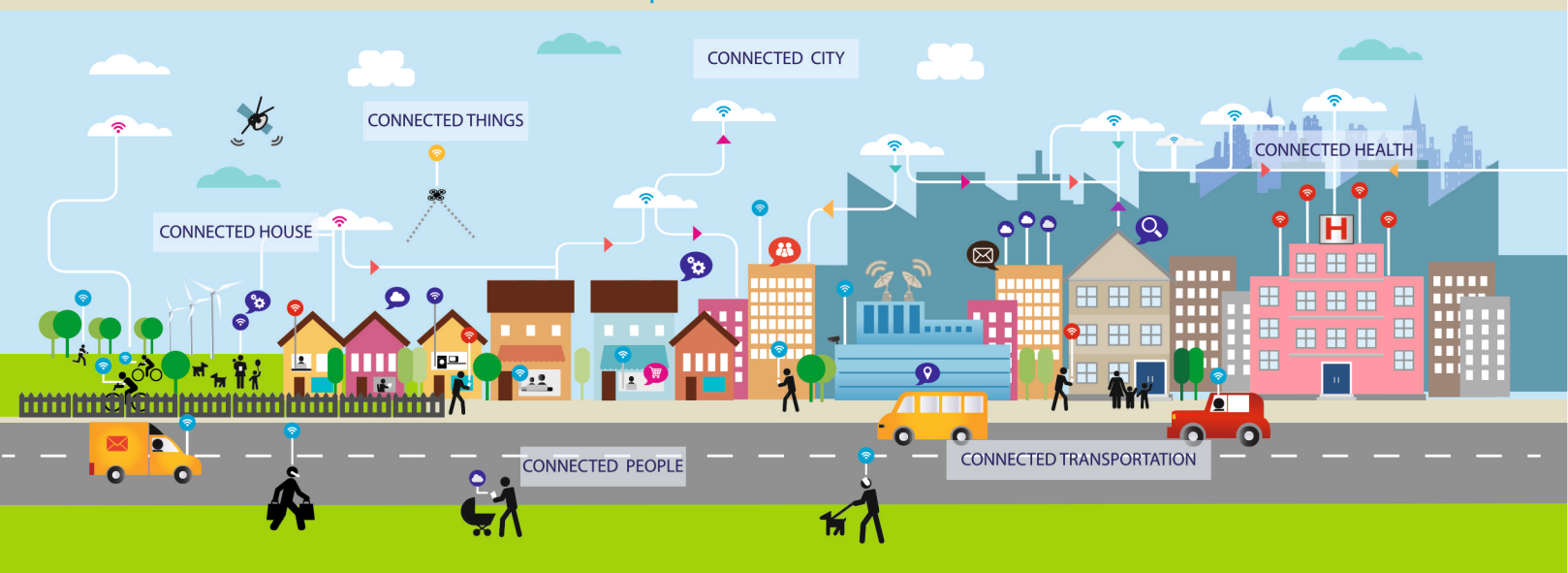


# The European path towards global next generation communication networks

## The 5G Infrastructure Public-Private Partnership



### THE 5G PPP

#### The 5G Infrastructure Public-Private Partnership

The 5G Infrastructure Public-Private Partnership, in short 5G PPP, has been initiated by the EU Commission and industry manufacturers, telecommunications operators, service providers, SMEs and researchers. The 5G PPP will deliver solutions, architectures, technologies and standards for the ubiquitous next generation communication infrastructures of the coming decade. Participation in 5G PPP projects is open to any organisation eligible under EC H2020 rules for participation.

Industry manufacturers

Telecommunications operators

Service providers

SMEs

Researchers

The 5G PPP will reinforce the European industry to successfully compete on global markets and open new innovation opportunities. The 5G infrastructure PPP will contribute to enable new services supporting a better quality of life in domains such as health, energy, environment and transport.

- BETTER QUALITY OF LIFE AND SERVICES
- CONNECTED CITY
- CONNECTED THINGS
- CONNECTED TRANSPORTATION
- CONNECTED HEALTH
- SERVICES ACCESS FOR EVERYONE AND EVERYWHERE



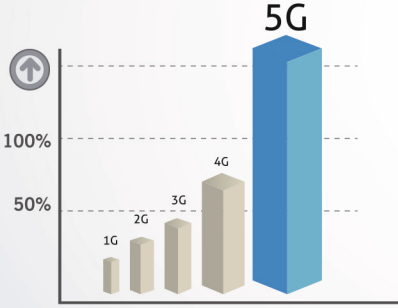
- ACCELERATE ADVANCED ICT SERVICES USE
- OVERCOME DIGITAL GAP IN EUROPE
- SUPPORT SUCCESSFUL R&D ACTIVITIES
- SPEED UP ADVANCED ICT SERVICES
- OPEN NEW INNOVATION OPPORTUNITIES
- REINFORCE INDUSTRY COMPETITIVENESS

●●●●●●●● 5G PPP CALL ●●●●●●●●

Please visit <http://5g-ppp.eu/call>

# Why do we need the 5G Infrastructure PPP?

“4G” is currently widely deployed all around Europe for people to access services from their mobile device even faster than what is available on fixed access their computers at home. Telecommunication infrastructures built in Europe have helped to improve the quality of life, by contributing to improving services to citizens in many areas that are increasingly dependent on connectivity.



This is only the beginning of the story: with 5G, the communication network and service environment of 2020 will be infinitely richer and more complex than today. The network infrastructure will be capable of connecting people, processes, computer centers, machines, content, knowledge, information, goods and other things according to a multiplicity of application specific requirements.

- Health and well-being: creation of wireless diagnostic and disease management systems, hospital consultation and emergency support, assistive technologies, and well-being and personalized products and services.
- Energy and environment: detection of urban air pollution, water pollution, floods, fires, volcano eruptions and other dangerous occurrences.
- Smarter, greener and more integrated transportation systems: reduction of traffic congestion through more efficient urban and road traffic control and trip management, vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications, ensuring secure, trustworthy and private services and solving a lot of energy-related problems.

## Challenges

**x 1,000**

increasing wireless capacity  
1,000 times

**7 Billion**

connecting 7 billion people

**7 Trillion**

connecting 7 trillion things

**90%**

saving 90% energy

**0 Latency**

perceiving zero downtime

## 5G Infrastructure PPP impact

The 5G PPP will provide everywhere to everyone a secure, reliable and dependable Internet with zero perceived downtime for services. The expected impact of the 5G PPP:

- At global level**

  - Reinforce EU industrial base in network technologies
  - Retaining at least 35% of the global market share
- At societal level**

  - Ubiquitous access to a wider panel of services and applications at lower cost
  - Increased resilience and continuity
- At operational level**

  - 1000 times more capacity
  - 10 to 100 times more connected devices
  - 10 to 100 times higher typical user data rate
  - 10 times more energy efficient
  - 5 times more reactive
  - Ubiquitous 5G access including in low density areas