



Digitalisation and digital transformation in Belgium

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

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Implications for persons with disabilities

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

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Manuscript completed in June 2021

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1 Executive summary

At the federal level, the Government is working on a National Strategy (2021-2030) for people with a disability, in which digital inclusion will be an important chapter. The regions are paying a great deal of attention to the digital revolution through policy documents such as *Flanders Radical Digital*, the *Digital Wallonia Strategy* and *Brussels Smart City*. Projects for specific target groups are in place at all levels.

The various authorities are very much aware of the digital divide that threatens to open up vis-à-vis older citizens, people living in poverty, people with a different cultural background, some young people, etc. The question is whether people with a disability will always be given a place within those target groups.

At various levels of our state structure, there is an increasing plea for *handistreaming*.¹ (See footnotes for general examples concerning handistreaming within the Federal and Brussels/Walloon Governments).^{2 3} In one example of good practice regarding handistreaming within the field of e-inclusion, the Federal Government is offering subsidies for civil servants with disabilities who need reasonable accommodations for working with digital tools. The Brussels-Capital Region, for example, is increasingly aware of 'exclusion by design', for example in the development of digital strategies to encourage the use of public transport. In its attempt to digitalise government administration for citizens (bringing government closer to citizens), Flanders is fighting to avoid additional barriers appearing because of this administrative change.

In addition to our personal conviction that access to and use of digital resources is a basic human right, we learn that people with disabilities who use digital resources say that these resources help them to communicate; they also help them to look up information or arrange practical matters, and they can help them to relax and access culture, including music or movies.

People with disabilities in Belgium, along with other target groups, are at risk of being confronted with a digital divide in terms of access, building competences and using devices.

Good practices

The fact that digital inclusion will become an important topic in the future Federal Strategy for persons with disabilities suggests positive prospects for a future in which digital inclusion is linked through policy and budget, as described in the Convention on the Rights of Persons with Disabilities (UNCRPD).

The experience gained in projects – such as those organised by Ilse Mariën at the Vrije Universiteit Brussel (VUB) (Free University of Brussels) and by the Interuniversity Microelectronics Centre (IMEC) – as well as the supporting vision, mission and

¹ The concept of *handistreaming* is a contraction of the terms *handicap* ('disability') and 'mainstreaming'.

Mainstreaming is a policy concept for an integrated approach across different policy domains. The concept is known worldwide from gender mainstreaming. Handistreaming implements a similar integrated approach for persons with disabilities.

² See <https://socialsecurity.belgium.be/sites/default/files/brochure-uncrpd-handistreaming-nl.pdf>.

³ See https://cawab.be/IMG/pdf/brochure_handistreaming_nl.pdf.

practices related to e-inclusion for service providers and organisations, shows how a structural anchoring of digital inclusion is possible.

The 'duo' training packages provided by Konekt, bringing together persons with a disability and a professional supporter, offer the best hope for the concrete integration of digital resources in the daily lives of persons with disabilities.

Recommendations

- Now that the Belgian Federal Government is finally going to work on a Federal Strategy and a Federal Plan for citizens with a disability, we hope this plan will become a strong tool to prevent the threat of a digital divide for people with disabilities using the power and budgets linked to such a strategy and plan. In the light of the UNCRPD, it is important to focus on the right to access new technologies, the acquisition of competences through the right to education and training and the right to support.
- Knowing that the UNCRPD advises states to collect as much useful data as possible, we advise the Flemish Government to ensure that persons with disabilities are fully included in the regular surveys conducted by IMEC.⁴
- The state structure of Belgium ensures that all federal states have specific emphases with regard to the process of digital transformation. We advise the various federal states to pay full attention to the phenomenon of exclusion by design in all the well-intentioned initiatives that may be taken.
- It can be concluded from this report that the digital revolution is making continuous training and education more of a priority. This leads to the following advice for the regions (which are responsible for education and training):
 - (1) We know that persons with disabilities in Belgium are confronted with a major educational disadvantage and are often forced to study outside the mainstream school system. It is very important that special education curricula include competences that help avoid the threat of digital exclusion.
 - (2) It is known that many people with disabilities depend on the support of professionals and persons from within their natural network. The threat of digital exclusion is best avoided by 'co-training' these partners in such a way that people with disabilities can work in partnership.
- We advise all regions and the Federal Government to ensure that both the providers of services that should be accessible to all citizens and those organisations specifically targeting persons with disabilities receive in-depth training, making use of e-inclusion frameworks.

⁴ Since 2009, imec.digimeter has been mapping the trends in the possession and use of media and technology in Flanders, shedding light on attitudes and expectations towards new technologies. The results and findings are based on a survey of 2 981 Flemish citizens (aged 16 and above).

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

Belgium and its regions: generic strategies concerning digitalisation and digital transformation.

In April 2015, the Federal Minister of Digital Agenda, Telecommunications and Post presented the first Digital Belgium action plan.⁵ Digital Belgium outlines the long-term digital vision for Belgium and translates it into clear ambitions, with the aim of strengthening Belgium's position on the digital map.

Digital Belgium is based on five pillars: digital economy; digital infrastructure; digital skills and jobs; trust and digital security; and digital government.

The Government has established the Directorate-General for Digital Transformation.⁶ This important incentive supports the Government and federal organisations in their digitalisation, and the DG is a driving force behind the evolution and digital reforms of the Federal Government. It provides advice and develops projects related to new technologies, with a particular focus on citizens and businesses.

In concrete terms, DG Digital Transformation provides a series of services:

- developing the Government's strategy and digital standards;
- implementing and monitoring the digital transformation of the Federal Government;
- developing cross-cutting digital services and platforms, in collaboration with federal organisations such as Digital Communication Services, Life Events and Operations & Infrastructure Services;
- acting as secretariat of the strategic G-Cloud Board⁷ and of the consultation committees, with the associated quarterly reporting to the Government.

One of the overarching goals was to create a digital Government by 2020. Central to this is the development of electronic applications, so that citizens and organisations can interact using the applications available via the Belgium.be portal (<https://www.belgium.be/nl>).⁸ Many elements of this very ambitious plan have already been implemented, but there is still a lot of work to be done before the Belgian Government can really claim that it is fully digitised.

⁵ See <https://economie.fgov.be/nl/themas/online/strategie-voor-eeen-digitale/digital-belgium-de-digitale>.

⁶ See <https://bosa.belgium.be/nl/dg-digitale-transformatie>.

⁷ The G-Cloud program is the result of a joint initiative by several public institutions, including federal public services, social security institutions and the care sector. The practical implementation is managed by the Cloud Governance Board. The G-Cloud is a hybrid cloud, which uses services offered by private companies in public cloud environments as well as services hosted in government data centres. The G-Cloud is managed by the Government, but extensive use is made of the private sector for its expansion and operation.

⁸ See https://cris.vub.be/ws/portalfiles/portal/49062177/WP4_Idealic_FINAL.pdf, p. 13.

There are still many important points requiring attention, including at Justice (where a backlog still has to be cleared) and at the Crossroads Bank for companies (where all information about companies is collected).

The Belgian Government decided – in accordance with EU Directive 2016/2102 – that all Government websites must be accessible to citizens with disabilities from September 2020. Accessibility is expected one year later for mobile applications. DG Digital Transformation has developed a tool⁹ to support Government services for this task. Ultimate responsibility rests with each separate Government administrative section.

In 2015, the Flemish Government developed a strategy called Flanders Radical Digital.¹⁰

The central vision in the strategy was that all Flemish Government services and communication with citizens would be digitised by 2020. The strategy is in line with the objectives of the European Digital Agenda, and the Flemish Government refers in it to the importance of e-inclusion, especially in the context of ‘vulnerable groups’.¹¹ From the outset, a great deal of attention was drawn to vulnerable groups, and many organisations (initially working side by side) also focused on those groups, which include the elderly who missed the digital boat, citizens with low literacy levels, citizens with a low level of education and/or a low income, and people with disabilities.

In order to mitigate the delays incurred in the programme and to underline the acceleration and deepening of the ambitions that had been set, the second Flanders Radical Digital programme was launched for 2019-2024.

In December 2016, the Flemish Minister of Urban Policy launched the Smart Flanders programme, a support programme offering subsidies on a project basis, with the aim of supporting the 13 central cities and the Flemish Community Commission for Brussels in their development into smart cities. The Flemish Government’s Smart Flanders follow-up programme (Smart Flanders 2.0) supports local authorities in the digital transition. It focuses on smart digital applications to find solutions to the challenges that cities face on a daily basis. Specific data are collected in 13 Flemish cities every two to three years,¹² and all of this should lead to an understanding of what is meant by a liveable and sustainable city. The 2.0 programme focuses on ‘Citizen Science’ in order to give local authorities the opportunity to involve their citizens more closely in the Smart City programme. City Flows – another part of this programme – has an interesting focus, as it should allow cities to measure crowds and mobility flows in cities.

The Walloon Community’s Digital Wallonia strategy¹³ (2019-2024) emphasises the creation of a strong digital economy, the digitalisation of public service provision and the (digital) skills of citizens for participating in the labour market. The Government states in its strategy that the fight against digital inequalities is part of the whole process. It is not only about access to infrastructure; there is also the matter of digital

⁹ See <https://accessibility.belgium.be/nl/onze-tools>.

¹⁰ See <https://www.vlaanderen.be/publicaties/vlaanderen-radicaal-digitaal-2015-2019>.

¹¹ ‘Vulnerable groups’ were not strictly defined.

¹² See <https://www.statistiekvlaanderen.be/nl/survey-stadsmonitor>.

¹³ See <https://www.digitalwallonia.be/fr>.

literacy. A recent update of its strategy devotes more attention to ‘digital inclusion/literacy’. The Government notes that citizens without sufficient digital competences cannot participate in our society or in the labour market. This brings us to a focus (starting at an early age) on digital literacy competences as being necessary for social and economic participation. The Walloon Government is paying considerable attention to the EU directives on accessibility, and the Digital Agency is carrying out checks to avoid the digital exclusion of large numbers of citizens.

In the Brussels Region, various plans have been developed since 2014 with regard to digitalisation in the region. In the beginning, the focus was mainly on the roll-out of the Smart City. In a recent statement, the responsible Minister¹⁴ described the Everybody Digital plan as follows:

‘Bringing citizens closer to the digital dimension is the ambition of the Digital Accessibility Plan. We must help Brussels residents to master digital technologies by focusing on the accessibility of digital tools, training from an early age and guidance towards a digital transformation that is accessible to everyone. The digital divide is the result of two elements: on the one hand access to digital material and on the other hand the lack of digital skills.’

There are four main thrusts to the Brussels Government’s work: communication (with campaigns that try to inform everyone); bundling (of actions that deal with digital accessibility, for example); equipping (of public computer rooms, for example); and guidance (including for target groups at more of a distance to digital technologies).

Together with colleagues from VUB,¹⁵ we must observe from the analysis of the above-mentioned plans that there are multiple digitalisation strategies present in Belgium, each with its own vision of the importance and interpretation of ‘digital inclusion’.

We found no evidence that persons with disabilities or their advocacy organisations were directly involved in the development of these plans.

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

In their first steps towards a general policy development, the federal and regional Governments situated the theme of digital inclusion mainly in the context of poverty reduction. The link between digital exclusion on one side and poverty reduction and ‘vulnerable target groups’ on the other was often advanced.

Starting from such a perspective, digital exclusion has long been seen as a divide between people with access and people without access. Digital exclusion was situated as a problem for ‘vulnerable groups’ such as people in poverty, the low-skilled and the long-term unemployed, who did not have sufficient financial resources to purchase internet access.

¹⁴ See <https://clerfayt.brussels/nl/pdt>.

¹⁵ Wauters, C., Van Audenhove, L. and Mariën, I. (2020), *E-inclusie beleid in België: Een overzicht van de bestaande en mogelijke beleidsplannen, acties en initiatieven*, Brussels, Vrije Universiteit Brussel.

It therefore took a while and a great deal of energy to bring the necessary sector-specific focus and to see this aspect appreciated in addition to the general plans.

We present three examples of sector-specific policy priorities. For each example, the implications for persons with disabilities are addressed.

1. The Walloon Government (just like the Federal and Flemish Governments) has been developing several poverty reduction programmes and initiatives. Among the initiatives that the Walloon Government supported was *Espaces Publics Numériques* (EPN) (Digital Public Spaces).¹⁶ These places were meant to work towards e-inclusion by ensuring that citizens, especially vulnerable persons, have access to and guidance on how to work with digital media. With these public spaces, the Government is trying to tackle the digital divide that vulnerable citizens often have to deal with. More and more, these EPNs are opening up to citizens with disabilities,¹⁷ making use of the knowledge and services of SATIH (Service d'Accompagnement Technologie, Informatique et Handicap) (Technology, IT and Disability Support Service), which is offering individual support on the use of technology for persons with disabilities, and those of AWIPH (Agence Wallonne pour l'Intégration des Personnes Handicapées), the Walloon administration for persons with disabilities.

2. Since 2005, the Flemish Government (Administration of Education) has been following a Strategic Literacy Plan.¹⁸ In Flanders,¹⁹ one in seven adults is functionally illiterate. This 'target group' has insufficient reading, writing, maths and ICT skills to function well and participate in our current society. This has an impact on their job search, their performance in the workplace, their confidence in society and their task as educators. Literacy can be described as the competences to acquire, process and use information in a targeted manner. This means using language, being able to handle numbers and graphic data, and being able to use ICT. Being literate is seen as important to function independently and participate in society and necessary to develop personally and to learn.
An initial Operational Plan to Increase Literacy was drawn up and rolled out from 2005. From 2012, a new Strategic Plan to Increase Literacy was developed. On 15 September 2017, the Flemish Government approved the third Strategic Literacy Plan, which will run until 2024. With every new plan, the number of partners and policy areas involved has been expanded. The current plan focuses on five strategic objectives:
 - ensuring a significant increase in the number of young people leaving secondary education with sufficient literacy competences so that they can function and participate independently in society and so that they can develop and learn personally;
 - increasing literacy within family environments, to break the passing of low literacy from generation to generation;

¹⁶ See <https://www.epndewallonie.be/>.

¹⁷ See <https://www.epnarlou.com/acc%C3%A8s-pmr/>.

¹⁸ See <https://onderwijs.vlaanderen.be/nl/wat-is-het-plan-geletterdheid>.

¹⁹ See https://onderwijs.vlaanderen.be/sites/default/files/atoms/files/Tussentijdse_rapportage_juli_2020_def.pdf.

- strengthening the literacy competences of jobseekers and workers in the context of their vocational training, their path to work or within their employment, so that they can find opportunities to expand and retain their work and keep up with developments in the labour market;
- strengthening the literacy competences of people in poverty in order to increase their chances of getting out of poverty and increase their participation in society;
- increasing the digital literacy of young people and adults, so that they can keep up in what is a rapidly digitising society.

A very important player within this plan is Mediawijs,²⁰ the Flemish Knowledge Centre for Digital and Media Literacy, as well as IMEC.

Mediawijs helps the inhabitants of Flanders and Brussels to use ICT and media consciously, actively, critically and creatively to participate in our society.

Mediawijs:

- initiates consultations, networking and collaborations between and with those involved in Flemish media literacy;
- inspires actors in Flemish media literacy with training, knowledge sharing and developing practice;
- stimulates 'media-wise' behaviour among citizens with information and campaigns;
- keeps its finger on the pulse of developments in all forms of media and media literacy;
- plays an active role in vision and policy development on media literacy in Flanders, Brussels and Europe.

Mediawijs' actions specifically aimed at people with disabilities are discussed under 4.4

3. The interfederal eHealth plan²¹ has been playing a crucial role in healthcare since 2015. The plan is a collaboration between the federal and regional Governments, and its general objective is the far-reaching digitalisation of the healthcare sector. A crucial feature of the eHealth strategy 2015-2018 is the digitalisation of the data exchange between healthcare providers and the distribution of data to patients. By developing various kinds of digital platforms, the Governments seek to provide citizens with more information about their own health, and thus hope to enable them to take more autonomous decisions. This far-reaching digitalisation has been designed to lead to higher efficiency within the sector. The development of the online platform mijngezondheid.be, the eHealthbox – a secure electronic mailbox developed for the exchange of medical data between Belgian healthcare actors – and several other digital applications all form part of this strategy. The agreement for the next eHealth strategy 2019-2021 discusses various mHealth applications that have an impact on the patient and the healthcare provider.

²⁰ See <https://mediawijs.be/>.

²¹ See https://cris.vub.be/ws/portalfiles/portal/49062177/WP4_Idealic_FINAL.pdf, p. 39.

By setting up an eHealth Monitor,²² the Federal Government is trying to gain insight into accessibility and the subjective experience of potential users, such as persons with disabilities. We learn from this Monitor that:

‘Nevertheless, permanent attention must be paid to certain groups of citizens and care providers for whom increased digitalisation is not straightforward. For citizens, on the one hand, it is about access to technology and the knowledge to use it. One proposal is to focus mainly on mobile technologies, as these are usually available for more patients, even for vulnerable groups.’

Knowing that, for people with disabilities, access to healthcare, being personally well informed so as to be able to make health-related decisions and, finally, the complexity of the organisation of health facilities in Belgium (at federal and regional levels) can be seen as the three biggest challenges in achieving a good quality of life, having one electronic health portfolio available represents the ideal opportunity to implement Article 25 of the UNCRPD.

²² See https://drupal.imec.be/sites/default/files/2021-03/ehealthmonitor_V10F_NL.pdf, p. 19.

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

For the first time in its history, Belgium is working on an '(inter)Federal' Disability Strategy 2021-2030 and the new Federal Disability Action Plan 2021-2024.²³ The responsible Minister is expected to develop the strategy and the federal action plan together with all parties involved. For this Strategy and Plan, the Minister is collaborating with the Federal Disability Network,²⁴ which brings together the various strategic actors within the cabinets of the Federal Government, the various administrations and public companies. Representatives from the National Supreme Council for Persons with Disabilities, UNIA, the Federal Diversity network, the Guidance Commission for the Recruitment of Persons with Disabilities to Federal Public Service and the UNCRPD Coordination mechanism have come together to form this Network.

Within the National Strategy, priority will be given to concrete actions aimed at removing all obstacles that currently prevent persons with disabilities from leading a full and independent life. Inclusion of people with disabilities is seen as a shared responsibility.

The two texts for the strategy and the plan will be developed simultaneously and jointly. Both texts should be ready by the summer of 2021:

- The (inter)Federal Disability Strategy 2021-2030 will set out the current context and challenges for Belgium and will set the long-term goals. This will be discussed with the regions and communities.
- The Federal Disability Action Plan 2021-2024 will list the actions and concrete measures that the Federal Government must implement in order to achieve the objectives set in the strategy.

Four main lines will be followed in developing concrete measures:

- a country of solidarity: access to the best possible care without discrimination based on disability; improving the standard of living and social protection of persons with disabilities, etc.;
- a prosperous country: guaranteed right to work for people with disabilities, with equal opportunities and equal pay for equal work, etc.;
- a country without obstacles: guarantee of the right to participate in cultural life, leisure and sports; the right to vote and be elected; awareness raising; access to

²³ See <https://lalieux.belgium.be/sites/default/files/articles/vf1.210319Conceptnota%20strategie%20en%20federaal%20actieplan%20handicap.pdf>.

²⁴ See <https://lalieux.belgium.be/nl/lalieux-en-de-sutter-brengen-federaal-netwerk-handicap-stelling-voor-federaal-actieplan>.

- the physical environment, transport, information and communication,²⁵ recognition of universal legal capacity, etc.;
- a country of cooperation and respect: systematic collection, analysis and dissemination of reliable data and statistics on disability; protection against all forms of discrimination, etc.

The Minister strongly insists on an integrated approach across the various policy areas – so-called handstreaming. This means that all policy measures at every level must always pay attention to the rights of persons with disabilities.

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

In the near future, digitalisation and digital transformation will have an immediate impact on the daily lives of citizens with disabilities in Belgium. We offer three examples to underline how important handstreaming is vis-à-vis digitalisation.

1. The Flemish Government's recovery plan²⁶ clearly refers to digitalisation within the policy domain of care. For Belgian citizens with disabilities, who have been seen over the course of the country's history as people in need of care, this domain is of strategic importance. The plan is introduced as follows:

'The pandemic has made clear to us the importance of digital channels and the exchange of care and welfare. The Flemish Government is therefore giving an immediate boost to the implementation of a digital care and support plan and an electronic "patient file" for primary care. In this way, we ensure that shared digital information can be used to determine and evaluate health policy, for scientific research and to support care and assistance. Flanders is investing in digital assistance/support channels and in the development of an online file for youth assistance, in the form of a secure electronic counselling platform, with opportunities for online and physical encounters, building on the experiences with online assistance during the first wave of the coronavirus. Flanders is hence working on "administrative simplification". For Flemish Social Protection and the Growth Package of every citizen, the impulse to the further development of the digital platforms and applications should lead to the online submission of a "care budget" and to follow-up on the status of this request.'

2. Concerning mobility and accessible transport, the different regions of Belgium are experimenting with 'smart mobility solutions'. Knowing that many citizens with disabilities have mobility problems and often rely on public transport to get around, this plan is essential in their daily lives. The MIVB (the Brussels public transport system) was the pioneer among Belgian public transport companies

²⁵ In the concept note on this plan and strategy (available at: <https://lalieux.belgium.be/sites/default/files/articles/vf1.210319Conceptnota%20strategie%20en%20federaal%20actieplan%20handicap.pdf>), specific reference is made on p. 10 to reducing the digital divide for vulnerable people, including people with disabilities. The concept of 'accessibility', as noted on p. 11, is broadly situated: it is not limited to the physical environment, and the principles of accessibility must also be incorporated in digital content.

²⁶ See <http://www.wouterbeke.be/nieuws/801-miljoen-extra-voor-zorg-en-welzijn/>.

with the introduction of the MOBIB card.²⁷ MIVB has declared that it is working in a future-oriented way and is 'jumping on the bandwagon of future ticketing technology'.²⁸ MIVB is working to create a platform that centrally manages all data and can be consulted online. A traveller can link the desired payment method to her or his own profile.

In every metro station and at every MIVB bus or tram stop, you will now find a separate validation device for contactless payments,²⁹ in addition to the usual MOBIB validation devices. Citizens can use any bank card with a contactless logo with which they have ever paid contactless. They can use Google Pay, Apple Pay, Fitbit Pay or Garmin Pay on their smartphone or smartwatch.

These kinds of revolutionary plans can be analysed as part of a study on the mechanisms of digital inequality in general, and they would also fit well within an investigation of the values embedded in the design of these technologies, which might ultimately cause a form of exclusion by design.³⁰

3. Concerning the labour market and, more specifically, the situation of federal civil servants with a disability, the Minister for Civil Service and the Federal Government³¹ are investing EUR 500 000 to provide better guidance to civil servants with disabilities when they telework (work from home), as people with a disability tend to encounter more obstacles than their colleagues when teleworking.

Minister De Sutter commented:

'An adapted desk, a keyboard for the visually impaired, software for subtitles, if we also want employees with a disability to telework, we must provide them with the best possible support ... At the office, civil servants with disabilities often have an adapted desk, or adapted hardware and software, but that is not always available at home ... Think of height-adjustable desks, Braille keyboards for the visually impaired, or subtitle software for the hearing-impaired during video calls. These are all things that seem self-evident to almost everyone, but often represent major obstacles for people with disabilities. If we also expect them to work more from home, we must guide them in this as much as possible. This investment by the Federal Government can already make a big difference to many civil servants.'

This investment is important for two reasons. First, teleworking has become increasingly important in our society. Since October 2020, teleworking has been mandatory wherever possible in order to contain the COVID-19 crisis but, even after the crisis, the Federal Government wants to facilitate an average of two days

²⁷ The MOBIB card is not a ticket; it is a carrier for tickets, and may be compared to a charge card on which someone can upload tickets. All types of tickets are available on a MOBIB card.

²⁸ See <https://smartcity.brussels/news-253-mivb-uw-vervoersbewijs-binnenkort-op-uw-bankkaart>.

²⁹ See https://www.stib-mivb.be/article.html?l=nl&_guid=a0faf6a3-4e98-3810-4da8-80cff5834093.

³⁰ Durand, A. and Zijlstra, T. (2020), *The impact of digitalisation on the access to transport services: a literature review*, The Hague, Netherlands Institute for Transport Policy Analysis (KiM).

³¹ See

https://www.petradesutter.be/minister_de_sutter_maakt_500_000_euro_vrij_voor_telewerkende_a_mbtbaren_met_handicap.

of teleworking per week for its own services. However, that is not practical for everyone, and certainly not for people with a disability.

Secondly, there has been a backlog of civil servants with a registered disability at the Federal Government for years.³² The 2019 report of BCAPH (the Guidance Committee for the Recruitment of Persons with a Disability) shows that the target of having 3 % of civil servants with a registered disability is far from being achieved (currently 1.22 %). By emphasising the importance of reasonable adjustments (including the necessary adaptations to the ICT infrastructure), the Government wants to remove this barrier to employment:

‘In my policy memorandum I already stated that we want to map out all the barriers and remove them as much as possible. By investing more in the workplace, we are making the Federal Government a more attractive employer for people with disabilities. Not only at home, for teleworking, but also in the office, we will invest even more in the future to make working for citizens with a disability as pleasant as possible.’ (Minister De Sutter)

³² See <https://www.dekamer.be/flwb/pdf/55/1580/55k1580008.pdf>.

4 Promoting disability inclusion through funding, education and training

4.1 How funding promotes disability-inclusive digitalisation and digital transformation

With its federal structure, Belgium has provided various structures for the digital transformation. Linked to these structures, special attention is being paid to special target groups. In the following examples – at different federal and regional levels – we will provide examples of where budgets can help close the ‘digital divide’.

At the Federal level, the Belgian Government has recently announced its proposals, as defined in a Plan for Recovery and Resilience.³³

Under the ‘Productivity and Inclusion’ pillar of this plan, the following ambitious sub-plan for social and economic cohesion can be found:

- ‘Digital inclusion - the progressive digitalisation of Belgian society must be continued without excluding the most vulnerable population groups. Digital inclusion programmes will be set up to ensure that all citizens have access to technology and information regardless of their income or social situation. (EUR 30 million).
- e-Health: Integrate our healthcare systems and processes in the digital age by implementing more efficient and patient-centred e-Health platforms. (EUR 40 million).’

In Flanders, the Flemish Government is investing in digital innovation and a ‘smarter government’, with a second version of the Flanders Radical Digital programme (VRD2).³⁴ It is thus increasing investment in the digitalisation of government processes. As part of this VRD2 programme, the Government will release investment resources for innovative and focused digitalisation projects in the coming years.

It seems logical to us that the submitted projects will only be financed after an assessment against the nine principles³⁵ that Flanders Radical Digital proposes. Two of these principles are of great importance to citizens with disabilities: (1) The Government is creating a new concept of digital wellbeing. Schools are ready for the digital future. The internet and the new media are being used to care for chronically ill patients and the elderly in their familiar environment for as long as possible; (2) Sufficient attention is being paid to those who are less likely to make contact with the Government. They will get the necessary support. The Flanders Information Agency will shape this initiative in consultation with local authorities and other partners active in the field of e-inclusion.

³³ See <https://www.premier.be/nl/plan-voor-herstel-en-veerkracht-de-federale-regering-heeft-haar-projecten-bepaald>. This plan was approved by the EU on 23 June 2021.

³⁴ See <https://overheid.vlaanderen.be/informatie-vlaanderen/vlaanderen-radicaal-digitaal#vlaanderen-radicaal-digitaal-ii-2019-2024>.

³⁵ See <https://publicaties.vlaanderen.be/view-file/25655#:~:text=Hierbij%20houdt%20het%20programma%20Vlaanderen%20Radicaal%20Digitaal%20verschillende%20principes%20voor%20ogen%3A&text=De%20overheid%20voert%20effektieve%20digitale,2020%20verlopen%20alle%20interacties%20digitaal>.

In the Brussels Region, responsibility for digitalisation will rest with the Minister for Work and Vocational Training, Local Authorities and Animal Welfare. During the past policy period, the emphasis of the policy was mainly on making Brussels a digital Smart City, with a competitive 5G network, free public Wi-Fi hotspots (for example in metro stations) and the integration of smart technologies and applications. In this context, the Brussels Region is providing funding to public computer spaces to support access to digital infrastructure. The Minister³⁶ mainly wants to provide budgets to reduce the digital divide. This means ensuring that the citizens who are most affected by the digital divide (jobseekers, seniors, vulnerable people, etc.) have access to infrastructure and appropriate guidance, while preparing the entire population for the arrival of new technologies that will radically change our society, such as artificial intelligence and open data. In this way, the Government wants to close the digital divide and quickly bring people who find themselves distanced from the digital world into contact with the upcoming new technologies. These promotions also offer opportunities to combat exclusion by design.

Digital Wallonia is Wallonia's digital strategy. It sets the framework within which all the actions of the Walloon Government in the digital transformation of Wallonia fall. The Digital Wallonia strategy is structured around five overarching themes: the digital sector, the digital economy, connected and intelligent territory, public services, and skills and employment. In 2020, the Walloon Region announced that it had set up a budget of EUR 8.9 million in a call for Digital Schools projects.³⁷ This budget should allow the 500 enrolled schools to carry out an educational project with the appropriate digital equipment.

More than 1 700 teaching teams have already been equipped with digital equipment via this programme since 2012. More than EUR 25 million has been invested and 32 000 pieces of equipment provided. Wallonia wants to step up the enrolment of establishments in the move towards digital transformation, and the significant budget should make it possible to involve more teaching staff.

The Walloon Region has specified that 'Any project must fit harmoniously and sustainably into the educational project of the establishment, in order to take root and perpetuate educational practices that exploit digital technology or educate digitally'. The deployment of this programme by schools offers opportunities for the digital inclusion of students following an inclusive education trajectory; in addition, special schools can also be equipped through this programme to work with children with a disability.

4.2 How disability inclusion and digital inclusion and accessibility are addressed in the training of (digital) professionals?

We found little focus on accessibility in training programmes for digital professionals. An extensive search on the websites of higher education institutions shows that, in most places, people are just beginning to think about inclusive design, for instance. Much seems to depend on individual motivation and actions that build greater expertise. A good example in this regard is Eleven Ways - Digital Accessibility Lab,³⁸

³⁶ See <https://clerfayt.brussels/nl/bevoegdheden/minister-digitalisering>.

³⁷ See https://www.rtf.be/info/belgique/detail_la-wallonie-investit-8-9-millions-d-euros-dans-l-appel-a-projets-ecoles-numeriques?id=10413737.

³⁸ See <https://www.elevenways.be/>.

which has opened up its activities to ICT and design students who want to deepen their knowledge through internships or research projects.

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

From recent research³⁹ conducted with 137 organisations giving support to youngsters in care and persons with disabilities, we learn that training and support for health and care professionals and support staff seems to be a priority. The COVID-19 pandemic has shaken up the situation, and the research project offers the following conclusions:

1. Support is desirable in the form of additional digital media devices, software programs and opportunities for clients and staff to use digital resources.
2. There was a great need for hardware, both for clients and for staff. For example, we note that, among all these organisations, as many as 94.4 % indicate that they need more laptops, 72.8 % need more tablets and 67.2 % need more smartphones. Digital media devices are primarily needed to continue online communication in the context of a care project. For young people guided by youth aid organisations, there was a need for extra equipment so that they could keep up with their peers in taking online lessons. For people with a disability, there was a need for additional devices to maintain contact with their social network.
3. Three out of ten organisations were short of supporting hardware such as headsets, webcams and monitors.
4. For more than half of all clients, there is an additional need for free (or affordable) access to the internet. Having digital media devices is one thing; being able to communicate, share or consult information online is another matter, for which access to the internet is crucial. Not all clients have sufficient access to this, due to limited financial resources.
5. There is a great need to install video call software and other communication software on the devices of clients and staff.
6. Organisations, their staff members and clients need extra laptops, tablets, smartphones and software programs, as well as external support in the appropriate use and implementation of these digital resources.

In the Walloon Region,⁴⁰ AVIQ (the administration responsible for persons with disabilities) has tried to establish a direct link between the introduction and use of digital resources (such as eHealth apps) in the context of deinstitutionalisation. Organisations working on deinstitutionalisation in Wallonia have been called upon through a conference to use this link productively.

The most striking example of good practice with regard to structured training and support can be found at the VUB, where Ilse Mariën, a post-doc researcher, offers a structured training course on e-inclusion, based on a book that she wrote with Sara Van Damme of Digipolis Ghent. This practical training package develops a strategic vision on e-inclusion for or within organisations. Most organisations send their digital officers to these courses as a precursor in the hope that, after completing the course, these officers will help to steer internal operations within the services concerned in the right direction.

³⁹ See <https://www.ucll.be/e-inclusie-corona>.

⁴⁰ See <https://www.aviq.be/handicap/professionnels/formation/desinstitutionalisation/index.html>.

The training course and the book elaborate on the need for a broad vision of e-inclusion and provide an in-depth understanding of the risk groups of digital exclusion and the seven different building blocks needed to build a structural and sustainable e-inclusion policy:

- a broad vision on e-inclusion;
- a policy based on partnerships;
- basic reflex in innovation and digitalisation processes;
- building on research;
- reliable and quality access;
- ensuring basic competences;
- building support networks.

Building block 5 is to provide high-quality digital access for everyone, and the target group of persons with disabilities gets full attention. It is noted in particular that ‘we all live in different circumstances, people with a physical disability have different digital needs than families with a low income and many children or someone who is homeless’.

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

In Belgium, training to acquire more digital competences is not clearly structured for people with a disability. Every region offers education and training and guidance for ‘vulnerable target groups’. We learn from our own research that many people with disabilities in Belgium are not yet properly included in a ‘vulnerable groups’ policy. Given the intersectional approach to problems, they will often only be ‘brought in’ at the end (when the needs of other vulnerable citizens have already been addressed). Much has to do with a historically compartmentalised delivery of services and hence the isolation of people with disabilities in separate programmes. That is why we have listed below several examples of good practice that focus very specifically on citizens and young people with a disability.

Under the title ‘unlimited media wise’, Mediawijs (the Flemish Knowledge Centre for Digital and Media Literacy) is supporting and collating good practices^{41 42} from training courses that help members of ‘vulnerable groups’ improve their knowledge about media literacy and their understanding of the opportunities and dangers of digitalisation and digital transformation.

Mediawijs is opening up its expertise to persons with disabilities. In particular, it is:

- Organising research projects such as Apestaartjaaren,⁴³ a biennial study of the use of media by children and young people. Researchers from UC Leuven-Limburg (eSocialWork) started work on the Apestaartjaaren research in special schools at secondary and primary levels in 2016.
- Introducing specific tools such as WAI-NOT.⁴⁴ WAI-NOT allows people with an intellectual disability to use the internet within an online environment that is

⁴¹ See <https://onbeperkt.mediawijs.be/>.

⁴² See https://issuu.com/mediawijs.be/docs/mediawijs_e-inclusie-publicatie_2_online.

⁴³ See <https://mediawijs.be/onderzoeken/2016-apestaartjaren-buitengewoon-onderwijs>.

⁴⁴ See www.wai-not.be.

accessible to them and has developed an adapted website for them. This website is educational, creative, recreational, informative and interactive. Supervisors can consult a manual and instructional videos. WAI-NOT is for people with an intellectual disability, with content available for toddlers, teenagers, young people and adults.

- Introducing teaching packages such as iRespect.⁴⁵ This package highlights the theme of online privacy and was developed by Childfocus. The package consists of 10 interactive videos with accompanying lesson sheets and is intended for teachers who work with young people between the ages of 10 and 14. All the videos deal with an aspect related to online privacy. Each video and lesson sheet is linked to an interactive class session and a creative assignment. iRespect is an inclusive tool and is perfectly suited for youngsters with mild intellectual disabilities or specific learning disabilities.

As one of the most successful examples of training for persons with disabilities, the NGO Konekt and the city of Ghent ([Digitaal.Talent@Gent](#)) offered a course called 'Media coach for duos' from 2017.

Each duo consisted of:

- a professional support staff member from a disability-related organisation who wanted to use digital media in his/her coaching work, and who wanted to pass on his/her enthusiasm to colleagues and clients;
- someone with an intellectual disability with a passion for digital media, who wanted to help other people with disabilities in this regard.

Support givers and people with a disability each followed a separate training course around the same digital themes. In addition, each duo worked out a project together in their own organisation.

At a later stage, these successful organisations were adapting their course packages for Flemish special schools.

The W(ho)A(m)I-Pass has been developed for youngsters with an autism diagnosis. The Wai-Pass⁴⁶ is a digital portfolio that can be described as autism-friendly. One should see the completion of the Wai-Pass as a process throughout the young person's entire school career. The Wai-Pass is a portfolio in which a student, together with a facilitator, reflects on questions such as 'Who am I? What are my strengths and weaknesses? Where do I want to work?' thinks about a practice placement and enters data. With a view to internship and employment, the Wai-Pass can help coordinate someone's personal and environmental characteristics. Optimal internships or employment are the ultimate goals. In preparing for those goals, this programme offers people with autism opportunities to become digitally smart and to set up an electronic portfolio.

Using the concept of 'smart cities', the Brussels Minister for Employment and Vocational Training is working together with [Digitalcity.brussels](#).⁴⁷ Initiatives are

⁴⁵ See <https://mediawijs.be/tools/irespect>.

⁴⁶ See <https://www.emino.be/media/1596/26-ken-jezelf-en-orientatie-digitaal-portfolio-wai-pass.pdf>.

⁴⁷ See <https://clerfayt.brussels/nl/om-zich-digitaal-te-scholen>.

therefore being undertaken for training, employment and the determination and recognition of competences, as well as initiatives for closer cooperation with education, raising awareness about the IT professions and promoting their image.

Within this Smart City project, there is already an intention⁴⁸ to provide training and guidance for 'specific target groups':

'Guidance for digital appropriation applies to all citizens. However, special attention is paid to certain target groups: jobseekers, young people, seniors, people with disabilities, disadvantaged people and women. Various actions will be taken to guide these target groups'.

⁴⁸ See <https://smartcity.brussels/digitale-inclusie-22-begeleiden>.

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

A recent study (Anrijs et al., 2020)⁴⁹ discusses the specific situation of people with an intellectual disability who try to live (with support) as independently as possible. In this study, the following benefits have been cited by respondents themselves (n=94):

‘We also asked respondents if there are some specific benefits associated with digital communication. The biggest advantage is being able to talk to whoever and when you want to (ticked by 71.3 % of respondents), as well as that it is easier to say things digitally than in physical contact (50 % of respondents). Only 3 % of respondents think it is an advantage that digital communication shows their limitations to others less clearly.’ (p. 15)

‘The three most popular reasons for using a smartphone or computer are: communicating with known people (80 respondents ticked this reason) and looking up information and arranging practical matters (72 respondents ticked this reason), followed by relaxation or playing games, watching a movie or video and listening to music (ticked by 69 respondents).’ (p. 12)

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

It is striking that, from their initial development, some advocacy organisations, such as GRIP, have provided statistics or, in the case of Konekt, have made the rights of persons with disabilities (including intellectual disabilities) to digital access a subject for discussion, thus indirectly drawing attention to the imminent digital exclusion.

GRIP⁵⁰ had described the significant gap between people with and without disabilities concerning the use of the internet as early as 2016:

‘On the question of whether people with disabilities have used the internet in the last 3 months, 34 % (1 in 3) answered negative. Among individuals without a disability, only 18 % did not use the internet in the same period. The difference between the two is 16 percentage points.’

The coordinator of Digitaal Talent Gent, Kaat Vos, together with her colleagues from Konekt, set out ‘the 10 rights of citizens with intellectual disabilities’ in relation to the digital world in 2017:⁵¹

‘Unlike their fellow citizens, many persons with intellectual disabilities are largely cut off from the digital world. This ensures that they are excluded from an important part of today’s society. Research by Ilse Mariën shows that social inclusion and digital inclusion are closely linked. Those who are not up to date

⁴⁹ Anrijs, S., Ponnet, K., Neerinckx, H., Droogmans, N., Vandries, T. and Nijs, D. (2020), *ICT-bezit en -gebruik van Vlamingen die begeleid wonen onder het Vlaams Agentschap voor Personen met een Handicap: Bevindingen van een verkennend vragenlijstonderzoek*, Ghent, Universiteit Gent.

⁵⁰ See https://cdn.digisecure.be/grip/20178914185011_inclusiespiegel-2016.pdf.

⁵¹ See <http://mediawijs.be/mediabank/10-mediawijze-rechten-personen-verstandelijke-beperking>.

with the digital world cannot fully participate in society as a whole. We want to sensitise governments, care facilities, support staff/members of the natural network and people with intellectual disabilities about this. After all, people with a disability have the right, just like everyone else, to participate in society. The 10 rights are directly linked to the UNCRPD.’

In their first steps towards a general policy development, the federal and regional Governments⁵² situated the theme of digital inclusion mainly in the context of poverty reduction. The link between digital exclusion on one side and poverty reduction and vulnerable target groups on the other was often advanced.

Starting from such a perspective, digital exclusion has long been seen as a divide between people with access and people without access. Digital exclusion was situated as a problem for vulnerable groups such as people in poverty, the low-skilled and the long-term unemployed, who did not have sufficient financial resources to purchase internet access.

One of the top researchers in Belgium on digital exclusion and inclusion, Ilse Mariën, has offered the following description to support Governments in constructing a more complex analysis:

‘It is now clear that the underlying dynamics are more complex. A person can have all the benefits on a social level, such as a high income, being highly educated, having a job, fully participating in leisure, but still being confronted with digital exclusion on the digital level due to a lack of motivation, a lack of help or a lack of support. A lack of self-confidence. The opposite is also possible. Someone may experience different social barriers, but still consume the full benefits of digital media. These observations lead us to four statements:⁵³

- digital exclusion is not about a gap between people with access and those without access; other factors such as skills, motivation or the media character of someone’s environment are also decisive;
- social exclusion does not automatically lead to digital exclusion;
- social inclusion does not automatically go hand in hand with digital inclusion;
- and everyone, regardless of their socio-economic situation, can be digitally excluded.’

The most important challenges for people with disabilities vis-à-vis the digital revolution are classified according to ‘levels of digital divides’. A recent research study in Belgium⁵⁴ revealed three levels of digital gaps (the data for the study refer to the pre-COVID-19 situation), and we discuss and illustrate them one by one here. The study makes little or no specific references to the group of people with disabilities. The authors of this study themselves discuss the complexity of digital exclusion, for example by saying ‘that digital exclusion is not only the result of economic and social inequality. It can also occur as a result of physical problems related to age or disability. This dimension is often ignored in definitions of digital exclusion’ (pp. 46-47). However, we know that many people with disabilities in Belgium find themselves in a socio-

⁵² See https://cris.vub.be/ws/portalfiles/portal/49062177/WP4_Idealic_FINAL.pdf, p. 31.

⁵³ *Samenleving en Politiek* (2018), vol. 25, No. 4, pp. 61-67.

⁵⁴ Brotcorne, P. and Mariën, I. (2020), *Barometer van de digitale Inclusie*, Brussels, Koning Boudewijnstichting/VUB.

economic situation of poverty, and many of them can be called low-skilled. Knowing that people with disabilities are among the most marginalised groups in Belgium, we will try to transfer the research results about these groups in the report to citizens with disabilities. This leads to following overview:

The unequal access to digital technologies or 'The first-degree digital divide':

- A large majority of Belgians have an internet connection at home: 90 % of households had an active connection in 2019, with 88 % using a broadband connection. Which also means that 10 % of the Belgian population does not have an internet connection at home.
- In 2019, low-income families and single people were least connected to the internet: Almost three out of ten households with a low income do not have access to the internet at their home. Compared with our neighbouring countries and the European Union, Belgium shows the greatest inequality according to income.
- The ways in which people are connected to the internet are becoming increasingly mobile. The smartphone will become the carrier with which people access the internet, independently of their income, education level or age. The lower the income and the lower the level of education, the more the smartphone is the sole carrier with which people establish their internet connection. If people are linked to one type of hardware and to one specific device, it is not always easy to make the transfer to other devices.
- In 2019, only 8 % of Belgians between 16 and 74 did not use the internet. That figure was almost double in 2015 (14 %). Almost a quarter (24 %) of people with a low income are non-users. The income gap has narrowed in the last four years, but remains larger in Belgium than in our four neighbouring countries and than in Europe on average.
More than one out of five Belgians (21 %) who are low-skilled and between 55 and 74 years old does not use the internet. That percentage rises to 28 % among people between 65 and 74 years old.
These trends are more pronounced in Wallonia than in Flanders.

Inequality in digital competences or 'The second-degree digital divide':

- In 2019, only 38 % of Belgians had advanced digital skills.⁵⁵
- 32 % of individuals have weak digital skills. If we add the 8 % non-users to this, we can say that 40 % of the Belgian population is vulnerable to the increasing digitalisation of society.
- This vulnerability rises to 75 % of people with low incomes and those who are low-skilled. In addition, 79 % of women between 55 and 74 years old and 54 % of job seekers are digitally vulnerable.

⁵⁵ The digital skills indicators have been developed within DIGCOMP, the European digital skills framework. They are based on a selection of activities related to the use of the internet or carriers, and they are performed by people aged 16 to 74 in four specific domains: (1) information; (2) communication; (3) problem solving; and (4) software competences. An individual has 'weak skills' if he/she has performed activities in only one of the four competence domains. Someone has 'more advanced general skills' if he/she already performs more than one activity in each of the four domains.

Inequality in the use of essential services (e.g., e-banking, e-administration or online purchases) or 'The third-degree digital divide':

- In 2019, nine out of ten Belgians between the ages of 16 and 74 used the internet regularly, at home or in other places, and the vast majority of them do so daily (85 %). The frequency of use is broadly the same in the three Belgian regions.
- Internet banking and e-commerce have become very familiar to Belgians. The use of digital government services, on the other hand, has appeared to remain the same level in recent years. It is in the Flemish Region that online services such as e-banking (82 %) and online purchasing (76 %) are used most often. In comparison, the percentages for the Brussels-Capital Region are 67 % and 66 % respectively, and 77 % and 67 % for the Walloon Region. It is only for e-administration that the usage percentages are broadly comparable in the three regions. Groups that are socio-economically and culturally more disadvantaged make less use of essential services online in comparison with those from more privileged environments. 51 % of internet users with a low income and 57 % of those with a low level of education have never made an online purchase. 37 % of them have never used e-banking and 55 % and 67 % respectively have never used e-administration. 56 % of low-income internet users and 57 % of those with a low educational level choose not to submit online forms to administrations. They prefer to continue working with paper versions to provide information to the Government and service providers about health or taxes, for instance. The main reasons reported are the need to ask for help from a third party, followed by a lack of skills and the complexity of the administrative procedures involved.

These figures seem to demonstrate that the advantages of increasing the digitalisation of our society mainly benefit the groups that are socially, culturally and economically advantaged. From this perspective, digitalisation threatens to make the gap between the social groups in our society deeper.

Another recent study⁵⁶ (already mentioned in 5.1) discusses the specific situation of people with an intellectual disability who try to live (with support) as independently as possible.⁵⁷ The challenges of the digital transformation are mainly illustrated in a concrete manner in this study (n=94):

'The survey shows that 35 % of participants often experience difficulties using a smartphone or computer, and 57 % find it difficult to adjust settings. Furthermore, 54 % indicate that they cannot solve a question or problem when using a smartphone or computer themselves and 58 % say they need help when trying out something new.

As far as arranging practical matters online is concerned, the results show that (slightly) more than half of the respondents have hardly any or no difficulties finding their way online (54 %), making online payments (53 %), or looking up a timetable for public transport online (62 %). On the other hand, a majority of respondents report they have hardly any or no difficulties buying a ticket for public transport online (63 %), finding job vacancies online (64 %) or applying for a job

⁵⁶ Anrijs, Ponnet, Neerinx, Drooghmans, Vandries and Nijs (2020).

⁵⁷ Some will label these citizens as 'persons with mild intellectual disabilities'.

online (81 %). When experiencing a question or problem, 54 % of respondents say they cannot solve it themselves, and 82 % say they can go to friends, family or acquaintances.' (pp. 17-18)

6 Conclusions and recommendations

6.1 Conclusions

The recent report⁵⁸ of the Federal Ombudspersons, published on 28 April 2021, discusses the problems that were exacerbated by the COVID-19 crisis and to which the Federal Ombudsman previously drew attention:

‘He recalls his recommendations:

- accessible and human services: the government must be accessible in several ways and there must be room for human and individual contact;
- digital inclusion: in all aspects of its services, the government must take into account the difficulties that citizens may encounter in their contacts with the digital government;
- attention to vulnerable groups: administrations must pay attention to people who are struggling, for whatever reason, and must ensure appropriate guidance and assistance;
- human rights: the government must make human rights a daily reality.’

It is striking how centrally ‘digital inclusion’ is positioned in this statement of problems. This leads us to the conclusion that there is still a lot of work to be done in Belgium for the Federal Government and the regions.

As with many reports on Belgium, we are forced to report that the organised and planned actions to support e-inclusion are producing a fragmented picture. The Federal Government, the regions and even cities and municipalities take action but do not always start from the same definitions, vision or framework. Due to the fact that in Belgium e-inclusion is the umbrella term for projects aiming at ‘special target groups’ persons with disabilities get involved sporadically, although in most cases they are not seen as a priority. We can only hope that some associations/organisations develop specific actions

It is striking that, at the various levels, specific targets are often aimed at groups such as older citizens, people living in poverty, young people and people with a diverse cultural background, and that, within such a target group policy, little attention is paid to persons with disabilities.

If we look from an intersectional perspective at target groups that have been studied (e.g. people living in poverty or people with a low educational level) and if we take the scarce specific research on people with a disability seriously, we can only conclude that, at all levels (e.g. access, competence levels and the use of digital resources), they are being confronted with exclusion and/or a digital gap.

This introduction, while full of problems and challenges, should not make us forget that very good initiatives are emerging at the federal, regional and local levels that allow us to hope that digital inclusion will become a right for citizens with disabilities in the near future. We have in mind, among other things, the development of a federal strategy for people with a disability; the development of regional centres of expertise concerning the digital revolution; the pressure to include people with disabilities in research

⁵⁸ See <http://www.federaalombudsman.be/nl/content/jaarverslag-2020-een-recordaantal-klachten-over-de-werkloosheidsuitkeringen>.

samples; the existence of well-structured training packages; and, last but not least, local initiatives that support accessibility for our target group (as shown in cities like Ghent, with their 'Alle Gentenaars Digitaal Mee' programme or some cities in the Walloon region that are organising additional investments to make public spaces for computing more accessible to people with disabilities).

6.2 Recommendations

Now that the Belgian Federal Government is finally going to work on a Federal Strategy and a Federal Plan for citizens with a disability, we hope this plan will become a strong tool to prevent the threat of a digital divide for people with disabilities using the power and budgets linked to such a strategy and a plan. In the light of the UNCRPD, it is important to focus on the right to access to new technologies, the acquisition of competences through the right to education and training and the right to support.

Knowing that the UNCRPD advises states to collect as much useful data as possible, we advise the Flemish Government to ensure that persons with disabilities are fully included in the sample of the regular surveys conducted by IMEC under the title 'imec.digimeter'. These studies have enormous potential and have made it possible to monitor the development of e-inclusion since 2009. It is therefore unfortunate that people with disabilities are not being sufficiently involved in this study. This has obliged some colleagues (noting the research in Ghent as discussed in Section 5) to instigate separate research concerning e-inclusion and persons with disabilities.

The state structure of Belgium ensures that all federal states have specific emphases with regard to the process of digital transformation. We advise the various federal states to pay full attention to the phenomenon of 'exclusion by design' in all the well-intentioned initiatives that may be taken. Together with Park and Humphry (2019),⁵⁹ we believe that we are faced with new challenges in digital inclusion to ensure that existing inequalities are not reinforced and that the new gaps that are being created can be addressed. Digital exclusion is often compounded by existing social disadvantage, and new systems run the risk of creating new barriers and harms.

It can be concluded from this report that the digital revolution is making continuous training and education more of a priority. This leads to the following advice for the regions (which are responsible for education and training):

- 1) We know that persons with disabilities in Belgium are confronted with a major educational disadvantage and are often forced to study outside the mainstream school system. It is very important that special education curricula include competences that help avoid the threat of digital exclusion.
- 2) It is known that many people with disabilities depend on the support of professionals and persons from within their natural network. The threat of digital exclusion is best avoided by 'co-training' these partners in such a way that people with disabilities can work in partnership (see 'duo training', as explained in Section 4) to increase their digital competences.

⁵⁹ Park, S. and Humphry, J. (2019), 'Exclusion by design: intersections of social, digital and data exclusion', *Information, Communication & Society*, vol. 22, No. 7, pp. 934-953; DOI: [10.1080/1369118X.2019.1606266](https://doi.org/10.1080/1369118X.2019.1606266).

We advise all regions and the Federal Government to ensure that both the providers of services that should be accessible to all citizens and those organisations specifically targeting persons with disabilities receive in-depth training (as discussed in Section 4), making use of e-inclusion frameworks (such as ‘the 7 building blocks’ of Ilse Mariën and Sara Van Damme). Only in this way can the digital divide be tackled at different levels.

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