



Digitalisation and digital transformation in Latvia

Implications for persons with disabilities

June 2021

EUROPEAN COMMISSION

Directorate-General for Employment, Social Affairs and Inclusion

Directorate D — Social Rights and Inclusion

Unit D3 — Disability and Inclusion

European Commission

B-1049 Brussels

Digitalisation and digital transformation in Latvia

Implications for persons with disabilities

Daina Podzina

This report has been developed under Contract VC/2020/0273 with the European Commission.

LEGAL NOTICE

Manuscript completed in June 2021

This document has been prepared for the European Commission however it reflects the views only of the authors, and the European Commission is not liable for any consequence stemming from the reuse of this publication. More information on the European Union is available on the Internet (<http://www.europa.eu>).

The European Commission is not liable for any consequence stemming from the reuse of this publication.

Luxembourg: Publications Office of the European Union, 2021

© European Union, 2021



The reuse policy of European Commission documents is implemented based on Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Except otherwise noted, the reuse of this document is authorised under a Creative Commons Attribution 4.0 International (CC-BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

Table of contents

1	Executive summary	6
2	Are government strategies and plans on digitalisation and digital transformation disability-inclusive?	8
2.1	Disability inclusion in generic strategies on digitalisation and digital transformation	8
2.2	Disability inclusion in focused or sector-specific strategies on digitalisation and digital transformation	13
3	Do disability strategies address the potential of and challenges pertaining to digitalisation and digital transformation?	16
3.1	How digitalisation and digital transformation are addressed in the national disability strategy	16
3.2	How digitalisation and digital transformation are addressed in specific disability-related strategies	16
4	Promoting disability inclusion through funding, education and training	19
4.1	How funding promotes disability-inclusive digitalisation and digital transformation	19
4.2	How disability inclusion is promoted through the education and training of digital professionals	19
4.3	How digital inclusion and accessibility is addressed in the education and training of accessibility and inclusion professionals	20
4.4	How digital inclusion is addressed via the training of people with disabilities	21
5	The opportunities and challenges presented by digitalisation and digital transformation to the rights of persons with disabilities	22
5.1	The most significant opportunities presented by digitalisation and digital transformation for persons with disabilities	22
5.2	The most significant challenges faced by persons with disabilities in relation to digitalisation and digital transformation	22
6	Conclusions and recommendations	25
6.1	Conclusions	25
6.2	Recommendations	25

1 Executive summary

In Latvia, the Digital Transformation Guidelines for 2021-2027¹ were drawn up in May 2021. In these guidelines, a common policy for digital development in the public administration, in the economy and in society is defined. Persons with disabilities are not explicitly identified as a target group in this policy planning document, but they are included within 'individuals with special needs' and are partly included in the target group 'seniors'. At the same time, the guidelines identify people with functional impairments such as vision, hearing or physical impairment. Consequently, all measures planned for Latvian residents refer to persons with disabilities. The Digital Transformation Guidelines do not specifically mention the accessibility of digital products for persons with disabilities.

Only in the component 'Machine translation and language technologies', the need to adapt the Latvian digital space - so that its text, audio and video content are available to people with visual, hearing, movement and perception disabilities (such as dyslexia) and other residents of Latvia and the other EU Member States - is indicated as an additional vision. Mainstreaming is the basic principle in policy development planning. This principle also refers to digital funding programmes. Assessing whether and in what way, the needs of individuals with special needs, seniors and people with vision, hearing or physical impairment are addressed (if addressed at all) will be possible only after the adoption of the appropriate regulations.

In the short-term policy planning document *Plan to promote equal opportunities for persons with disabilities for 2021-2023*, which seeks to ensure the development of disability policy over the next three years, only some of the directions for action include digitalisation and digital transformation activities. The planned measures to develop an electronic catalogue (application) detailing the availability of support services and service providers and to prepare captioned multimedia materials would have the most direct impact on people with disabilities. An indirect impact on persons with disabilities can be discerned in measures regarding:

- the development of a digital data exchange system between public administration institutions in the fields of disability and social services;
- improvement of access to electronic media services for persons with disabilities;
- preparation of the digital manual on mainstreaming equal opportunities and the principle of non-discrimination in policy planning, implementation and evaluation processes for sectoral policymakers;
- Online training seminars for municipal election commissions and polling station commissions before the 2021 municipal elections and the 2022 Saeima (parliamentary) elections on communication with and support for voters with disabilities.²

¹ Ministry of Environmental Protection and Regional Development (2020), *Digitālās transformācijas pamatnostādnes 2021-2027.gadam (Projekts)* (Digital Transformation Guidelines for 2021-2027 (project)), <http://tap.mk.gov.lv/lv/mk/tap/?pid=40496916>. Subsequent mentions: Digital Transformation Guidelines (2020).

² Ministry of Welfare (2021), *Plāns personu ar invaliditāti vienlīdzīgu iespēju veicināšanai 2021-2023.gadam (Plan to promote equal opportunities for persons with disabilities for 2021-2023)*, pp. 21, 19, 42-43, 45, 47, <https://www.lm.gov.lv/lv/lm-dokumentu-projekti-0>.

For this report, representatives of NGOs for persons with disabilities were interviewed, and they pointed out that:

- NGOs are not involved in the development of policy planning and regulatory enactment, including in the field of digitalisation and digital transformation.
- The COVID-19 crisis has proved the need for digitalisation, but people with disabilities do not have the necessary devices, software or knowledge. In addition to the development of digital solutions, alternative solutions should be provided for persons with disabilities who, due to objective reasons (such as a very severe intellectual disability), cannot use digital services.
- Concrete action plans and funding are needed to reduce the digital divide, depending on the type of disability, the age of the person, the place of residence, and the level of income and digital skills.

Good practices

The creation of a common information system for the exchange of digital data between functioning assessment and disability determination and institutions involved in the provision of services to persons with disabilities, such as the State Employment Agency and the Social Integration State Agency (a social and vocational rehabilitation institution), can be identified as an example of best practice in the short-term policy planning document *Plan to promote equal opportunities for persons with disabilities for 2021-2023*. The measure focuses more on public administration. The need for a uniform information system to exchange digital data between state institutions is highlighted. Although the measure does not include a description of information system accessibility for persons with disabilities, it has an indirect (but significant) impact. There will no longer be a need to provide status-affirming or service-related documents to each service provider.

Recommendations

In order to promote the digital inclusion of people with disabilities, it is necessary to involve NGO representatives in Latvia in the development of policy planning (including action plans) and regulatory enactment; to include an 'equal opportunity' dimension in each policy planning document; and to incorporate specific measures targeted at people with disabilities. In addition to the new digital solutions, alternative solutions need to be developed for those who have limited access to ICT devices and technologies due to objective reasons, and training programmes on digital skills should include topics regarding disability needs and access to ICT smart devices and technologies.

At the EU level, the question of financing the development and improvement of speech synthesizers (where the number of users is relatively small) from the EU budget should be addressed.

2 Are government strategies and plans on digitalisation and digital transformation disability-inclusive?

2.1 Disability inclusion in generic strategies on digitalisation and digital transformation

In Latvia, the Digital Transformation Guidelines for 2021-2027³ were drawn up and announced at the state secretaries' meeting in January 2021. These guidelines set out a common policy for public administration, the economy and the digital development of society. The guidelines build on and expand the sustainable development goals of Latvia as defined in the medium-term and long-term policy documents *National Development Plan of Latvia for 2021-2027*⁴ and *Strategy 2030*,⁵ and the priorities for digital development as defined by the European Union.⁶ For the implementation of actions under the guidelines, Latvia intends to use funding from EU structural funds, its national budget and other financial instruments.

The implementation of the guidelines relates to five priority areas/fields:

1. Digital skills and education;
2. Digital security and credibility;
3. The availability of telecommunications and computing;
4. Digital transformation of the economy (including public administration);
5. Innovation, ICT industry and ICT science.

The guidelines state that implementing the digital development policy will 'provide an opportunity to acquire the necessary skills for each citizen at any stage of life, in line with the need for the use of the opportunities provided by digital transformation, while providing merchants with an appropriate digital environment that will boost the capacity of merchants to develop more competitive services and solutions, while national administrations will ensure the transition from institutional and national digitalisation solutions to the development of open ecosystems.'⁷

Persons with disabilities are not identified as a direct target group in this policy planning document, but they are included within the group 'individuals with special needs' and are partly included in the target group 'seniors'. At the same time, the guidelines mention people with functional impairments such as vision, hearing or physical impairment. Consequently, all measures planned for Latvian residents refer to persons with disabilities.

³ *Digital Transformation Guidelines (2020)*.

⁴ Cross-sectoral Coordination Centre of the Republic of Latvia (2020), *Nacionālais attīstības plāns 2021. – 2027. gadam (National Development Plan of Latvia for 2021-2027)*, https://www.pkc.gov.lv/sites/default/files/inline-files/NAP2027_apstiprin%C4%81ts%20Saeim%C4%81_1.pdf. Subsequent mentions: National Development Plan (2020).

⁵ *Saeima (Parliament) of the Republic of Latvia (2010), Stratēģija 2030 (Strategy 2030)*, https://www.pkc.gov.lv/sites/default/files/inline-files/Latvija_2030_7.pdf.

⁶ Digital Europe programme (2021-2027), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018AR3951>; Annual Sustainable Growth Strategy 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1578392227719&uri=CELEX%3A52019DC0650>; EU's Digital Strategy, https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age_lv.

⁷ *Digital Transformation Guidelines (2020)*, p. 9.

'Digital Skills and Education' is one of the areas of policy directly targeted at the population. The policy objective related to this particular field of action is to ensure the possibility 'to acquire digital skills on a permanent and individualised basis for everyday, employment, including work in ICT specialities and increasing the number of women employed in these specialities, for business, science and research, in order to move towards a society that builds its prosperity in the efficient use of digital technology capabilities and creative development'.⁸ This policy area includes several directions or components, such as:

1. Participation and practical use of e-solutions: a basic set of digital skills and digital tools for each citizen;
2. Provision of services;
3. Development of services and systems;
4. Impacts and profits;
5. Digital skills in the education sector;
6. Digital skills in the health sector.

It is expected that by implementing the measures set out in the guidelines in the framework for the first component, the number of people with digital skills, and the number of ICT professionals and female ICT specialists, will increase. The measures to be taken are as follows:

- Training and communication activities in line with the interests of the target groups, the use of media and other information channels and the use of electronic solutions.
- Addressing older people and people with special needs (identified as the target group for a hard-to-reach society) through trusted channels – digital agents and non-governmental organisations. Latvia has a wide network of public libraries, with free-access computers and the internet available. Librarians who contribute significantly to improving the digital skills of citizens are expected to fulfil the role of digital agents.
- The training of digital agents and public administration (including municipal) customer services in critical thinking, compliance with security in the electronic environment, electronic identification, electronic services and solutions, and the transfer of this knowledge to local communities and their customers.
- The inclusion of digital skills in different educational programmes and levels of education according to the age of the learners, perceptions, needs and other factors.
- Purposefully organised lifelong learning activities to acquire digital skills for the different population target groups, as close as possible to their place of residence.⁹

It is planned that the Ministry of Education and Science, in cooperation with the Ministry of Environmental Protection and Regional Development, the Ministry of Economics, the Ministry of Welfare and NGOs (specific NGOs are not defined) will develop and implement a single action plan to ensure the acquisition of digital skills as a rolling key skill for each citizen.

⁸ *Digital Transformation Guidelines (2020)*, p. 19.

⁹ *Digital Transformation Guidelines (2020)*, p. 22.

In the frameworks for components 2 (provision of services), 3 (development of services and systems) and 4 (impacts and profits), the planned measures envisage an increase in the digital skills of state administration (including municipal) employees and private companies for the provision of existing and new services.¹⁰

Component 5, 'Digital skills in the education sector', includes:

- The development of digital skills by teachers and managers of educational institutions for the efficient organisation of internal processes and the governance of personnel.
- The development and use of digital skills in the educational process at all levels of education, creating digital learning content to improve the quality of remote learning, promoting interest education of pupils in the field of ICT, promoting the recruitment of young people to the ICT profession, promoting cooperation between higher and vocational education institutions and employers and industry associations, strengthening universities as a technology transfer, centres for smart growth and innovation.
- Support for the development of digital skills for employees, as well as for the unemployed, job seekers and adults at risk of unemployment, by continuing support for adults for the acquisition of knowledge and skills needed for the development of the economy, including in the workplace, making digital skills one of the skills to be acquired and promoting the development of ICT skills for the ability to switch to work in the ICT sector, the development of global digital skills for more effective inclusion in the digital community, including the development of a variety of digital solutions (for example, mobile learning apps, learning records and others), the development of public-private partnerships to support education and reduce learning barriers, providing training flexibly and remotely, and providing opportunities for the acquisition of online training platforms by co-financing the obtaining of a certificate.

The responsible institution for the performance of the tasks¹¹ specified in the framework for component 5 is the Ministry of Education and Science, in cooperation with the Ministry of Defence, the Ministry of Economics, the Ministry of Culture, the State Chancellery, the Free Trade Union Confederation of Latvia, the Employers' Confederation of Latvia, local governments and planning regions.^{12 13}

The framework for component 6, 'Digital skills in the health sector', plans the following measures:

¹⁰ *Digital Transformation Guidelines* (2020), pp. 20-36.

¹¹ Tasks identified within the component framework of: developing digital skills as rolling skills in the education sector, including the development of digital skills for trainers and managers of educational institutions; the development and use of digital skills in the educational process; support for the development of digital skills for adults in employment.

¹² Regional institutions have been formed since 1997, following the initiatives of local governments for joint development planning. In accordance with the Regional Development Law, five planning regions have been established in Latvia – Kurzeme Planning Region, Latgale Planning Region, Riga Planning Region, Vidzeme Planning Region and Zemgale Planning Region. A planning region is a derived public person. Within the scope of their competence, planning regions ensure the planning and co-ordination of regional development, and co-operation between local government and other state administrative institutions. (Regional Development Law (2002), ss. 5, 16¹, <https://likumi.lv/ta/en/en/id/61002-regional-development-law>).

¹³ *Digital Transformation Guidelines* (2020), pp. 37-42.

- Establishing compulsory and adapted education programmes and study courses for health professionals (including the creation of the new study courses and study programmes) for the development of digital skills in health pre-diploma and post-graduate courses, including vocational development programmes.
- Include digital solutions and services available in medical treatment and care in clinical guidelines.
- Include knowledge and skills on the information systems used in the health sector in the course of health studies.
- Establishing a health data safety framework for access to data in the medical process, as well as for the pre-diploma and postgraduate education process and research needs of health professionals.
- Open health data for their availability to public research and science, as well as for commercial research.
- Develop the system for further training in the health sector on a university basis.

Two tasks are planned for the implementation of the specified measures.¹⁴ The responsible institution is the Ministry of Health, in cooperation with professional associations, the National Health Service, universities, university hospitals and other medical institutions.¹⁵ Patient representative organisations are not mentioned.

The indicative funding related to the field 'Digital Skills and Education' is EUR 45.5 million.

The field 'Digital Security and Reliability' (with indicative funding of EUR 18.6 million) includes the 'Electronic Identity and Reliability Services' component. As part of it, the development of e-ID, e-signature and e-services is planned. The development of a mobile app for people aged 7 to 14 has been highlighted as necessary. Young people and non-residents have been identified as a target group to complement the national platform for e-ID and reliability services with new services. The responsible authorities are the Ministry of the Interior, the Ministry of Environmental Protection and Regional Development and the Ministry of Transport, in cooperation with other state administrative authorities. NGOs have not been identified as co-responsible.¹⁶ Persons with disabilities have not been identified as the target group; their needs have not been identified; and solutions have not been planned.

The direction entitled 'The digital transformation of the economy (including public administration)' (with indicative funding of EUR 490.2 million) includes 13 components.¹⁷ One of the performance indicators to be achieved in the 'Social wellbeing and health' component is the increase in communication in the electronic environment between the institutions, as well as with citizens and businesses,

¹⁴ Development of digital skills for medical practitioners, including work on the health information system, use of telemedicine tools in work with patients, provision of counselling and recording of patient disease monitoring indicators. Improving the professional competence of medical practitioners through the use of digital tools.

¹⁵ *Digital Transformation Guidelines* (2020), pp. 43-45.

¹⁶ *Digital Transformation Guidelines* (2020), pp. 53-57.

¹⁷ Other components or directions of action are: service platforms; data management, opening and analysis; finance and taxation; digitalisation of environmental management; public security, order and justice; machine translation and language technologies; preservation and development of cultural heritage in the digital environment; modern and open state administration; rational support for public administration technologies; promotion of digitalisation of merchants; digitalisation of scientific processes; and digital transformation of educational processes.

ministries and their subordinate institutions, from 42 % in 2019 to 90 % in 2027, and municipalities and their institutions from 23 % in 2019 to 90 % in 2027.

In the 'Social wellbeing and health' component, the planned activities are aimed at ensuring the availability and sharing of information and data needed for personal medical care in the field of health services, both in Latvia and other EU countries. Digitalisation and planning of hospital and ambulatory care processes, and modern digital technologies, will be implemented. The digital transformation of the healthcare sector is intended to be implemented by supplementing traditional approaches to healthcare with artificial intelligence technology, such as applications for assessing drug compatibility and developing medical recommendations. Among other things, the sharing and in-depth analysis and use of national, business and personal, personal-managed physiological, lifestyle and nutrition data will be provided in an ecosystem of proactive services for an individual's lifestyle and social care.

The identified challenges, mainly in the field of healthcare and in the areas of social care and social rehabilitation¹⁸ include:

- Establishing common data standards and classifiers for the exchange of information between healthcare information systems and databases.
- Ensuring the full functioning of the electronic patient health card.
- Establishing a single e-care platform to support the organisation of social care services, social services and social assistance.
- Ensuring the exchange of data between e-health and welfare information systems within a single platform.
- Performing the integration of merchant information systems in medical treatment institutions with the e-health system.

The responsible institution is the Ministry of Health, while co-responsible institutions have not been specified, despite the fact that the planned digital transformation measures also apply to the areas of responsibility of the Ministry of Welfare and local government.¹⁹ Patients' rights NGOs or NGOs representing persons with disabilities are not identified as co-responsible bodies.

In another component, 'Machine translation and language technologies', several objectives which can refer to persons with disabilities (although this term is not used) have been identified. One objective is to adapt the Latvian digital space so that its text, audio and video content is available to people with visual, hearing, movement and perception disabilities (such as dyslexia) and other residents of Latvia and the other EU Member States. The other objective envisages the provision of digital services and text, audio and video content in a format accessible to people with vision or hearing impairments, dyslexia or special needs. Responsibility for the performance of the

¹⁸ The identified challenges are insufficient collection of medical and social data and data fragmentation of patients and social care clients; different information and communication technology solutions in hospitals, outpatient medical facilities and social services institutions and lack of mutual integration; insufficient data exchange between patients and customers and the health and welfare sectors; and insufficient security of personal data, digitalisation of processes for improving healthcare and social services.

¹⁹ *Digital Transformation Guidelines* (2020), pp. 131-139.

planned tasks²⁰ lies with the Ministry of Culture, and co-responsibility with the Ministry of Education and Science. NGO engagement is not specified.²¹

In the 'Preservation and development of cultural heritage in the digital environment' component, blind, short-sighted, deaf or hearing-impaired people, people with dyslexia and those with mobility disabilities are identified as users who do not have equal rights to get to know the cultural heritage. That is due to:

- The lack of modern and tailor-made solutions and services for consuming digital cultural heritage, which does not ensure adequate access to cultural heritage.
- Access to data and content, the diversity of the resources of the digital cultural heritage, including the cultural heritage digitised with modern technologies (for example, 3D models and scan dot clouds, results of digital reconstruction techniques).
- Creating services that open up new applications.

The Ministry of Culture is the responsible institution for developing a single ecosystem for cultural heritage data and for implementing the second level of development of the integrated platform for Latvian cultural heritage. Co-responsible institutions, including NGOs, are not specified.²²

The guidelines were developed by a working group of more than 200 representatives from various ministries, organisations representing the ICT industry, the Latvia State Radio and Television Centre, the Latvian National Commission for UNESCO, the National Library of Latvia, the Latvian Chamber of Commerce and Industry, the Employers' Confederation of Latvia, the Latvian Association of Local and Regional Governments and other institutions under the leadership of the Ministry of Environmental Protection and Regional Development.²³ During phone interviews, it became clear that disability organisations were not involved in drafting this document (in practice, they did not know that such guidelines had been drawn up). The participation of NGOs representing persons with disabilities in implementing this medium-term policy planning document is not envisaged.

2.2 Disability inclusion in focused or sector-specific strategies on digitalisation and digital transformation

In Latvia, the policy planning system is established following the principle that the measures set out in one document are not duplicated in other documents but should complement each other.

The most important policy planning documents, which include issues regarding digitalisation and digital transformation, are the *National Development Plan of Latvia*

²⁰ Planned tasks: Developing a strategic plan for accessing language technologies for entrepreneurs, identifying language resource sets, preconditions for retrieving, collecting and opening them, and creating the necessary regulatory framework, ensuring that all language resources developed and publicly funded in the public sector are available on a single platform and can be used in the EC machine translation system.

²¹ *Digital Transformation Guidelines (2020)*, pp. 140-143.

²² *Digital Transformation Guidelines (2020)*, pp. 144-147.

²³ *Digital Transformation Guidelines (2020)*, p. 7.

for 2021-2027²⁴ and the *Recovery and Resilience Facility Plan of Latvia for 2021-2026*.²⁵

The National Development Plan for 2021-2027 is the main medium-term development planning document for Latvia. It sets outgrowth in four strategic goals: equal rights, quality of life, the knowledge society and a responsible Latvia; and six priority areas: 'Strong families, a healthy and active population', 'Knowledge and skills for personal and national growth', 'Business competitiveness and material wellbeing', 'Quality living environment and regional development', 'Culture and sport for an active lifestyle' and 'A united and open, safe and secure society'. Each priority consists of several directions for key policies.

The National Development Plan for 2021-2027 does not identify persons with disabilities as a particular target group, but persons with disabilities may benefit from measures planned for all Latvian residents (the mainstreaming principle), for example:

- Under the direction for key policy entitled 'Human-focused health care', the necessity of implementing health promotion and prevention measures is defined, as well as developing new integrated models for the organisation and delivery of health and social care services focused on patients; promoting the deployment of digital platforms; and developing medical technologies, primarily in the centres of excellence. The target group is patients with psychiatric diseases and behavioural disorders, those in the terminal stages of a terminal illness and people with one or more chronic diseases.²⁶
- In the direction for key policy entitled 'Quality, accessible and inclusive education', one of the tasks is to introduce new learning content and approaches to general education, with particular emphasis on entrepreneurial learning and digital skills, and improvements in the learning environment, including through the introduction of digital solutions. In higher education, it is intended, among other things, to implement the digitalisation of studies. The need to acquire and develop digital skills has been identified at all levels and in all methods of education, by strengthening vocational education institutions as sectoral centres of excellence and innovation in intelligent areas of specialisation; developing the digital and emerging skills of society through specific programmes; and implementing adult education, including in the e-environment.²⁷
- In the direction for key policy entitled 'Technological environment and services', one of the tasks is to increase the availability and accessibility of the national and municipal physical and digital environment, to promote the use of digital solutions and to increase citizens' digital skills by improving the electronic identification and secure electronic signing system.²⁸
- In the direction for key policy entitled 'Cohesion of society', one of the tasks is to increase the use of the Latvian language in daily communication, including in the digital and social media space. Another task foresees to ensure the

²⁴ *National Development Plan* (2020).

²⁵ Ministry of Finances (2020), *Eiropas Savienības atveseļošanas un noturības mehānisma plāns Latvija 2021-2026 (Recovery and Resilience Facility Plan of Latvia for 2021-2026)*, <https://www.esfondi.lv/normativie-akti-1>. Subsequent mentions: *Recovery and Resilience Facility Plan of Latvia* (2020).

²⁶ *National Development Plan* (2020), p. 16.

²⁷ *National Development Plan* (2020), pp. 34-40.

²⁸ *National Development Plan* (2020), p. 68.

modernisation of social media technologies, infrastructure and content, by providing access to media content for disabled people with functional disorders.²⁹

*The Recovery and Resilience Facility Plan of Latvia for 2021-2026*³⁰ contains six components: (1) Climate change and sustainability; (2) Digital transformation; (3) Reduction of inequalities; (4) Health; (5) Economic transformation and productivity reform and (6) Rule of law.

As in other policy planning documents, persons with disabilities are not identified as a target group for which specific measures would be planned. However, persons with disabilities may benefit from general reforms and planned investments intended to promote the recovery of society after COVID-19 and promote further growth. For example:

- One of the objectives to be achieved is to develop the digital skills needed for society by increasing the number of people with basic digital skills and the number of people using digital opportunities and e-services, with a particular focus on socially vulnerable groups and young people and the digital skills of employees. The investment is intended to 'provide support to all 42 municipalities for the introduction of a systemic approach to the development of their citizens' skills, based on digital skills development measures, the functioning of virtual youth centres enabling local government and NGO youth workers to pursue digital activities with youth, including non-formal education and e-participation activities, improving and developing the digital and technology skills of young people and their practical application'.³¹
- Within the framework of component 3, 'Reduction of inequalities', there is a focus on, among other things, the need for the unemployed and jobseekers to acquire digital skills. In order to offer the most appropriate measures for the development of digital skills to the unemployed, jobseekers and those at risk of unemployment, the State Employment Agency plans to adapt and implement an internationally recognised digital skills assessment tool to identify their skills.³²

²⁹ *National Development Plan (2020)*, pp. 85-88.

³⁰ *Recovery and Resilience Facility Plan of Latvia (2020)*.

³¹ *Recovery and Resilience Facility Plan of Latvia (2020)*, pp. 99-137.

³² *Recovery and Resilience Facility Plan of Latvia (2020)*, pp. 149-199.

3 Do disability strategies address the potential of and challenges pertaining to digitalisation and digital transformation?

3.1 How digitalisation and digital transformation are addressed in the national disability strategy

In April 2021, the Ministry of Welfare passed for public consultation (before submission to the Cabinet) a short-term policy planning document entitled *Plan to promote equal opportunities for persons with disabilities for 2021-2023*.³³ The plan was elaborated to ensure the development of disability policy over the next three years, based on the action lines set out in the Guidelines for Social Protection and Labour Market Policy for 2021-2027, and in line with the implementation of the principles set out in the United Nations Convention on the Rights of Persons with Disabilities. The plan identifies five priority areas: (1) Improvement of disability determination system; (2) Development of support system targeted to meet the needs of persons with functional restrictions, including at cross-sectoral level; (3) Strengthening of inclusive employment; (4) Ensuring the accessibility of the environment and services; and (5) Reducing stereotypes and prejudices, some of which are related to digitalisation and digital transformation activities.

The planned measures to develop an electronic catalogue (application) detailing the availability of support services and service providers and to prepare captioned multimedia materials would have the most direct impact on people with disabilities.

The solutions provided for in the plan that would have an indirect impact on persons with disabilities are:

- The exchange of digital data between the functioning assessment and disability determination and institutions that provide services to persons with disabilities, such as the State Employment Agency.
- Development of an action plan to improve access to electronic media services for persons with disabilities.
- Preparing the digital manual on mainstreaming equal opportunities and the principle of non-discrimination in policy planning, implementation and evaluation processes for sectoral policymakers.
- Online training seminars for municipal election commissions and polling station commissions before the 2021 municipal elections and the 2022 Saeima elections on communication and support for voters with disabilities.³⁴

3.2 How digitalisation and digital transformation are addressed in specific disability-related strategies

Persons with disabilities have been identified as one of the target groups in the Guidelines for Social Protection and Labour Market Policy for 2021-2027;³⁵ however,

³³ Ministry of Welfare (2021), *Plāns personu ar invaliditāti vienlīdzīgu iespēju veicināšanai 2021.-2023. gadam (Plan to promote equal opportunities for persons with disabilities for 2021-2023)*, <https://www.lm.gov.lv/lv/lm-dokumentu-projekti-0>. Subsequent mentions: Plan to promote equal opportunities for persons with disabilities (2021).

³⁴ *Plan to promote equal opportunities for persons with disabilities* (2021), pp. 21, 19, 42-43, 45, 47.

³⁵ Ministry of Welfare (2020), *Sociālās aizsardzības un darba tirgus politikas pamatnostādnes 2021.-2027. gadam (projekts)* (Guidelines for Social Protection and Labour Market Policy for 2021-2027 (project)), <https://www.lm.gov.lv/lv/pamatnostadnu-projekts-socialas-aizsardzibas-un-darba-tirgus->

no specific measures in the area of digitalisation have been identified.³⁶ Digital transformation measures for the institutions involved in the operation of the sector apply to persons with disabilities indirectly, such as:

- Under the action (2) 'A modern and accessible social services system [...] it is intended to develop social innovations, including digital and technological solutions, in the provision of social services by 2027.
- The action (5) 'Horizontal issues of social protection and labour market policy' sets an objective of improving by 2027 the ICT systems needed for the planning and monitoring of social protection and labour market policies and data analysis tools, including in the overall country's target architecture.
- The regular task for ICT development is 'to ensure the development of information systems and the automation of operational and supporting operational processes, the development of proactive e-services, the development of analytical services and the deployment of MI solutions in order to ensure the full performance of the functions of the sector and the supply of high-quality data for interdepartmental and cross-border cooperation'.³⁷

The Education Development Guidelines for 2021-2027³⁸ refer to digitalisation as one of the horizontal changes covering all or multiple areas identified in the guidelines. Digitalisation includes increasing the supply of e-learning in vocational, higher and adult education; digital learning tools and supporting materials; the development of digital learning platforms; and digital skills development as a rolling competence.

In general education, there is a need to strengthen the digital resources and tools of educational institutions to provide opportunities for remote and online learning. Therefore, by 2027, it is planned to provide support to local government, including the purchase of the necessary computer kits and IT devices in pre-school education institutions; the provision of internet connections with sufficient speed and performance so that all Latvian educational institutions can make full use of shared digital resources; and the need to implement the learning process remotely.

One of the tasks in direction 3.1, 'Institutional solutions for growth for all', within the third objective 'Support for growth for all', implies provision of high-quality special education (for children with special needs, including children with disabilities). As part of this task, the network of institutions for special education (which is a type of general education), the training environment and infrastructure, and the provision of material and technical facilities will be improved. In the education guidelines, it is planned to implement complex support for the implementation of the special education training process (training tools, vocational development, counselling) in all educational institutions implementing special education programmes and educating children with

[politikas-pamatnostadnes-2021-2027-gadam](#). Subsequent mentions: *Guidelines for Social Protection and Labour Market Policy (2020)*.

³⁶ The objective of the Guidelines for Social Protection and Labour Market Policy for 2021-2027 is to promote the social inclusion of citizens by reducing income inequality and poverty; by developing an accessible and tailored system of social services and legal support; and by promoting a high level of employment in a high-quality working environment.

³⁷ *Guidelines for Social Protection and Labour Market Policy (2020)*, pp. 19, 27-28.

³⁸ Ministry of Education and Science (2020), *Izglītības attīstības pamatnostādnes 2021.-2027.gadam (projekts)* (Education Development Guidelines for 2021-2027 (project)), https://www.izm.gov.lv/sites/izm/files/iap2027_projekta_versija_apspriesana_160720201_2.pdf. Subsequent mentions: *Education Development Guidelines (2020)*.

special needs;³⁹ however, new digital solutions directly impacting children with special needs, including children with disabilities, have not been identified.

Public Health Guidelines for 2021-2027 (project) is a medium-term policy planning document in the field of healthcare that sets out five priority areas for intervention: (1) Healthy and active lifestyles; (2) Reduction of infections; (3) Human-centred and integrated health care; (4) Provision of human resources and skills development; and (5) Sustainability of healthcare, strengthening governance, efficient use of healthcare resources. The third priority area for intervention calls for 'development of remote health services, an electronic patient health card in the e-health system and the exchange of data between the information systems of e-health systems and medical establishments, cross-border e-health solutions', but specific tasks for digitalisation have not been identified.⁴⁰

³⁹ *Education Development Guidelines* (2020), pp. 11, 58, 67.

⁴⁰ Ministry of Health (2020), *Sabiedrības veselības pamatnostādnes 2021.-2027.gadam (projekts)* (Public Health Guidelines for 2021-2027 (project)), pp. 19, 52, 69-78, [https://www.vm.gov.lv/lv/jaunums/publiskai-apsriesanai-sabiedribas-\(veselibas-pamatnostadnu-2021-2027gadam-projekts\)](https://www.vm.gov.lv/lv/jaunums/publiskai-apsriesanai-sabiedribas-(veselibas-pamatnostadnu-2021-2027gadam-projekts).

4 Promoting disability inclusion through funding, education and training

4.1 How funding promotes disability-inclusive digitalisation and digital transformation

The medium and short-term policy planning documents referred to in sections 2 and 3 of this report are in the development phase. The measures identified (partly described) therein on digitalisation or digital transformation are described in general terms and do not contain specific information on the requirements of digitalisation and digital transformations to be disability accessible. None of the documents listed above shows activity and plans to fund skills training for persons with disabilities.

4.2 How disability inclusion is promoted through the education and training of digital professionals

No specific courses focus on digital accessibility in web design, development or user experience higher education programmes; some may include a reference to accessibility guidelines or accessible design practices.

For example, RTU (Riga Technical University) Faculty of Computer Sciences at bachelors' programme level:

- Information technology programme. Disability/accessibility are not addressed; some courses may implicitly include some disability issues.⁴¹
- Course: Colour theory basics. May implicitly address issues of colour-blindness or any other disability of colour vision.⁴²
- Course: Software automation tools. This course focuses on the automation of computer application processes, thus implicitly including the user interface design elements, where topics of accessibility may be tackled in good design guidelines.⁴³
- Course: Planning a sustainable urban environment (study project), includes topics of accessibility in the city for the architecture students.⁴⁴
- Course: Development of mobile applications for the Android platform. The course focuses on user interface development, which may include aspects of digital accessibility.⁴⁵

The masters' level course on 'Programme engineering' has the implicit potential to include accessibility topics under quality and programming architecture.⁴⁶

⁴¹ Riga Technical University, study programme on 'Information technology', https://stud.rtu.lv/rtu/spr_export/prog_pdf_lv.48.

⁴² Riga Technical University, study course on 'Colour theory basics', https://stud.rtu.lv/rtu/discpub/o.9096/DAA410_Krasziniibu_pamati.

⁴³ Riga Technical University, study course on 'Software automation tools', https://stud.rtu.lv/rtu/discpub/o.31226/DIP225_Lietojumprogrammaturas_automatizesanas_riki.

⁴⁴ Riga Technical University, study course on 'Planning a sustainable urban environment (study project)', [https://stud.rtu.lv/rtu/discpub/o.31691/ITA710_Ilqtspejigas_pilsetvides_planosana_\(studijuprojekts\)](https://stud.rtu.lv/rtu/discpub/o.31691/ITA710_Ilqtspejigas_pilsetvides_planosana_(studijuprojekts)).

⁴⁵ Riga Technical University, study course on 'Development of mobile applications for the Android platform', https://stud.rtu.lv/rtu/discpub/o.29877/DIP701_Mobilo_lietojumu_izstrade_Android_platformai.

⁴⁶ Riga Technical University, study course on 'Programme engineering', https://stud.rtu.lv/rtu/discpub/o.22284/DMI545_Programminzenierija.

At the University of Latvia (LU) in the bachelors' programme:

- The course on 'Universal design in an educational environment' (Faculty of Pedagogy) has a specific focus on a universal design approach within education. It is not completely technology based but implicitly suggests technological solutions to improve the accessibility of education.⁴⁷
- The course on 'Graphical design of the user interface' (Faculty of Computer Science) also includes the guidelines of good design and basics of creating a positive user experience design and testing, including some basic accessibility information.⁴⁸
- The course entitled 'From product design to user experience design'. The only reference to any accessibility features may be the student being able to recognise and implement best practices of design, which may also include some of the accessibility principles in digital product design.⁴⁹

Overall, Latvian digital accessibility is at its inception, but there is a trajectory towards creating more accessible web solutions and producing the experts who will provide them. Although formal and non-formal education is sporadic, there are many courses, educational centres and centres for professional improvement. However, information on whether these courses provide any accessibility information to trainees in the digital field is not publicly available.

4.3 How digital inclusion and accessibility is addressed in the education and training of accessibility and inclusion professionals

Digital inclusion and accessibility are not purposefully addressed during the education and ongoing professional development of accessibility and inclusion professionals. For example, certain projects include teaching courses for primary and high school teachers based on inclusive education and technology, but there is no specific data on the curriculum of those seminars and courses.⁵⁰ Another example is the guidelines developing digital learning tools for teachers aimed at providing recommendations and resources for development and evaluation, promoting a common understanding of their role in the learning process. In these guidelines, it is indicated that users with

⁴⁷ University of Latvia, study course on 'Universal design in an educational environment', https://www.lu.lv/studijas/studiju-celvedis/programmu-un-kursu-katalogi/kursu-katalogs/?tx_lustudycatalogue_pi1%5Baction%5D=detail&tx_lustudycatalogue_pi1%5Bcontroller%5D=Course&tx_lustudycatalogue_pi1%5Bcourse%5D=M%C4%81kZ5A00&cHash=1cfd52d21f47b2e6988d3002901bc9b2.

⁴⁸ University of Latvia, study course on 'Graphical design of the user interface', https://www.lu.lv/studijas/studiju-celvedis/programmu-un-kursu-katalogi/kursu-katalogs/?tx_lustudycatalogue_pi1%5Baction%5D=detail&tx_lustudycatalogue_pi1%5Bcontroller%5D=Course&tx_lustudycatalogue_pi1%5Bcourse%5D=DatZ1109&cHash=b79fd2b5e16842b3f78799e0331d4318.

⁴⁹ University of Latvia, study course entitled 'From product design to user experience design', https://www.lu.lv/studijas/studiju-celvedis/programmu-un-kursu-katalogi/kursu-katalogs/?tx_lustudycatalogue_pi1%5Baction%5D=detail&tx_lustudycatalogue_pi1%5Bcontroller%5D=Course&tx_lustudycatalogue_pi1%5Bcourse%5D=DatZ1312&cHash=c2049edce701df0c44e02a07e2170faa.

⁵⁰ National Centre for Education, project Skola2030, Design and Technology (elementary school) consultation/sharing experience online, <https://domaundari.lv/fm/diz-tehn-konsult-050521/>.

special needs – with perceptual and physical impairments, or with visual disabilities – should be taken into account when developing digital learning tools.⁵¹

The lifelong education webinars for special education teachers tackle the usability of digital tools in pre-school education to facilitate communication with students with learning difficulties and improve their participation in education.⁵² There are a few European Commission-funded Erasmus+ programmes implemented by schools to improve the digital competence of teachers and students⁵³ alike aimed at inclusion, but there is no explicit governmental strategy in this field.

4.4 How digital inclusion is addressed via the training of people with disabilities

No special training is organised for persons with disabilities as a specific target group. However:

- Those persons with disabilities who have registered with the State Employment Agency (SEA) as unemployed persons or jobseekers can use the training offered by the SEA to their employer, including the acquisition or improvement of digital skills if this is necessary for the needs of work.⁵⁴
- People with visual disabilities can acquire and develop their skills, including working with a computer and mobile phone, in the framework of a publicly funded social rehabilitation service, through ‘speaking’ and image enlarging programs.⁵⁵
- People with disabilities can participate in training organised by NGOs and funded under social support programmes. For example, young people and adults with disabilities and people at retirement age with advanced computer skills were able to participate in training on Zoom, Microsoft Teams and WebEx programs. Training funded by the joint stock company ‘Latvia’s State Forests’ within the framework of the Social Assistance Programme administered by the Foundation ‘Ziedot.lv’.⁵⁶

⁵¹ Latvian Information and Communication Technology Association, *Ieteikumi Digitālo mācību līdzekļu un resursu izstrādei un novērtēšanai*, (Recommendations for developing and evaluating digital training tools and resources) (2016), pp. 8-9, 15, https://likta.lv/wp-content/uploads/2018/12/DML_vadi%C4%ABnijas_LIKTA_03.02.2016.pdf.

⁵² National Centre for Education, ‘Webinar: “Using information technology to support students with learning impairments’ (2020), <https://www.visc.gov.lv/lv/jaunums/webinars-informacijas-tehnologiju-izmantosana-atbalsta-nodrosinasana-skoleniem-ar-macisanas-traucejumiem>.

⁵³ Special Education Institution of Tukums municipality, ‘Mobility project “Creating an efficient e-learning environment on the Moodle platform”’, <http://www.tukumaips.lv/?p=1990>.

⁵⁴ State Employment Agency, ‘SEA organises and pays the training of employees needed by employers’ 23 April 2021, <https://www.nva.gov.lv/lv/nva-organize-un-apmaks-darba-devejiem-vajadzigo-darbinieku-apmacibu>.

⁵⁵ Website of the NGO Latvian Society of the Blind, section on ‘Rehabilitation’, April 2021, <http://lnbiedriba.lv/lv/pakalpojumi/rehabilitacija/>.

⁵⁶ SUSTENTO (Latvian umbrella body for disability), ‘Opportunity to apply for training’, March 2021, <https://www.sustento.lv/iespeja-pieteikties-apmacibam/>.

5 The opportunities and challenges presented by digitalisation and digital transformation to the rights of persons with disabilities

5.1 The most significant opportunities presented by digitalisation and digital transformation for persons with disabilities

There is no publicly available information on research by NGOs in digitalisation and digital transformation, which would include an assessment of the impact of new technologies on people with disabilities. During the telephone interviews, the representatives of the most significant NGOs representing persons with disabilities⁵⁷ acknowledged that they had not known about the medium-term planning document, *Digital Transformation Guidelines for 2021-2027*,⁵⁸ or the objectives included therein. However, as indicated in section 3.1 of this report, the Plan to promote equal opportunities for persons with disabilities for 2021-2023⁵⁹ does not include digital issues targeted at persons with disabilities.

The NGO representatives indicated that:

- The use of modern technologies would allow more independent living, for example, in the financial field, including through new solutions, such as the use of internet banking or e-signatures, by not transferring information to third parties.
- Digital solutions would help to improve communication with national and local authorities.
- Digital skills would allow integration into general, vocational and higher education systems and employment.
- New digital solutions would be needed in respect of accessing the information on the home pages of national and local authorities, including in the field of traffic.
- Regardless of the development of new digital solutions and the results of digital transformation, the availability of alternative services for certain groups of persons with disabilities (e.g. persons with very severe/severe mental disorders, very severe/severe visual disabilities, very severe/severe cerebral disabilities) should be maintained, e.g. direct consultation, paper submission of documents.

5.2 The most significant challenges faced by persons with disabilities in relation to digitalisation and digital transformation

No studies have been conducted in the NGO sector concerning the digital divide. However, in telephone interviews, NGOs pointed out that:

- In digitalisation, there are significant differences between the general public and persons with disabilities as not all standard solutions have been adapted or set up so that people with disabilities can use them. Even those solutions proposed in the medium and short-term policy planning documents are not aimed at satisfying the needs of the individual. Organisations representing persons with disabilities are not involved in the development of policy planning documents, in

⁵⁷ Interviews via telephone or in writing with the Latvian Society of the Blind; the Latvian Association of the Deaf; the Riga City 'Rūpju bērns' association; the NGO Zelta (resource centre for people with mental disability); the NGO SUSTENTO (Latvian umbrella body For disability); SEE ME project; and the Latvian Movement for independent life.

⁵⁸ *Digital Transformation Guidelines* (2020).

⁵⁹ *Plan to promote equal opportunities for persons with disabilities* (2021).

- some cases being addressed only during the public consultation on documents. Cooperation with the Ministry of Welfare is positive, but cooperation with other sectoral ministries is lacking.
- When dealing with digital issues, it is necessary to consider that there are and will be people with disabilities who will not be able to use either devices or software because of objective disability-related conditions and the lack of accessibility of those devices as well.
 - Therefore, alternatives are needed.⁶⁰ Particular attention should be paid to the education of persons with intellectual disabilities who need to cooperate on-site with the pupil and the teacher. A simple digital transfer of existing learning programmes is not acceptable. New solutions, approaches, knowledge, technical equipment and software and methods of knowledge acquisition are needed. Similarly, on-site services should be continued in the fields of social and medical rehabilitation and habilitation.
 - The size of the digital divide depends on the type and severity of disability, the financial capacity of people with disabilities, place of residence, age and skills in using modern technology and equipment.

Digital solutions are difficult to access for people with intellectual disabilities who use the internet to listen to music, chat with others and talk on the Skype platform. According to one NGO representative, people with intellectual disabilities may be trained to use simple and frequently used programmes, such as internet banking. However, it is impossible to train people in the use of complex solutions, such as communication with public authorities, because of the lack of a common approach to the navigation of home pages and information in easy-to-read language. For example, analysis of results in emergency healthcare can be viewed on the internet, but people with an intellectual disability face problem with accessibility, because they need to sign into the system with ID or internet banking, use a separate code and undertake other necessary actions. Many people with mental disabilities do not have the necessary facilities, the internet or the skills to receive these results.

The low income levels of people with disabilities enlarge the digital divide. New modern devices, smartphones and powerful computers are entering our everyday lives; new software cannot be used with old equipment. New equipment and programmes are relatively expensive and are not available, for example, to older people (whose digital skills are also not relevant to them), people with intellectual disabilities or visual disabilities. NGO representatives noted that much depends on the person itself; there is some polarisation among people with disabilities between those who do not want modern solutions and those who follow, are interested in and use them.

Representatives of an NGO for people with visual disabilities pointed out that the needs of such people are not fully addressed in the banking sector – only one bank has ‘speaking’ code calculators, but their software is not being restored. Similarly, the Latvian language speech synthesizer programme has a small outlet; service providers have no interest in improving it or updating it. The problems could be solved partly by ‘smart’ phones, yet they are expensive to purchase. The state pays for the software, but not for the devices. At the same time, it was pointed out that there was also insufficient public funding.

⁶⁰ For example, as regards the green card introduced in Denmark only in a mobile app, it was noted that not everyone could have access to devices that could use the app, and therefore there should be other options available, such as showing the card in the form of a printed document.

One of the factors affecting the digital divide is the place of residence of a person with a disability. There are various services and solutions provided by telecommunications operators that are available in cities, but are limited for those living in rural areas, mainly because of access to services and disruptions in infrastructure. Therefore, even though the guidelines aim to develop a network of digital agents (librarians in public libraries, who will support people to use PCs and the internet), NGO representatives emphasise that local social service offices should be given greater responsibility for providing people with disabilities with opportunities to acquire new digital skills or improve their existing skills if needed.

During the interviews, the most significant challenges presented by digitalisation and digital transformation to the rights of persons with disabilities were described as follows:

- Mandatory involvement of organisations representing persons with disabilities in the process of planning of policies, regulatory enactments, services, digital solutions from the outset.
- Taking into account the various essential needs of persons with disabilities according to different types of disability, their age and other needs of persons with disabilities in the development of any digital service (e.g. in the development of training programmes, software development, e-environment development on the home pages of state and local authorities).
- Developing specific action plans for the acquisition of digital skills for persons with disabilities or for improving existing skills in the fields of education and employment.
- Provision of information on public authorities' home pages - training for the use of new e-services in easy-to-read language, with sound, using pictograms and other means.
- Envisaging additional funding for the provision of new modern ICT technical aids for persons with disabilities. In addition, a budget should be planned for updating existing software or for developing or purchasing a new software.
- The inclusion, in training programmes on digital skills for specialists, of issues relating to the contact and communication needs of persons with disabilities.

6 Conclusions and recommendations

6.1 Conclusions

In digitalisation and digital transformation, employment, education and health care, the medium-term policy planning documents for 2021-2027 are in the development phase. A short-term action plan (on issues that are within the competence of the Ministry of Welfare) for ensuring the rights of persons with disabilities has been launched. However, NGOs representing persons with disabilities are not involved in the development of documents. The policy planning documents specified do not analyse the needs of persons with disabilities in relation to digitalisation. Therefore, no specific measures are planned.

NGOs for people with disabilities point to the digital divide, which depends on the type of disability, age, place of residence and income level of people with disabilities. People with mental impairments, people with very severe visual impairments and people with cerebral impairments, along with older people and people living in the countryside, face more significant difficulties. Not all people with disabilities have modern, smart devices and technologies. Concrete action plans are needed to reduce the digital gaps, including state financial support.

6.2 Recommendations

It is necessary for Latvia:

- 1) To involve the organisations representing persons with disabilities in the development of documents and regulatory enactments from the outset.
- 2) To include the 'equal opportunities' dimension in each policy planning document setting out specific measures aimed at persons with disabilities.
- 3) In addition to the new digital solutions, to develop alternative solutions for individuals with limited possibilities for using ICT devices and technologies due to objective reasons. Provide the necessary funding for both the development of digital and alternative solutions, the purchase of ICT smart devices and software for people with disabilities.
- 4) To include, in training programmes on digital skills, topics regarding the needs of persons with disabilities and the accessibility of ICT smart devices and technologies.

At the EU level, financing the development and improvement of speech synthesizers (where the number of users is relatively small) from the EU budget should be addressed.

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct information centres. You can find the address of the centre nearest you at: https://europa.eu/european-union/contact_en.

On the phone or by email

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696, or
- by email via: https://europa.eu/european-union/contact_en.

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: https://europa.eu/european-union/index_en.

EU publications

You can download or order free and priced EU publications from: <https://publications.europa.eu/en/publications>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see https://europa.eu/european-union/contact_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex at: <http://eur-lex.europa.eu>.

Open data from the EU

The EU Open Data Portal (<http://data.europa.eu/euodp/en>) provides access to datasets from the EU.

Data can be downloaded and reused for free, for both commercial and non-commercial purposes.

