



Digital Oxygen Meet-up, 10May2019, München

Basic Internet - Bridging the Digital Divide

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Meet-up - good to be back

- “The last time we were connected by wire was at birth!” [Motorola]
- Digital Inclusion and Societal Empowerment
 - ➔ my journey from DE and NL to NO
 - ➔ Digital in Norway, Germany and Worldwide
 - ➔ From IoT-Security to Societal Security
- Internet Lite for All - your help & support
 - ➔ InfoInternet Standard
 - ➔ Village Platform
 - ➔ Publicity, Political support....



THE PRICE OF ~~INEQUALITY~~

HOW TODAY'S DIVIDED SOCIETY
ENDANGERS OUR FUTURE

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

Kjeller: Internet, 2G, 3G, ...



1973: Internet (Arpanet) reached Europe (Kjeller)

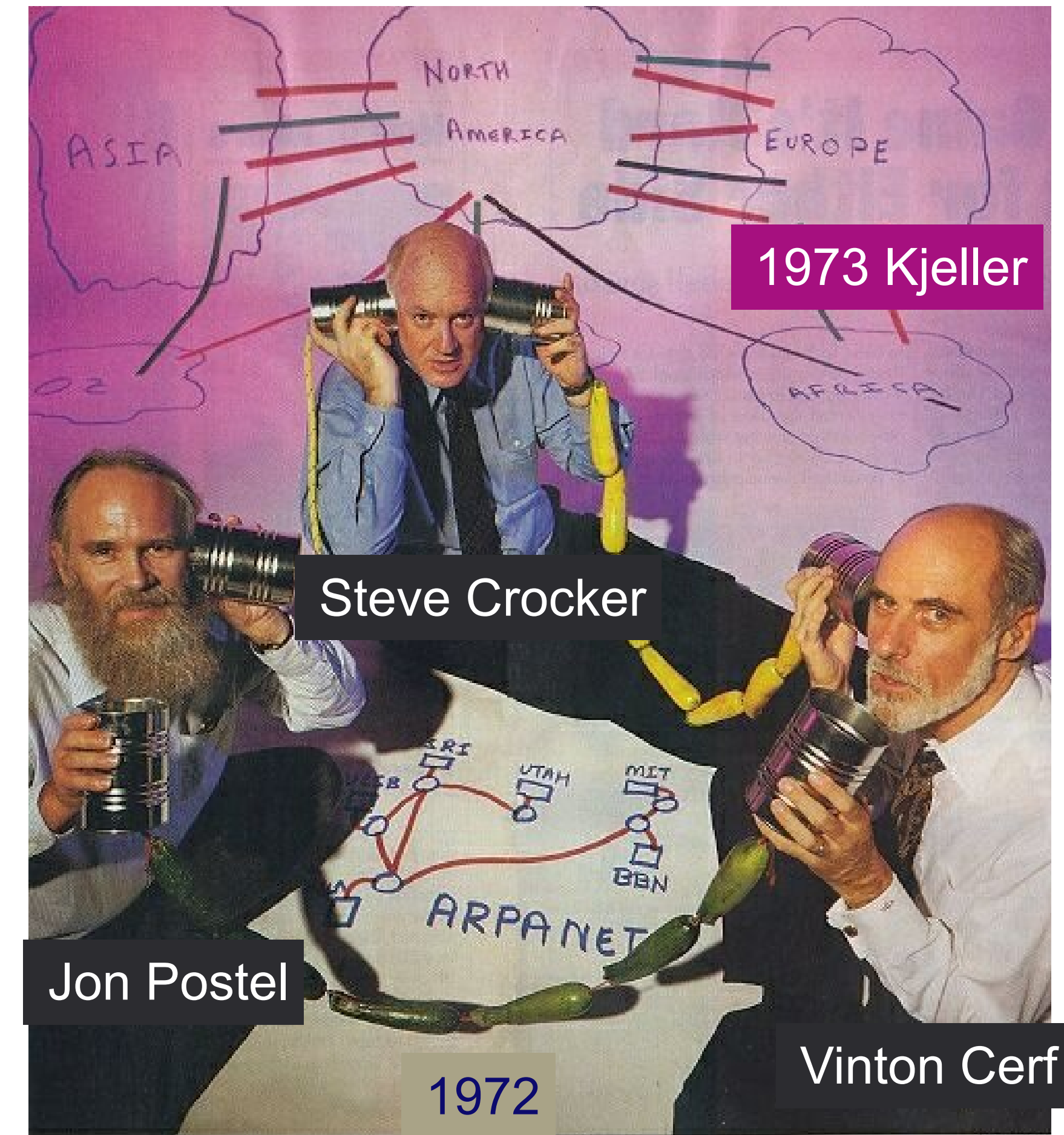
1973: Internet to
Kjeller/Europe

1994: Opera
Software

2014: Basic
Internet
«half a dollar is
enough»

Norge
Norway

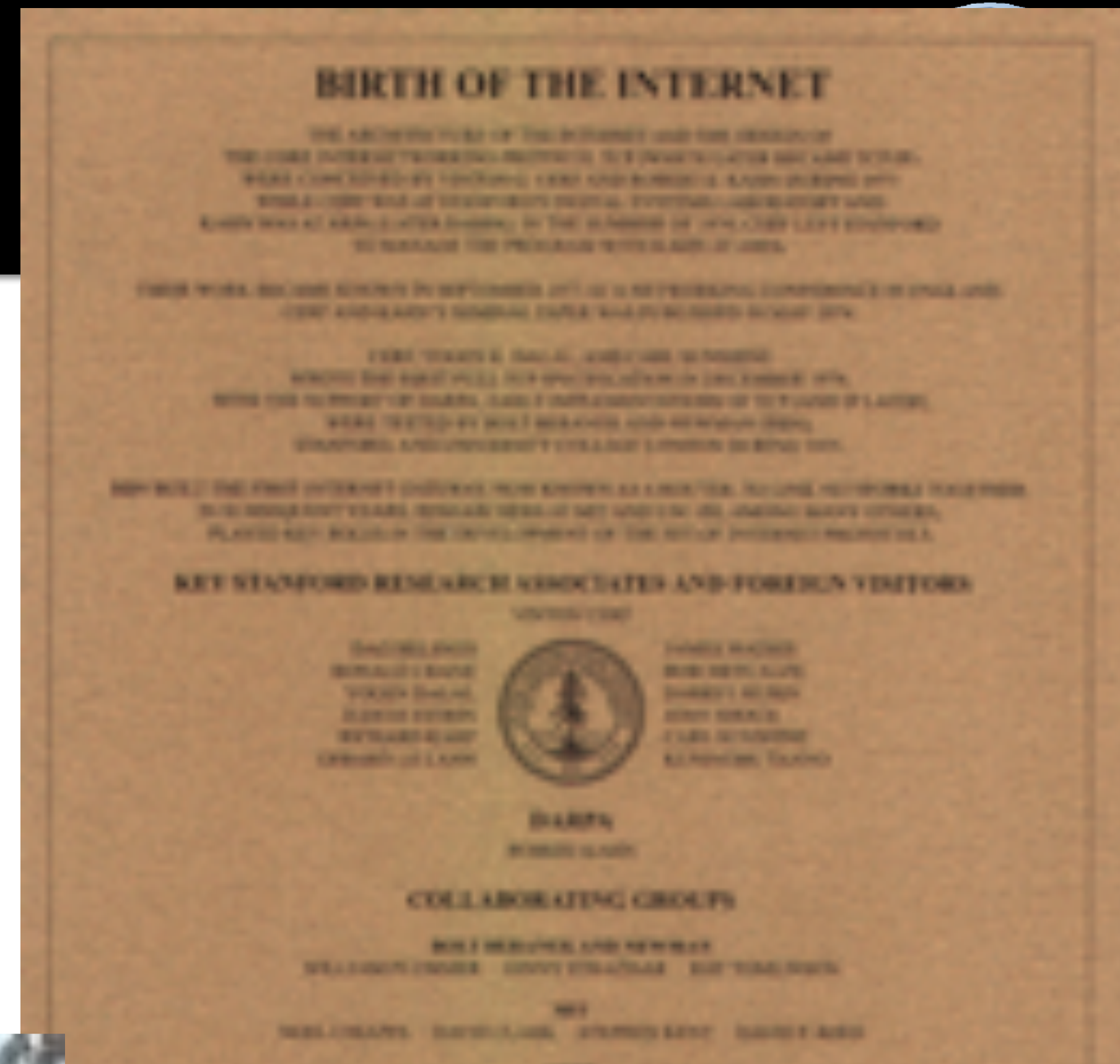
Kjeller



Source: <http://www.michaelkaul.de/History/history.html>

The Internet and Scandinavia

- Internet: June 1973
- List_of_Internet_pioneers [Wikipedia]
 - Yngvar Lundh, **Paal Spilling**
- Application development
 - .php, OpenSource, Linux, Skype, Spotify
 - OperaSoftware, FAST Search
 - Nokia, Ericsson
 - Telenor, Telia
- Mobile Internet:
 - GSM
 - Service adaptation



Vint Cerf

Sigrid Cerf

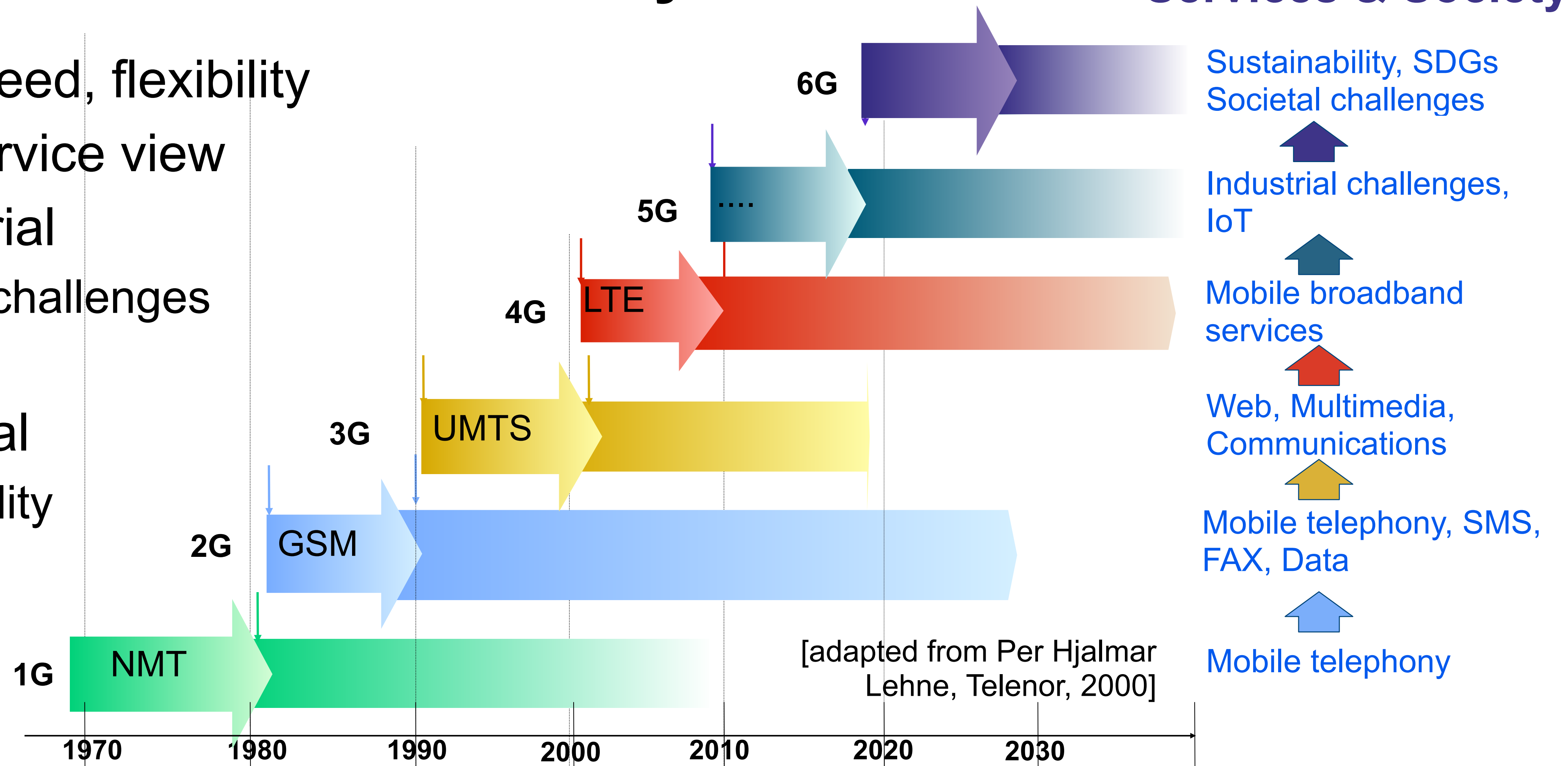


Yngvar Lundh

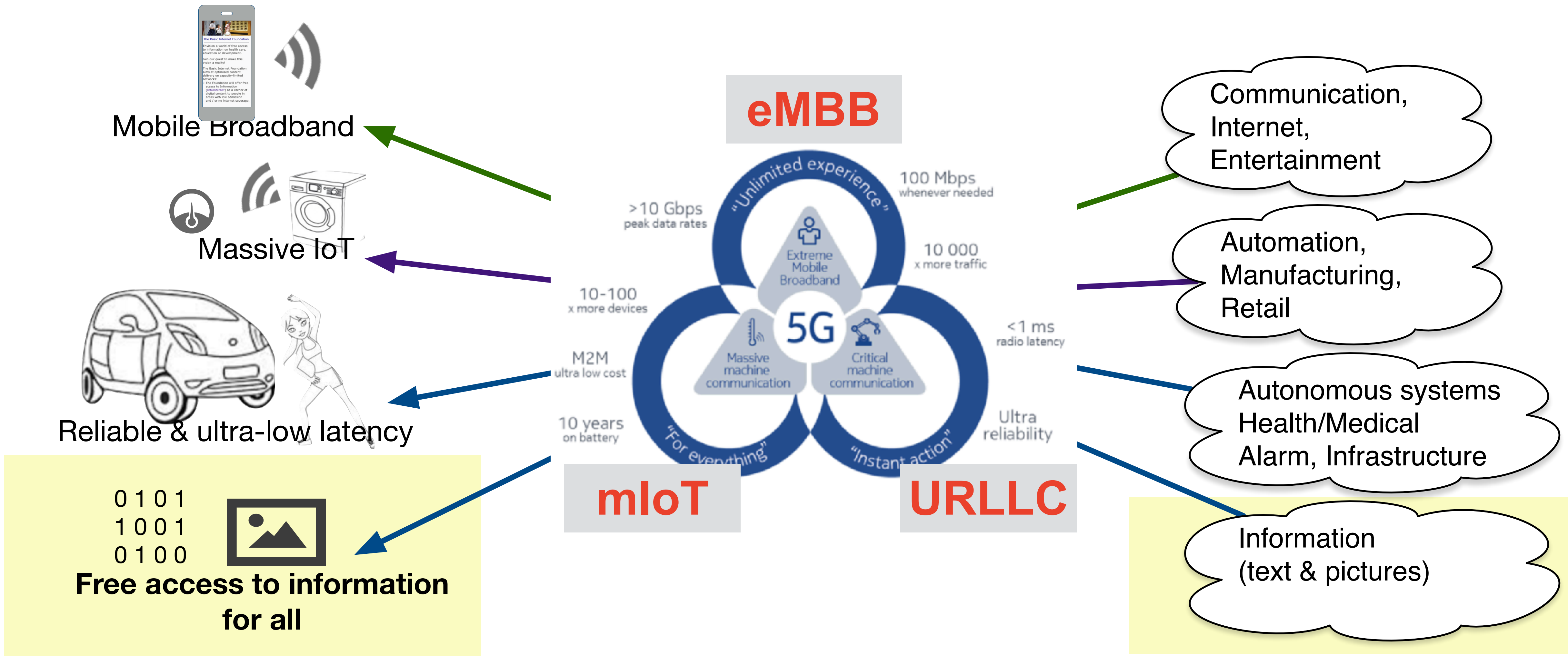
Pål Spilling

6G: Digitisation of the Society

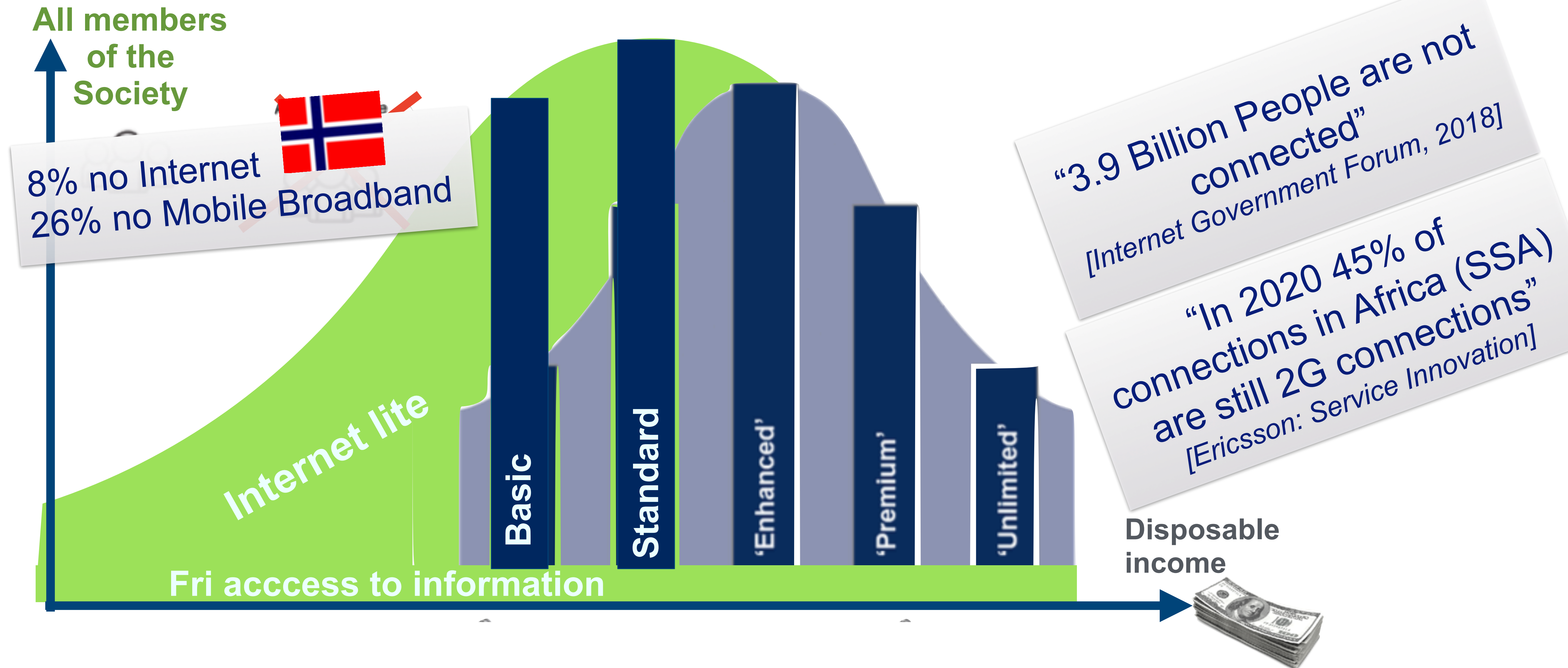
- 1G-3G: Speed, flexibility
- 3G-4G: Service view
- 5G: Industrial
 - ➔ Business challenges
 - ➔ ownership
- 6G: Societal
 - ➔ sustainability



5G network slicing for Free Access to Information for All

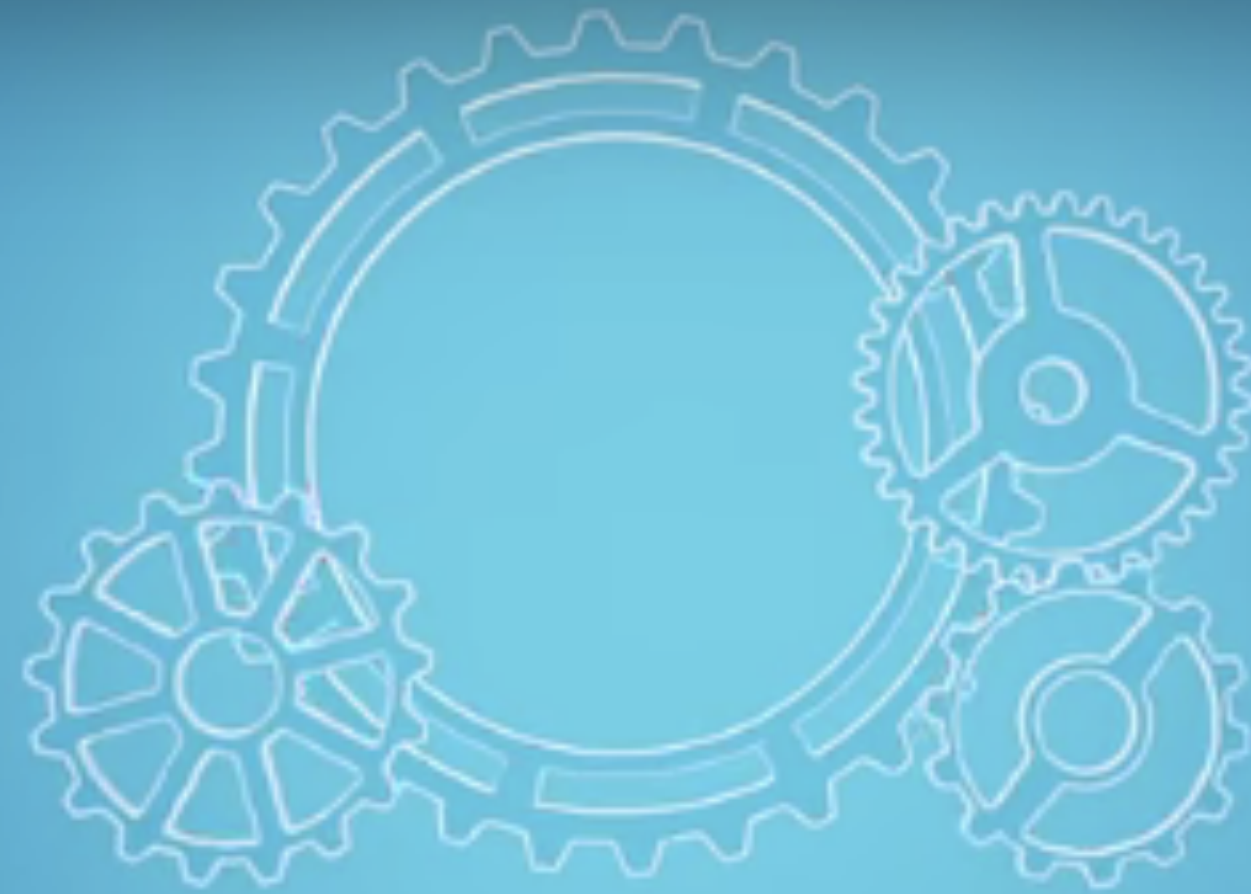


6G (#5GforAll) for digital inclusion



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

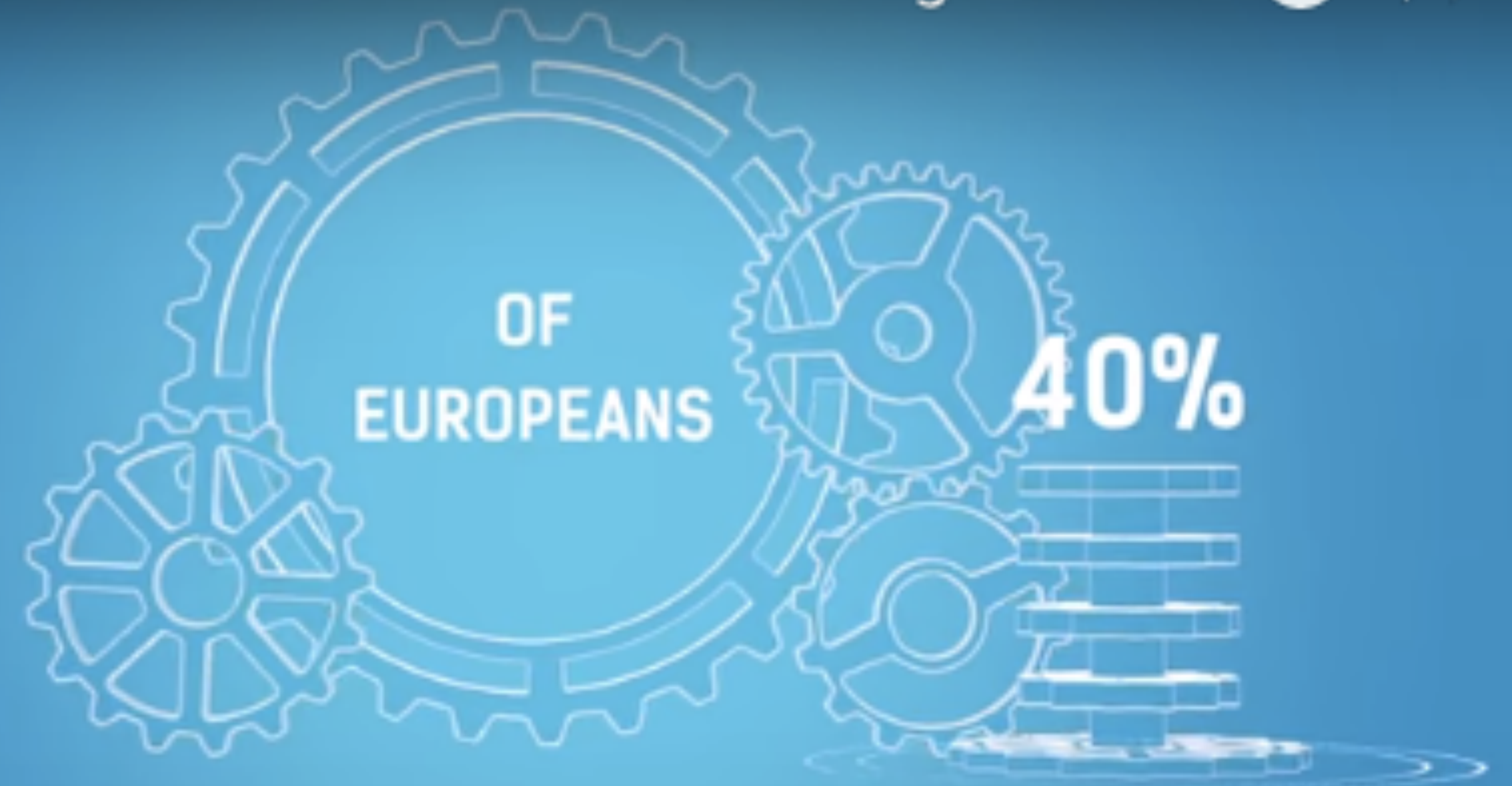
Digital Agenda Scoreboard 2015: Strengthenin...



A DIGITAL SOCIETY IS MADE OF
DIGITALLY-SKILLED CITIZENS

**Demand for
Free Access to
Information for All**

Digital Agenda Scoreboard 2015: Strengthenin...



DON'T EVEN HAVE BASIC DIGITAL SKILLS



Source: EU commission(2015)

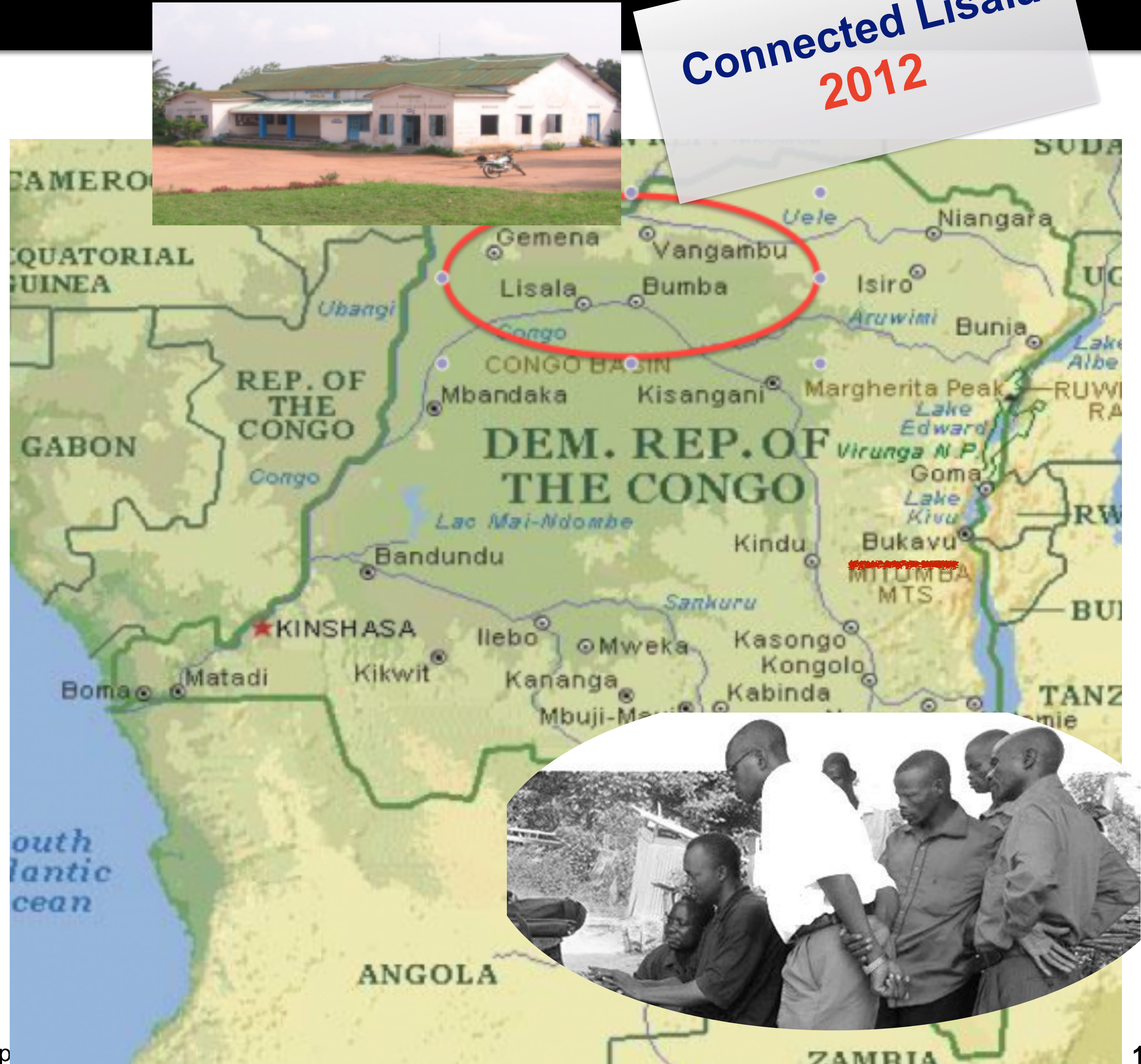
Global Outreach



Connected Lisala
2012

Societal: Digital Society

- Combat the Digital Divide
 - Lisala: 2 x size (NL+BE)
 - no Internet (2010)
- Expensive access:
 - 2000 US\$/month for 1 Mbit/s
 - Note: 80 Mbit/s for 66 US\$ (NO), factor: 2.420 or 0.04%



Internet light for All - the “walk on the Internet”

Road Infrastructure

- Basic infrastructure

- free usage for pedestrians & cyclists
- authentication for cars
- Pay for use model when a license plate is required



- Highways & toll roads

- speed & comfort
- often privately managed

Internet Lite Infrastructure

- Basic Access

- free access of information
- text, pictures and local video



- Broadband and Mobile services

- Voice, video & games
- speed & comfort
- privately managed



Partnership for Digital Africa

<http://www.aftenposten.no/meninger/debatt/Kronikk-Som-gjesteland-pa-G20-toppmotet-ma-vi-bidra-til-a-endre-verden--Erna-Solberg-614076b.html>



Comment: As a guest country at the G20 summit, we must help to change the world | Erna Solberg

ERNA SOLBERG (H), PRIME MINISTER

UPDATED: 30.JAN.2017 9:39 P.M. | PUBLISHED: 30.JAN.2017 7:58 P.M.



1. UN sustainability goals and Agenda 2030

2. Migration and partnership with Africa

3. Health and Education



Internet Lite for All

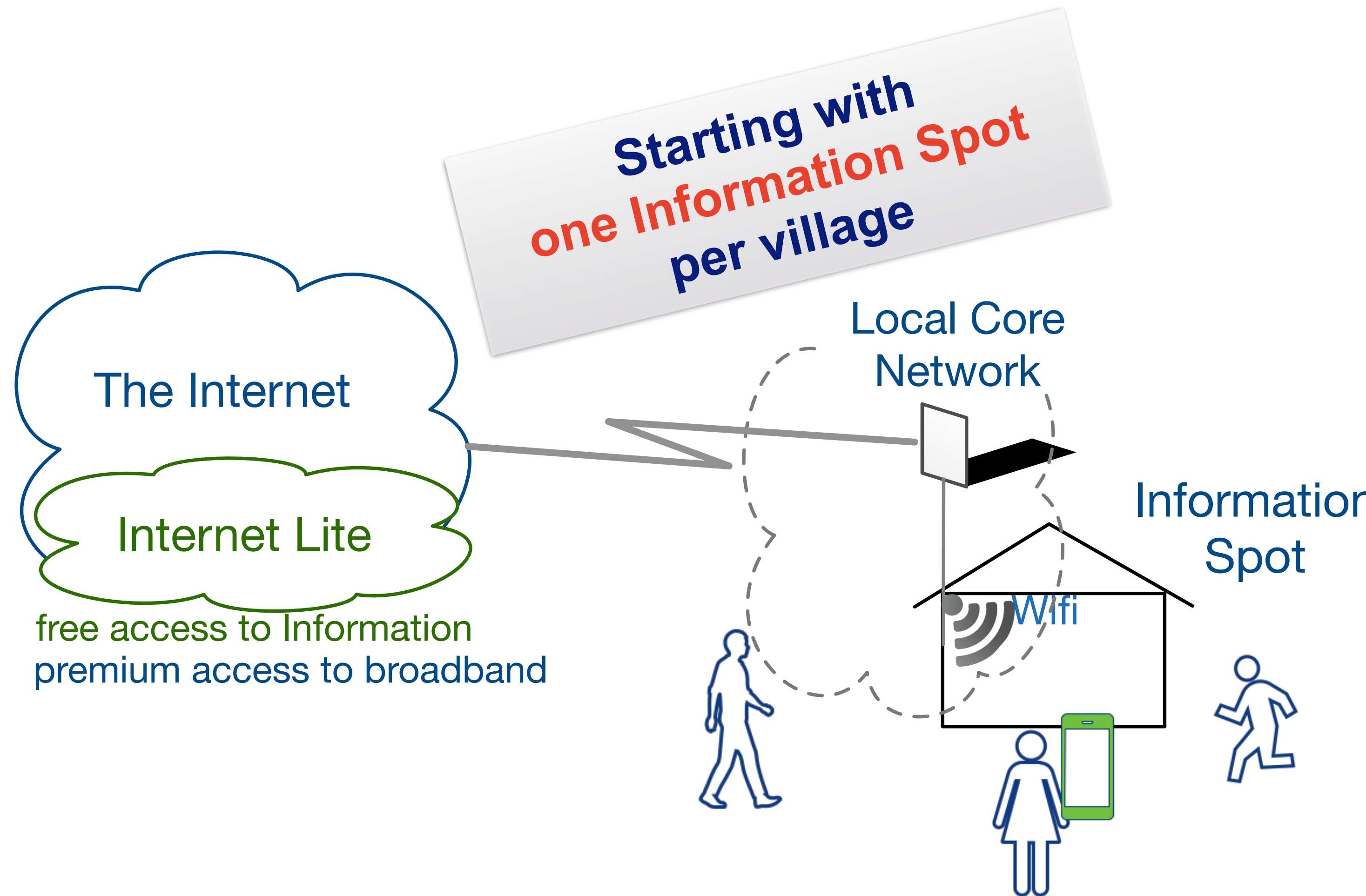
the catalyst for the goals



“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”?



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

Esilalei



Mto wa
Mbu

Lake
Manjara

Esilalei

4.6 km

Esilalei (Arusha)



Mbaash (Selela)



Selela Market Place



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



Migoli (Nyerere High School)

pupils, 34 full-time teachers
hole (above trees) base to connect
Migoli health station
Migoli village office



Izazi



Time: 1,5 h
Signal from the Vodacom
li (~10km away)



Antenna

Village office

Your help



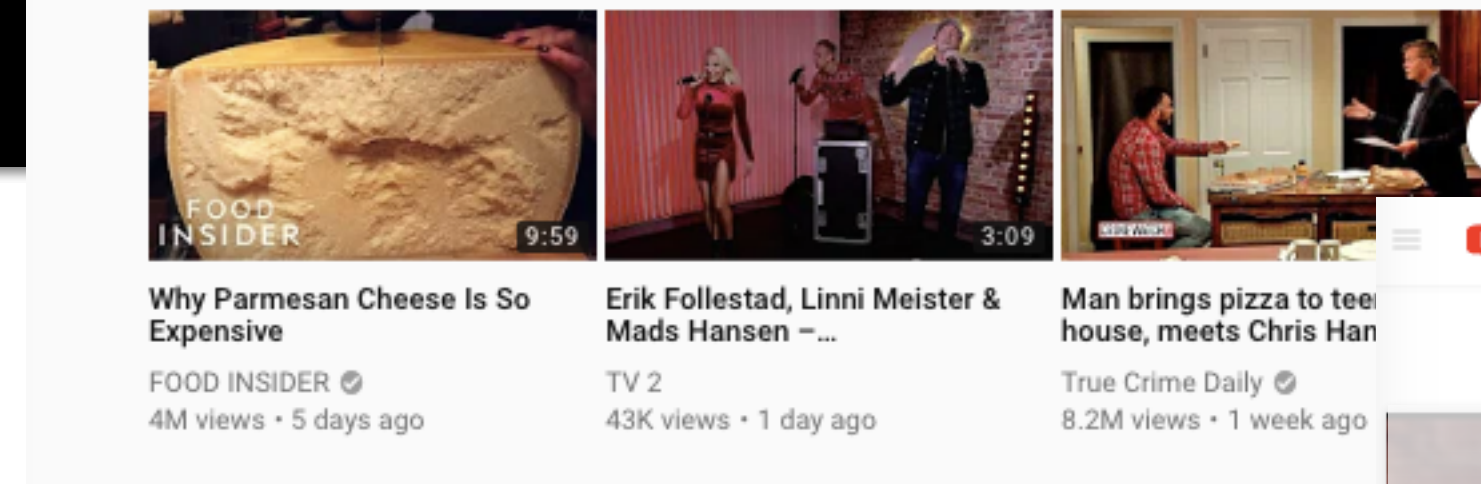
InfoInternet Standard



- 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>

Konzept:

free



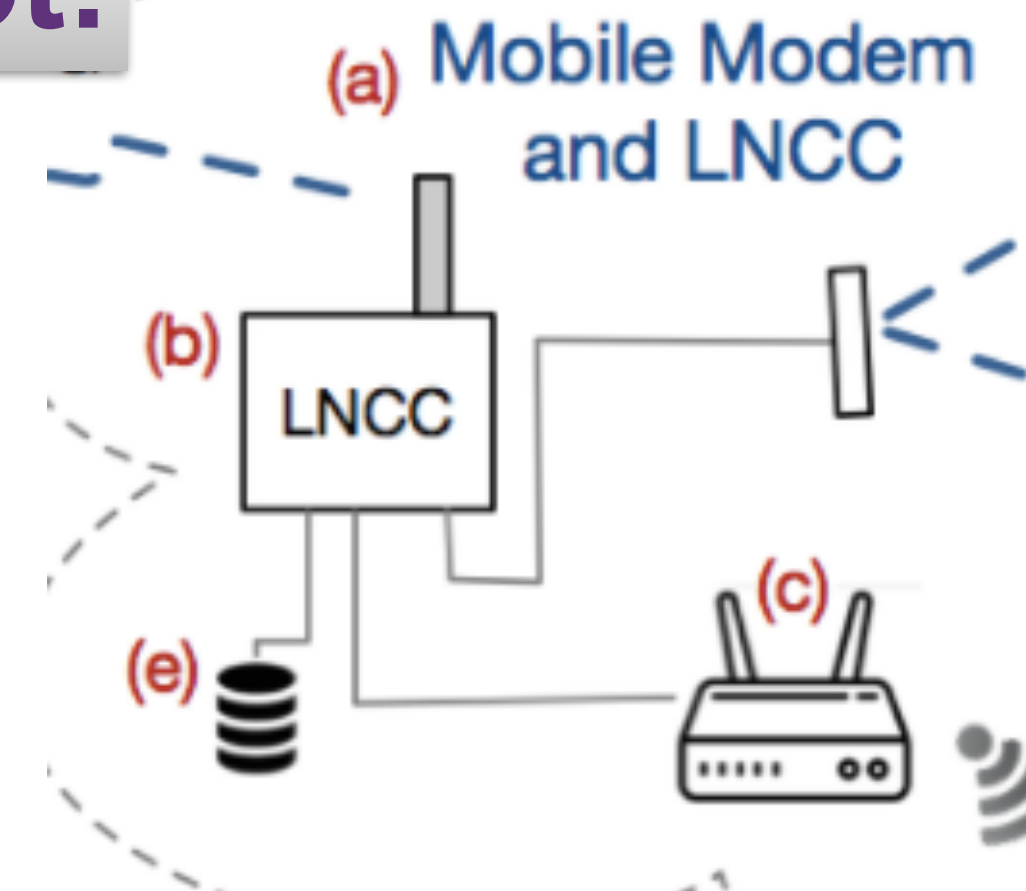
premium

Add voucher
to see the movie

5qhx9

Submit

Pilot:

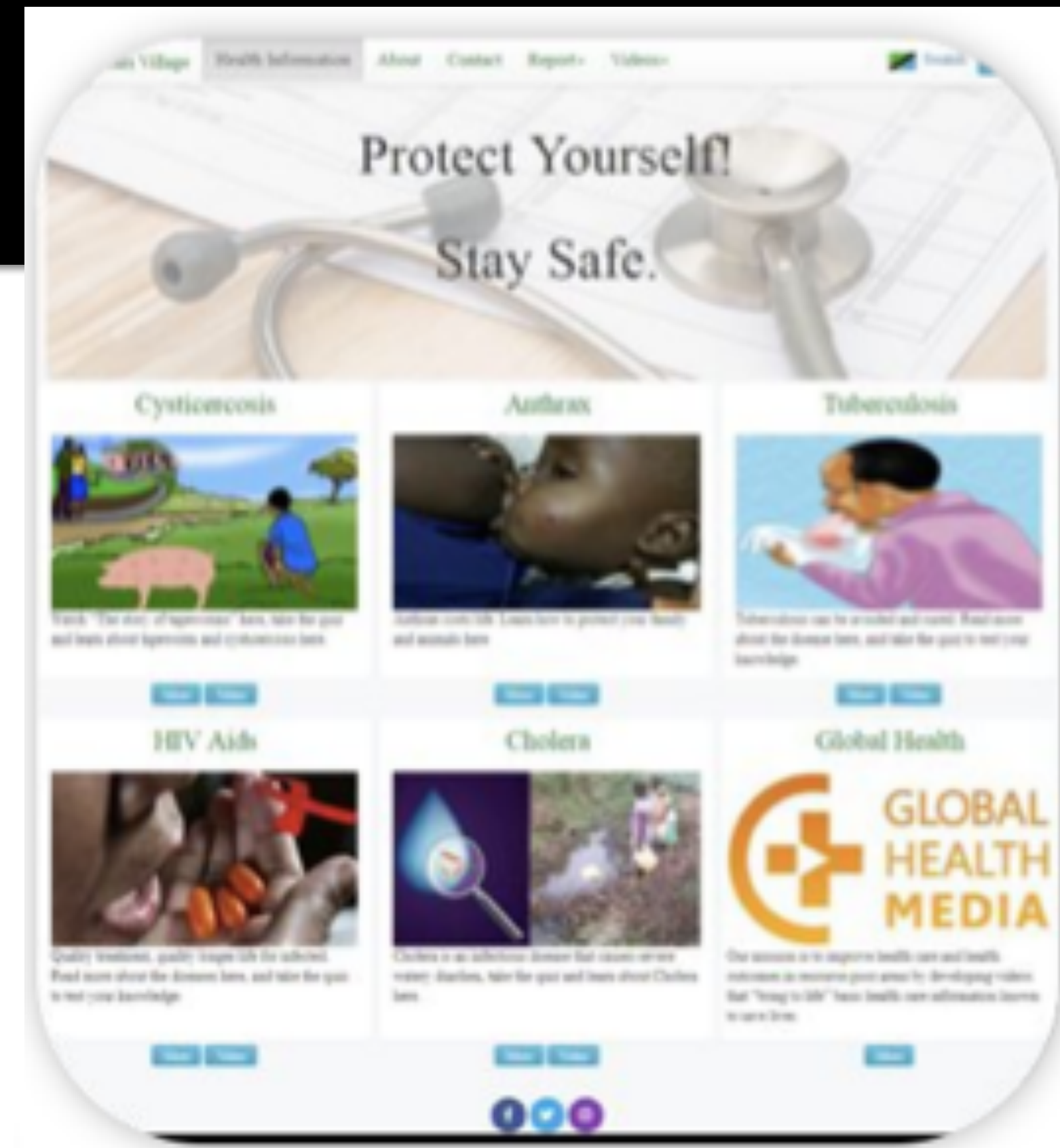


Standard:



Village Platform yeboo.com

- Everyone has free access to the village platform yeboo.com
 - ➔ Health Messages
 - ➔ Reporting/Feedback
 - ➔ Sustainable Business



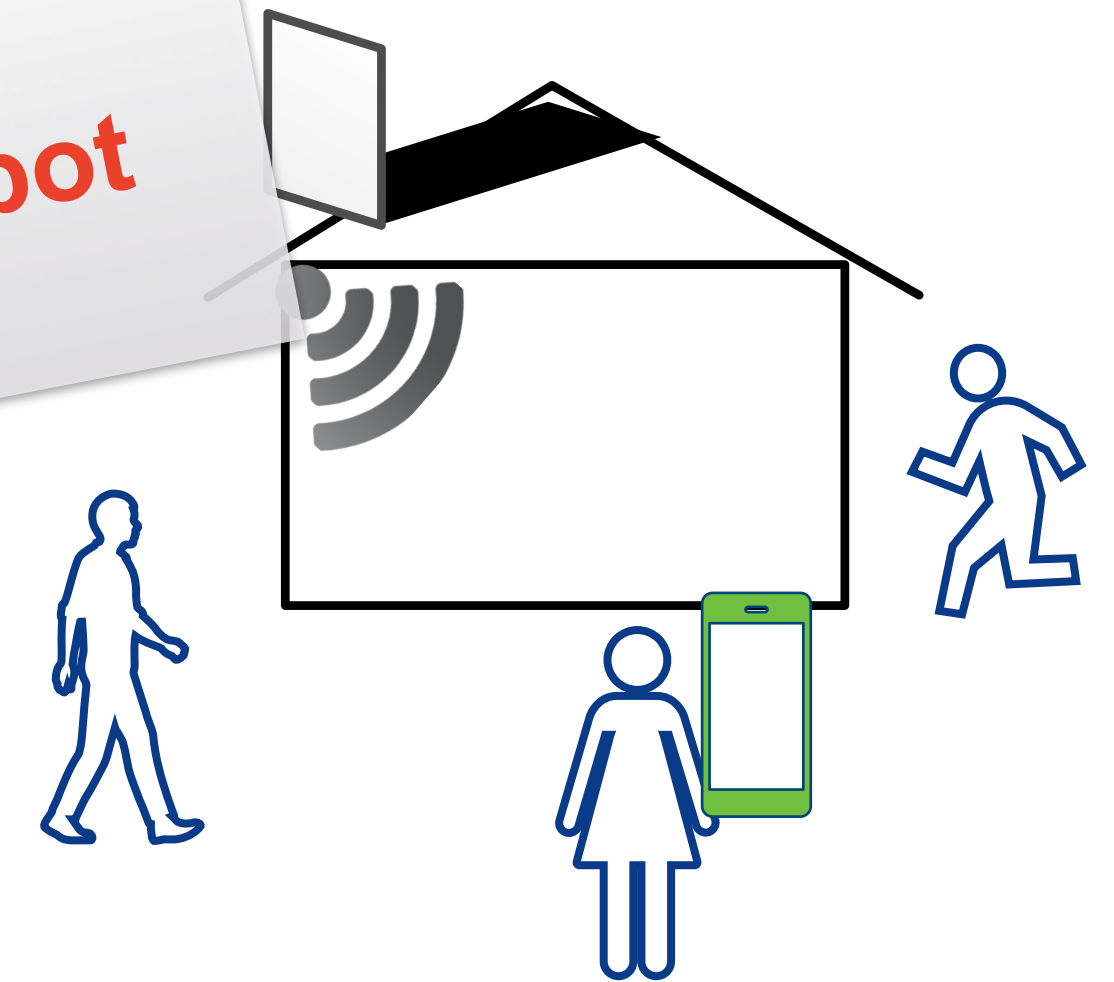
Conclusion

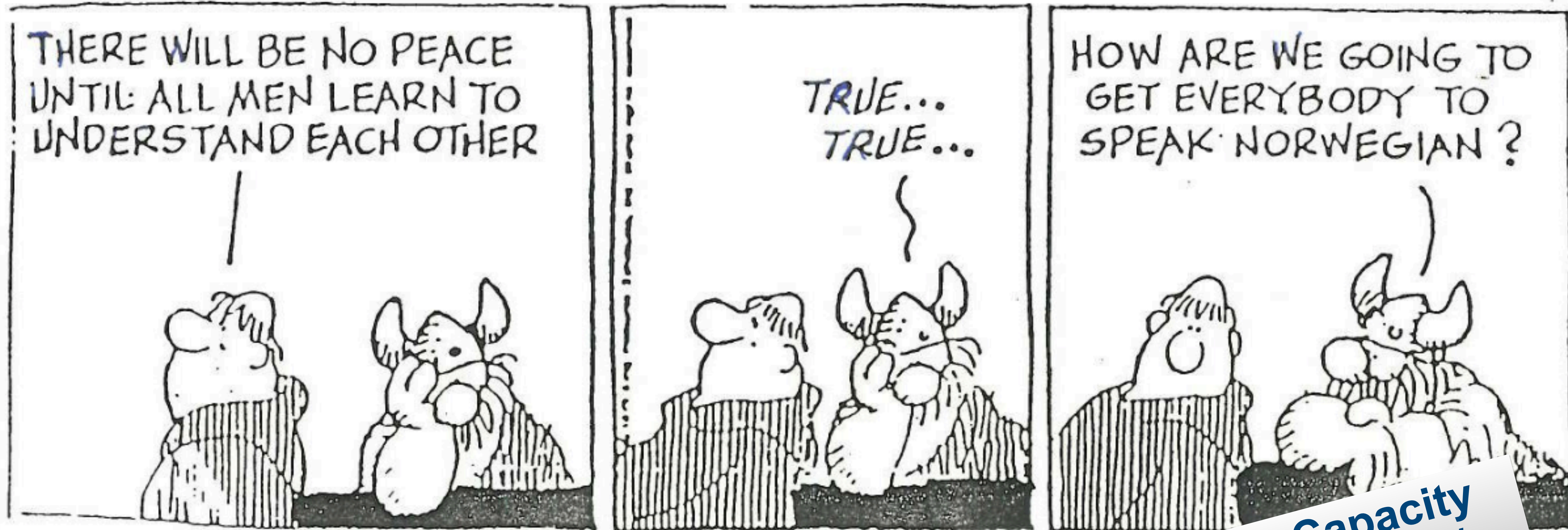


- “Internet Lite for All”
 - ➔ Freemium model for access
 - ➔ at Home, in the Mobile Network, World-Wide
- Framework for Sustainable Development
 - ➔ Convergence: Energy & Health & Digital
 - ➔ #ReturnOnSDGs instead of #ROI
- Information Spot(s) in each village
 - ➔ basis: free access to information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

“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





Inclusiveness - Trust - Capacity
United Nations High Level Panel on Digital
Cooperation 2019



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



FR



ES



Ministry of Health, TZ



UiO

S A N D S



DE



TZ



USA



UK