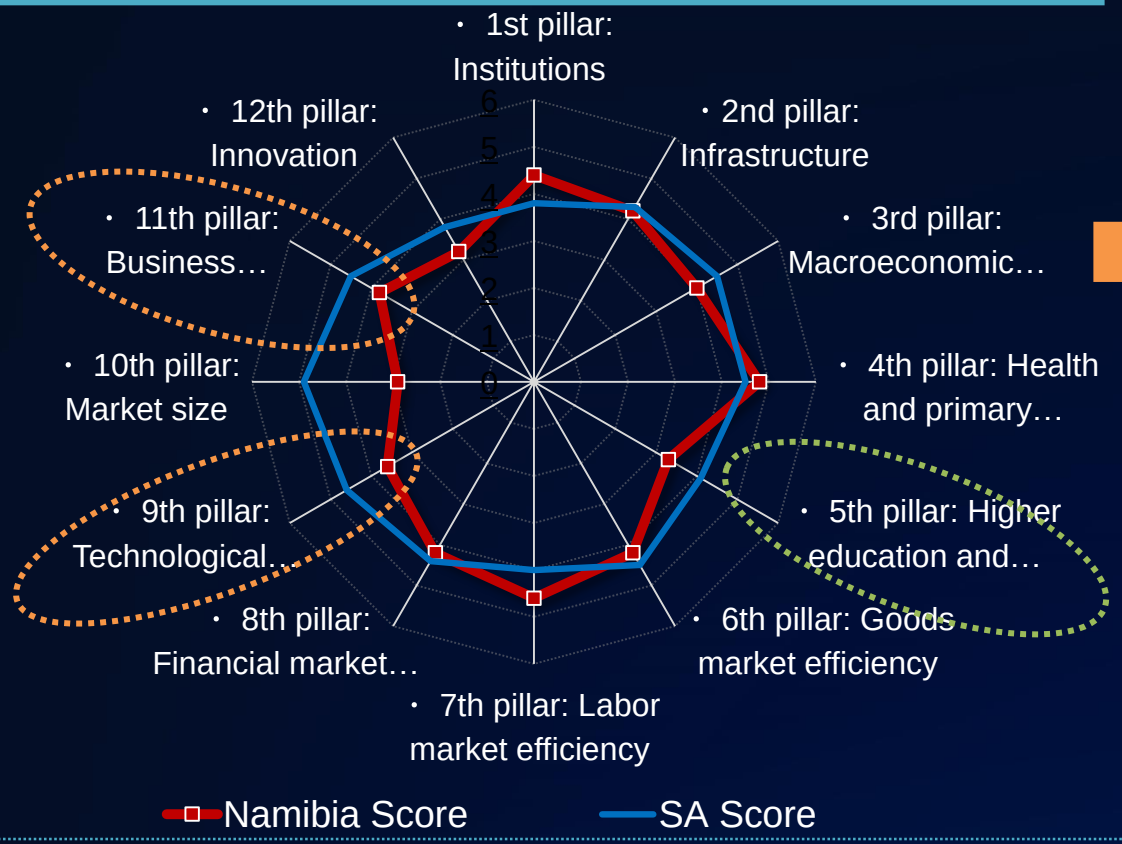
- 1st Africa 4G network
- 3/4G penetration 75%
- ARPU $10,22
- Internet penetration 22.30%

Source: GSMA, WorldBank

- Population: 2.57 million (2017 – WorldBank)
- GDP per capita: 5776.9 USD (2017 – WEF GCI)
- An African success story built on **Diamonds, Uranium, Tourism and Fisheries.**
- Transport and Communication contributed **5.4% of GDP.**

GCI: Top 3 Strategies for Namibia

2017 WEF GCI Rank: 84→90 (↓) out of 138



Top3 GAP in GCI

Tech. Readiness	Rank	Score
Internet users (% pop.)	98	31
Fixed-broadband Internet subscriptions	102	2.2
Internet bandwidth (kb/s/user)	103	15.9
Business Sophistication		
Local supplier quantity	133	3.5
Value chain breadth	105	3.3
Education & Training	**Rank**	**Score**
Tertiary education enrollment rate gross %	117	9.3
Internet access in schools	112	3.4

——Source :WEF(2017)

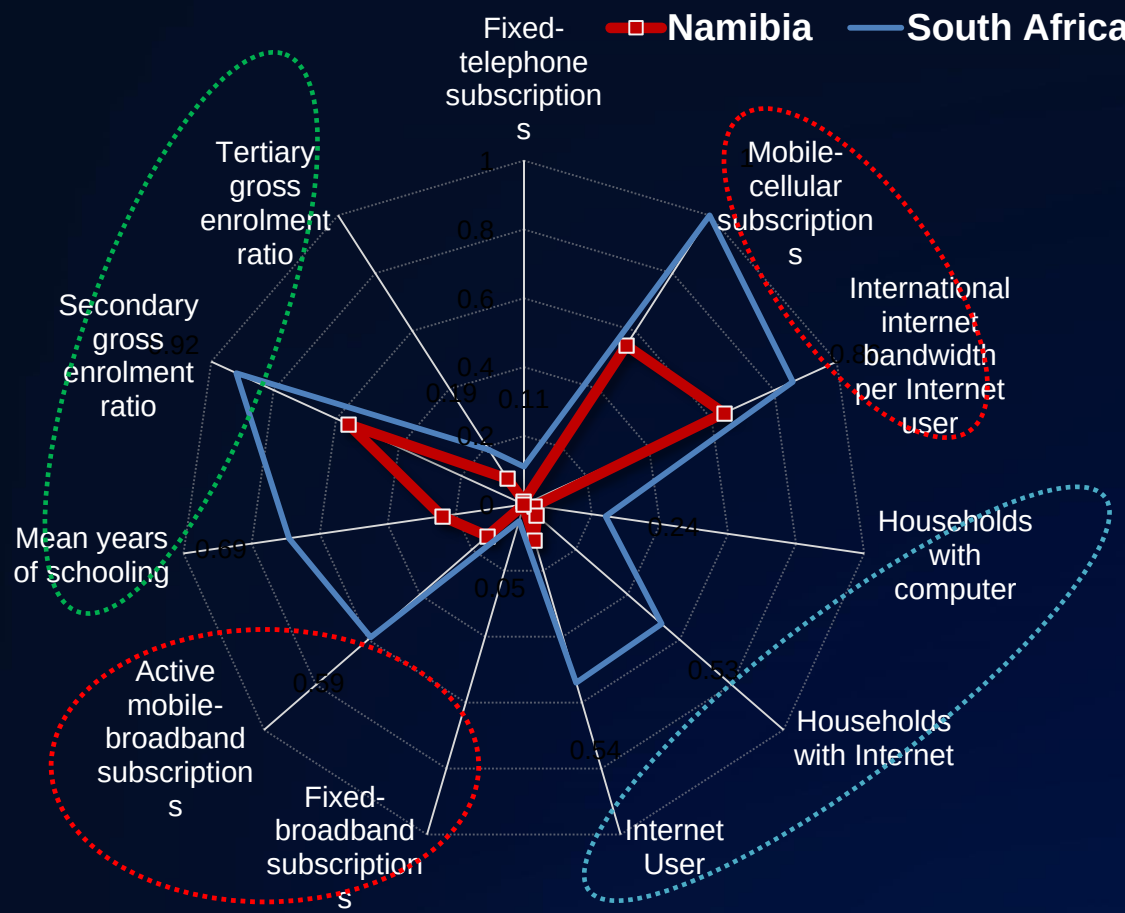
	WEF TOP10 Problematic Factors	Weight
1	Access to financing	15
2	Inadequately educated workforce	14.4
3	Inefficient government bureaucracy	11.1
4	Corruption	10.6
5	Poor work ethic in national labor force	9.3
6	Insufficient capacity to innovate	7
7	Crime and theft	4.9
8	Tax rates	4.6
9	Inadequate supply of infrastructure	4.1
10	Inflation	3.6

TOP 3 Factors

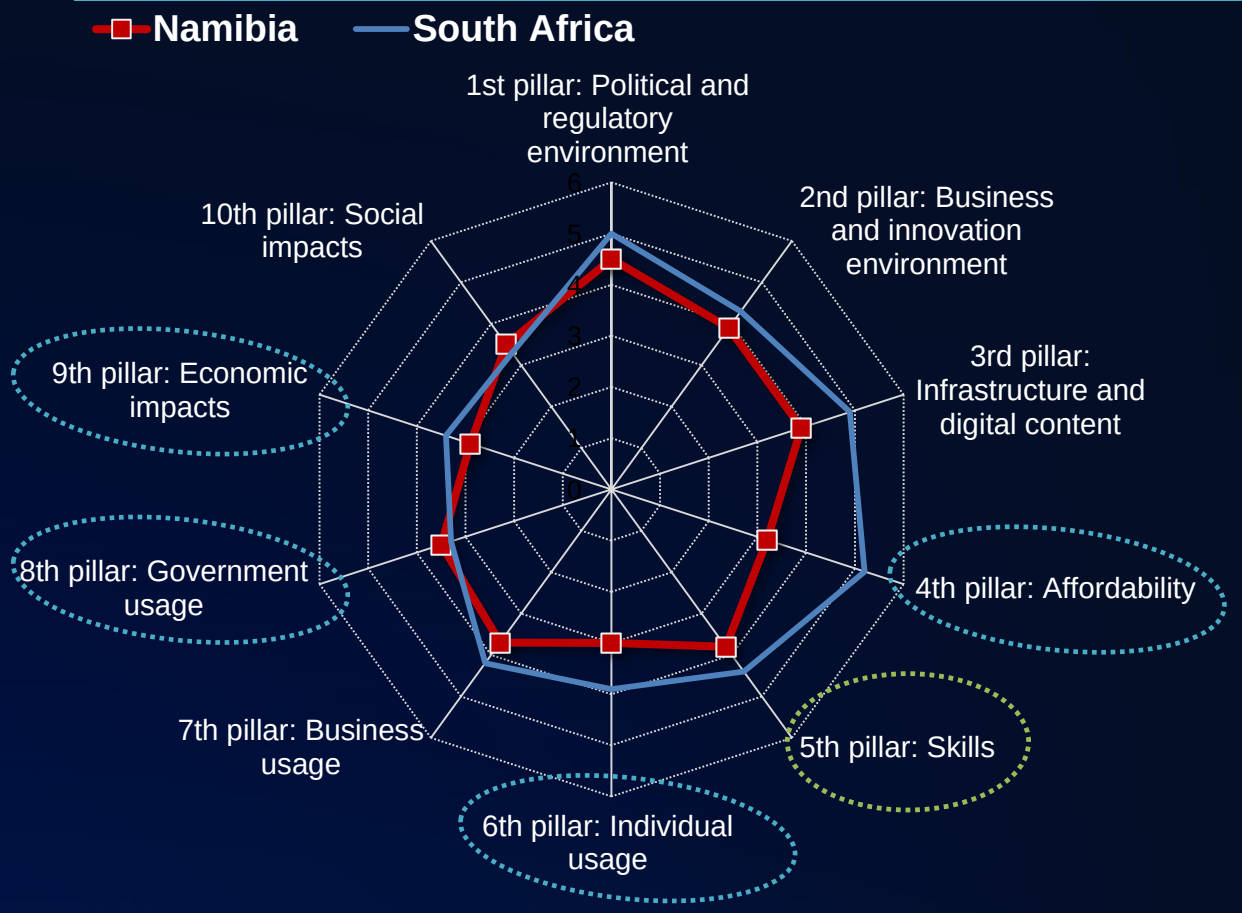
1. Gov. Bureaucracy Efficiency
2. Internet Usage and SME Innovation
3. Education &Training

ICT Development & Network Readiness Indexes: Top 3

Infrastructure Development Index (IDI) vs SA (118 vs 92)



Network Readiness Index (NRI) vs SA (99 vs 65)

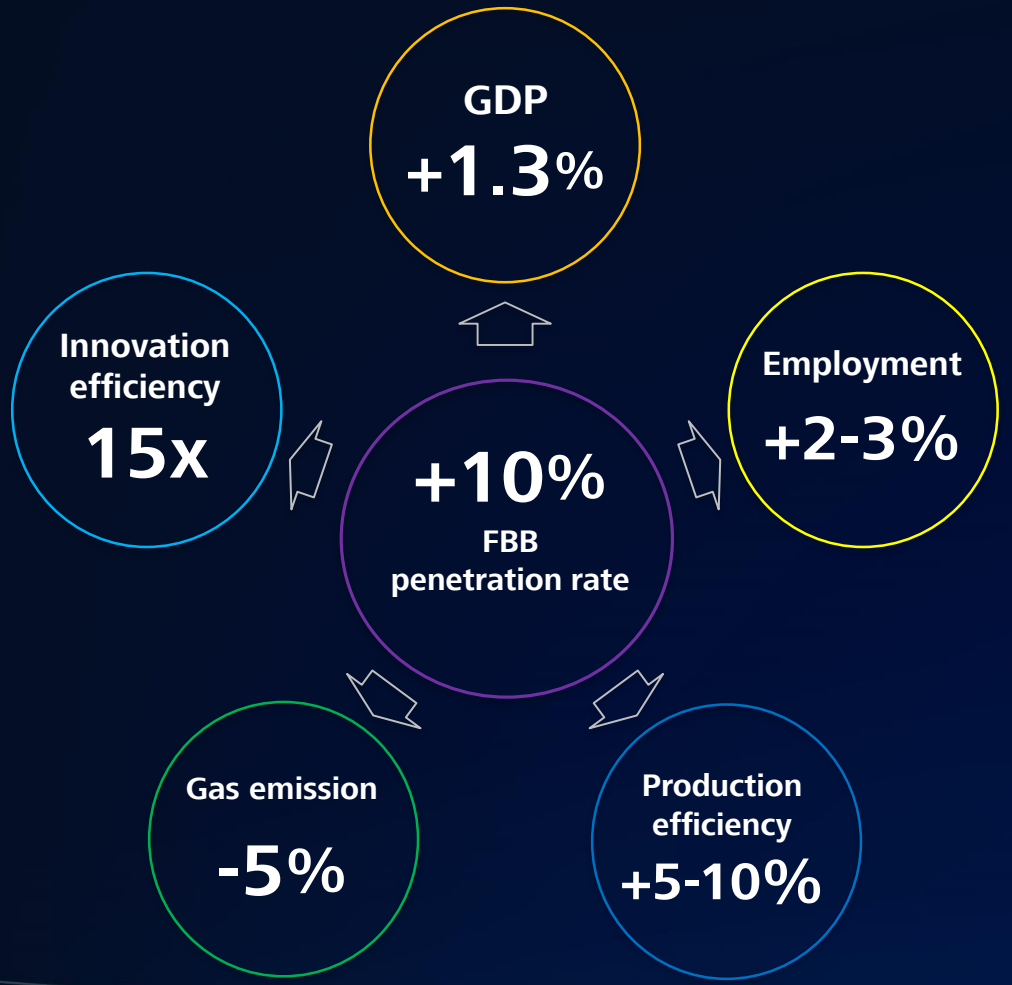


TOP 3 GAPs

1. Broadband (Fixed-/Mobile-) and Digital Connection
2. Internet Usage (Gov-/Household-) & Affordability
3. Schooling / Workforce Training

2. Strategy

Broadband is the foundation of ICT enabled Nation



Source: Impact of broadband on the economy, ITU

UBB 2020 TOWARDS A PROFITABLE ULTRA-BROADBAND SOCIETY

Vision: Connect 2020

55%	90%	30%	5% GNI/M
Household access to the Internet	Rural population covered by broadband	Gas emission decrease	Broadband cost upper threshold

>30 Mbps	90% Population	<5% GNI per capita
Ultrafast	**Ubiquitous**	**Affordable**

156 Countries with National Broadband Plans (NBPs)

National ICT Plan is Strategically and Consistent with NDP5&HPP

ICT Development Plan is aligned with Governments' Vision, NDP5 & HPP (Harambee Prosperity Plan)

"In the information age, ICT technology is playing an increasingly important role in the country's economic and social development and the improvement of people's livelihood. Leveraging ICT was important to further advance national development"

——President Hage Geinbob | 30 March 2018

Namibia Government Vision 2030

5th National Development Plan (2017-2022)

Harambee Prosperity Plan (HPP)

Communication Act No : 8 of 2009

Overarching ICT Policy 2009

Universal Access Service Policy 2013

e-Gov. Policy For the Public Service(2005)

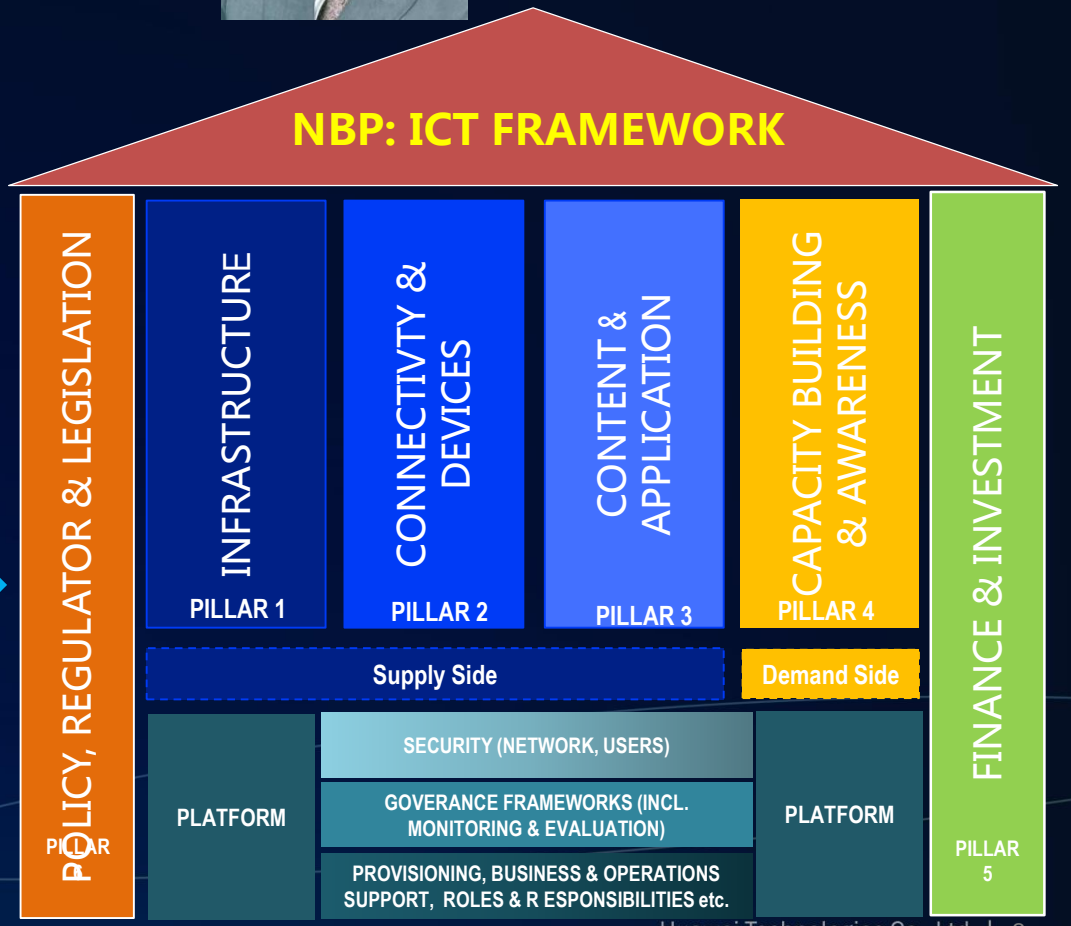
e-Gov. Strategic Action Plan (2014-2018)

ICT Sectorial Policies for Republic of Namibia

IT Policy for Public Service 2008

ICT Ministerial KPI for 2020
Improve ITU IDI for Namibia : From 117 to 114

NBP



Namibia NBP Vision and Definition:

NBP Vision

An informed ICT smart Namibia

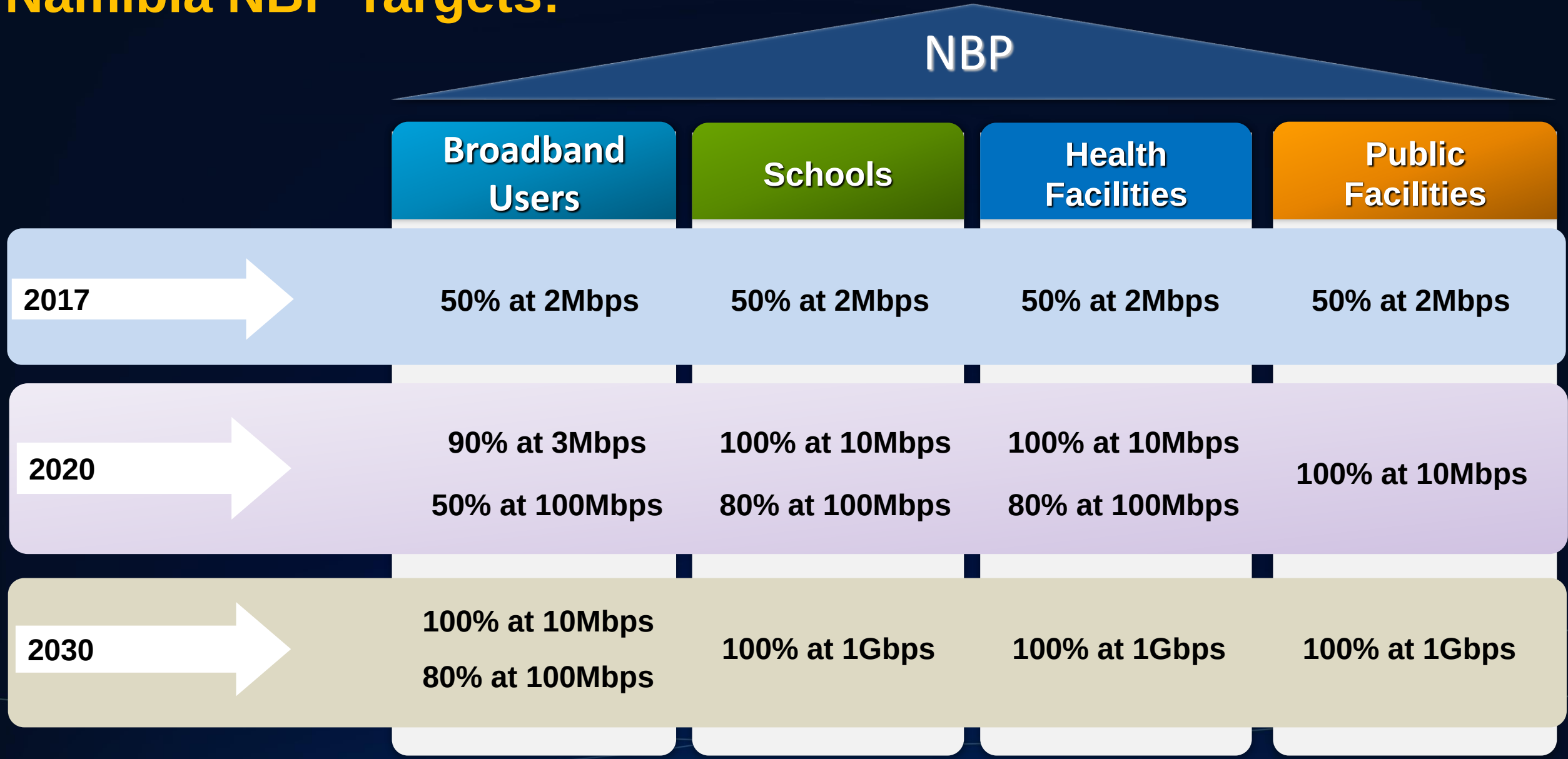
Defining Broadband

Broadband coverage that includes geographical and population coverage for telecommunication networks and coverage of the population for broadcasting. Specifically, and for the purpose of this policy broadband is defined to mean a minimum of 1 *Mbps down load speed available to 80% of the population*. .

Policy Objectives:

- To ensure universal access to broadband Infrastructure and services
- To promote development of content, applications and innovation,
- To support efforts aimed at capacity building and reducing digital divide,
- To provide an enabling environment for broadband deployment,

Namibia NBP Targets:



Namibia Policy Targets

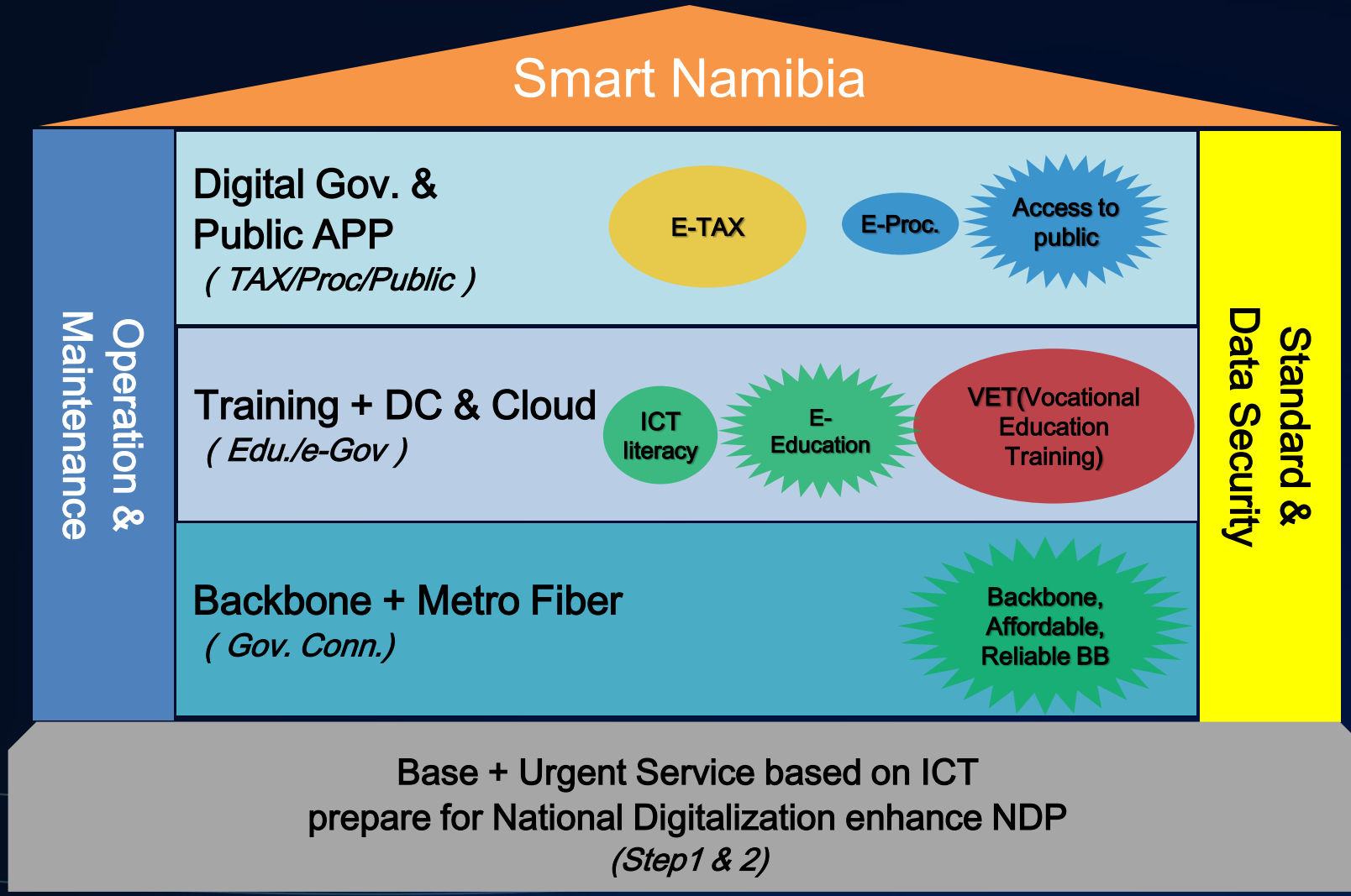
The Republic of Namibia will endeavour to develop its broadband ecosystem according to its unique requirements but also taking into account regional broadband initiatives that have been approved at SADC level.

- 95% of population to be covered by broadband services by 2023
- 100% coverage to schools by 2022 to allow e-learning
- 90% coverage to health facilities to allow e-health by 2023;
- 50 institutions to have e-application content by 2030
- 100% Public Sector coverage to allow e-governance by 2020;
- Survey to determine broadband demand gap in Public Institution
- Broadband Affordability study to be conducted by 2023
- # of Awareness campaign carried out by 2023
- National Broadband Committee to be fully established by 2020
- E waste Policy to be completed by 2020

3. Achieving the Target

ICT Key Projects will Drive NDP Progress

5th National Development Plan (2017-2022)	Namibia Government Vision 2030	Harambee Prosperity Plan (HPP)



Key Proposals

Step 1: Infrastructure:

1. **Connect Countrywide Fiber Backbone** to support 80% connecting to public sectors, e.g. government, health facilities and schools.
2. **DC & Cloud, supporting e-Gov.** for bureaucracy efficiency and e-purchase for cost saving

Step 2: Strategies industries:

1. **Safe city** enhance Cities/Nation public safety, and increase tourism.
2. **e-Education/Training** system on cloud enable remote education for VET, workforce and public skill training, ICT literacy, for education cost down.
3. **e-Health** enable cost down of medical

Step 3 & 4: Lively hood & National Competitive

1. **Smart City/Digital Namibia** enhance efficiency of Power utility, transportation, resource mgmt. and & competitiveness
   - e-Agriculture/e-Watering enhance food improvement, water safety & hazard;
   - e-Tax enable real-time & efficient taxation for Gov. income improvement

Practice HPP by Prioritize All Sub-targets/-plans

- Step1: Infrastructure, IDI → Broadband Connection to whole Nation/Public is **BASE to ALL Digitalization**
- Step2-4: Service & Innovation Digitalization, GCI/IIAG → e-Gov., e-Tax, e-Health & e-Edu… for Live-Hood and National Competitive for Long-Term

Governance
- → E-Procurement
- → Access to Public Information
- → Broadband access by citizens
- → E-Service.(100% agencies connect)
- → Government Online Presence

IIAG 65→ ≥90
Rank 4→1(SSA)

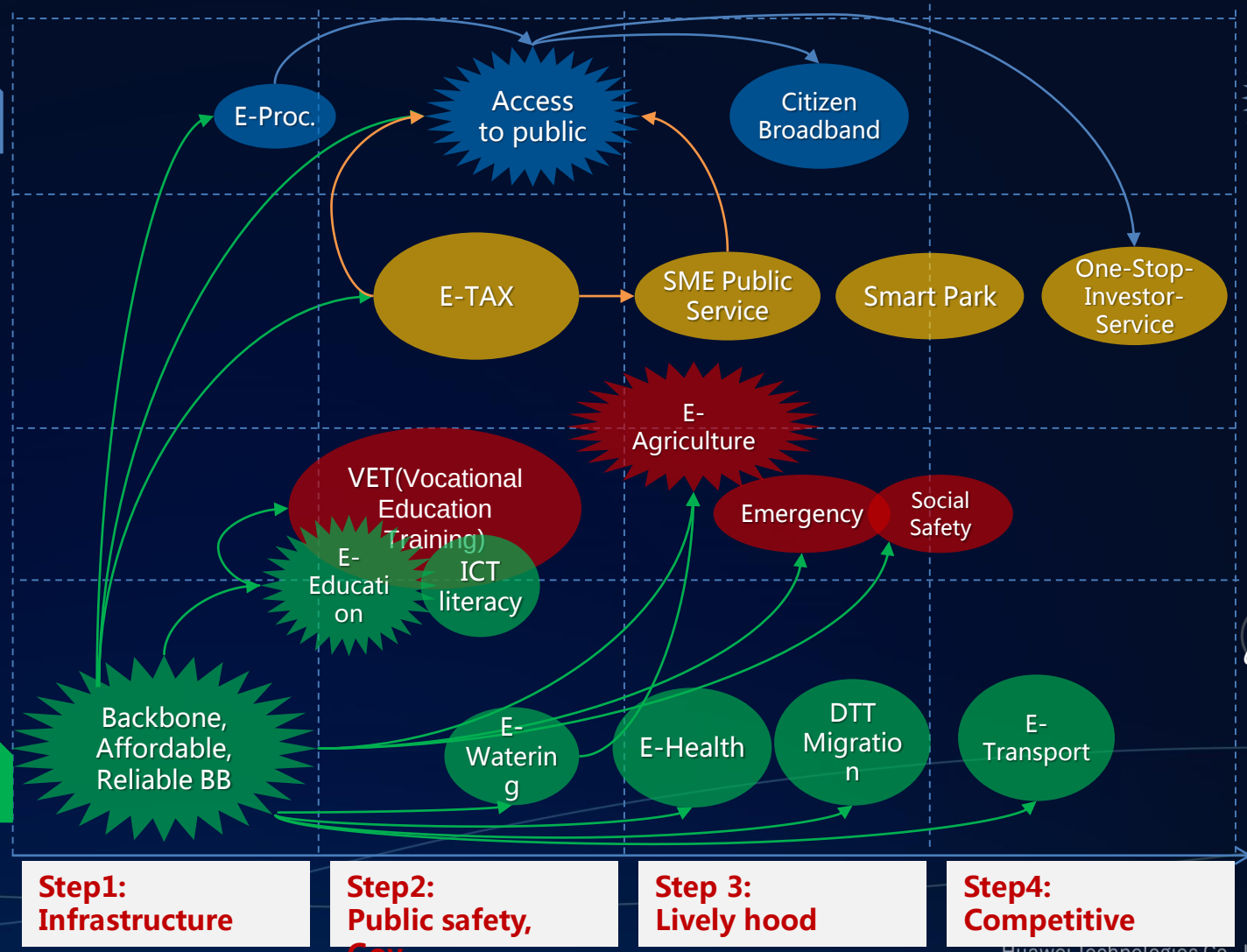
Economic
- → Improve competitive(educated workforce; access to financing)
- → One-Stop-Investor-Service
- → E-TAX(better/broader/integrated/ financial & wealth)
- → Smart Industry Park
- → Public infra.& Services for trade & SME

GCI Rank: 4→1(SSA)

Social
- → VET (quantity, quality) - E-Training
- → Poverty/agriculture output /emergency assistance/food bank)
- → Rural social safety/sanitation nets (e-Health)

Infrastructure
- → Backbone, Affordable, Reliable BB(26 MPCCs in all 14 regions)
- → DTT migration to 100% by 2020
- → E-Education(80% connect to school)
- → E-Health(70% connect to health)
- → E-Agriculture
- → E-Transport
- → E-Watering(monitoring: drought & saving)

IDI Rank 117→ 114



Key
Normal
Project
Scale
Support
CrossOver

Leaders in New Targets for Broadband Definitions

Digital Europe (2020)

100Mbps (50%)

30Mbps (100%)

Broadband China (2020)

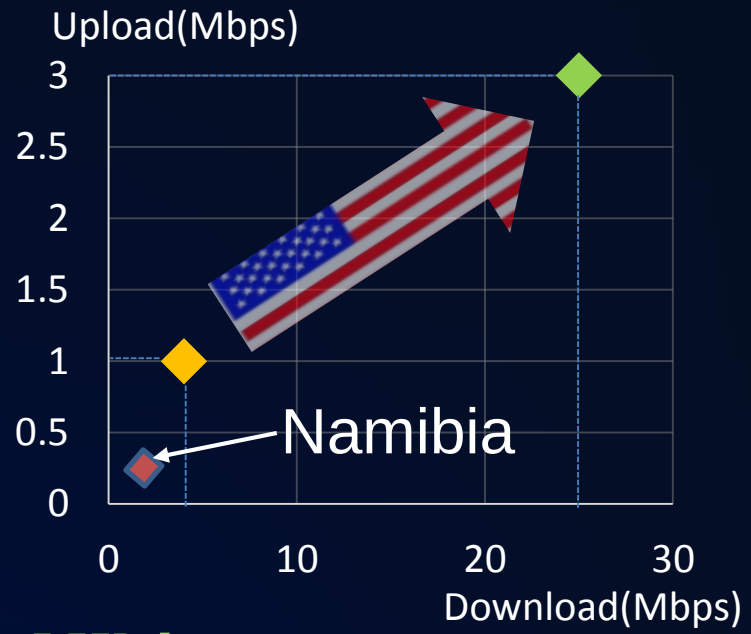
1Gbps (developed city)

50Mbps (common city)

Giga Korea (2020)

10Gbps (SKT)

1Gbps (100%)



4 Mb/s was yesterday's broadband

Gigabit Germany

France Tres Haut Debit

Smart Singapore

Saudi Arab Vision 2030

Malaysia CMAP

Digital Thailand

Tom Wheeler, ex FCC Chairman

Online video grows rapidly with CAGR **25.5%**

Over **60%** of U.S. population watch online video content.

Infrastructure Synergy Policy Support to Reduce Roll-out Cost

Utility Sharing

Power facility

Water system

Gas piping

Transportation Synergy

‘Dig Once’ Policy

Cost sharing

Right of way / Site Acquisitions

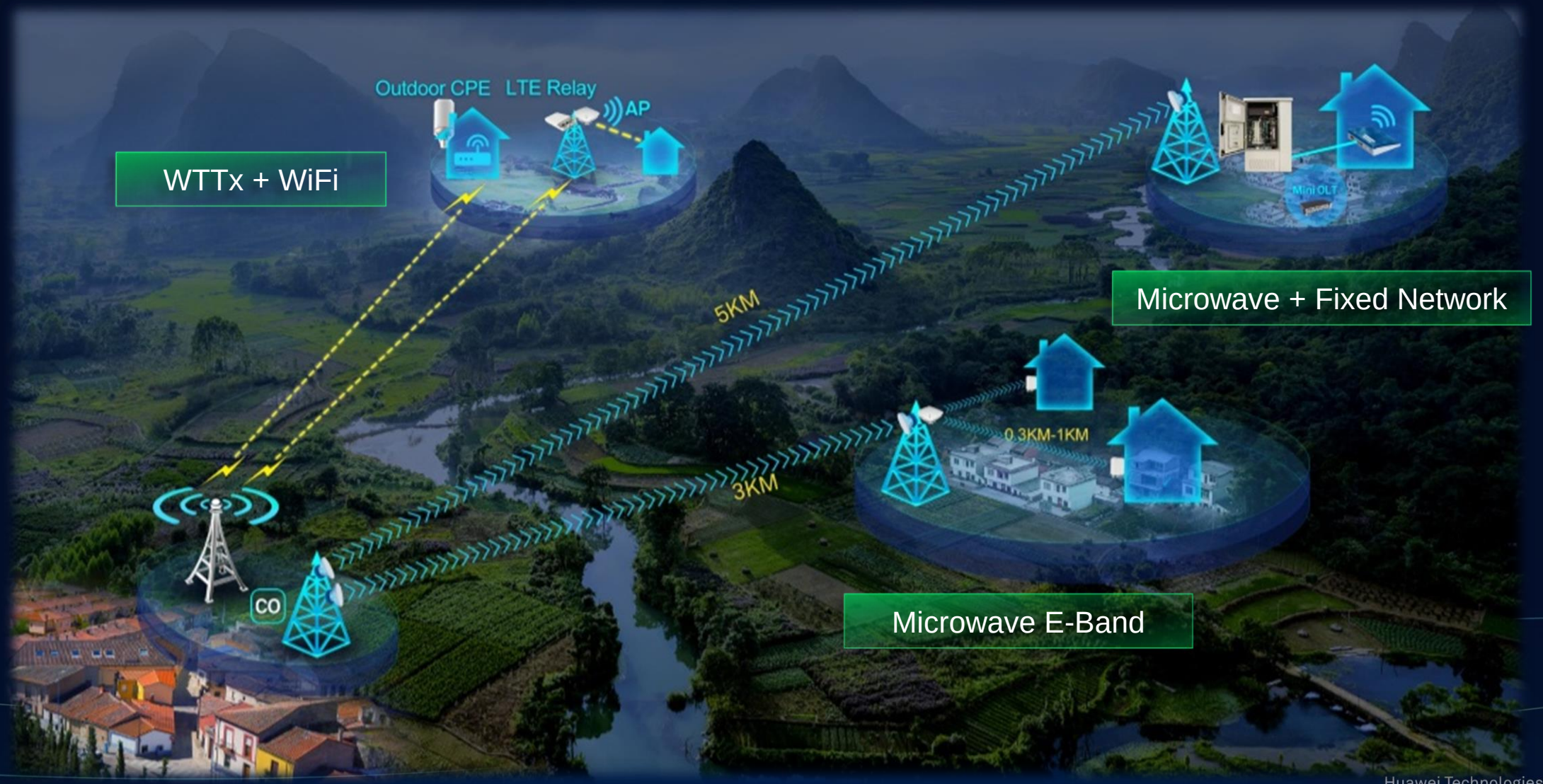
Fixed & Mobile

Base station sites

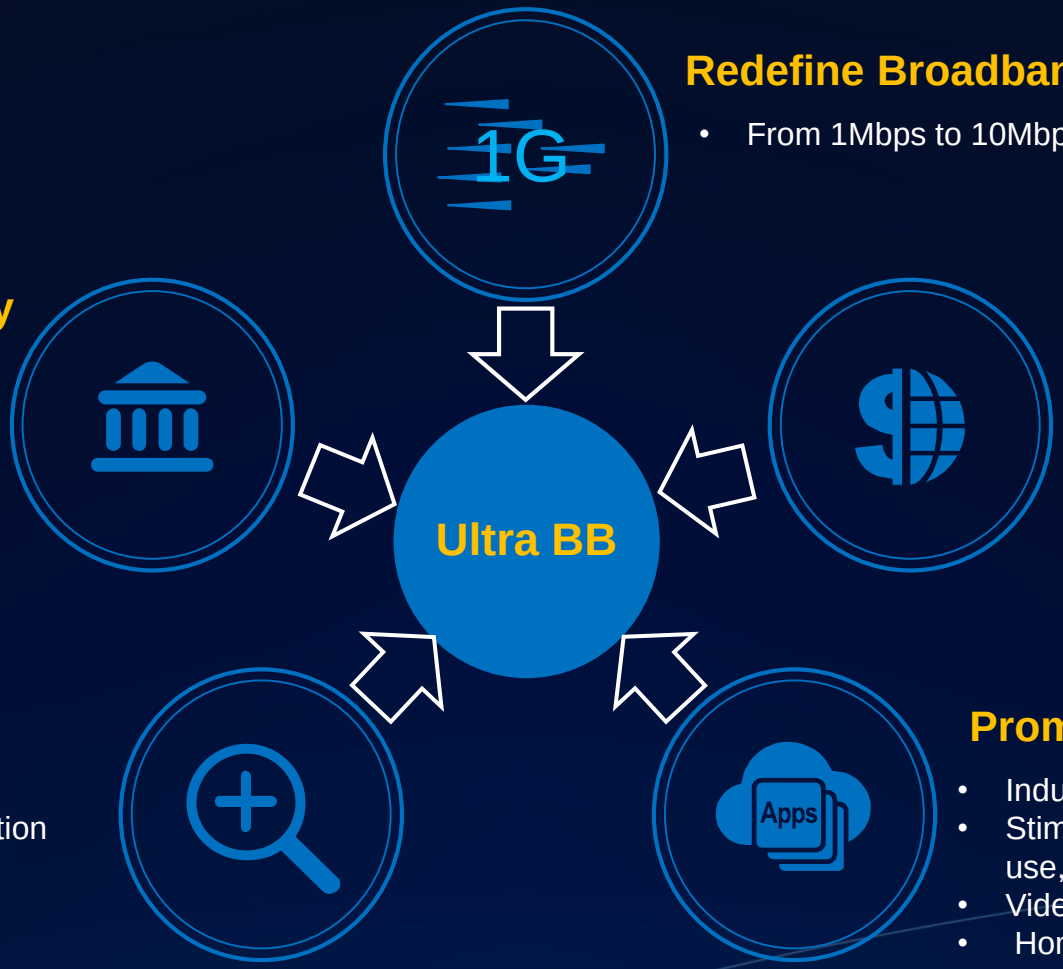
Fibers / Power

Ducts / poles

Fixed & Mobile Synergy for Rural Area Economic Coverage



Investment-Friendly Regulation & Policy allow Broadband Growth



Redefine Broadband Target

- From 1Mbps to 10Mbps

Encourage Investment Policy

- Deregulation
- Infrastructure synergy
- Fiber & Mobile Synergy
- Fiber-ready in Building

Broadband Affordability

- Stimulate Investment
- Affordability of data, devices & content

Education

- ICT skills and Training
- Drive understanding of ICT solution relevance to everyday life
- APP development

Promote Digital Innovation

- Industry digitalization (eGov, eEdu, eHealth…)
- Stimulating demand with local content, practical use, ICT solution relevance
- Video (4K)
- Home IoT

Digitalize Industries Singapore Towards a Smart Nation Model

Ubiquitous Connectivity

- **95%+** of homes and businesses connected with the Next Generation Access
- **85%** of households have access to broadband
- All newly built homes will be fibre-ready
- Free Wi-Fi with access speed of up to 2Mbps
- In-building mobile coverage to be enhanced to more than **85%**
- **86%** of resident households have a computer; **97%** of households with school-going children own a computer

Smart Nation SINGAPORE
Many Smart Ideas · One Smart Nation

Singapore Government
Integrity · Service · Excellence
eCitizen
YOUR GATEWAY TO ALL GOVERNMENT SERVICES
EnterpriseOne
Serving Singapore's Business Community

Digital-enabled Industries

- E-Gov:**98%** public services are available online, over **400** government e-services
- E-Health: **36** healthcare centers have deployed Telehealth which enables remotely monitor chronic disease patients
- E-Edu: All schools implement Infocomm Competency Training, **50** applications rolled out from Futureschools programme
- E-Enterprise: iSPRINT has helped **5,000+** SMEs use infocomm solutions in their business
- e-Finance: Launch of nationwide NFC payment, accepted at over **30,000** payment points

Source: Infocom Development Authority of Singapore

Regionally, ICT industry grew rapidly over past few years with much effort from governments & regulators but challenges persist

Kenya

NBP Objective/s: Always-on connectivity delivering min. 5Mbps to individuals, homes & businesses for high speed access to voice, data, video & apps development.

Outcomes: Phase 1 completed 2009, Phase 2 completed 2014. From 2014 to Q1.2018, MBB subscriber as % of unique subscribers increased 50.2% while mobile internet penetration increased to 25% at end of Q1.2018. Internet speed increased from 3.1Mbps in 2011 to 12,2 Mbps for MBB and 14.3 Mbps for FBB in 2018. Current internet speed – 5Mbps.

Ghana

NBP Objective/s: BB connectivity of at least 40% of H/Hs incl. underserved areas and at least 40% national universal penetration by 2015 and 90% 90% by 2020.

Outcomes: By Q1.2018, MBB penetration reached only 31% while MBB coverage reached 85% of population. Current internet speed is 1.8Mbps.

South Africa

NBP Objective/s: 90% BB coverage at 5Mbps & 50% at 100Mbps by 2020 plus 100% schools & health facilities at 10Mbps and 80% schools & health facilities at 100Mbps by 2020; 100% government facilities at 10Mbps by 2020.

Outcomes: By Q1.2018, MBB penetration reached only 46% while MBB coverage reached 99.4% of population. Current internet speed is 4.1Mbps.

Nigeria

NBP Objective/s: Targeting 95% BB availability (coverage) & 76% penetration plus 100% Community Public Venues with wired/wireless hotspots by 2020.

Outcomes: By Q1.2018, MBB penetration reached merely 23% despite MBB coverage reaching 70% of population. Current internet speed is 2.7Mbps.

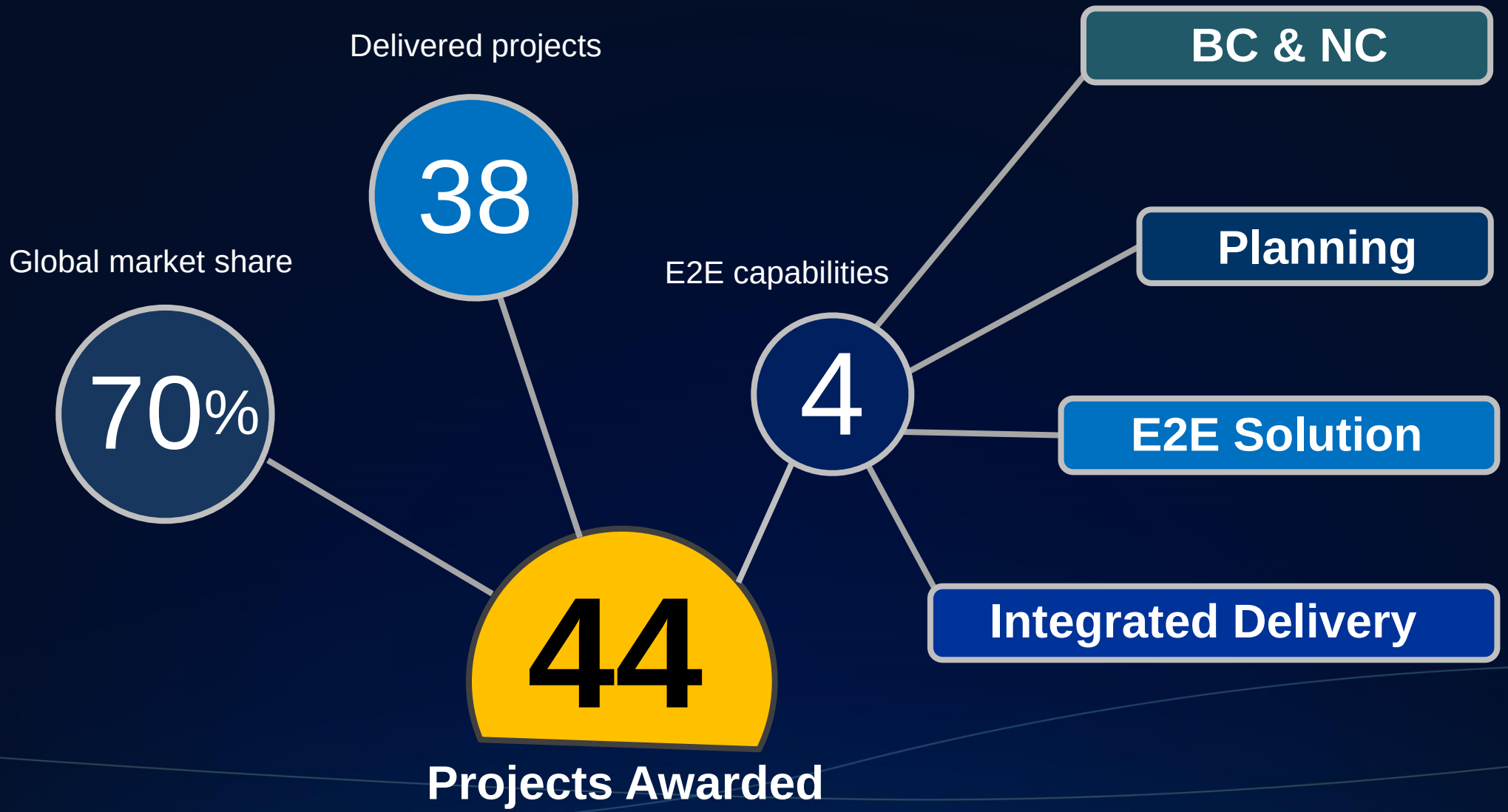
With 1.5 years until 2020, most countries are far from achieving core targets set in their NBP's.

- While Kenya is already achieving speed target, BB penetration is only around 25-30%.
- Ghana, Namibia & Nigeria MBB penetration ranges from 23% to 31% with FBB penetration even lower from 0.33-2%. Speeds range from 1.8-2.7Mbps.
- South Africa, does not have far to go to reach speeds of 5Mpbs but attained 100Mbps by 2020 is a tall order - unless drastic action is taken to expand quality BB across the country.

Source: Internet speed obtained from Fastmetrics

Establishing NBPs is a crucial step in making BB access universal. While all countries made inroads in expanding BB to more people in their countries, increasing internet penetration rates over the years. Even regionally though, challenges persist which must still be overcome to reach targets and milestones set in NBP's.

Huawei, Your Reliable Partner for NBN



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