UNIVERSITY
OF OSLO

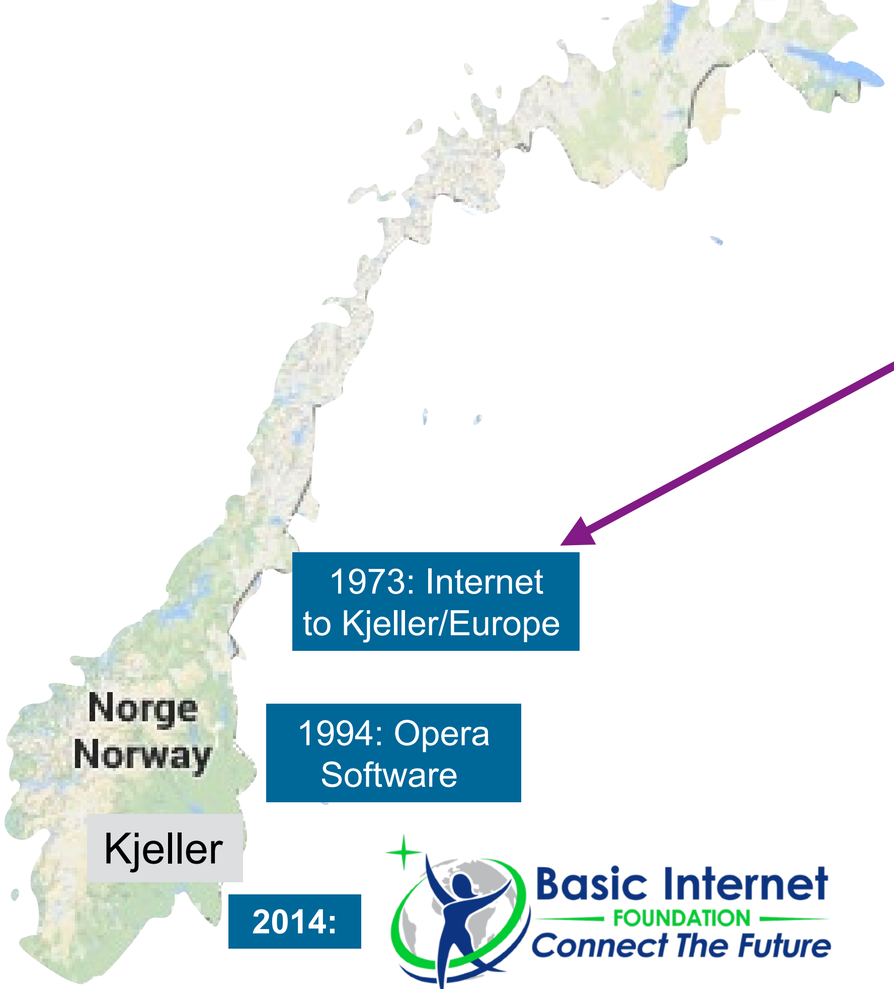
C20 Environment, Climate Justice and Energy Transition Working Group (ECEWG)
with C20 Education, Digitalization, and Civic Space Working Group (EDCSWG)
1Dec2022

The Power of Digitalisation for Climate and Energy Justice in the Global South

Josef Noll

Professor, Department of Technology Systems (ITS)
Lead Digital Global Health at the Centre for Global Health (CGH)

Inclusive digitalisation in Norway and the Nordics/Baltics (N8)

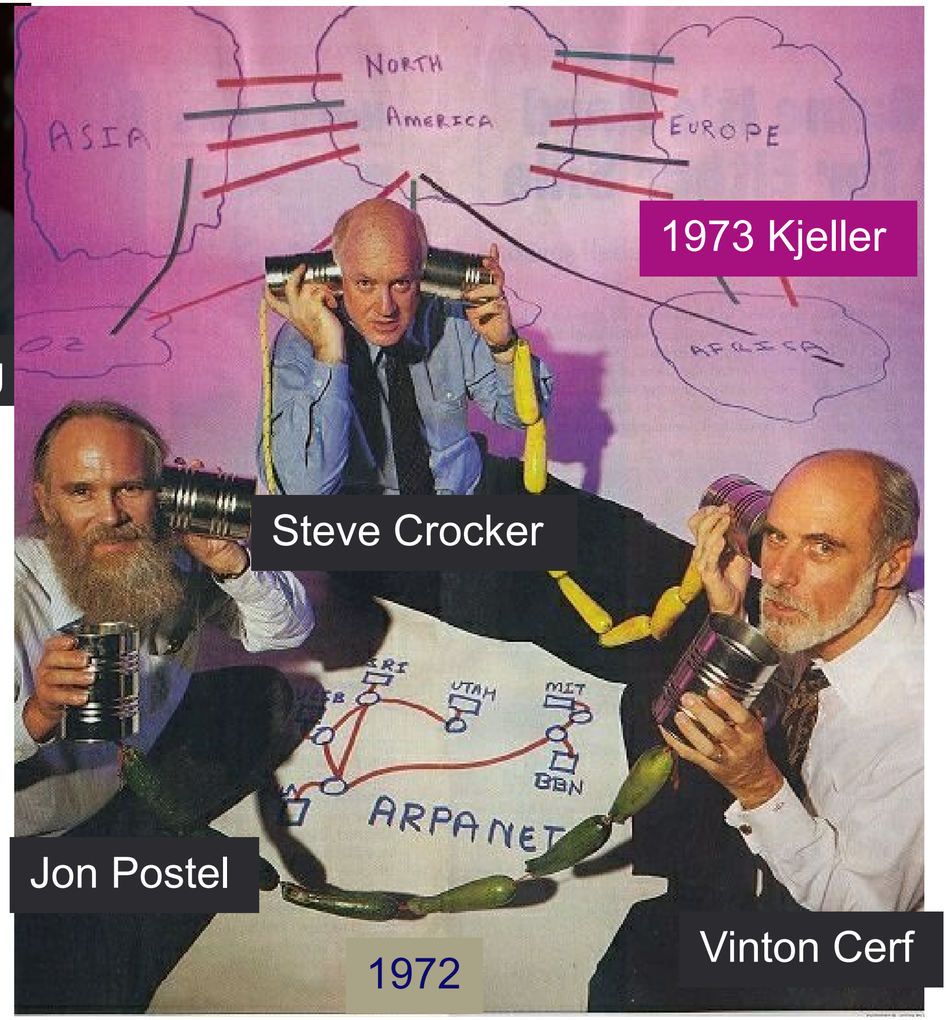


1973: Internet to Kjeller/Europe

1994: Opera Software

2014: Basic Internet FOUNDATION Connect The Future

KJELLER INNOVASJON



.php, OpenSource, Linux, Skype, Spotify
Opera Software, FAST search
Nokia, Ericsson
GSM
GovStack.global, X-Roads

Source: http://www.michaelkaul.de/History/history.htm

Recommendations (June 2019)
United Nations High Level Panel

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**, ….

Energy & Digital, enablers for the SDGs

7 AFFORDABLE AND CLEAN ENERGY

People without electricity

SDG 7.1 calls for universal access to …. energy by 2030

2010	2020	2030 (trend)
1.2 billion	733 million	679 million

[WorldBank 2021]

https://www.worldbank.org/en/news/press-release/2021/06/07/report-universal-access-to-sustainable-energy-will-remain-elusive-without-addressing-inequalities

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

People not using Internet

SDG 9c calls for universal, affordable internet access by 2020

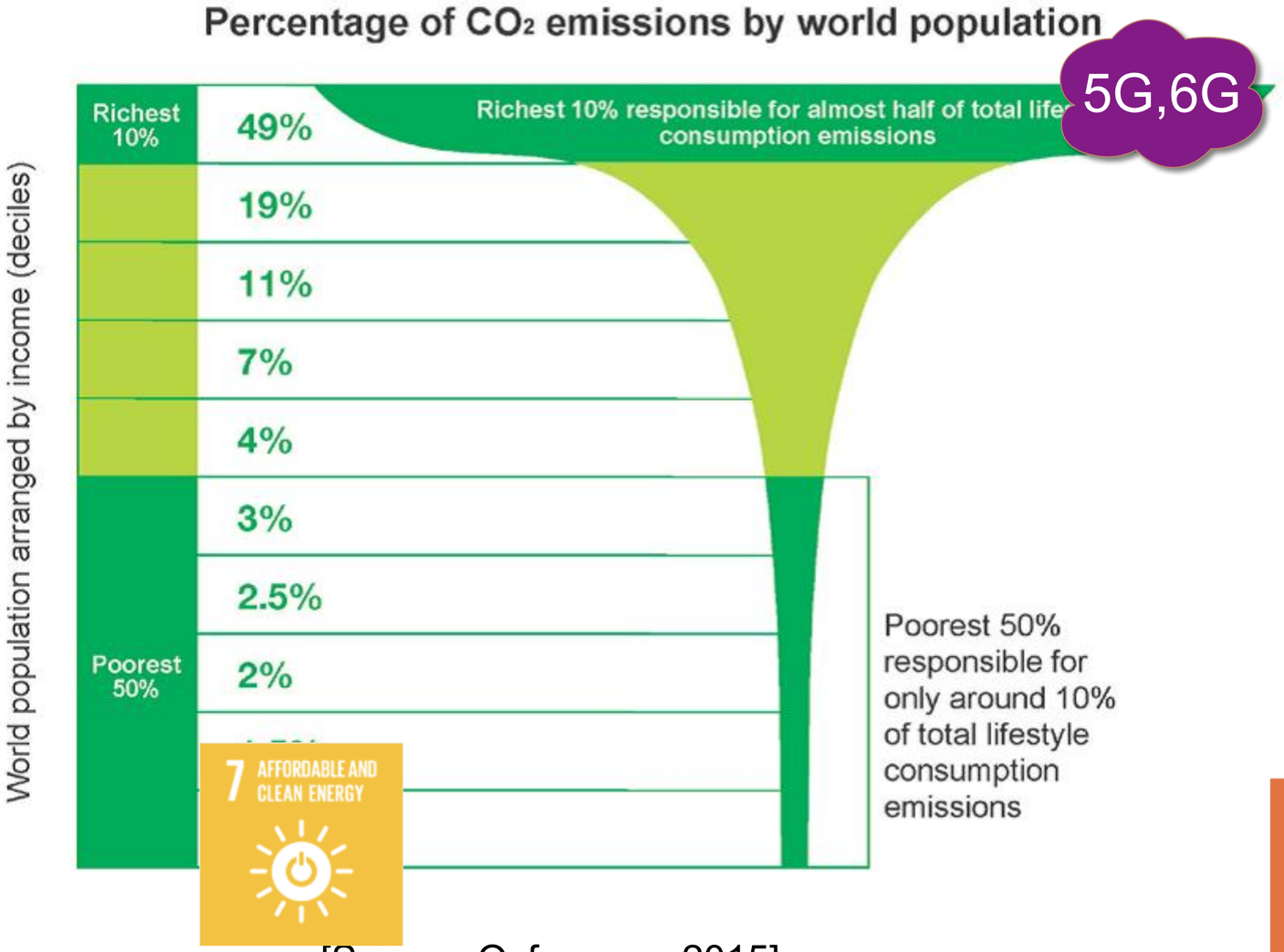
2010	*2021*	2030 (hope)
4.9 billion	2.9 billion	0 billion
	96% in dev countries	

WSIS Forum 2022

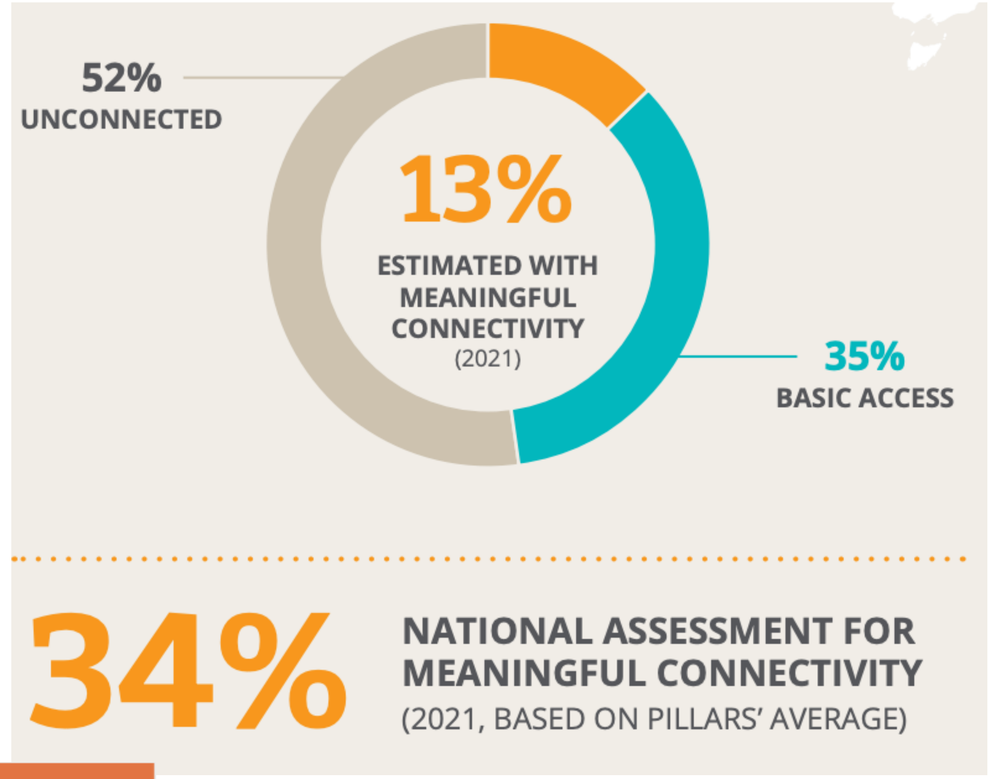
[ITU 2010, 2021]

https://www.itu.int/hub/2021/11/facts-and-figures-2021-2-9-billion-people-still-offline/

Inequality in Energy & Digital Access



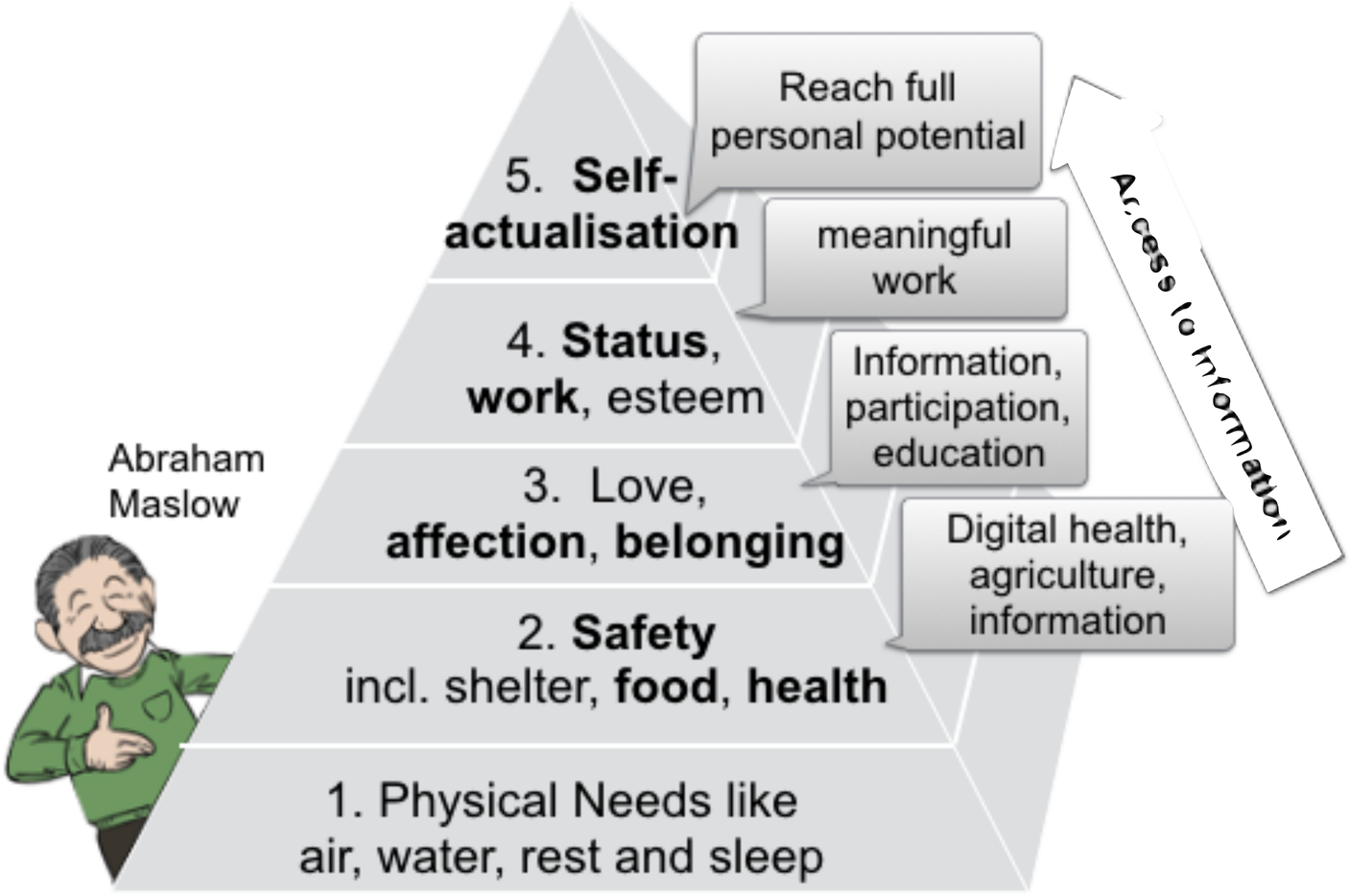
[Source: Oxfam.org, 2015]



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

[https://webfoundation.org/docs/2022/02/MC_Indo_FS_Screen_V1.pdf]

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?

GovStack

Digital Public Goods Alliance

Community involvement

for meaningful access tailored towards the needs & capabilities

- WIR vs ICH (*we vs me*)
  - **W**erte (*values*)
  - **I**nclusivität (*inclusivity*)
  - **R**esilience

Value creation
Trust & confidence

Explore, Affection
Opportunities

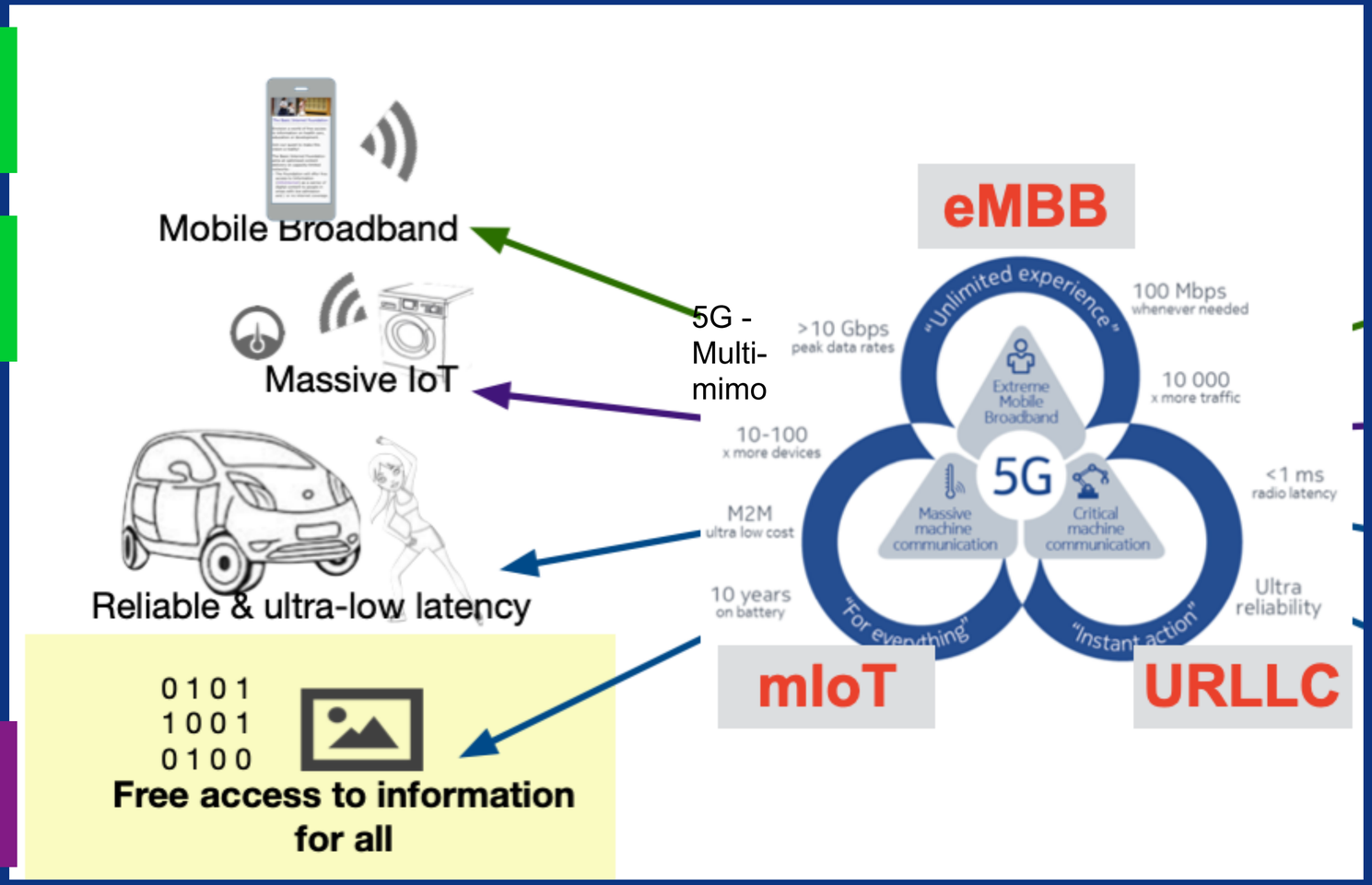
Empowerment, Work
Digital Transformation

Self-actualisation
Entertainment

Need to change?

Road model: pedestrians & cyclists

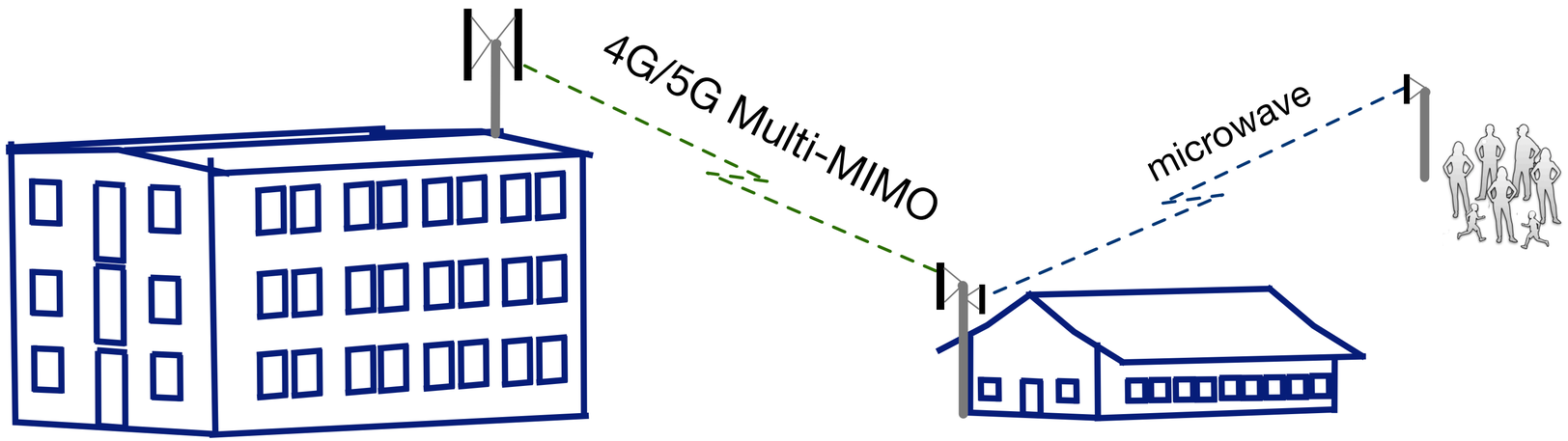
Digital pedestrians, digital cyclists vs digital cars (broadband)



Internet Lite

The role of Universities
“more toys for boys - or societal impact?”

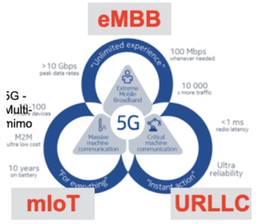
- Inclusive and empowered (digital) societies
- From NRENs to Schools and Communities
- Regional Competence Centres (RCCs) for
  - the Digital Transformation
  - Connect Schools & Communities
  - practical experiences



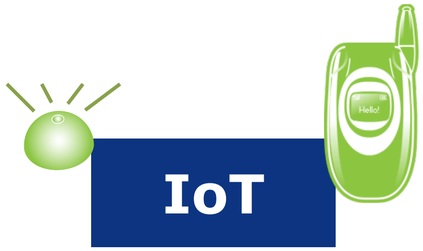
InfoSpots for **C3L**
Community
Learning
Living
Labs

Digitalisation as Enabler

WIR



5G/6G



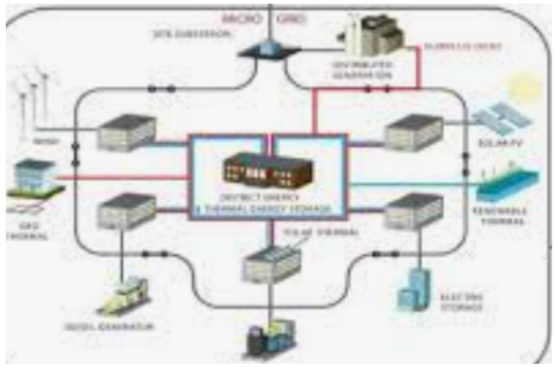
IoT

Machine Learning

Artificial Intelligence

Blockchain

Wind, PhotoVoltaics



MicroGrid

geothermal

battery

waste 2 energy

electrical vehicles

Digitalisation as enabler for Climate and Energy Justice

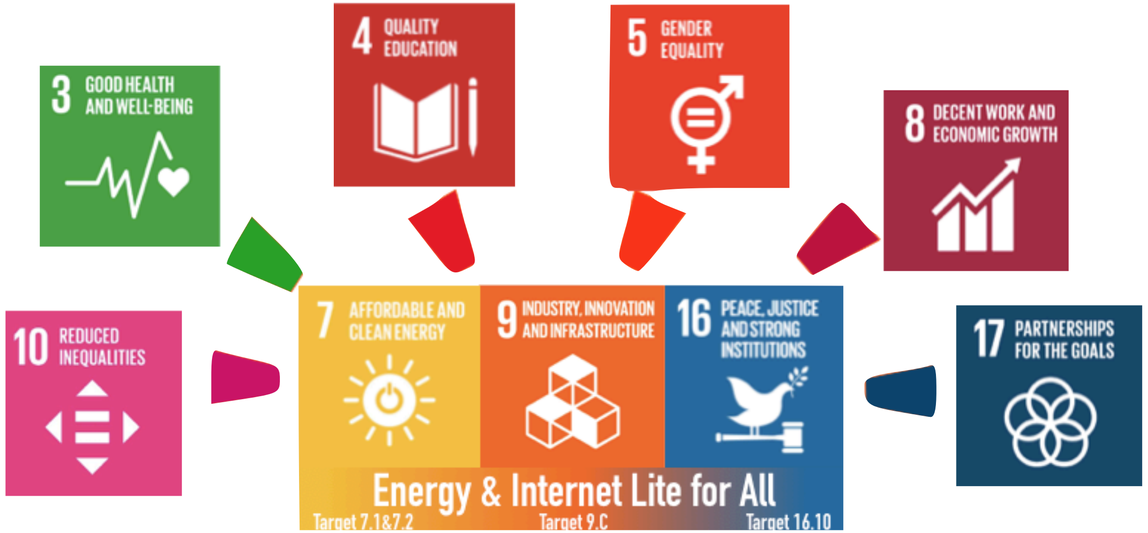
- Digitalisation as enabler
  - KISS: Keep it simple, stupid
  - Decentralised
  - Community Learning Living Labs (C3L)

- Renewable energy
  - micro-grid, decentralised
  - production <> consumption balance
  - empowerment for communities

- Self-sustained communities
  - Building blocks for job-creation, educating, energy
  - Values, Inclusivity, Resilience

GovStack

Digital Public Goods Alliance



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