Targeted Consultation on the 2030 Digital Compass

Introduction

The COVID-19 pandemic has changed the role and perception of digitalisation in our societies and economies, and accelerated its pace. Digital technologies are now imperative for working, learning, entertaining, socialising, shopping and accessing everything from health services to culture. The EU needs to ensure that this transformation is based on digital leadership and technological excellence, guided by our shared European values, and advances in a way that benefits all people and businesses.

What is the Digital Compass?

On 9 March 2021, the European Commission published a Communication on the 2030 Digital Compass to present a clear vision and path towards a human-centred, sustainable and more prosperous digital future. The vision revolves around four cardinal points with specific targets for each:
(1) a digitally skilled population and highly skilled digital professionals,
(2) secure and performant sustainable digital infrastructures,
(3) the digital transformation of businesses, and
(4) the digitalisation of public services.
To deliver this vision, the Commission proposes a Digital Compass in the form of a policy programme to be adopted by co-decision of the European Parliament and Council. The Digital Compass will include:

- A set of **common EU digital targets** for 2030, with key performance indicators for each of the four cardinal points.
- A **robust governance structure** including a monitoring mechanism and annual reporting to assess progress towards the targets through a score of 'traffic lights'; a collaborative analysis between the Commission and Member States to address identified gaps through joint commitments and targeted actions at European and/or national level; as well as a stakeholder forum to involve economic and societal actors in the governance process.
- A mechanism to operate and deploy **Multi-Country Projects** for building Europe's strategic capacity in critical areas.

For more information, please consult the Digital Compass webpage.
We also invite you to participate in the ongoing public consultation on a set of European Digital Principles, which will be proposed in the form of a joint interinstitutional solemn declaration as the second major initiative following from the Digital Compass Communication.

What is the purpose of this consultation?

This questionnaire seeks to collect views from citizens, the business community (particularly SMEs); Member States and public authorities; local, economic and
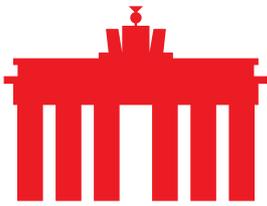
social partners; as well as other digital stakeholders from research/academia and civil society. It is divided into four sections to gather feedback and input on the following key elements of the Digital Compass Communication:

1. Overall need and vision for accelerating EU's digital transformation
2. Approaches for reaching the 2030 targets for each cardinal point
3. Design of the governance framework
4. Mechanism to facilitate the development and implementation of Multi-Country Projects

Your contribution to this consultation will be used to prepare a policy programme and pave the ground for a smooth and effective achievement of the Digital Decade objectives.

How can I participate?

The survey is open from 22 June to 3 August. You can save your contribution as a draft to complete and submit at any time before the closing date. You can answer all 71 questions or select and skip questions according to your knowledge and interest.

I. Accelerating the Digital Transformation

This section features general questions about the need and vision for accelerating EU's digital transformation in the context of the COVID-19 pandemic. It is targeted at all stakeholder groups.

1) To what extent do you agree with the following statements?

The COVID-19 pandemic has…	Strongly agree	Agree	Neutral	Somewhat disagree	Strongly disagree
…demonstrated a need to accelerate the pace of digital transformation in Europe.	x				
…exposed vulnerabilities of our digital space linked to our dependency on non-European technologies.			x		
…highlighted a need for a substantial increase of investments through all relevant EU funds and national spending to develop critical technologies.		x			
…showed that achieving digital sovereignty by building our own technological capacities is		x			

crucial for strengthening the EU's resilience.				
…exposed a digital divide between people who can fully benefit from a digital space with a full range of services, and those who cannot.	x			
…exposed a digital divide between those businesses already able to leverage the full potential of the digital environment and those not yet fully digitalised.	x			
…emphasized the importance of ensuring that everyone in Europe fully benefits from the digital transformation.	x			
…highlighted the need to increase the EU's role for coordinating the digitalisation efforts of Member States	x			

If you would like to present additional comments or views on the impact of the COVID-19 pandemic on digitalisation in the EU, please add:
500 character(s) maximum

> **The experience with the Covid19 pandemic has shown the importance of the digital transformation for businesses and people. Also, dependencies in the economy have outlined but it should be noted that the existing digital infrastructures e.g., networks, data centres and internet exchange points, have provided their services. To close existing gaps, investments in the expansion of digital infrastructures needs to be strengthens and the framework conditions must be improved.**

2) To what extent has the COVID-19 pandemic altered your/your organisation's need for and reliance on each of the following elements?

	Decreased	No change	Increased	Strongly increased
A digitally skilled population (i.e., citizens with at least basic digital skills)			x	
Highly skilled digital professionals			x	
Secure, performant and sustainable digital infrastructures			x	

Digital products, tools, and services			x	
Digital public services			x	

If you would like to present additional comments or specifications, please add:
500 character(s) maximum

3) In your opinion, how important are the following elements for accelerating EU's digital transformation?
Please rank on a scale of 1-5 (1 = most important, 5 = least important).

	1	2	3	4	5
A digitally skilled population and highly skilled digital professionals	x				
Secure, performant and sustainable digital infrastructures	x				
Digital transformation of businesses	x				
Digitalisation of public services	x				
An EU governance framework to enable close cooperation and coordination between the Commission and Member States, with the objective of adopting recommended actions including joint commitments		x			
A framework for accelerating the implementation of Multi-Country Projects, i.e., projects that aim to mobilise and combine investments from the EU budget, Member States and the private sector to achieve digital goals	x				

If you would like to include another element or present additional comments, please add:
500 character(s) maximum

The digital transformation in all areas is one of the keys for the green deal. A European approach to accelerate Multi-Country Projects should not compromise launched projects. For example, the Important Project of Common European Interest (IPCEI) next generation of cloud infrastructures and services in Europe. The IPCEI aims to improve scalability, interoperability and reliability in digital ecosystems but will also generate energy savings in course of local data processing.

4) In your view, how important is progress in each of the areas below for realizing the EU's commitment to reduce greenhouse gas emissions by at least 55% by 2030?
Please rank on a scale of 1-5 (1 = most important, 5 = least important).

	1	2	3	4	5
A digitally skilled population and highly skilled digital professionals		x			
Secure, performant and sustainable digital infrastructures		x			
Digital transformation of businesses		x			
Digitalisation of public services		x			

If you would like to present additional comments or views, please add:
500 character(s) maximum

Digital technologies will contribute significantly to achieve the climate goals. To achieve this, target-oriented digitisation is essential, because digital technologies and infrastructures contribute significantly to sustainable digitisation. Therefore, topics like efficiency-based programming of software (green coding) and a European approach for sustainable digital infrastructures should be developed. The approach should consider that data centres differ in their business models.

5) In addition to the cardinal points and targets that have been identified in the Digital Compass Communication, which additional elements would you consider relevant for achieving a successful digital transformation?
2000 character(s) maximum

To achieve the targets of the Digital Compass and to ensure a successful digital transformation, common concepts, approaches and, if necessary, standards must be developed. Interoperability, portability and user-friendliness should always be considered for successful digitalisation between competent authorities, the economy and the population. The awareness to strengthen digital skills must also be raised, and appropriate measures must be taken.

6) In your view, which opportunities can an accelerated European digital transformation create for you/your organisation?
500 character(s) maximum

7) How do you view your/your organisation's role in accelerating the digital transformation and reaching the 2030 targets?
500 character(s) maximum

> **To exploit the potential of a digital and sustainable transformation, eco supports an accelerated and targeted transformation path. The requirements are a functioning digital ecosystem of energy-efficient data centres, gigabit and 5G networks ~~available nationwide~~, cloud-based applications and energy-efficient programmed software. In cooperation with members and partners, we work on central issues of digitalisation and get involved in research and development projects.**

II. Reaching the 2030 Targets

The Digital Compass sets out targets along four cardinal points. The first two cardinal points focus on digital capacities in the area of skills and infrastructures, and the other two focus on digital transformation of businesses and public services.

The questions in this section are targeted at stakeholders with expertise in any or all of the four areas. You can skip sections and questions according to your specific knowledge and interest. If you are contributing as representative of a start-up or small-to-medium-sized enterprise, please pay special attention to the questions in subsection IIc.

IIa) A digitally skilled population and highly skilled digital professionals

Europe needs digitally empowered and capable citizens, a digitally skilled workforce and way more digital experts than today. Basic digital skills for all citizens and the opportunity to acquire specialised skills in information and communications technology (ICT) for the workforce are a prerequisite to participate actively in the Digital Decade.

8) In your opinion, how challenging will it be to achieve the proposed EU targets by 2030?
Please rank on a scale of 1-5 (1=not challenging at all, 5= very challenging).

2030 EU Targets	1	2	3	4	5
80% of all adults have at least basic digital skills (2020: 58,3%)				x	
At least 20 million employed ICT specialists in the EU (2019: 7.8 million)					x
Convergence between the number of female and male ICT specialists (2020 share of women among employed ICT specialists: 18%)					x

9) In your experience, what are the biggest barriers and bottlenecks regarding progress towards a digitally empowered citizenry, a digitally skilled workforce and more digital experts?
500 character(s) maximum

To strengthen digital skills, the education system must be focused on the lifelong learning approach. Knowledge of digital media and technologies should be integrated at all levels of school education and be understood as an integral part of individual continuing education. In order to counteract demographic change and the existing shortage of skilled workers in the internet economy, framework conditions (compatibility of work and family) should be improved.

10) What are the main difficulties (if any) you encountered while trying to improve your digital skills, both at a basic and a more advanced level?
500 character(s) maximum

11) What is today needed the most to achieve the 2030 targets?
Please rank interventions in order of importance to achieve each proposed target (1=most important, 6= least important).

11 a)

80% of all adults have at least basic digital skills	1	2	3	4	5
More public investment	x				
Stimulation of more private investment			x		
More public-private cooperation			x		
Additional regulation to advance the Single Market			x		
Better implementation and enforcement of existing regulation					x
More robust governance to steer EU and Member State actions on digital			x		

11 b)

At least 20 million employed ICT specialists in the EU	1	2	3	4	5	6
More public investment			x			
Stimulation of more private investment			x			
More public-private cooperation	x					
Additional regulation to advance the Single Market		x				
Better implementation and enforcement of existing regulation				x		

More robust governance to steer EU and Member State actions on digital			x			

11 c)

Convergence between the number of female and male ICT specialists	1	2	3	4	5	6
More public investment			x			
Stimulation of more private investment			x			
More public-private cooperation	x					
Additional regulation to advance the Single Market				x		
Better implementation and enforcement of existing regulation			x			
More robust governance to steer EU and Member State actions on digital				x		

Please indicate specific areas where the interventions you identified as important are needed and specify how, or present other interventions to achieve the proposed targets in the area of digital skills:
500 character(s) maximum

> **Already today, there is a serious shortage of ICT specialists. To close the gap, attractive framework conditions for ICT specialists should be improved, the diversity of specialists should be strengthened, and it should be made easier to recruit specialists from abroad.**

12) Do you/does your organisation have experience with national and/or European initiatives in the area of digital skills? If yes, please indicate which initiatives and share best practices and issues you have encountered:
500 character(s) maximum

13) In your opinion, which priority action should the EU undertake to accelerate progress towards the digital skills targets?
500 character(s) maximum

> **The EU's priority should be focused on two key aspects for the learning of digital skills. On the one hand, the learning of digital skills and the use of digital applications must be integrated into the curricula of schools, vocational schools, and universities. Secondly, the learning of digital skills in the adult education sector needs to be strengthened. This requires, above all, better interlinking, and simplification of private and public educational offers.**

14) In your opinion, which priority action should EU Member States undertake to accelerate progress
towards the digital skills targets?
500 character(s) maximum

See Question 13.

IIb) Secure and performant sustainable digital infrastructures
Europe will only achieve digital leadership by building on sustainable digital infrastructures in the areas of connectivity, microelectronics and the ability to process vast amounts of data, which act as enablers for other technological developments and support our industry's competitive edge.

15) In your opinion, how challenging will it be to achieve the proposed EU targets by 2030?
Please rank on a scale of 1-5 (1=not challenging at all, 5= very challenging).

2030 EU Targets	1	2	3	4	5
All EU households covered by a gigabit network (2020: 59%)				x	
All populated EU areas covered by 5G (2021: 41%)				x	
The production of cutting-edge and sustainable semiconductors in Europe including processors is at least 20% of world production in value (2020: 10%)				x	
10,000 climate neutral highly secure edge nodes are deployed in the EU (2020: 0)				x	
Europe is at the cutting edge of quantum capabilities, with its first computer with quantum acceleration by 2025 (2020: 0)			x		

16) In your experience, what are the biggest barriers and bottlenecks regarding progress towards secure, performant and sustainable digital infrastructures?
500 character(s) maximum

To improve Europe's competitiveness the awareness a functioning digital ecosystem of energy-efficient data centres, comprehensive available gigabit and 5G networks, cloud-based applications and energy-efficient programmed software is necessary. Differences in the regulatory framework are seen as a bottleneck for the growth and establishment of digital ecosystems. To remove the obstacles, the framework for the expansion as well as research and development activities should be improved.

17) What is today needed the most to achieve the 2030 targets?
Please rank interventions in order of importance to achieve each proposed target (1=most important, 6= least important).

17 a)

All EU households covered by a gigabit network	1	2	3	4	5	6
More public investment			x			
Stimulation of more private investment	x					
More public-private cooperation		x				
Additional regulation to advance the Single Market					x	
Better implementation and enforcement of existing regulation				x		
More robust governance to steer EU and Member State actions on digital						x

17 b)

All populated EU areas covered by 5G	1	2	3	4	5	6
More public investment			x			
Stimulation of more private investment	x					
More public-private cooperation		x				
Additional regulation to advance the Single Market					x	
Better implementation and enforcement of existing regulation				x		
More robust governance to steer EU and Member State actions on digital						x

17 c)

The production of cutting-edge and sustainable semiconductors in Europe including processors is at least 20% of world production in value	1	2	3	4	5	6
More public investment		x				
Stimulation of more private investment	x					
More public-private cooperation		x				
Additional regulation to advance the Single Market					x	
Better implementation and enforcement of existing regulation				x		
More robust governance to steer EU and Member State actions on digital					x	

17 d)

10,000 climate neutral highly secure edge nodes are deployed in the EU	1	2	3	4	5	6

	1	2	3	4	5	6
More public investment		x				
Stimulation of more private investment	x					
More public-private cooperation		x				
Additional regulation to advance the Single Market			x			
Better implementation and enforcement of existing regulation			x			
More robust governance to steer EU and Member State actions on digital			x			

17 e)

Europe is at the cutting edge of quantum capabilities, with its first computer with quantum acceleration by 2025	1	2	3	4	5	6
More public investment		x				
Stimulation of more private investment	x					
More public-private cooperation		x				
Additional regulation to advance the Single Market			x			
Better implementation and enforcement of existing regulation			x			
More robust governance to steer EU and Member State actions on digital			x			

Please indicate specific areas where the interventions you identified as important are needed and specify how, or present other interventions to achieve the proposed targets in the area of digital infrastructures:
500 character(s) maximum

To establish digital ecosystems of efficient data centres, gigabit and 5G networks, cloud-based applications and energy-efficient programmed software, the competent authorities must be equipped with sufficient human and technical resources. Existing processes should be accelerated and digitalised. To bring innovative approaches and findings from basic research, e.g. smart cities or quantum computing, into practical application, framework conditions and investment conditions must be optimised.

18) How important is coordinated action/EU guidance in the following policy areas for enabling the EU's digital transformation?
(1 = most important, 5 = least important)?

	1	2	3	4	5
Harmonising spectrum management and availability			x		
Fostering connectivity infrastructures		x			
Investing in EU joint infrastructures and capacities				x	

If you would like to present additional comments or include other policy areas where common objectives could be considered, please add:
500 character(s) maximum

19) In which areas would additional (new) 5G network deployment objectives at EU level be most relevant?

	Not relevant	Slightly relevant	Relevant	Very relevant	Extremely relevant
Geographical coverage of 5G services beyond populated areas (potentially all land mass, not only households)				x	
Level of service quality (min. connectivity performance, to be agreed at EU level)			x		
Level of network security			x		
Contribution to green policy objectives				x	
Geographical availability of edge cloud capability				x	
Penetration of software-based network management approaches			x		

If you would like to present additional comments or include other areas, please add:
500 character(s) maximum

20) Do you/does your organisation have experience with national and/or European initiatives in the area of secure, performant and sustainable digital infrastructures? If yes, please indicate which initiatives and share best practices and issues you have encountered:
500 character(s) maximum

21) Do you/does your organisation have experience with national and/or European initiatives in the area of gigabit connectivity, semiconductors, edge computing and/or quantum computing in Europe? If yes, please indicate which initiatives and share best practices and issues you have encountered:
500 character(s) maximum

22) Do you/does your organisation expect to engage in national and/or European initiatives in the area of gigabit connectivity, semiconductors, edge computing and/or quantum computing in Europe in the coming three years? Please indicate key actions and circumstances which, in your view, would incentivize such engagement:
500 character(s) maximum

23) In your opinion, which priority action should the EU undertake to accelerate progress towards the infrastructure targets?
500 character(s) maximum

To accelerate infrastructure expansion, like for example GAIA-X, the EU should adopt a goal setting and coordinating role. The GAIA-X project aims to establish secure and trustworthy digital infrastructures and develop digital services in Europe. The goal setting should serve to define important milestones and to check their compliance. In the coordinating role, the EU should continue the dialogue between the Member States.

24) In your opinion, which priority action should EU Member States undertake to accelerate progress towards the infrastructure targets?
500 character(s) maximum

The Member States should develop future-oriented framework conditions that guarantee a fair expansion of digital infrastructures that promotes competition and innovation. For the expansion of digital infrastructures, operators need legal and planning security for future projects and to secure the related investments.

IIc) Digital transformation of businesses

The digital transformation of businesses will depend on their ability to adopt new technologies rapidly and across the board, including in industrial and service ecosystems that are lagging behind. This will enable more efficient resource use, boost material productivity, and reduce vulnerability to supply shocks. SMEs play a central role in this process, not only because they represent the bulk of EU companies, but also because they are a critical source of innovation. A truly functioning single market should create favourable conditions for digital take-up, disruptive innovation, rapid-growth and scale-up.

25) In your opinion, how challenging will it be to achieve the proposed EU targets by 2030?

Please rank on a scale of 1-5 (1=not challenging at all, 5= very challenging).

The Digital Intensity Index (DII) measures the availability at firm level of 12 different digital technologies: internet for at least 50% of employed persons, recourse to ICT specialists, fast broadband (30 Mbps or above), mobile internet devices for at least 20% of employed persons, a website, a website with sophisticated functions, social media, paying for advertising on the internet; the purchase of advanced cloud computing services; sending eInvoices, eCommerce turnover accounting for over 1% of total turnover and business-to-consumer (B2C) web sales of over 10% of total web sales. The list of technologies is reviewed and improved every year to keep up with latest developments and policy priorities.

By unicorn we understand here both: 1) realised unicorn, i.e. companies founded after 1990 that have had an IPO or trade sale above $1 billion and 2) unrealised unicorn, i.e. companies that have been valued at or over $1 billion in their last private venture funding round (meaning the valuation has not been confirmed in a secondary transaction).

	1	2	3	4	5
75% of European enterprises have taken up cloud computing services (2020: 26%), big data (2020: 14%), and Artificial Intelligence (2020: 25%)				x	
More than 90% of European SMEs reach at least a basic level of digital intensity (2019: 60.6%)				x	
The number of EU unicorns has doubled (2021: 122)					x

26) In your experience, what are the biggest barriers and bottlenecks regarding the digital transformation of your business/businesses in general?
500 character(s) maximum

> **SMEs should be encouraged for the digital transition. To digitalize SMEs business models, they need financial support to achieve the necessary investments. SMEs often complain about their limited competitiveness due to a lack of digital infrastructure – that is why Europe needs to build up performant digital ecosystems. To double the number of unicorns, attractive framework conditions should be created including simplifications to find a company and to improving access to capital.**

27) What is today needed the most to achieve the 2030 targets?
Please rank interventions in order of importance to achieve each proposed target (1=most important, 6= least important).

27 a)

75% of European enterprises have taken up cloud computing services, big data and Artificial Intelligence	1	2	3	4	5	6
More public investment				x		
Stimulation of more private investment	x					
More public-private cooperation		x				
Additional regulation to advance the Single Market				x		
Better implementation and enforcement of existing regulation					x	
More robust governance to steer EU and Member State actions on digital		x				

27 b)
The Digital Intensity Index (DII) measures the availability at firm level of 12 different digital technologies: internet for at least 50% of employed persons, recourse to ICT specialists, fast broadband (30 Mbps or above), mobile internet devices for at least 20% of employed persons, a website, a website with sophisticated functions, social media, paying for advertising on the internet; the purchase of advanced cloud computing services; sending eInvoices, eCommerce turnover accounting for over 1% of total turnover and business-to-consumer (B2C) web sales of over 10% of total web sales. The list of technologies is reviewed and improved every year to keep up with latest developments and policy priorities

More than 90% of European SMEs reach at least a basic level of digital intensity	1	2	3	4	5	6
More public investment				x		
Stimulation of more private investment	x					
More public-private cooperation		x				

Additional regulation to advance the Single Market					x	
Better implementation and enforcement of existing regulation					x	
More robust governance to steer EU and Member State actions on digital		x				

27 c)

By unicorn we understand here both: 1) realised unicorn, i.e. companies founded after 1990 that have had an IPO or trade sale above $1 billion and 2) unrealised unicorn, i.e. companies that have been valued at or over $1 billion in their last private venture funding round (meaning the valuation has not been confirmed in a secondary transaction).

The number of EU unicorns has doubled	1	2	3	4	5	6
More public investment			x			
Stimulation of more private investment	x					
More public-private cooperation		x				
Additional regulation to advance the Single Market			x			
Better implementation and enforcement of existing regulation					x	
More robust governance to steer EU and Member State actions on digital		x				

Please indicate specific areas where the interventions you identified as important are needed and specify how, or present other interventions to achieve the proposed targets for the digital transformation of businesses:
500 character(s) maximum

28) Do you/does your organisation have experience with national and/or European initiatives in the area of digital transformation of businesses? If yes, please indicate which initiatives and share best practices and issues you have encountered:
500 character(s) maximum

29) Do you/does your organisation have experience with national and/or European initiatives in the area of cloud computing services, big data and Artificial Intelligence? If yes, please indicate which initiatives and share best practices and issues you have encountered:
500 character(s) maximum

GAIA-X is a role model and good example for EU Member States to develop the next generation cloud-infrastructure and services for data. Based on the establishment of a digital, highly scalable, interoperable, trustworthy, and energy-efficient ecosystem of data and services, this project aims to strengthen digital sovereignty and promote innovation. GAIA-X includes the IPCEI-CIS, which aims to develop innovative cloud and edge infrastructures for industrial applications.

30) Do you/does your organisation expect to engage in national and/or European initiatives in the area of cloud computing services, big data and Artificial Intelligence in Europe in the coming three years? Please indicate key actions and circumstances which, in your view, would incentivize such engagement:
500 character(s) maximum

31) In your opinion, which priority action should the EU undertake to accelerate the digital transformation of businesses?
500 character(s) maximum

The EU's responsibilities should focus on setting goals, including the definition of milestones, monitoring achievements and developing the legal framework. To be able to transform analogue processes with legal certainty and planning reliability, corresponding frameworks are needed. It has to be clarified which IT solutions or tools may be implemented and used in accordance with legal standards, e.g., the European Data Protection Regulation.

32) In your opinion, which priority action should EU Member States undertake to accelerate the digital transformation of businesses?
500 character(s) maximum

In order to accelerate the digitisation of SMEs, practice-oriented measures, such as improving tax and depreciation options, should be pursued at Member State level. If funding projects for the digitisation of businesses are developed, the coordination and the implementation of the different programmes should be the responsibility of the Member States.

33) In your opinion, which role can the European Digital Innovation Hubs play in accelerating the digital transformation of businesses?
500 character(s) maximum

> **The European Digital Innovation Hub should promote an foster the digital transformation. The Hub could operate as a information and advisory centre on digitalisation trends and the digitalisation in SMEs. Likewise, the Hub could inform about funding schemes in different Member States.**

Questions 34-38 are targeted at representatives of small and medium-sized enterprises (SMEs). Questions 39 and 40 are targeted at representatives of start-ups and unicorns, respectively. If you are contributing in a different capacity, please skip to the next section.

34) Is your SME making use of cloud computing services, big data and Artificial Intelligence? If yes, please indicate how and to which extent, and share best practices and issues you have encountered:
500 character(s) maximum

35) In your view, to what extent do cloud computing services, big data and Artificial Intelligence have the potential for adding value to your business?
500 character(s) maximum

36) Does your SME expect to make use of cloud computing services, big data and Artificial Intelligence in Europe in the coming three years? Please indicate key actions and circumstances which, in your view, would incentivize such use:

37) Which public and/or private initiatives would best facilitate your SME's transition to a business model that seizes the full benefits of the digital transformation? Please indicate key actions and circumstances which, in your view, would be helpful:
500 character(s) maximum
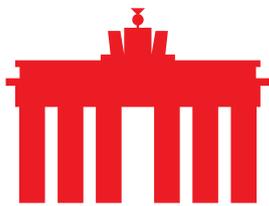
38) Which public and/or private initiatives would best incentivise your SME's use of digital technologies to improve business performance and help customers? Please indicate key actions and circumstances which, in your view, would be helpful:
500 character(s) maximum

39) If your company is a start-up, which public and/or private initiatives would be most supportive to scaling up its activities? Please indicate key actions and circumstances which, in your view, would be helpful:
500 character(s) maximum

40) If your company is a unicorn, which public and/or private initiatives would be most supportive to scaling up its activities? Please indicate key actions and circumstances which, in your view, would be helpful:
500 character(s) maximum
By unicorn we understand here both: 1) realised unicorn, i.e. companies founded after 1990 that have had an IPO or trade sale above $1 billion and 2) unrealised unicorn, i.e. companies that have been valued at or over $1 billionin their last private venture funding round (meaning the valuation has not been confirmed in a secondary transaction).

IId) Digitalisation of public services
By 2030, the EU's objective is to ensure that democratic life and public services will be fully accessible for everyone online, including persons with disabilities. European citizens and business should benefit from a best-in-class digital environment providing for easy-to-use, efficient and personalized services and tools with high security and data protection and privacy standards, including electronic medical records and a digital ID solution.

41) In your opinion, how challenging will it be to achieve the proposed EU targets by 2030?
Please rank on a scale of 1-5 (1=not challenging at all, 5= very challenging).
"Key public services" are services related to the following "life events": Regular Business Operations, Moving, Owning and Driving a Car, Starting a Small Claims Procedure, Business StartUp, Family life, Losing and Finding a Job and Studying.

	1	2	3	4	5
All key public services for citizens (2020: 75%) and businesses (2020: 84%) are available online			x		

All citizens have access to electronic medical records				x	
80% of citizens use a digital ID solution			x		

42) In your experience, what are the biggest barriers and bottlenecks regarding the digitalisation of public services?
500 character(s) maximum

To foster the digitalisation of public services the transformation design should focus on pan-European interoperability as well as ease of set-up and user-friendliness. Barriers are the slow uptake of digital solutions in public administration and different requirements through different services within different areas of government/administration, which encumber a properly connection of services.

43) How important for you/your organisation would be the following digital public services?
Please rank on a scale of 1-5 (1=very important, 5=not important).

	1	2	3	4	5
Adequate digital ID solutions		x			
Enhanced cross-border access to electronic medical records			x		

If you would like to include another service or present additional comments or specifications, please add:
500 character(s) maximum

Processes for the digital submitting of tax statements should be developed and implemented in addition to the existing procedures. Likewise, concepts for digital company founding should be developed.

44) In your opinion, how would the introduction of a European Digital Identity contribute to the digitalisation of public services and trust in digital public services?
500 character(s) maximum

The introduction of a European Digital Identity can contribute to the digitalization of public services and trust in digital public services under the condition that it applies an open standard approach to be used by different EU Members States and private services providers. An approach creating lock-in solutions be they of technical or organizational nature however would contradict this endeavour.

45) What is today needed the most to achieve the 2030 targets?
Please rank interventions in order of importance to achieve each proposed target (1=most important, 6= least important).

45 a) *"Key public services" are services related to the following "life events": Regular Business Operations, Moving, Owning and Driving a Car, Starting a Small Claims Procedure, Business StartUp, Family life, Losing and Finding a Job and Studying.*

All key public services are available online	1	2	3	4	5	6
More public investment	x					
Stimulation of more private investment			x			
More public-private cooperation		x				
Additional regulation to advance the Single Market			x			
Better implementation and enforcement of existing regulation			x			
More robust governance to steer EU and Member State actions on digital		x				

45 b)

All citizens have access to electronic medical records	1	2	3	4	5	6
More public investment	x					
Stimulation of more private investment			x			
More public-private cooperation		x				
Additional regulation to advance the Single Market			x			
Better implementation and enforcement of existing regulation			x			
More robust governance to steer EU and Member State actions on digital		x				

45 c)

80% of citizens use a digital ID solution	1	2	3	4	5	6
More public investment	x					
Stimulation of more private investment			x			
More public-private cooperation		x				
Additional regulation to advance the Single Market			x			
Better implementation and enforcement of existing regulation			x			
More robust governance to steer EU and Member State actions on digital		x				

Please indicate specific areas where the interventions you identified as important are needed and specify how, or present other interventions to achieve the proposed targets for the digitisation of public services:
500 character(s) maximum

46) Do you/does your organisation have experience with national and/or European initiatives in the area of digital public services? If yes, please indicate which initiatives and share best practices and issues you have encountered:
500 character(s) maximum

47) Do you/does your organisation expect to engage in national and/or European initiatives in the area of digital public services in the coming three years? Please indicate key actions and circumstances which, in your view, would incentivize such use:
500 character(s) maximum

48) In your opinion, which priority action should the EU undertake to accelerate and improve the digitalisation of public services?
500 character(s) maximum

The EU should foster digital identities on the basis of open standards in order to promote digitalisation.

49) In your opinion, which priority action should EU Member States undertake to accelerate and improve the digitalisation of public services?
500 character(s) maximum

Member States should undertake greater endeavors to make public services more compatible and interoperable or cede respective sovereignty to the European Commission in order to develop a European solution.
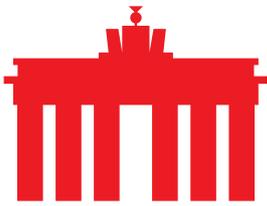
III. Building a New Governance Framework

The proposed digital targets can only be achieved through close cooperation and coordination between the Commission and Member States, with the objective of adopting recommended actions including joint commitments, also taking into account the implementation of other digital policies and initiatives. To enable this, the Digital Compass policy programme will set up a robust governance structure with a comprehensive monitoring mechanism, annual reporting, and follow-up.

This section features general questions about the function and features of the proposed
governance framework. It is targeted at all stakeholder groups.

50) What is your experience so far regarding the coordination of efforts between Member States and the European institutions relating to digital transformation? Please list concrete projects that you have been involved in or are aware of, specify their added value, and indicate issues you have encountered or best practices that you would like to share:
2000 character(s) maximum

51) In your opinion, what will be the key benefits of a robust governance framework for the EU's digital transformation?

	Not relevant	Slightly relevant	Relevant	Very relevant	Extremely relevant
Stimulate cooperation between Member States			x		
Send a clear signal to market actors to incentivise private investments				x	
Ensure the effective delivery of Digital Compass goals on EU level					x
Support the development and implementation of Multi-Country Projects				x	

If you would like to include other benefits or elaborate or explain your answers further, please add:
500 character(s) maximum

52) Radio spectrum plays a key role as an enabling resource to reach many of the 2030 digital targets. In your view, would an evolving spectrum roadmap (e.g., addressing harmonised spectrum availability and coordinated use) as a guiding but non-mandatory monitoring mechanism integrating input from a broad range of relevant stakeholders (e.g., operators, industry and vertical-users, public services) increase the efficiency and effectiveness of spectrum management?

Yes	
No	**x**

If you would like to elaborate or explain your answer further, please add:

53) In your view, would a mechanism to assist national authorities (on a voluntary basis) in the spectrum authorisation process (e.g., providing background information, analyses and statistics and sharing best practices) be beneficial for timely spectrum availability and usage?

Yes	**x**
No	

If you would like to elaborate or explain your answer further, please add:
500 character(s) maximum

Yes, but the support mechanism to assist national authorities should be limited to assistance and be voluntary in nature.

IIIa) Monitoring

The proposed governance structure is underpinned by a comprehensive monitoring mechanism with quantitative key performance indicators measuring the progress of the EU against the 2030 targets. The indicators for monitoring the targets at EU level and the digitalisation trends at national level will be part of an enhanced Digital Economy and Society Index (DESI) in order to align with and harness existing processes and methodologies.

54) In your opinion, what should be the focus of a comprehensive monitoring system?

	Not relevant	Slightly relevant	Relevant	Very relevant	Extremely relevant
Measuring progress of the EU against the 2030 targets					**x**
Assessing areas with insufficient development at the level of Member States (e.g., due to insufficient				**x**	

investment and/or regulatory action)					
Following digitalisation trends at the level of EU and Member States			x		
Following digitalisation trends at the level of EU and Member States, and comparing them with other global players (China, US)			x		
Ensuring a broader knowledge of EU's digital policies across Europe for citizens, Member States, and other stakeholders				x	
Showcasing best practices from Member States					x

If you would like to present additional areas of focus or elaborate or explain your answers, please add:
500 character(s) maximum

55) How could the monitoring system based on DESI be enhanced to adequately measure progress
towards the 2030 digital targets?
500 character(s) maximum

56) Should DESI be complemented by other EU or international data sources to adequately measure
progress towards the 2030 digital targets?

Yes	
No	

If yes, please indicate which data sources.
500 character(s) maximum

IIIb) Reporting

The Commission will be responsible for analyzing the data gathered through the monitoring mechanism. It will publish annually the European State of the Digital Decade Report to present progress and identify deviations from the digital decade targets through a score of 'traffic lights'.

57) In your opinion, what should be the focus/scope of the reporting activity and traffic light scoreboard?

	Not relevant	Slightly relevant	Relevant	Very relevant	Extremely relevant
Measuring progress of the EU against the 2030 targets					x
Monitoring implementation of digital principles				x	
Assessing general state of compliance with digital policies				x	
Tracking common cross-border projects /investments			x		
Identifying deviations from the 2030 targets and digital principles at national level					x
Proposing recommended actions including joint commitments to be discussed with Member States and the European Parliament				x	
Feeding the European Semester process			x		
Feeding the implementation of the Recovery and Resilience Facility			x		

If you would like to elaborate or explain your answers further, please add:
500 character(s) maximum

Generally, it is important to monitor progress and especially deviations from the digital decade targets so that problems can be identified at an early stage, remedial action taken where necessary and other solutions sought.
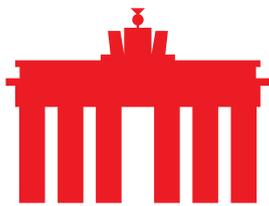
IIIc) Collaborative analysis
The annual European State of the Digital Decade report will trigger a collaborative process to agree on recommended actions including joint commitments with the aim to address deviations from the trajectory towards the 2030 targets at EU and national level. The Communication states that the Commission will be empowered to lead this process in collaboration with Member States.

58) In your opinion, what would be the appropriate scope of recommended actions/EU guidance following from the report?
500 character(s) maximum

> **Based on the annual progress reports, two key strands of action should be pursued. First, the EU should use its legislative power to address analysed legal uncertainties identified in the implementation of individual measures to achieve the goals. Secondly, the EU should use its target-setting and monitoring function to call on Member States to make specific progress and take specific action.**

59) In your opinion, what should be done to ensure that different stakeholders commit to achieving the targets set out in the Digital Compass Communication? Please indicate concrete actions and circumstances:
500 character(s) maximum

> **In order to involve the different stakeholders, a multi-stakeholder dialogue should be established. The dialogue should include representatives from all the sectors involved, e.g., the internet industry, education, business, medical and administrative sector. The dialogue should discuss the EU's annual progress report and develop recommendations. The EU Commission should act as a link between the stakeholder forum with Member States and the multi-stakeholder dialogue of sector representatives.**

60) The Digital Compass Communication also sets out the Commission's intention to propose a set of Euro pean Digital Principles in the form of a joint interinstitutional solemn declaration, with the objective of informing people and providing a reference for policy makers and digital operators for their actions in the digital environment. Digital Principles should be understood as essential concepts based on shared European values that define the path towards the human-centred, secure and open digital future operationalised in the Digital Compass, such as, e.g., universal access to internet services. The proposed governance framework would monitor the implementation of these digital principles. In your view, how could synergies be developed between the achievement of targets and the implementation of digital principles? What concrete tools and steps would you recommend to put in place?

500 character(s) maximum

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61) What would be, in your view, an effective tool to monitor the implementation of Digital Principles?
500 character(s) maximum

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IIId) Stakeholder forum
The Commission will set up a stakeholder forum to support the implementation of the Digital Compass and ensure that it proceeds in consideration of the experiences, needs and interests of a wide range of public and private actors.

62) Regarding the composition of the stakeholder forum, who should participate in addition to the Commission and Member States? (multiple answers possible)

No additional participants	
No additional participants but a mechanism to invite and hear stakeholders where needed	x
European Social and Economic Committee, European Committee of the Regions	
Representatives of the European business sector	
Social, occupational, economic, educational and cultural organisations; and other representatives of minorities	

If you would like to include additional stakeholders, please add:
500 character(s) maximum

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63) In your opinion, how should the stakeholder forum reach out to representatives from business, social, occupational, economic, educational and cultural organisations and involve them in the governance process?
500 character(s) maximum

To involve the sectors concerned in the Stakeholder Forum of the EU Commission and Member States, they should - if necessary - be invited to the meetings of the Forum. In the course of this structured exchange, joint agreements can be reached, and recommendations made in order to achieve an effective implementation of the goals of the Digital Decade.

64) In your view, on which aspects should the stakeholder forum be consulted?
(multiple answers possible)

General issues regarding aspects of the four dimensions of the Compass	**x**
Thematic issues of the digitalisation of the EU	**x**
The state of advancement of targets and principles	**x**
Proposals for specific acts/reports/recommendations	**x**

If you would like to include additional aspects, please add:
500 character(s) maximum

IV. Developing a Mechanism to Operate and Deploy Multi-Country Projects

Achieving the Digital Compass objectives requires scaling up EU's digital capacities and strengthening critical infrastructures linked to EU's digital sovereignty. The Digital Compass Policy Programme will establish a mechanism for Member States to jointly address these challenges through Multi-Country Projects, building on lessons learnt from existing initiatives, including from the implementation of such projects under the Recovery and Resilience Facility.

This section features general questions about the function, features and possible directions for
Multi-County Projects. It is targeted at all stakeholder groups.

65) To what extent do you agree with the following statements?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
In some critical digital areas, the EU needs to build up its digital capacities	**x**				
There is a need to find solutions to accelerate and facilitate common digital projects		**x**			
The scale of such projects cannot be operated by Member States alone and should benefit from common action at EU level			**x**		

66) In your view, which of the below objectives of Multi-Country Projects are most important?
Please rank on a scale of 1-5 (1=most important, 5=least important).

Objectives for Multi-Country Projects	1	2	3	4	5
Accelerate the green transition		**x**			

Accelerate the digital transition	x				
Address strategic dependencies to achieve EU digital sovereignty	x				

67) Possible directions for Multi-Country Projects have already been discussed with Member States as part of the preparation of the national recovery and resilience plans, under the Recovery and Resilience Facility, in the area of digital, under the flagships Connect, Scale Up, Modernise and Reskill and Upskill. Do you consider that the following digital areas should be prioritised as Multi Country Projects?

Please evaluate on a scale of 1-5 (1 = most important, 5 = least important).

Areas for Multi-Country Projects	1	2	3	4	5
European Common Data Infrastructure and Services		x			
Capabilities in electronics design and deployment of the next generation of low power trusted processors and other electronic components,		x			
Pan-European deployment of 5G corridors		x			
Acquisition of supercomputers and quantum computers		x			
Developing and deploying an ultra-secure quantum communication infrastructure spanning the whole EU		x			
Deploying a network of Security Operations Centres			x		
Connected Public Administrations			x		
European Blockchain Services Infrastructure			x		
European Digital Innovation Hubs		x			
High tech partnerships for digital skills through Pact for Skills		x			

For each area ranked "1", please explain your answer. If you want to include other important areas, please add:
500 character(s) maximum

68) Do you/does your organisation have experience with implementing projects that involve multiple Member States? If yes, please indicate projects you know, bottlenecks you have encountered, and/or list best practices you would like to share:
500 character(s) maximum

69) Do you/does your organisation have experience with initiatives mobilising and combining investment from public and private sources? If yes, please indicate initiatives you know, bottlenecks you have encountered, and/or list best practices you would like to share:
500 character(s) maximum

70) In your opinion, which features of an instrument facilitating the implementation of Multi-Country Projects (including features not available under current instruments) would be vital?
Please rate their importance on a scale from 1-5 (1=most important, 5=least important).

	1	2	3	4	5
Possibility to set up projects swiftly and flexibly	x				
Legal capacity to procure and operate multi-country infrastructures and pan-European services of public interest		x			
Legal personality to act as data controllers			x		
Legal personality to be liable for damages			x		
Standard governance arrangements, including variable geometry with defined role of different actors (Member States, industry, Commission)		x			
Bottom up approach to project pipeline, option for Member States to propose projects		x			
Top down approach to project pipeline, Member States to agree to the list proposed by the Commission		x			
Coordination with EU programmes and policies		x			
Possibility to cover areas outside digital (e.g., green transition)			x		
Facilitate the pooling of EU and national funding	x				
Create incentives to crowd in private investments			x		
Low administrative burden	x				

71) In your opinion, what should be the appropriate framework for such a vehicle supporting Multi-Country Projects with the aim to support strategic interests such as security, safety, health and the green and digital transformation and reduce strategic dependencies?
500 character(s) maximum
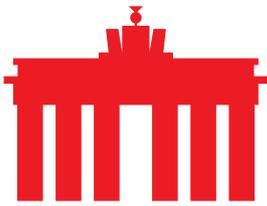
Other Comments and Suggestions

Thank you for your answers. If you would like to share additional comments or suggestion, please add:

2000 character(s) maximum