



UiO : University of Oslo



**World Summit, Ministerial Global Governance Summit,
26-28Jun2020**

**Session 7: Capacity-building in Developing Nations:
Education, Multidimensional Poverty, and Economic Inequality**

An Integrated Approach addressing Economic Inequality

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Foundation**

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United Nations: High-Level Panel on Digital Cooperation

Secretary-General's High-level Panel on Digital Cooperation



Basic Internet Foundation

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@Basic4All Follows you

Envision a world of free access to basic information on health care, education or development. Join our quest to make this vision a reality!

Kjeller, Norway

BasicInternet.org

Joined March 2015

Tweet to

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Following



The panel highlights some references to be taken into consideration, including the [@Basic4All](#) 's DigI project in Tanzania [#SDGs](#) [#digitalinclusion](#) [#DigitalCooperation](#) [@UNSGdigicoop](#)

There has also been considerable private sector activity in this arena. Loon, a project of Google's parent company Alphabet, uses internet-enabled balloons – in the aftermath of Hurricane Maria, they provided connectivity to 200,000 in Puerto Rico.⁵⁵ Amazon, OneWeb, Telesat, Space Norway and SpaceX are among companies considering connectivity solutions using low-earth orbit satellites.⁵⁶

Some countries, such as Indonesia, have set targets that treat internet connectivity as a national priority.⁵⁷ While finance alone will not achieve universal internet access, it can help if invested wisely: some countries are generating financing from fees on existing communication network providers to help expand systems to those who are currently uncovered, for example through Universal Service Funds.⁵⁸

Advance market commitments deserve further consideration as a possible way to incentivise investment, as they have in other areas such as vaccine developments. They involve a commitment to pay for a future product or service once it exists; the commitment in this case could come from consortia of governments, international organisations or others interested in enabling specific uses in areas such as health or education.⁵⁹

Many local groups are also working on small-scale community solutions: for example, a rural community of 6,000 people in Mankosi, South Africa, built a solar-powered "mesh network" in collaboration with a university.⁶⁰ Such community projects are often not just about getting online but building skills and empowering locals to use technology for development and entrepreneurship.⁶¹

organisations.⁶² Initiatives to improve access for marginalised populations should start with consultation involving these groups in the design, deployment and evaluation of such efforts.

Efforts to improve digital inclusion would be greatly helped if there were a clear and agreed set of metrics to monitor it. Initial work – notably by the Organisation for Economic Co-operation and Development (OECD), the Group of Twenty (G20), ITU, and the Economist Intelligence Unit – needs to be broadened to reflect the wide variety of global contexts and, importantly, needs greater buy-in and participation from developing countries.⁶³ The Panel urges international organisations, civil society and governments to develop action plans around reliable and consistent measures of digital inclusion with sex disaggregated data. Discussion about measurements and definitions would also focus attention on the issues underlying inclusion.

2.2 RETHINKING HOW WE WORK AND LEARN

Many previous waves of technological change have shifted what skills are demanded in the labour market, making some jobs obsolete while creating new ones. But the current wave of change may be the most rapid and unpredictable in history. How to prepare people to earn a livelihood in the digital age – and how to protect those struggling to do so – is a critical question for digital cooperation for governments and other stakeholders who aim to reduce inequality and achieve the SDGs.

Agenda - Digitisation in Development

- Norway
 - ➔ “Digitisation in Development” (Astrup, Unicef, Telenor)
 - ➔ UNO High-level panel on Digital Collaboration

- International perspective
 - ➔ Germany-Norway collaboration West-Africa
 - ➔ G20 Compact with Africa



Internet Lite for All

the catalyst for the goals



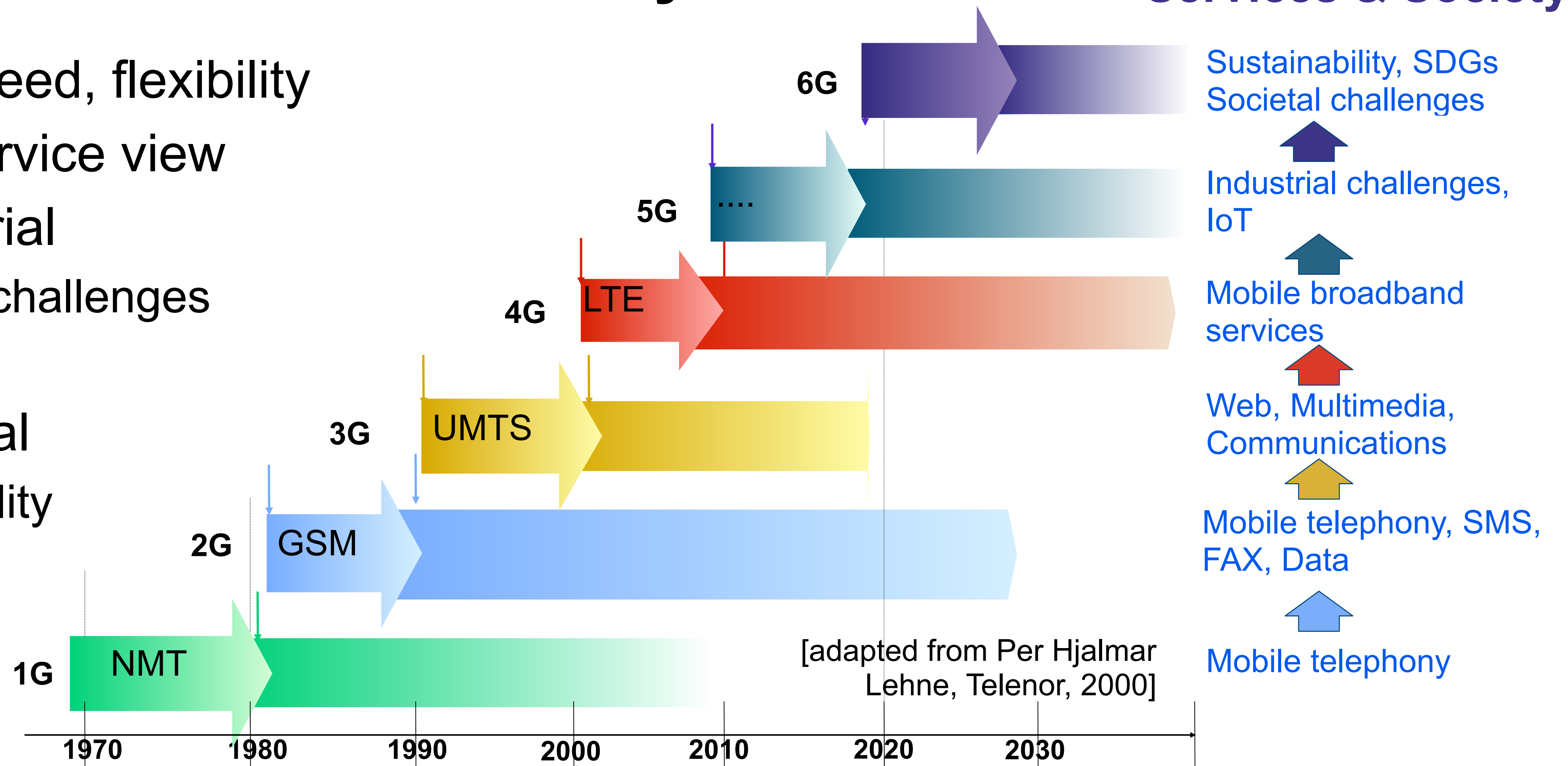
THE PRICE OF INEQUALITY

JOSEPH E. STIGLITZ
WINNER OF THE NOBEL PRIZE IN ECONOMICS

HOW TODAY'S DIVIDED SOCIETY
ENDANGERS OUR FUTURE

6G: Digitisation of the Society

- 1G-3G: Speed, flexibility
- 3G-4G: Service view
- 5G: Industrial
 - ➔ Business challenges
 - ➔ ownership
- 6G: Societal
 - ➔ sustainability



Critics on 5G

5G IS FOR THE BENEFIT OF TELECOMM OPERATORS, NOT US AS CONSUMERS

By josef | 24 June 2020 | Digital cooperation, Digital divide, Digital inclusion, Mobile Networks



Titan.uio.no
Forskningsnyheter om realfag og teknologi



Digitaliseringsminister Nikolai Astrup (H) og direktør Jenny K. Lindqvist i Ericsson under en pressekonferanse om 5G-teknologi i Telias lokaler i Nydalen i Oslo i oktober 2019. Foto: Håkon

–5G-nettet er til fordel for teleoperatørene, ikke forbrukerne

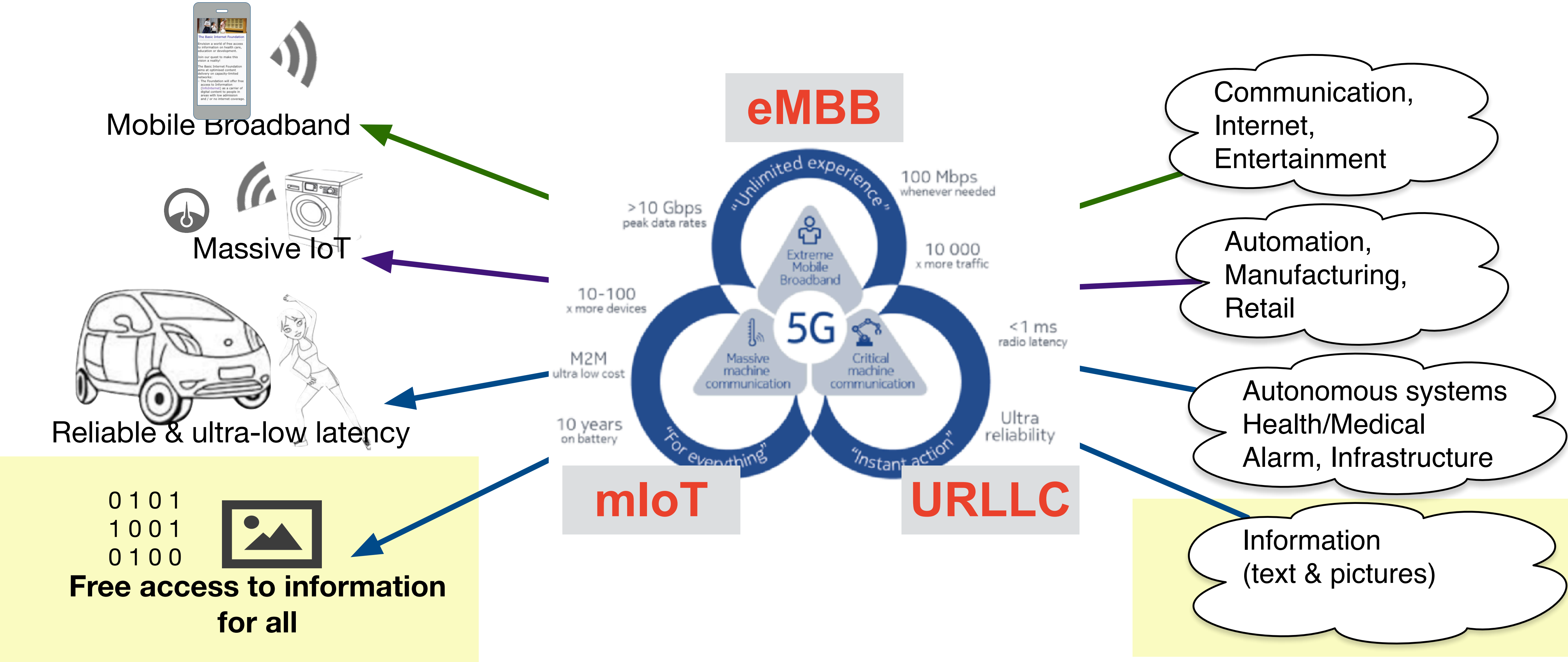
from <https://titan.uio.no/teknologi/2020/5g-nettet-er-til-fordel-brukerne>, created by Bjarne Røsjø, 29Apr2020 in Norwegian

o helped develop the 3G network, is very critical with respect to 5G: «telecom operators' revenues», he says.

Missing **5G for All**

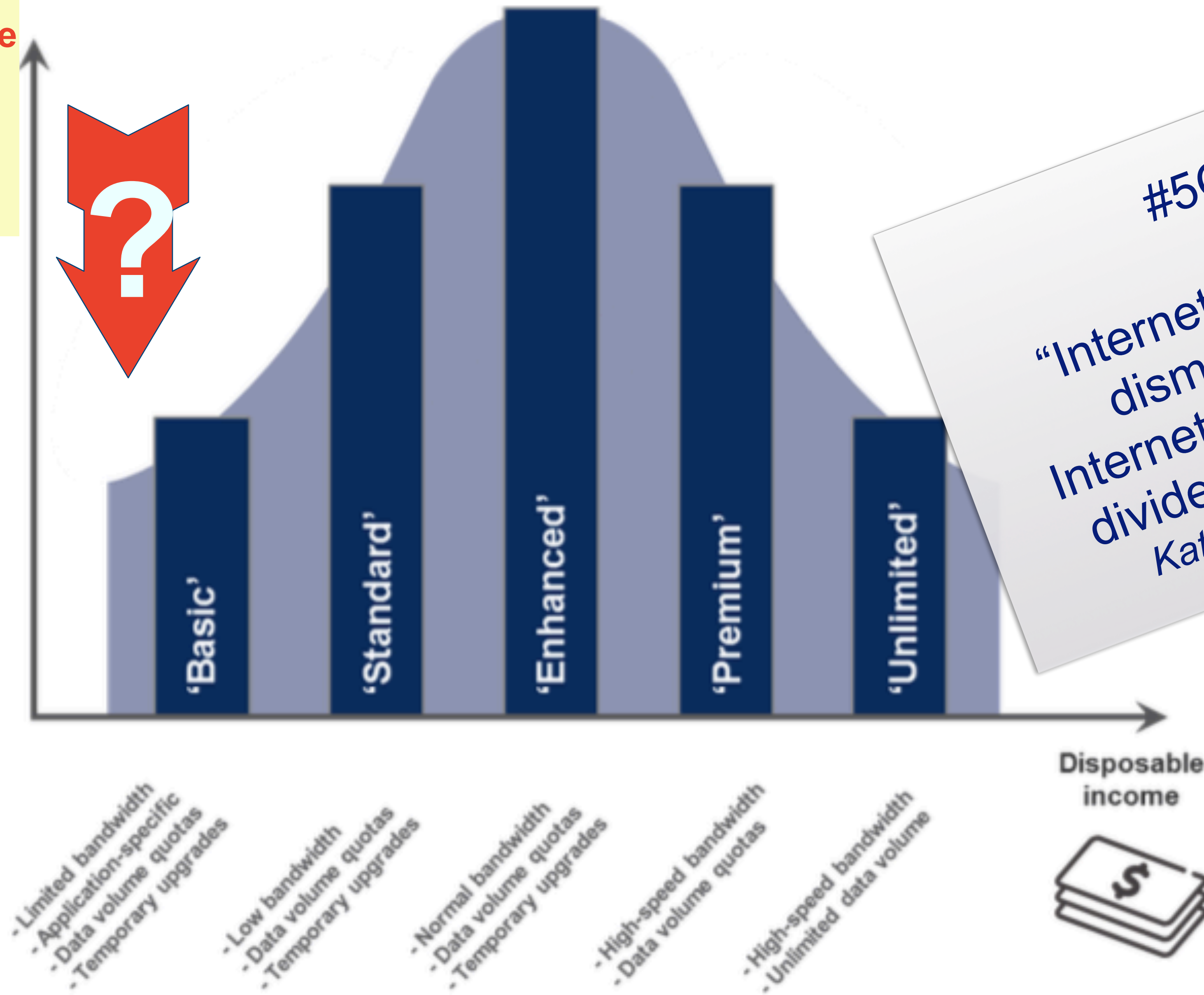


5G network slicing for Free Access to Information for All



Telecom view on digital inclusion

Addressable
Market

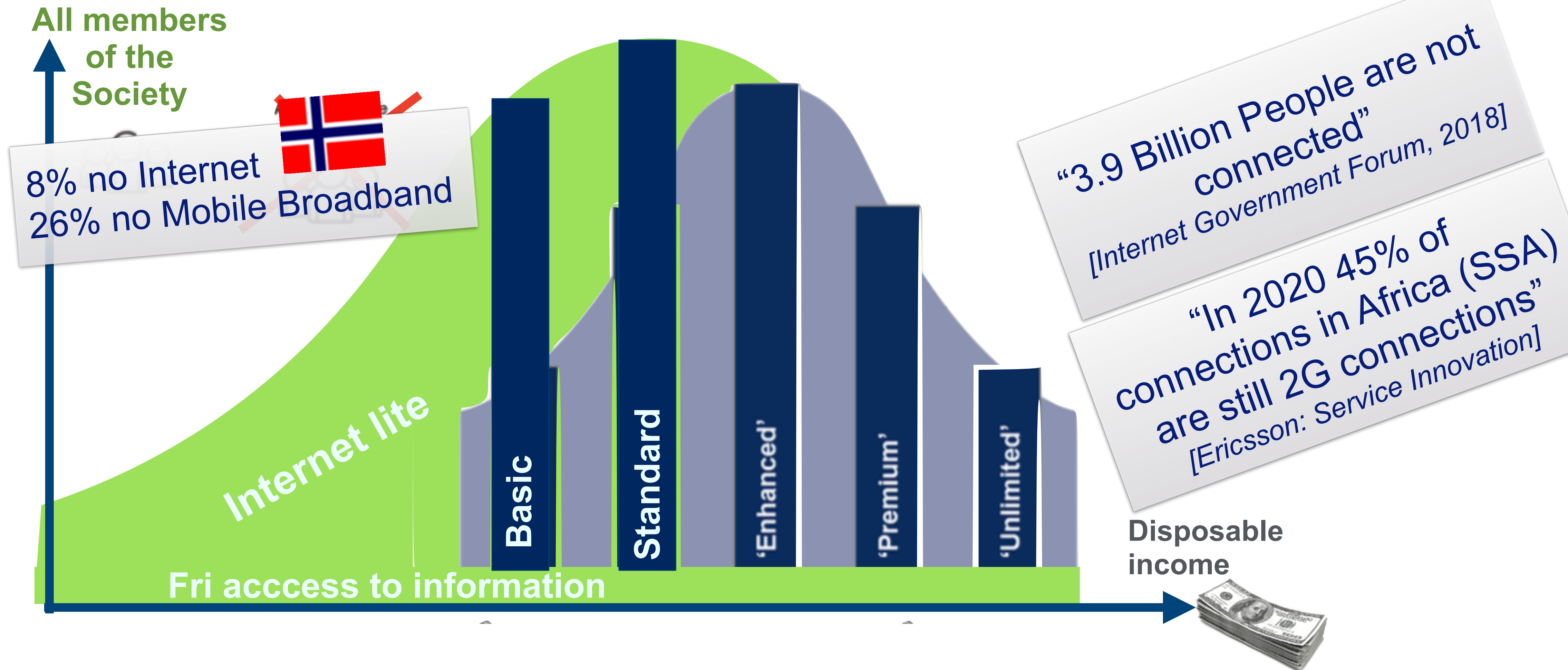


#5Gfor All?

“Internet had the ability to dismantle the divide. Internet failed miserably, the divide is bigger than ever.”
Kate Gilmore, Human Rights, UNO

Source: Service Innovation through Smart Networks, Ericsson,
<https://www.ericsson.com/assets/local/networks/documents/service-innovation-through-smart-networks.pdf>

6G (#5GforAll) for digital inclusion



[Adapted from: Service Innovation through Smart Networks, Ericsson, 2018]

Our common future

- The digital divide threatens our society
 - ➔ 3.9 Billion are unconnected
- Huge costs for the society
 - ➔ not sufficient digital skills
 - ➔ not contribution to labour market
- Hampering innovation
 - ➔ no purchasing power
 - ➔ no ability to adopt innovations



“Internet had the ability to dismantle the divide. Internet failed miserably, the divide is bigger than ever.”
Kate Gilmore, Human Rights, UNO

Addressing the Priorities by

- Report to Parliament 11 (2019-2020),
Priorities
 - ➔ Access, skills, regulations, inclusion
- “Boys have the toys”
 - ➔ digital divide in both **devices**
 - ➔ and **mobile broadband** access
- **Costs** of Access
 - ➔ School connectivity (SDG indicator 4.A.1)
 - ➔ Digital Health for primary health facilities
 - ➔ Community involvement/digital transformation



Norwegian Ministry
of Foreign Affairs

Summary



Access

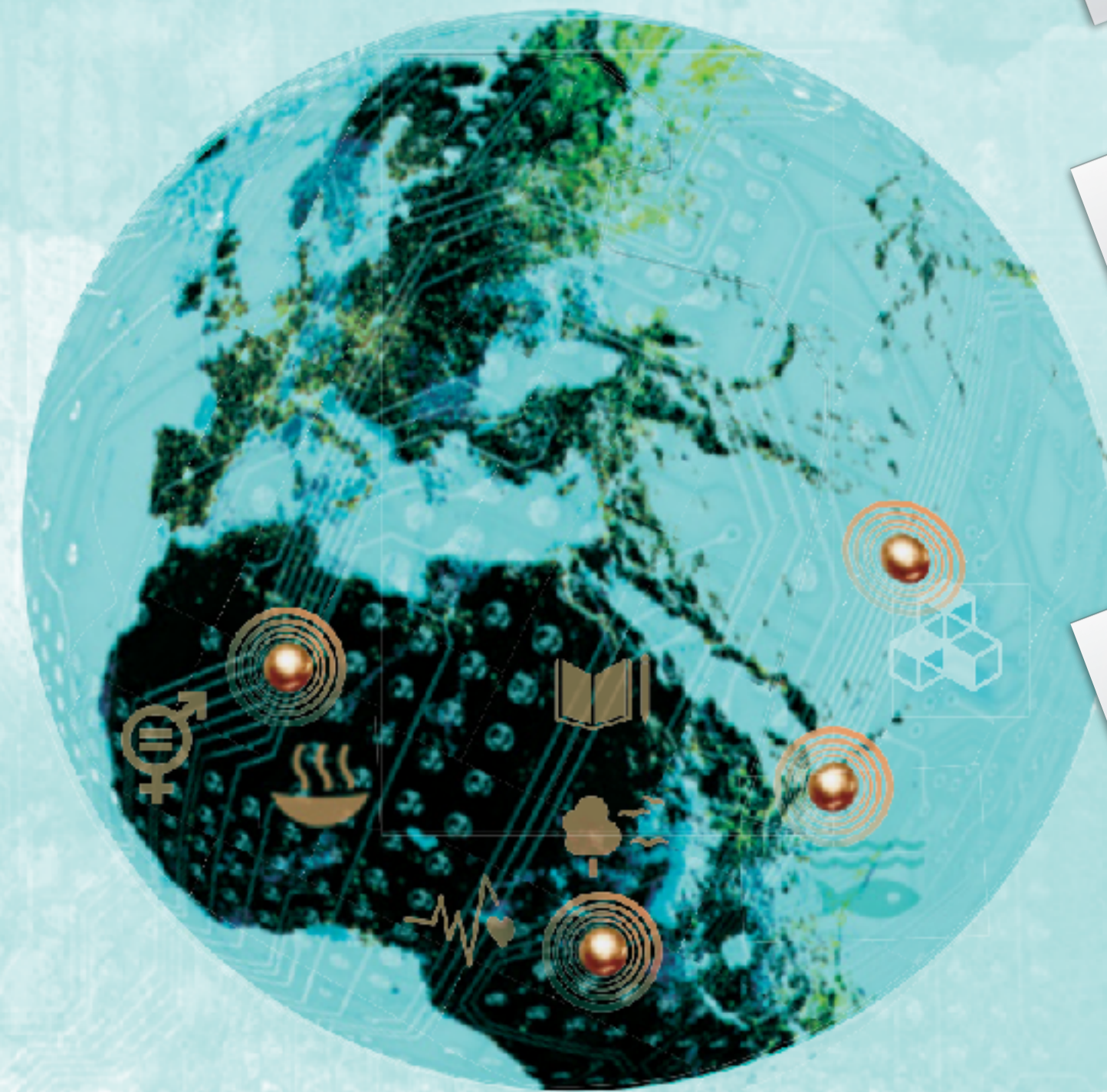
Skills

Regulations

Inclusion

Meld. St. 11 (2019–2020) Report to the Storting (white paper)

Digital transformation
and development policy



Step 1: We solved the **problem of access**

- Internet Lite
- One Information Spot per village
- Free Access to Health & Education

No magic, exist today.... Lightweight Protocols, e.g. AMP

BasicInternet.org/Mission/?amp

Our Mission

We make digital inclusion happen to improve the life of every single human, by providing free access to the internet and its information

The Challenge

Access to information is crucial for participation, education, and health care.

Worldwide, more than 800 million people don't have access to basic information.

Internet Lite - AMP experience

4

Million People Don't Have Access To The Internet

800

People Don't Have Access To Basic Information

70

BasicInternet.org/Mission

OUR MISSION

We make digital inclusion happen to improve the life of every single human, by providing free access to the internet and its information

Full Web experience

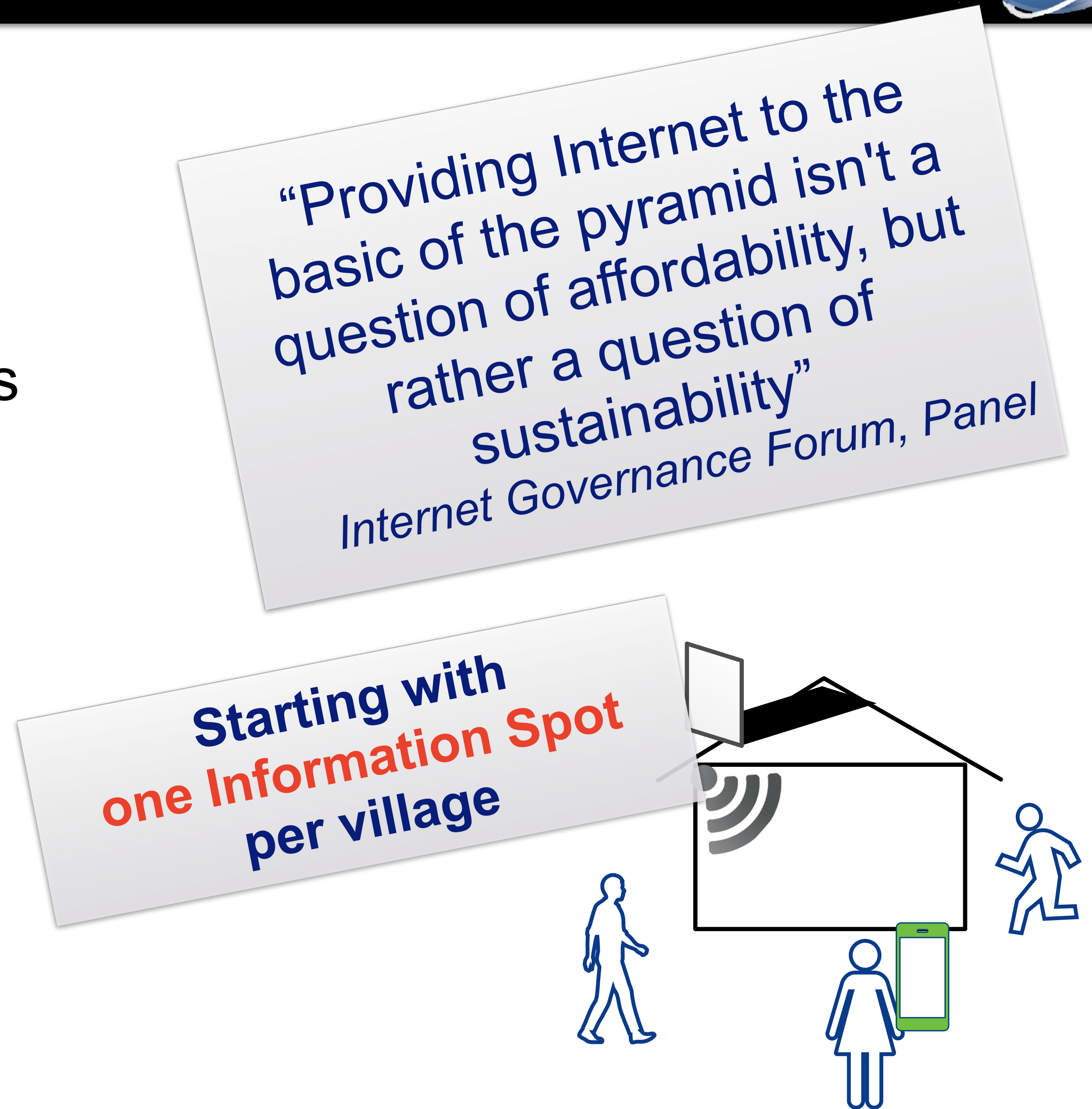
THE CHALLENGE

Access to information is crucial for participation, education, and health care.

Worldwide, more than 800 million people don't have access to basic information.

Our solution

- We build Information Spots in Villages
 - ➔ Wifi Spots with Free Access to Information
 - ➔ Focus on Digital Health
- We introduce the **Freemium** model for access
 - ➔ Free access to information
 - ➔ Premium access to broadband content
- We build the basis for Sustainable Development
 - ➔ Catalyst for the Sustainable Development Goals (SDGs)
 - ➔ for Health, Education, Agriculture, Decent Work, ...



“Connect the Unconnected” Selela Market Place



- Antenna in 6 m height
- Reaches Tigo tower > 20 km away



“Connect the Unconnected” Izazi



Installation time: 1,5 h
catching the signal from the Vodacom
tower in Migoli (~10km away)

Village office

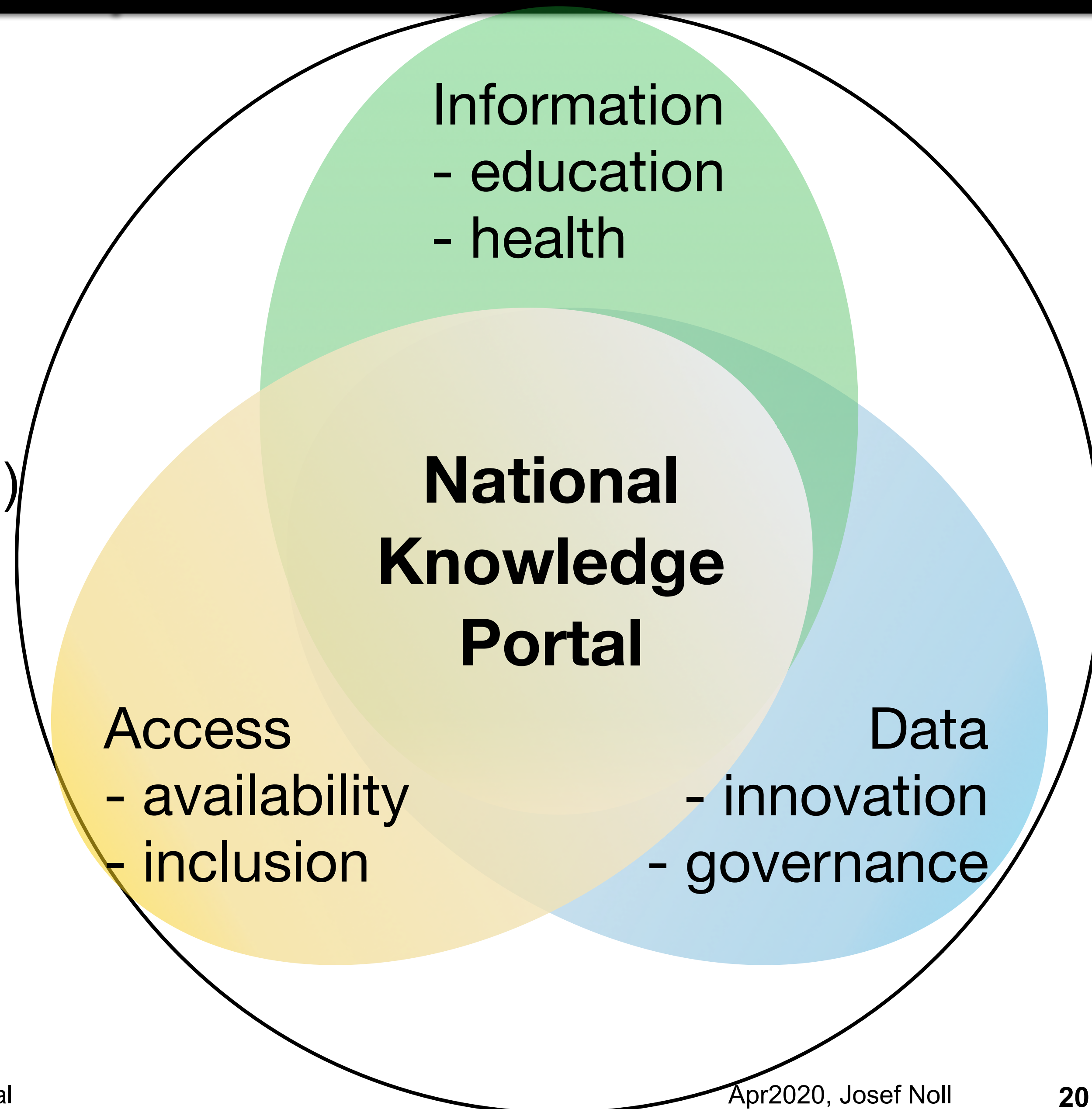


Step 2: Integrated Approach for Digital Inclusion

- National Knowledge Portal
- “Access, Skills, Regulation & Inclusion”

National Knowledge Portal

- Repository for Health Data
- Trustworthy Health Information
 - ➔ Source for Digital Health Promotion (DHP)
 - ➔ Education, Digital Public Goods (DPGs)
- Regulatory Framework
 - ➔ Free access to Knowledge Portal



COVID-19 response Implementation in Ethiopia

- Government Ethiopia - Agreement
 - ➔ “free access to health & education”
 - ➔ Ministry of Health
 - ➔ Ministry of Education
- Ethio Telecom offers “zero rating”
 - ➔ Health (MoH): MoH.gov.et
 - ➔ Ephi.gov.et & Covid19.et
 - ➔ Education: National Digital Library
NDL.ethernet.edu.et
- follow-up from discussions after African Innovat



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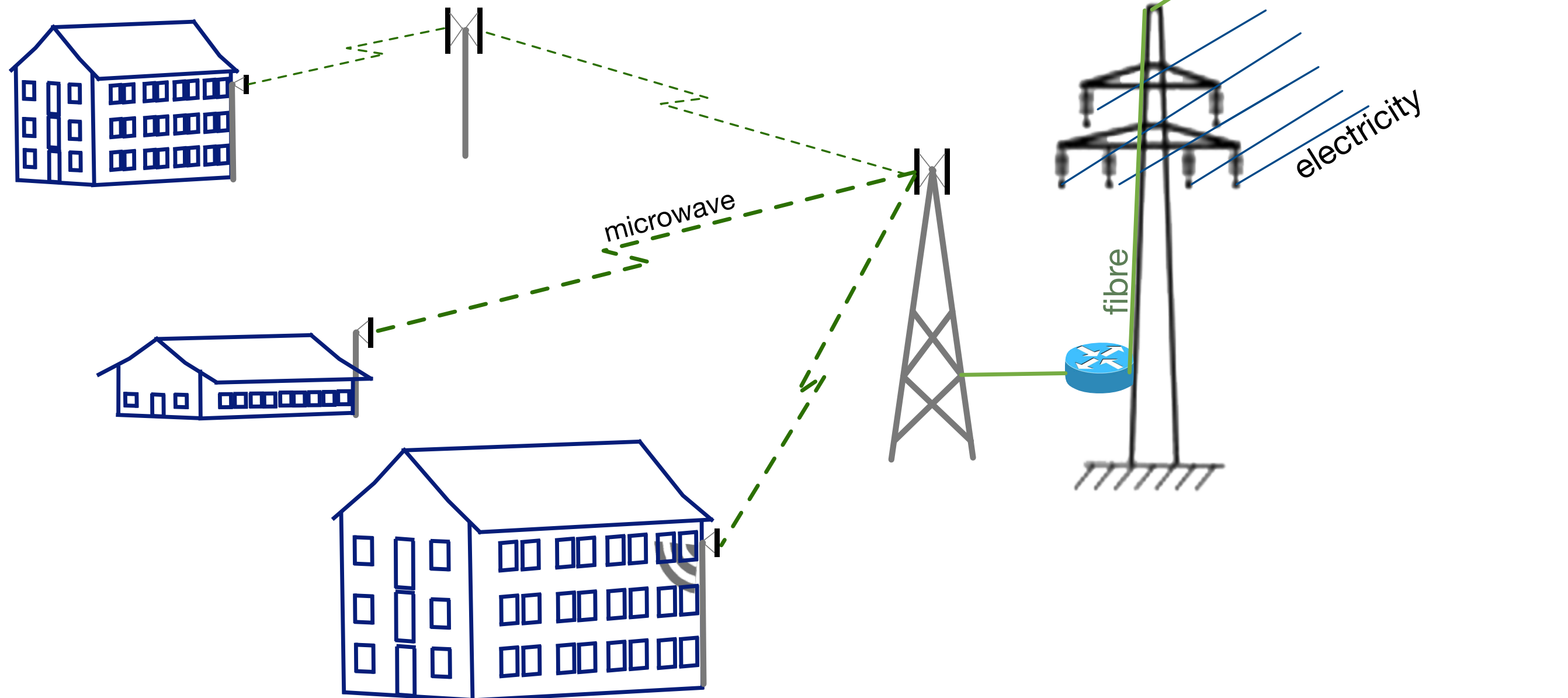
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School Connectivity Ethiopia

- 3500 secondary schools within 2020
 - ➔ educational network by Ministry of Education (MoE)
 - ➔ national fibre on high-voltage lines
 - ➔ fibre to microwave



በኢትዮጵያ ፌዴራላዊ ዲሞክራሲያዊ ሪፐብሊክ
የትምህርት ሚኒስቴር
Ministry of Education
Federal Democratic Republic of Ethiopia



ቀን/Date: 20/8/2012
ቁጥር / Ref: 1/2-4344/23296/35

Innovation Norway
Oslo, Norway

Subject: Financial Support for Digital Interconnection of Ethiopian Secondary Schools

Currently more than 26 Million students are in School in Ethiopia in more than 46 thousand Schools in the pre-Primary, Primary and Secondary level classes. Among these large number of Schools, Schools connected to a bear 2Mbps Internet connectivity is less than 500 in number. It implies that these young generation is being brought up in non-digital Schools in a Digital Age.

The Ministry of Education has now decided to change this through implementation of two Phases. Phase one is provision of 300Mbps Internet connectivity to the 3500 Secondary Schools within a time period of 6 months at an estimated Budget amount of 35 Million USD. The Second Phase is to be implemented over two years and is set to interconnect all the remaining Primary and Pre-Primary Schools at a minimum of 50Mbps speed. The Budget requirement for the Second phase is yet to be worked out.

The Educational Network Connectivity is going to be exclusively used for Educational and governmental Services and once installed will provide free internet services to the 3500 Secondary Schools and other government offices.

This is, therefore, to kindly request your good office to financially support the first phase of this Project and be part of the digital transformation in the Ethiopian General Education Sector.

My Best Regards

Dr. Ing. Getahun Mekuria
Minister



ራዕያችን ብቁ ዜጋ የሚያፈራ ጥራትና ፍትሀዊነት ያረጋገጠ የትምህርት ሥርዓት በቀጣይነት መገንባት ነው

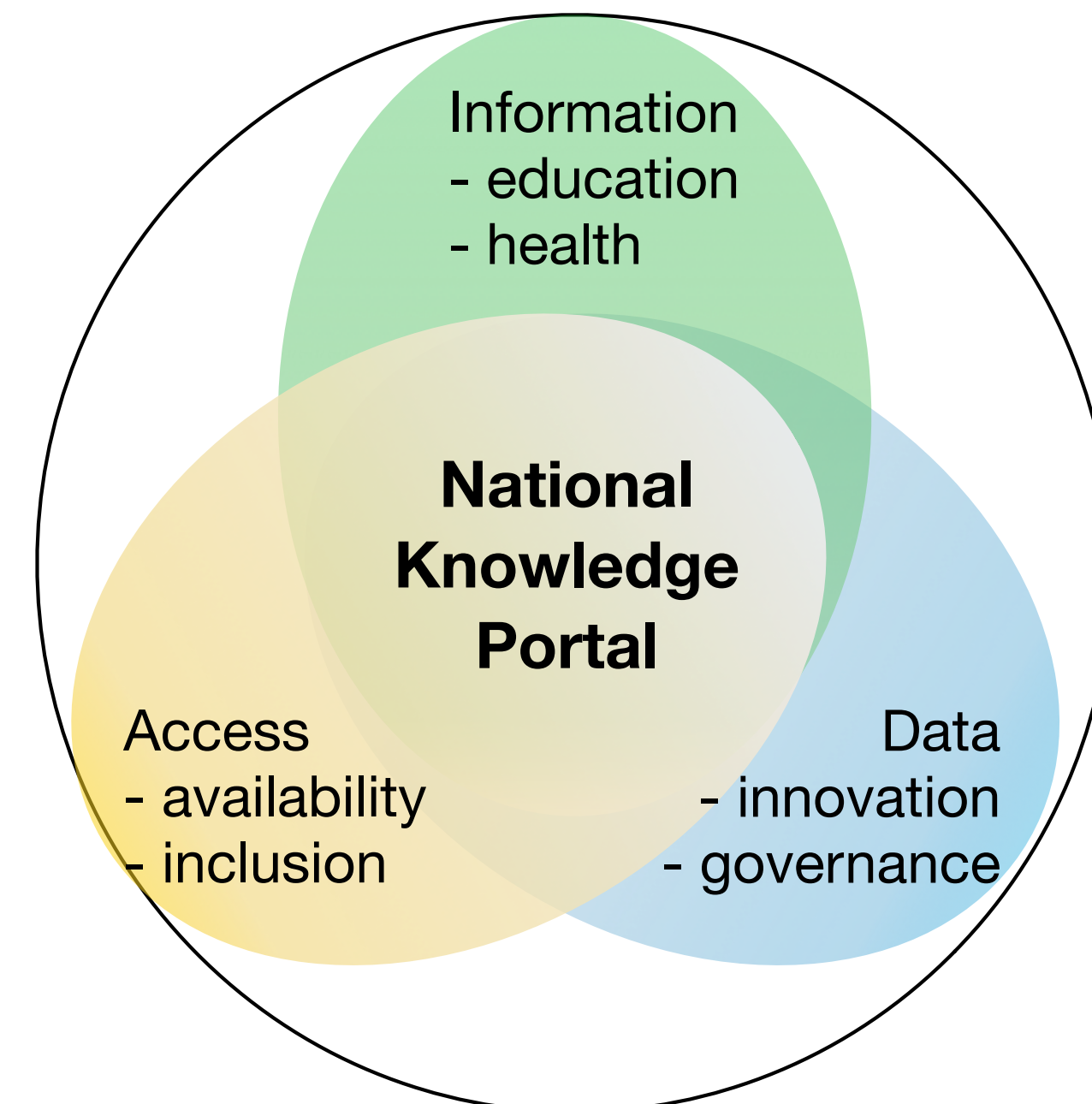
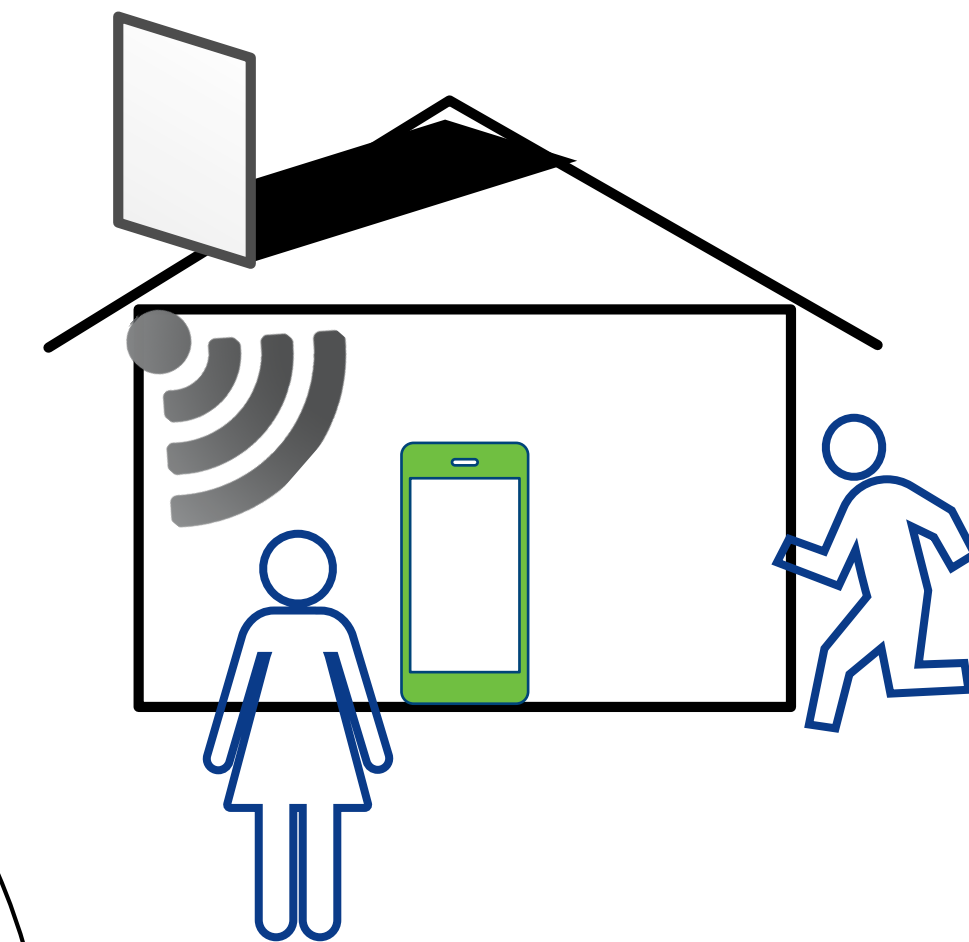
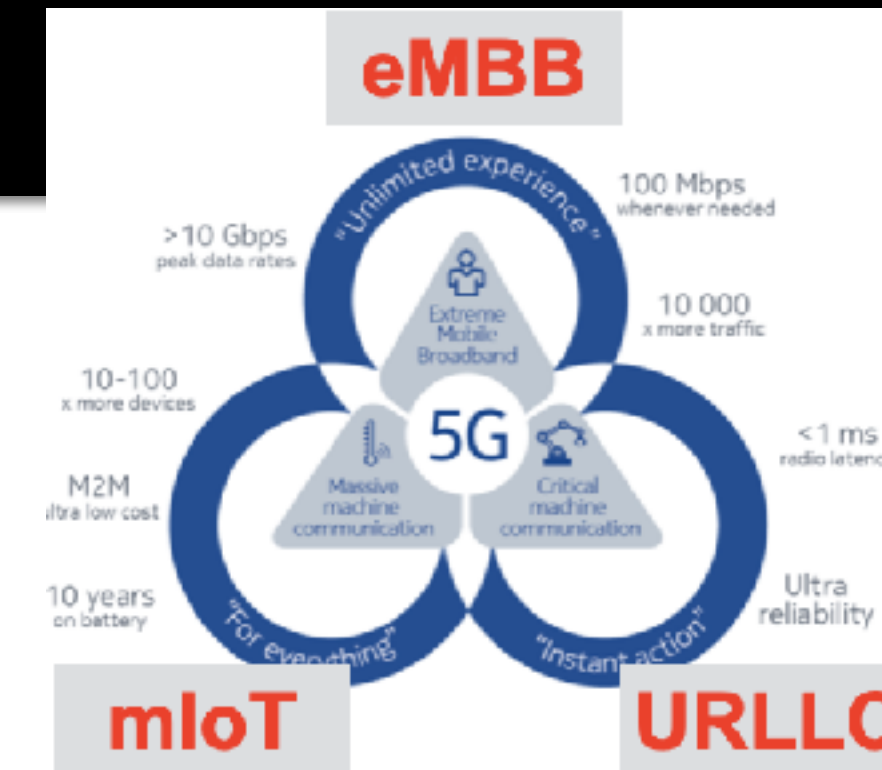
Suggest plan for Ethiopia

- Connecting 500 secondary schools is an excellent contribution
 - ➔ Demand by Ministry of Education, who also provides fibre (high-voltage line)
 - ➔ Fibre end-point with microwave radio, connectivity to schools
- Answers directly to Norway's priorities Meld. St. 11 (2019-2020):
 - ➔ Access - to schools and communities
 - ➔ Skills - through knowledge portal SchoolNet
 - ➔ Regulations - equal access
 - ➔ Inclusion - community connectivity
- Continues existing cooperation
 - ➔ follow-up African Innovation Week
 - ➔ Centre of Excellence with Jimma & Ambo Univ.



Conclusions

- Sustainability in Mobile Development
 - ➔ 5G is not answering the Digital Divide
 - ➔ 5G is not contributing to the Sustainable Development Goals
- Address the Grand Challenges
 - ➔ Digital Inclusion and Societal Empowerment
 - ➔ The National Knowledge Portal
 - ➔ Access
 - ➔ Skills
 - ➔ Regulations
 - ➔ Inclusion



Conclusions

- **Free access** to **National Knowledge Portal**
 - ➔ 1) Access - **Information Spot** per village
 - ➔ 2) Skills - Health, Edu on Knowledge Portal
 - ➔ 3) Regulations - Freemium model
 - ➔ 4) Inclusion - Free access for all
#LeaveNoOneBehind
- Internet Lite & **Freemium** model for access
 - ➔ **free access** to **National Knowledge Portal** for all
 - ➔ **premium** access to **broadband**
 - ➔ sustainable solution
- Digital inclusion "**trusted Internet**"
 - ➔ Societal empowerment

+18 dB
>20 km

"Providing Internet to the basic of the pyramid isn't a question of affordability, but rather a question of sustainability"
Internet Governance Forum, Panel, WIN

At least
one Information Spot
per village

