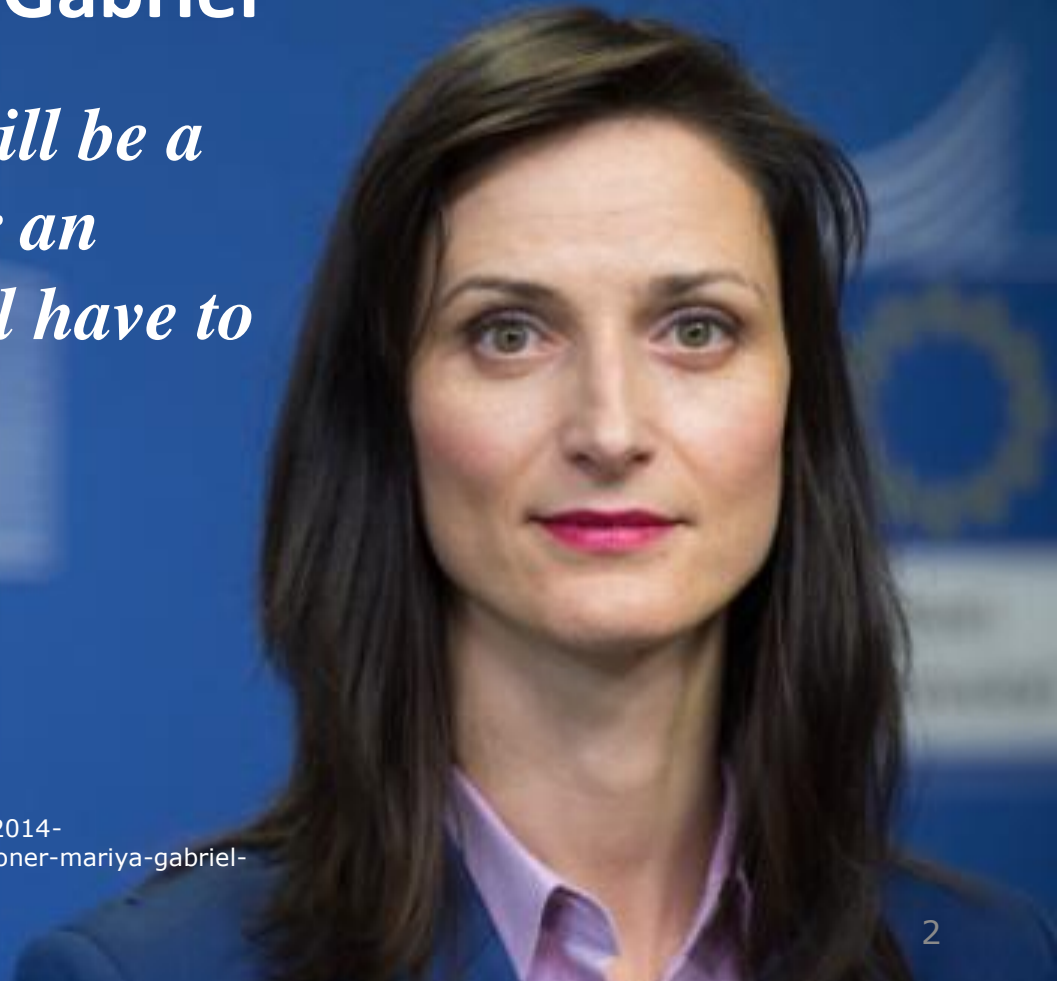# NGI – Status & Next Steps

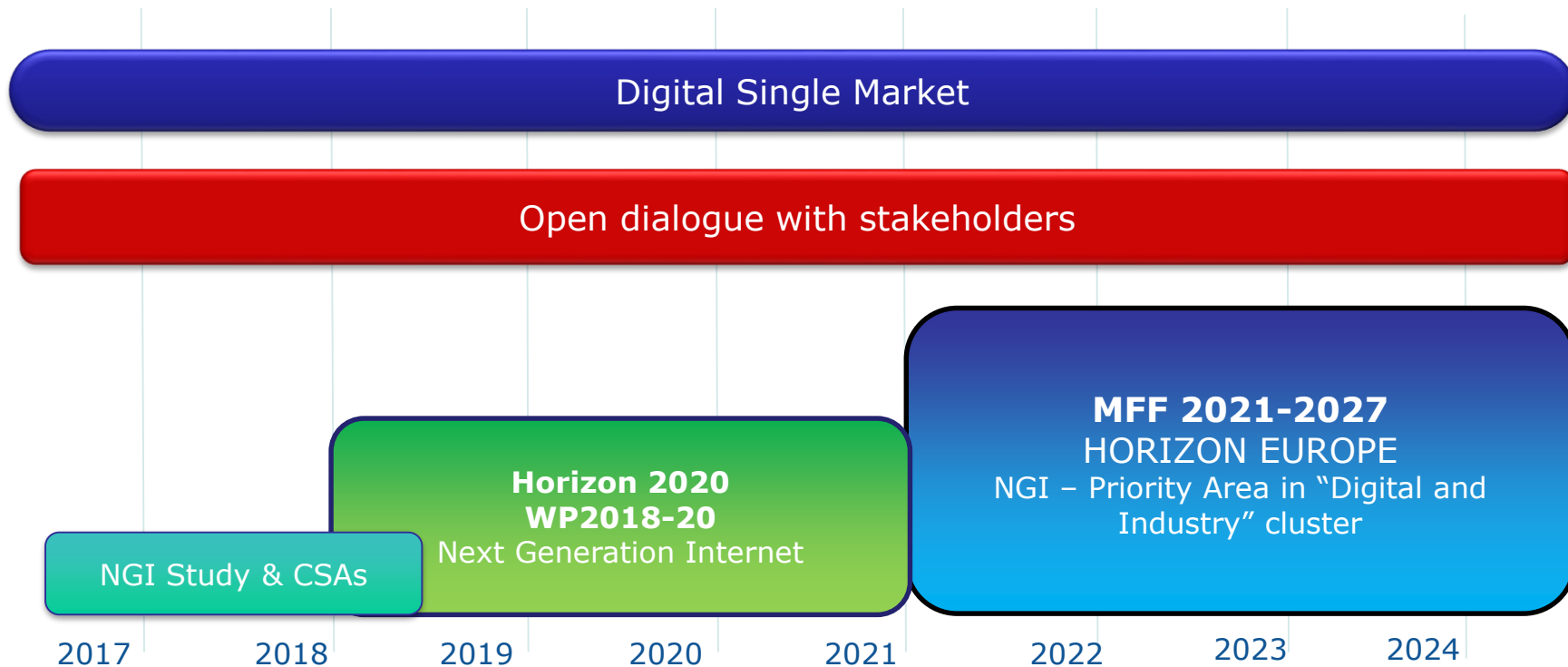## Olivier Bringer

DG Connect

Commissioner Mariya Gabriel

The way I envision it, it will be a human centric internet or an internet of humans. It will have to be trustworthy, resilient, sustainable and inclusive.

Full speech: https://ec.europa.eu/commission/commissioners/2014-2019/gabriel/announcements/keynote-video-message-commissioner-mariya-gabriel-european-dialogue-internet-governance-eurodig_en

NGI Roadmap

Digital Single Market

Open dialogue with stakeholders

MFF 2021-2027
HORIZON EUROPE
NGI – Priority Area in "Digital and Industry" cluster

**Horizon 2020
WP2018-20**
Next Generation Internet

NGI Study & CSAs

2017   2018   2019   2020   2021   2022   2023   2024

Horizon 2020: NGI

Artificial Intelligence
ICT-26-2018-2020

Interactive Technologies
ICT-25-2018-2020

Internet of Things
ICT-27-2018-2020

Multilingual
ICT-29-2018

Global Social Sphere
ICT-28-2018

Inclusive
ICT-30-2019-2020

NGI - Open Internet Initiative
ICT-24-2018-2019 + **ICT-31-2018-2019**

5G

Cloud

HPC

Big Data

Cyber Security

R&I project implementation through sub-granting

Project submitted to EC call:
Run by organisations in the ecosystem
Leadership in the research area
Euro 7 million, 2-3 years,
80% for sub-grantees, pan-European
Procedures adapted to stakeholders

R&I Action:
Privacy and trust enhancing technologies

Activities include inter-alia:
- Definition of the calls for projects
- Attracting and selecting top-teams
- Monitoring
- Mentoring, Coaching, Sharing
- Community building

Sub-grantee:
- One legal entity with one specific project
- **Internet innovators: young researchers from outstanding academics, hi-tech startups and SMEs, developers, …**
- Carry out the R&I work
- 50.000 – 200.000 Euro, 9 – 12 month

Digital in the next MFF

Digital in Horizon Europe
R&D&I

1. Digital under "global challenges"
   - Digital and industry cluster
   - Digital in other clusters - health, mobility, energy, environment,..
2. Open Innovation
3. Research Infrastructure under Open Science

Digital Europe:
Capacities & roll out

1. High Performance Computing
2. Artificial Intelligence
3. Cybersecurity
4. Advanced digital skills
5. Digital transformation and interoperability

Connecting Europe Facility - Digital
Connectivity

- 5G roll out
- BB 4EU, Connecting communities
- Synergies with Transport /Energy

Creative Europe
MEDIA

Invest EU
Research, innovation & digitisation

European Regional Development Fund / Cohesion Fund

Horizon Europe

Clusters	Areas of intervention	
Health	* Health throughout the life course * Non-communicable and rare diseases *** Tools, technologies and digital solutions for health and care**	* Environmental and social health determinants * Infectious diseases * Health care systems
Inclusive and Secure Societies	* Democracy * Social and economic transformations * Protection and Security	* Cultural heritage * Disaster-resilient societies * **Cybersecurity**
Digital and Industry	* Manufacturing technologies * Advanced materials * Space * Circular industries	* **Key digital technologies** * **Artificial intelligence and robotics** * **Advanced computing and Big Data** * **Next generation internet**
Climate, Energy and Mobility	* Climate science and solutions * Energy systems and grids * Communities and cities * Industrial competitiveness in transport * Smart mobility	* Energy supply * Buildings and industrial facilities in energy transition * Clean transport and mobility * Energy storage
Food and Natural Resources	* Environmental observation * Agriculture, forestry and rural areas * Food systems * Circular systems	* Biodiversity and natural capital * Sea and oceans * Bio-based innovation systems

European Commission

NGI broad lines of activity

- Future network and service infrastructures, including beyond 5G, Internet of Things, Cognitive Clouds, Edge/Fog computing, Blockchains,

- Human-centric Internet applications, including trust and privacy, inclusive multi-modal interaction concepts, language independency and trustworthy social connectivity and media

- Software-based middleware incl. distributed ledger technologies, embedding Artificial Intelligence, distributed processing and data analytics

European Commission

In a nutshell

- An **ambitious** and significant initiative for the next decade

- A **human-centric** approach

- A joint effort involving **Internet innovators**

- Need **active support** from Member States and NGI Contact points

Join us in this exciting journey

https://www.ngi.eu

https://ec.europa.eu/digital-single-market/en/next-generation-internet-initiative

https://ec.europa.eu/research/participants/portal

Building a community

- ✓ *Follow us @NGI4eu*
- ✓ *Read more about NGI: www.ngi.eu*
- ✓ *Be part of NGI & Register: https://www.ngi.eu/ngi-map/*
- ✓ *Register in the NGI Newsletter/News: https://www.ngi.eu/subscribe*
- ✓ *LinkedIn group: https://www.linkedin.com/groups/2206279*

+ *Engaging Member States via the H2020 FIF expert group & the NGI Contact points*

Back-up slides

Digital Single Market

Building a solid regulatory framework

- GDPR (General Data Protection Regulation)

- Free Flow of Non-personal Data

- Net Neutrality (open internet)

- Online platforms (illegal content)

- Cybersecurity
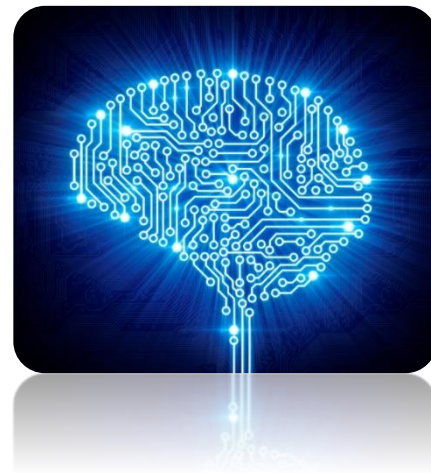
A joint effort

➢ **Defragment and connect:** *Ecosystem of European actors and an Ecosystem which is broader than ICT*

➢ *Engage* **new stakeholders:** *Real Internet researchers & innovators, stake-holders who are not part of community RTD&I today*

➢ *Link* **long-term research** *with* **applied research & innovation**, *with* **policy & societal expectations**

➢ **European core values:** *Openness, security, privacy, participation, a level playing field for all business actors, open to innovation and preserving democracy*

➢ **European movement:** *human Internet as a political goal*

Unite stakeholders on a common goal: **an Internet of Humans**

NGI R&I actions in 2018 call

Privacy and Trust Enhancing Technologies

- ✓ Sensors, devices, AI-based algorithms incorporated in our digital environment
- ✓ Greater control when sharing personal data, attributes and information
- ✓ Robust and easy to use technologies

Decentralised Data Governance

- ✓ Open hardware and software ecosystems based on blockchains, DLT, P2P technologies
- ✓ Attention to ethical, legal and privacy issues
- ✓ Supporting autonomy, data sovereignty and ownership

Discovery and Identification Technologies

- ✓ Large heterogeneous data sources, services, objects and sensors, multi-media content
- ✓ Contextual querying, personalised information retrieval and increased quality of experience

NGI R&I actions in 2019 call

Strengthening internet trustworthiness with electronic identities

- ✓ Authentication, authorisation, traceability, privacy and confidentiality (incl. objects, …)
- ✓ New business models for verifying and valuating data
- ✓ Scalability, standardisation, deployability, ease of use, …

Service and data portability

- ✓ Separation of data from services provided to end-users
- ✓ Handling mixed data sets, standardisation, operational and business models
- ✓ Techno-legal constraints, simplification of terms of use

Open internet architecture renovation

- ✓ Internet architecture evolution towards better efficiency, scalability, security & resilience
- ✓ Auditing, testing and improving protocols and open source SW and HW
- ✓ Ability to roll-out at internet scale

Call for RIAs opens: October 2018
Deadline submission proposals: March 2019
First call for sub-grantees: Q1 2020