

UiO : **Department of Technology Systems**
University of Oslo

African Internet Governance Forum, Jul2022
#WS23 5G and African Youth, 19Jul2022

5G for Sustainable and Inclusive Communications

Josef Noll,

Professor, University of Oslo, Department of Technology Systems

Kjeller, Norway, m: +47 9083 8066, e: josef@jnoll.net



“Connect the Unconnected”

Izazi



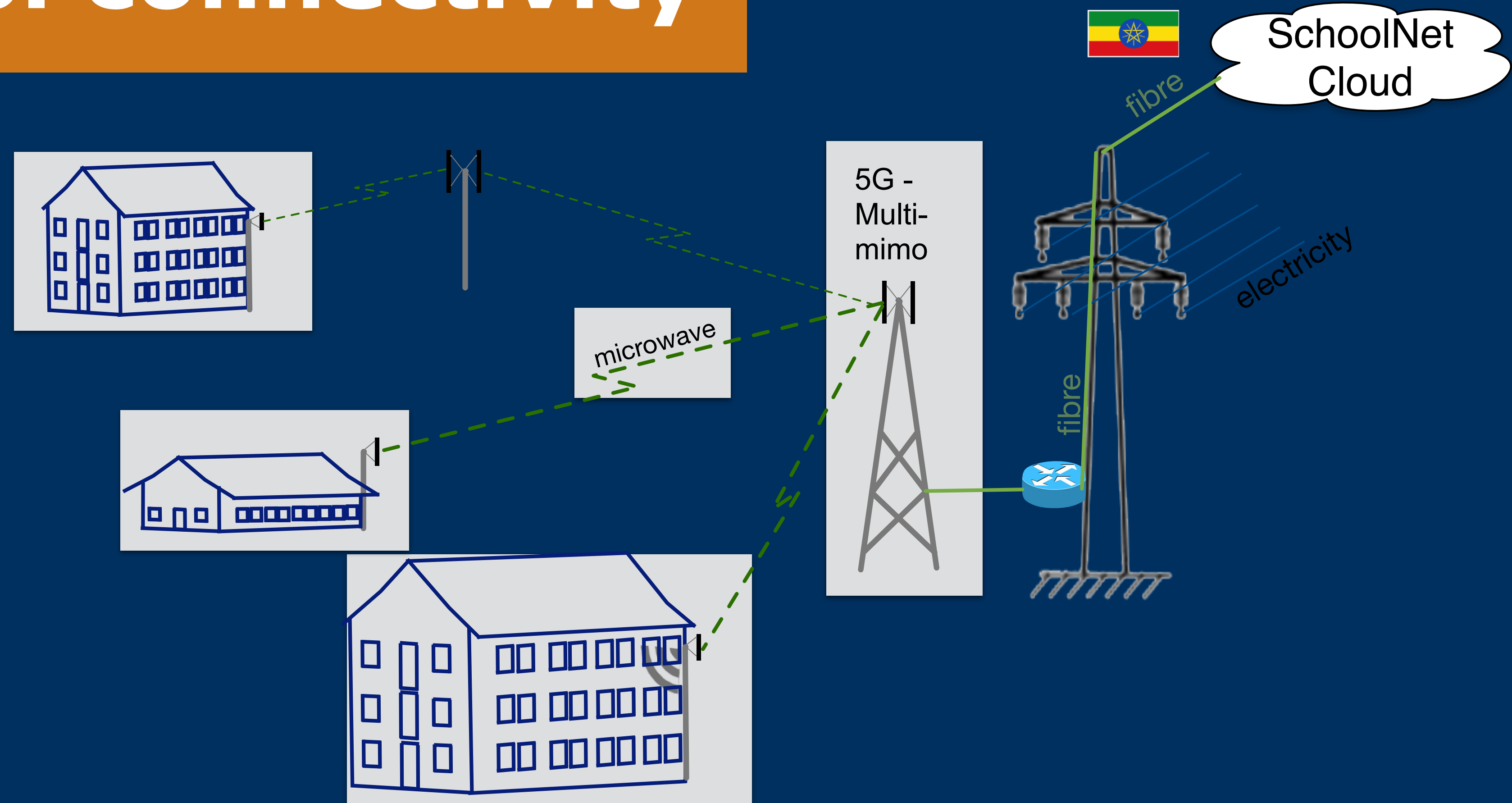
Antenna

Village office

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

5G for reaching the villages

5G for school connectivity



AfricaConnect3 and the role of Universities



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.



- **Research for the (digital) Society**
- **Competence for the Digital Transformation: Access, Skills, Regulations & Inclusion**
- **Connect Schools & unconnected Communities**
- **Student involvement and activities**
- **Research based on data 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



THE PANDEMIC IS LIKELY TO REVERSE PROGRESS MADE IN REDUCING INCOME INEQUALITY SINCE THE FINANCIAL CRISIS



COVID-19 ESTIMATED TO INCREASE THE AVERAGE GINI FOR EMERGING MARKET AND DEVELOPING COUNTRIES BY 6%

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)

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

ECONOMIC RECOVERY IS UNDER WAY

GLOBAL REAL GDP PER CAPITA (2017-2022)



Year	Global Real GDP per Capita
2017	2.2
2020	-4.6
2021	3.1
2022	3.1

BUT FOR MANY COUNTRIES, ECONOMIC GROWTH IS EXPECTED TO RETURN TO PRE-PANDEMIC LEVELS ONLY IN 2022 OR 2023

5G network layer

Road model: pedestrians & cyclists

Internet: text & pictures

