# Future Internet in European Research

Fast moving – but maybe still too slow !!

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# What is the Internet?

* The Internet is **a global system of interconnected computer networks** that use the standard Internet protocol suite (TCP/IP) to link **several billion devices** worldwide.
* It is **a network of networks** that consists of millions of private, public, academic, business, and government networks, of local to global scope, that are linked by **a broad array of electronic, wireless, and optical networking technologies**.
* The Internet carries **an extensive range of information resources and services,** such as the inter-linked hypertext documents and applications of the World Wide Web (WWW), the infrastructure to support email, and peer-to-peer networks for file sharing and telephony.

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# Where to invest?

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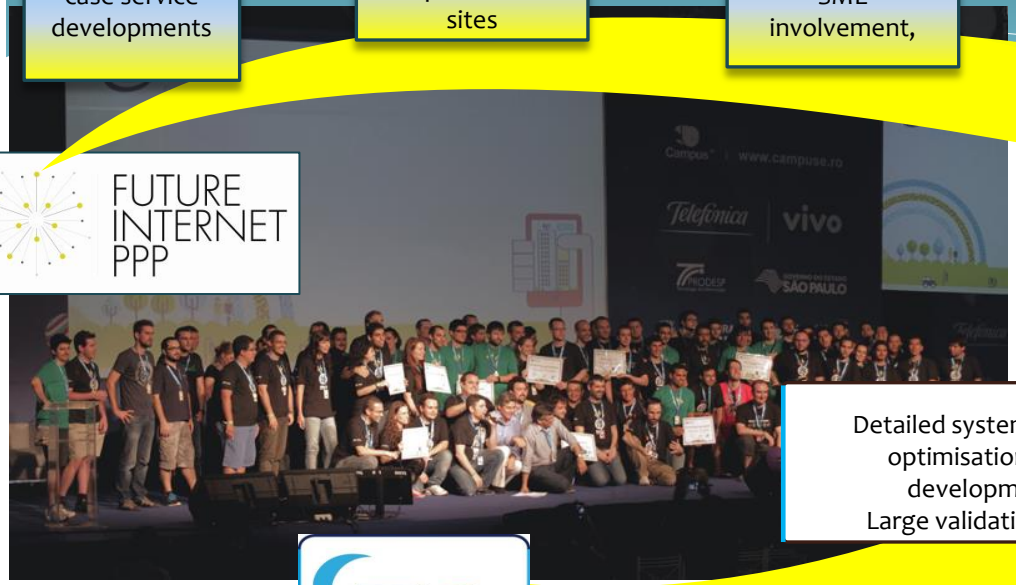
Generic Enablers & Use case service developments

Service Development Environment & Use case experimental sites

Use case and test site expansion, SME involvement,

European Future Internet 2020



FUTURE INTERNET PPP

Detailed system design, optimisation, and development. Large validation trials

Large scale demonstration trials and scalability tests

Pilots of network mgt. and operation, cloud-based distributed computing and big data for networks

5G PPP

New Network Architectures, New technologies and new operational paradigms,



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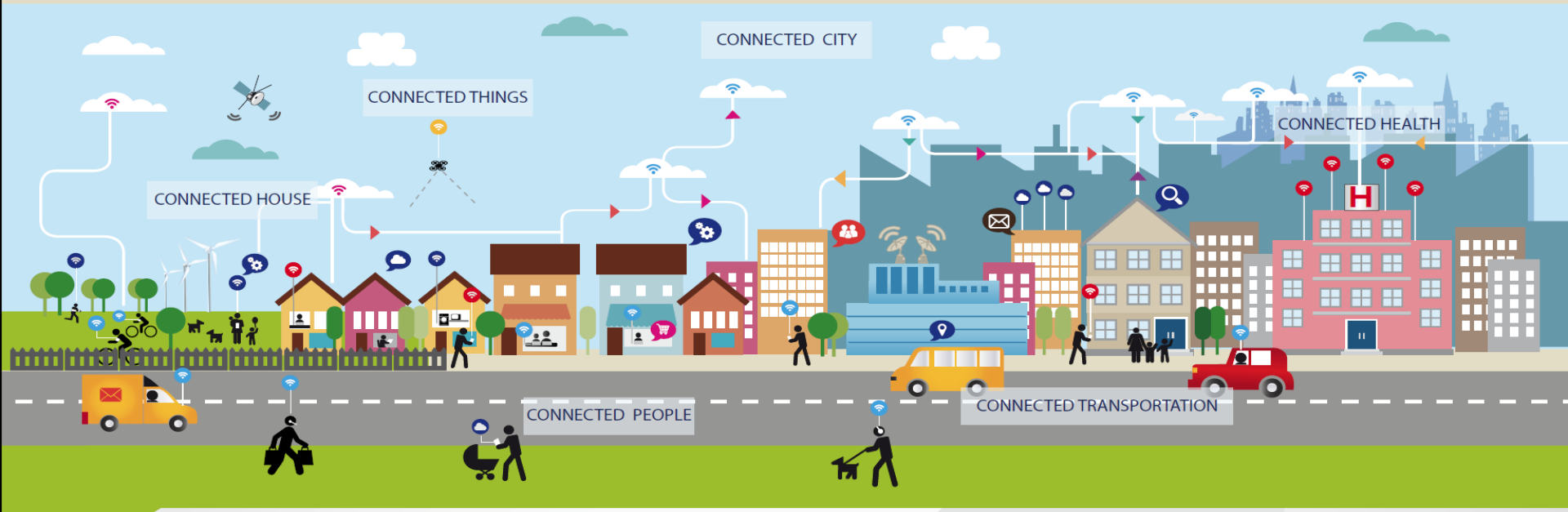
# The next generation of communication networks will be "Made in EU"

www.5g-ppp.eu

## The 5G Infrastructure Public-Private Partnership




## THE 5G PPP

# The 5G Infrastructure Public-Private Partnership

Industry manufacturers | Telecommunications operators | Service providers | SMEs | Researchers

The 5G PPP will deliver solutions, architectures, technologies and standards for the ubiquitous next generation communication infrastructures of the coming decade.

REINFORCE INDUSTRY COMPETITIVENESS

SPEED UP ADVANCED ICT SERVICES

SUPPORT SUCCESSFUL R&D ACTIVITIES

5G PPP

## CONTRIBUTION

BETTER QUALITY OF LIFE AND SERVICES

OVERCOME DIGITAL GAP IN EUROPE

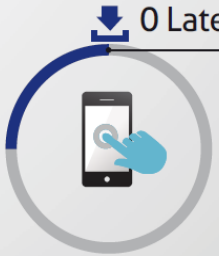
OPEN NEW INNOVATION OPPORTUNITIES

1000 times higher wireless area capacity

connecting 7 billion people

connecting 7 trillion things

save 90% energy




zero perceived downtime

# Developing the Internet

2014 – 2020 2016 - ?? 2012 – 2016 ????



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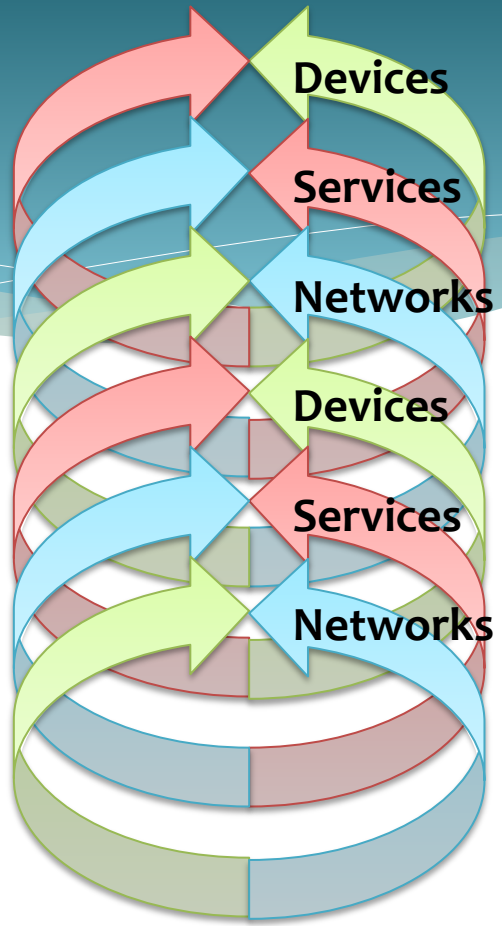
# Conclusions

- **The FI-PPP is short term** – today's internet
  - It may miss its goal by over concentrating on SMEs
- **The 5G-ppp is critical for enabling a viable and capable future**
  - The long term perspective may be damaged by H2020 short-term impact requirements
- **Big data is important** as it impacts both infrastructure and Services
- **The real Applications and Services initiative is still missing**
- Several cycles of research initiatives addressing:
  **"Networks > Services > Networks > Services"**
  are needed to achieve the accelerated and synchronised evolution to the **Networked Society of 2020** that is needed to **keep Europe competitive** and give the **advantages to European society**.

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