



Next Generation Internet (Beyond H2020)

Németh Vilmos

EU H2020 ICT 2017 Workshop

Budapest, 2016. október 25.

Internet Evolution

- **Network**
- **Next Generation Network (NGN)**
- **Future Internet**
- **Next Generation Internet (NGI)**

???

Next Generation Internet (ICT-41-2017)

- **New track of Future Internet research aimed at developing a next generation of the Internet enabled by key technologies and services allowing it to become an open ecosystem.**
- **The CSA actions will prepare the conditions, mobilise the constituencies and prototype the operation of a large future Next Generation Internet initiative going beyond Horizon 2020.**

Problems of the Current Internet

- The Internet today is primitive
- The Internet looks like a set of silos, non-interoperable, proprietary platforms.
- Power is accumulated by a relatively small set of influential actors.
- EU industry presence in the Internet economy is low.

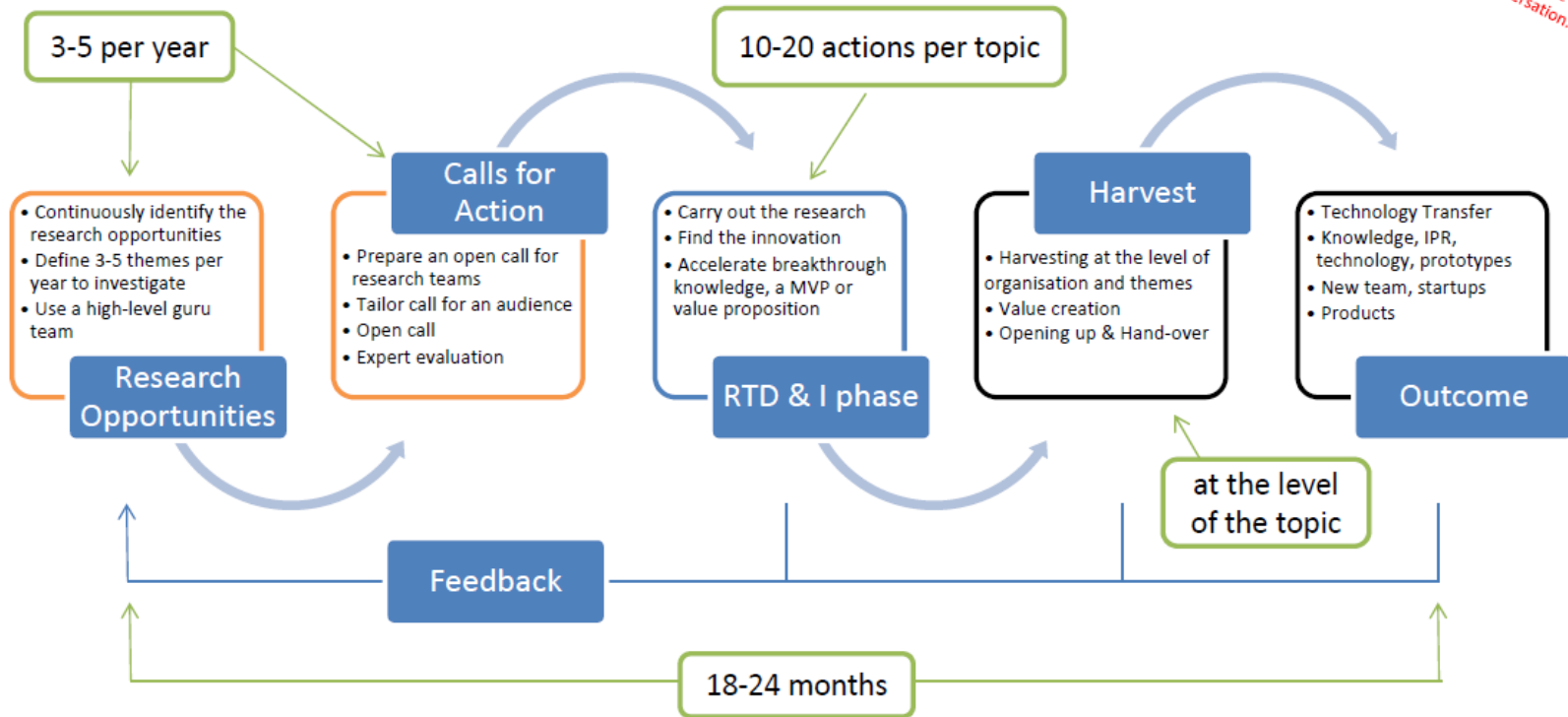
Key Aspects

- **New**: No overlap with ongoing RTD&I activities
- **Think Big**: Start now, prototype in H2020, flagship in FP9?
- **Different process**: Fast & flexible, continuously agile
- **Open**: Build true partnership, **national programmes & US**
- **Multidisc**: Cater for innovation coming from the unexpected

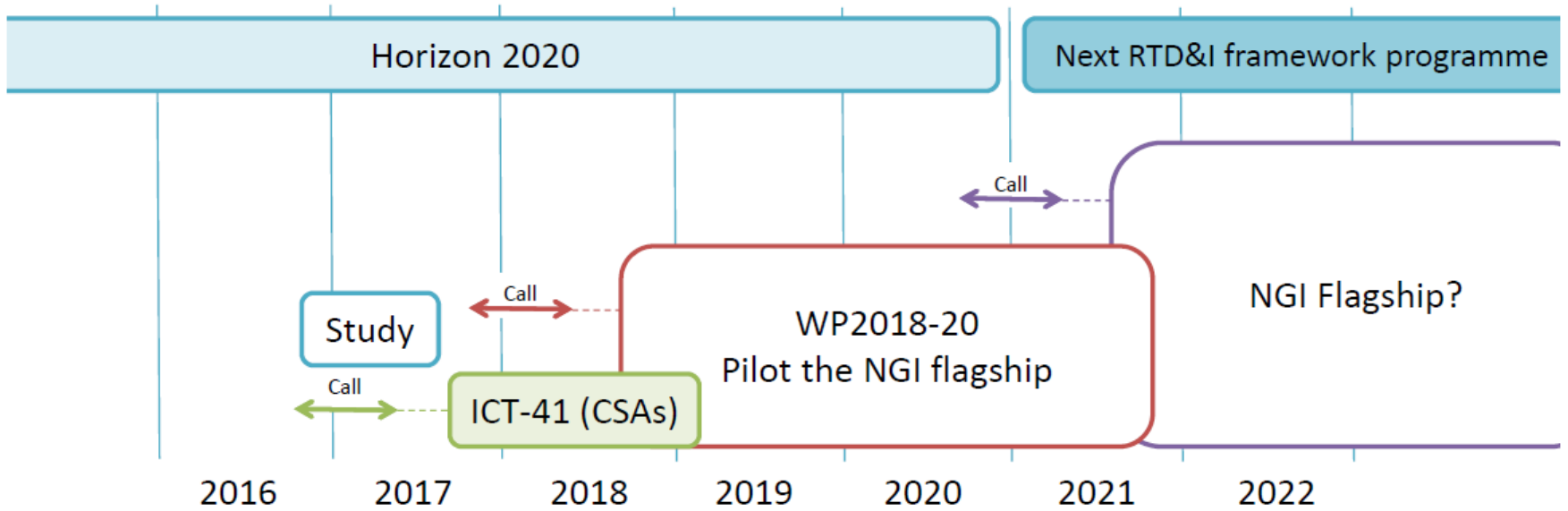
How to Do?

Ex Machina

Disclaimer: The concept and text shown here are only initial considerations for the purpose to stimulate a constructive conversation.



NGI Roadmap



Call ICT-41-2017 (1)

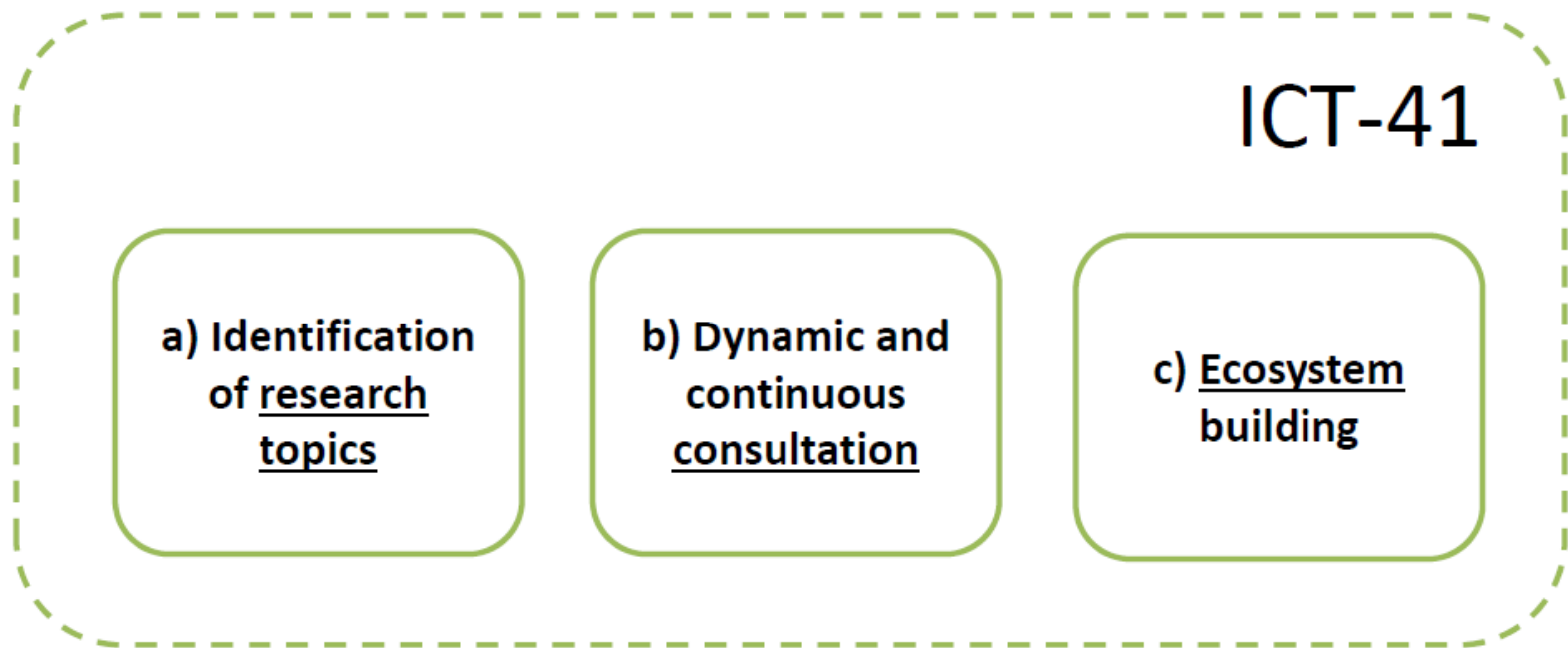
- **Budget: 2 MEuro**
- **Deadline: 25 April 2017**
- **Type of Action: Coordination and Support Actions (CSA)**

Call ICT-41-2017 (2)

Objectives:

- **Establish** the base for a large scale research flagship on the NGI.
- **Prototype** and validate new processes for research and innovation on NGI.
- **Mobilise** the new players indispensable for agile research on the NGI, notably leading individual or teams of researchers and high tech startups.
- **Build** an active, visible and agile ecosystem comprising all relevant stakeholders for making the NGI flagship a success.
- **Build** a dynamic and growing knowledge base of technological trends, initiatives and key players in the area of NGI.

Call ICT-41-2017 (3)



Three Coordination and Support Actions - one for each area.

All three to act as one 'project'.

Call ICT-41-2017 – CSA 1

a) Identification of research topics

Design, build and apply a methodology to **identify continuously those key future technologies** that will support an Internet model more open and more inclusive in 10 years now. **For this:**

- *Perform a portfolio analysis, coverage, mapping and gap analysis of ongoing and emerging research topics in future Internet.*
- *Identify those key future Internet technologies, i.e. **game-changers for an Internet in 2025**, and deduct specific technology roadmaps.*
- ***Analysis programmes and developments in Member States and Associated Countries**, and activities in international partners.*

Call ICT-41-2017 – CSA 2

a) Dynamic and continuous consultation process

Build an **open, dynamic and continuous consultation process**, which engages all relevant stakeholders in a long-term and multi-disciplinary fashion. **For this include:**

- *The scientific community and outstanding scientists, who lead the Internet technology research in Europe.*
- *Identifying the high-tech start-up community, its competences and capacity.*
- *Member States and Associated Countries along with national R&I funding bodies to shape the NGI in a full synergetic way.*
- *The aspect the NGI flagship is part of a global race towards mastering the future Internet.*
- *The benefits from ongoing research and policy activities, notably the roadmap-based research ongoing in areas such as 5G, IoT, cloud, data and cybersecurity.*

Call ICT-41-2017 – CSA 3

a) A programme shape for a Next Generation internet initiative

This initiative will **mobilise the best researchers** and focus on a continuous scouting of developments with the potential to change the way the Internet is operated. **For this:**

- *Identify and validate the constituent basic elements for a large NGI flagship, which includes characteristics such as speed and adaptability.*
- *Build a strong and fluid link and feedback loop between short and long-term research to strengthen Europe's capacity to actually bring advanced technology to the market.*
- *Involve in a practical way new players and set a prototype interaction between the scientific community and today's best Internet innovators, the start-ups and SMEs.*
- *Make use of the research topics identified under (a) and the consultation and community identified under (b).*
- ***Promote the notion of a European Next Generation Internet ecosystem*** by building a community among academia, researchers, startups, SMEs and corporates involved.

More Information

- **Participants portal**

✓ <http://ec.europa.eu/research/participants/portal>

Köszönöm a figyelmet!

Németh Vilmos
vilmosnemeth60@gmail.com