

QUESTIONNAIRE

Welcome!

Thank you for your interest in participating in the Stakeholder Consultation on the Digital Decade National Strategic Roadmap until 2030 for Luxembourg, coordinated by the Department of Media, Connectivity and Digital Policy.

Before starting the consultation, we invite you to share the below contact information with us. This information will be treated confidentially but will allow us to contact you should we have any question on your input.

- **To which user group do you belong?**

- Private User
- Students and Educators
- Researchers
- Commercial Companies
- Public Administration
- EU Institutions
- International Organisations
- Political Organisations
- Media
- Other (please specify): _____

- **I am contributing as a representative of** _____
If you are contributing as a representative of an organisation, please indicate the *name of your organisation*. Else indicate *Civil Society*.

- **First name (optional):** _____

- **Last name (optional):** _____

- **E-mail:** _____

Your opinion on the Digital Decade Targets

You find hereafter a description of the digital decade targets, more information on the exact definition of the indicators can be accessed [here](#) and Luxembourg's national strategic roadmap describing how Luxembourg would like to contribute to the set digital targets can be accessed [here](#) (Section 3) .

(1) a digitally skilled population and highly skilled digital professionals, with the aim of achieving gender balance, where:

a) at least 80 % of those aged 16-74 have at least basic digital skills;

State of Play 2023:

EU: 55.56%, 54.46% of females and 56.69% of males

LU: 60.14%, 56.56% of females and 63.60% of males

b) at least 20 million ICT specialists (about 10% of total employment) are employed within the Union, while promoting the access of women to this field and increasing the number of ICT graduates.

State of Play 2023:

EU: 4.80 % of which 19.40% are females

LU: 8.00% of which 22.50% are females

LUXEMBOURG supports the EU targets and envisions that by 2030 at least 80% of those aged 16-74 have at least digital skills and at least 10% of total employed people in LUXEMBOURG have ICT specialist skills, while achieving gender balance.

(2) secure, resilient, performant and sustainable digital infrastructures, where:

a) all end users at a fixed location are covered by a gigabit network up to the network termination point, and all populated areas are covered by next-generation wireless high-speed networks with performance at least equivalent to that of 5G, in accordance with the principle of technological neutrality;

State of Play 2023:

EU: 78.81% VHCN, 63.99% Fiber and 89.30% 5G

LU: 94.70% VHCN and 78.90% Fiber and 99.60% 5G

b) the production, in accordance with Union law on environmental sustainability, of cutting-edge semiconductors in the Union is at least 20 % of world production in value;

State of Play 2023: No data available

c) at least 10 000 climate-neutral highly secure edge nodes are deployed in the Union, distributed in a way that guarantees access to data services with low latency (i.e., a few milliseconds) wherever businesses are located;

State of Play 2023: EU: 687 - LU: 5

d) the Union has, by 2025, its first computer with quantum acceleration, paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.

State of Play 2023: No data available

LUXEMBOURG supports the EU targets and envisions that 100% of household are covered by a gigabit network in 2030. LUXEMBOURG furthermore supports the development of the semiconductor and quantum computing industry as well as the deployment of edge nodes in LUXEMBOURG; however, no quantitative targets are set until 2030 with regards to those technologies.

(3) the digital transformation of businesses, where:

- a) **at least 75 % of Union enterprises have taken up one or more of the following, in line with their business operations:**
- i. **cloud computing services;**
State of Play 2023: EU: 38.90% – LU: 32.60%
 - ii. **big data;**
State of Play 2023: EU: 33.20% - LU: 32.40%
 - iii. **artificial intelligence;**
State of Play 2023: EU: 8.00% - LU: 14.40%
- b) **more than 90 % of Union SMEs reach at least a basic level of digital intensity;**
State of Play 2023: EU: 57.70% - LU: 57.80%
- c) **the Union facilitates the growth of its innovative scale-ups and improves their access to finance, leading to at least doubling the number of unicorns (EU 2030 Target Value = 500).**
State of Play 2023: EU: 263 – LU: 2

LUXEMBOURG supports the EU targets and envisions that 75% of companies are using cloud, artificial intelligence and big data by 2030 and that 90% of its SMEs reach at least basic level of digital intensity by 2030. No quantitative targets are set with regards to unicorns, however supporting the national and European start-ups and scale-ups remains a priority for LUXEMBOURG.

(4) the digitalisation of public services, where:

- a) **there is 100 % online accessible provision of key public services and, where relevant, it is possible for citizens and businesses in the Union to interact online with public administrations;**
State of Play 2023:
EU: 79.44/100 for citizens and 85.42/100 for businesses
LU: 94.78/100 for citizens and 96.67/100 for businesses
- b) **100 % of Union citizens have access to their electronic health records;**
State of Play 2023: EU: 79.12/100 – LU: 76.10/100
- c) **100 % of Union citizens have access to secure electronic identification (eID) means that are recognised throughout the Union, enabling them to have full control over identity transactions and shared personal data.**
State of Play 2023: 24 Member States, including Luxembourg, have notified at least one national eID scheme.

LUXEMBOURG supports the EU targets and envisions that 100% of citizens and businesses have, by 2030, access to key public services online, including electronic health records for citizens and eID for citizens.

Digital Skills

Regarding the following targets on digital skills

(1) a digitally skilled population and highly skilled digital professionals, with the aim of achieving gender balance, where:

a) at least 80 % of those aged 16-74 have at least basic digital skills;

State of Play 2023:

EU: 55.56%, 54.46% of females and 56.69% of males

LU: 60.14%, 56.56% of females and 63.60% of males

b) at least 20 million ICT specialists (about 10% of total employment) are employed within the Union, while promoting the access of women to this field and increasing the number of ICT graduates.

State of Play 2023:

EU: 4.80 % of which 19.40% are females

LU: 8.00% of which 22.50% are females

LUXEMBOURG supports the EU targets and envisions that by 2030 at least 80% of those aged 16-74 have at least digital skills and at least 10% of total employed people in LUXEMBOURG have ICT specialist skills, while achieving gender balance.

N.B. More information on the definition of the KPIs can be accessed [here](#) and more information on the evolution of the KPIs can be accessed [here](#).

• **Regarding digital skills, do you support the set 2030 digital targets for Luxembourg?**

No opinion

Yes

No (please specify why): _____

• **Regarding digital skills, do you consider the set 2030 digital targets for Luxembourg as achievable?**

No opinion

Yes

No (please specify why): _____

• **Regarding digital skills, has Luxembourg implemented the right measures in the Digital Decade national strategic roadmap for Luxembourg to achieve the set digital targets?**

The roadmap (Section 3) can be accessed [here](#).

No opinion

Yes

No (please specify why, what measures are missing?): _____

• **Regarding digital skills, would you like to share any other thoughts related to the set 2030 digital targets? (optional):**

Digital Infrastructures

Regarding the following targets on digital infrastructures

(2) secure, resilient, performant and sustainable digital infrastructures, where:

- a) all end users at a fixed location are covered by a gigabit network up to the network termination point, and all populated areas are covered by next-generation wireless high-speed networks with performance at least equivalent to that of 5G, in accordance with the principle of technological neutrality;

State of Play 2023:

EU: 78.81% VHCN, 63.99% Fiber and 89.30% 5G

LU: 94.70% VHCN and 78.90% Fiber and 99.60% 5G

- b) the production, in accordance with Union law on environmental sustainability, of cutting-edge semiconductors in the Union is at least 20 % of world production in value;

State of Play 2023: No data available

- c) at least 10 000 climate-neutral highly secure edge nodes are deployed in the Union, distributed in a way that guarantees access to data services with low latency (i.e., a few milliseconds) wherever businesses are located;

State of Play 2023: EU: 687 - LU: 5

- d) the Union has, by 2025, its first computer with quantum acceleration, paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.

State of Play 2023: No data available

LUXEMBOURG supports the EU targets and envisions that 100% of household are covered by a gigabit network in 2030. LUXEMBOURG furthermore supports the development of the semiconductor and quantum computing industry as well as the deployment of edge nodes in LUXEMBOURG; however, no quantitative targets are set until 2030 with regards to those technologies.

N.B. More information on the definition of the KPIs can be accessed [here](#) and more information on the evolution of the KPIs can be accessed [here](#).

- **Regarding digital infrastructures, do you support the set 2030 digital targets for Luxembourg?**
 - No opinion
 - Yes
 - No (please specify why): _____
- **Regarding digital infrastructures, do you consider the set 2030 digital targets for Luxembourg as achievable?**
 - No opinion
 - Yes
 - No (please specify why): _____
- **Regarding digital infrastructures, has Luxembourg implemented the right measures in the Digital Decade national strategic roadmap for Luxembourg to achieve the set digital targets?**

The roadmap (Section 3) can be accessed [here](#).

 - No opinion
 - Yes
 - No (please specify why, what measures are missing?): _____
- **Regarding digital infrastructures, would you like to share any other thoughts related to the set 2030 digital targets? (optional):** _____

Digital transformation of businesses

Regarding the following targets on digital transformation of businesses

(3) the digital transformation of businesses, where:

a) at least 75 % of Union enterprises have taken up one or more of the following, in line with their business operations:

i. cloud computing services;

State of Play 2023: EU: 38.90% – LU: 32.60%

ii. big data;

State of Play 2023: EU: 33.20% - LU: 32.40%

iii. artificial intelligence;

State of Play 2023: EU: 8.00% - LU: 14.40%

b) more than 90 % of Union SMEs reach at least a basic level of digital intensity;

State of Play 2023: EU: 57.70% - LU: 57.80%

c) the Union facilitates the growth of its innovative scale-ups and improves their access to finance, leading to at least doubling the number of unicorns (EU 2030 Target Value = 500).

State of Play 2023: EU: 263 – LU: 2

LUXEMBOURG supports the EU targets and envisions that 75% of companies are using cloud, artificial intelligence and big data by 2030 and that 90% of its SMEs reach at least basic level of digital intensity by 2030. No quantitative targets are set with regards to unicorns, however supporting the national and European start-ups and scale-ups remains a priority for LUXEMBOURG.

N.B. More information on the definition of the KPIs can be accessed [here](#) and more information on the evolution of the KPIs can be accessed [here](#).

- **Regarding the digital transformation of businesses, do you support the set 2030 digital targets for Luxembourg?**
 - No opinion
 - Yes
 - No (please specify why): _____
- **Regarding the digital transformation of businesses, do you consider the set 2030 digital targets for Luxembourg as achievable?**
 - No opinion
 - Yes
 - No (please specify why): _____
- **Regarding the digital transformation of businesses, has Luxembourg implemented the right measures in the Digital Decade national strategic roadmap for Luxembourg to achieve the set digital targets?**

The roadmap (Section 3) can be accessed [here](#).

 - No opinion
 - Yes
 - No (please specify why, what measures are missing?): _____
- **Regarding the digital transformation of businesses, would you like to share any other thoughts related to the set 2030 digital targets? (optional):** _____

Digitalisation of public services

Regarding the following targets on digitalisation of public services

(4) the digitalisation of public services, where:

- a) there is 100 % online accessible provision of key public services and, where relevant, it is possible for citizens and businesses in the Union to interact online with public administrations;

State of Play 2023:

EU: 79.44/100 for citizens and 85.42/100 for businesses

LU: 94.78/100 for citizens and 96.67/100 for businesses

- b) 100 % of Union citizens have access to their electronic health records;

State of Play 2023: EU: 79.12/100 – LU: 76.10/100

- c) 100 % of Union citizens have access to secure electronic identification (eID) means that are recognised throughout the Union, enabling them to have full control over identity transactions and shared personal data.

State of Play 2023: 24 Member States, including Luxembourg, have notified at least one national eID scheme.

LUXEMBOURG supports the EU targets and envisions that 100% of citizens and businesses have, by 2030, access to key public services online, including electronic health records for citizens and eID for citizens.

N.B. More information on the definition of the KPIs can be accessed [here](#) and more information on the evolution of the KPIs can be accessed [here](#).

- **Regarding the digitalisation of public services, do you support the set 2030 digital targets for Luxembourg?**
 - No opinion
 - Yes
 - No (please specify why): _____
- **Regarding the digitalisation of public services, do you consider the set 2030 digital targets for Luxembourg as achievable?**
 - No opinion
 - Yes
 - No (please specify why): _____
- **Regarding the digitalisation of public services, has Luxembourg implemented the right measures in the Digital Decade national strategic roadmap for Luxembourg to achieve the set digital targets?**

The roadmap (Section 3) can be accessed [here](#).

 - No opinion
 - Yes
 - No (please specify why, what measures are missing?): _____
- **Regarding the digitalisation of public services, would you like to share any other thoughts related to the set 2030 digital targets? (optional):** _____

Your opinion on the Digital Decade General Objectives

You find hereafter a description of the digital decade general objectives. The Luxembourg's national strategic roadmap describing how Luxembourg would like to contribute the set digital objectives can be accessed [here](#) (Section 4).

Digital Citizenship

- promoting a **human-centred, fundamental-rights-based, inclusive, transparent and open digital environment** where secure and interoperable digital technologies and services observe and enhance Union principles, rights and values and are accessible to all, everywhere in the Union;
- reinforcing Member States' collective resilience and **bridging the digital divide**, achieving gender and geographic balance by promoting continuous opportunities for all individuals, **developing basic and advanced digital skills and competencies**, including through vocational and professional training, and lifelong learning, and fostering the development of high-performing digital capacities within horizontal education and training systems;
- ensuring that **online participation in democratic life is possible for everyone**, and that public services, health and care services are also accessible in a trusted and secure online environment for everyone, **in particular for disadvantaged groups** including persons with disabilities, and in rural and remote areas, offering inclusive, efficient, interoperable and personalised services and tools with high security and privacy standards.

Fostering leadership and sovereignty

- ensuring the Union's **digital sovereignty** in an open manner, in particular by **secure and accessible digital and data infrastructures** capable of efficiently storing, transmitting and processing vast volumes of data that enable other technological developments, supporting the competitiveness and sustainability of the Union's industry and economy, in particular of SMEs, and the resilience of the Union's value chains, as well as fostering the start-up ecosystem and the smooth functioning of the European digital innovation hubs;
- promoting the deployment and the use of digital capabilities with a view to **reducing the geographical digital divide** and **granting access to digital technologies and data on open, accessible and fair terms**, in order to achieve a high level of digital intensity and innovation in Union enterprises, in particular start-ups and SMEs;
- developing a **comprehensive and sustainable ecosystem of interoperable digital infrastructures**, where high performance, edge, cloud, quantum computing, artificial intelligence, data management and network connectivity work in convergence, to promote their uptake by businesses in the Union, and to create opportunities for growth and jobs through research, development and innovation, and ensuring that the Union has a competitive, secure and sustainable data cloud infrastructure in place, with high security and privacy standards and complying with the Union **data protection rules**;
- promoting a Union **digital regulatory environment** to support the ability of Union undertakings, especially that of SMEs, **to compete fairly along global value chains**;
- facilitating **fair and non-discriminatory conditions for users** during the digital transformation throughout the Union by strengthening the **synergies between private and public investments and the use of Union and national funds**, and by developing predictable regulatory and supportive approaches that also involve the regional and local levels;
- improving **resilience to cyberattacks**, contributing to increasing risk-awareness and the knowledge of cybersecurity processes, and increasing the efforts of public and private organisations to achieve at least basic levels of cybersecurity.

Contributing to the green transition

- ensuring that **digital infrastructure and technologies**, including their supply chains, become more **sustainable, resilient, and energy- and resource-efficient**, with a view to minimising their negative environmental and social impact, and contributing to a sustainable circular and climate-neutral economy and society in line with the

European Green Deal, including by promoting research and innovation which contribute to that end and by developing methodologies for measuring the energy and resource efficiency of the digital space;

- ensuring that **all policies and programmes** which are relevant to achieving the digital targets set out in Article 4 are taken into account in a coordinated and coherent way to **fully contribute to the European green and digital transition**, while avoiding overlaps and minimising administrative burdens.

Digital Citizenship

Regarding the general objective

Digital Citizenship

- promoting a **human-centred, fundamental-rights-based, inclusive, transparent and open digital environment** where secure and interoperable digital technologies and services observe and enhance Union principles, rights and values and are accessible to all, everywhere in the Union;
- reinforcing Member States' collective resilience and **bridging the digital divide**, achieving gender and geographic balance by promoting continuous opportunities for all individuals, **developing basic and advanced digital skills and competencies**, including through vocational and professional training, and lifelong learning, and fostering the development of high-performing digital capacities within horizontal education and training systems;
- ensuring that **online participation in democratic life is possible for everyone**, and that public services, health and care services are also accessible in a trusted and secure online environment for everyone, **in particular for disadvantaged groups** including persons with disabilities, and in rural and remote areas, offering inclusive, efficient, interoperable and personalised services and tools with high security and privacy standards.

- **Do you support the general objectives on Digital Citizenship?**

- No opinion
- Yes
- No (please specify why): _____

- **Has Luxembourg implemented the right measures in the Digital Decade national strategic roadmap for Luxembourg to contribute to the general objectives on Digital Citizenship?**

The roadmap (Section 4) can be accessed [here](#).

- No opinion
- Yes
- No (please specify why, what measures are missing?): _____

Fostering Leadership and Sovereignty

Regarding the general objective

Fostering Leadership and Sovereignty

- ensuring the Union's **digital sovereignty** in an open manner, in particular by **secure and accessible digital and data infrastructures** capable of efficiently storing, transmitting and processing vast volumes of data that enable other technological developments, supporting the competitiveness and sustainability of the Union's industry and economy, in particular of SMEs, and the resilience of the Union's value chains, as well as fostering the start-up ecosystem and the smooth functioning of the European digital innovation hubs;
- promoting the deployment and the use of digital capabilities with a view to **reducing the geographical digital divide** and **granting access to digital technologies and data on open, accessible and fair terms**, in order to achieve a high level of digital intensity and innovation in Union enterprises, in particular start-ups and SMEs;
- developing a **comprehensive and sustainable ecosystem of interoperable digital infrastructures**, where high performance, edge, cloud, quantum computing, artificial intelligence, data management and network connectivity work in convergence, to promote their uptake by businesses in the Union, and to create opportunities for growth and jobs through research, development and innovation, and ensuring that the Union has a competitive, secure and sustainable data cloud infrastructure in place, with high security and privacy standards and complying with the Union **data protection rules**;
- promoting a Union **digital regulatory environment** to support the ability of Union undertakings, especially that of SMEs, **to compete fairly along global value chains**;
- facilitating **fair and non-discriminatory conditions for users** during the digital transformation throughout the Union by strengthening the **synergies between private and public investments and the use of Union and national funds**, and by developing predictable regulatory and supportive approaches that also involve the regional and local levels;
- improving **resilience to cyberattacks**, contributing to increasing risk-awareness and the knowledge of cybersecurity processes, and increasing the efforts of public and private organisations to achieve at least basic levels of cybersecurity.

- **Do you support the general objectives on Fostering Leadership and Sovereignty?**

- No opinion
- Yes
- No (please specify why): _____

- **Has Luxembourg implemented the right measures in the Digital Decade national strategic roadmap for Luxembourg to contribute to the general objectives on Fostering Leadership and Sovereignty?**

The roadmap (Section 4) can be accessed [here](#).

- No opinion
- Yes
- No (please specify why, what measures are missing?): _____

Contributing to the Green Transition

Regarding the general objective

Contributing to the Green Transition

- ensuring that **digital infrastructure and technologies**, including their supply chains, become more **sustainable, resilient, and energy- and resource-efficient**, with a view to minimising their negative environmental and social impact, and contributing to a sustainable circular and climate-neutral economy and society in line with the **European Green Deal**, including by promoting research and innovation which contribute to that end and by developing methodologies for measuring the energy and resource efficiency of the digital space;
- ensuring that **all policies and programmes** which are relevant to achieving the digital targets set out in Article 4 are taken into account in a coordinated and coherent way to **fully contribute to the European green and digital transition**, while avoiding overlaps and minimising administrative burdens.

- **Do you support the general objectives on Green Transition?**

- No opinion
- Yes
- No (please specify why): _____

- **Has Luxembourg implemented the right measures in the Digital Decade national strategic roadmap for Luxembourg to contribute to the general objectives on Green Transition?**

The roadmap (Section 4) can be accessed [here](#).

- No opinion
- Yes
- No (please specify why, what measures are missing?): _____

Your opinion on the Declaration on Digital Rights and Principles

- **Have you already heard about the Declaration on Digital Rights and Principles?**

The Declaration on Digital Rights and Principles can be accessed at <https://digital-strategy.ec.europa.eu/en/library/european-declaration-digital-rights-and-principles> .

- Yes
- No

- **What are your thoughts about the declaration? Do you fully benefit from those rights and principles in Luxembourg? (optional)** _____

Your opinion on the European Digital Infrastructure Consortium (EDIC)

- **Have you already heard about the new instrument “EDIC - European Digital Infrastructure Consortium” ?**

More information can be accessed at <https://digital-strategy.ec.europa.eu/en/policies/edic> .

- Yes
- No

- **What are your thoughts about the new instrument? What type of multi country projects could be implemented through an EDIC? (optional)** _____

Your opinion on Luxembourg's digital transformation in general

- **In your opinion, do the digital targets, general objectives and Declaration on Digital Rights and Principles cover all important aspect towards a human-centered, sustainable and inclusive digital transition?**
 - No opinion
 - Yes
 - No (please specify why): _____
- **In your opinion, does Luxembourg have a strong digital environment / ecosystem? What are its strengths and weaknesses?** _____
- **Do you contribute, in some way, to Luxembourg's digital transformation?**
 - No
 - Yes (please specify how): _____
- **What political measures exist that support your digital transformation?** _____
- **What political measures are missing to support your digital transformation?** _____
- **What challenges do you face towards your digital transformation, in relation to the digital decade targets, but also in general?** _____
- **What is your opinion on the twin (green and digital) transition? How do you combine both transitions? What challenges do you face with regards to your green transition?** _____