



European
Commission

Management Plan 2021

Directorate-General for Communications
Networks, Content and Technology

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INTRODUCTION

The Directorate-General for Communications Networks, Content and Technology (CONNECT) supports digital transformation of the Union's economy and society, fosters the internal market and makes Europe fit for the digital age. To achieve these goals, we work in close cooperation with DG Internal Market, Industry, Entrepreneurship and SMEs and DG Defence Industry and Space, which are all under the lead of the Commissioner for Internal Market, Thierry Breton.

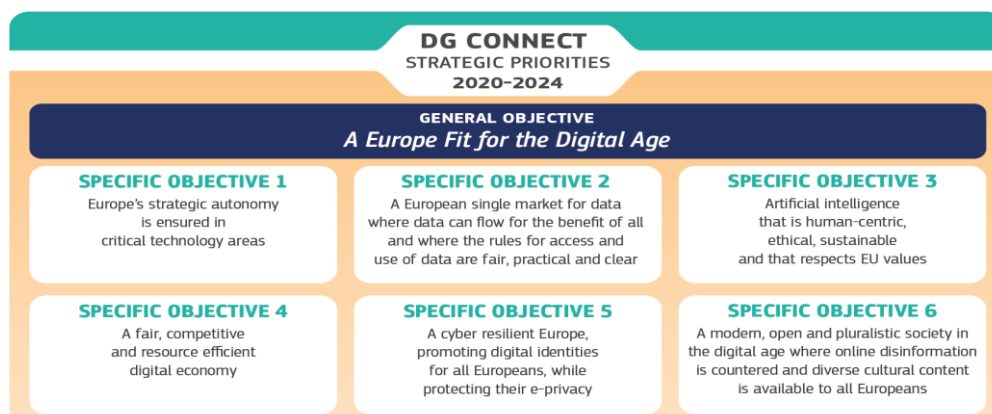
2020 will be remembered for the acceleration of change it kick-started and the opportunity it paradoxically presented. Changes in climate, digital technologies and geopolitics were already profoundly affecting our society and driving our agenda. However, the pandemic has sharpened the need for Europe to lead the twin green and digital



transitions and make its societies and economies more resilient. During the COVID-19 crisis digital has proved invaluable for keeping people connected and businesses working and marked a turning point in how technology is used in education and training. The groundwork for the digital transformation has already been set with steady progress in the [digital single market](#) bringing real benefits for consumers and businesses across the EU and beyond.

Most importantly, digital is a main building block of the **Recovery and Resilience Facility** as part of NextGenerationEU. It will focus on sustainable investment and reforms with a minimum of 20% to be invested in digital. CONNECT re-organised its services to be able to play its role in the implementation of the Facility.

The management plan defines the most important 2021 outputs CONNECT will deliver to realise the objectives set out in its strategic plan 2020-2024. *A Europe fit for the digital age* is one of six headline ambitions of Commission President Ursula von der Leyen, set out in her political guidelines and further developed in the mission letters to Executive Vice-President for A Europe Fit for the Digital Age, Margrethe Vestager, and the Commissioner for Internal Market. CONNECT will focus on this objective through six specific objectives defined at DG level:



A key priority of the DG is the preparation of a Commission **Communication on Europe's Digital Decade** which will propose a roadmap with clearly defined goals for 2030, in particular for connectivity, skills and digital public services. The approach will follow clear principles: the right to privacy and connectivity, freedom of speech, free flow of data and cybersecurity. A main policy deliverable is the preparation of the **Data Act** to create a fair data economy in which European companies and citizens have more control over their data, the processing conditions of their data and where governments can make better use of big data held by the private sector for the public good. In the same spirit, CONNECT will work on a proposal for a **new European digital identity** to make it easier to access services online across Europe and ensure people have greater control and peace of mind over what data they share and how it is used. In the context of a European Health Union, CONNECT is working, together with DG Health and Consumers, towards creating a **European Health Data Space** which will facilitate secure, access to health data for citizens, policy makers, researchers and innovators. CONNECT will also contribute to a **regulatory framework on Artificial Intelligence**, addressing in particular safety and fundamental rights.

The EU's **roaming policy** allows millions of consumers and businesses to experience the benefits of the digital single market in their daily life. CONNECT will prepare a proposal for the prolongation and review of the Roaming Regulation. It will also work on a review (REFIT) of the Broadband Cost Reduction Directive.

CONNECT implements its policies through several funding mechanisms, being in charge of the new **Digital Europe programme**, the **Connecting Europe Facility – Digital**, the **Research Framework Programme for Research, Horizon Europe** and the **Creative Europe – Media** subprogramme. Preparations for the implementation of the programmes with the help of executive agencies and joint undertakings are well advanced.

On the communication side, as digital is one of the biggest priorities in Europe right now, it is an opportunity for us to work in the interests of all our citizens. We will develop our communication in this area based on two strands: The demand side will focus on communications related to the digital decade and how it will change people's lives. The supply side will focus on new policies and proposals. We will demonstrate how the EU is addressing real issues and concerns of its citizens. For example, how our green and digital transformations reflect the interests of our young people and create opportunities for them.

PART 1. Delivering on the Commission's priorities: main outputs for the year

General Objective:

A Europe fit for the Digital Age

In order to help make Europe fit for the Digital Age, CONNECT will continue to follow the path set in the *Shaping Europe's Digital Future* Communication. Structured around four key elements (more and better connectivity, a stronger industrial and technological presence, a real data economy and a fairer and easier business environment), the digital strategy indicates what Europe needs to do to ensure **a digital Europe that reflects the best of Europe**.

Concerning the preparation of new policy initiatives, the DG is fully committed to the application of the better regulation principles to ensure that policy is prepared, implemented and reviewed in an open, transparent and evidence-based manner. The DG also aims to listen and to take into account the views of stakeholders and to reduce the burden posed on them. For this reason, a number of public consultations and evaluations and fitness checks are planned for 2021.

For the implementation of its policies, CONNECT will use several funding programmes that overarch the different aspects of the digital transition. We will communicate on the added value of the programmes that fund digital projects, aiming to convince those Europeans who are sceptical about the advantages of their money being spent on such projects by providing positive and concrete examples, highlighting the multiplier effect.

The **Digital Europe programme** (with a budget of EUR 7.6 billion¹) will build essential digital capacities in three key digital technology areas (High Performance Computing, Artificial Intelligence and cybersecurity) as well as the advanced digital skills needed to 'operate' them. It aims to accelerate the adoption and best use of digital technologies, including the latest digital capacities, across the economy and society. The programme will support industry, SME's, and public administrations in their digital transformation with a reinforced network of European Digital Innovation Hubs.

CONNECT will implement a substantial part of the **Horizon Europe Research Framework Programme** (overall budget of EUR 84.9 billion²), setting the strategy for research and innovation related to digital technologies. The programme is a key instrument to shape

^{1/2} The figure covers the entire period of the Multiannual Financial Framework 2021-2027.

Europe's digital future. It will fund R&I activities in all strategic digital areas to develop European technologies all along the digital supply chain and further Europe's digital sovereignty: processors and semiconductors, photonics, edge computing advanced computing and quantum, 6G, AI/data/robotics, next generation internet. In these areas, strategic R&I agenda are being established with industry in five partnerships. In addition, the programme will fund R&I activities to apply digital technologies in various sectors (e.g. health, energy, transport, agriculture and food).

The **Connecting Europe Facility Digital programme (CEF Digital)** (budget of EUR 2.05 billion³) will support investment in 5G and fibre infrastructures contributing to the Gigabit Society 2025 objectives⁴ and the strategic autonomy of the Union. It will act as a catalyst for public and private investments especially in areas where the market alone would not be able to deliver adequate quality of connectivity.

With the **Creative Europe - MEDIA and Cross-sectoral Strands** (budget of EUR 1.64 billion⁵) CONNECT will support the audiovisual and news media sectors. It will support the creation of high quality European films, television programmes and video games, support their cross-border circulation and develop audiences. Measures to ensure news media freedom and pluralism will be supported for the first time.

Finally, apart from funding, CONNECT also ensures monitoring and **enforcement of legislation** prepared by the DG in the Member States. CONNECT actively participates in the joint Single Market Enforcement Task-Force, composed of Member States and the Commission. CONNECT closely participates with DG Internal Market, Industry, Entrepreneurship and SMEs in the ex-ante assessments of restrictive draft national regulation pursuant the Single Market Transparency Directive. The priority enforcement actions in 2021 will concern the implementation of the European Electronic Communications Code, the assignment of spectrum for 5G, the Audiovisual Media Services Directive, and both copyright directives. In addition, CONNECT cases related to the enforcement of the 112 emergency number, the independence of national regulators and NIS (Network and Information Systems) essential operators will remain a priority.

To sum up, CONNECT implements the Commission policy goals using various tools:

^{3/5} The figure covers the entire period of the Multiannual Financial Framework 2021-2027.

⁴ <https://ec.europa.eu/digital-single-market/en/connectivity-european-gigabit-society>



<p>Specific objective 1</p> <p>Europe's strategic autonomy is ensured in critical technology areas</p>	<p>Related to spending programmes: Horizon 2020, Horizon Europe, Digital Europe, CEF - Digital</p>
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The Commission's objective to work towards the Union's open strategic autonomy balances the need to developing Europe's capacities in strategic areas while remaining open to trade.

In the objective towards strategic autonomy, Microelectronics is a critical technology for Europe. **Microelectronics** efforts will focus on the development of processors for Artificial Intelligence (AI) and edge-computing and on increasing capacity in advanced semiconductor manufacturing. The ambition of these priorities and the substantial investments needed requires joint and aligned European, national and industrial efforts.

A European industrial alliance on microelectronics and processors, involving the key EU actors of the microelectronics value chain, research and technology organisations, user companies, as well as Member States and regions, will set a basis for the efficient coordination of various public and private initiatives of R&D, innovation and deployment in electronic components and systems. An important instrument in this context will be a proposal by Member States for a new *Important Project of Common European Interest* on Microelectronics, which foresees R&D and first industrial deployment amongst industries across the participating Member States. To this end 18 Member States signed a declaration on 7 December 2020, intending to make use of Recovery and Resilience Facility (RRF) funds supporting an initiative on processors and semiconductor technologies.

Other notable instruments are *Horizon Europe*, including the *Key Digital Technologies Joint Undertaking* which will build on the achievements of the Electronic Components and Systems for European Leadership (ECSEL) Joint Undertaking, following a similar tri-partite model (Commission, participating states and private sector), the *Digital Europe Programme*, with testing and experimentation facilities offering ultra-low power processor chips based on neuromorphic technologies for AI and edge-computing.

For **Smart Networks and Services** based on 5G and later 6G European technological autonomy requires to take a full value chain approach. The launch of a ‘Smart Network and Services’ partnership with industry and Member States under *Horizon Europe* will foster technology adoption and network deployment. In addition to the Commission funding of EUR 900 million planned under Horizon Europe, around EUR 1 billion are envisaged under *CEF Digital* to foster the deployment of 5G networks along key pan European transport paths. These actions will also significantly contribute to the Green Deal objectives, by reducing the energy footprint of network platforms as well as the carbon footprint of vertical industrial sectors running digital processes integrated with 5G and beyond networks.

Connecting Europe Facility Digital programme (CEF Digital) will support deployment of the most advanced and robust **gigabit connectivity infrastructures** that will foster technological autonomy and level-playing field in the global digital ecosystem. The resilience of connectivity infrastructures, including their protection from cyberattacks, is an essential element for the European strategic autonomy and integrity. In this respect, *CEF Digital* will support quantum communication infrastructures; connecting digital capacities such as high performance computing and cloud at terabit speed; backbone infrastructures to areas of geo-political importance for Europe’s strategic autonomy; 5G standalone connectivity to enable Internet of Things (IoT) applications in local smart communities.



NextGenerationEU is also a unique opportunity to develop a more coherent European approach to connectivity and digital infrastructure deployment.


President Ursula von der Leyen

The **Emerging Enabling Technologies** objective of *Horizon Europe* supports early technologies that have the potential to become Europe’s future industrial leading technologies and to establish industry leadership in these technologies. It supports large-scale flagship research initiatives in well-established research areas - quantum technologies, graphene, the human brain, and the battery technologies of the future - as well as targeting research on early-stage emerging technologies (e.g. spintronics,). A first set of these early-stage technologies as well as a broad forum for identifying future technologies are expected to be supported under Horizon Europe.

The **Quantum Technologies Flagship** will conclude its three-year ramp-up phase at the end of 2021, and will have laid the foundations for a pan-European ecosystem that will enable a world-leading quantum technology industry in Europe. Its projects will have made significant advances in the core areas of quantum computing, simulation, communication, and sensing and metrology, as well as basic quantum science. Activities focused on education and training and international cooperation will also carry on. The Flagship will continue to be supported under *Horizon Europe* with several calls planned for 2021.

The **pan-European quantum communication infrastructure (EuroQCI)** will ultimately enable public administrations to transmit and store information and data very securely, and safeguard critical infrastructure and encryption systems across the EU. It will consist of an interlinked terrestrial segment and space segment: the preparation of the terrestrial segment is being managed by CONNECT, and that of the space segment by DG Defence Industry and Space and the European Space Agency. Continued regular meetings between these parties and participating Member States will enable the initiative to move forward. First calls supporting the EuroQCI's initial deployment will be launched under *Digital Europe*, and calls supporting the cross-border linking of the national quantum communication infrastructures that will be part of the EuroQCI will be launched under the *Connecting Europe Facility*.

In September 2020 the Commission proposed the continuation of the **EuroHPC Joint Undertaking** with a plan to invest EUR 8 billion in implementing **High Performance Computing (HPC)** activities. From a research & innovation perspective, CONNECT will promote the development of an independent source of competitive HPC technology, including energy-efficient exascale and post-exascale computing technologies and systems and their integration in pilot systems, including next generation of technology building blocks for high-end computing, i.e. hardware, software, algorithms, applications, and more. These technologies will be progressively introduced in the acquisition and **deployment of supercomputing and data infrastructures** and will include the acquisition of mid-range and precursor to exascale supercomputers, quantum simulators, and potentially supercomputers dedicated to industrial use. First steps for the acquisition of an exascale supercomputer, as well as further pre-exascale supercomputers will be taken; and preliminary actions will target the critical high-speed secure backbone connectivity necessary for interconnecting the federated supercomputing and data infrastructures.



I am convinced that high performance computing is an area in which Europe can excel, not only to become a leader on the global technology scene, but also to preserve and strengthen its digital autonomy for the benefit of all Europeans.

Commissioner Thierry Breton

The **Future Battery Technologies** (Battery 2030+) long term research initiative will use digital technologies, big data and Artificial Intelligence to accelerate research into high performing, smart and sustainable batteries that can provide long term technological leadership in a fast-growing market driven by decarbonisation needs in the transport and the energy sectors. In 2021, the first phase, covering the period 2020-2023, with a budget of EUR 40.5 million from *Horizon 2020*, will continue to be implemented by supporting research projects that address the main priorities identified in the Battery 2030+ Roadmap. Under *Horizon Europe*, a new partnership on batteries will be signed in 2021, covering all aspects of battery research including the next phase of the Battery 2030+ initiative.

The **Graphene Flagship** is bringing this very promising material and other similar 2D materials from early proof of concept in the lab to industry relevant opportunities in a wide range of application sectors. Examples include information and communication technology components, health sensors, and energy storage and material composites. The **Human Brain Project Flagship** aims to put in place a cutting edge research infrastructure to allow scientific and industrial researchers advancing in neuroscience, computing, including neuromorphic computing, and brain-related medicine. In 2021, the third phase of the flagships, with EUR 150 million from *Horizon 2020* for each of them for the period 2020-2023, will continue to be implemented. Under *Horizon Europe*, flagship activities will continue through open call for proposals.

CONNECT is building the **Destination Earth initiative** aiming to develop a high-precision digital model of the Earth ('Digital Twin of the Earth'), which will serve as the basis for developing dedicated thematic applications and services such as extreme weather monitoring and/or predictions to react to environmental crises. The digital twins will give users access to high-quality information, services, models, scenarios, forecasts and visualisations. The development of the operational core platform and of the first two priority digital twins (on extreme weather events and on climate change adaptation) will be launched under *Digital Europe*. *Horizon Europe* will support the research & innovation that will further reinforce Destination Earth technologies and its science base.

Photonics is an essential technology building block for the digital transformation, providing optical networks and sensors and systems to capture and visualise data in a myriad of applications. The current implementation of the public-private partnerships plays a strategic role in building and bridging communities across Europe with support from *Horizon 2020* and *Horizon Europe*.

GÉANT⁶ projects shape the landscape for connectivity for research and education, with a major infrastructure upgrade in the GÉANT network backbone in Europe and complemented by *CEF Digital* on Terabit connectivity for EuroHPC. The Brazil-Portugal submarine cable and the expansion of Copernicus-based services is expected to become operational during the first half of the year.

The **Next Generation Internet (NGI) initiative** aims at building the technologies of the internet of tomorrow around people's fundamental needs, and meeting the future demands of society and industry, while reflecting European values and norms. In 2021, several NGI projects from *Horizon 2020* will deliver concrete results in the areas of trust-enhancing technologies, digital identity and data sovereignty, Blockchain, Internet of Things (IoT), immersive technologies, multilingual and inclusive technologies. *Horizon Europe* will support growing the community of NGI innovators, piloting existing 'NGI solutions', and developing new international collaborations. Furthermore, the Tech Review Facility will extend its scope

⁶ Pan-European network for scientific excellence, research, education and innovation.

to a broader set of key societal challenges such as response to pandemics, climate change, disinformation, or the protection of privacy.

The Commission's blockchain strategy aims at positioning Europe at the forefront of blockchain innovation and uptake. The Commission, all Member States, Norway and Liechtenstein are cooperating in the European Blockchain Partnership, which is building a **European Blockchain Services Infrastructure (EBSI)**. The Partnership aims to deliver EU-wide cross-border public services using blockchain technology with the highest standards of security and privacy, and to enhance cross border government services, reduce Europe's environmental impact, enable development of European technology hubs & projects and enhance cross border citizen and enterprise mobility. The first operational version of EBSI is expected for early 2021. Four EBSI use cases are currently being tested in the areas of notarisation, education credentials, European self-sovereign identity capability, and trusted data sharing. In addition, further use cases will be developed over the period 2021-22: asylum demand management, unique European social security number, SME financing. The Commission will launch the **EU blockchain pre-commercial procurement** that will strengthen the strategic autonomy and resilience of the EU supply chain with new innovative blockchain solutions that can enable the EBSI to deliver higher capacity, more energy efficient and more secure cross-border blockchain services to EU citizens, businesses and public administrations.

The **Startup Europe initiative** is part of the 2020 Commission [SME strategy and](#) connects high tech startups & scaleups, investors, accelerators, corporate networks, universities and tech media across Europe. CONNECT will launch the **EU Startup Nation Standard of Excellence initiative** with the goal to make Europe the most attractive start-up and scale-up continent.

The **Innovation Radar** identifies high potential innovations and innovators in EU-funded research and innovation projects, and focuses in particular the contribution of EU-funded R&I projects to Europe's technological sovereignty and easing the discovery of investment opportunities among the EU-funded R&I projects. CONNECT will continue working with the 23 signatory countries of the Innovation Radar declaration.

Under the lead of DG Internal Market, Industry, Entrepreneurship and SMEs, CONNECT contributes to the preparation of an **EU strategy on standardisation**, which will include a chapter on digital to allow for the deployment of interoperable technologies respecting Europe's rules and to place Europe in a leading position at international level, promoting Europe's approach and interests on a global stage, notably in global standards developing organisations, in particular in areas with reduced EU industrial presence, such as quantum and AI.

The New **Digital Interaction initiative** to be launched under *Horizon Europe* will foster Europe's strategic autonomy in increasingly sensitive technologies, such as **virtual and augmented reality and language technologies**. The first *Horizon Europe* calls will aim

at providing European solutions to these challenges and support the European industry to gain market shares. E-Translation, the *CEF Digital Service Infrastructure* for automated translation, offers European public administrations and SMEs free and readily available linguistic solutions that respect data privacy.

CONNECT analyses Member States' notifications in its domain of responsibility in the context of the **Foreign Direct Investment Screening Regulation**. For foreign investments that may represent a risk for security or public order in Member States or in the Union as a whole, the Commission issues an opinion which the Member State concerned takes into account in its assessment of the transaction and possible response.

Following a study mapping the topics according to media coverage in different Member States that are the most relevant for the Europeans today and matching those interests and concerns with the priorities of the Commission, CONNECT identified concrete topics as focus for our communication efforts in the Member States. Under this objective these would be: the topics around Destination Earth, HPC, quantum, Europe's technological autonomy, blockchain, 5G networks and new generation technologies, as well as the work following the declaration on microelectronics.

Specific objective 2

A European single market for data where data can flow for the benefit of all and where the rules for access and use of data are fair, practical and clear

Related to spending programmes:
Horizon Europe, Digital Europe

The objective of free flow of data targets the availability of data for the benefit of all, notably by promoting free flow of data within the single market and with non-EU Member States in full respect of European rules and values. The Regulation on European Data Governance, adopted at the end of 2020, facilitates data sharing across sectors and Member States. It will increase trust in data sharing, strengthen mechanisms to increase data availability and overcome technical obstacles to the reuse of data, thus facilitating the creation of a harmonised cross-sectoral framework that will support the common European data spaces while respecting privacy. **Common European data spaces** will progressively be deployed from 2021, including with the support of *Digital Europe*.

CONNECT prepares a **Data Act** to be adopted in 2021, addressing issues that affect relations between different actors in the data economy, to create a fair data economy, in which European companies and citizens have more control over their data, the processing conditions of their data and where governments can make better use of big data held by the private sector for the public good.

The **Digital Markets Act** proposed on 15 December 2020 will also address the issue of imbalances in market power, where a small number of players may accumulate large

amounts of data, as announced in the 2020 European strategy for data (see also specific objective 4).

The 2019 **Open Data Directive (PSI)** - to be transposed by 17 July 2021 - improves the availability and reusability of public sector data. An Implementing Act to be adopted in 2021 will define a selection of datasets of particular socio-economic importance (High Value Datasets) freely and openly available across the EU, contributing to the development of Artificial Intelligence and overcoming societal challenges.

Currently planned as part of the Data Act, CONNECT will also work on the **review of the Database Directive** which provides for a sui generis Internet Protocol (IP) protection for databases. A recent evaluation showed that, while the Database Directive provides added value, it could be revisited to facilitate data access and use. Following up on the European strategy for data, the review will have as its main objective to facilitate the sharing of and trading in machine-generated data and data generated in the context of rolling out the Internet of Things.

CONNECT will facilitate the creation of a **European Alliance for industrial data and cloud**, consisting of key European industrial players in the area of cloud, business users of cloud services, Member States' representatives and civil society stakeholders. The Alliance will assist CONNECT in the implementation of the cloud actions announced in the European Data Strategy.



As announced in the European Data Strategy, CONNECT will also facilitate the deployment on the market of European cloud services (for instance those that may result from increased partnerships in the context of the aforementioned Alliance). To this end, CONNECT will launch several calls under *Digital Europe* to select the best business consortia to establish online EU marketplace(s) for cloud services and the single EU portal that

should provide access to such online marketplace(s) to all interested parties in the EU.

CONNECT will launch the first in kind *Data Flow Monitoring for Europe*, mapping intra-EU business and public entities' data flows to cloud infrastructures and measuring their economic values.

With DG Research and Innovation, CONNECT is building the **European Open Science Cloud (EOSC)** for European researchers. Dedicated *Horizon Europe* calls, based on the Strategic Research and Innovation Agenda by the forthcoming EOSC European Partnership, will guide the work.

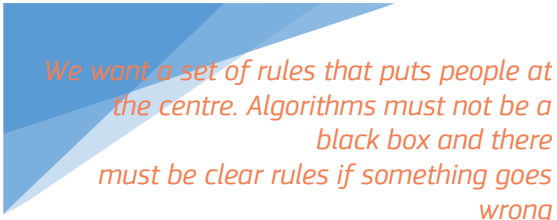
CONNECT is supporting DG Health and Consumers on a **European Health Data Space** which will facilitate secure access to health data for citizens, policy makers, researchers and innovators. In 2021, CONNECT will support, under *Digital Europe*, deployment of secure infrastructures that will make genomic data and cancer images securely accessible across borders and, under *Horizon Europe*, exploration of new tools, technologies and digital solutions for a healthy society, e.g. for the use and re-use of health data (in particular electronic health records and/or patient registries).

The **Internet of Things** is a cross-cutting domain, where data spaces, cloud computing resources, connectivity, and Artificial Intelligence (AI) based tools are integrated to support the digital transformation of all sectors of our economy. CONNECT will support large-scale piloting and deployment-support initiatives in areas such as smart energy, smart home, smart agriculture, etc. under *Horizon Europe* and *Digital Europe*. In line with Europe’s data, green and industrial strategies, CONNECT will support a European R&I Strategy for a Computing Continuum from Cloud-to-Edge-to-IoT with strong capacity at edge and device level. Focus will be on the next generation computing components, systems and platforms that enable this transition to the next generation energy-efficient and trustworthy Internet of Things.

Digital Europe will support data spaces and testing and experimenting facilities in strong synergies with AI developments for industry, and *Horizon Europe* will finance further research and innovation actions across strategic value chains, which are needed to form digital industrial business to business (b2b) platforms as ‘manufacturing data spaces’.

The topics identified as focus for our communication efforts under this objective are data, industrial data, data spaces including health and cloud.

Specific objective 3	Related to spending programme: Horizon 2020, Horizon Europe, Digital Europe
Artificial intelligence that is human-centric, ethical, sustainable and that respects EU values	



President Ursula von der Leyen

Following the 2020 White Paper on Artificial Intelligence (AI) setting out a balanced approach for an ecosystem of trust and an ecosystem of excellence, the Commission launched a public consultation. On this basis, CONNECT will be proposing a horizontal **regulatory framework on Artificial Intelligence**, relating to aspects of

fundamental rights and safety, to be negotiated in 2021 with the co-legislators. CONNECT is also engaged in international fora and with international standardisation organisations to build a broad international consensus on trustworthy Artificial Intelligence.

The 2020 Digital Services Act package, which will be negotiated with the legislator, takes due account of the White Paper, notably when it comes to transparency of algorithms used for content moderation.

In cooperation with the Member States, CONNECT is **revising the 2018 Coordinated Plan on AI** that will update on progress of the 2018 actions and introduce new measures in seven joint action areas for collaboration between the Commission and Member States: research, innovation and deployment; talent and skills; facilitating trust in AI; global outreach; AI for the Green Deal; health; and robotics. The key enablers are a strong cooperation and governance framework, access to infrastructure and data, and strengthened investments.

CONNECT will work together with industry and academia to develop a dynamic EU-wide AI innovation ecosystem, fostering close cooperation and increasing competitiveness across the whole AI value chain. To achieve this, CONNECT will bring all relevant stakeholder communities together in a new **Public-Private Partnership (PPP) in AI, Data and Robotics**, which will start to implement the Strategic Research, Innovation and Deployment strategy for AI, data and robotics in Europe.

The work on building the AI-on-demand platform continues, with new *Horizon 2020* projects supporting the platform. *Horizon Europe* and *Digital Europe* will then build on the initial platform for the scientific community and industry, respectively. As further continuation of the *Horizon 2020* research agenda, numerous new projects will strengthen Europe's excellence in AI-powered robotics.

Horizon Europe and *Digital Europe* will start to contribute to the implementation of the AI ecosystem of excellence. They bolster the EU strength in technology, ensuring strategic autonomy, and support the regulatory framework and the requirements for trustworthy AI. This includes research and development; capacity building; testing and experimentation facilities, which are closely linked with data spaces in key sectors and can involve regulatory sandboxes; and also aspects of standardisation and certification.

In addition to support from funding programmes, the Artificial Intelligence and Blockchain Investment Scheme continues to be implemented by the European Investment Fund under InnovFin, to further invest in SME and startups developing and adopting AI and/or Blockchain technologies, leveraging the initial EUR 100 million investments. This activity will also be reinforced by a support programme raising awareness and facilitating SMEs to identify sources of investments, including with matchmaking and pitching events.

CONNECT has been preparing an 'Adopt AI programme' to support public procurement of AI systems, and help to transform public procurement processes themselves. The challenges and action ideas have been discussed with Member States and AI stakeholders, wider sectoral dialogues that bridge the public procurers and on the European industry will start in 2021.

Our communication efforts will focus mainly on Artificial Intelligence, notably within the context of *Digital Europe*. We are preparing the third AI Alliance Assembly in 2021.

Specific objective 4

A fair, competitive and resource efficient digital economy

Related to spending programme:
Horizon 2020, Horizon Europe, Digital Europe, CEF - Digital

The **Communication on Europe's Digital Decade** will set out the 'European way' for its digital transformation. It will provide a roadmap to accelerate and shape EU's digital transformation and its socio-economic benefits, under a common plan with clearly defined goals for 2030. This roadmap will include a vision on a successful and sovereign digital transformation for Europe by 2030 and will set up a common ambition based on digital principles, measurable targets (e.g. on data, connectivity, digital citizenship and sovereignty), and governance. The Communication will also establish the new strategy for 5G and 6G, which will provide for a long term infrastructure investment and deployment agenda enabling to anticipate and fully prepare the migration toward 6G in the future. Finally, the Communication will pave the way for a **Global Digital Cooperation Strategy** which will put forward the European approach to the digital transformation in a global context, building on Europe's policy on technology, innovation and interests. It will notably continue developing the Digital for Development approach by supporting the Digital for Digital (D4D) hub with Africa and its extension to Latin America.

The **Digital Services Act package**, consisting of the **Digital Services Act** and **Digital Markets Act** adopted on 15 December 2020 will be negotiated with the legislator to update the legal framework for digital services across the EU single market. The Digital Services Act proposes set of obligations of digital services that act as intermediaries in their role of connecting consumers with goods, services, and content. It aims to better protect consumers and fundamental rights online, establish a powerful transparency and accountability framework for online platforms and lead to fairer and more open digital markets. The **Digital Markets Act** is part of the package, and will introduce rules for providers of core platform services that act as 'gatekeepers' in the digital sector, because they have a significant impact on the internal market, serve as an important gateway for business users to reach their customers, and which enjoy, or will foreseeably enjoy, an entrenched and durable position. The Digital Markets Act aims at preventing gatekeepers from imposing, by means of unfair practices, unfair conditions on business users and end users and at ensuring the contestability of important digital services. To this end the proposal establishes a series of obligations that gatekeepers will need to implement in their daily operations.

The **Circular Electronics Initiative** is one of the flagship policies set forth by the Circular Economy Action Plan and the EU Digital Strategy, wherein its objectives to extend the lifetime of electronic devices (starting with mobile phones, tablets and laptops), avoid

premature obsolescence, reduce waste and increase ICT products' sustainability are grounded. CONNECT will be in the lead to prepare a communication in cooperation with DGs Internal Market, Industry, Entrepreneurship and SMEs, Environment, Energy and Justice and Consumers.

A **European Interoperability Framework for smart and sustainable cities and communities** will be developed to fully benefit from the potential of digital. CONNECT will also support the deployment of digital solutions for smart and green communities linked with federated initiatives such as the upcoming EU cloud, EuroHPC and the EU dataspace deployed on top of open Urban Digital Platforms. In 2021, CONNECT will prepare the ground for developing smart communities' local dataspace and digital ecosystems. It will build capacity on the demand and supply sides for the adoption of Digital Twins of Cities (in coordination with the Destination Earth project), and will help define AI-enabled services in support of the Green Deal. CONNECT will also continue shaping the Horizon Europe mission on 100 climate-neutral and smart cities.

In support of these outcomes, several activities and workshops will be organised in 2021 with Mayors, cities and regions representatives, experts and relevant stakeholders. To help the Commission in the shaping of the framework conditions, the definition of priority actions and the drafting of the Commission Communication, CONNECT will propose to set up a **Commission special group** that will officially coordinate the Living-in.eu movement.

As indicated in the [Communication](#) *Shaping Europe's Digital Future*, CONNECT will work on possible **transparency measures** on the environmental footprint of electronic communications networks and services. Such measures can contribute to the sustainability, of the electronic communications sector by enabling consumers to make sustainable choices with respect to their service provider and their consumption patterns.



CONNECT will put forward initiatives on **Energy efficient data centres** to meet the Digital Strategy's goal of 'achieving climate-neutral, highly energy-efficient and sustainable data centres by no later than 2030'.

The **Digitising European Industry initiative** promotes actions for digital leadership by supporting partnerships with industry on strategic digital research and innovation priorities. Large scale projects promoting the development of business to business (b2b) platforms are actively running, and all Digital Innovation Hubs projects foreseen in *Horizon 2020* are now active. As a response to the COVID-19 crisis, a network of healthcare-oriented robotics hubs – DIH-HERO – supports the most promising robotic solutions to deploy them in hospitals received top-up funding. The hubs participating to the AMABLE project on 3D printing are also redirecting some of their funding to COVID-19 related challenges. Successful activities started under *Horizon 2020* will be continued in *Horizon Europe*, among others in the Made in Europe partnership.

2021 will see the start of the **network of European Digital Innovation Hubs** selected under *Digital Europe*, which will provide a boost of investments in Digital Innovation Hubs. CONNECT will launch a restricted call to select high-quality hubs for the network of hubs.

CONNECT will prepare the **review of the Digitising European Industry initiative** which will take stock and, through a series of sectorial dialogues on the digital transformation in important sectors like health, mobility, energy, etc., analyse the sectoral needs for a broad wave of 'everything digital'. In line with the *Communication on Tourism and transport in 2020 and beyond*, special attention will be paid to supporting the tourism sector to make more use of digital technologies.

The roaming policy has been one of the flagships of European policy allowing millions of consumers and businesses to experience the benefits of the digital single market in their daily life. The Roaming Regulation expires on 30 June 2022 and the adjusted Commission work programme 2020 foresees the adoption of a **legislative proposal for the prolongation and review of the Roaming Regulation** in early 2021.

The **Body of European Regulators of Electronic Communications' (BEREC)** work will shift from providing guidelines towards assessing future technological and market developments, related to end-user provisions within the scope of electronic communications and the digital ecosystem. Furthermore BEREC will be involved in several additional opinions and work streams, notably for the evaluation and potential review of the EU State Aid Guidelines, the review of the Broadband Cost Reduction Directive, and the Review of the Access Recommendations, as well as on the review of the Roaming Regulation and the Report on digital platforms.

CONNECT has started **the review (REFIT) of the Broadband Cost Reduction Directive** (2014/61/EU). The 2018 implementation report showed that there is room to further simplify and remove bottlenecks to network deployment such as by enhancing availability of relevant information, coordination of civil works and permit granting procedures. Moreover, the Directive should be adjusted to new technological and market developments such as fibre and 5G and the need for very high capacity connectivity. The review could potentially address new areas (e.g. the sustainability of electronic communications networks) and ensure a proper fit with the European Electronic Communications Code, by eliminating overlaps and enabling synergies.

Following the September 2020 Commission [Recommendation](#) on **Connectivity**, by 30 March 2021, CONNECT together with Member States will agree a Union wide **toolbox of common best practices to facilitate the deployment of very high capacity fixed and wireless networks**. The aim is to remove unnecessary administrative hurdles, build on synergies with other network operators (energy, transport, water) and coordinate the assignment of radio spectrum for the fifth generation (5G) networks under investment-friendly conditions, in particular for industrial cross-border use cases. By 30 April 2021, Member States will adopt national roadmaps for the implementation of the toolbox. This

toolbox aims to boost investment in very high-capacity broadband connectivity infrastructure, including fibre and 5G.

CONNECT will continue to work on the **review of the recommendations on access to broadband networks** and will implement the new provisions of the European Electronic Communications Code, inter alia through the consultations procedures under Article 32 of the Code. Under the so called ‘double lock veto’ the Commission can prevent national regulators from adopting certain measures which could be detrimental to competition or the internal market, where the Commission position is also supported by BEREC.

2021 will be the first year of application of the revised **Recommendation on relevant markets and the Procedural recommendation for the Internal Market procedures under the Code**.

A coordinated and harmonised EU approach to how **radio spectrum** is managed is essential for the internal market of services and goods as well as for other Union policies requiring spectrum use (such as safe mobility and the environment). This is particularly true in this period when boosting of connectivity is necessary to support EU recovery. Priorities in 2021 will include the acceleration of the deployment of 5G networks following delays due notably to the COVID-19 pandemic, the **harmonisation of spectrum** for 5G and unlicensed use (notably Wi-Fi networks and short-range devices), and the preparation of an initiative on spectrum management with a view to revising the current Radio Spectrum Policy Programme.

In 2021 CONNECT will intensify its actions to leverage public and private investment in **high capacity networks**, including the launch of the *Connecting Europe Facility Digital* programme with an envelope of EUR 2 billion. The first multiannual work programme will cover pan-European backbone infrastructures connecting digital capacities such as cloud federation, high performance computing and secure quantum communication; submarine cables, 5G cross-border corridors, 5G early take-up in local smart communities and operational digital platforms for energy and transport infrastructures. CONNECT will harness the potential of the *Recovery and Resilience Facility* (RRF) to multiply national investments in gigabit infrastructures with a focus on the potential use of financial instruments and blending facilities within *CEF Digital* and RRF to leverage private investments in gigabit infrastructures.

CONNECT will continue to follow the deployment of local wireless connectivity through the **WiFi4EU scheme**. After the successful completion of the four calls of the WiFi4EU initiative, the implementation of the networks in thousands of municipalities will be monitored to ensure local communities can enjoy free wireless connectivity.

To address this **digital skills** gap, the Commission devises and implements actions to train, attract and retain talent in Europe. *Digital Europe* will support consortia of higher education institutions, businesses and research centres in offering specialised education

and training programmes in advanced digital technologies. Moreover, CONNECT will continue to support the Digital Skills and Jobs Coalition and its 25 National Skills Coalitions by launching the Digital Skills and Jobs Platform. This will be a one-stop-shop for citizens, companies and public administrations to look for up- and re-skilling opportunities in digital and showcase best practices in digital skills training. CONNECT will support EU Code Week 2021, and continue to engage millions of students, teachers and parents in coding activities and learning how to use digital technologies to create, explore new ideas and innovate.

As **women remain under-represented** in the digital economy, CONNECT will continue to tackle this challenge with a number of initiatives in the framework of the Commission's Gender Equality Strategy. CONNECT is overseeing the implementation of the ministerial declaration on women in digital where EU countries committed to develop national plans on increasing women's participation in the digital economy. Other actions are establishing an EU-wide Women in ICT day held in all EU countries; engaging the private sector, and monitoring progress through the Women in Digital Scoreboard, part of the Digital Economy and Society Index.

CONNECT will review, as part of the Commission global digital cooperation strategy, the key objectives of the Commission in **internet governance**, including how it contributes to improving global digital cooperation, promoting the EU values and policy framework and reforming the internet governance mechanisms. CONNECT, together with the European External Action Service, will contribute to the follow up to the recommendations of the Report of the High-level Panel on Digital Cooperation, which makes suggestions to the UN Secretary General on how to achieve the Strategic Development Goals through better digital cooperation. CONNECT will also continue its engagement on key internet governance priorities, including in the Internet Corporation for Assignment Names and Numbers (ICANN) community, such as the fight against Domain Name System (DNS) abuse, access to WHOIS registration data, and the next round of generic Top Level Domains (TLD).

As part of the implementation of the 2020 Security Union Strategy and 2020 Cybersecurity Strategy, CONNECT will deliver on a set of priorities in the area of internet security, resilience and openness: increasing the security and resilience of the DNS, including by developing autonomous European resolution capabilities in the context of the European Cloud (*CEF Digital*); reinforcing the security of the internet critical infrastructures (including through the review of the NIS Directive); ensuring the EU catches up on the adoption of world-class internet standards and protocols (e.g. IPV6, security standards); and taking a leading role in the international multistakeholder and standardisation communities in preserving the open, global and free internet. In the context of the response to the COVID-19 pandemic and beyond, CONNECT will continue its engagement in relation to the assessment of the resilience of the DNS and the fight against DNS abuse.

CONNECT will complete preparation for the application of the Regulation on the **implementation and functioning of the .eu top-level domain name** (TLD). The new .eu Registry will



be selected with a view to sign the contract by October 2021. In parallel, preparatory work will start to constitute the Multistakeholder Advisory Group that will advise the Commission on how to improve the organisation and management of the .eu TLD. CONNECT will also prepare an implementing act containing the lists of reserved and/or blocked .eu domain names by Member States.

As a follow-up of the Geo-blocking Regulation review report adopted on 20 November 2020, and in the context of the Media Action Plan adopted on 3 December 2020 CONNECT is conducting a **dialogue on access to content with the audiovisual industry** (producers, broadcasters, video on demand (VoD) services, distributors, etc.), consumers organisations and other interested parties, such as national film funds. The objective of the dialogue is agreeing on concrete steps to improve the access to and availability of audiovisual content by citizens across borders. The Commission will also monitor other aspects of Geo-blocking, notably related to parcel delivery, alongside this dialogue on access to content.

Topics identified as focus for our communication efforts under this objective are green digital and digital for green (by feeding digital stories related to green in the cooperate campaign for the Green Deal), the digital decade and circular electronics, spectrum, connectivity as well as the Digital Services Act.

Specific objective 5	Related to spending programme: Horizon Europe, Digital Europe
A cyber resilient Europe, promoting digital identities for all Europeans, while protecting their e-privacy	

The pandemic has accelerated our dependence on digital tools, as well as their vulnerabilities to attack, including on critical infrastructure. The growing reliance on digital technologies increases the potential attack surface for malicious actors. Moreover, strong protection of privacy and confidentiality of communications are indispensable elements for building trust in the digital economy. It is to address some of these issues that the Commission will work on the **implementation of the cybersecurity package**.

As part of the package, **revised EU cybersecurity strategy** includes strategic initiatives, such as the development of a network of Security Operations Centres across the EU (cyber shield), the establishment of a Joint Cyber Unit, new horizontal rules to improve cybersecurity of connected products in the internal market and new cybersecurity rules for the security of network and information systems of EU institutions, bodies and agencies.

The strategy accompanied the **revised Directive of the security of Network and Information Systems (NIS)**, whose negotiation and adoption will require the Commission’s support to co-legislators.

The strategy also lists key objectives and concrete actions to continue and deepen the EU coordination process on **5G cybersecurity**. Three key objectives have been identified: (1) ensuring further convergence in risk mitigation approaches across the EU, (2) supporting continuous exchange of knowledge and capacity building, and (3) promoting supply chain resilience and other EU strategic security objectives.

The **adoption of the first cybersecurity certification candidate scheme** through an implementing act is planned for 2021, further to the preparatory work of the European Union Agency for Cybersecurity (ENISA). A second cybersecurity certification scheme for cloud services may be also adopted in 2021. CONNECT works on the Union Rolling Working Programme for certification, and a possible request to ENISA to preparation other cybersecurity certification schemes.

CONNECT will continue to strengthen the Union cyber security technology and capacity building, focussing on *Horizon Europe* and *Digital Europe*. CONNECT will pursue its work to increase our capacity to protect the digital single market and work towards setting up the **European Cyber Security Competence Centre** following the political agreement by the co-legislators at the end of 2020.

CONNECT will also procure a Core Service Platform for cybersecurity certification under the Connecting Europe Facility program, aiming notably to link efforts from relevant CEF projects on certification and to support other types of cooperation. CONNECT will manage the platform in close coordination with ENISA.

The eIDAS Regulation created in 2014 the first public cross-border framework for electronic identity. There is wide support among Member States that the current system needs to be improved and that a state of the art, public and secure digital identification system should be developed. Following the review of the eIDAS Regulation in 2020, the **eIDAS Regulation will be revised** in 2021 to create a more effective and harmonized legal framework for digital identity and trust services in the EU by improving and extending the existing range of tools designed to enable businesses, citizens and public authorities to engage in secure and seamless interactions in the online world. In addition, CONNECT will work on a **European Digital Identity** which will be offered to citizens and businesses on a voluntary basis to authenticate across the internet and which allows to protect personal data an privacy online.



The Commission will soon propose a secure European e-identity. One that we trust and that any citizen can use anywhere in Europe to do anything from paying your taxes to renting a bicycle. A technology where we can control ourselves what data and how data is used.

President Ursula von der Leyen

With the 2017 proposal of the **ePrivacy Regulation** and the European Parliament position adopted in October 2017, CONNECT will continue working with the Council in view of

adopting a general approach. This will allow the negotiations to move to the trilogue stage, where the Commission will assist both co-legislators in adopting the Regulation.

The Commission proposed on 10 September 2020 an **interim Regulation on a temporary derogation from certain provisions of the ePrivacy Directive** as regards the use of technologies by number-independent interpersonal communications service providers for the processing of personal and other data for the purpose of combatting child sexual abuse online. The objective of the Regulation is to ensure that providers of certain online communications services, like webmail or messaging services, can continue voluntary measures for the detection, reporting and deletion of child sexual abuse online, provided that these measures are lawful. It is expected that the Regulation will be adopted in early 2021.

The EU's recovery strategy identified the digital transition of public administration as a key component. The *Recovery and Resilience Facility* flagship 'modernise' focuses on a European Digital Identity and the modernisation of key digital public services. By 2025, Member States should ensure the provision of a European digital identity (e-ID) and public administrations should be providing interoperable, personalised and user-friendly digital public services. Work started on a **renewal of the EU's digital government policy** Building on the eGovernment Action Plan 2016-2020, the Tallinn Declaration 2017-2022 and the declaration of Berlin of 8 December 2020 and in line with the call of the Council of 9 June 2020.

CONNECT's communication efforts will focus on cybersecurity and e-ID under this objective.

Specific objective 6	
A modern, open and pluralistic society in the digital age where online disinformation is countered and diverse cultural content is available to all Europeans	Related to spending programme: Horizon Europe, Creative Europe - Media, CEF – Digital, InvestEU

We have to protect our democracies against the menace of disinformation.

Commissioner Thierry Breton

CONNECT will continue to monitor the actions taken by the signatories of the Code of Practice on Disinformation to limit the impact of disinformation campaigns related to the pandemic, including disinformation related to COVID-19 vaccines. In line with the European Democracy Action Plan, CONNECT will prepare the guidance setting out how platforms and other relevant stakeholders should step up their measures to address the shortcomings identified in the assessment of the **Code of Practice on Disinformation**. Subsequently, CONNECT will call upon signatories and relevant stakeholders' groups to strengthen the Code of Practice according to the guidance.

The Commission will also set up a more robust framework for recurrent monitoring of the strengthened Code of Practice.

Six national hubs of the **European Digital Media Observatory (EDMO)** will be launched, enabling the development of a network of multidisciplinary teams of independent fact-checkers and academic researchers focussing on disinformation topics. *Digital Europe* will support the creation of new national hubs and the pilot project '*EU grants for small-scale online media: supporting high-quality news products and tackling fake news*' will finance research projects on disinformation. In addition, a call for proposals linked to new pilot projects of the European Parliament will be launched to finance actions addressing specific disinformation issues. Through *Horizon Europe*, CONNECT will continue to support the development of innovative services and tools to assess the veracity of text, images and videos online. Moreover, research and innovation actions will also develop new technological solutions to make social networks resilient to disinformation by design.

The Preparatory Action Media Literacy for All (2016-2020) will come to an end in 2021 but will be mainstreamed under *Creative Europe 2021-2027*. The new **media literacy actions** will prioritise the development of innovative pan European initiatives, tools and awareness raising activities to combat disinformation online. The Media Literacy Expert Group and the annual European Media Literacy Week will further support dissemination of good practice and amplify awareness raising activities across the EU. CONNECT will issue guidelines regarding the scope of Member States' reports on measures taken for the development of media literacy skills.

The self-regulatory work on disinformation will be supported by a broader regulatory initiative under the Digital Services Act, aiming to provide a new accountability and transparency framework, notably for large online platforms.

The 2019 **Directive on copyright in the Digital Single Market and the Directive on online television and radio programs** need to be transposed by Member States by June 2021. Their objective is to adapt the copyright rules to the digital world and enable the proper functioning of the digital single market. CONNECT will monitor the progress and continue to assist Member States in the transposition process.

Since autumn 2019, CONNECT has been organising, in cooperation with Member States, stakeholder dialogues to discuss best practices for cooperation of online content sharing service providers with right holders and will issue **guidance on the application of Article 17 of the Directive on copyright in the DSM**. In relation to the existing EU copyright framework, CONNECT will also work on a number of reports set out in several EU copyright instruments, including the Term of Protection Directive, the Collective Rights Management Directive, the so-called 'Marrakesh' Directive and the Portability Regulation.

On the international front, CONNECT will continue to participate and drive forward the copyright negotiations in the framework of World Intellectual Property Organisation, in particular regarding the Broadcasting Treaty.

CONNECT will prepare a report on the application of the **Orphan Works Directive**, in the light of the development of digital libraries. An external study will feed into the preparation of the report.

The **Creative Europe MEDIA Programme 2021-27** accompanies the Audiovisual Media Services Directive and provides for an increased budget of about 60%, together with significant changes in the way support is delivered, to address recent market developments, including the stronger position of global distribution platforms. The priorities of support will be to nurture skills and talent, foster innovative and quality content, enhance theatrical and online distribution and strengthen promotion of works with high circulation potential. More flexibility will be ensured in the actions to facilitate cooperation among the different parts of the audiovisual value-chain. New loan and equity instruments under InvestEU, combined as much as possible with the Recovery and Resilience Facility, will be launched for the creative and media sectors.

CONNECT will start implementing the Commission **Media and Audiovisual Action Plan** adopted on 3 December 2020, focusing on 10 actions with several measures which go beyond Creative Europe.

The Commission supports the availability and access to European news content through **Multimedia Actions**, which aim at providing citizens with information about European issues from pan-European points of view. Actions will be implemented further to a Commission decision on the **future of the cooperation of Euronews and the radio action**, taking into account the conclusions of a performance audit, previous internal assessments and external audits and evaluations, the Commission's political priorities and the available budget.

To facilitate the transposition of **the revised Audiovisual Media Services Directive**, CONNECT will continue working with experts in the Contact Committee and the European Regulators Group for Audiovisual Media Services (ERGA). Moreover, together with ERGA and other experts, and in dialogue with video-sharing platforms, CONNECT will develop a toolbox to improve users' awareness of the algorithmic selection of content.

The 2020 **Rule of Law Report** made it clear that journalists and independent media are crucial stakeholders in the upholding of the rule of law and highlighted a number of issues affecting media freedom and pluralism across the EU. Based on the European Democracy Action Plan, CONNECT will work on a recommendation concerning **safety of journalists**. CONNECT will also continue funding projects aiming at monitoring risks to media freedom and pluralism, providing legal and practical assistance to media actors facing threats, funding cross-border investigative journalism, supporting quality journalism in the EU, facilitating the mobility of young media professionals, supporting the activities of media councils, monitoring media ownership and supporting minority-language media.

The new strategy for **Europeana**, supports the digital transformation of Europe's cultural heritage sector for the period 2020-2025 and follows the recommendations of the Expert Group on Digital Cultural Heritage and Europeana to strengthen the infrastructure, improve data quality and build a solid capacity based on the needs of the sector.



Europeana will also contribute to the implementation of the Member State Declaration on advancing digitisation of Cultural heritage by further expanding its work on 3D content. Moreover, the new European Competence Centre for the conservation of cultural heritage will operate as a virtual infrastructure providing expertise, advice and services to cultural institutions using state-of-the-art technologies with a special focus on 3D technology, and working closely with Europeana. In addition, CONNECT works on the **revision of the Recommendation on the digitisation and online accessibility of cultural material and digital preservation**, following the evaluation of the Recommendation calling for a revised policy framework addressing the current challenges of the cultural sector and the need to better exploit opportunities brought by digital technologies.

CONNECT contributed to the updated **Digital Education Action Plan 2021-2027** and will support the overall digital transformation of education systems and high speed connectivity of schools. COVID-19 showed the Europe-wide differences in connectivity of schools and in access to online education, platforms, digital content and tools for students and educators. CONNECT will further contribute to the development of a European education ecosystem focussing on online teaching and learning; and support the development and launch of the European Student eCard core service platform, facilitating cross-border student mobility.

Further actions will be proposed to foster inclusion in the online world through the implementation of the existing legislation and funding to improve **web accessibility**. In addition, CONNECT will review the **Better Internet for Children strategy**, under the umbrella of the **upcoming comprehensive Strategy on the Rights of the Child**, which will also address the digital sphere, whilst continuing to support Safer Internet Centres and the BetterInternet4Kids platform, and to facilitate the Alliance to better protect minors online. For both actions, in 2021 CONNECT will conduct open public consultations. CONNECT will also prepare a Code of Conduct on Harmful Content to support the implementation of the Audiovisual Media Services Directive and enhance protection of minors online.

S+T+ARTS, innovation at the nexus of Science, Technology and the ARTS will continue to bring artists into digital R&D activities to promote art-inspired human-centred digital innovation and use experiments. This positions the arts firmly into a European approach to innovation rooted in European culture and values.

Our external communication will cover in particular fighting disinformation (including disinformation on 5G in cooperation with DG Communication, and disinformation related to COVID-19), digital literacy fostering equipping Europeans with the skills they need for life and work in the digital age, as well as the MEDIA programme.

PART 2. Modernising the administration: main outputs for the year

The internal control framework⁷ supports sound management and decision-making. It notably ensures that risks to the achievement of objectives are taken into account and reduced to acceptable levels through cost-effective controls.

CONNECT has established an internal control system tailored to its particular characteristics and circumstances. The effective functioning of the service's internal control system will be assessed on an ongoing basis throughout the year and be subject to a specific annual assessment covering all internal control principles.

The COVID-19 crisis posed challenges in a number of fields of CONNECT's administration, in particular on staff well-being and working conditions. The change in working conditions brought by this situation made CONNECT need to adapt to this reality to ensure the continuity of its administrative tasks.

A. Human resource management



In order to ensure the effective management of human resources and to optimise the capacity to deliver on priorities set out in its strategic plan, CONNECT will align its local human resources (HR) strategy with a medium to long-term perspective (3–5 years) in accordance with the overall corporate HR strategy.

While promoting diversity and inclusion principles, CONNECT is focusing efforts on supporting AD women for potential managerial careers. To this end, the DG will complement the corporate management development offer with targeted initiatives to build up a managerial pipeline of women. These targeted initiatives entail a career development programme with a 360° development component, internal mentoring programme and regular training and information sessions for women in pre-management functions.

An additional target due by end of 2022 was defined for all Directorates-General of the Commission in April 2020, in order to ensure equality at all management levels by end of 2024. For CONNECT, this translates into three additional first female appointments at middle management level due by end of 2022 (with two first female appointments to middle management posts already made in 2020). In addition, CONNECT will focus also on implementing the measures decided by the Commission to reinforce gender policy at all management levels (e.g. further focus on appointments of women to Deputy Head of Unit posts and designation of 55% female Heads of Unit to deputise for Directors).

⁷ [Communication C\(2017\)2373 - Revision of the Internal Control Framework](#).

CONNECT carefully analysed and followed up the outcome of the staff satisfaction survey launched by DG Human Resources and Security end of 2018. With a view to maintain a high level of staff satisfaction in the DG despite the many on-going human resources challenges, CONNECT Management Team endorsed a development plan, after having duly consulted staff.

CONNECT is also pursuing the 'We are CONNECT' staff engagement campaign to increase the sense of belonging to CONNECT and to ensure that colleagues are better aware of the DG activities and achievements. Particular attention is also given by CONNECT to maintain high levels of staff engagement despite the length of the confinement measures and the need to adapt to new working arrangements as a result of the COVID-19 crisis.

In accordance with the Commission's corporate policies, CONNECT will seek to enable learning & development with emphasis on the most relevant skills required by the new legislative and policy-making activities resulting from new political priorities to make Europe fit for the Digital Age. The annual learning and development needs analysis will also integrate the new set of skills required to adapt to the new working arrangements as a result of the COVID-19 crisis, to ensure that people are properly equipped to deliver on political and operational priorities and for career development.

As regards well-being, the outcome of the 2018 staff survey reflected an overall improvement of CONNECT's score and a recognition of efforts made in this area, which are being pursued in close cooperation with the Account Management Centre 3 and have been largely extended on the Beaulieu site, within the context of the corporate Fit@work programme. Additionally, the active Diversity and Inclusion Network – from July 2020 on chaired by a Director - regularly discusses topics of concern to staff and takes actions for improvement (e.g. annual diversity and inclusion days, working methods).

In this important transition period to the next Multiannual Financial Framework (MFF) 2021-2027, CONNECT will also closely monitor and follow-up on the resources implications stemming from the envisaged budget implementation modes as a result of the cost-benefit analysis to identify the most efficient mode of implementing programmes (in-house implementation or delegated implementation to other bodies). This entails a fair distribution of decreased staffing levels as a result of (partial) delegation of budget management to executive agencies and/or joint undertakings and a fair allocation of resources to cope with increasing workload on the policy front and on the in-house implementation activities in areas where budget is likely to increase, whilst exhausting all internal redeployment possibilities and exploring all possible internal efficiency gains.

Finally, organisation chart changes will enter into effect on 1 January 2021 to better align CONNECT's organisational structure with the political priorities of Commissioner Breton and the Commission priorities set out by President von der Leyen, taking into account the agreement on the Multiannual Financial Framework 2021-2027, including the new recovery instrument, while achieving further efficiency gains and improving the ways of working together internally. Expertise on important thematic digital topics will be pooled and made

available, as well as Country desks who will follow up on the necessary investments at national level to ensure the digital transformation and monitor the execution of the national Recovery and Resilience Plans. In parallel, the activities and staff of the two administration and finance units in Brussels will be merged.

In order to ensure the effective management of human resources and to optimise the capacity to deliver on priorities in this strategic plan, CONNECT will update by end of January 2021 its local HR strategy with a medium to long-term outlook (3–5 years) consistent with the overall corporate HR strategy.

Objective: CONNECT employs a competent and engaged workforce and contributes to gender equality at all levels of management to effectively deliver on the Commission’s priorities and core business

Main outputs in 2021:

Output	Indicator	Target
Gender balance in CONNECT	<ul style="list-style-type: none"> - Number of first female appointments to middle management positions - Number of women designated as Head of Unit and percentage (baseline: 15 (37%) on 01/12/2019) 	<ul style="list-style-type: none"> - 3 first female appointments for CONNECT by end of 2022 - Increase (>38%, >15)
Staff Engagement Index	Staff Engagement Index	Staff engagement index of 69% - in line with Commission average - at next Staff Survey
Close monitoring and management of job quotas / budget and careful assessment of replacements for every departure, in light of the operational and political priorities	Taxation targets met within the deadlines set by the budgetary authority	Staff reduction laid down in the 2021 allocation of establishment plan posts and the appropriations for external personnel
Learning & Development Strategy tailored to the skills/ competences/ knowledge required for the delivery of our operational and political priorities	L&D priorities to be adopted as part of the overall HR strategy for the DG	Endorsement by the Management Team of the 2021 L&D priorities

B. Sound financial management



CONNECT’s policies are implemented through several funding mechanisms: the new *Digital Europe* programme, the *Connecting Europe Facility - Digital*, the *Research Framework Programme for Research, Horizon Europe* and the *Creative Europe – Media* programme. 2021 marks the transition between the 2014-2020 and the 2021-2027 Multiannual Financial Framework (MFF) and CONNECT’s expenditure will relate to both the ongoing programmes and the new programmes.

The preparations for the implementation of the programmes, with the help of executive agencies and joint undertakings, are well advanced. Digital is an important building block of

the Recovery and Resilience Facility as part of NextGenerationEU with a minimum of 20% of expenditure to be invested in digital. CONNECT re-organised its services to be able to play its role in the implementation of the Facility.

For *Digital Europe*, CONNECT will start its implementation and will further develop the actions needed for the full implementation of the control strategy specially tailored for the programme. It is based on Commission’s best practices with a combination of ex-ante and ex-post control measures in order to ensure legality, regularity and sound financial management of the money invested. CONNECT will play a central role in working with the different services and bodies involved in the implementation of *Digital Europe* and securing the programme’s management.

In 2021, CONNECT will continue working on the development of the Commission’s performance framework and will participate in the ‘Cross-Sectional EU Budget Performance Indicators Pilot Project’.

CONNECT will also contribute to the work of the research family to identify and implement solutions to further lower the error rate of the research funds.

CONNECT supervises several executive agencies. It is also in charge of the Electronic Components and Systems for European Leadership (ECSEL), the EuroHPC Joint Undertaking and a specific body for Cybersecurity. CONNECT holds responsibility for the Assisted Living Joint Programme implemented by an association, the European Union Agency ENISA and the BEREC Office. The DG acts as the designated service under a delegation agreement with the European Investment Bank (EIB) in the context of the CEF Financial Instruments and under a delegation agreement with the European Investment Fund (EIF) for the Cultural and Creative Sectors Guarantee Facility.

Beside the results of the control efforts expressed in terms of error rates, the control outputs of CONNECT must also meet other legal requirements of the Financial Regulation, namely: time-to-grant (time elapsed between the call deadline and the signature of the grant agreement), time-to-inform (time elapsed between the call deadline and when applicants are informed of the outcome of the scientific evaluation) and time-to-pay. These constitute major performance indicators of the DG and respecting them contributes to the regularity of the operations.

Objective: The authorising officer by delegation has reasonable assurance that resources have been used in accordance with the principles of sound financial management and that cost-effective controls are in place which give the necessary guarantees concerning the legality and regularity of underlying transactions

Main outputs in 2021:

Output	Indicator	Target
Effective controls: Legal and regular transactions	Risk at payment	remains < 3.5% % of relevant expenditure
	Estimated risk at closure	remains < 3% of relevant

		expenditure
Efficient controls	Budget execution and / or time-to-pay	remains >95% of payment appropriations and remains > 95% of payments (in value) on time
Economical controls	Overall estimated cost of controls	remains < 4.5% for direct management and remains < 0.6% for the monitoring and the supervision of the entities entrusted with budget implementation tasks

C. Fraud risk management



CONNECT has developed and implemented its anti-fraud strategy since 2009, following the methodology provided by the European Anti-Fraud Office (OLAF). The strategy was last updated in February 2018 and will be updated again in 2021 based on the seven objectives mentioned in the new Commission Anti-Fraud Strategy. On that occasion, a new action plan will be developed.

CONNECT also follows and implements the Common Anti-Fraud Strategy in the Research Family and its action plan which were last updated in 2019. The implementation of the action plan is regularly monitored by the Steering Board and the Executive Committee of the Common Implementation Centre and the Fraud and Irregularities in Research (FAIR) Committee.

In view of the launch of the new *Digital Europe*, a dedicated fraud risk assessment will be performed in 2021 with a view to develop a fraud risk profile for the programme or at least areas of the specific areas of the programme.

Fraudulent cost claims in grant agreements is the main sectorial fraud risk. In order to tackle this risk, CONNECT is part of the Fraud and Irregularities in Research Committee, the main platform of coordination between the research family members in the field of anti-fraud. The Committee's action is complemented by the local antifraud correspondents' working meetings and a common anti-fraud training and common tools (guidance, IT developments). The introduction of a similar working group for the *Digital Europe* Programme will be considered.

CONNECT will continue to implement awareness campaigns and deliver training on anti-fraud topics, especially related to grant management.

The COVID-19 pandemic has pushed the EU Institutions to enable the EU budget to support the response to the crisis, adding the necessary resources and flexibility in using them. New fraud patterns emerged. CONNECT will continue monitoring the risk of fraud and, where needed, define and implement new risk mitigating measures.

In terms of relations with other stakeholders, CONNECT will continue the good cooperation with the others members of the Research Family and will work closely with DG Budget, Legal Service, Secretariat-General and OLAF in order to notify all fraud suspicions identified and to implement all the recommendations.

CONNECT has entrusted parts of its budget to executive agencies, two Joint Undertakings, the European Investment Bank (EIB), a specific body for Cybersecurity, subject to final approval of the Commission proposals by the co-legislators, and to the Active and Assisted Living Association pursuant to Article 185 of the Treaty on the Functioning of the European Union. The DG is a parent DG of two regulatory agencies (ENISA and BEREC Office). In all these cases, the supervision arrangements are based on the principle of controlling 'with' the relevant entity.

Objective: The risk of fraud is minimised through the application of effective anti-fraud measures and the implementation of the Commission Anti-Fraud Strategy (CAFS)⁸ aimed at the prevention, detection and correction⁹ of fraud

Main outputs in 2021:

Output	Indicator	Target
Implementation of the anti-fraud strategies (Research Anti-Fraud Strategy, CONNECT)	% of implementation of actions planned in the anti-fraud strategies	100%
Participation in the Fraud And Irregularities in Research Committee	Number of meetings	2
Fraud risk awareness raising training and similar anti-fraud training	% of newcomers trained (=staff involved in procurement and grant management for less than 2 years).	90%
Revised anti-fraud strategy	Adoption of the revised anti-fraud strategy by CONNECT	Q4 2021
Cooperation with OLAF	Participation in the Fraud Prevention and Detection Network meetings	Participation in all Network meetings
Use of the anti-plagiarism tool	Number of requests to use the anti-plagiarism tool	More than 8 requests

⁸Communication from the Commission 'Commission Anti-Fraud Strategy: enhanced action to protect the EU budget', COM(2019) 176 of 29 April 2019 – 'the CAFS Communication' – and the accompanying action plan, SWD(2019) 170 – 'the CAFS Action Plan'.

⁹Correction of fraud is an umbrella term, which notably refers to the recovery of amounts unduly spent and to administrative sanctions.

D. Digital transformation and information management



Most of CONNECT policies and regulations heavily rely on data, information and knowledge: from supporting broadband infrastructures to fostering digital skills, from funding research and innovation, to regulating the internet and media. Data, information and knowledge are therefore critical assets for the DG.

All this is being organised and managed in the framework of the implementation of the European Commission Digital Strategy and, in particular, the Digital Solution Modernisation Plan. CONNECT has actively participated in the development of this strategy focussing in particular on four key priorities, namely: the right to innovate; stakeholder engagement; paperless organisation; data for policy.

An additional element that will play a key role in steering the implementation of digital transformation will be the consolidation of lessons learnt, good practices and new initiatives resulting from the long lasting COVID-19 crisis including the new HR strategy (by Q1 2021) and the rolling out of the Recovery and Resilience Facility.

CONNECT participated, via the Local Data Correspondent, in the first wave of DGs to create an inventory of its data assets and will complete and review its data inventory according to the revised template. CONNECT will achieve further compliance with the strategic principles of the Commission's Data Strategy including the nomination of data stewards for each dataset and improve the availability of metadata. CONNECT will analyse the impact for the Commission of the recent proposal on a Data Governance Act, in particular as regards high value datasets.

CONNECT will continue to offer its experience in implementing solutions for advanced data analytics and business intelligence (like DORIS toolkit or Stakeholder Relationship Management).

The COVID-19 crisis and the sudden teleworking arrangement for all colleagues have shown how important is to ensure high quality connectivity, well-performing portable IT equipment and, last but not least, easy access to secure collaboration tools and video/web-conference systems. In this regard, CONNECT own video/web-conference infrastructure plays a key role in supporting business continuity.

CONNECT has a data analytics capacity to serve internal needs, for instance to process large quantities of stakeholder feedback data. This capacity will be enhanced to cover the new *Connecting Europe Facility - Digital, Horizon Europe* and *Digital Europe* programme. CONNECT will continue cooperating also with other DG on using more and advanced technologies.

As regards collaborative working, CONNECT encourages the use of the collaborative intranet CONNECTED, SharePoint and the Microsoft 365 pilot.

Processes for document management follow and apply corporate rules, procedures and practices. The Document Management Officer (DMO) regularly informs and reminds the DG colleagues on rules, procedures and practices. The network of Document Management Correspondents acts as a bridge between the DMO and the services. With the dual role as CAD-team leader (Centre d'Administration des Documents), the DMO ensures that the individual services implements the rules, procedures and practices.

Lastly, the new priorities of the Commission and the involvement of CONNECT in policies (Foreign Direct Investment Screening, Cybersecurity, Data, etc.) will require highly secure communication infrastructure and staff with security skills and expertise. In this regard, CONNECT will continue to cooperate closely with DG Internal Market, Industry, Entrepreneurship and SMEs and DG Defence Industry and Space on establishing an information security plan based on common principles as well as on creating a shared information security culture.² On the secure communication tools' side, in the course of 2021 CONNECT will be equipped with secure (SUE) terminals to digitally access classified documents.

Data Protection

CONNECT will continue working on the implementation of the Commission's Data Protection Action Plan, including its recently adopted review. Furthermore, the operational controllers will ensure the completion of new records, together with the corresponding Privacy Statements, for those cases where new processing activities are identified. This task also includes informing the Data Protection Officer when a processing activity conducted in CONNECT should be addressed at corporate level in terms of record keeping.

The implementation of the new data protection rules requires a change of culture to ensure proper accountability. A digitally transformed and data-driven Commission goes hand in hand with enhancing Commission staff's data protection knowledge. For this reason, different awareness raising activities will be conducted, including targeted advice to the operational controllers, as well as two general trainings on data protection to be organised for CONNECT staff members in 2021.

Objective: CONNECT is using innovative, trusted digital solutions for better policy-shaping, information management and administrative processes to forge a truly digitally transformed, user-focused and data-driven Commission

Main outputs in 2021:

Output	Indicator	Target
Implementation of the digital strategy principles by the most important IT solutions ¹⁰	% of implementation of actions planned in	30%

¹⁰ The European Commission Digital Strategy (C(2018)7118) calls on Commission services to digitally transform their business processes by developing new innovative digital solutions or make evolve the existing ones.

	digital modernisation fiches	
Implementation of corporate principles for data governance to key data assets Development of a comprehensive Information Security Plan that can be used as the basis for operationalising the relevant information security policy within CONNECT.	% implementation to key data assets Production of the Information Security Plan	30% Q4 2021
Adoption of records for new data processing activities	% of identified new data processing operations	100%
Organisation of 2 general data protection trainings	% of staff members trained	Increase of 20% of staff trained

E. Sound environmental management



CONNECT has put in place and actively implements a series of actions which aim to contribute to the Commission's objective of reducing its environmental footprint and to become climate neutral by 2030. Guided by the Eco-Management and Audit Scheme (EMAS), the DG envisages to continue to use the Green@CONNECT space to further promote a number of internal (e.g. optimisation of electricity use, waste management, paperless ways of working) and corporate initiatives (such as VeloMai and Volunteer for a Green Change) to improve staff awareness on how daily actions, inside and outside of workplace, can benefit the environment.

In addition to the promotional activities and initiatives directly targeted to staff, CONNECT will continue to participate in the end-of-the-year energy saving action, as a symbol of the collective effort to decrease its environmental footprint.

Furthermore, the CONNECT University, a powerful knowledge-sharing initiative where cutting-edge technologies placed high on the political agenda are presented, will organise in-depth training sessions on 'Digital4Sustainability'. The CONNECT University Summer School 2021 will focus on 'digital for the planet', exploring the ways digitalisation can help sustainability and how digital innovation and solutions can contribute to tackle climate change.

CONNECT will provide input and will closely follow the development of corporate guidance for the strategy for the greening of the Commission as an administration. Finally, CONNECT will continue to foster a 'green-culture' inside the DG by stimulating the use of environmental friendly means of transportation and by facilitating the use of IT solutions for meetings.

Objective: CONNECT takes full account of its environmental impact in all its actions and actively promotes measures to reduce the related day-to-day impact of the administration and its work

Main results and outputs in 2021:

Output	Indicator	Target
<p>Promotion campaign for various EMAS initiatives:</p> <ul style="list-style-type: none"> - optimal energy use, 'switching off, when not in use'; - optimal waste management and reducing the overall digital footprint - paperless working methods (such as paperless working: e-signatories, financial circuits, collaborative working tools) - use of 'green items' from EC office supplies' catalogue 	Number of promotion campaigns	4
Participate in the end-of-the-year energy saving action, by closing down DG buildings during the end-of-year period	Both CONNECT Brussels buildings participating in the action	Reduction in total energy consumption
CONNECT University training sessions with relevance to sustainable development, VeloMai, Volunteer for a Green Change, etc. via Green@CONNECT	Number of CONNECT University training sessions and promotion campaigns	4
Increase the number of staff that uses alternative means of transport for their commute	Place chargers for e-bikes in all CONNECT-buildings.	BU25: from 1 to 4 BU33: from 0 to 2 EUFO: from 0 to 2
	Increase the number of bicycle parking places.	+20% in each building
Finalisation of the application of the COBRACE environmental regulation in the BU25 parking	Placing delimitation equipment; deciding the programming of the access system; signposting; information campaign	28% decrease of parking capacity for CONNECT staff in BU25. This capacity will become available as Park & Ride places for colleagues in the centre
To avoid staff travelling to the office only for a group meeting during a telework-day: facilitate easier and immediate teleconferencing connectivity in meeting rooms	Simplifying the connectivity in meeting rooms to ensure simple plug and play teleconferencing from the personal laptop while using the screens, camera's and sound of the meeting room	80% of all CONNECT meeting rooms

F. Example(s) of initiatives to improve economy and efficiency of financial and non-financial activities

The *Digital Europe Programme* structure and implementation focus on achieving the objectives in an effective and efficient manner while minimising the cost of the setting up. More specifically, CONNECT will directly implement actions for certain areas e.g. artificial intelligence in order to benefit from the existing in-house specialised resources whereas other parts of the programme, for further efficiency gains and programme implementation synergies, will be managed by other implementing bodies i.e. an executive agency, a Joint Undertaking for High Performance Computing and a specific body for cybersecurity, subject to final approval of the Commission proposals by the co-legislators and in compliance with the procedure foreseen for renewal of joint undertakings.

With the same aim, a toolkit of available instruments that already proved their efficiency will be used to implement the programme. The DG is also considering the use of further simplification modalities provided by the Financial Regulation (e.g. wider use of lump sums and simplified forms of grants).

The DG sought the simplest, most effective and economical implementation solutions, ensured alignment with other programmes, while appropriately responding to the specific needs of *Digital Europe*.

ANNEX: Performance tables

General objective: A Europe fit for the Digital Age		
Specific objective 1: Europe's strategic autonomy is ensured in critical technology areas		Related to spending programme(s): Horizon 2020, Horizon Europe, Digital Europe and CEF - Digital
Main outputs in 2021:		
Other important outputs		
Output	Indicator	Target
Establishment of the Smart Networks and Services Joint Undertaking with at least EUR 900 million EU funding for 6G R&I under Horizon Europe	Council Regulation adoption, final industry commitment	Q3 2021
Preparation of 5G deployment for Connected along cross border corridors	Launch of the first call under CEF2 for feasibility studies as basis for first corridor deployment projects to be launched in 2022.	Q4 2021
Deployment of first use cases of the European Blockchain Services Infrastructure.	The first sets of reusable software, specifications and services are operational on EBSI nodes in MS.	Q1 2021
Amendment of the Council Regulation establishing the EuroHPC Joint Undertaking	Adoption of the Council Regulation	Q1 2021
Launch of implementation of Destination Earth initiative	Signature of Contribution Agreements to implement the core platform and the first Digital Twin(s) of the Destination Earth initiative	Q1/Q2 2021
Emerging Technologies: Launch of the next phase of the Quantum Flagship, the Graphene Flagship, the Human Brain Project and the Future Battery Technologies initiatives.	Adoption of Horizon Europe – Work Programmes 2021-2022	Q1 2021
EuroQCI initiative	Launch of the first calls under the Digital Europe Programme (initial deployment) and Connecting Europe Facility (cross-border linking of national quantum communication infrastructures)	Q1 2021
Digital Europe Work Programme 2021-22	Adoption by the Commission	Q1 2021
Digital Europe Programme calls for proposals	Timely launch of the calls	Q1/Q4 2021

Horizon Europe Work Programme 2021-22	Adoption by the Commission	Q1 2021
Horizon Europe calls for proposals	Timely launch of the calls	Q2/Q3/Q4 2021
Connecting Europe Facility Digital Work Programme for 2021-2023	Adoption by the Commission	Q1 2021

External communication actions

Output/ Result	Indicator	Target
Citizens having awareness of policy initiatives via our specific digital tools*	Number of unique browsers (visitors)	Yearly median 10,000 unique browsers per day by 31/12/2021 (baseline: yearly median 9646 unique browsers per day - counted for the period 01/01-28/10/2020 when data was available)
	Number of subscribers to newsletters	Total of Newsroom subscription for newsletters 330000 by 31/12/2021 (baseline for 2021: total of Newsroom subscription for newsletters 313370 - counted for the period 01/01-28/10/2020 when data was available)
Citizens having awareness and engaged via CONNECT's social media presence on the main used platforms (Facebook, Twitter, Instagram) *	Number of followers/fans/interactions	<p>Twitter followers: increase the baseline by 2% to 5% (baseline: 96.000).</p> <p>Twitter engagement: increase the community engagement (baseline: 4000 average interactions per month)</p> <p>Facebook engagement: maintain the basis (baseline: 800 average interactions/month)</p> <p>Facebook Digital Single Market Fans: maintain the basis (baseline: 33161)</p> <p>Instagram followers: increase the basis by 10% (baseline: 4660), interactions and develop a coherent approach.</p>

Web and social media indicators for external communication are cross-cutting through all strategic objectives (marked with *)


General objective: A Europe fit for the Digital Age

Specific objective 2: A European single market for data where data can flow for the benefit of all and where the rules for access and use of data are fair, practical and clear

Related to spending programme(s): Horizon Europe and Digital Europe Programme

Main outputs in 2021:

New policy initiatives

Output	Indicator	Target
 ¹¹ Data Act (including the revision of the database Directive)	Adoption by the Commission	Q3 2021
Implementing act (Regulation) on high value data sets	Adoption by the Commission	Q1 2021

Public consultations

Output	Indicator	Target
Open Public Consultation for the Data Act	Completion of the public consultation	Q2 2021

External communication actions

Output/ Result	Indicator	Target
For the cross-cutting external communications actions see rows 1 and 2 of the table of outputs of specific objective 1 (marked with *)		


General objective: A Europe fit for the Digital Age

Specific objective 3: Artificial intelligence that is human-centric, ethical, sustainable and that respects EU values

Related to spending programme(s): Horizon 2020, Horizon Europe and Digital Europe

Main outputs in 2021:

New policy initiatives

Output	Indicator	Target
 Proposal for a Regulation laying down requirements for Artificial Intelligence ¹²	Adoption by the Commission	Q1 2021 PLAN/2020/7453
Revision of the Coordinated Plan on Artificial Intelligence	Adoption by the Commission	Q1 2021 PLAN/2020/8101

External communication actions

¹¹ Items signaled with this symbol are from the Commission work programme 2021 (COM(2020) 690 final) or the adjusted Commission work programme 2020 (COM(2020) 440 final).

¹² Part of Adjusted 2020 Commission Work Programme under A European approach to Artificial Intelligence.

Output/ Result	Indicator	Target
3 rd European AI Assembly	Number of participants	300-350 if in-situ 800-1000 if online
For the cross-cutting external communications actions see rows 1 and 2 of the table of outputs of specific objective 1 (marked with *)		
Other important outputs		
Output	Indicator	Target
Public-Private Partnership in AI, Data and Robotics	Launch of the PPP	Q1 2021




General objective: A Europe fit for the Digital Age

Specific objective 4: *A fair, competitive and resource efficient digital economy*

Related to spending programme(s); Horizon 2020, Horizon Europe, Digital Europe and CEF - Digital

Main outputs in 2021:

New policy initiatives

Output	Indicator	Target
 Communication on Europe's Digital Decade: 2030 Digital Targets	Adoption by the Commission	Q1 2021
 Review of the roaming regulation ¹³	Adoption by the Commission	Q1 2021 PLAN/2020/6784
 Circular Electronics Initiative (CEI)	Adoption by the Commission	Q4 2021
A toolbox of best practices to speed up network roll-out and coordinate radio spectrum assignment	Development and agreement by the Member States of a common Union toolbox	Q2 2021 C(2020) 6270
Commission Recommendation on regulatory incentives for investments in very high capacity networks in line with the Electronic Communications Code	Adoption by the Commission	Q4 2021 PLAN/2020/7980
Commission Proposals for Regulations on the Digital Services Act and Digital Markets Act	Positions of the co-legislators adopted	Q4 2021 2020/0374 (COD) and 2020/0361 (COD)

Public consultations

Output	Indicator	Target
Open Public Consultation for the review of the Broadband Cost Reduction Directive	Completion of the public consultation	Q1 2021
Targeted survey as input for the updated strategy for 5G and 6G	Input from at least 100 EU stakeholders	Q1 2021

¹³ Initiative included in Adjusted 2020 Commission Work Programme under Digital for consumers.

External communication actions		
Output/ Result	Indicator	Target
Digital Assembly 2021	Number of participants	Over 1500
Digital Day 2021	Number of participants	Over 450
Leading the Digital Age: Digital Europe Programme	Number of participants	Over 500
For the cross-cutting external communications actions see rows 1 and 2 of the table of outputs of specific objective 1 (marked with *)		
Other important outputs		
Output	Indicator	Target
5G spectrum assignments in Member States	Share of 5G spectrum in pioneer bands assigned	700 MHz: 89.6% (Q4 2021) 3,6 GHz: 96.2% (Q4 2021) 26 GHz (1GHz): 68.1% (Q4 2021)
Commission Decision on '5G-ready' harmonisation of the 900 MHz and 1800 MHz frequency bands which repeals and replaces Decision 2009/766/EC (5G spectrum roadmap)	Adoption by the Commission	Q4 2021
Amendment of Commission Decision 2005/513/EC on the harmonised use of radio spectrum in the 5GHz frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANS) following WRC-19	Adoption by the Commission	Q4 2021
Implementing Decision on the harmonisation of the technical conditions of use of the 6 GHz frequency band for radio local area networks (RLAN)	Adoption by the Commission	Q1 2021
Amendment of Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices (8th update)	Adoption by the Commission	Q3 2021
Amendment of Decision (EU) 2018/1538/EU on short-range devices in the 874-876 and 915-921 MHz bands	Adoption by the Commission	Q3 2021
Commission Implementing Decision on harmonised radio spectrum for the Future Railway Mobile Communication System	Adoption by the Commission	Q3 2021
Blueprint on Smart and Sustainable Cities and Communities data spaces	Adoption by cities	Q4 2021, at least ¼ of the Signatories of the Living-in.eu cities
Procedural Recommendation for the Internal Market procedures under the	Adoption by the Commission	Q1 2021

European Electronic Communications Code		
Selection of the entity designated as the new .eu Registry	Signature of the contract	Q4 2021


General objective: A Europe fit for the Digital Age

Specific objective 5: A cyber resilient Europe, promoting digital identities for all Europeans, while protecting their e-privacy

Related to spending programme(s): Horizon Europe and Digital Europe

Main outputs in 2021:

New policy initiatives

Output	Indicator	Target
 Digital Identity Act (and revision of the eIDAS Regulation)	Adoption of a proposal by the Commission	Q1 2021 PLAN/2020/8518
Commission recommendation on the deployment of the European Digital Identity	Adoption by the Commission	Q1 2021
Determine the process, milestones and timeline for establishing the Joint Cyber Unit	Adoption by the Commission	Q1 2021
Revised Directive on security of network and information systems (NIS Directive) (legislative, incl. evaluation report, public consultation and impact assessment)	Adoption by the co-legislator	Q4 2021
Communication on EU Digital Government policy	Adoption by the Commission	Q4 2021

Evaluations and fitness checks

Output	Indicator	Target
Evaluation of the eIDAS Regulation	Completion of the evaluation	Q1 2021
Impact assessment of the European Digital Identity act	Completion of the impact assessment	Q1 2021

External communication actions

Output/ Result	Indicator	Target
For the cross-cutting external communications actions see rows 1 and 2 of the table of outputs of specific objective 1 (marked with *)		

Other important outputs

Output	Indicator	Target
Proposal for a Regulation establishing the European Cybersecurity Industrial, Technology and Research Competence Centre and the Network of National Coordination Centres]	Adoption by the co-legislator	Q1 2021
	First recruitments	Q3/Q4 2021

Core Service Platform for cybersecurity certification	Tender contract signed	Q3 2021
Cybersecurity certification scheme on common criteria	Implementation Act adopted by the Commission	Q2 2021
Cybersecurity certification scheme on cloud services	Implementation Act adopted by the Commission	Q3/Q4 2021
Actions on 5G cybersecurity listed in the annex of the EU's Cybersecurity Strategy for the Digital Decade	Implementing the proposed actions on 5G cybersecurity in the annex of the Cybersecurity Strategy	2021
Amendment of the Commission Implementing Decision (EU) 2015/1506 of 8 September 2015 laying down specifications relating to formats of advanced electronic signatures and advanced seals to be recognised by public sector bodies	Adoption by the Commission	Q2 2021
Amendment of the Commission Implementing Decision (EU)2016/650 of 25 April 2016 laying down standards for the security assessment of qualified signature and seal creation devices	Adoption by the Commission	Q2 2021

General objective: A Europe fit for the Digital Age

Specific objective 6: A modern, open and pluralistic society in the digital age where online disinformation is countered and diverse cultural content is available to all Europeans

Related to spending programme(s): Horizon Europe, CEF - Digital and Creative Europe Media, InvestEU


Main outputs in 2021:

New policy initiatives

Output	Indicator	Target
Commission Recommendation on Safety of Journalists	Adoption by the Commission	Q4 2021
Guidance for the revision of the Code of Practice on Disinformation	Adoption of the Guidance by the Commission	Q2 2021

Initiatives linked to regulatory simplification and burden reduction

Output	Indicator	Target
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 Revised Recommendation on the Digitalisation and online accessibility of cultural material and digital preservation ¹⁴	Adoption by the Commission	Q2 2021
Public consultations		
Output	Indicator	Target
Open Public Consultation in the context of the evaluation to review the application of the Web Accessibility Directive	Completion of the Public Consultation	Q3 2021
Open Public Consultation in the context of the Better Internet for Children Strategy under the umbrella of the comprehensive Rights of the Child strategy	Completion of the Public Consultation	Q3 2021
External communication actions		
Output/ Result	Indicator	Target
For the cross-cutting external communications actions see rows 1 and 2 of the table of outputs of specific objective 1 (marked with *)		
Other important outputs		
Output	Indicator	Target
Creative Europe - Media Work Programme for the period 2021-2022	Adoption by the Commission	Q1 2021
Under InvestEU new investment products for the creative and media sectors will be launched, both loan and equity instruments.	Delegation to the EIF of new investment products	Q4 2020
Audiovisual Media Services Directive (AVMSD) guidelines regarding the scope of Member States' reports on measures taken for the development of media literacy skills	Adoption by the Commission	Q4 2021
AVMSD toolbox to improve users' awareness of the algorithmic selection of content	Adoption by the Commission	Q4 2021

¹⁴ Initiative included in Adjusted 2020 Commission Work Programme, Annex II, number 22.