UiO : Department of Technology Systems
University of Oslo

NGI-NO kick-off, 8Aug2019, Trondheim
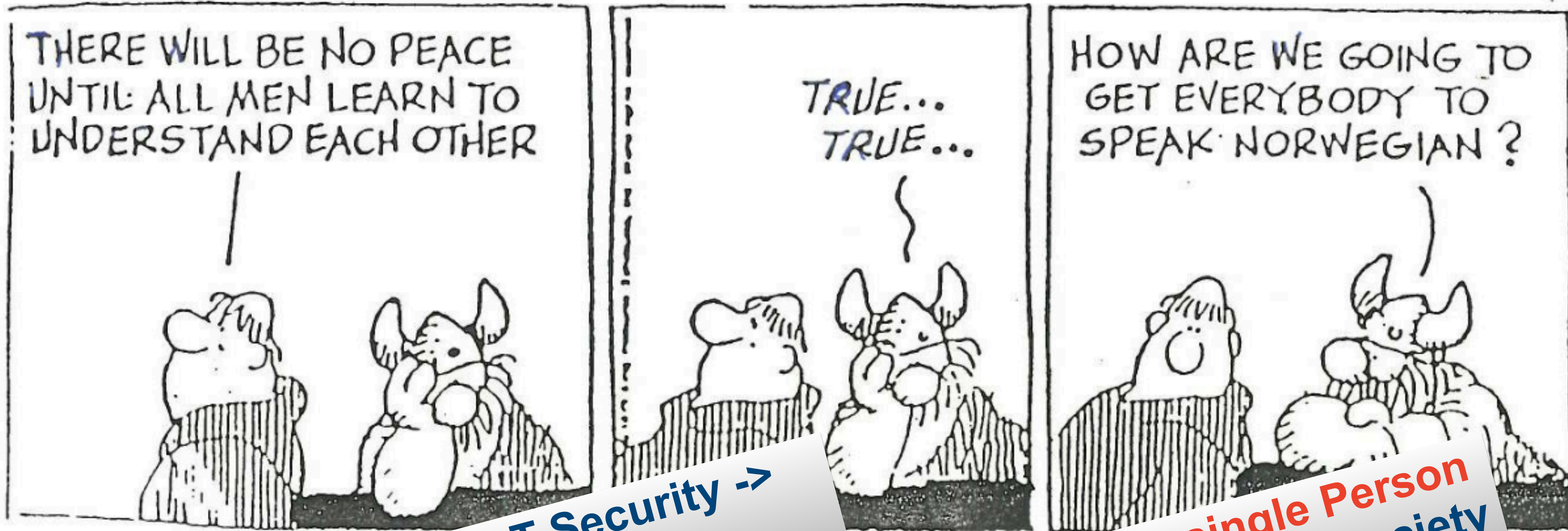
Next Generation Internet
-
Sustainability and Societal Security

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Cyber Security, IoT Security -> Societal Security

Empower the every single Person to participate in the Digital Society

UiO Research for
Digitisation and Societal Security

- 1. Security in IoT for Smart Grids - NFR project 2015-2020
- 2. Secured Connected Trustable Things - JU ECSEL (EU) project 2016-2020
- 3. Societal Empowerment through Digitalisation - NFR/Mfa project 2016-2020
- Totalt 7 PhD researchers (with Olaf Owe) and 2 PostDocs/Researcher
- 3 Master/PhD courses addressing the topic
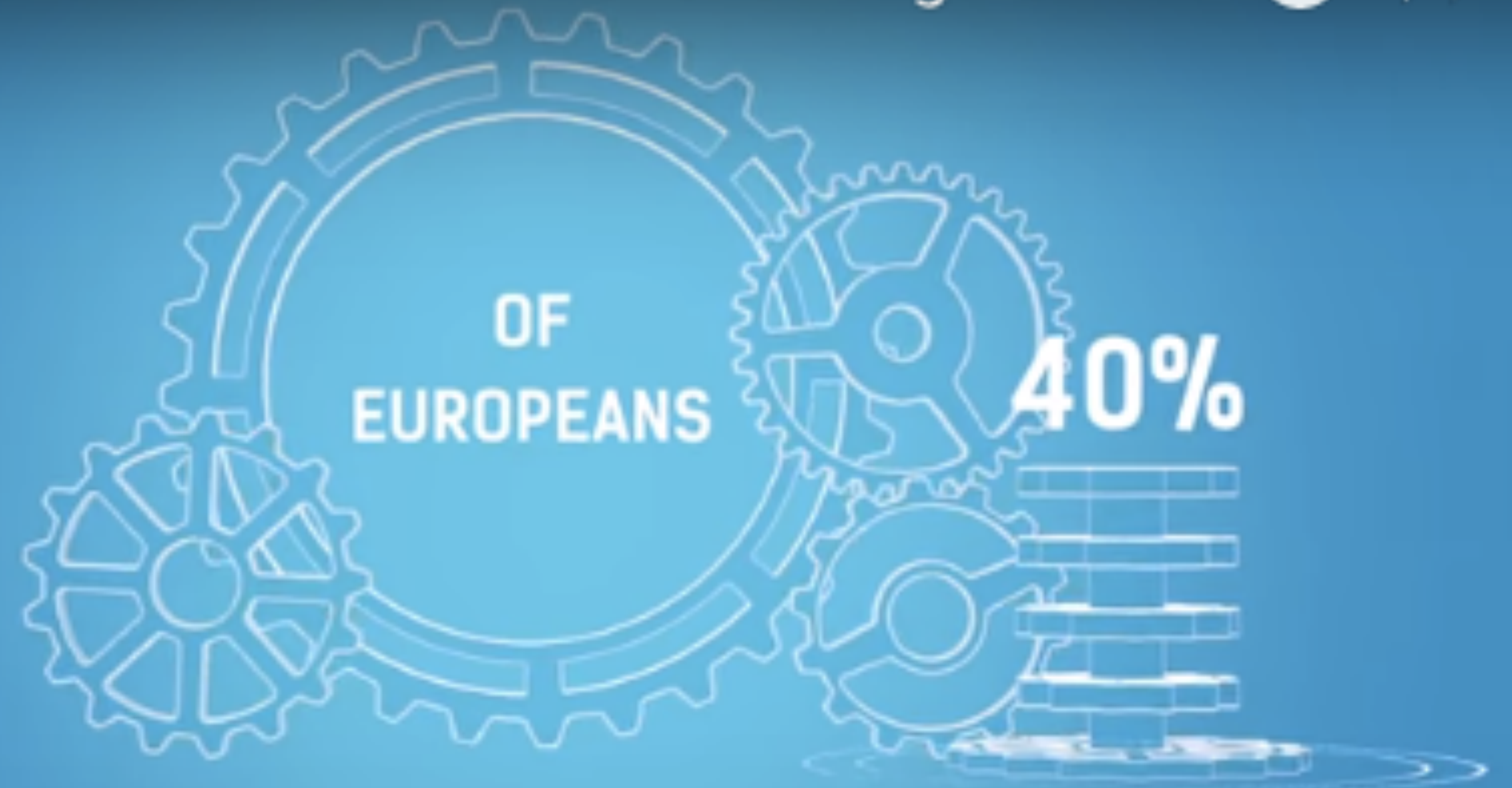
Digital Agenda Scoreboard 2015: Strengthenin...

A DIGITAL SOCIETY IS MADE OF DIGITALLY SK...

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

Digital Agenda Scoreboard 2015: Strengthenin...

OF EUROPEANS

40%

DON'T EVEN HAVE BASIC DIGITAL SKILLS

"Providing Internet to the bottom of the pyramid isn't a question of affordability, but rather a question of sustainability"
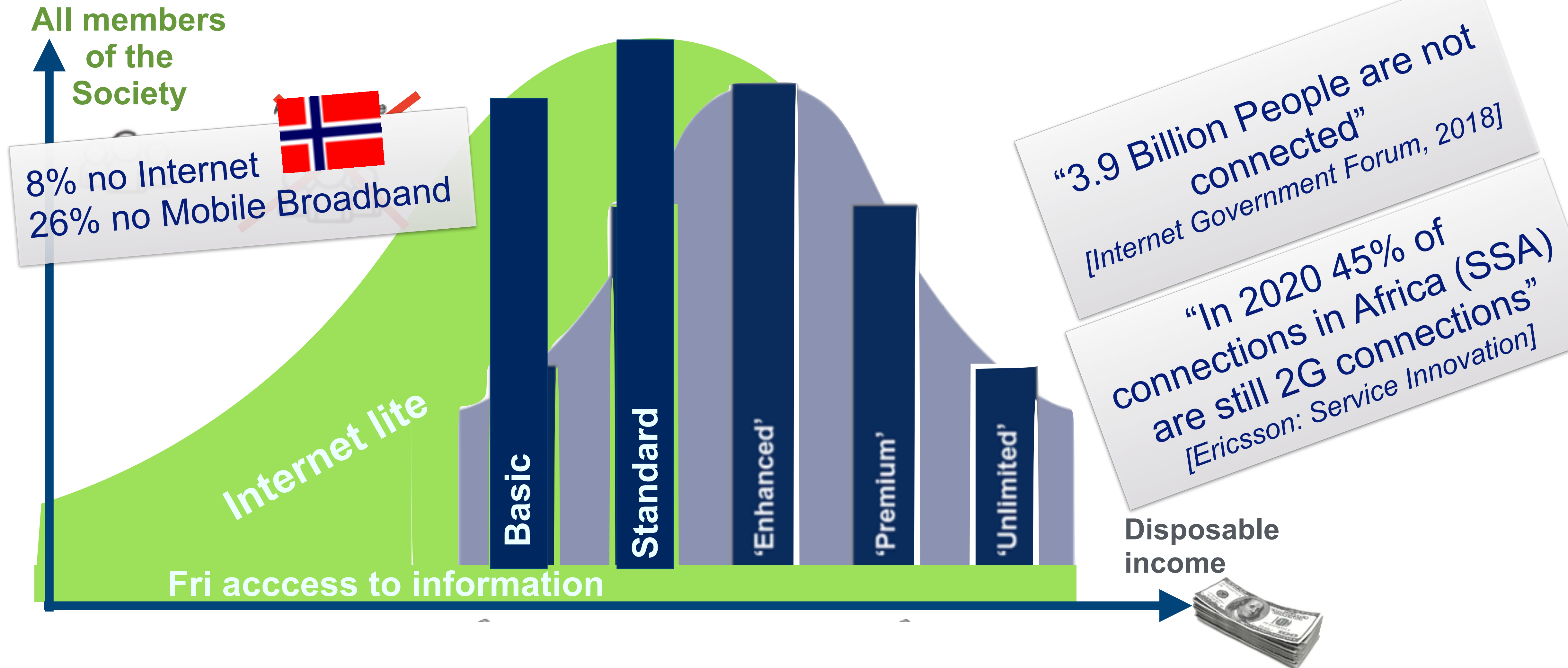*Internet Governance Forum, Panel*

Source: EU commission(2015)

All members of the Society

8% no Internet
26% no Mobile Broadband

Internet lite

Fri acccess to information

Basic

Standard

'Enhanced'

'Premium'

'Unlimited'

Disposable income

"3.9 Billion People are not connected"
[Internet Government Forum, 2018]

"In 2020 45% of connections in Africa (SSA) are still 2G connections"
[Ericsson: Service Innovation]

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

Google translate
Partnership for Digital Africa

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

Basic
Internet
Foundation

Secretary-General's High-level Panel on Digital Cooperation

Comment: As a guest country at the G20 summit, we mu...
change the worl... | Erna Solberg

...SOLBERG (H), PRIME...

...2017 9:50 P.M. ...2017 7:58 P.M.

G20: Compact with Africa

United Nations — Launch of a High-level Panel on Digital Cooperation

Watch later   Share

PANEL DOCUMENT...

- Press release
- Terms of reference
- Panel member bios

Digital technology is changing ... ...omies
and societies at warp s... ...d scale.

Call for Contribution

G20 can the... ...fore help the c... ...and international organizations use their
resources mo... ...which create growth and job creation.

3. Health and education.

Norway has long h...d a heavy international involvement. Education and health
are associated with economic growth.

In July last year was Erna Solberg invited by Angela Merkel for this year's G20 meeting. Here from a meeting between the German Chancellor and the Norwegian Prime Minister in Berlin in November, where Norway's participation as guest country at the economic summit were among issues discussed.

United Nations High Level Panel on Digital Cooperation

- **Melinda Gates, Jack Ma**, … Vinton Cerf, Nikolai Astrup, …
- Jun2019 report
- Recommendations
  - Inclusiveness
  - Digital Public Goods

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**, ….

1C, 1D, 2….

Societal Security through NGI Research Topics

- **Societal Security**
  - ➡ through digital inclusion and participation
  - ➡ worldwide perspective

- **Research topics**
  - ➡ Societal Security - Digital Inclusion
  - ➡ NGI information model: Freemium access
    - free access to information
    - premium access to broadband services
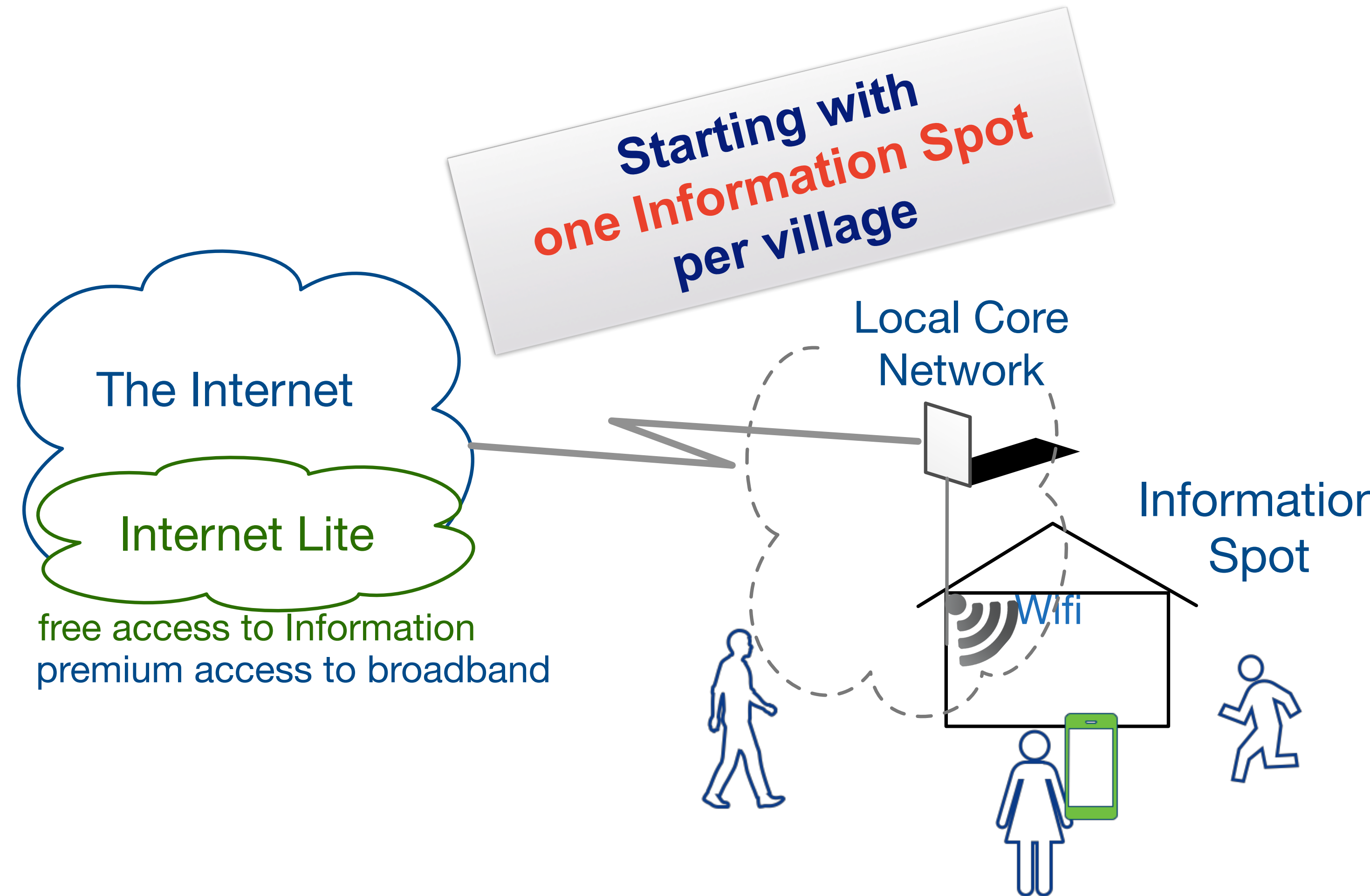 - ➡ Enabling Digital Public Goods
    - information model
    - to every single person

Impact: Digital Inclusion as catalyst for the SDGs: Health, Education, Decent Work

Impact: Addressing the recommendations of the High-Level Panel

- **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"?

Starting with one Information Spot per village

The Internet

Internet Lite

free access to Information
premium access to broadband

Local Core Network

Information Spot

Wifi

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

8 DECENT WORK AND ECONOMIC GROWTH

10 REDUCED INEQUALITIES

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS

Internet Lite for All

Target 9.C   Target 16.10

"Non discriminating access" project

➡ funded by RCN and Mfa/Norad (14.9 MNOK for 2017-2020)

➡ Tanzania: digital health

Conclusion

- **Next Generation Internet**
  - ➡ Address Sustainability and Societal Security
  - ➡ through digital inclusion and participation
  - ➡ worldwide perspective

- **Research topics**
  - ➡ Societal Security - Digital Inclusion
  - ➡ NGI information model: Freemium access
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Internet Governance Forum, Panel