

# UiO Department of Technology Systems University of Oslo

#### Digital Cooperation and Diplomacy, 25Oct2022

#### Africa and the Internet

Josef Noll,

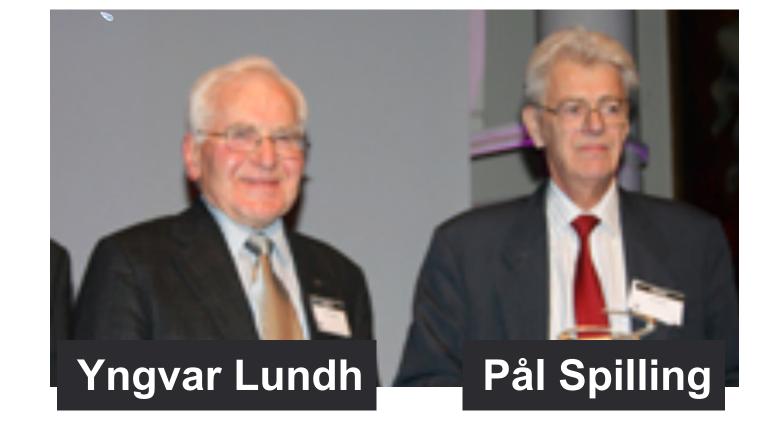


Professor, University of Oslo, Department of Technology Systems Secretary General, Basic Internet Foundation Kjeller, Norway, m: +47 9083 8066, e: josef@jnoll.net



# An inclusive Next Generation Internet

1973: Internet to Kjeller/Europe



Norge Norway

1994: Opera Software

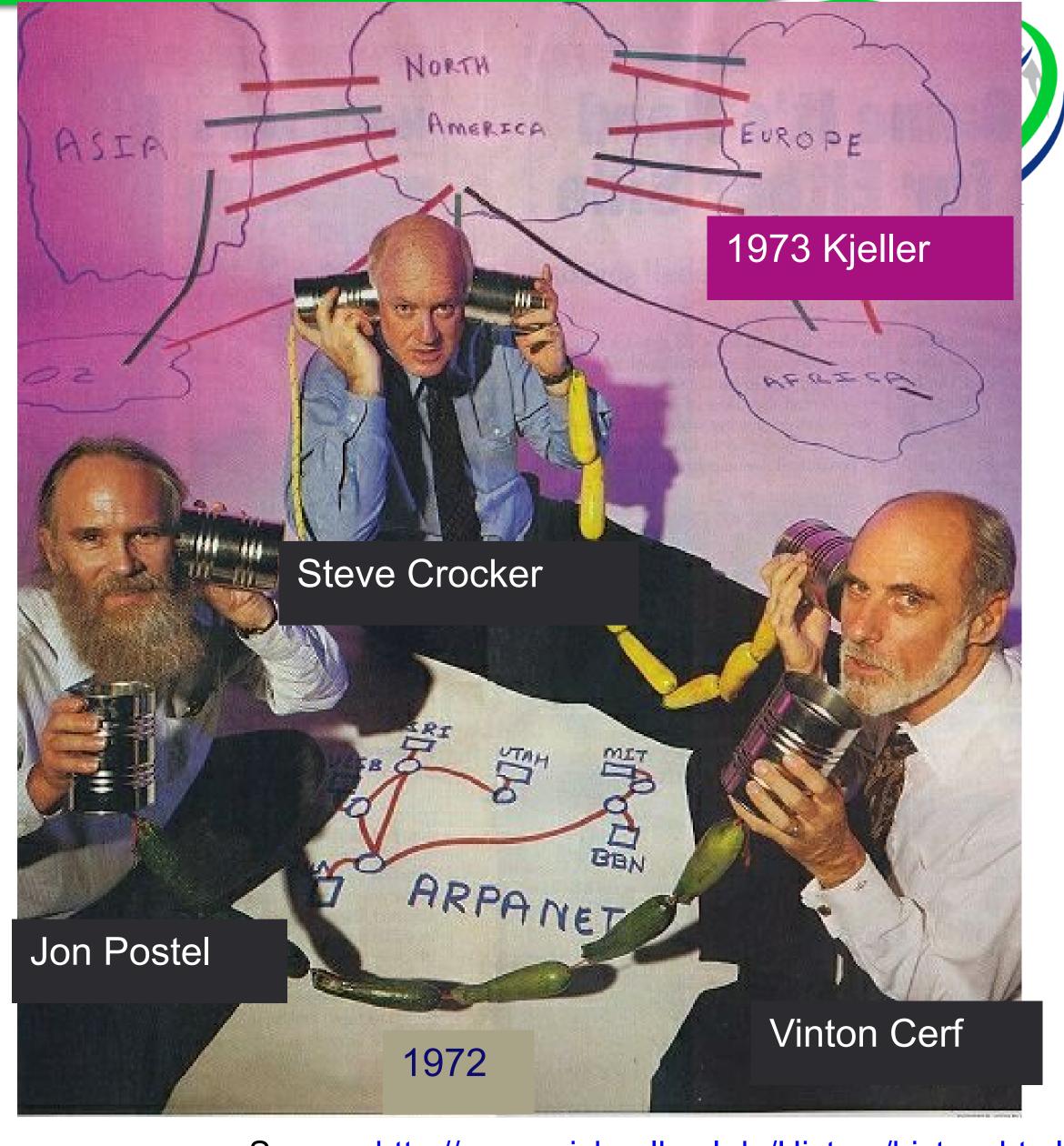
Kjeller

**2014: Basic Internet «Connect The Future»** 









Source: <a href="http://www.michaelkaul.de/History/history.html">http://www.michaelkaul.de/History/history.html</a>

2

#### Mission

#### Framework Conditions

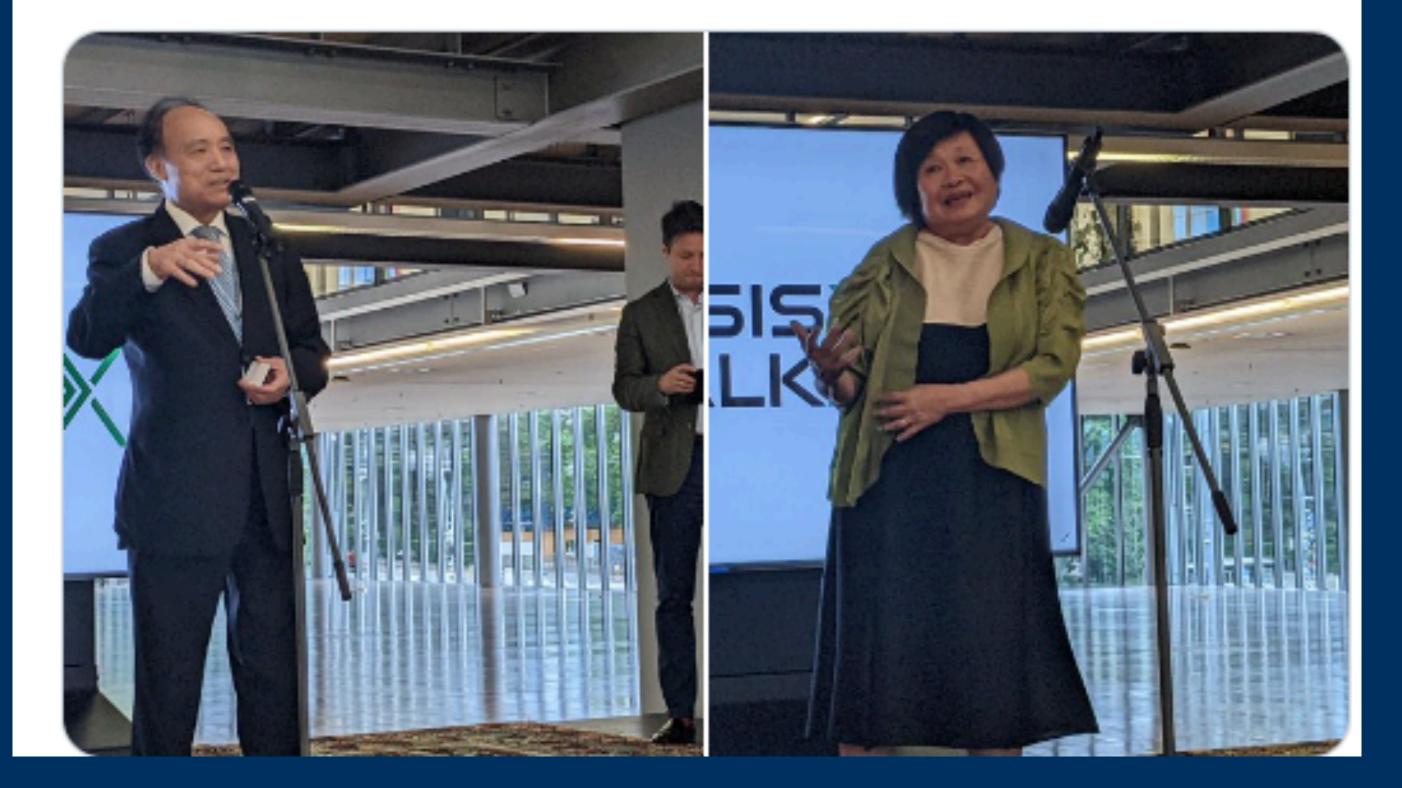
Partnerships



#### How can we "Connect The Future"?

#### 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





#### Energy & Digital, enablers for the SDGs

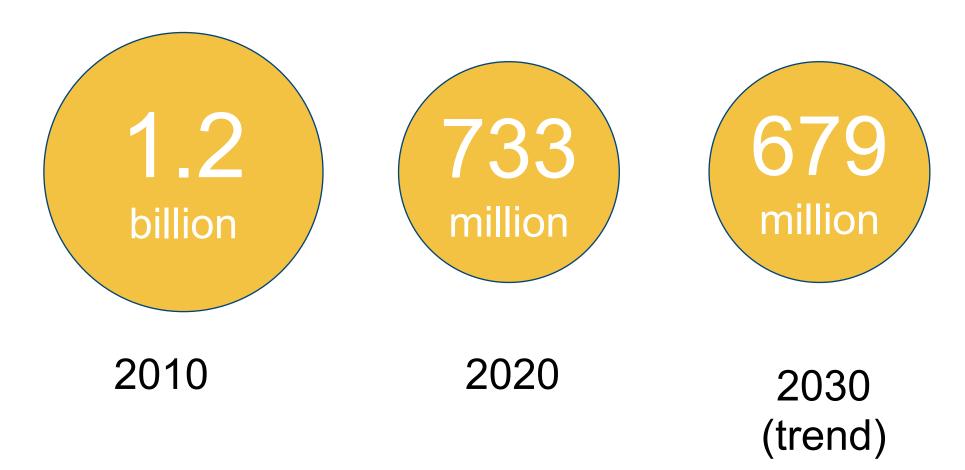


6



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

People without electricity



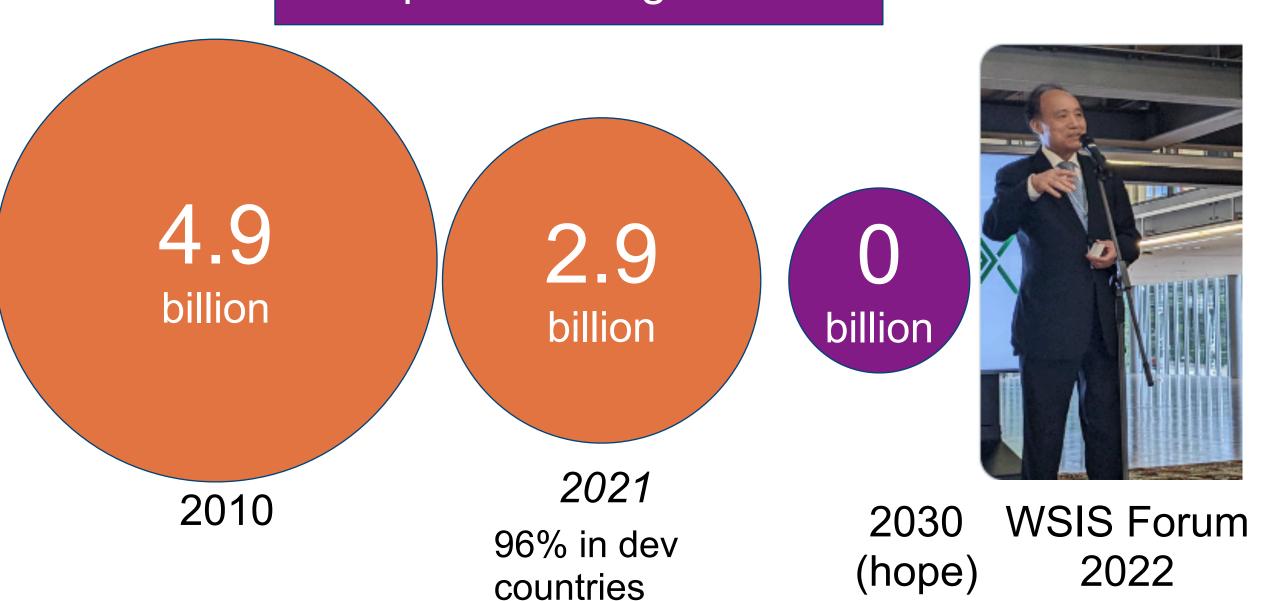
[WorldBank 2021]

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



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

#### People not using Internet



[ITU 2010, 2021]

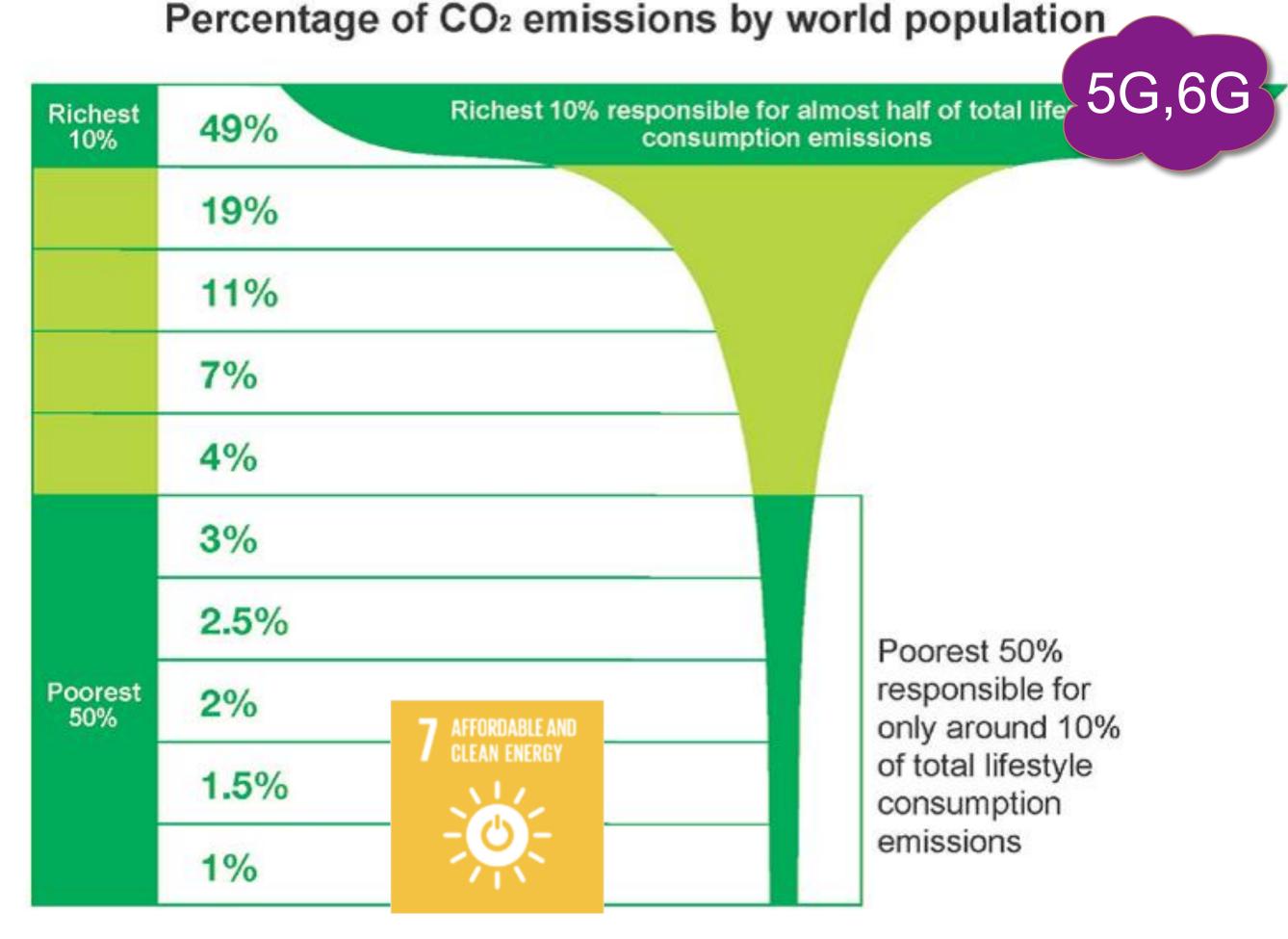
https://www.itu.int/hub/2021/11/facts-and-figures-2021-2-9-billion-people-still-offline/

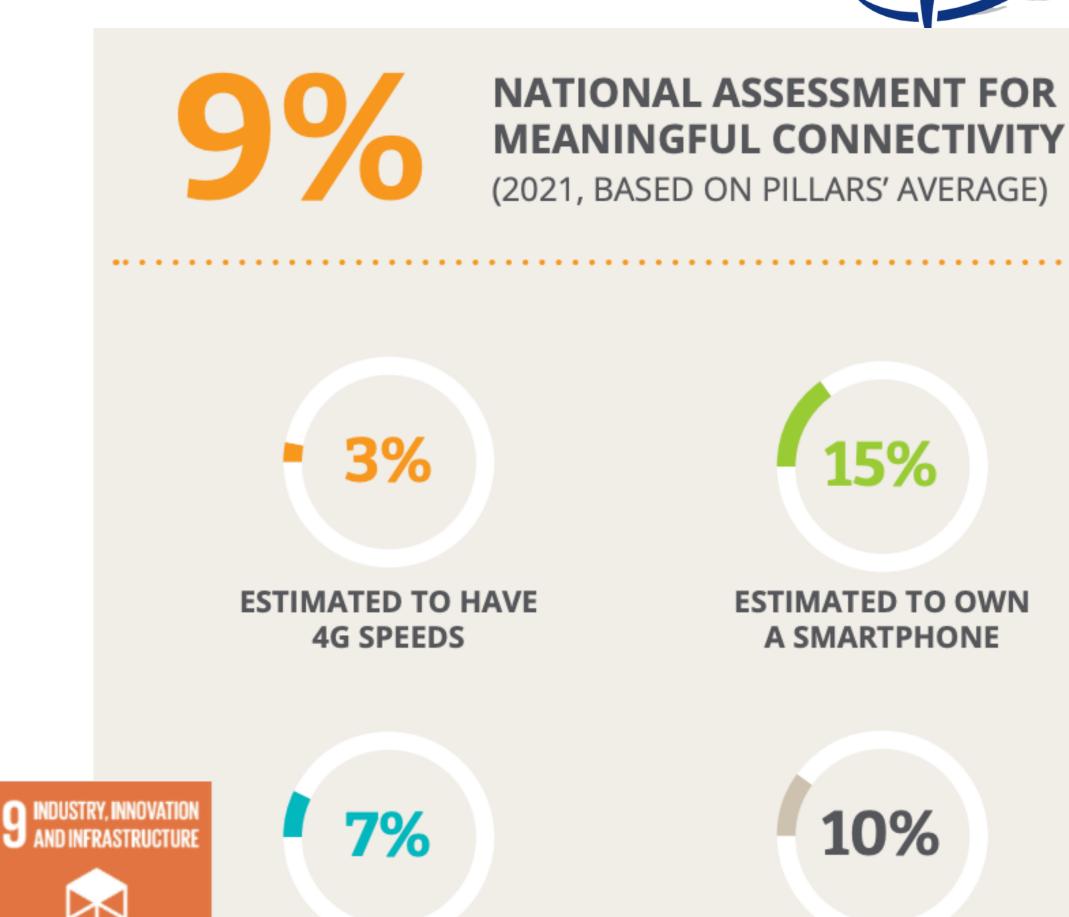
Africa and the Internet Oct2022, Josef Noll

# World population arranged by income (deciles)

#### Inequality in Energy & Digital Access







[Source: Oxfam.org, 2015]

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

**ESTIMATED WITH** 

**UNLIMITED ACCESS** 

**ESTIMATED TO HAVE** 

**DAILY INTERNET USE** 

#### Our Goal

2 000 schools 1 820 000 students Q4.2024

55 schools 37 632 students

Q4.2021

105 schools 77 632 students

Q4.2022

1800 USD/installation

1100 USD/installation 0.6 \$/student

8

10 schools 10 131 students

Q1.2021

2500 USD/installation 4 \$/student

3 000 USD/installation

Africa and the Internet Oct2022, Josef Noll

#### Mission

#### Framework Conditions

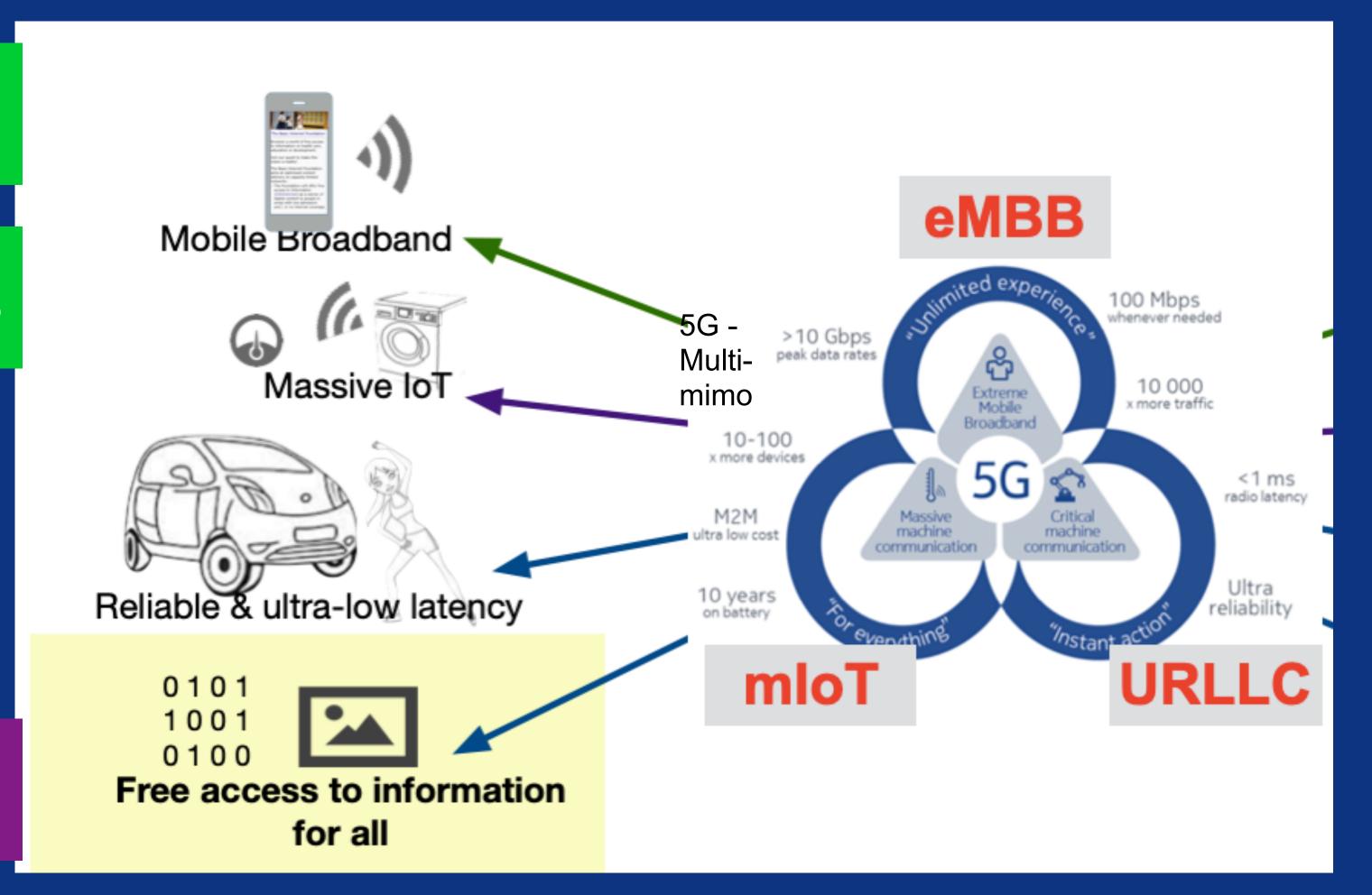
## Partnerships

## Digitalisation (5G/6G)

Road model: pedestrians & cyclists

Internet: text & pictures

Internet Lite

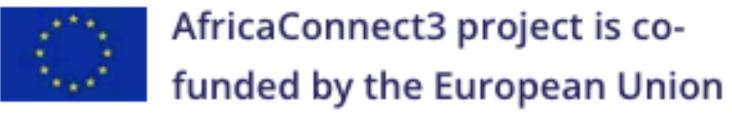


#### AfricaConnect3 and the role of Universities











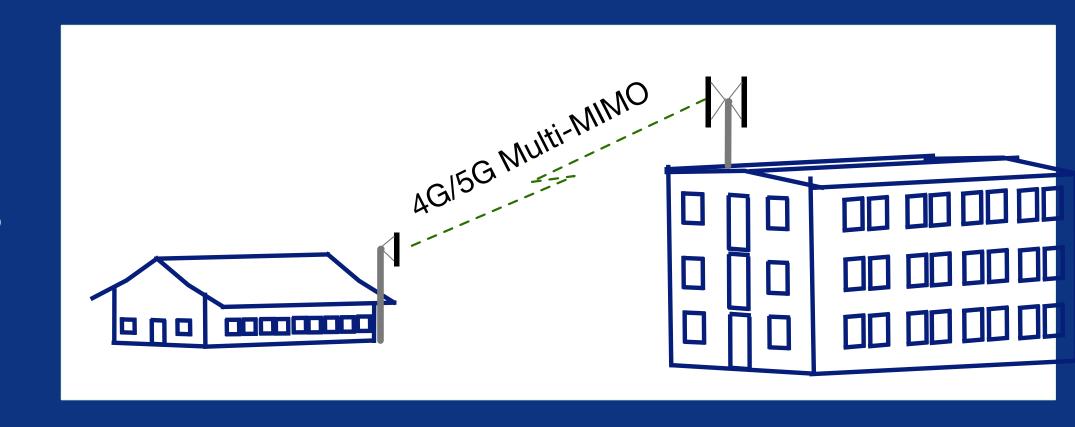








- Research for the (digital) Society
- Competence for the Digital Transformation
- Connect Schools & unconnected Communities practical experiences
- Real world search based on needs from the communities



## COVID-19 HAS LED TO THE FIRST RISE IN EXTREME POVERTY IN A GENERATION

AN ADDITIONAL 119-124 MILLION PEOPLE WERE PUSHED BACK INTO EXTREME POVERTY IN 2020



#### **Talking: Caroline Stratton** THE PAN IS LIKELY TO REVERSE PROGRESS MADE IN REDUCING INCOME INEQUALITY SINCE THE FINANCIAL CRISIS 带带 ESTIMATED TO INCREASE THE AVERAGE GINI FOR EMERGING MARKET AND DEVELOPING COUNTRIES **BY 6%**

\_\_\_\_\_ COVID-19 \_\_\_\_ HAS WIPED OUT 20 YEARS OF EDUCATION GAINS

AN ADDITIONAL 101 MILLION OR 9% OF CHILDREN IN GRADES 1 THROUGH 8 FELL BELOW MINIMUM READING PROFICIENCY LEVELS IN 2020



The Sustainable Development Goals Report

#### THE PANDEMIC

HAS LED TO THE LOSS OF THE EQUIVALENT OF

255 MILLION FULL-TIME JOBS













ABOUT 4X THE NUMBER LOST DURING THE GLOBAL FINANCIAL CRISIS (2007-2009)

#### **ECONOMIC RECOVERY** IS UNDER WAY GLOBAL REAL GDP PER CAPITA (2017-2022) O-4.6 2020 2021 2022 BUT FOR MANY COUNTRIES, ECONOMIC GROWTH IS EXPECTED TO RETURN TO PRE-

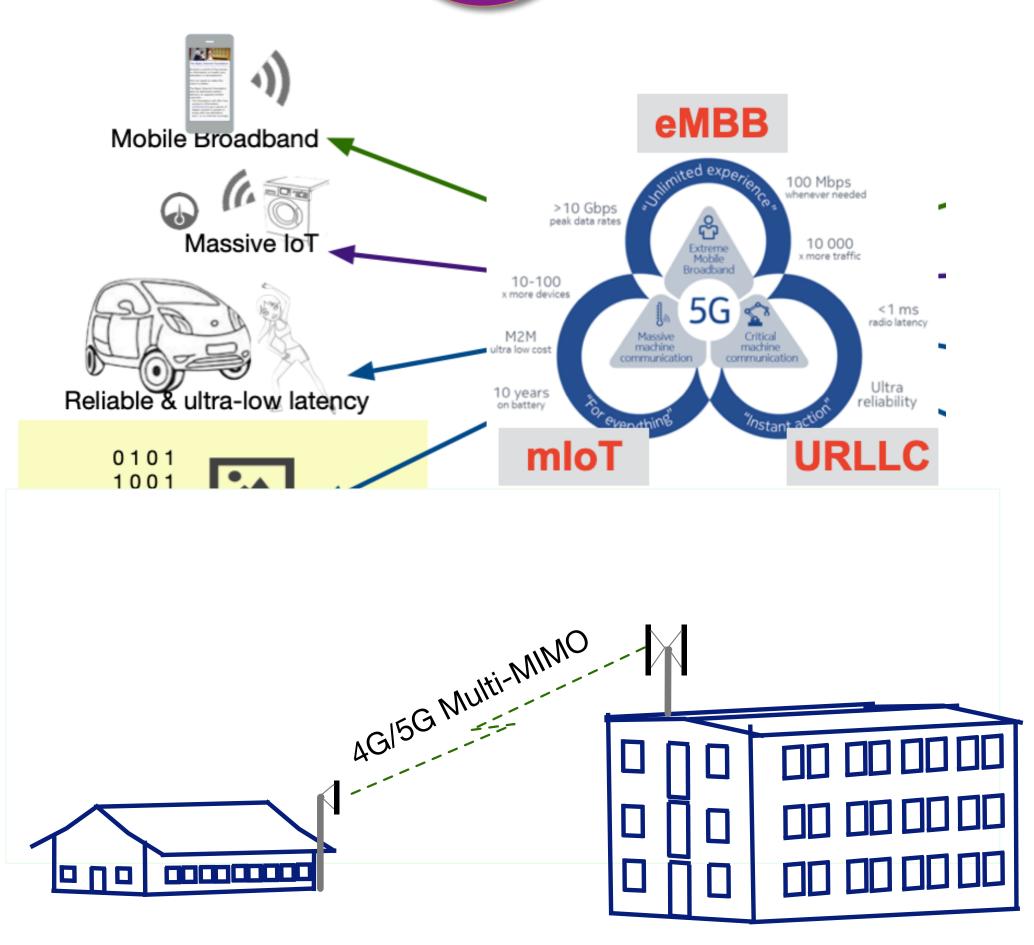
PANDEMIC LEVELS ONLY IN 2022 OR 2023

# **Conclusion Partnership for Connectivity**

- Universities
  - Real-world knowledge
  - Decentralised, empower the communities
  - Knowledge4Africa, 5GforPeople
- Community Networks
  - extension of NRENs?
- Commercial actors
  - Mobile operators: Research with 5G as backbone
  - ISPs, satellite
- → Government, ITU, UNICEF, UNESCO, ...
  - Framework conditions (spectrum, Internet Lite)







Africa and the Internet Oct2022, Josef Noll