The objective of this questionnaire is to gather information from the Member States in preparation of the United Nations E-Government Survey 2020. Please note that these responses do not directly affect the UN E-Government Development Index (EGDI), which is a composite index of Online Service Index (OSI), Telecommunications Infrastructure Index (TII) and Human Capital Index (HCI). UNDESA\(^1\) assesses national portals with the assistance of independent researchers to construct OSI, requests data from the International Telecommunications Union (ITU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) to construct TII and HCI respectively. For any questions about this questionnaire, please contact dpidg@un.org.

<table>
<thead>
<tr>
<th>Country</th>
<th>Luxembourg</th>
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<tr>
<td>Organization</td>
<td>Luxembourg Government IT Centre (Centre des technologies de l’information de l’État: CTIE)</td>
</tr>
<tr>
<td>Name and surname</td>
<td>M. SOISSON Gérard</td>
</tr>
<tr>
<td>Position</td>
<td>Head of the unit “EU &amp; International Affairs”</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:gerard.Soisson@ctie.etat.lu">gerard.Soisson@ctie.etat.lu</a></td>
</tr>
<tr>
<td>Tel. No.</td>
<td>(+352) 247-82194</td>
</tr>
</tbody>
</table>

☒ I/We hereby authorize UNDESA to publish my/our responses as deemed necessary.

I. Institutional Framework

1. What is the official e-government\(^2\) portal at the national level? If more than one, please list all.

   https://guichet.public.lu/en.html

2. Please also provide URLs for below specific portals, if exists:

\(^1\) This questionnaire is conducted by the Division of Public Institutions and Digital Government (DPIDG) of the UNDESA.

\(^2\) E-government or digital government will be used interchangeably in this survey and is defined as delivering services online and engaging people by using Information and Communication Technologies (ICTs)
United Nations E-Government Survey 2020 - Member States Questionnaire (MSQ)

a. E-services³:


b. E-participation⁴:

http://www.vosidees.lu/
https://chd.lu/wps/portal/public/Accueil/TravailALaChambre/Petitions/DepotPetition/Petition Publique

c. Open government data: https://data.public.lu/en/
e. Other major portals at the national level:

https://gouvernement.lu/en.html

3. Please provide name(s) and URL(s) of the government agency/department/ministry at the national level in charge of e-government.


4. Does your country have a Chief Information Officer (CIO)⁵ to manage national cross-agency e-government programs/strategies?

Name: Mr. Patrick HOUTSCH

Title: Director

Organization: Centre des technologies de l’information de l’État

E-mail: secretariat@ctie.etat.lu

(+352) 247-81800

³ A specific portal where you can see the list of all online services available for the public
⁴ E-Participation is about fostering civic engagement and open, participatory governance through Information and Communications Technologies (ICTs).
⁵ CIO or a similar senior official with a leadership role, sometimes referred as Chief Technology Officer (CTO) or Chief Digital Officer (CDO)
5. Please provide names and URLs of the government agencies/ministries/departments at the national level in charge of the following:

All URLs of government agencies/ministries/departments can be found under etat.lu or/and https://gouvernement.lu/en/ministeres.html or https://gouvernement.lu/en/administrations.html. We cannot indicate here all the respective government agencies. Where it seems appropriate, we indicate the most important government agencies or administrations. To get a complete picture, please check the relevant information on the respective websites of the ministries indicated below or the information available under etat.lu or/and government.lu.

a. Planning and Development

It is not clear at all for us what you are aiming at precisely when you are using the wording “Planning and Development”. Do you mean central coordination of the different activities? Or planning and development in the domain of eGovernment? Or something else? Therefore, we indicate several organisations in charge of activities linked with some sort of planning and development.

Ministry of State: responsible for the global coordination of the activities of the Government
https://me.gouvernement.lu/en.html

Ministry for Digitalisation: responsible for coordination, planning and development in the domain of digitalisation and eGovernment


Ministry of Environment, Climate and Sustainable Development:
The Water Management Agency: https://eau.public.lu

b. Education:


Portal of Education: https://portal.education.lu/
National Institute for the development of continuing vocational training:
http://www.infpc.lu/INFPC/Article/Accueil/en
National Institute for employability and lifelong learning:
United Nations E-Government Survey 2020 - Member States Questionnaire (MSQ)

https://ssl.education.lu/ifen/mh_l-institut

National School for adults: https://www.enad.lu/
Department for the Coordination of Educational and Technological Research and Innovation (SCRIPT): https://script.gouvernement.lu/en.html
IT Management Centre for Education (CGIE): https://portal.education.lu/cgie/

Ministry of Higher Education and Research: https://mesr.gouvernement.lu/en.html

University of Luxembourg: https://wwwen.uni.lu/
Luxembourg Institute of Science and Technology (LIST): https://www.list.lu/
Luxemburg Institute of Health (LIH): https://www.lih.lu/
Luxemburg Institute of Socio-Economic Research (LISER):
National Research Fund (FNR): https://www.fnr.lu/

II. Strategy and Implementation

c. Health

Ministry of Health: https://msan.gouvernement.lu/fr.html
d. Social Protection and Welfare

e. Employment and Decent Work

Ministry of Labour, Employment and the Social and Solidarity Economy

f. Environment

Ministry of the Environment, Climate and Sustainable Development:

g. Energy/Water

Ministry of Energy and Spatial Planning

h. Finance/Taxation

Ministry of Finance: https://mfin.gouvernement.lu/en.html

i. Industry/Trade

Ministry of the Economy: https://meco.gouvernement.lu/fr.html
6. Is there a national development strategy incorporating the Sustainable Development Goals (SDGs)?

A specific national development strategy focusing on the UN Sustainable Development Goals (SDGs) exists. You can find information on the most recent version under following URLs:

More information, also on previous versions of the strategy, can be found here:
https://sustainabledevelopment.un.org/memberstates/luxembourg ;
https://sustainabledevelopment.un.org/content/documents/15709Luxembourg.pdf

Beyond this strategy focusing on the UN SDG perspective, numerous other strategies exist in the different domains that pursue objectives going in the same direction than the goals pursued by the UN SDGs. Most of the goals are already largely a reality in Luxembourg as Luxembourg is one of the wealthiest countries of the world with a very high living standard and a relatively low inequality in the distribution of wealth. You will be able to find confirmation on this on the Luxembourg national portal of statistics that lists the national indicators relevant for the 17 UN SDGs and the Agenda 2030:
Or on the Eurostat website:
https://ec.europa.eu/eurostat/cache/digpub/sdgs

7. Is there a national e-government strategy/digital readiness strategy or equivalent?

After the election of the new Government in October 2018, the Government’s political programme has as objective to place digitalisation at the centre of its policies. Digitalisation is seen as an element of central importance for the development of Luxembourg by the new government in power for a few months now. The coalition agreement (https://gouvernement.lu/fr/actualites/toutes_actualites/articles/2018/12-decembre/03-signature-accord.html & https://gouvernement.lu/dam-assets/documents/actualites/2018/12-decembre/Accord-de-coalition-2018-2023.pdf), which stresses the importance of digitalisation on dozens of pages, and the fact that for the first time a Ministry only dedicated to Digitalisation (https://digital.gouvernement.lu/en.html) has been created proof eloquently that Luxembourg sees digitalisation as a core element of its development. The Prime Minister, Xavier BETTEL, is also Minister for Digitalisation, which underlines the central importance given to digitalisation. Marc HANSEN is Minister Delegate for Digitalisation.

The objective of the Government is not only to advance on general technological development in areas of importance to the national economy and to develop new strategies for the country to move forward, but also to improve the daily life and administrative processes of businesses and citizens.

Activities of the Ministry for Digitalisation will have as main objective to make life easier for people. The Ministry for Digitalisation will be a ‘facilitator’ and a ‘coordinator’ for other ministries and other partners wishing to develop their activities in the field of digitalisation and eGovernment. The powers of the new Ministry of Digitalisation are defined by the Grand Ducal Decree on the establishment of
ministries on December 5, 2018 and could be summarised as following:

- Implementation of the “Digital Lëtzebuerg” Action Plan and monitoring of the ICT sector (shared competence with the Minister of Economy and the Minister of Communications and Media).
- Promotion of the ICT sector (shared competence with the Minister for the Economy).
- Digitisation of administrative procedures and Digital transformation of the public administration.
- Follow-up of the work of the newly created High Digital Transformation Committee.
- Development and implementation of a plan on the Internet of Things.
- Development of digital infrastructure (in consultation with the Minister of Communications and Media).
- Development of a national strategy in the field of artificial intelligence (AI) (in consultation with the Minister of Communications and Media and the Minister for the Economy).
- Implementation of the 5G national strategy and development of pilot projects (in consultation with the Minister of Communications and Media).
- Assuring a Policy of Digital inclusion.
- Promotion and organisation of the automation of state administrations, in particular as regards the collection, transmission and processing of data.
- Seeking synergies between the different governments of the state and optimising their exchange of information.
- Assistance to the various administrations of the State in the execution of the routine IT work and the management of fixed and mobile communication systems.
- Electronic filing with the State.

Beyond these political goals, the eGovernment and digitalisation strategies are defined in the following documents or on the following websites:

- 2010-2014 Master plan for implementation of information technology (« Plan directeur de la mise en œuvre des technologies de l’information au sein de l’État »)
  

- The « Digital Luxembourg Strategy » of 2014 (www.digital-luxembourg.public.lu): part of this is an adoption by the Government Council in September 2015 of the three following strategic principles in

6 http://legilux.public.lu/eli/etat/leg/agd/2018/12/05/a1099/jo
the context of eGovernment: Digital by default, Once Only and Transparency:

www.digital-luxembourg.public.lu

https://gouvernement.lu/fr/actualites/toutes_actualites/communiques/2015/07-juillet/24-conseil-gouvernement.html
https://ctie.gouvernement.lu/en/e-administration.html

● The National Interoperability Framework (NIF) approved by the Government Council on 1 March 2019. This document is unfortunately not yet online but will be published in the next weeks.

8. Please check whichever applies.

National e-government strategy or equivalent:

☒ has an implementation plan.
☒ is aligned with the national development strategy
☒ is aligned with the Sustainable Development Goals (SDGs).
☒ is aligned with sub-national/local digital development strategy.
☒ has an emphasis on digital-first principle
☒ has an emphasis on digital by default; digital by design; mobile-first principle
☒ has an emphasis on once-only (data) principle
☒ has an emphasis to ‘leave no one offline’ or to ‘leave no one behind’; or other specific measures to ensure e-government is accessible by the most vulnerable groups7
☒ makes specific reference to e-participation, digital inclusion and/or engagement.
☒ makes specific reference to the use of social media in the government.
☒ makes specific reference to the use of new technologies8 such as artificial intelligence, blockchain, big data

The national digital strategy is implemented by various ministries for the domains that fall under their responsibility and is coordinated by the Ministry for Digitalisation. The strategy is aligned with the Sustainable Development Goals (SDGs) as those goals are part of the general political goals in Luxembourg for years now and were already part of the political goals before the adoption of the SDGs on UN level.

The “Digital Luxembourg Strategy” (https://digital-luxembourg.public.lu) and the other strategies mentioned under question 7 are integral and essential elements of the national development strategy. Digitalisation is seen

7 Poor, immigrants, older persons, persons with disabilities, women, youth, indigenous people
8 Also referring to emerging technologies
as an element of central importance for the development of Luxembourg by the new government in power for a few months now. The coalition agreement (https://gouvernement.lu/dam-assets/documents/actualites/2018/12-decembre/Accord-de-coalition-2018-2023.pdf), which stresses the importance of digitalisation on dozens of pages, and the fact that for the first time a Ministry only dedicated to Digitalisation (https://digital.gouvernement.lu/en.html) has been created proof eloquently that Luxembourg sees digitalisation as a core element of its development.

Digital by default and Once only are among the main eGovernment principles and part of the eGovernment strategy:

https://gouvernement.lu/fr/actualites/toutes_actualites/communiques/2015/07-juillet/24-conseil-gouvernement.html
https://ctie.gouvernement.lu/en/e-administration.html

There is a national policy on e-participation and/or inclusion (cf. “Policy of Digital inclusion” under question 7) and a web strategy insisting on web accessibility exists for more than 15 years now. “Inclusion and accessibility” is one of the 11 principles defined in the Luxembourg NIF (National Interoperability Framework). The Tallinn Ministerial Declaration on eGovernment signed and supported by all the EU Member States on 6 October 2017 contains as the first of its six objectives “Digital by default, inclusiveness and accessibility”. A law transposing the EU Directive 2016/2102 on web accessibility will be passed in the next weeks. The UN Convention on the rights of persons with disabilities (CRPD) of 13 December 2016 and the optional protocol have been ratified by Luxembourg on 26 September 2011. Please see the following links:

http://www.vosidees.lu/
https://renow.public.lu/fr/renow-en-bref.html
http://www.internationaldisabilityalliance.org/blog/luxembourg-ratifies-crpd
https://digital-luxembourg.public.lu/initiatives/digital-inclusion

Specific reference to the use of social media in the government is made in the context of the Renow framework, which give guidelines on how and when to use social media:

https://renow.public.lu/fr/guides-pratiques/guides-medias-sociaux.html

More specific information on the use of new technologies such as artificial intelligence, Blockchain, Big data, High performance computing and Digital embassies can be find hereafter:

The Luxembourg Government supports, in different ways - also financially – start-ups or private sector companies active in emerging ICT technologies (AI, Blockchain, FinTech, Big data,) via the Digital Luxembourg strategy (https://digital-luxembourg.public.lu/), via research funding programs or via incentives for start-ups and businesses. Luxembourg is hosting the EuroHPC, the joint structure for the European strategic project in
High performance computing (HPC).

More information about Artificial intelligence initiatives in Luxembourg could be found here:
Artificial Intelligence (AI) Strategy & NVIDIA partnership:

The Government is actually preparing a comprehensive, national strategy for artificial intelligence. In March 2018, Digital Luxembourg organized an AI conference for all interested stakeholders.

On January 30, 2019, Luxembourg became the first European country to launch an Artificial Intelligence partnership with NVIDIA, a global pioneer in AI technology & GPU computing. As part of this national agreement, a joint AI laboratory will be set up in Luxembourg. Here, the nation’s research community will have access to state-of-the-art NVIDIA hardware and software, and the chance to work closely with the organisation’s computer scientists.


Find more information about Blockchain initiatives in Luxembourg here:
Different Blockchain initiatives are ongoing in Luxembourg. For example, Infrachain a.s.b.l. is a Luxembourg based non-profit organisation, created by the emerging Blockchain industry and supported by the Luxembourg Government, aiming to implement Blockchain technology solutions in a trusted manner in the current regulatory environment.

https://infrachain.com

https://digital-luxembourg.public.lu/initiatives/infrachain

Another example is the project of the Luxembourg Government IT Centre who has implemented in 2019 a Notary system based on Blockchain in view to demonstrate the benefits of this new technology.

Furthermore, the Luxembourg Ministry of Economics issued a White Paper of technical standardisation related to Blockchain technology in 2018.


Finally, LuxTrust (luxtrust.com), the provider of eID, eSignature and other trusted services for the public and the private sector in Luxembourg, is working on the implementation of a SSI (Self Sovereign Identity) solution based on Blockchain technologies.

The law of 1st March 2019 amending the amended Law of 1 August 2001 on the circulation of securities (Loi du 1er mars 2019 portant modification de la loi modifiée du 1er août 2001 concernant la circulation de titres) was passed recently. The purpose of this new law is to create a legal framework enabling the circulation of securities by the new secure electronic registration technologies, in particular those based on the Blockchain, with the aim of increasing legal certainty in this area.

http://legilux.public.lu/eli/etat/leg/loi/2019/03/01/a111/jo

More information about the Data Embassy initiatives could be found here:
The Estonian Government is using this infrastructure to host a copy of their most important servers and databases. Luxembourg host in this context the very first Data Embassy ever.

https://digital-luxembourg.public.lu/initiatives/data-embassy


In addition, the Grand Duchy of Luxembourg and the Principality of Monaco agreed in 2018 to launch a study to safeguard sensitive data in a Luxembourg Data Centre with immunity guarantees and privileges resembling those of the above-mentioned Data Embassy.

More information about Data Centres could be found here:
Luxembourg has the highest density of TIER IV Data Centre infrastructure in Europe. Creating a strong infrastructure in general and high performance data centres in particular is a central element of the "Digital Lëtzebuerg" strategy. These Data Centres use to a very large and continuously growing extent cloud technologies.

https://digital-luxembourg.public.lu/priorities/infrastructure/data-centers

https://datacenters-in-europe.com

Intensive negotiations with Google, one of the greatest multinational technology company specialized in Internet-related services and products, are launched currently by the Government in order to implement the 1 € Billion European Google Data Centre in Luxembourg.
More information about High-Performance Computing could be found here:
In an effort to fortify the digital competitiveness of Luxembourg & Europe, the government signed a European high-performance computing (HPC) declaration. Known as EuroHPC, the move promises collaboration in setting up an EU-wide HPC network initiated by Luxembourg.

By signing, Luxembourg, Italy, Spain, France, Germany, Portugal & the Netherlands fortify the Europe 2020 Strategy by helping secure the computing capabilities needed for EU’s competitiveness as a digital economy. On June 25, 2018, the European Commission decided to establish the EuroHPC joint headquarters in Luxembourg. It will equip the EU with a pre-exascale & petascale infrastructure (1015 calculation operations per second) by 2020 & develop the technologies & applications needed to reach the exascale level (1018 calculation operations per second) by 2023.
Lastly, the University of Luxembourg is home to an HPC and a €10-million budget was allocated for a new, faster one.


https://meco.gouvernement.lu/fr.html

5G initiatives
A fibre-to-the-home (FTTH) rollout has quickly connected 60% of households.
A 5G taskforce was established, a national 5G strategy was defined and launched on September 12th, 2018.

see: Roadmap for the 5th generation of mobile communication in Luxembourg


The 5GCroCo Project
Furthermore, POST Luxembourg, the country's largest provider of postal and telecommunications services, has just been selected by the European Commission as part of the 5GCroCo (5G Cross-Border Control) European research project to provide the 5G coverage of the Luxembourg section of the motorway section linking Metz (France), Merzig (Germany) and the Grand Duchy to perform life-size tests of 5G technology applied to the needs of autonomous and connected driving.

Find more information under : https://5gcroco.eu

More information about Open Data could be found here:
The use and reuse of data has been driven forward in 2018 in the context of the national Open Data strategy and via the Luxembourg Open Data portal: data.public.lu

Luxembourg ranked again 6th in the field of Open Data maturity across Europe according to a study of the
European Commission.

Find more information under: “Open Data maturity across Europe”

https://www.europeandataportal.eu/en/dashboard#tab-map


More information about the Luxembourg Space Agency (LSA) & Space Resources initiative could be found here:
The mission of the Luxembourg Space Agency is to promote the economic development of the space sector in Luxembourg by providing support to the space industry, attracting new businesses, developing human resources, offering innovative financial solutions, facilitating synergies outside the space sector and supporting academic learning & research.
As such, it operates SpaceResources.lu, enabling private investors and companies to explore and use space resources. A pioneer in commercial satellite communications, Luxembourg wants to support advanced research and technologies, while ensuring that space resources explored under its jurisdiction serve an ethical purpose and are gathered in a sustainable, legal manner.

Find more information here:
https://space-agency.public.lu/en.html
https://spaceresources.public.lu/en.html

More information about further FinTech & Digitalisation topics could be found here:
https://wwwen.uni.lu/recherche/fdef/research_unit_in_law/research_areas/fintech_digitalisation

III. Legal Framework
9. Is there any legal framework on:
☒ access to information such as Freedom of Information Act
☒ personal data protection including digital security
For a detailed overview on the legal framework, please consult the most recent eGovernment fact sheet for Luxembourg published by the EU Commission:


**Access to information:**
The Law of 14 September 2018 relating to a transparent and open administration (Loi du 14 septembre 2018 relative à une administration transparente et ouverte)


Re-use of Public Sector Information (PSI) Law of 23 May 2016
http://legilux.public.lu/eli/etat/leg/loi/2016/05/23/n1/jo

**Personal data protection including digital security:**
EU General Data Protection Regulation (GDPR)


**Open government data:**
Re-use of Public Sector Information (PSI) Law of 23 May 2016

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<sup>9</sup> Related to SDG Indicator 16.6.1
Digital identity:
EU eIDAS regulation

Law of June 19, 2013 concerning the identification of physical persons (Loi du 19 juin 2013 relative à l'identification des personnes physiques, au registre national des personnes physiques, à la carte d'identité, aux registres communaux des personnes physiques)
http://legilux.public.lu/eli/etat/leg/memorial/2013/107

Digital certification/signature:
The modified eCommerce Act of 14 August 2000 (Loi modifiée du 14 août 2000 relative au commerce électronique)
http://legilux.public.lu/eli/etat/leg/loi/2000/08/14/n8/jo

EU eIDAS regulation

E-procurement:
Modified act on public procurement of 8 April 2018 (Loi modifiée du 8 avril 2018 sur les marchés publics)

Law on electronic invoicing in public procurement and concession contracts passed on 26 March 2019 by Parliament (Loi relative à la facturation électronique dans le cadre des marchés publics et des contrats de concession)
https://chd.lu/wps/portal/public/Accueil/TravailALaChambre/Recherche/RoleDesAffaires?action=doDocpaDetails&id=7271&backto=p0/I7_KHCC1240N8KQ10AN3G1BK33081=CZ6_D2DVRI42086F0IGS4F64K08L5=M/#Z7_KHCC1240N8KQ10AN3G1BK33081

Digitally publishing government expenditure:
Re-use of Public Sector Information (PSI) Law of 23 May 2016
http://legilux.public.lu/eli/etat/leg/loi/2016/05/23/n1/jo

Data interoperability:
No specific law touching only on interoperability but several laws covering also interoperability aspects. For example:

Law of June 19, 2013 concerning the identification of physical persons (Loi du 19 juin 2013 relative à l'identification des personnes physiques, au registre national des personnes physiques, à la carte d'identité, aux registres communaux des personnes physiques)
http://legilux.public.lu/eli/etat/leg/memorial/2013/107
Re-use of Public Sector Information (PSI) Law of 23 May 2016
http://legilux.public.lu/eli/etat/leg/loi/2016/05/23/n1/jo
Law on electronic invoicing in public procurement and concession contracts passed on 26 March 2019 by Parliament (Loi relative à la facturation électronique dans le cadre des marchés publics et des contrats de
Furthermore the Luxembourg Government Council has approved on 1 March 2019 the Luxembourg NIF (National Interoperability Framework) defining the principles, the objectives, the governance and the recommendations in the field of interoperability.

IV. Usage of online services

10. Do you collect usage statistics of e-government services?

☒ Yes ☐ No

11. If yes, do you publish results online and share those with the public institutions concerned?

https://seafile.iaik.tugraz.at/d/841e38ed08/files/?p=/Session%204%20%2813.45-14.45%29%20Transparent%20management%20of%20personal%20data%20in%20Luxembourg_Gerard%20Soisson%2C%20LU.pptx

General usage statistics are published online in the context of different communicational activities. The detailed statistics touching on one specific website or one specific eGovernment service are shared with the public institutions concerned. The organisations responsible for websites can in general get access via a dedicated tool to the usage statistics for their webpages. They also get an overview of the usage of their eGovernment services.

V. User satisfaction

12. Do you measure satisfaction of citizens on e-government services?

☒ Yes ☐ No see comment

13. If yes, do you publish results online and share those with the public institutions concerned?

The results are shared with the public institutions concerned but not published online. The usability of the e-government services and thus the satisfaction is mostly measured via user tests and via feedback collected (by phone, by email, face to face) through the helpdesk managed by the guichet.lu team (https://guichet.public.lu/fr/support/contact.html) but occasionally also via online questionnaires. The results of such questionnaires have, as all UX experts know, to be interpreted with caution because
they do not necessarily give always a solid basis for necessary changes or amendments. User tests are in general for UX experts the preferred approach and they deliver results that are more objective. Questionnaires can be an additional input but the design of online services should never only or mainly be based on satisfaction questionnaires. Cf. renow.lu

VI. Social Media

14. How does your government use social media at the national level to interact with and engage people in e-government activities? Please also explain if there were any guidelines for government officials on the use of social media.

The One stop shop Guichet.lu (PSC: Point of Single Contact) is communicating systematically and regularly via social media on the new initiatives or services in the domain of digital government. This is done via the portal itself, which has a very high number of regular users, or via social media (Twitter, Facebook) or via other more traditional means.
https://guichet.public.lu
https://www.facebook.com/guichet.lu
https://www.facebook.com/Business.lu
https://twitter.com/Guichet_lu

Social media channels are also used by the Information and Press Service (Service information et presse, SIP) of the Ministry of State, the body responsible for information and communication from the Luxembourg Government to the general public.
https://gouvernement.lu
https://twitter.com/gouv_lu
https://www.facebook.com/pages/Gouvernement-luxembourgeois/792509457440940

Furthermore, other governmental organisations use also social media to communicate about their eGovernment activities, for example:
Statec, the Luxembourg Office responsible for statistics:
https://statistiques.public.lu/fr/support/mobile
National Museum for History and Art:
https://mnha.lu
https://www.facebook.com/museenational
https://twitter.com/museenational
https://www.youtube.com/user/MNHALuxembourg

The guidelines for government officials on the use of social media are defined in the context of the Renow
framework:

https://renow.public.lu/fr/guides-pratiques/guides-medias-sociaux.html

VII. New Technologies

15. Does your government have a **specific national strategy** on one or more of following new technologies?

☒ Artificial Intelligence (AI) ☒ Blockchain ☒ Big data ☒ Smart cities

☐ Robotics ☒ Internet of Things (IOT) ☐ Quantum computing ☒ Virtual reality

☒ Augmented reality ☒ Other: High Performance Computing (HPC)

**Artificial intelligence:** see Q8 – initiatives in Luxembourg;

**Blockchain:** see Q8 – initiatives in Luxembourg

**Industry 4.0, High Performance Computing and Big Data:** see Q8 - initiatives in Luxembourg


**Virtual & augmented reality:**

[https://digital-luxembourg.public.lu/initiatives/heritage-future](https://digital-luxembourg.public.lu/initiatives/heritage-future);

https://digital-luxembourg.public.lu/initiatives/virtual-reality

**Smart Cities:**


University Luxembourg Symposium: the emergence of the Smart City:


Luxembourg city as a smart city: [https://www.theneweconomy.com/technology/the-e-city-of-luxembourg](https://www.theneweconomy.com/technology/the-e-city-of-luxembourg);

**Internet of things:**

Satellite-based IoT:


POST (Luxembourg State owned Postal & Telecommunications Company):


[https://www.i-scoop.eu/post-luxembourg-iot](https://www.i-scoop.eu/post-luxembourg-iot)

[https://www.itnation.lu/post-deploie-un-large-eventail-de-solutions-iot](https://www.itnation.lu/post-deploie-un-large-eventail-de-solutions-iot)


Education:


Private companies initiatives:


16. Does your government have any government body\(^\text{10}\) at the national level working specifically related

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\(^{10}\) This can be an agency, cabinet, commission, committee, initiative etc.
In this context, we identify in Luxembourg 4 main bodies:

a) The Ministry of Digitalisation (set up in October 2018)

b) The Department of Media, Telecommunications and Digital Policy (SMC) is part of the Ministry of State and directly reports to the Minister for Communications and Media, Xavier BETTEL, who is also Minister of State, Prime Minister and Minister for Digitalisation. Since its creation, it has been supporting the development of new IT technology and media. It is nowadays in charge of the following domains: digital agenda “Digital Luxembourg initiative”, media (print, radio, television, online media, audio-visual production, etc.), space, electronic communications (5G, artificial intelligence,) and postal services, radio frequencies, open data policy.
https://digital-luxembourg.public.lu/

C) The Government IT Centre (Centre des Technologies de l’État - CTIE) is the central player in the setting up and development of eGovernment. Its main mission is to accompany the digital transformation of the Grand Duchy’s administrations, so that each of them may take full advantage of all the opportunities offered by the information and communication technologies (ICTs), in an intelligent, considered and organised fashion.
https://ctie.gouvernement.lu/en.html

d) The Ministry of the Economy, which ensures the implementation of the economic competitiveness policy in Luxembourg.
https://meco.gouvernement.lu

Please explain further including relevant links (Max 250 words).

VIII. Indicators

17. What is the percentage of the population\textsuperscript{11} satisfied with their last experience of online public services?

An online survey asking users to give their feedback on the services offered via the one stop shop and Point of Single Contact for citizens and enterprises guichet.lu has been organised from November 2017 to January 2018.

The result of this survey shows that on average and depending on the specific questions asked, more or less 90 \% of the users were satisfied or very satisfied with the services provided. The detailed results can be found in the document “GU-Résultats sondage 20180208.pptx” submitted together with this form via email.

The results of this survey were one of the inputs used for the fundamental redesign of guichet.lu that

\textsuperscript{11} Related to SDG Indicator 16.6.2 Proportion of population satisfied with their last experience of public services. See for all indicators:
lead to the launch of a new and even better version of the PSC in June 2018.

18. What percentage of your GDP is allocated for ICT investment in the public sector?

No statistics are available

19. What is the proportion of persons employed in central government organizations routinely using ICTs?

Luxembourg has in Europe (EU and other European countries) the highest percentage of individuals who have basic or above basic overall digital skills: https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tepsr_sp410&language=en

Luxembourg has the fifth-highest percentage of ICT specialists in the EU: https://ec.europa.eu/eurostat/statistics-explained/index.php/ICT_specialists_in_employment

Each civil servant or public employee who needs in some way or another a PC for his job, gets also a PC.

Given the above mentioned facts and even if we do not have specific statistics aiming only at ICT use for persons employed in central government organisations, one can consider that probably around 95% of these persons routinely use ICT.

20. What is the proportion of persons employed in central government organizations routinely using the Internet?

Luxembourg had in 2018 the second highest percentage of individuals using Internet in the EU (97%).

21. If any, what kind of indicators do you collect/use to track digital literacy at the national level?

Survey on ICT usage by households and individuals: https://statistiques.public.lu/fr/enquetes/espace-menages/enquete-TIC/index.html

Survey on individuals who have basic or above basic overall digital skills: https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tepsr_sp410&language=en

IX. International and Regional Cooperation

22. Is your government part of any sub-regional, regional or international cooperation on e-government?

Luxembourg is a member of EU, OCDE, UN, Benelux and many other international organisations. As such, Luxembourg cooperates on e-government in these organisations.

The cooperation at EU level is logically the most important. Luxembourg is involved at EU level, among others, in the context of the European e-government action plan (2016-2020), the European Interoperability Framework (EIF), the Tallinn Ministerial Declaration on eGovernment of October 2017.

Luxembourg, as an EU Member State, participates also to the definition of the high number of

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regulations or directives of the EU touching on eGovernment and applies them once they are passed.

23. Is your government offering (or planning to offer) support to other countries in the area of e-government?

There is a regular informal and more official exchange with other European e-government entities and governments on a bilateral or multilateral (mainly EU) basis.

Luxembourg has in this context for example implemented a data embassy in Luxembourg for Estonia.

There are many ongoing public-private partnerships and multistakeholder partnerships. Cf.

24. Are there any ongoing public-private partnerships and multistakeholder partnerships, focusing on e-government?

X. Contact and Additional Information

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Organization: Luxembourg Government IT Centre (CTIE)

1. Please select whichever applies:

☒ A group of government agencies responded to the questionnaire collectively.

☒ I am authorized and fully knowledgeable to respond to this questionnaire.

☐ I did not have the full information to respond to this questionnaire

☐ I mostly provided my own opinion/assessment rather than official information.

☐ Other:

Please explain further (Max 250 words).

2. How did you hear about this questionnaire?

☒ Directly from UN DESA

☐ From the Mission of my country to the United Nations

☒ United Nations E-Government Survey website

☐ LinkedIn
Personal observation:
Your questionnaire is not designed in a very user-centric manner. It is often really cumbersome to fill in the form due to limitations defined in the form that hinder the user to work smoothly and swiftly. The somehow chaotic and irregular look and feel of the filled in form is mainly a result of these limitations of the form, which make it difficult to create a clean and coherent document.

Thank you for taking the time to fill out the Member States Questionnaire (MSQ) 2020.
We appreciate your participation.