Delivering a connected future
“Europe’s gigabit future will depend upon very high capacity connectivity. This will be delivered by networks which have the strength and scale to realise the potential of the 4th industrial revolution. Networks like cable’s fibre-powered broadband. From 5G deployment to e-democracy, from connected cars to a secure Internet of Things, cable operators are at the core of the fixed-mobile infrastructure and services of tomorrow”.

OUR MEMBERS
INTRODUCTION

NO BROADBAND, NO APP

Broadband connectivity is integral to a rich and diverse daily life. And as the services available become more sophisticated, and the number of connected devices grows exponentially, we need to redefine just what this entails.

A connection matters of course. But it’s just a starting point. The ubiquitous connectivity which will embrace 5G and wifi to deliver end-to-end solutions will rely on the capacity, speed and reliability of the critical network infrastructure. European gigabit connectivity will transform the way in which over 500 million people live, with a corresponding transformative impact on our economy and our society.

In public policy terms, this means creating and sustaining an environment which nurtures and nourishes investment in these networks. It’s a virtuous circle of investment, innovation, trust, scale and security which will deliver our joint goals.

Network infrastructure with the power to deliver on speed and capacity? A relationship with customers built on trust? The resources to invest and innovate for tomorrow and beyond? It doesn’t happen overnight.

Europe’s cable broadband operators have been investing, competing and growing for decades. Leading the curve on technology and delivering high quality services which represent great value, it’s no accident that over half of all European homes are passed by cable’s infrastructure.

And as we embrace a connected society of e-services, digital democracy, e-health, connected cars and smart homes, cable’s gigabit networks will be at the heart of delivering the explosion of new services.
IN OUR CONNECTED FUTURE, TRUST AND CONFIDENCE IN NETWORK INFRASTRUCTURE WILL BE PARAMOUNT

“The cable industry does more than just provide internet connectivity for millions of customers; it also plays an active role in driving security in the broader internet ecosystem”

[Source: CableLabs blog 19 October 2017].
The cable industry has been protecting the delivery of content for decades in a safe, reliable and trusted manner. CableLabs’ own data shows that in over 30 years of service delivery into the home, cable systems have never been breached in a successful, scalable manner.

As legislators consider the myriad of issues posed by questions of privacy and the use of data in the digital environment, cyberattacks and the threat of “denial of service” remain a major concern. These issues will continue to grow in proportion to the number of services and devices which will make up the Internet of Things. A primary focus of cable operators lies in protecting networks to ensure the uninterrupted availability of the broadband service.

The global nature of security threats, and the need for coherent defences against them, illustrates the need for European and global responses. State-led responses will no longer be sufficient in this context. Trust and security in networks are transnational issues. Our technologically driven companies, with an emphasis on customer satisfaction, maintain a consistent focus on the security of customers and their trust.

**Key policy priorities to foster confidence in trusted networks**
- Public policy support for critical infrastructure at local, national and pan-European levels
- Increasing IoT security through an industry-led, standards-based approach
- Encouragement of a trusted interface between consumers and service providers
Ubiquitous connectivity and network reliability: the two core ingredients for an e-society. From the early beginnings in e-learning and e-commerce, services and behaviours are rapidly adapting to remote and digitised solutions. E-government and e-democracy, e-health, and e-business are all growing and thriving.

At both EU Institutional and national level, a root-and-branch approach is being taken to the encouragement and adoption of e-governance. E-government, along with e-health and e-education are sectors which see the immediate potential of a connected, digitised society.

Increasingly in the spotlight are the potential advancements in e-transport and smart homes, and the capabilities of AI and virtual reality. These technologies will require powerful networks with the speed and capacity to support rich, immersive experiences. Cable’s gigabit networks are already building the networks which will make this possible.

Key policy priorities towards a ubiquitous digital society

- A technology neutral approach to delivering digital infrastructure which embraces all types of broadband solutions
- Encouragement of scalable services through consolidation and convergence
- Encourage citizens to develop the necessary digital skills to benefit from the e-Society and to embrace the new job opportunities
“By 2020, public administrations and public institutions in the European Union should be open, efficient and inclusive, providing borderless, personalised, user-friendly, end-to-end digital public services to all citizens and businesses in the EU....Public administrations use the opportunities offered by the new digital environment to facilitate their interactions with stakeholders and with each other”.

SECTION 3

PRIVATE INVESTMENT IN INFRASTRUCTURE AND INNOVATION HAS DELIVERED NETWORKS THAT ARE WORLD CLASS IN SPEED, IN QUALITY AND IN CAPACITY, WHICH REDUCES PRESSURE ON THE PUBLIC PURSE
Cable operators year after year re-invest a large part of their earnings to maintain and upgrade their networks. These investments can reach several billions in Europe each year. Cable operators all over Europe are re-inventing the customer experience.

The latest investments will enable a new generation of cable services, allowing cable operators to meet future consumer demand for high-speed connections and advanced applications. The technical specification introduces a new generation of hardware that can deliver up to 10Gbps broadband download speeds. The next innovation is already around the corner and will allow 10Gbps symmetrical upload and download speed.

And that's not the end of the story. Convergence between fixed and mobile networks in the industry – led by the examples in the cable sector such as VodafoneZiggo, Nos / Optimus and Telenet / Base – illustrate the effective synergies achieved when investment and scale play out across the value chain.

These innovations and investments are the grassroots of the best type of competition. The pace of innovation is such that competitors need to step up their own investments in competing technologies such as FTTH.

Ultimately, the higher the level of investment by the private sector, the lower the pressure upon the public purse to provide critical infrastructure.

Key policy priorities to stimulate private investment

- The rule of competition law, limiting sector specific regulation as much as possible
- A stable and predictable regulatory environment to allow operators to invest with confidence and certainty whilst triggering strong and sustainable competition
- State aid deployment only in extreme cases – not where private enterprise is investing
A connected, digital society is experienced from the ground up – as individual citizens, small businesses and local services across Europe can testify each and every day. For each of these local, individual actions, there is a corresponding European endeavour which has helped to facilitate availability and uptake.

The European institutions have a significant role to play in the progress towards a gigabit society. Already, 11% of Eur 344.4 bn EFSI investment under the Juncker Plan has been committed to digital growth (European Commission figures as of September 2018). The Commission’s Digital Single Market Strategy has put in place key actions to ensure access to online activities of individuals and businesses under conditions of fair competition, consumer and data protection. The sharing of best practice in e-governance, the harmonisation of allocating spectrum for the development of 5G, and a cross-border approach to digital goods and services, all promote the provision and progress of our connected future.

Crucially, intervention at European level provides a rulebook which can allow for a level playing field between global tech giants and those investing at a regional and local level.

**Key policy priorities for a gigabit Europe**

- A revision of European competition rules to adapt to the new challenges of the digital market place
- Support European ambitions for the digital and telecoms sector, thus avoiding national rules that ultimately hamper the growth potential of these sectors
- Pursue further activities that will increase the attractiveness of the European single market for investors
A mobile network is a communication network where only the last link is wireless; the network is distributed over land areas ("cells") each usually served by three base stations which are connected to a fixed network. Mobile operators offload traffic onto these fixed networks.

With 5G, the cells will become much smaller and mobile operators will have to search for suitable fixed backhaul solutions. Cable networks provide three main elements critical to these backhaul solutions: location, power and capacity.

Ubiquitous gigabit connectivity at an affordable price will take a variety of technological solutions to deliver – cities are usually already well served by various broadband providers, but many underserved areas remain. Wireless connectivity can provide a more efficient solution for delivering services in these remote areas as opposed to an expensive fibre-to-the-home roll-out.

Operators are responding to these end-to-end, blended technological drivers with fixed-mobile convergence, creating the seamless connectivity required by customers and service providers alike.

**Key policy priorities for fixed-mobile convergence**

- Support infrastructure-based competition between fixed networks that are operated end-to-end
- Create the right incentives for private investments in large scale fixed access networks
- Allow the creation of truly equivalent and strong competitors to the well-established incumbent telecom players, via convergence
- Support industry-led standardisation for 5G backhaul
The cable industry is poised to deliver on the vision of a seamlessly connected future: 10G.

10G is the gigabit-enabled end-to-end infrastructure that will deliver internet speeds 10 times faster than today’s networks with the power and capacity to change the way we live, learn, work and play. The 10G network will enable creators and innovators to fulfil their dreams while providing the reliability and security that consumers can trust. It’s the next great leap for broadband.

As we enter a new generation of innovation, the need to develop and embrace infrastructure that supports our imagination and keeps Europe at the forefront of progress is vital. Whether it’s powering the smart cities, smart homes or smart cars of the future, our digital progress will stall without infrastructure with the speed and capacity to meet our needs.

10G is the network of the future that will deliver speeds of 10 gigabits per second and beyond with enhanced reliability, security and capacity; it will reinvent the role technology plays in our everyday lives.
10G
The Next Great Leap for Broadband
About Cable Europe: Cable Europe is the trade association that connects leading broadband cable TV operators and their national trade associations throughout the European Union. The regulatory and public policy activities of Cable Europe aim to promote and defend the industry's policies and business interests at European and international level. The European cable industry provides high speed broadband internet, TV services, and telephony into the home of 64.5 million customers the European Union.