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Targeted Consultation on the 2030 Digital Compass

Fields marked with * are mandatory.

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 (https://ec.europa.eu/info/files/communication-2030-digital-compass-european-way-digital-decade_en) 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 (https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en).

We also invite you to participate in the ongoing public consultation on a set of European Digital Principles

(<https://digital-strategy.ec.europa.eu/en/consultations/public-consultation-set-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. Use the tabs at the top of the page to navigate between the different pages of the questionnaire.

About you

1) Language of my contribution:

English

2) I am contributing as representative of:

- Academic/research institution
- Business association
- Company
- Consumer organisation
- EU citizen
- Non-EU citizen
- Non-governmental organisation (NGO)

- Public authority
- Trade union
- Other

3) First name

Martha

4) Surname

SUAREZ PENALOZA

5) Email:

martha.suarez@dynamicspectrumalliance.org

6) Organisation name:

Dynamic Spectrum Alliance (DSA)

7) Organisation size:

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

8) Organisation scope:

- International
- Local
- National
- Regional

9) Transparency register number:

50 character(s) maximum

Check if your organisation is on the transparency register (<http://ec.europa.eu/transparencyregister/public/homePage.do?redir=false&locale=en>). It is a voluntary database for organisations seeking to influence EU decision-making.

Dynam7418769468

10) Country of origin of your organisation

United States of America

11) The Commission will publish all contributions to this consultation. For the purpose of transparency, the following information will always be published: type of respondent; size, scope, transparency register number (if any), and country of origin of your organisation. Your e-mail address will never be published. Do you consent to the publication of the following information alongside your contribution? (multiple selections possible)

- Your name
- The name of your organisation
- Neither (To protect your anonymity, please do not include any identifying information in the contribution itself.)

I agree with the personal data protection provision.

[Privacy statement for Digital Compass targeted consultation.pdf \(/eusurvey/files/63973e98-507d-4a9a-89d7-deffe941a1e7\)](#)

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.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...exposed vulnerabilities of our digital space linked to our dependency on non-European technologies.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
...highlighted a need for a substantial increase of investments through all relevant EU funds and national spending to develop critical technologies.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...showed that achieving digital sovereignty by building our own technological capacities is crucial for strengthening the EU’s resilience.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
...exposed a digital divide between people who can fully benefit from a digital space with a full range of services, and those who cannot.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...exposed a digital divide between those businesses already able to leverage the full potential of the digital environment and those not yet fully digitalised.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

...emphasized the importance of ensuring that everyone in Europe fully benefits from the digital transformation.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
...highlighted the need to increase the EU's role for coordinating the digitalisation efforts of Member States.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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 Covid-19 crisis accelerated the trend towards remote working, learning, shopping, health, entertainment or socialisation. As these activities have happened essentially indoors due to the mobility restrictions imposed by the lockdowns, the pandemic has also (i) further underscored the importance for citizens and businesses of high-quality in-building fixed connectivity, including Wi-Fi; and (ii) exposed the limits of existing Wi-Fi networks to meet the unprecedented increases in data traffic.

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)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Highly skilled digital professionals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure, performant and sustainable digital infrastructures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital products, tools, and services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital public services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure, performant and sustainable digital infrastructures	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Digital transformation of businesses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digitalisation of public services	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
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	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you would like to include another element or present additional comments, please add:

500 character(s) maximum

Secure, performant and sustainable digital infrastructures are the first critical step to accelerate digital transformation. The digitalisation of the EU workforce, businesses and public services relies on the availability of pervasive very high connectivity that is able to sustain the requirements of a Gigabit society. Wi-Fi is an essential technology to reach the 2030 gigabit connectivity target indoors. It can act as a bottleneck if it performs below the quality of the fixed broadband network

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	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secure, performant and sustainable digital infrastructures	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital transformation of businesses	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digitalisation of public services	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you would like to present additional comments or views, please add:

500 character(s) maximum

DSA would like to underscore Wi-Fi's contribution to a greener Europe. Wi-Fi 6E/7 enhanced features - ultra-low latency, high capacity, gigabit speed - will enable the reduction of CO2 emissions in other sectors. High-quality Wi-Fi will underpin the development of the e-Society, which will reduce traffic and CO2 emissions. Also, "a combination of full-fibre and low-power-mode Wi-Fi 6 represents (...) a greener way to connect wirelessly in the indoor environment than mobile" (Analysys Mason, 2020).

5) In addition to the cardinal points and targets that have been identified in the Digital Compass

Communication (<https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:52021DC0118>), which additional elements would you consider relevant for achieving a successful digital transformation?

2,000 character(s) maximum

DSA fully supports the Digital Compass Communication, notably the cardinal point of "Secure, performant and sustainable digital infrastructures". DSA highlights the key role to be played by Wi-Fi to meet Europe's connectivity targets, especially having "all European households covered by a Gigabit network by 2030".

With most users/devices connecting to the Internet through a Wi-Fi connection, the overall quality of the user broadband experience in the premises will be limited by the weakest link of the fibre + Wi-Fi function. Users will have little incentive to take up fixed gigabit connections if Europe does not take immediate steps to ensure availability of gigabit Wi-Fi connections before 2030.

Wi-Fi has already presented enormous opportunities for Europe. Fixed access and Wi-Fi carry the biggest part of the internet traffic and are the most important connectivity solution at home, at work and in enterprises and factories. It is a highly cost-effective wireless access technology due to ease of installation and user control over the network.

Wi-Fi is also key to 4G and 5G connectivity: Wi-Fi supports the offload of 54% of mobile data traffic and this is set to grow to 71% with 5G (Cisco's survey). Without the ability to offload traffic to Wi-Fi, 4G and 5G networks are more expensive and potentially less efficient. In the absence of Wi-Fi hotspots, mobile operators would need to invest more in network densification to meet user demand, deploying many more small cells in dense urban areas to offer high-speed throughput.

Despite Wi-Fi relevance for the EU connectivity targets, we regret to see that Wi-Fi was not or barely mentioned in the communication and discarded in the final targets. It will take a mix of technical solutions to bring connectivity to all. The DSA strongly recommends the EC include Wi-Fi technologies at the same level of 5G and fixed VHCN (such as fibre) in any Digital Policy Programme deriving from the 2030 Digital Compass.

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

DSA advocates globally for a more efficient utilization of spectrum that fosters innovation and affordable connectivity for all. We strongly believe in the power of spectrum sharing and license-exempt technologies, Wi-Fi in particular, to unleash economic growth and innovation. As explained above, Wi-Fi will play a key role in advancing the digital transformation and reaching the 2030 targets.

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%)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
At least 20 million employed ICT specialists in the EU (2019: 7.8 million)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Convergence between the number of female and male ICT specialists (2020 share of women among employed ICT specialists: 18%)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

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).

11a)

80% of all adults have at least basic digital skills	1	2	3	4	5	6
More public investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11b)

At least 20 million employed ICT specialists in the EU	1	2	3	4	5	6
More public investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11c)

Convergence between the number of female and male ICT specialists	1	2	3	4	5	6
More public investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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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

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

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

500 character(s) maximum

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%)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
All populated EU areas covered by 5G (2021: 41%)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
The production of cutting-edge and sustainable semiconductors in Europe including processors is at least 20% of world production in value (2020: 10%)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10,000 climate neutral highly secure edge nodes are deployed in the EU (2020: 0)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Europe is at the cutting edge of quantum capabilities, with its first computer with quantum acceleration by 2025 (2020: 0)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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16) In your experience, what are the biggest barriers and bottlenecks regarding progress towards secure, performant and sustainable digital infrastructures?

500 character(s) maximum

Spectrum shortfall for Wi-Fi - with underperforming Wi-Fi, capping the indoors broadband experience, users will have no incentive to take up to fixed gigabit networks. Gigabit Wi-Fi (Wi-Fi 7) requires licence-exempt spectrum in the full 6 GHz band to operate. Many countries globally are addressing this shortfall authorising Wi-Fi in the 6425-7125 MHz band. DSA urges the EU to enable license-exempt access to the full 6 GHz band to ensure Wi-Fi does not become a bottleneck to gigabit connectivity.

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).

17a)

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

17b)

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

17c)

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17d)

10,000 climate neutral highly secure edge nodes are deployed in the EU	1	2	3	4	5	6
More public investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17e)

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

Boosting private investment and innovation is pivotal to the 2030 targets. There is now momentum for Europe to explore the full potential of Wi-Fi and open the 6GHz upper band also to Wi-Fi. As Wi-Fi traffic continues to grow, European policymakers cannot wait until bands become saturated, as it takes several years to make new harmonised spectrum available. To enable the societal transformations enabled by Wi-Fi to happen by 2030 the underlying infrastructure should be readily available by 2025.

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	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fostering connectivity infrastructures	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Investing in EU joint infrastructures and capacities	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

Making enough spectrum available to ensure the sustainability of Wi-Fi use and its continued support to Europe's innovation should be a priority area of EU action. Wi-Fi is an essential technology together with 5G and fixed gigabit technologies to achieve European digital targets. The harmonised EC Decision enabling Wi-Fi in the lower 6 GHz should be followed as soon as possible by a harmonised regulatory decision making also available the upper 6 GHz for Wi-Fi.

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)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of service quality (min. connectivity performance, to be agreed at EU level)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Level of network security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribution to green policy objectives	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Geographical availability of edge cloud capability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Penetration of software-based network management approaches	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If you would like to present additional comments or include other areas, please add:

500 character(s) maximum

DSA would like to underscore that 5G and Wi-Fi 6E/7 will form a symbiotic relationship to drive a new generation of wireless experiences - truly unplugged and uninterrupted, offering Europe new possibilities to connect everything. Together, they will help businesses increase revenue, lower CapEx and OpEx, and operate with greater agility and velocity.

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

DSA advocates globally for a more efficient utilization of spectrum that fosters innovation and affordable connectivity for all. We strongly believe in the power of license-exempt technologies, Wi-Fi in particular, to unleash economic growth and innovation. Since July 2020 DSA has cooperated with the Electronic Communications Committee (ECC) and has actively participated in the European technical spectrum management discussions.

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

Europe should follow the efforts already initiated by many countries (e.g. United States, Brazil or South Korea) to provide harmonized Wi-Fi access to the 6 GHz upper band (6425-7125 MHz) to help Wi-Fi support the increasing needs of telecommuting and distance learning, today and tomorrow. This is necessary to take the best advantage of the capabilities of Wi-Fi 6E and Wi-Fi 7, which will be the technologies extending fixed networks' Gigabit speeds to European users.

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

500 character(s) maximum

The immediate priority is the timely adoption of national regulations after the publication of the EC Decision 2021/1067 on the harmonised use of the 5945-6425 MHz frequency band for WAS/RLAN as Wi-Fi 6E products are already available in the market. Then, EU Member States should explore licence-exempt technologies in the 6425-7125 MHz frequency band, which can more fully and completely deliver on European broadband goals. The DSA insists on the need for harmonization at EU level.

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%)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More than 90% of European SMEs reach at least a basic level of digital intensity (2019: 60.6%)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The number of EU unicorns has doubled (2021: 122)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

While 4G transformed the consumer experience, 5G and Wi-Fi 6E/7 will transform businesses. EU policies focus today on infrastructure reaching the home, ignoring what occurs to the user experience after that point. Taken for granted for years, Wi-Fi connectivity is at a point of a leap evolution, with new standards able to complement FTTH and 5G gigabit networks due to similar advanced connectivity features. As Europe did with 5G, this turning point require enough / adequate spectrum for Wi-Fi 7.

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).

27a)

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

27b)

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	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

27c)

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	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

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

Boosting private investment and fostering innovation is key to the digitalization of EU businesses. Wi-Fi will play a pivotal role in ensuring a more prosperous future for SMEs and startups. The opportunity does not only stem from getting digital, but also from innovation opportunities in new markets for devices and applications unlocked by Wi-Fi 6E/7. Wi-Fi 6E/Wi-Fi7 will enable advanced AR/VR, haptic and holographic services and will also be key for advancing industrial manufacturing or IoT.

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

Many of DSA members provide digital services to small, medium-sized and large business. They note that there is a high need for connectivity, consisting of an efficient mix of fixed and wireless technologies and of licensed and licenced-exempt spectrum, including Wi-Fi.

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

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

As mentioned previously, the European Commission should look at leveraging the opportunities provided by Wi-Fi 7 to accelerate the digital transformation of the European economy in addition to the opportunities offered by 5G and other licensed usage. This should be done by making available the upper 6 GHz band for Wi-Fi in a harmonised way in the EU.

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

500 character(s) maximum

Member States should look at implementing initiatives to promote digital transformation, including on broadband, spectrum allocation and connectivity. DSA strongly encourages Member States to consider in their national digital plans to: (i) incorporate Wi-Fi at the same level of 5G and FTTH as a technology underpinning gigabit connectivity, cornerstone for the digitalisation of SMEs, and (ii) reflect the potential of Wi-Fi for startups' innovation.

33) In your opinion, which role can the European Digital Innovation Hubs (<https://digital-strategy.ec.europa.eu/en/activities/edihs>) play in accelerating the digital transformation of businesses?

500 character(s) maximum

The European Digital Innovation Hubs will provide access to technical expertise and experimentation as well as the possibility to 'test before invest', and will improve business/production processes, products, or services using digital technologies. DSA stands ready to provide expertise on digital infrastructure, connectivity and Wi-Fi cases.

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 billion in their last private venture funding round (meaning the valuation has not been confirmed in a secondary transaction).

II d) 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All citizens have access to electronic medical records	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
80% of citizens use a digital ID solution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

42) In your experience, what are the biggest barriers and bottlenecks regarding the digitalisation of public services?

500 character(s) maximum

Our general comments on the changes in usage behaviour triggered by the Covid-19 pandemic as well as the need for a balanced mix of technologies for achieving Europe's 2030 gigabit connectivity targets, including through Wi-Fi, apply also to the public sector. Public sector modernisation will be primarily delivered by Wi-Fi as access will primarily occur indoors. DSA emphasizes that lack of sufficient/adequate spectrum for Wi-Fi evolution is a barrier for the digitalisation of public 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Enhanced cross-border access to electronic medical records	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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If you would like to include another service or present additional comments or specifications, please add:

500 character(s) maximum

44) In your opinion, how would the introduction of a European Digital Identity (https://ec.europa.eu/commission/presscorner/detail/en/IP_21_2663) contribute to the digitalisation of public services and trust in digital public services?

500 character(s) maximum

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).

45a)

“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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stimulation of more private investment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More public-private cooperation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional regulation to advance the Single Market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better implementation and enforcement of existing regulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More robust governance to steer EU and Member State actions on digital	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

45b)

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

45c)

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

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

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

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:

2,000 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Send a clear signal to market actors to incentivise private investments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Ensure the effective delivery of Digital Compass goals on EU level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Support the development and implementation of Multi-Country Projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

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

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

DSA promotes a balanced regulatory approach between licensed, license-exempt, and lightly licensed, to enable making unused spectrum available for broadband. Investors in connectivity infrastructure are looking for the flexibility to use the technology best suited to specific use cases and local factors.

In this roadmap, Governments should make as much of the 6 GHz spectrum (5925-7125 MHz) available as possible on a technology-neutral, licence-exempt basis. The widespread use of licence-exempt mid-band spectrum across the globe has shown the potential benefits for consumers and economies.

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
 No

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

500 character(s) maximum

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) (<https://digital-strategy.ec.europa.eu/en/policies/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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assessing areas with insufficient development at the level of Member States (e.g., due to insufficient investment and/or regulatory action)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Following digitalisation trends at the level of EU and Member States	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Following digitalisation trends at the level of EU and Member States, and comparing them with other global players (China, US)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensuring a broader knowledge of EU's digital policies across Europe for citizens, Member States, and other stakeholders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Showcasing best practices from Member States	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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
Monitoring progress towards the 2030 targets on EU level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Monitoring implementation of digital principles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Assessing general state of compliance with digital policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tracking common cross-border projects/investments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Identifying deviations from the 2030 targets and digital principles at national level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proposing recommended actions including joint commitments to be discussed with Member States and the European Parliament	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeding the European Semester process	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feeding the implementation of the Recovery and Resilience Facility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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

500 character(s) maximum

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

Regardless of the model, the scope should look at the degree of national ambitions related to the different targets, also looking at national recovery plans, the current regulatory landscape and potential gaps and fragmentation with the rest of the EU.

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

60) The Digital Compass Communication also sets out the Commission's intention to propose a set of European Digital Principles (https://ec.europa.eu/commission/presscorner/detail/en/IP_21_2288) 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

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

500 character(s) maximum

III d) 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
- 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

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

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
- Thematic issues of the digitalisation of the EU

- The state of advancement of targets and principles
- Proposals for specific acts/reports/recommendations

If you would like to include additional aspects, please add:

500 character(s) maximum

The Stakeholder forum could be also consulted for identifying potential gaps and regulatory issues/fragmentation within the single market preventing the EU and its Member States to reach the digital compass' targets.

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-Country 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There is a need to find solutions to accelerate and facilitate common digital projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The scale of such projects cannot be operated by Member States alone and should benefit from common action at EU level	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accelerate the digital transition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Address strategic dependencies to achieve EU digital sovereignty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Capabilities in electronics design and deployment of the next generation of low power trusted processors and other electronic components,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pan-European deployment of 5G corridors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acquisition of supercomputers and quantum computers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developing and deploying an ultra-secure quantum communication infrastructure spanning the whole EU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deploying a network of Security Operations Centres	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Connected Public Administrations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
European Blockchain Services Infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
European Digital Innovation Hubs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
High tech partnerships for digital skills through Pact for Skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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
<input type="text"/>					

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

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:

2,000 character(s) maximum

DSA welcomes this opportunity to contribute to this public consultation and is looking forward to continue the discussion with the European Commission and EU Member States. Although the 2030 Digital Compass communication or recent key EU policies have not yet fully recognized the benefits of Wi-Fi despite its critical contribution to the EU economy and society, we believe it has a powerful role to play in supporting the achievement of the EU 2030 connectivity goals and unleashing the full potential of digital and green technologies.

Wi-Fi, alongside 5G and fixed Very High Capacity Networks (VHCN), will be key for enabling the innovative use cases expected to advance the European Gigabit society. Out of the 9 major use cases identified by the Commission in its 2030 Digital Compass communication, 5 will be primarily delivered by Wi-Fi (eMedicine - at home and in hospitals, eEducation, manufacturing, public sector modernisation, enterprise take up of digital technologies) and 4 will be primarily delivered by 5G (health monitoring, autonomous vehicle, smart farming, construction). This role should be fully recognised and supported in the digital and connectivity policies at EU and national level.

You can also upload your file here (e.g., position paper):

Wi-Fi_Business_Card.pdf

Contact

Contact Form (</eusurvey/runner/contactform/DigitalCompass>)
