

IMAGINE A NEW DIGITAL UNION

Imagine billions of people and devices connected to powerful broadband networks. Imagine the opportunities unlocked by the interaction between technological innovation and access to superfast broadband. Imagine the fresh opportunities this means for individuals as well as for organisations. And the positive reverberations on society and economy.

IoT, GROWING OPPORTUNITIES

Use-cases (example)	Approximated EU Market size in €2020Bn
Self-driving vehicle - Car sharing - Smart parking	8
Intelligent tolling systems - Remote building management	45
Virtual product design - Fully automated manufacturing	50
Lighting control - Media-sharing and control	20
Vital-signs monitoring - Chronic-disease management	5
Identity recognition - Environment surveillance	5
Smart vending - Connected warehouses	15
Asset controlling - Traffic and passenger management	30
Overall value of IoT	€330BN

With efforts to achieve **the Internet of Things** and launch **5G**, Europe will be able to address many of its challenges and open-up new, tangible opportunities. The benefits are huge: they go beyond the launch of just new products and services; they go beyond individuals seen just as consumers. They will be about empowering all citizens: job-seekers, entrepreneurs, commuters, employees, electors, students, consumers, readers, civil servants and many others.

We can build a new digital Union:

- A society in which finding a job, making business or accessing public services is made easier, more efficient and – ultimately – a richer experience.
- A society in which transport is smarter, safer and less pollutant and in which driving becomes a radically new experience, with connected and autonomous cars.
- A society in which the media and culture industries have more and better platforms to distribute content and in which Europeans have more ways to access it.
- A society in which manufacturing, white appliances and many other industries are empowered and transformed by digital solutions, boosting productivity and creating smart jobs

WHAT'S IN IT FOR CITIZENS

- ➔ Super-Broadband
- ➔ Smarter Transport
- ➔ High-quality Media
- ➔ Internet of Things
- ➔ Human-object interaction



THE ROLE OF TELECOM NETWORKS AND SERVICES

Powerful telecom networks will be the backbone of the new digital Union. Super-fast and ubiquitous networks access is a pre-requisite to all the innovative applications, products and services described. Innovative telecommunications services can bring a strategic and unique contribution to the revolution of ubiquitous communications.

The European Union has unique assets. Basic broadband is widespread, some geographies advance fast on high-speed internet, markets are super-competitive, diversity boosts standard-making.

The European Union should accelerate its efforts to lay the basis for the new digital Union now. We should ignite a massive scale-up of broadband investment and ensure Europe leads globally in terms of both fixed and mobile networks.

European policymakers and governments have a crucial role to play: smashing barriers to investment and innovation.

REGULATORY MODERNISATION FOR THE DIGITAL UNION

The vision for a new digital Union requires a modernisation of both our policy approach and of our regulatory tools. A 5G and IoT-ready Europe demands ambitious regulatory objectives: massive scale-up of broadband investment and enhanced service innovation should be achieved.

The Digital Single Market Strategy provides a good framework for delivering meaningful reform and achieving these objectives. We need a set of concrete and profound changes to the current regulatory landscape and a fresh policy focus leading the way. Together, they can make a real impact.



Reforming Fixed Regulation: concrete steps

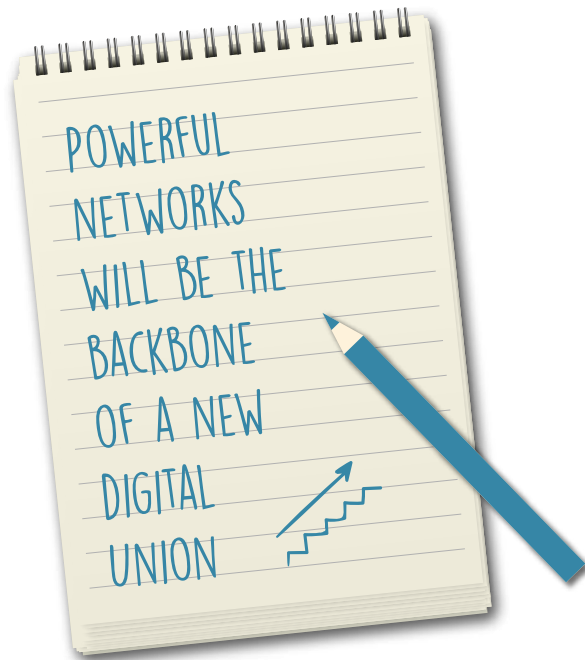
The current regulatory framework has created competitive markets. The new regulatory framework should let them work and deliver massive broadband deployment. We can achieve this by focusing on the essentials and removing over-regulation.

1 Users at the core

- If there is effective retail market competition, wholesale access regulation should be lifted
- National Regulatory Authorities should boost long-term consumer welfare
- Infrastructure competition should be incentivised

NEW TARGETS FOR A NEW ERA?

- ➔ 100% EU schools and universities connected to at least 1Gbps by 2030
- ➔ 100% administrative procedures digitised by 2025
- ➔ 100% iDs in the EU to be eID or mID by 2025
- ➔ 100% of public transport tickets to be eTickets or mTickets by 2025



WHAT'S IN IT FOR CITIZENS?

- ➔ Get ultra-fast broadband now
- ➔ Enhanced user-experience
- ➔ Versatile networks with more use-cases
- ➔ Increased competitiveness of the economy



2 Freedom to invest

- Commercial agreements should be given precedence, regulated solutions should only follow if needed
- Technology neutrality should remain a key principle, allowing markets to select the most efficient investment
- Operators who wish to do so, should be able to switch-off copper networks
- Regulation should be simplified to a single-access product



Spectrum policy: making the most out of it

We can make more out of our wireless broadband today, and we should accelerate our efforts towards 5G and IoT. The European Institutions and Member States hold the key to this opportunity: **spectrum harmonisation**.

Freeing-up all the relevant spectrum bands in a timely way, harmonising the way in which auctions happen and the conditions attached, lengthening licence periods. All of this is crucial, and cannot wait any longer.

Service regulation: we are all part of the ecosystem

A digital Union should make more space for innovation. Cases of double-regulation or over-regulation of some market players as opposed to others are a main barrier to innovation.

Telecom companies, as well as other traditional industries, are often regulated more than internet players. These regulatory asymmetries pose a problem in terms of competitiveness of the telecoms industry and its ability to deliver innovative services to citizens.

Let's lift the excessive burden that stifles innovation in traditional industries, and in particular in the field of telecommunication services. More space for innovation means more space for new services and more growth opportunities for all.



Data-driven innovation: unleashing opportunity

Trust-worthy use of big data can unleash further societal and economic opportunities for Europe. Industry and regulators need to keep the focus on transparency and trust as the building stone for opportunity.

The ePrivacy Directive should be radically reformed, with a view to removing unnecessary regulation, creating more innovation opportunities for all and ensuring consistency with the General Data Protection Regulation.

WHAT'S IN IT FOR CITIZENS?

- ➔ More innovative services from more players
- ➔ Consistent rights
- ➔ Better transparency



WHAT'S IN IT FOR CITIZENS?

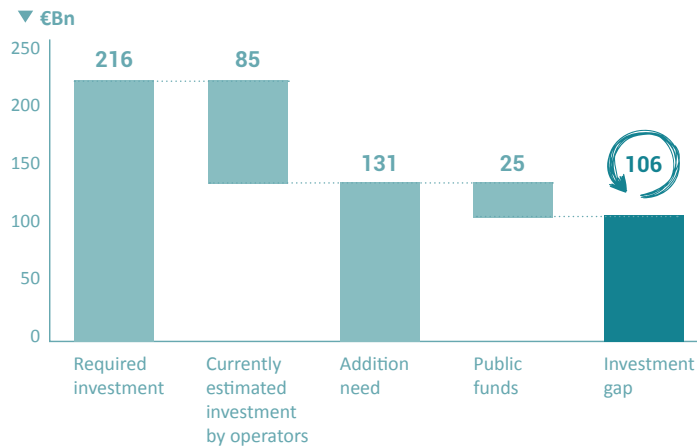
- ➔ Ubiquitous connectivity
- ➔ Enhanced mobile broadband
- ➔ mHealth, mIdentity, mGov
- ➔ 5G and IoT-ready Europe

WHAT'S IN IT FOR CITIZENS?

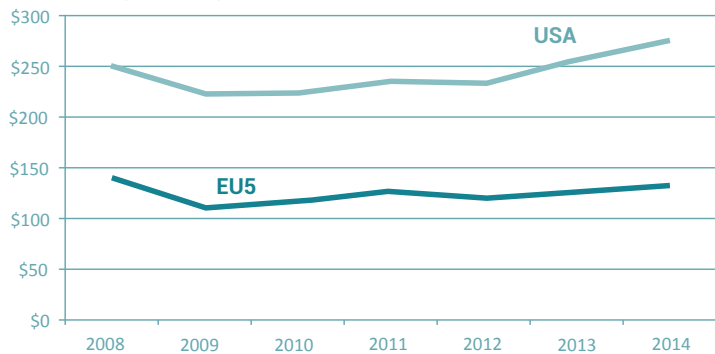
- ➔ New, meaningful data-based services
- ➔ Data-driven innovation in public services
- ➔ Consistent protection standards

FACTS AND FIGURES

BROADBAND INVESTMENT

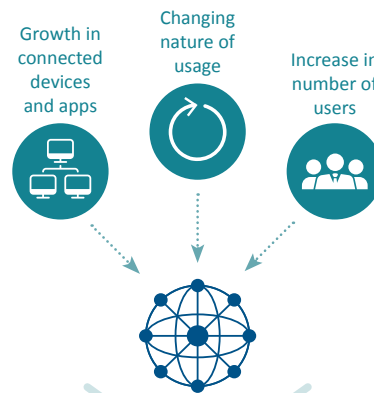


Fixed capex (US\$) per fixed line

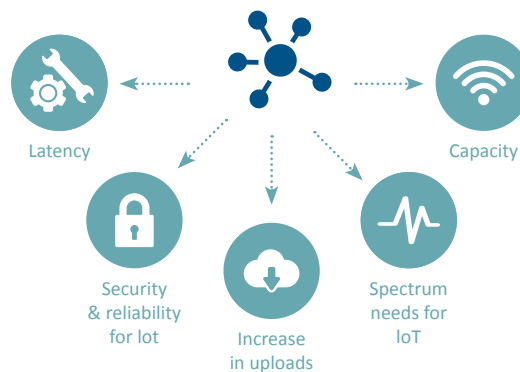


NEW NETWORK REQUIREMENTS ⁽¹⁾

DRIVERS OF NEW NETWORK REQUIREMENTS



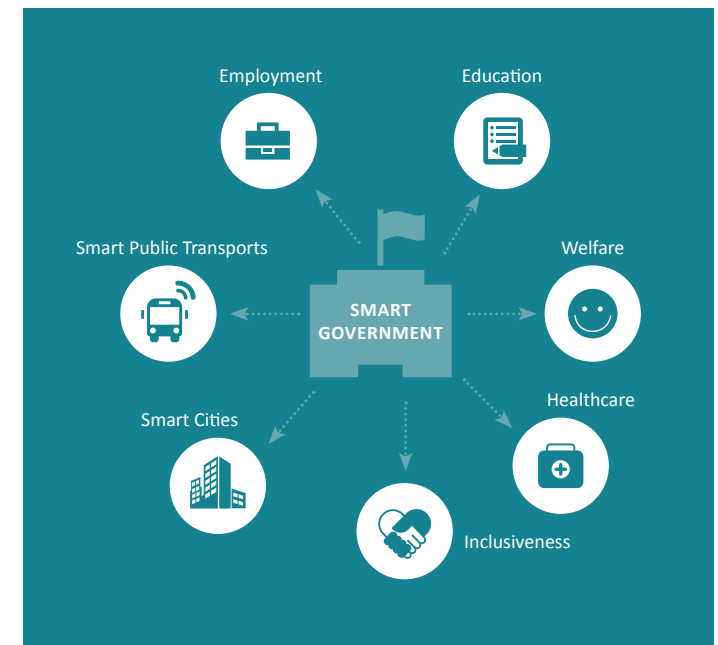
NEW NETWORK DEMANDS



INVESTMENT FOR A DIGITALLY-ENABLED SOCIETY



DIGITISING PUBLIC SERVICES



⁽¹⁾ Source: ETNO elaboration on BCG chart (2015)