

# UNIVERSITY OF OSLO

GIZ meeting, 17Nov2022

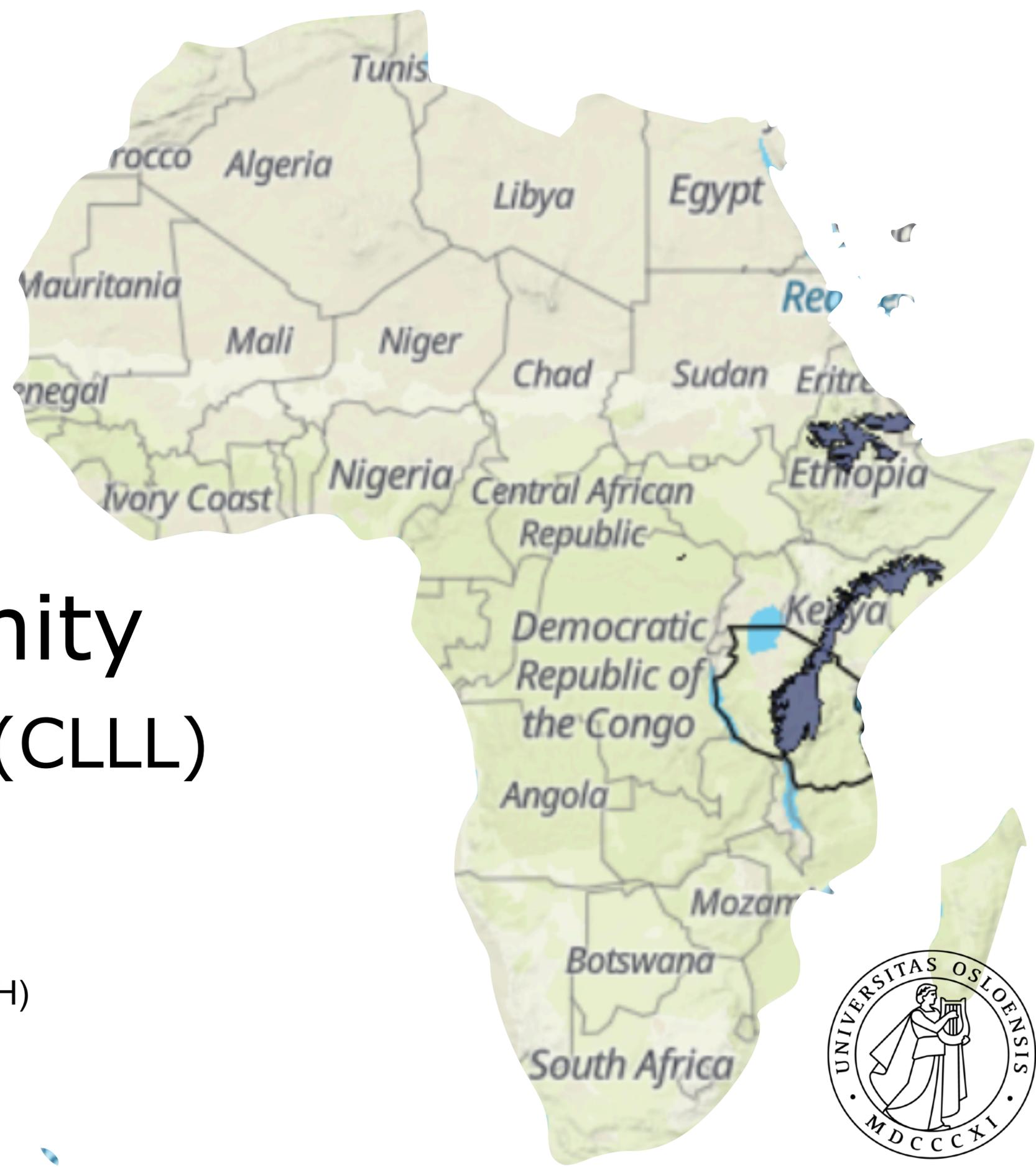
## Empowering Community Learning Living Labs (CLLL)

Josef Noll

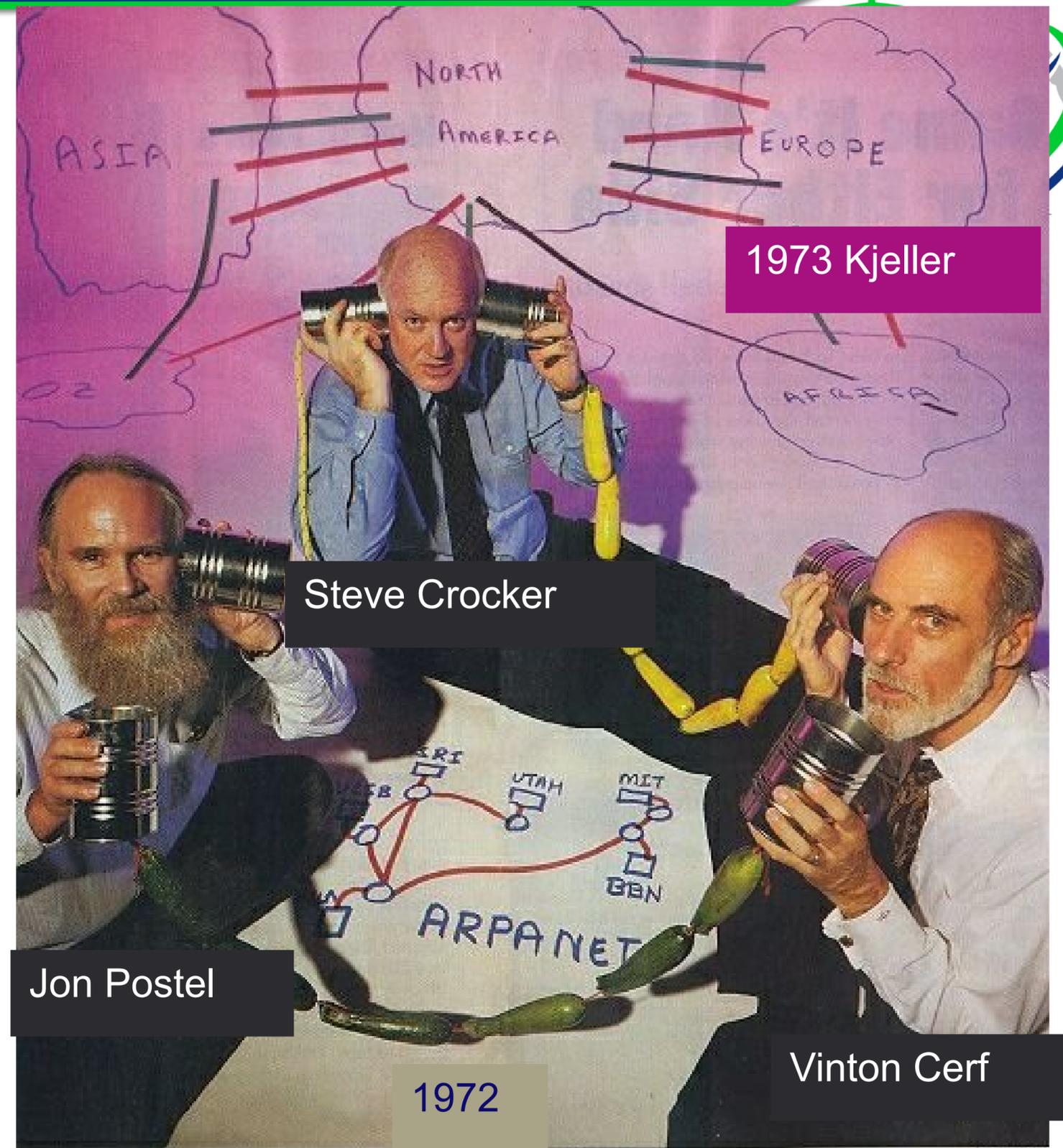
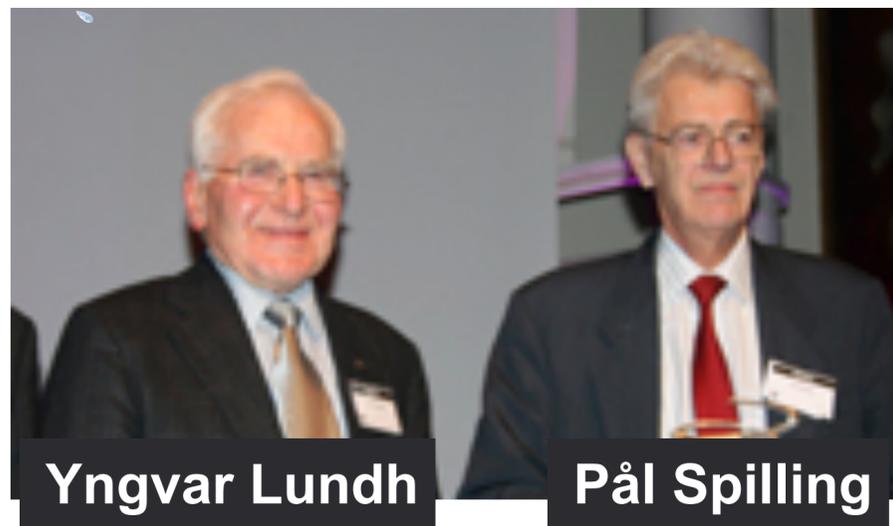
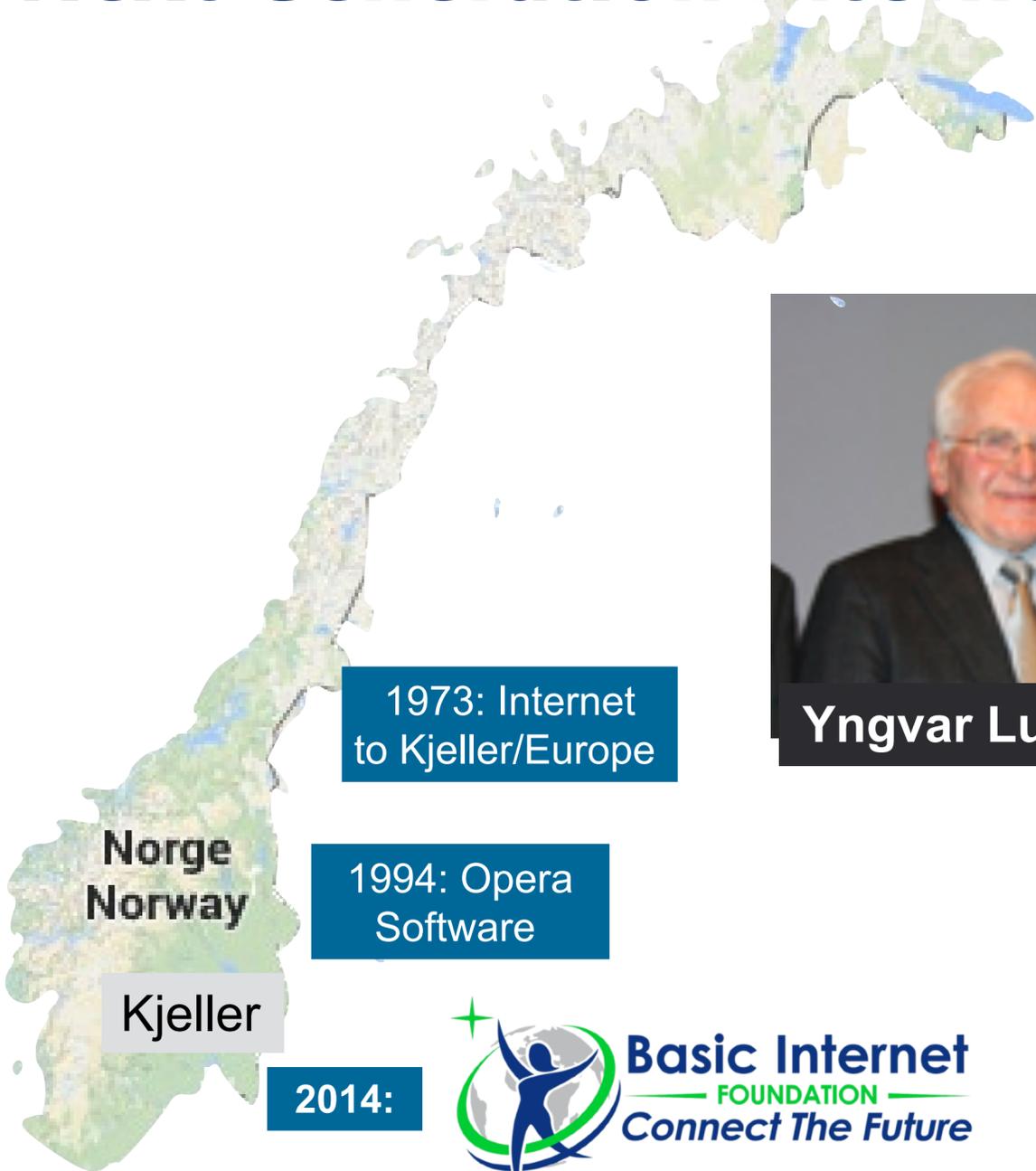
Professor, Department of Technology Systems (ITS)

Lead Digital Global Health at the Centre for Global Health (CGH)

UNIVERSITY  
OF OSLO



# An inclusive Next Generation Internet



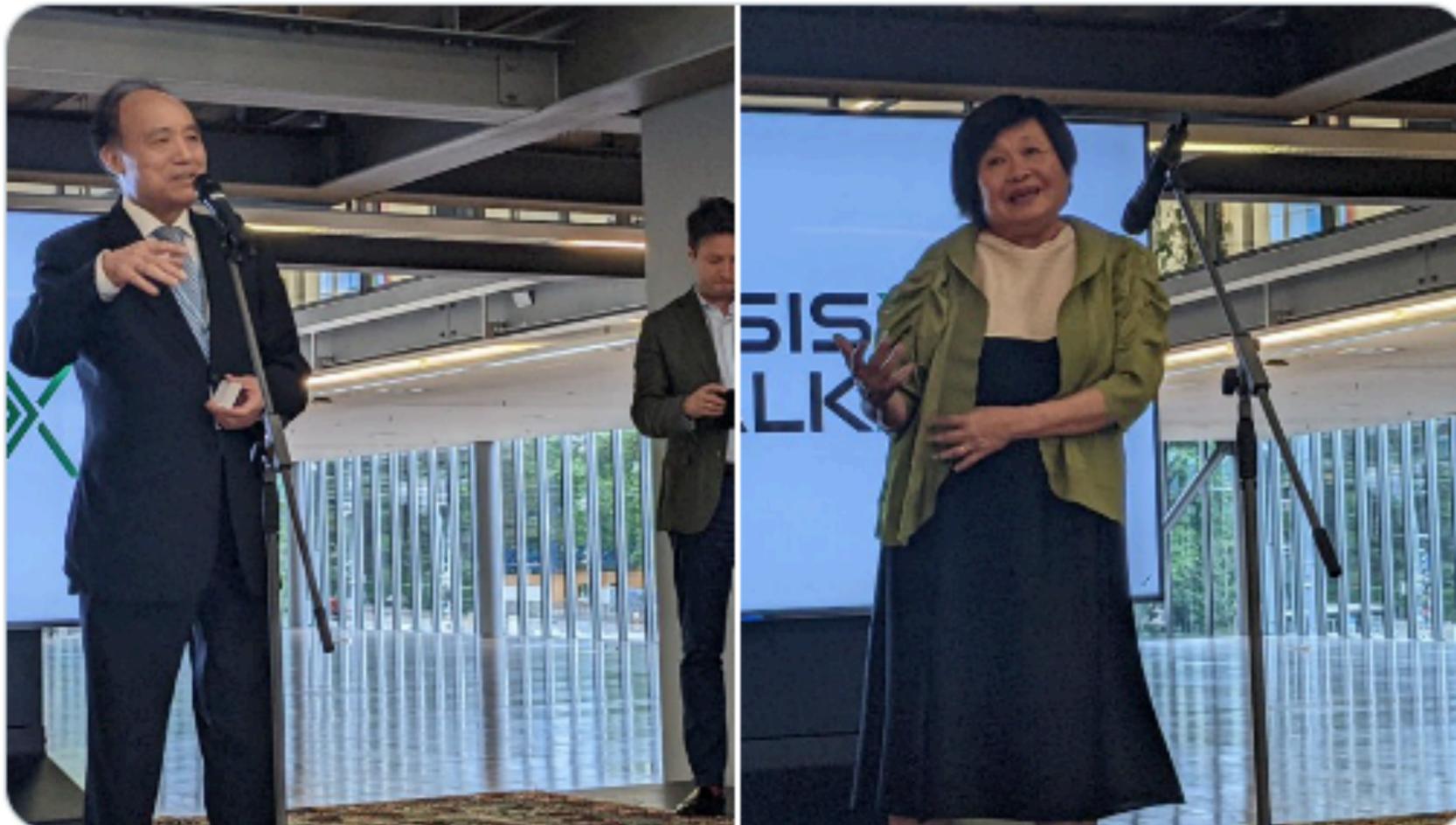
Source: <http://www.michaelkaul.de/History/history.html>

# How can we “Connect The Future”?

## Specific focus: Girls & Women

Josef Noll @josefnoll · Jun 2

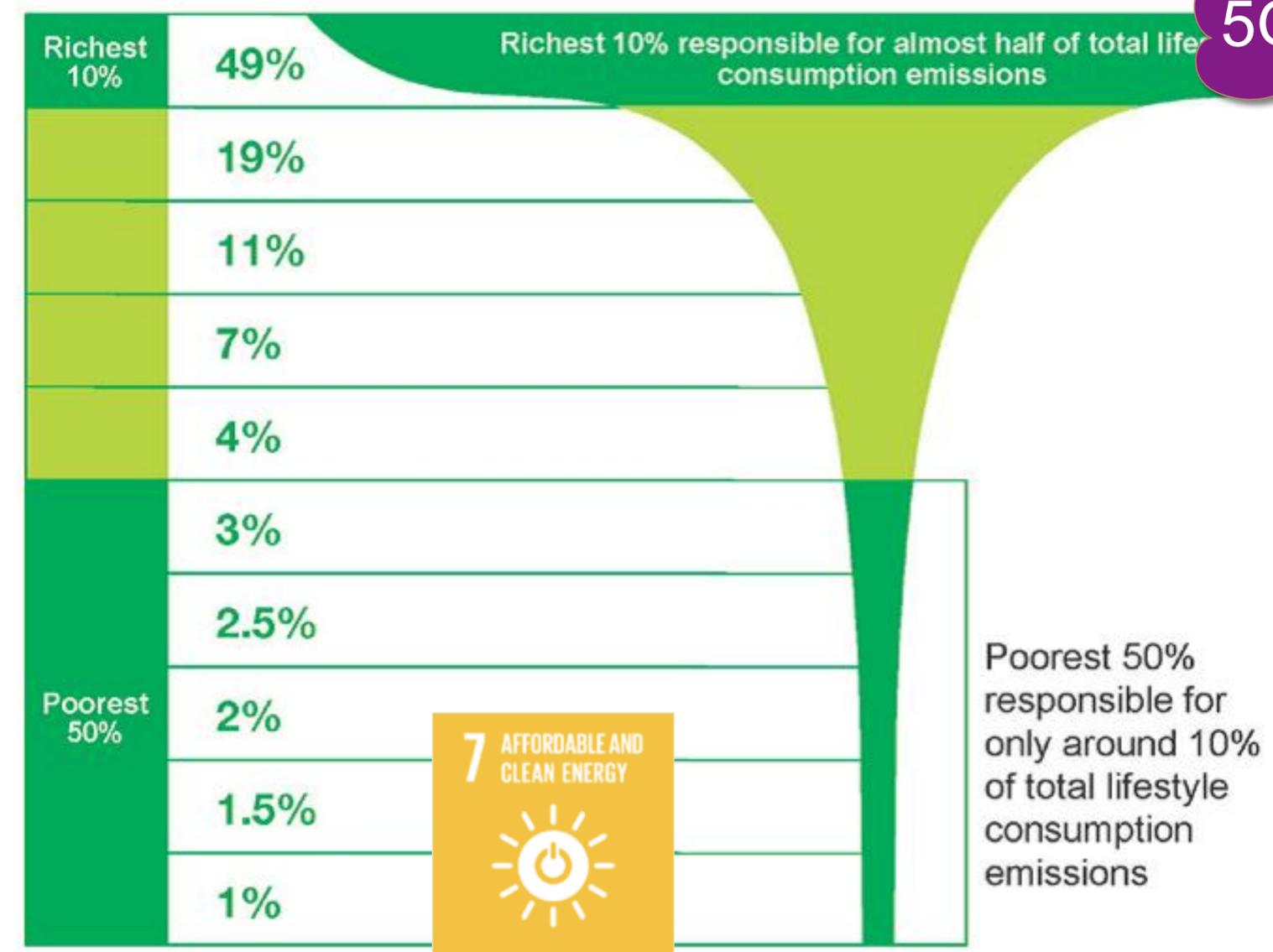
Amazing opening by @ITU @ITUsecGen Houlin Zhao, setting the scene for connecting every single human by 2030, and @meilinfung, addressing the history of the Internet and #NRENs to connect schools. We're in @CateKimambo @RosalynnMworia @UcsafT @AheriNet @cisskisumu @WSISprocess





# Inequality in Energy & Digital Access

Percentage of CO<sub>2</sub> emissions by world population



9%

**NATIONAL ASSESSMENT FOR MEANINGFUL CONNECTIVITY**  
(2021, BASED ON PILLARS' AVERAGE)



ESTIMATED TO HAVE 4G SPEEDS



ESTIMATED TO OWN A SMARTPHONE



ESTIMATED WITH UNLIMITED ACCESS



ESTIMATED TO HAVE DAILY INTERNET USE

[Source: Oxfam.org, 2015]

[[https://webfoundation.org/docs/2022/02/MC\\_Rwanda\\_FS\\_Screen\\_V1.pdf](https://webfoundation.org/docs/2022/02/MC_Rwanda_FS_Screen_V1.pdf)]

# Universities and National Research & Education Networks (NRENs)

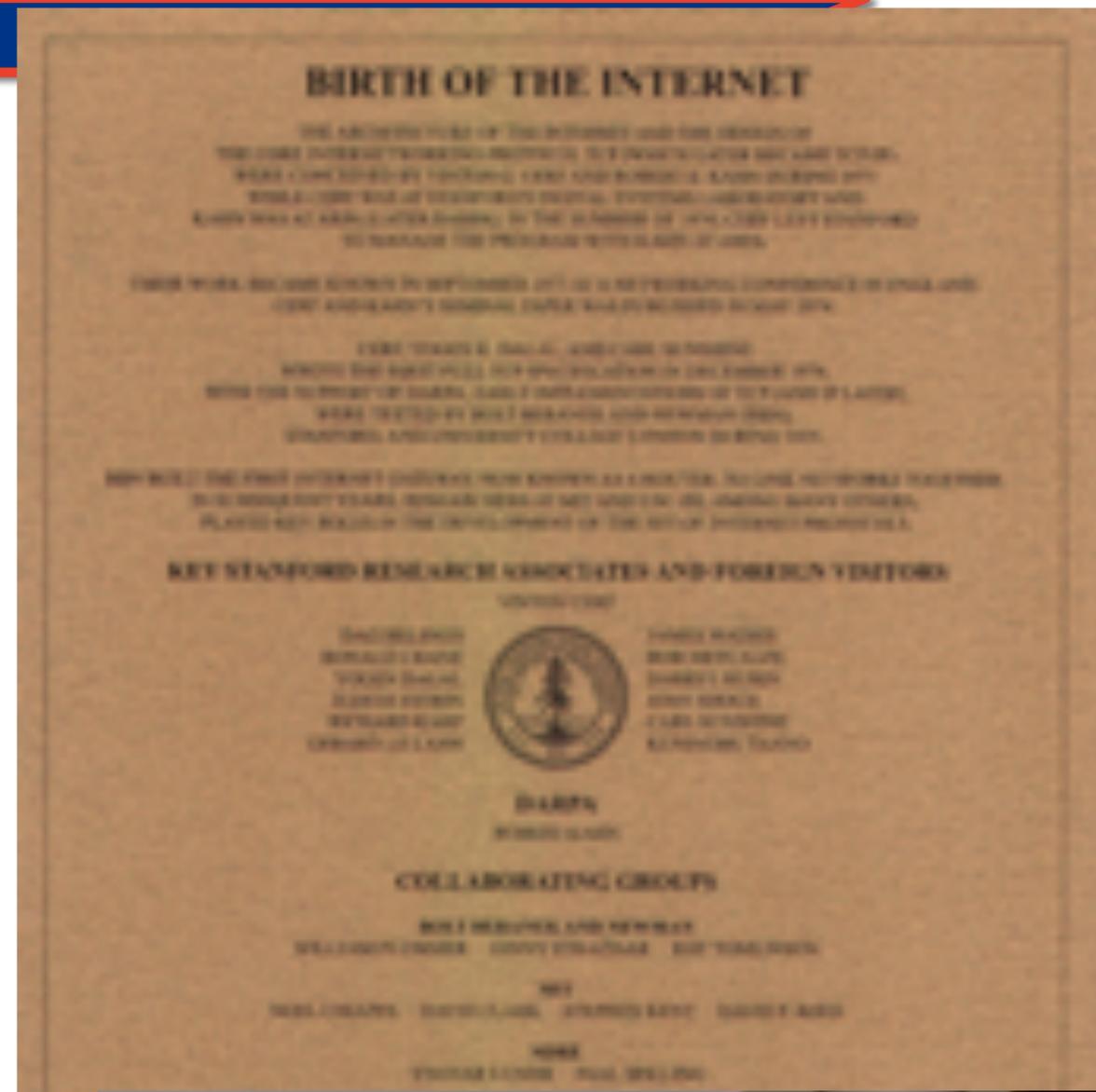


The screenshot shows the AfricaConnect3 project website. The header features the AfricaConnect3 logo and a search icon. The main content area includes the European Union logo and text stating: "AfricaConnect3 project is co-funded by the European Union. The AfricaConnect3 project receives funding from the European Union under Grant Contract DCI-PANAF/2019/411-583." Below this text are logos for UbuntuNet Alliance, WACREN, ASREN (Arab States Research and Education Network), and GÉANT.

- Connecting Universities & Research
  - Digital Public Goods
- Services: Eduroam
- Non-profitable services
- Decentralised Innovation Creation
- Base to IT industry

# Internet and the Nordics

- 1. Arpanet Connection to **Kjeller** (June 1973)
- List\_of\_Internet\_pioneers [Wikipedia]
  - Yngvar Lundh, **Paal Spilling**
- Application areas
  - .php, OpenSource, Linux, Skype, Spotify
  - **OperaSoftware**, FAST Search
  - Nokia, Ericsson
  - **Telenor**, TeliaSonera
- Mobile Internet & Digital Transformation
  - GSM
  - GovStack.global



Vint

Sigrid



Yngvar

Paal

# The Guild (EU) - ARUA (Africa)

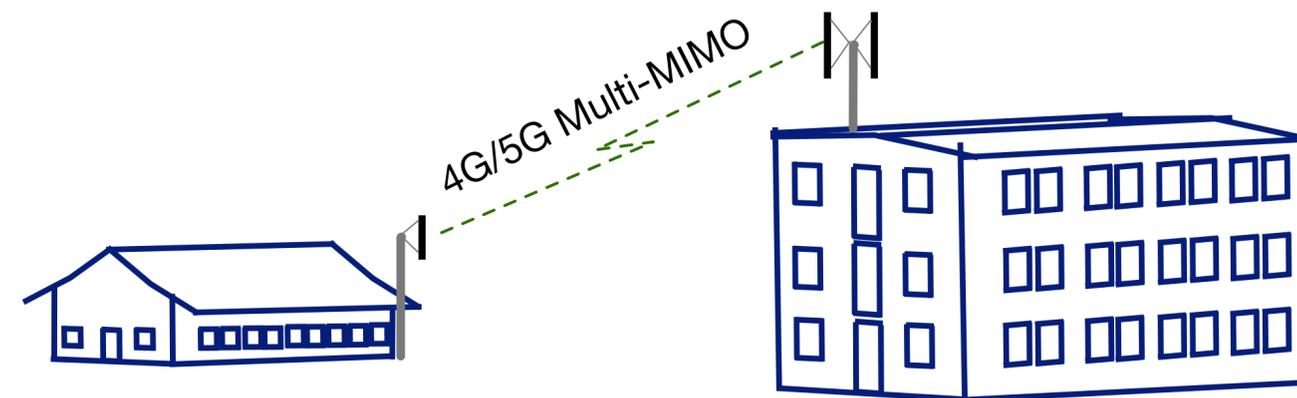


**ARUA**  
African Research  
Universities Alliance

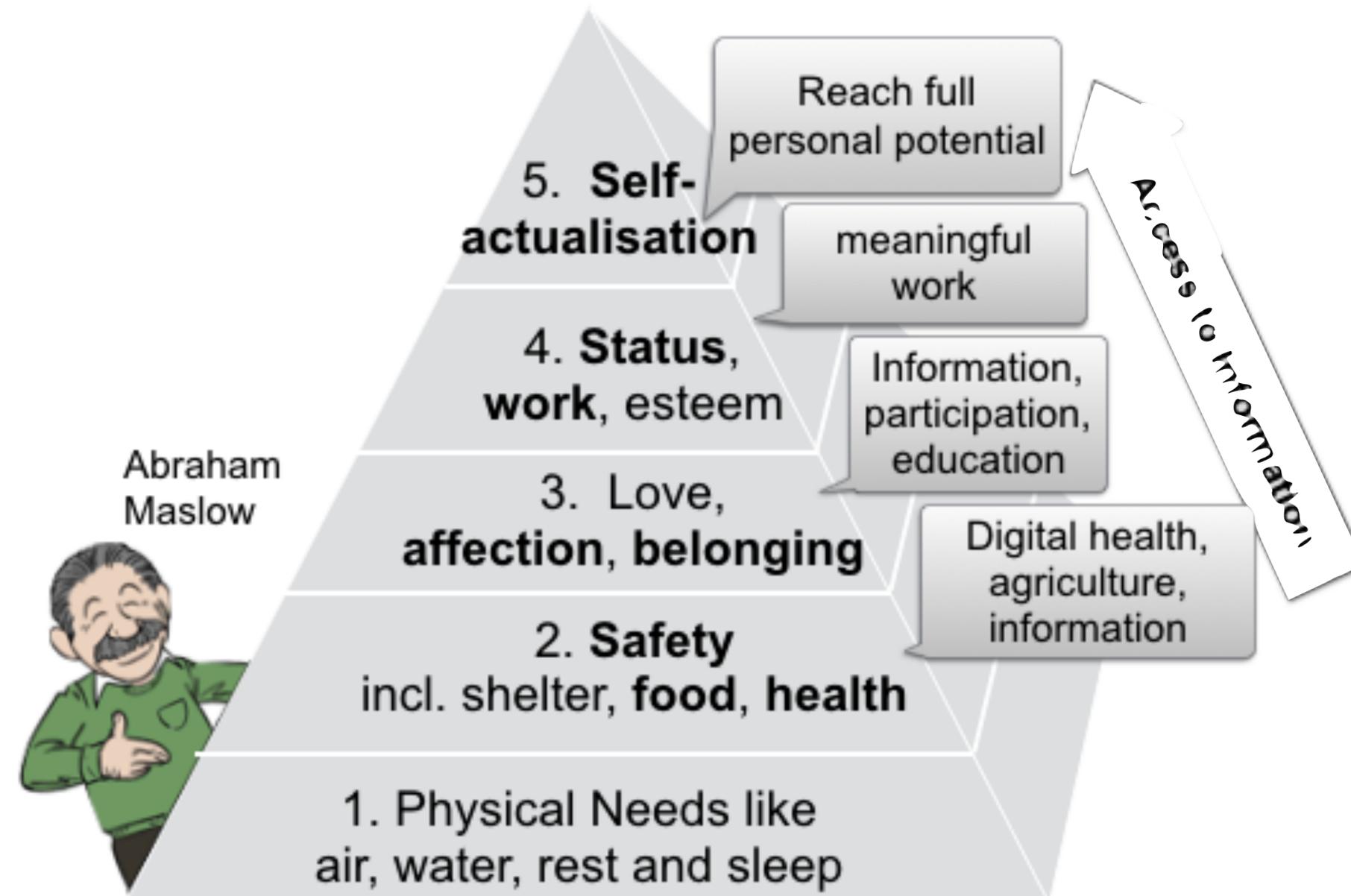
- Research for the (digital) Society
- Regional Competence Centres (RCCs) for
  - the Digital Transformation
  - Connect Schools & unconnected Communities
  - practical experiences
- Real world search based on needs from the communities

## ARUA and The Guild in full support of the proposed joint AU-EU Innovation Agenda

Through the proposed AU-EU Innovation Agenda, announced on 14 February ahead of the AU-EU summit, universities are assuming a central place in the development of AU-EU relations.



# How to we reach every single human?

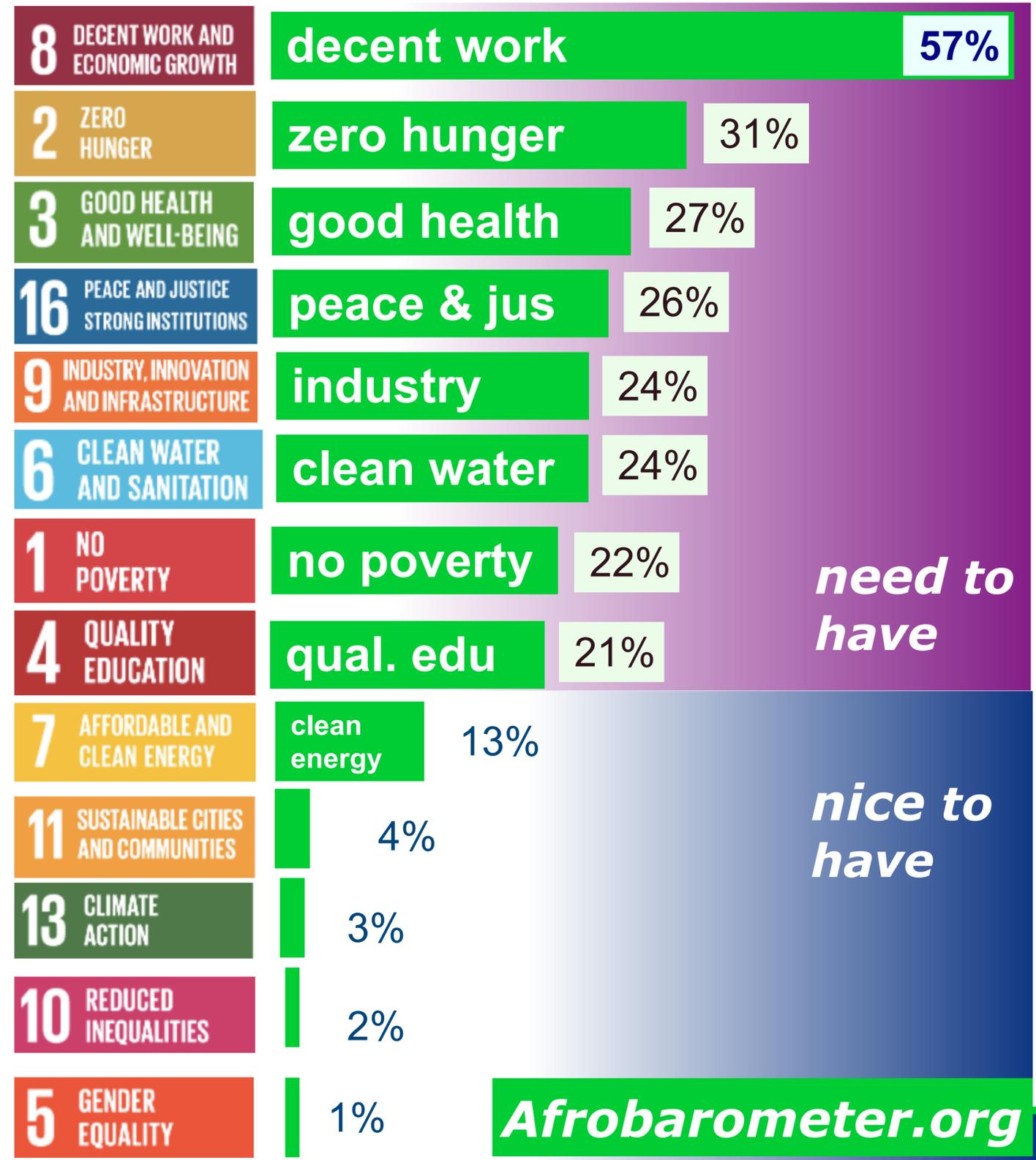


[adopted from: <https://shift-magazine.net/2015/11/17/the-economics-of-human-need/>]

- ➔ Digital Public Goods (DPGs) & GovStack
  - decentralised DPGs
  - digital transformation
  - GovStack for local governments
  - digital health empowerment?
  
- ➔ Local communities
  - Women saving networks
  - Women health networks



# Priorities in (rural) Africa



"As a mother of six children, I am expected to be the home keeper; I wash, clean, and cook. It is merely my responsibility to be constantly available and do everything for my family. So with this heavy responsibilities, I cannot find time to use the computer and the Internet at home"  
**Female, 45 years**

Mumporeze, N., & Prieler, M. (2017). Gender digital divide in Rwanda: A qualitative analysis of socioeconomic factors. *Telematics and Informatics*, 34(7), 1285–1293

"There is no broadband in rural areas"  
 (in South of Sahara Africa - SSA)

TZ: 640 USD for 4 Mbit/s  
 GH: 600 USD for 5 Mbit/s  
 KE: 600 USD for 10 Mbit/s  
 "every single month"

<https://blogs.worldbank.org/africacan/how-do-africans-priorities-align-with-the-sdgs-and-government-performance-new-results-from>



# Digital Public Goods & GovStack



1A: We recommend that by 2030, **every adult** should have **affordable access** to digital networks, as well as **digitally-enabled** financial and **health services**, as a means to make a substantial contribution to achieving the **SDGs**...

1B: We recommend that a broad, multi-stakeholder alliance, involving the UN, create a **platform** for **sharing digital public goods**, ....

- Affordable access to DPGs and GovStack
- Community involvement
- Decentralised DPGs



Digital  
Public  
Goods  
Alliance

# Community involvement

for meaningful access tailored towards the needs & capabilities

## → WIR vs ICH

- **Werte**
- **Inklusivität**
- **Resilience**

Value creation  
Trust & confidence



Explore, Affection  
Opportunities



Empowerment, Work  
Digital Transformation



Self-actualisation  
Entertainment

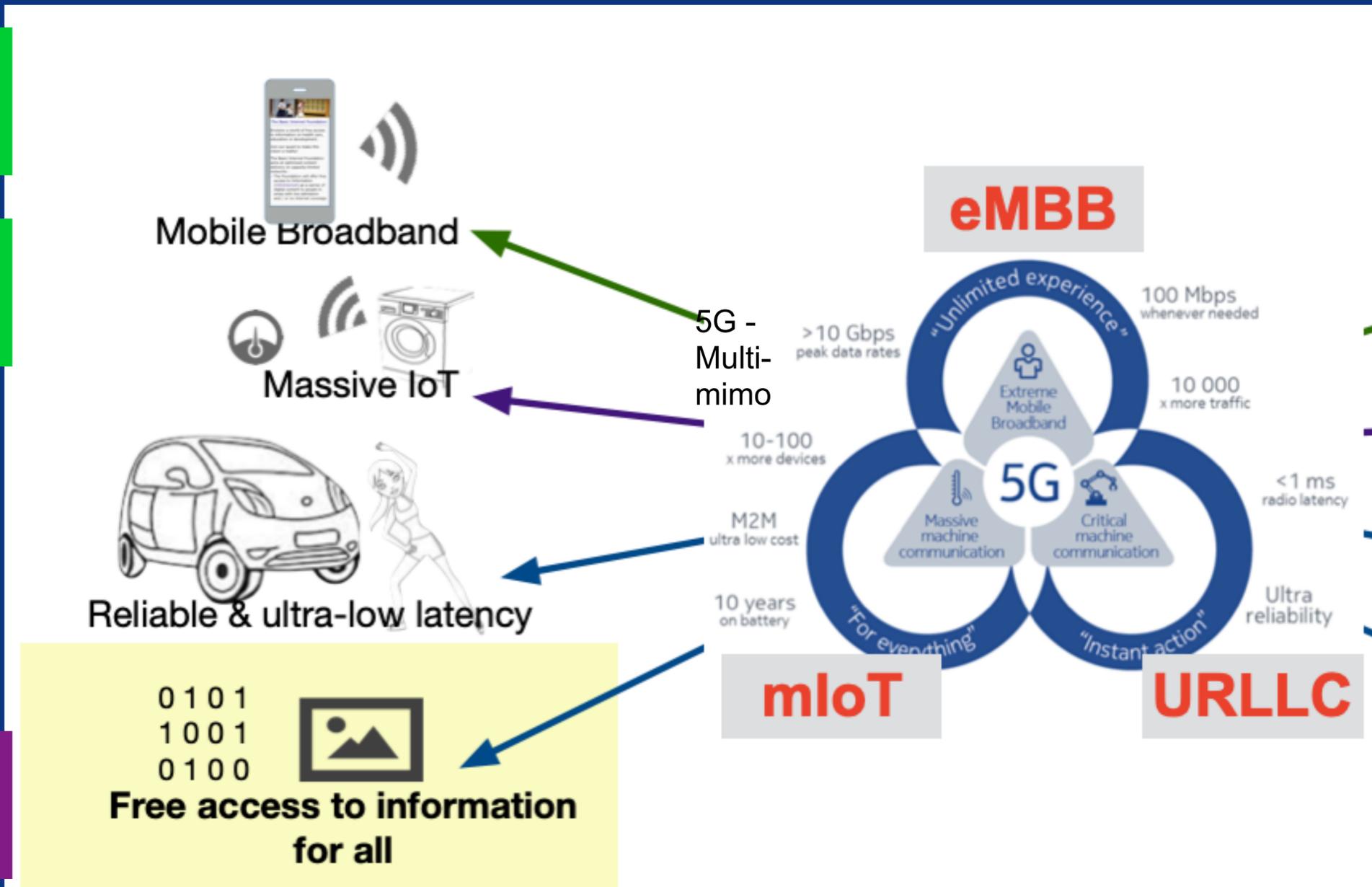


# Need to change?

Road model: pedestrians & cyclists

Digital pedestrians, digital cyclists vs digital cars (broadband)

Internet Lite





# Histories

“My mobile is more important than a weapon”  
Head of Mbaash, TZ



Catherine R Kimambo connecting her first village  
<https://vimeo.com/368147538> - 2020



Mount Kenya - our cultural heritage  
Usingo Secondary School, KE

