



**DigI Progress Meeting, 9-10Apr2019,
Paris**

DigI Project Status

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- Technology Development
 - ➔ Access in villages
 - TZ: Esilalei, Selela, Izazi, Migoli, Patandi, (Mbaash, ...)
 - Mali: Energi & Information
 - ➔ Infrastructure
 - Cloud servers, vouchers
 - ➔ Documentation
 - Wiki
- Health Messages
 - ➔ Village platform
 - ➔ Health Messages
 - ➔ Reporting/Feedback
 - ➔ Sustainable Buz
- Global Impact/Collaborations
 - ➔ UN High Level Panel
 - Recommendations
 - ➔ GSMA - mobile operators
 - ➔ Digital Health
 - EAC recommendations
 - Tanzania national plans
 - ➔ Project Partner Network
 - ➔ Ashoka/Pen Africa
- Scientific work
 - ➔ Digital Health Promotion (DHP) baseline
 - ➔ Health Information (Flora)
 - ➔ Outbreak (Elibariki)
 - ➔ Key Performance Indicators (KPIs)
- Project Ideas (2020++)

Impressions: Travel, Landscape, People



● Our Motivation

Grand Challenges

- Grand Challenges

- ➔ Climate
- ➔ Resources (radio, minerals)
 - Kobald (East - DR Congo)
- ➔ Divide

- Digitisation

- ➔ Mobile Networks
- ➔ IoT
- ➔ Automation

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





SUSTAINABLE DEVELOPMENT GOALS

And what about IoT?

FREEDOM OF EXPRESSION

We can't reach the U.N. goals for sustainable development without the internet

22 JUNE 2017 | 11:40 AM

Tweet Share

It's become common wisdom that the United Nations' ambitious "Global Goals for Sustainable Development" aren't just for the U.N., or even governments, to implement. Launched in September 2015, the 17 goals and 169 targets are "a series of ambitious targets to end extreme poverty and tackle climate change for everyone by 2030" (hence the alternative moniker, the "2030 Agenda for Sustainable Development").

Replacing the more arcane "Millennium Development Goals," these Sustainable Development Goals (SDGs) are everyone's goals, crowd-sourced to completion and promoted by companies and civil society alike. (Cue the hip, auto-playing video on the website.)

Smartly, the goals, especially Goal 17, emphasize that **access to technology underpins every one of these commitments** to the eradication of extreme poverty.

However, not all connectivity is the same, nor yields the same benefits to societies in terms of economic, social, or cultural development. As we told the International Telecommunication Union (ITU), only **stable, secure, and open access** to broadband internet will ensure success for the U.N. SDGs. That's something civil society and our partners will continue to make clear, and we'll need to work in legislatures to get the point across, not simply at aid and development banks.

To reach the SDGs, we need civil and political advocacy

Traditionally, information and communications technology (ICTs) have not been a major recipient of aid funding. That's one reason this crucial technology is "under-represented" in the SDGs and appears in only four of the 169 targets. It's assumed that telecommunications will take care of itself, having been largely deregulated and privatized in the 1980s and 1990s. Yet **more than half the world's population is not using the internet**, a statistic showing the failure of local, national, and global governance with economic, political, and moral implications.



PETER MICEK @lawyerpants

- FREEDOM OF EXPRESSION GLOBAL
- #ITU4SDG #KEEPITON CONNECTIVITY
- ITU SDG
- SUSTAINABLE DEVELOPMENT GOALS
- UNITED NATIONS

RELATED

Beyond connectivity: building an inclusive U.N. agenda for internet development [Read More >](#)

Access Now welcomes new report on economic impact of shutdowns [Read More >](#)



STEPHEN HAWKING CARES MOST ABOUT #GOAL 9 INDUSTRY, INNOVATION & INFRASTRUCTURE #GLOBALGOALS

<https://www.accessnow.org/cant-reach-u-n-goals-sustainable-development-without-internet/>



BasicInternet.org

Internet Lite for All

the catalyst for the goals

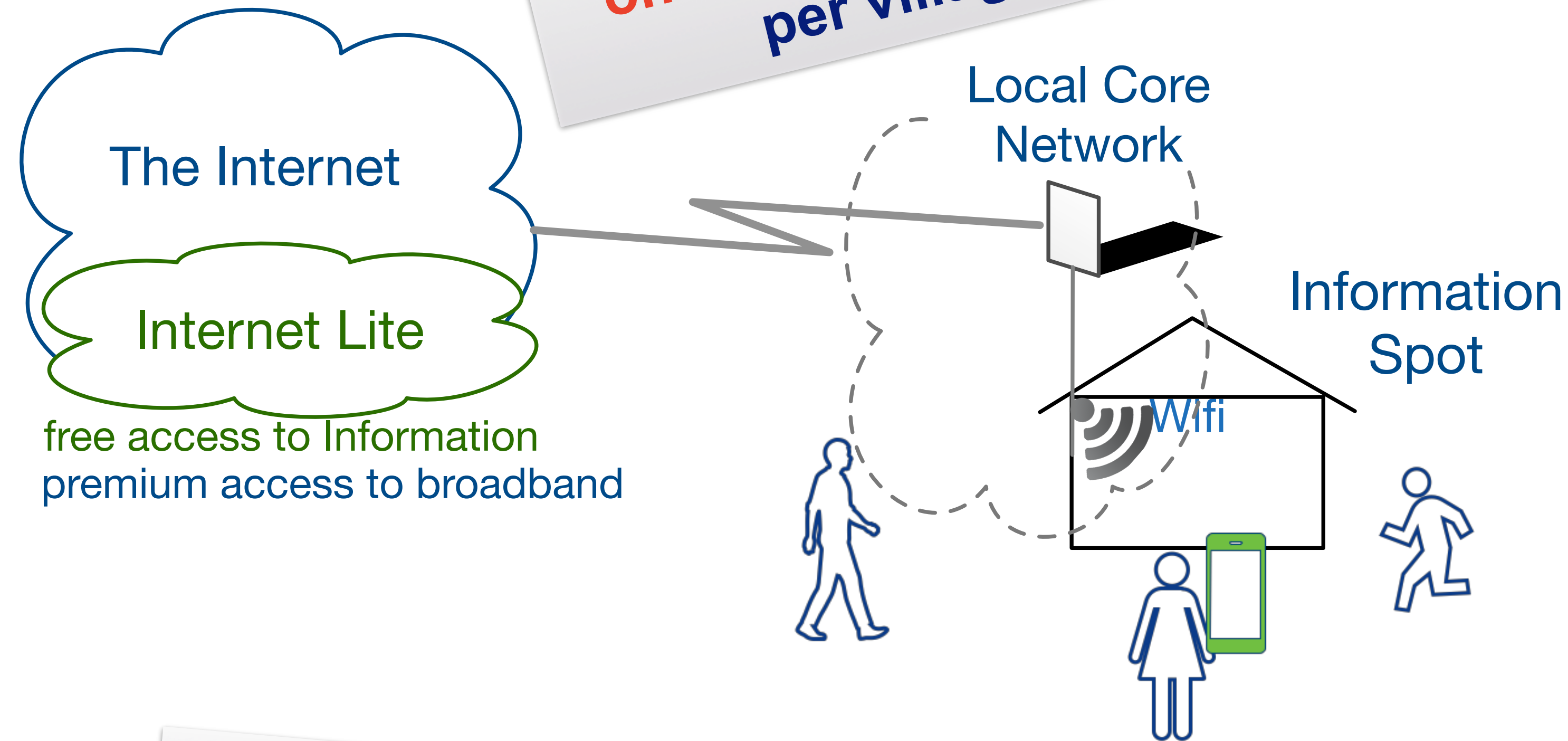


Technology Development

- Access in villages
 - TZ: Esilalei, Selela, Izazi, Migoli, Patandi, (Mbaash, ...)
 - Mali: Energi & Information
- Infrastructure
 - Cloud servers, vouchers
- Documentation
 - Wiki
 - Web > outreach

“Internet Lite for All” the walk on the Internet

- **Freemium** model for access
 - Free: text, pictures & local video
 - Premium: broadband services
- Ensure **Network Neutrality**
 - Content type filtering
- 1 premium pays for 300 free
 - “10 months of Information, or 10 min of video”?



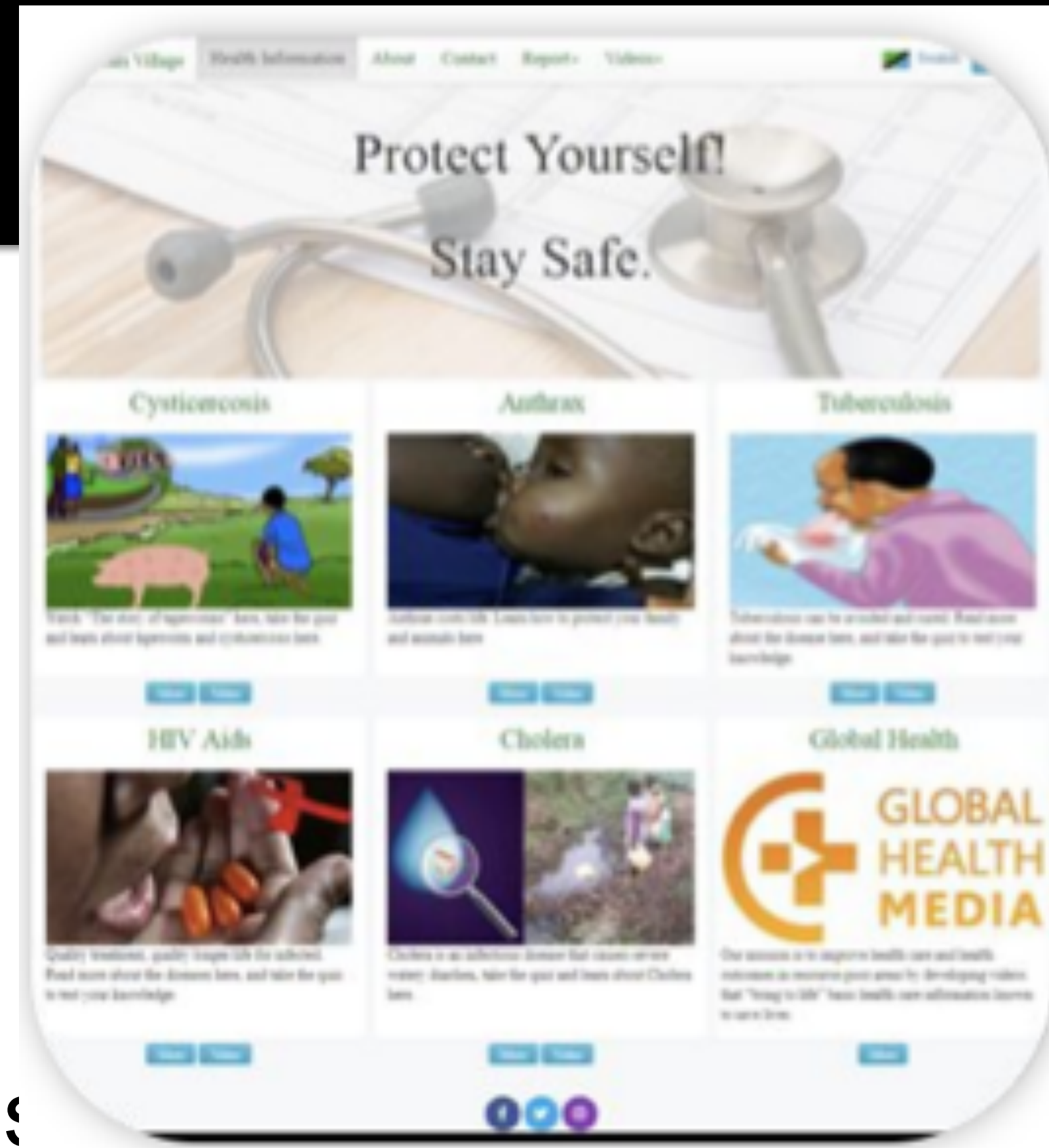
Satellite: 1 Mbit/s = 2000 US\$/month
TZ Network operator: 4Mbit/s = 600 US\$/month

Esilalei



Digital Health Promotion

- Health Messages
- Village platform yeboo.com
- Reporting/Feedback
- Sustainable Buz > Recommendations
 - https://its-wiki.no/wiki/Digl:Recommendations_and_Trip_Report_from_EAC_Health_and_Scientific_Conference
 - National eHealth Plan



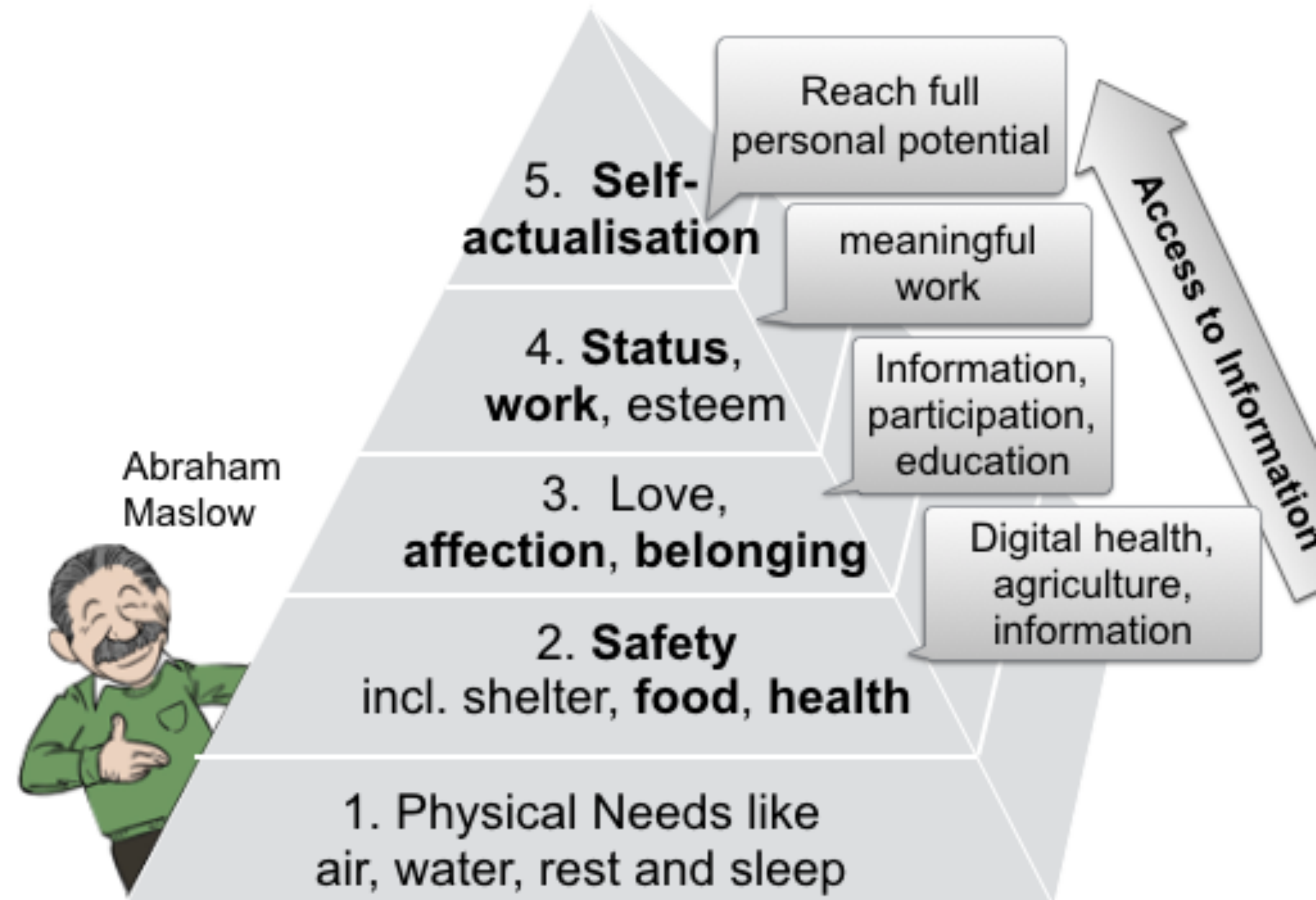
Digital Health for Digital Inclusion and Societal Empowerment

- Digital Health Promotion (**DHP**) as catalyst

- Disease prevention
- Better Health
- Faster **Response**

- Framework: health, energy & digital

- Empower the society
- **Catalyst** for the Sustainable Development Goals (SDGs)



[adopted from: <https://shift-magazine.net/2015/11/17/the-economics-of-human-need/>]

Global Impact/Collaborations

- UN High Level Panel
- EAC Recommendations
 - Digital Health and Community Involvement
 - Tanzania national plans
- GSMA - mobile operators
- Project Partner Network
- Ashoka/Pen Africa

#Digital Inclusion
#Societal Empowerment
#Digital Health
#Women and Girls

Esilalei



Mto wa Mbu

Lake Manjara

Esilalei

Dispensary

4.6 km

12x2

Esilalei (Arusha)



Mbaash (Selela)

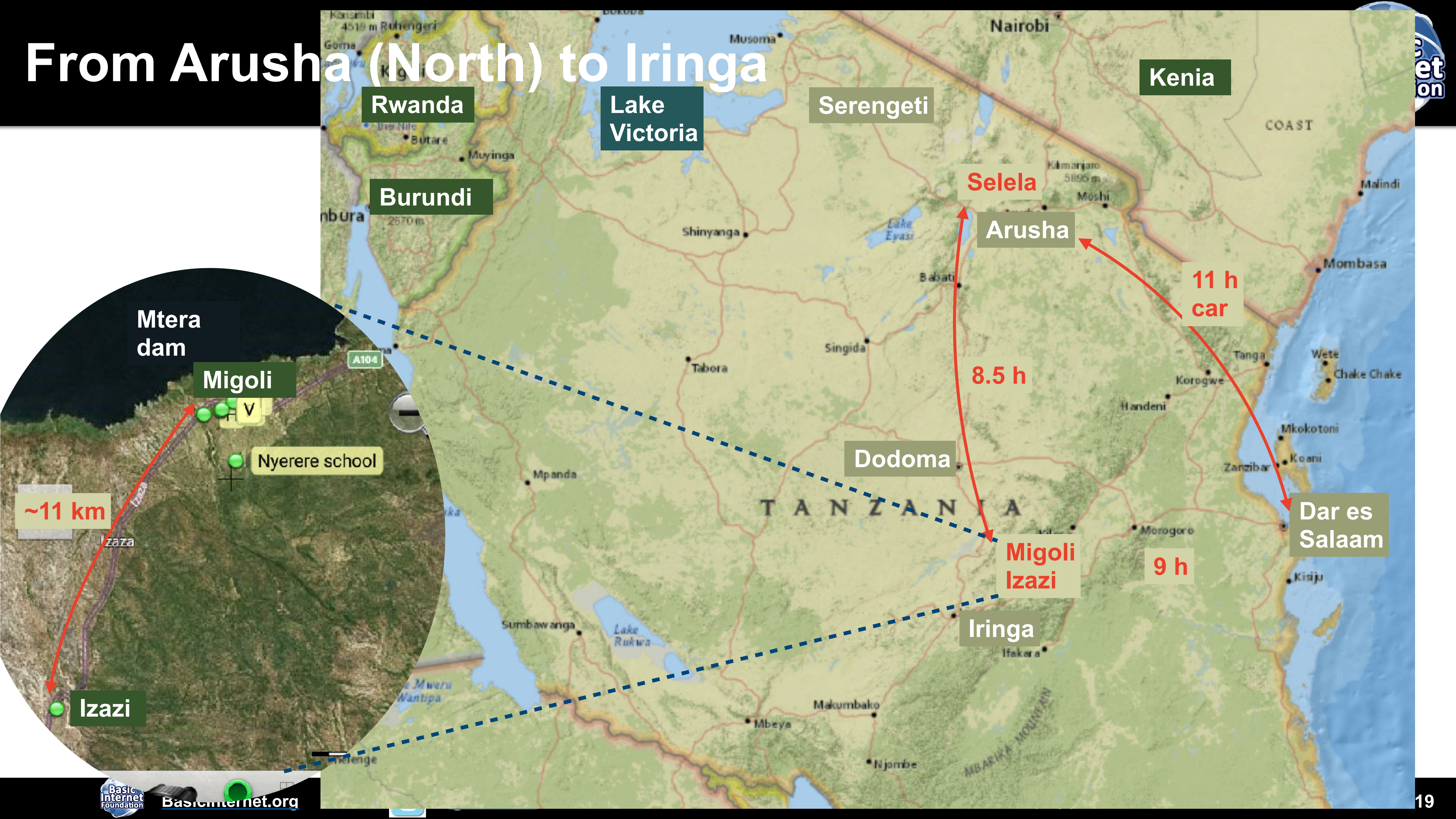


Selela Market Place



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

From Arusha (North) to Iringa



Migoli (Nyerere High School)



1271 pupils, 34 full-time teachers
9 m pole (above trees) base to connect
- Migoli health station
- Migoli village office



Izazi



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

Village office

United Nations: High-Level Panel on Digital Cooperation



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



PANEL DOCUMENTS



My vision: Digital Champion through Health Information Spots

- UN Digital Cooperation Panel
 - ➔ published areas for recommendation
 - ➔ Mar/Apr2019 draft recommendations
 - ➔ May2019 report
- Asking for “Implementation Champions”

Leadership & Political Will

Incentives Alignment

Implementation of Guiding Values & Principles

Shared Meanings

Clear Roles & Responsibilities

Coherence in Action

Inclusiveness

Trust

Capacity



Panel Discussions:



Role of the Government in providing a robust enabling ecosystem for scaling uptake and utilisation of technologies in health: leadership, policies, regulation, and enabling environment for digital technology and solutions in health

*Role of the Government
Framework for Digital Health
Empowerment
At least **one health information spot** per village*

*Robust enabling ecosystem
Scaling uptake: from **digital health**
to **digital inclusion**
Utilisation of Technology: **Internet Lite** for All*

*Health Policies & Regulations
“Digital First”
Health promotion videos/
animations*

*Enabling Environment for Health
Digital **Health Information Spots**
Digitisation of Education*

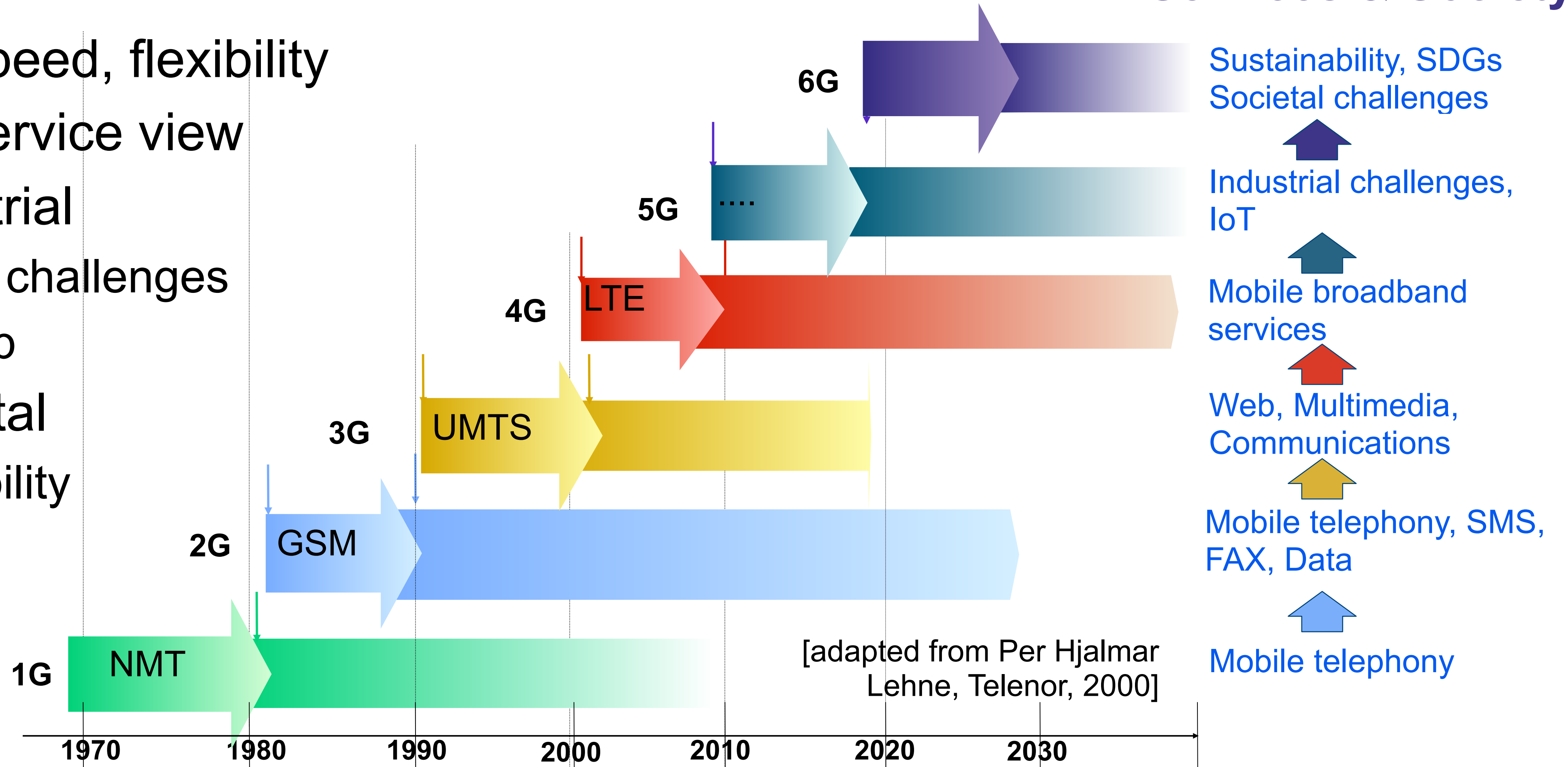
Scientific Achievements / Way ahead

- Digital Health Promotion (DHP) baseline
- Health Information (Flora)
- Outbreak (Elibariki)
- Key Performance Indicators (KPIs)
- Way Ahead
 - ➔ Project Ideas (2020++)
 - ➔ Industrial involvement



6G: Digitisation of the Society

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



Services & Society



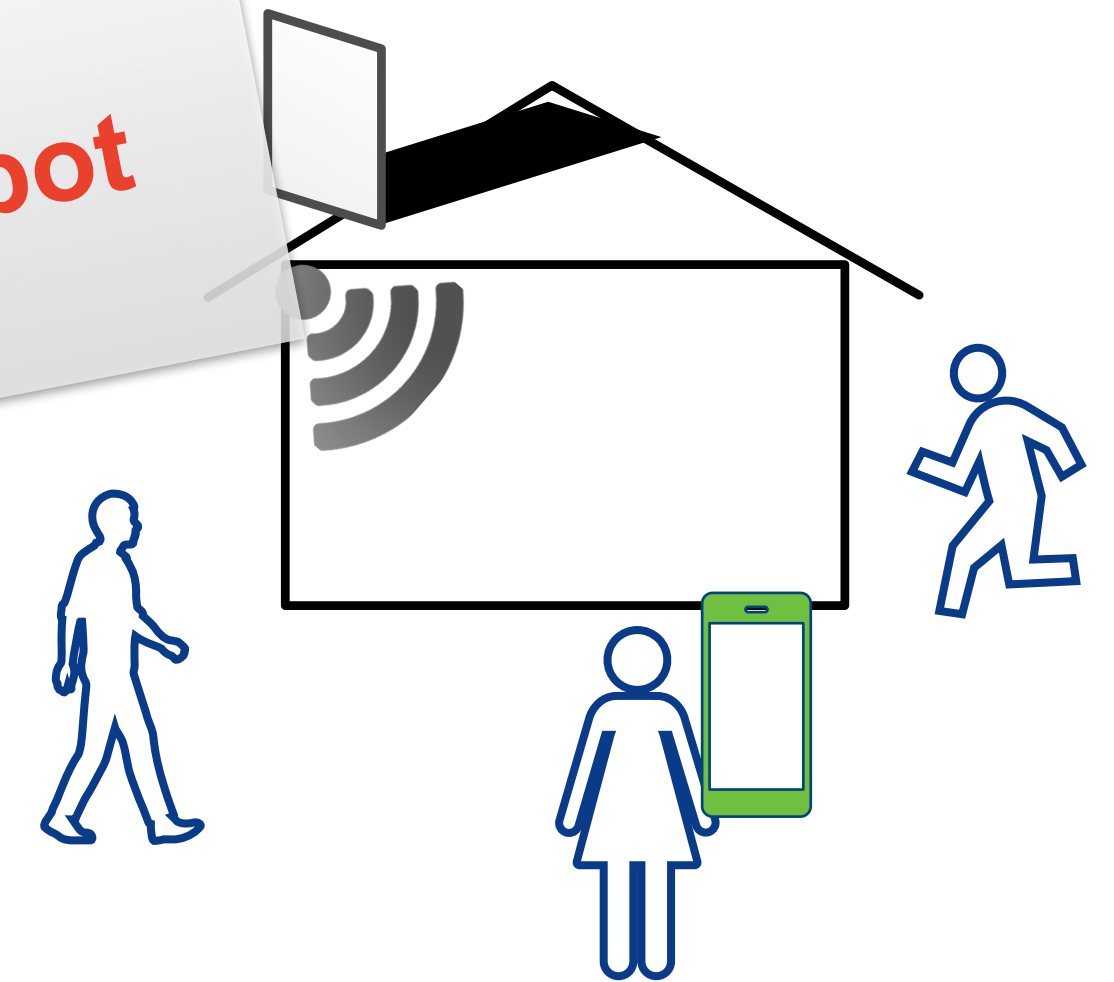
Conclusion



- “Internet Lite for All”
 - Freemium model for access
 - at Home, in the Mobile Network, World-Wide
- Framework for Sustainable Development
 - Convergence: Energy & Health & Digital
 - #ReturnOnSDGs instead of #ROI
- Information Spot(s) in each village
 - basis: free access to information for everyone
 - add-on: Health, Education, Decent Work Financial Inclusion, ...
- Digital Implementation Champion
 - one information spot per villages
 - Digital Health Promotion

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

Starting with one Information Spot per village



Digi Achievements *(and future work)*

Our contribution to



- The message “Internet Lite for All”
 - ➔ More and more attention (*turn into business*)
 - ➔ Growing Partnership (...*solutions*)
- Technology
 - ➔ good Infrastructure development
 - ➔ InfoInternet standard (...*yet to be established*)
 - ➔ Village platform (...*this month*)
- Digital Health Promotion
 - ➔ Impressive scientific results (...*publications*)
 - ➔ Key Performance Indicators (KPIs) (...*future?*)
- Global Impact/Partnerships
 - ➔ Built an excellent base (...*turn into reality*)
 - ➔ Key Performance Indicators (KPIs) (...*future?*)
- Scientific & Outreach
 - ➔ Book chapter, Publications, Keynotes...
 - ➔ Perspective 2020 (#6GforAll. DHP...)



Partners - Hope I'll see you here ...



FR



ES



Ministry of Health, TZ



UiO



TZ



USA



UK

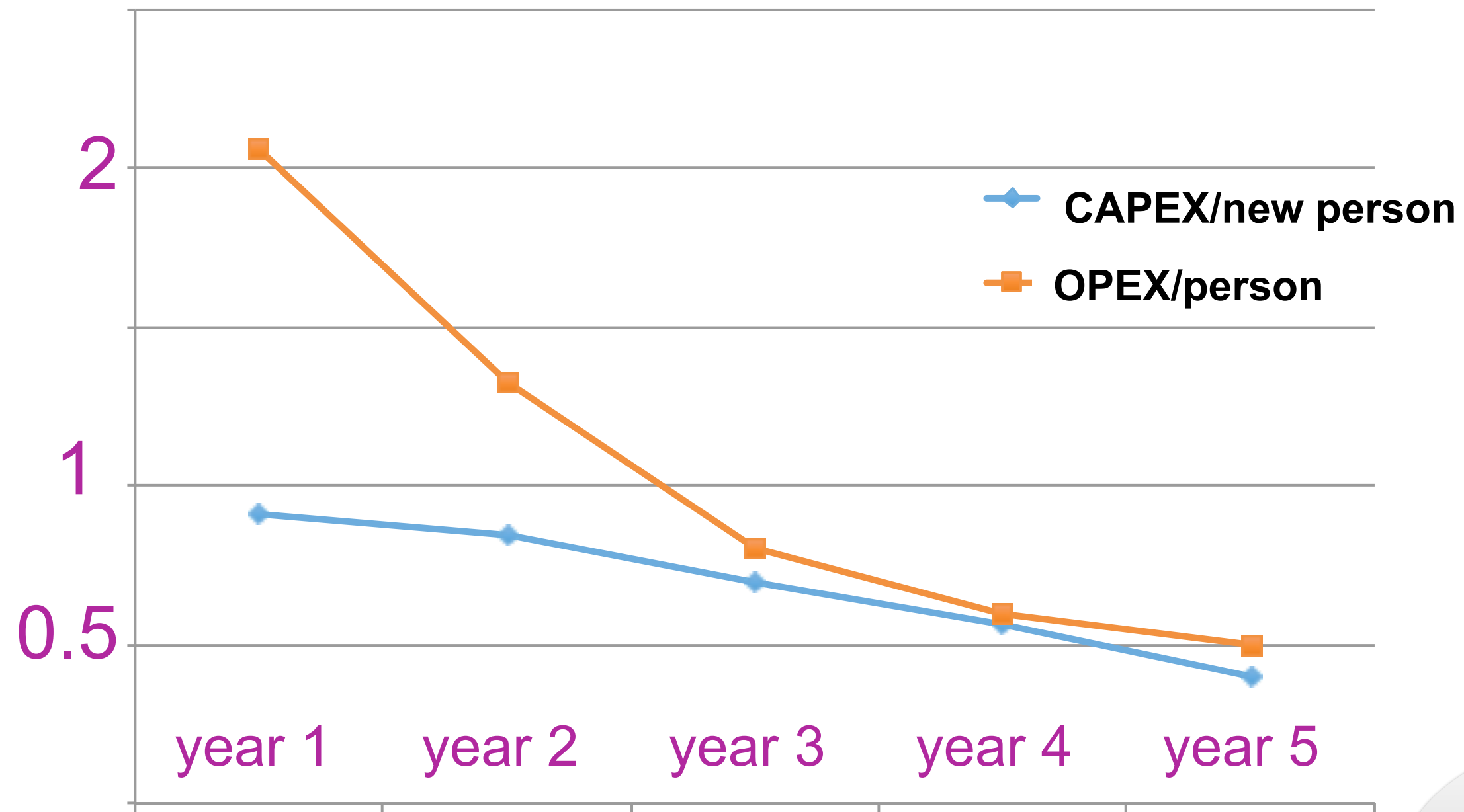


Background slides

Comparison Cost of Digital Inclusion



InfoInternet Costs/user/month [US\$]



- local Wifi spots
- based on Satellite connectivity

half a dollar is enough*



Child Protection
Child taken into care
average cost per year

£64,819

Unemployment
Job Seekers Allowance
per claimant per year

£10,025

Care for the Elderly
Residential care for older
person per year

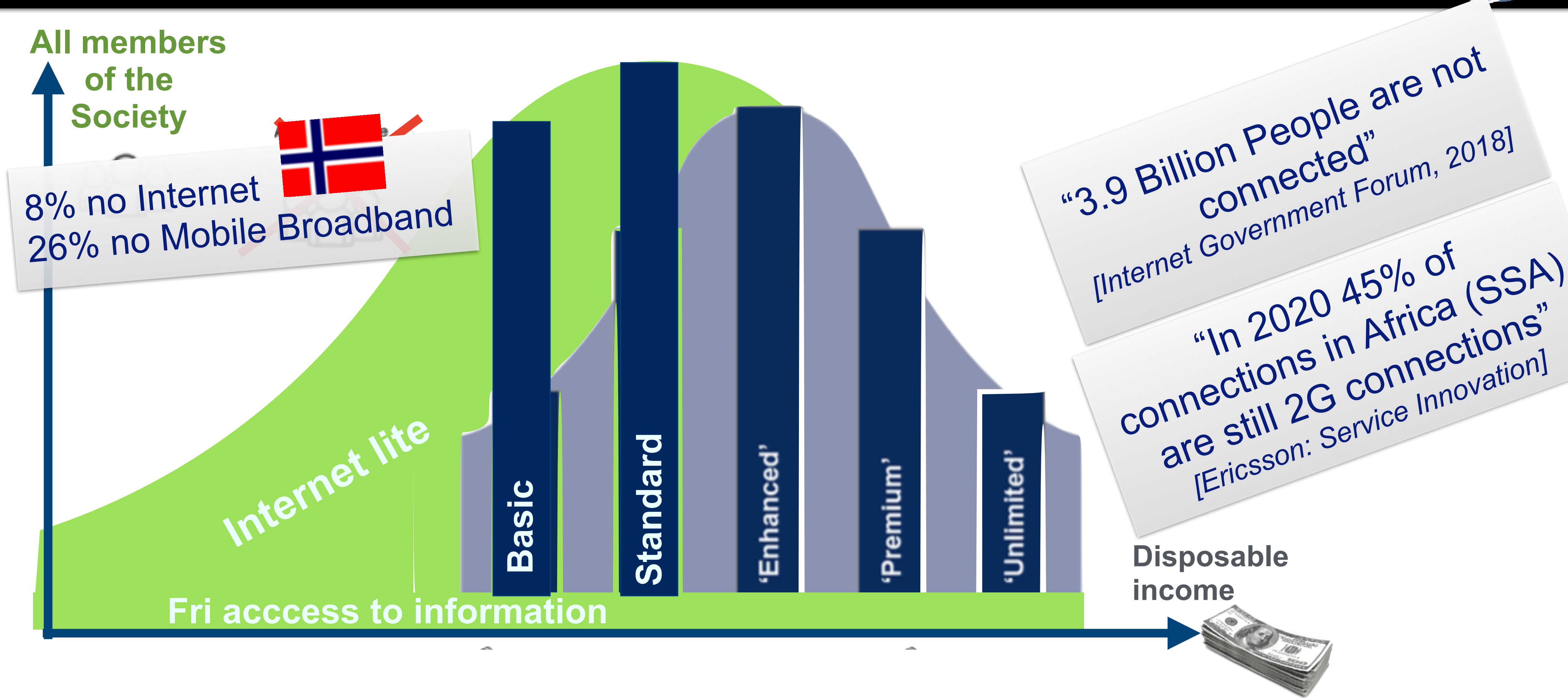
£28,132

exclusion
Education
Exclusion from school
per pupil per year

£11,192

Source: UK GOVERNMENT UNIT COST DATABASE
www.data.gov.uk/sib_knowledge_box/toolkit

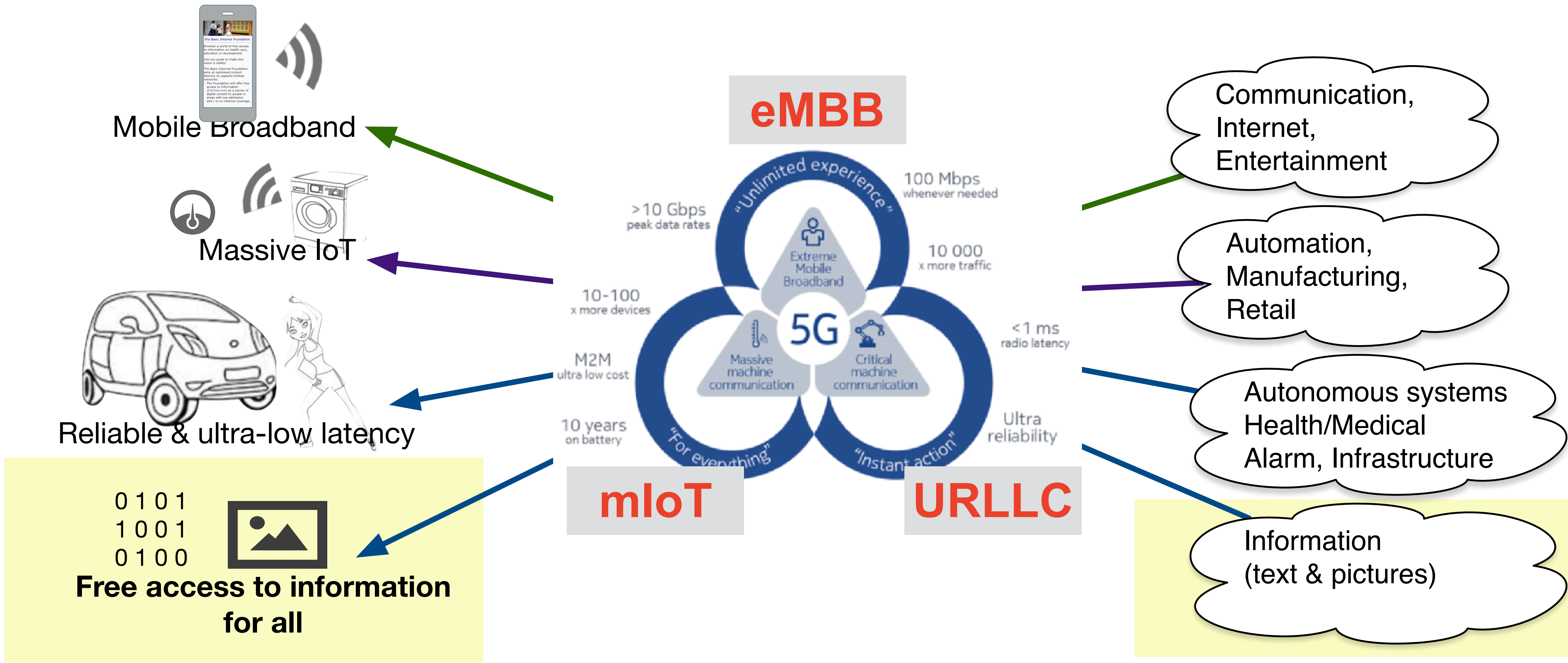
6G (#5GforAll) for digital inclusion



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



5G network slicing for Free Access to Information for All



InfoInternet Standard

- Network responsiveness
- InfoInternet Standard development
 - **Konzept:** www-filtering
 - free: text & picture, premium: video
 - **Pilot:** www metadata & inspection
 - address, port & deep packet analysis
 - **Standard:** proxy & html5 standard,
 - <http://BasicInternet.org&standard=InfoInternet>

