DIGITISATION: ECONOMIC AND SOCIAL IMPACTS IN RURAL AREAS

NATIONAL POLICY ANALYSIS

BELGIUM – FLANDERS

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Content

Executive Summary

We report on the policies for the digital transformation of Flanders, with a focus on policies for rural areas and agriculture. Flanders is typified by a relatively urbanised countryside with small rural regions. In general, digital connectivity and broadband connections in Flanders are above average compared to the European average, although mobile broadband is still expensive and not as broadly adopted as for the rest of the EU.

The digital divide remains a concern for Flanders, with few policies directly addressing this divide. Currently the digital divide is mainly the focus for researchers and NGO's, whereas the government has not yet addressed this divide in a meaningful way. In general, the policy landscape in Flanders and Belgium is relatively fragmented with a range of policies addressing different aspects of digitalisation. Flanders has recently unified some of the digital government tasks under one agency, potentially addressing some of this fragmentation in policy.

For agriculture, rural areas and forestry there are no specific policy frameworks for digitalisation. In general the forestry sector in Flanders is small and included up in these policies. The report has therefore focused on agriculture and rural areas. Most of the policies analysed in the report are focused on aspects of digitalisation that impact broader policy areas without a focus on agriculture or rural areas. These policies address among other things education, government services, healthcare or digital infrastructure.

Analysis of these policies is complicated by the relative lack of policy impact assessments, which has made it difficult to ascribe impacts to policies. This has also not been helped by the fact that certain policy goals are recurring, meaning that they most likely have not been reached in previous policy programmes. Combined, this means that recommendations are focused on the drafting of policies for rural areas and agriculture, combined with more in-depth impact assessments for policy. Challenges to address for future digital policy are 1) the development of digital infrastructure, especially oriented to new technologies such as 5G and fiber internet networks and 2) the digital divide and how this is impacting rural areas.

1. Introduction

For this policy analysis we have followed the framework designed for the DESIRA project as much as possible. As described in the executive summary, the policy framework has been mainly focused on policies that boost digitalisation and the digital transition, with little focus on agriculture or rural areas so far. Likewise, policies for agriculture and rural areas have also had little attention for the digital transformation.

We outline the context for digitalisation in Flanders in the first chapter, mainly focusing on digital infrastructure and connectivity and the digital divide in Flanders. This is a recurring theme for the policy analysis, although data is lacking about the potential digital divide between urban and rural areas, complicating the policy analysis.

The second chapter of the report is focused on regional and national policies impacting the digitalisation of Flanders. This policy framework is relatively fragmented, with different policies targeting aspects of the digital transformation of Flanders. The regional digital strategy is mainly focused on E-government and government restructuring and is discussed in a separate sub-chapter.

We have added to the policy analysis through an interview with a government officer at the department of agriculture in order to better understand the digitalisation of agriculture. In general, there are few agricultural policies and rural policies addressing digitalisation and the future CAP does not have a specific focus on digitalisation. For the CAP audits of farmers, more and more digital technologies are being used, which is described in sub-chapter 3.3.1.

Open data infrastructure seems relatively well developed in Flanders, both following European policy and as a focus of the Flemish government. For agriculture and rural areas, data platforms exist in order to share data and provide access to government data. Some concerns about the accessibility to this data still exist.

2. Context for (rural) digitalisation

2.1. Current context for digitalisation

2.1.1. Introduction

Here we will describe the broader context of digitalisation in Flanders and Belgium. This is mainly focused on the digital infrastructure and the use of digital technology by Flemish people. Due to the political complexity of Belgium, with multiple governments sometimes overlapping in policy areas, this report takes from reports on Belgium and Flanders, focused on the Flemish region.

Belgium generally has good broadband coverage and scores average to above-average on the DESI index (European Commission, 2020). While there is widespread access to broadband faster than 30Mbps, there is still a significant portion of the population who do not have access to this broadband for other reasons (digital literacy, economic reasons, etc.) (Brotcorne & Mariën, 2020). In general Flanders is slightly ahead of Wallonia in most aspects of digitalisation, although Flanders also has some way to go to reach the top-5 in the DESI, which was the goal set by the Flemishº government in 2014 (Vlaamse Regering, 2014).

2.1.2. Broadband coverage and adoption

Virtually all Belgian households have access to fixed-line broadband, and 98% have access to broadband of speeds more than 30Mbps (European Commission, 2020). Even rural parts of the country generally enjoy good access to fixed broadband, and the coverage of rural areas should not be a major issue. Specific to Flanders is the fact that the rural regions are relatively small and that most of the territory is urban or peri-urban. For Belgium in general, the major rural areas are in Wallonia and in the South-West of Flanders. Compared to other European countries the cost of connecting rural regions to broadband is therefore lower. The downside of this is that the government generally pays little attention to the specific context of rural regions for digitalisation. This means that policies for rural digitalisation are relatively limited.

In the DESI report and in figure 1 below we can see that Belgium performs slightly above average compared to other European countries in terms of connectivity (European Commission, 2020; FOD Economie, 2020). Access to internet and digital services in Belgium is variable. While the overwhelming majority of Belgians have an internet connection at home (90%) (Brotcorne & Mariën, 2020), higher than average in Europe, there are still challenges in enabling people to benefit from digital tools and services. A recent report on digital inclusion in Belgium also showed that around 40% of the population is lacking in digital skills (Brotcorne & Mariën, 2020).

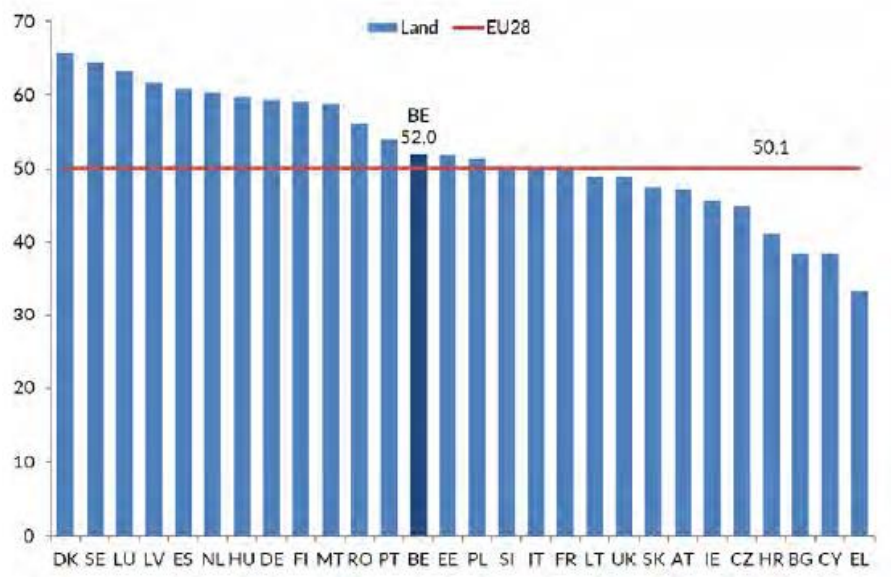

Figure 1: Broad digital connectivity indicator (European Commission 2020)

While broadband coverage is generally good, fiber internet adoption remains low, especially when compared to other European countries that are already using fiber (FTTH/B). In general the Belgian internet remains limited to DSL and cable, which offer lower internet speeds than fiber (FOD Economie, 2020). While increasing the roll-out of fiber is a priority for the Belgian governments, currently the adoption remains low. We discuss the roll-out of fiber, and the government measures to improve this, in chapter 3.2.1.

As fiber internet is starting to be rolled out in urban areas in Belgium, rural areas are again lagging behind in adoption of these faster internet networks. Private investments are not sufficient in connecting rural areas to these networks and this is especially an issue as the network infrastructure is mostly privatised. Connected to existing inequalities this is one of the key concerns for rural areas in Belgium. There is some attention to this in the COVID19 recovery plans, although current investments are not sufficient for full fiber internet in rural regions (Vlaamse Regering, 2020b).

Improvements could be made also on mobile broadband internet, both in terms of mobile broadband connections as well as in terms of price. As can be seen in figure 2, subscriptions for mobile broadband in Belgium (78 per 100 people) are worse than the EU average (100 per 100 people) (FOD Economie, 2020). Costs of mobile subscriptions also play a role in this, as the price of mobile broadband is generally higher in Belgium than in neighbouring countries. At the same time, coverage of mobile broadband is nearly complete in Belgium, with the territory fully covered for 4G internet (although

not always through the same provider). The roll-out of 5G internet is slow so far, which we discuss further in chapter 3.2.1.

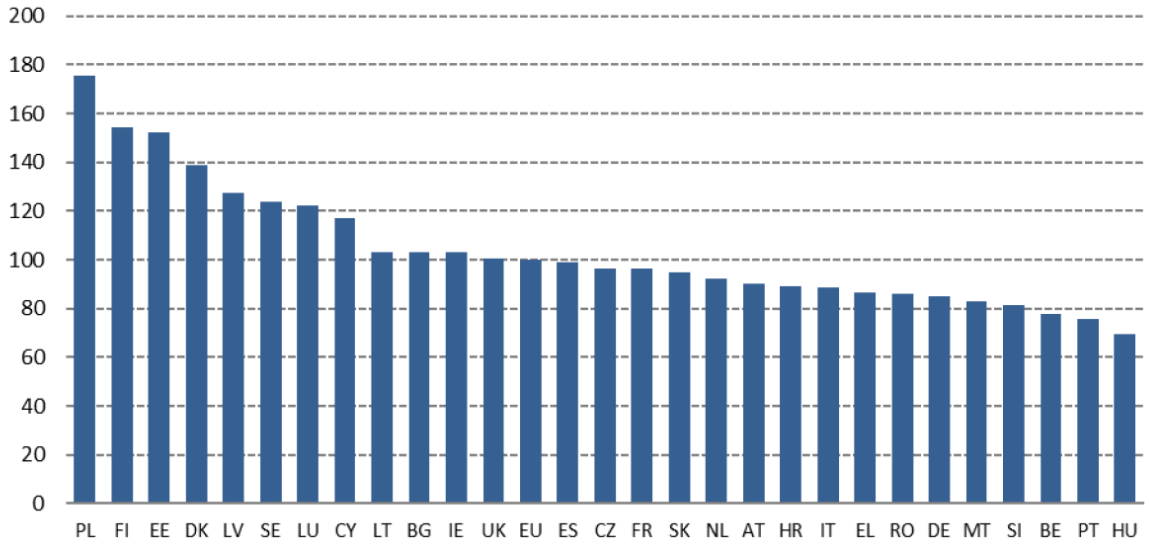

Figure 2: Mobile broadband connectivity, taken from DESI Report (European Commission 2020)

2.1.3. Digital divide

Existing digital divide

The number of people in Belgium who have never used the internet is shrinking, but remains a concern, especially in a society that is undergoing rapid digital transformation. The current digital divide concerns three themes which we will describe further below. These three main concerns are age, gender and income and education, where these factors can compound one another. As a recent report shows, 6,9% of the Belgian population aged 16-74 has never used the internet so far (Brotcorne & Mariën, 2020) which is relatively high compared to neighbouring countries (France 6,7%, Germany 4,7%, Netherlands 2,4%). Equally, about 10% of Belgian households do not have an internet connection at home, most often due to different aspects of the digital divide. The digital divide is now mainly due to other factors than a physical connection to the internet, which is indicated by the fact that a lack of internet coverage is responsible for only 0.2% of the households without an internet connection at home (Brotcorne & Mariën, 2020).

One aspect of the digital divide, age, can be identified in the usage of the internet. Virtually all young people have used the internet (99.2% of people aged 16-24) whereas 17% of those aged 55-74 have never used the internet yet (Statbel, 2021). Similar trends can be seen for education, with higher-educated people widely using the internet (99.3%), whereas 17.9% of lower-educated people have not used the internet yet. Again, similar numbers can be seen for income, with 20.7% of households with a low income (income: <1200 euro/month) who have never used the internet and only 1.7% of high income households (income >3000/month) who have never used the internet. The gender gap is

less visible when compared on the whole population (women 10,6%; Men 9,1%) but is more relevant when other parameters such as age or education are accounted for.

However, the digital divide is not just limited to the usage of digital services. The digital divide can also be split up in different elements, where access to digital tools, the level of digital skills and differences in usage of digital tools and services are separate elements of the digital divide (Brotcorne & Mariën, 2020). Exemplifying this is the fact that in 2019, 38% of Belgians had advanced digital skills, compared to 32% of Belgians with limited or low digital skills (Brotcorne & Mariën, 2020). Once again, this is also connected to people with a lower education and lower income levels. According to the same barometer for digital inclusion, up to 40% of Belgians are at risk of digital exclusion due to a lack of skill. In a rapidly digitalising society, this is cause for concern.

A third level of the digital divide also exists. Not every person uses the internet to the same extent, and some are much more 'digitally advanced' than others. While most people are using online banking and online shopping (resp. 80% and 70% of internet users) only 51% of people are using e-government services and only 37% of Belgians use e-administration services. Once again this gap in usage is compounded by the factors named before, income, education, age and gender.

Urban-Rural digital divide

Rural areas in Belgium are generally able to access the internet, with near-full broadband coverage. On its own, broadband coverage should not be an issue for rural areas. However, other factors do play a role in a potential urban-rural divide and although there is relatively little research or information about an urban-rural divide in Belgium, we can notice several trends and points of attention that are important to take into account.

It is clear that fibre internet is mainly rolled out in urban areas, with rural areas still depending on older networks with slower speeds (Vlaamse Regering, 2020b). Private investments alone are not enough to support the rollout of fibre in rural areas, which is addressed to some extent by the government (Vlaamse Regering, 2020b). Compounding factors are once again the digital divide between age, gender, income and education. Although there is no information as to how these factors play a role in rural areas in Belgian for the digital divide, there is a clear risk for rural areas that are also dealing with ageing populations, poverty and education. These factors play a clear role in the digital divide, and this will also affect rural areas.

A recent parliamentary question does show the interest of the government in the urban-rural divide (*Kamervraag Nr. 1700*, 2021). However, recent data was lacking and the only data that was provided was from 2010. Interesting to note is the relative interest of farmers in digital webinars by the government, where since the start of the Covid-19 pandemic, 6000 farmers were reached with 27 webinars.

In terms of farmers and livestock farmers using digital agriculture, a recent report on the adoption of precision agriculture (Van Bogaert et al., 2018) allows us to understand the adoption rates of some digital tools for livestock farming. Although precision agriculture and digital agriculture do not necessarily cover the same technologies and tools, this report does indicate that over two thirds of livestock farmers are adopting precision agriculture technologies and are thus becoming acquainted

with digital agriculture technologies. In the same trend, farmers do see themselves adopting these technologies and are moving towards more complex digital technologies such as activity tracking and health monitoring of their livestock herds.

The same report (Van Bogaert et al., 2018) however also states that especially larger livestock operations are adopting these technologies, while smaller farms with a lower economic output are currently not yet adopting digital agriculture technologies to the same extent. This can be a risk towards the overall development and adoption of digital agriculture and increases the digital divide.

Gender and digitalisation

The Belgian federal government has signed the 'women in digital' declaration in 2019. This was followed by a broader plan called 'women in digital' at the federal level (elgische Federale Regering, 2021). This plan consists of five strategic targets that aim to address current structural issues hindering the access of women to digitalisation. These five targets are:

1. Increase the amount of women who graduate in studies focused on digitalisation
2. Improve the integration of women in the digital sector
3. Reduce the amount of women leaving the digital sector
4. Create role models
5. Reduce the gender gap for specific target groups

This plan aims to focus on all aspects of this issue, starting at elementary schools all the way to a focus on employers. There is a broad focus on diversity in this digital gender gap. Funding might however still be a small issue for this plan, as there is only mention of 6 million in funding as of now.

3. Policy framework for (rural) digitalisation

Concerning the policies for (rural) digitalisation, there is a relatively lack of policies for rural areas, especially concerning digitalisation. The government agency for rural areas was approached for this analysis and confirmed that there are currently no policies tailored for rural digitalisation. Instead, the EU policies and guidelines for rural digitalisation are used as a guide, where especially the 'Smart Village' concept was named as one of the guiding framework for rural policies. Additionally, several (generic) subsidy programmes (OKW DPDO III, '*Buurten op den Buiten'* and the support program for village interests) do grant subsidies for rural digital initiatives. In table I we have provided an overview of regional and EU policies (as implemented in Flanders) that impact rural digitalisation in some way.

3.1. National Policies

Table I: National policies for digitalisation in rural areas

Ministry / Authority	Policy	Objective	Expected Impact
Department of agriculture and fisheries	VLIF-Support	Supporting on-farm investments that improve farm performance (part of which is set aside for investments in digital farming)	Increased use of digital tools on Flemish farms and by Flemish farmers. Improved access to digital farming technologies.
Agency for innovation and entrepreneurship	Leader	Supporting rural development – used to support innovative solutions including digitalisation	Diverse and not always focused on digitalisation, but minor improvements to use of digital technologies, tools and services can be expected
Department of agriculture and fisheries	OKW PDPO III	Among other things, improving the innovativeness of the Flemish agricultural sector	Relatively minor, some of the subsidies are focused on providing farmers with digital farming tools
Flemish land agency	Buurten Op den Buiten	Supporting local initiatives in rural areas, including but not exclusively digitalisation	Local and differs per year but expected positive impacts on digital inclusion in rural areas
Multiple; including: Department of environment Department of economics, research and innovation Agency of home affairs Department of work and social economy	Relanceplan 'Vlaamse Veerkracht' (Covid Recovery fund)	Speed up roll-out 5G and fiber Ensure digital inclusion Digitalise Agro-Environmental measures and government-farmer interaction Blue Deal 'Improved data networks, collection and usage on water bodies', Soil passport + online education to farmers	Somewhat improved access to fiber and 5G in Flanders, also in rural areas. Reducing bureaucratic burden of agro-environmental measure while improving compliance and improving environmental health Educating and advising farmers through digital tools and data (ensuring improved farm performance)

Department of agriculture and fisheries			
Department of education	Digi-sprong	One-time increase in funding for education to provide digital infrastructure, improve digital skills and develop a digital knowledge-base in education	No major differences between urban and rural areas in impact, increased access to digital infrastructure on schools
Flanders digital agency	Vlaanderen Radicaal Digitaal	Increasing the digital services provided by the government, enhancing the use of digital tools by the government	Smaller and more efficient government, increasing use of data by the government and data-based policymaking.

3.1.1. National Digital Agenda / strategies

The digital agenda or digital strategy in Flanders is called '*Vlaanderen Radicaal Digitaal*' (VRD) which translates to 'Flanders Radically Digital' (Vlaamse Regering, 2014). We describe the Flemish digital strategy, as the regional governments are in charge of most of the tasks to do with digitalisation (infrastructure, government services). This strategy was first launched in 2015, running up to 2019 after which the Flemish government started work on the second digital strategy called '*Vlaanderen Radicaal Digitaal II*'. This second edition of the Flemish digital strategy is currently still in development and is not officially published yet, although the key targets and goals have already been published and will be described below (Vlaamse Regering, 2021e).

This digital strategy primarily allowed the Flemish government to consolidate and coordinate the governance of IT, which was a further step in the reorganisation of digital government responsibilities, as discussed in-depth by Wouters & Verhoest (2019). The VRD strategy envisioned a dual government body for all matters related to digital infrastructure and digital services in the Flemish government, something that was previously split up among the various government departments. Two new organisations were set up (Informatie Vlaanderen and IVA Facilitair bedrijf) which split up most of the government tasks around digital governance and digital services. Recently these two organisations have been merged in the new government agency 'Digitaal Vlaanderen'.

The digital strategy in Flanders is mainly focused on government services. Part of the plan is increased data usage and sharing between government departments and government agencies. Equally this plan envisions several government platforms and further expansions of digital services provided for the government such as a digital 'E-loket' for businesses and, in the first digital plan, the digitalisation of environmental permits (Vlaamse Regering, 2014). A short overview of the different priorities in the first digital plan is provided below in bullet-points.

- Integrated E-loket (government service platform) for businesses
- Environmental permits and permit process will be digitalised
- Data sharing in healthcare

- Central government IT-systems
- Improved data usage and sharing between government departments, not collecting the same data twice

Additionally several goals were set that achieved varying levels of success, but which were generally not (fully) reached in 2019 (van der Linden et al., 2020).

- All government-citizen interactions goes digital by 2020
- Digital wellbeing initiatives (digital schools, including the chronically ill and the elderly through digital tools, reducing traffic jams through real-time data usage and steering traffic based on this data)
- Focus on E-inclusion, enabling all people to use digital tools and services

The budget for this first digital strategy was set at 10 million a year for the duration of the program. Most of this funding was co-financing for projects that supported or targeted one (or more) of the goals and priorities described above. For the VRDII project there is 10 million a year in investments for projects and initiatives and 10 million for the management and exploitation of various existing digital tools and services (Vlaamse Regering, 2021e; Wouters & Verhoest, 2019).

This budget seems relatively low but must be considered in the light of a fragmented digital strategy in Flanders, with various ministries in charge of most of the different digital government services. The regional digital strategy (VRD) needs to be seen more in the light of a reorganisation of the various digital measures with a more centralised structure. Compared to the regional strategy, the more recent COVID-19 recovery plan does provide larger (one-time) budgets for the digital transformation of Flanders (Vlaamse Regering, 2020b).

Specifically for this policy analysis, which is focused on the digitalisation of rural areas, there is no overarching strategy for rural areas. The digitalisation of rural areas is taken up in the general policies for digitalisation, but rural areas are not mentioned in the VRD strategy. Municipal governments are set to develop their own digital governance structure, which might be relevant for rural municipalities, but there is no difference between urban and rural municipalities in this regional policy plan.

The second digital strategy, which will run from 2021-2022 onwards and which is currently in development (VRD-II), has a relatively similar set of goals compared to the first digital strategy (Vlaamse Regering, 2021e). To some extent this program is more limited in scope and does not mention some of the priorities of the first program (such as digital inclusion, vulnerable populations and digital well-being). Equally the goal of full online interaction between government and citizens has been taken out of this digital strategy. The goals and priorities of this second strategy are described below (in bullet-points).

- State-of-the-art digital service to citizens and businesses

- Optimal collection, sharing and combining of data by the government
- Automation of standard tasks for the government
- Ensuring a dependable basic infrastructure
- Improving intra-governmental collaboration and collaboration with private partners

With the following priorities (Vlaamse Regering, 2021e).

- 'Burgerprofiel', a government platform for interacting with the government and digital services
- E-loket for businesses: Digital platform to enable government-business interaction
- Improving Open-data initiatives that allow multiple government levels to use and exchange data
- Shared digital infrastructure within the government (MAGDA)

3.2. Broadband infrastructure and digital government services

Funding from the structural and investments funds and the cohesion policy is relatively low in Flanders and does not directly impact digital infrastructure and public services. Below we have set out the policies addressing infrastructure and government services in Flanders, but generally these are regional and federal policies that are not part of the European investment funds and policies.

3.2.1. Broadband infrastructure

Most of the policies focused on broadband infrastructure in Flanders are based at the federal level (Belgian government and ministries). Policy initiatives at the federal level are set to impact broadband infrastructure as well as the rollout of fibre (FTTH) and 5G internet (Belgische Federale Regering, 2015). The first of these initiatives was part of the Digital Belgium agenda in 2015, a national agenda to stimulate the digital transformation of Belgium (Belgische Federale Regering, 2015). Part of this agenda was the improvement of digital infrastructure, mainly through facilitating and encouraging investments of private actors.

A similar initiative, the 'national broadband plan' was launched earlier in 2021 (Belgische Federale Regering, 2021). This plan can be seen as a continuation of the previous program, identifying the regions that lack broadband coverage and encouraging private actors to invest in the roll-out of broadband, fibre and 5G. As these initiatives lack funding to actively encourage this roll-out, they are mostly dependent on the initiative of private companies. The Flemish government itself takes a similar approach in encouraging private actors to invest in digital infrastructure.

Concerning the development of 5G mobile internet, the roll-out of 5G was complicated by political disagreements over the auctioning of the spectrum needed for 5G. In May 2021, an agreement was reached on the auctioning of the 5G spectrum and this auction is now planned for spring 2022. Because of these delays there is currently little development of 5G internet infrastructure in Belgium (Lambrecht, 2021).

For rural areas, the national broadband plans (since 2015 onwards) have had a slightly positive effect as they are mainly focused on identifying the regions that lack broadband coverage and on connecting these regions to broadband internet. As the regions lacking broadband coverage are all rural areas, as was identified in 2.1.3 of this analysis, this is a positive development.

3.2.2. Digital Public Services

The following section describes the various digital public services in Flanders. These digital services are described in relation to their general impact (urban and rural regions together) with a separate paragraph explaining the roll-out of digital public services to rural regions.

The Flemish **E-health** platform is used both as an electronic service-counter and for data-exchange between the different actors active in healthcare (Belgische Federale Regering, 2019). The expansion of E-health services has been part of both the digital strategy of Flanders (VRD) and the COVID-19 recovery plan (Vlaamse Regering, 2021b). Both of these programmes aim to further strengthen these E-health platforms and to enable the sharing of patient data in healthcare. The general aim of most of these programmes is to strengthen the healthcare systems, reduce administrative burden, improve health outcomes and empower patients. The E-health monitor has recently also been launched by the Flemish government to assess the effects of the E-health programmes. There is no specific attention to rural areas in the E-health monitoring report, but it is clear that E-health programmes are also impacted by the digital divide. Especially for healthcare this is a pressing concern as it might reduce access to healthcare for parts of the population.

E-education has only recently seen increased government spending. This is mainly influenced by the government policy 'Digisprong' which is part of the overarching COVID-19 recovery plan. This programme allows for the one-time investment of 375 million in digital(ising) education (10 times the annual budget for digital education) (Vlaamse Regering, 2020a). This is on top of an incidental investment of 60 million during the COVID-19 pandemic which supported the transformation to distance education.

E-education policies are essential to bridge the digital divide and to help replace ageing IT-infrastructure. Additionally, there is a relatively low integration of digital tools in education in Flanders, which the Digisprong programme aims to solve. It is meant to do this through focusing on 4 goals, one of which aims to provide laptops to nearly all students and improve the digital infrastructure in schools. Further goals aim to develop the digital skills of teachers and in schools, with the contribution of a new knowledge centre for digital education. Important to note is that this policy has been critiqued for a singular focus on laptops for students (Bleus, 2021). Equally, the non-recurring nature

of the subsidy does not provide a basis for further development of digital knowledge and infrastructure in education. The policies do not pay special attention to rural areas, which is a recurring theme in all of the policies discussed. Equally there is little knowledge as to how rural areas are impacted by digitalisation of education compared to urban areas.

The Flemish government has set up a digital infrastructure around **digital identity, digital signatures and E-administration**. This has been mentioned before in relation to the Flemish regional plan for digitalisation (3.1.1), which is mainly focused on the development and implementation of these digital services. There are various types of digital signatures that are accepted by the Flemish government. This is combined with the eID card (digital identity) to ensure that the signature is valid. The E-administration platforms of the Flemish government (E-Loket, Mijn Burgerprofiel) are a recurring theme for further development in government policy and form an integral part of most digital government services (Vlaamse Regering, 2014, 2020b, 2021e).

A recent survey on internet use in Flanders also covered the use of digital government services (Vandendriessche et al., 2020). This shows a theme across the various government services, where a significant portion of the population does not know about these services or rarely/never use these services. One example is the use of digital identity (eID) where about half of the population rarely or never use this service. Equally, the government platform for digital administration (mijnBurgerprofiel) is unknown to 40% of people and another 40% indicates that they never or rarely use this service. Similar trends can be identified for the other digital government services, which provide a striking contrast to the initial policy goal from 2014 to have all government administration go digital by 2020 (Vlaamse Regering, 2014). There is no data available to compare urban and rural areas in the use of these digital government services.

Use of digital public services in Belgium

The following table (table II, see below) is based on the previous reporting, our own knowledge and perceptions on the difference between the urban and rural places, and data from the IMEC report (Vandendriessche et al., 2020).

Table II: Digital Public Services Usage

		Extremely common	Very common	Fairly common	Not common	It is not a possibility nowadays
e-Administration procedures	In general in the country			X		
	In rural areas			X		
e-Health	In general in the country			X		
	In rural areas			X		

e-Education	In general in the country			X		
	In rural areas			X		
Digital identity	In general in the country		X			
	In rural areas		X			
Digital signature	In general in the country			X		
	In rural areas			X		
On-line banking (account management, payments)	In general in the country		X			
	In rural areas		X			
Bills (council taxes, water, electricity)	In general in the country			X		
	In rural areas			X		

3.2.3. Research and Innovation Strategies for Smart Specialisation (RIS3)

The RIS3 programme, in Flanders part of 'The strategic policy framework for smart specialisation' mentions agriculture twice and does not mention rural areas or forestry. When mentioning agriculture, the report focuses on the food industry and does not mention digitalisation. This effectively means that the RIS3 programme is of little use to this policy analysis as it does not affect the digitalisation of rural areas, agriculture or forestry directly.

3.2.4. Digital Innovation Centres (DIH)

Here we focus on two digital innovation hubs (centres) in Flanders, one of which was selected based on existing knowledge on these innovation hubs and one of which was found through the database of digital innovation hubs in Europe (Joint Research Council, 2021). These two innovation hubs are 'Smart Digital Farming' (SDF) and 'Innovatiesteunpunt' (Innovation Support Hub). SDF is the only hub that is focused purely on digital innovations, whereas for the other project, digital innovations are one aspect of a broader focus on innovation.

The SDF innovation hub is part of the H2020 project SmartAgriHubs and is led by ILVO in Flanders. This innovation hub supports and connects innovative precision farming companies, most of which are SME's (70% in 2019) (Smart Digital Farming, 2021). This innovation hub is partially subsidised by the Flemish government as well as part of the H2020 SmartAgriHubs programme and part of the pre-selection of Flanders for the European Digital Innovation Hubs (EDIH). This initiative is focused on

agriculture and aims to develop a network for innovative companies working on precision farming technologies. Its main goals are to enhance collaboration among Flemish SME's working on digital farming technologies. The impacts of this innovation hub consist of boosting the existing initiatives and technologies from partners, as well as improving collaboration between partners. Among its main achievements are two flagship innovation experiments, an ammonia emission monitoring network and AI network technology to help reduce spraying applications for crops.

The second innovation hub, supported by the national farmers union, is 'Innovatiesteunpunt'. This innovation hub is not exclusively focused on digital innovation, but does support a broader move towards innovative forms of agriculture (Innovatiesteunpunt, 2021). The increasing use of data and digital technologies in agriculture and rural areas is part of this focus. Especially relevant to this policy analysis is their focus on small-scale actors and local initiatives in rural regions, with a focus on support, rather than on forcing through top-down initiatives. Equally, through the existing networks of the 'Boerenbond' (farmers union) they can link up with rural areas and farmers more easily than other actors active in this field.

The main digital projects of Innovatiesteunpunt are focused on agriculture and rural areas, often through online webinars and participatory processes. Further involvement in European projects includes a smart village project which started in 2020. Support for digitalisation is provided by the innovation brokers of 'innovatiesteunpunt' who support farmers and entrepreneurs in developing their innovations, especially concerning the more managerial and bureaucratic side of developing these innovations (personal communication with innovatiesteunpunt).

3.3. CAP National Strategic Plans

As with other policies focused on agriculture and rural areas, the CAP strategic plans for Belgium are split between Flanders and Wallonia. Here we focus on the Flemish strategic plan and the development of this plan for the period of 2023-2027.

In the current and ongoing CAP strategic plan there are various subsidies that touch on the digitalisation of agriculture and rural areas. The implementation of measures to improve innovativeness and digitalisation in Flemish agriculture and rural regions are spread throughout this CAP. The main way to directly support the digitalisation of agriculture is through the VLIF subsidies. The available budget of these subsidies was 46 million in 2020 and 58 million in 2021. These investments are mainly for non-digital investments, but there are several subsidy streams within the VLIF to support digitalisation, which are subsidies for precision farming (589.000 in 2020) and automation (around 4 million in 2020) (Departement Landbouw & Visserij, 2021b).

Another element in the CAP funds are the PDPOIII (Flemish rural development programme) and the LEADER programmes. PDPOIII is not focused on digitalisation per se but does provide three avenues through which digitalisation can be supported, namely through education programmes for farmers, demonstration and pilot projects, and direct support for innovations.

Currently the definite version of the next CAP strategic plan (2023-2027) is being written. The analysis of this plan is provided based on the draft that is available, with additional information from an

interview with a policy maker as well as information provided in the commission on agriculture, fisheries, and rural regions.

In the current draft of the Flemish strategic plan there is no clear focus on the digitalisation of farming and rural regions (Departement Landbouw & Visserij, 2021a). Digitalisation is named four times throughout the current draft plan and not specifically as a target for policies or interventions. For farming there is some focus on precision agriculture, with one subsidy programme for the adoption of precision agriculture as well as subsidies for advice to farmers on the use of precision agriculture. These measures are mainly part of the eco-schemes as set in EU guidelines. Additionally, the strategic plan has a generic target for speeding up innovation, but these innovations does not necessarily have to be digital.

For rural areas, digitalisation is not mentioned, although digitalisation can be a part of existing subsidy programmes. The previous CAP had a separate PDPO-III program and LEADER programme (part of PDPO-III) which supported the innovativeness of rural regions and the agricultural sector. The new PDPO-III programme is part of the CAP strategic plan but does not differ significantly from the previous programme. This means that digitalisation remains a minor element for policies focused on rural areas, lacking clear targets and goals.

3.3.1. CAP Integrated Administration and Control System (IACS)

In Flanders, digital technologies are used to monitor the CAP funds received by farmers. A pilot has been started which involves the use of satellite imagery to ensure compliance to CAP measures (Verhaert, 2018). There is relatively little information available about this in policy documents. For this reason the information in this subchapter is mainly based on an interview with a government officer working for the agriculture and fisheries department with additional information taken from the CAPSAT consultation report.

Yield quantification and improving farmer-government communication

The development towards digital CAP compliance tools was initiated in Flanders with a public-private partnership around two use cases which aim to support both farmers and the department of agriculture. The first use case is the development of a yield quantification tool which uses Sentinel-2 data and machine learning to determine potential yields of the most common crops grown in Flanders (Verhaert, 2018). The second use case is the development of an app which allows farmers to provide the government with requested information through geotagged photos. This can for example be used to provide evidence of complying with CAP measures (such as buffer zones close to water bodies or the sowing of cover crops). In the interview, the government officer described the government's intention to combine the use of satellite images with geotagged images to ensure full (100%) monitoring of farmers, where geotagged images are mainly used to clarify uncertainties in the models.

Most of the tools used for this system are still in development in Belgium and are not yet in widespread use. However, the satellite data is already used to check around 500.000 plots of land in Flanders every year (interview government officer). The technology is currently still at a relatively basic level of

checking crop status and potential yields but is envisioned to be expanded in the future to cover most farming activities.

Towards claimless system

These technologies fit in a broader move towards a more service-oriented government that shares data with farmers and strives towards a more centralised and open data ecosystem for farmers to use (interview government officer). This can be seen in how the government is using these tools to reduce administrative demands from farmers (by collecting data through other digital technologies and by requesting farm data only once from farmers). This fits in a broader idea of what the government calls a claimless system which follows the viewpoint and the guidance of the European commission. Equally, there is the development of tools that are helpful both to the government and the farmer and that can be used to personalise advice to the farmer to ensure compliance to CAP rules and regulations. Through further development of digital agriculture, farmers will be able to use government data in their farming operation to ensure the most optimal farming strategies.

3.4. Other policies and strategies influencing (rural) digitalisation

3.4.1. Policies and strategies to boost digital literacy and tackle the digital divide

There is a large number of private and NGO initiatives to support digital literacy, part of which are funded through Flemish and federal subsidies. This range of initiatives also mean that coordination is essential which is provided through the knowledge centre 'Mediawijs'. This knowledge centre combines the knowledge on digital literacy and the digital divide and brings together a wide range of actors active in this field (Mediawijs.be, 2021). A separate taskforce on the same topic, started by this knowledge centre, covers a broad range of societal actors and aims to collaborate to develop skills and knowledge as well as a lobby to the government for increased attention to digital literacy.

The broad range of initiatives also showcase an issue with the policies and strategies that aim to boost digital literacy, where the initiatives and policies are dispersed and it can be difficult to identify which initiative does what. Several of the organisations described below seem to overlap in their purpose and aims. Equally, because of the amount of organisations that cover this topic we have decided to only focus on some of the key organisations that work on boosting digital literacy.

In the COVID-19 recovery plan, a separate subsidy of 5 million is envisioned to boost digital literacy is which entails the establishment of 'Digibanken' (Vlaamse Regering, 2020b). These Digibanken are local initiatives that aim to strengthen the collaboration between the various organisations working on digital literacy. A strength (and potentially at the same time a weakness) is the relatively open nature of this initiative, where the execution of these projects is up to the local partners. The focus on local initiatives might also be beneficial to rural areas which can develop their own approach in using this subsidy programme.

Further private initiatives support different groups of people that are at risk of losing out in the digital transformation of society. We did not find initiatives purely focusing on rural areas. More general initiatives include Digidak, which provides courses focused on a variety of skills around using the internet and digital tools (Digidak, 2021). This organisation also has multiple physical locations where people can go to take classes, although these are most often located in the larger towns and cities. Aside from improving digital literacy this organisation also aims to improve social cohesion. A second private initiative is Beego, which has also been partially subsidised as part of the regional digital strategy in Flanders (Beego, 2021; Vlaamse Regering, 2014). This initiative provides paid support to people who want help in using their laptops, tablets and the like. IT students provide this support. A third initiative, DigitalforYouth, is mainly focused on providing laptops and digital tools to young people who need this (Digitalforyouth, 2021). They also, similar to several other organisations, collaborate with other initiatives working on the same goal of improving digital literacy and access to this. A similar organisation but focused purely on vulnerable youth is LIDK, which provides courses and teaches digital skills to vulnerable youth. All of the initiatives described above have also been shown in table III. Generally these initiatives are more focused on urban areas.

Table III: Policies and initiatives addressing digital literacy and digital divide.

Initiative	Objective	Key words	Period	Area of impact	Link	Public / Private	Scale of action *	Rural / General
Digidak	Providing courses to people that lack digital skills	Digital literacy, courses	2003-Now	Digital literacy	www.digidak.be	Public/Private	Local	General
Digibanken	Providing funding to collaborate with local initiatives in improving the digital literacy of those who need it	Collaboration, digital literacy	2021-Onwards	Connecting organisations and providing funding	https://www.vvsg.be/kennisitem/vvsg/vv127-digibanken	Public	Regional	General
Mediawijs (Knowledge Centre E-Inclusion)	Develop knowledge, provide information on digital literacy, collaborate with public and private partners	Collaboration, knowledge, digital literacy	2012-Now	Connecting organisations and developing knowledge on digital literacy	https://mediawijs.be/over-ons	Public	Regional	General
DigitalForYouth	Providing tools (laptops) to youth who need it, supporting other organisations working on digital literacy	Collaboration, digital literacy, youth	2009-Now	Connecting organisations, digital divide	https://www.digitalforyouth.be/over-ons/	Private	National	General
Beego	Providing digital services to people, mainly focused on helping people use their laptops/tablets/phones etc. (partially subsidised)	Digital literacy	2017-Now	Digital literacy	www.beego.be	Private	Regional	General
Link in de Kabel	Providing courses and help to vulnerable youth, focused on digital skills and digital literacy	Vulnerable youth, youth	2001-Now	Digital Divide, Digital Literacy	https://www.lidk.be/over-ons	Private	Regional	Regional

3.4.2. Policies and strategies that incentivise digital innovations

Other than the initiatives discussed in the sections before, such as the LEADER projects, the VLIF subsidies and the innovation hubs, there are no other specific strategies and policies that incentivise digital innovation, especially for rural areas.

In broader terms there are a several strategies that foster digital innovation across businesses. While these policies are not exclusive to rural businesses or to agriculture, they can still be interesting to discuss.

In Flanders there is the agency of entrepreneurship and innovation (VLAIO) which supports the digital transition of businesses. This works through three main avenues of advice, subsidies and support of businesses. The focus of this agency is broader than purely digitalisation, although digitalisation is an important aspect of their services (VLAIO, 2021). The government also provides a 13.5% tax deduction to businesses that invest in digitalisation.

Additionally, there are business incubators in several cities that incentivise digital innovation. A downside for the connection with rural areas is that these incubators are generally located in (larger) cities. Equally, they support start-ups more broadly and do not solely focus on digital innovation. Some examples of these incubators are: iCUBES, Start-up garage Ghent, Corda campus, C-mine crib, Roularta mediatech and startupvillage (Vlaamse Regering, 2021a).

3.5. Projects and initiatives with influence in rural areas

The main initiative supporting the use of digital government services in agriculture has most likely been the move to have all administration of farmers and contractors to the government go digital through the E-loket service (Departement Landbouw & Visserij, 2020). This means that all farmers have either used digital government services or have had someone fill in the administration for them. It is important to note that this move has not coincided with initiatives to improve the digital skills or knowledge of farmer and a recent parliamentary question indicated that there was relatively little knowledge about these digital skills (Vlaamse Regering, 2021d).

Other than this there are no initiatives that have not been mentioned before.

3.6. Data management

3.6.1. Open Data in Flanders and Belgium

The EU directive 2019/1024 has been implemented in Belgium and Flanders. In Flanders this directive has recently (middle of 2021) been put into law. The Flemish guideline mainly follows the EU guideline with some minor deviations. This includes a stronger focus on digitalisation with a reduced focus on E-inclusion and a broader inclusion of policy documents in the open-data policy (Sociaal-Economische Raad van Vlaanderen, 2020). The open data policy has the following key targets:

- Data is open-by-default, an explanation needs to be provided when data is not open accessible
- Once-only: data is only collected once
- Data is collected in a transparent manner and will be maximally reused

The open data charter which was signed by several actors in the Flemish policy landscape includes a broader range of agreements on open data. Here we provide only the key points for open data in Flanders. In terms of how open data is in Flanders, most of the data-sets are freely accessible, although some of the data is set to be accessible at-cost, where the costs made by the government to provide this data are transferred to the user of the open data. Exemptions are made when the data is provided by an income-generating institution (e.g. libraries, archives) where access to open data might be more expensive for the user as a form of generating additional income (Vlaamse Regering, 2021c).

In terms of the rural and local landscape, the Flemish government does not see a need to enhance the potential for open data at this level (Sociaal-Economische Raad van Vlaanderen, 2020). Open data laws also apply here, but there is no support for municipalities in taking up this regulation, which might complicate the roll-out of an open data infrastructure at this level. Combined with the fact that there are no additional budgets to develop this open data infrastructure, it might be complicated for the various governments to ensure that these initiatives are fully taken up in a timely manner.

Rural Areas

There are no specific policy initiatives for open data for rural areas or agriculture in Flanders. The department of agriculture follows government policy on open data and does provide access to farm data through several platforms. The main platform through which data on agriculture in Flanders is provided is through the website 'https://landbouwcijfers.vlaanderen.be/' which bundles most of the information and data in agriculture. The development of this platform is however not influenced directly by government policy but an extension of existing policy on providing information about Flemish agriculture (*Decreet Houdende de Oprichting van de Strategische Adviesraad Voor Landbouw En Visserij*, 2007).

3.6.2. Cybersecurity and Data

The key policy for cybersecurity is the cybersecurity strategy Belgium 2.0 (2021-2025) (Center for Cybersecurity Belgium, 2021). This is an overarching strategy for Belgium and a further elaboration on the NIS directive that has been set in Belgian law in 2019. The NIS directive itself is part of the European directive set to enhance the security of network and innovation systems. The national cybersecurity strategy is part of article 7 of the European directive and article 10 of the Belgian NIS law and sets out the Belgian strategy for cybersecurity. Currently this national strategy has not been funded yet, which means that the expected impacts cannot be determined yet.

As opposed to the other digital policies and strategies described before, the cybersecurity is part of the national powers and responsibilities. This means that the regional authorities are not directly involved and responsible for this regulation and the cybersecurity strategy.

The cybersecurity strategy consists of several different pillars to improve the readiness of Belgian businesses, governments and people to avoid cyber-attacks and to improve cybersecurity (Center for Cybersecurity Belgium, 2021). One of the main pillars is providing information to Belgian citizens and businesses. There are two websites (surfonweb.be and risico-info.be) which are used to inform people on the risks on the web. For Belgian people this is the extent of the cybersecurity strategy.

For businesses, and especially SME's, the Belgian cybersecurity strategy leans heavily on broader EU initiatives like the cybersecurity certificate (Ibid. 2021). Furthermore, the strategy also focuses on the further development of a knowledge centre around cybersecurity and the development of research and innovation initiatives in cybersecurity in Belgium. This knowledge centre is heavily involved in various government tasks and initiatives around cybersecurity, the main ones of which are described below in bullet-points.

For organisations of vital importance there is a further warning system envisioned that will reduce the risks of cyber-attacks (Ibid. 2021). Further attention is given to the international organisations residing in Brussel such as the EU and the NATO, where increased protection will be needed. This however is not described in detail.

- Improving safety of network infrastructure
- Develop and improve research and innovation in cybersecurity
- Develop a 'Cyber Green House' innovation centre
- Develop a warning system for organisations of vital importance
- Provide protection to international organisations (EU, NATO, etc.) residing in Belgium
- Develop and operationalise national cyber-emergency response plan
- Splitting up of tasks among the various government actors (such as military, policy, prosecutors and various government departments)

3.6.3. Data interoperability

In the Flemish digital strategies, the open data strategies and further policies a lot of attention has been given to ensure that data collection, storage and usage follows a standardised format (Smart Flanders Project, 2018). This allows the Flemish government to share and reuse data and has been underlined by several different initiatives.

The national digital strategy describes the mijnburgerprofiel and the e-loket services as the main platforms for citizen-government interaction, which ensures that all government departments use the same platform to communicate with Flemish citizens (Vlaamse Regering, 2021e). In terms of the open data charters the governments commits to the FAIR principles (findable, accessible, interoperable, and reusable). Ensuring that data is interoperable and is maximally reusable is a key target in the open data policy, following the EU directives. There is, similar to described before on the open data strategy, no specific policy for rural areas.

4. Challenges and Opportunities

4.1. Barriers to digitalisation

In table IV we describe the barriers to digitalisation in Flanders based on the context and policies described before. These barriers impact different aspects of digitalisation and some of them have been influenced by the COVID-19 response of the Belgian government. In general the direction of these changes has been neutral to positive.

Table IV: Barriers to digitalisation

Barriers to digitalisation		Influence of COVID-19
Technical	Lack of fast connections in some rural areas	Neutral, no additional initiatives planned yet
	Network demands of high-tech precision agriculture compared to the internet speed of existing networks in rural areas	Neutral, no change due to COVID-19
Legal	Conflict over data ownership and profitability	Neutral, no change due to COVID-19
Training / Education	Lack of digital skills and knowledge among parts of the population	Somewhat positive, more attention given to the lack of digital skills but still lacking in clear policies to solve this
	Lack of attention to digitalisation in education, schools without digital tools and infrastructure	Positive, plan to give every child a laptop/tablet at a certain age, further development of digi-banks to improve adoption of digital tools and services
Economic	Private investments not enough to support fibre internet rollout in rural areas	Somewhat positive, taken up in the recovery plan but without budget. Covid stressed the importance of digital connectivity
	Limited use of teleworking	Positive, move towards telework for most companies and governments. Used to be relatively uncommon in Belgium
Others	Lack of political attention for digitalisation in rural areas and agriculture	Neutral, no specific attention for rural areas
	Lack of feedback mechanisms in digital policy	Neutral, no noticeable changes
	Lack of policy coherence	Neutral, no noticeable change

4.2. Actions to boost sustainable digitalisation

Concerning the policy analysis we have drafted a table (below, table V) with possible actions to take to ensure sustainable digitalisation. This is not meant to be a complete list but rather forms a first set of ideas that can inform policy-makers in working towards sustainable digitalisation.

Table V: Actions to boost sustainable digitalisation

<table>
<tr><th></th><th colspan="4">Key rural development domains</th></tr>
<tr><th></th><th>Human capital</th><th>Innovation</th><th>Investments</th><th>Governance</th></tr>
<tr><td>Creating the basic conditions for digitalisation</td><td>Develop digital skills and reduce the digital divide</td><td>-</td><td>Broader public investments in digital infrastructure</td><td>-</td></tr>
<tr><td>Anchoring digitalisation to sustainable development</td><td>-</td><td>Include the ‘access, complexity and design’ thinking in digital innovation</td><td colspan="2">Evaluate investments and policies using the SDG goals and ensure that new policies and investments fit with the SDG goals.</td></tr>
<tr><td>Adapting digitalisation to different context</td><td colspan="2" rowspan="2">Use participatory and inclusive innovation processes</td><td>-</td><td rowspan="2">Use participatory and inclusive innovation processes</td></tr>
<tr><td>Favouring digital inclusion</td><td>-</td></tr>
<tr><td>Developing digital ecosystems</td><td>Training digital connectors</td><td>Development and support of digital innovation hubs</td><td colspan="2">Investing and subsidising digital innovation hubs</td></tr>
<tr><td>Developing adaptive governance models</td><td>-</td><td>Use mission-oriented agricultural innovation systems</td><td>-</td><td rowspan="2">Developing data-driven governance</td></tr>
<tr><td>Designing policy tools for sustainable digitalisation</td><td>-</td><td>Include RRI approaches in innovation</td><td>-</td></tr>
</table>

5. Conclusions

In conclusion we can see that Flanders has a relatively well-developed digital infrastructure and digital service ecosystem. However, our analysis also shows that there are gaps in policy, that new digital technologies such as 5G and fiber are not being rolled out and that there are several issues around digitalisation that are not being addressed.

Rural digitalisation has so far not been a topic of concern for the government, and there is little information available on the rate of digitalisation in rural areas. In general it has been difficult to find studies or policies addressing the digitalisation of the Flemish rural areas. This also means that there are no policies specifically addressing rural digitalisation. Policies influencing digitalisation are focused on all of Flanders, without accounting for specific issues concerning rural areas. This is also directly one of the main challenges facing the policy level, which might be due to the capacities of the agencies responsible for rural areas, that lack the resources to draft new policy for digitalisation in rural areas. This is also not helped by the fragmented policy landscape in Belgium, where multiple governments often overlap in policy areas.

Policies that impacted the digitalisation of rural areas where mainly focused on the development of digital infrastructure and the use of digital government services. These policies (the Digital Belgium agenda and the digitalisation of the department of agriculture) respectively addressed regions that so far did not have access to broadband internet and digitalised government services for agriculture. However, there is a general lack of policy impact assessment, leading both to a lack of information about the impact of these policies and the same policy goals recurring in consecutive government policies. This also means that it is difficult to ascribe an impact to government programs and policies.

This all leads us to recommend both the development of policies for rural and agricultural digitalisation, connected to improved information-gathering about the digitalisation of these areas. A second recommendation is the increased use of policy impact assessments in order to better understand the impact of government policies.

6. Annex

6.1. List of tables

6.2. List of Figures

6.3. Bibliography

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6.4. Annex A

Table VI: Policies influencing digitalisation in your country

Areas being addressed / supported by the policies	Policy	Brief Description	Objectives	Area of impact	Period of implementation	Budget (if any)	Public / Private	Address rural areas (Y/N) Specify how	Link
Rural access to technologies	No policies								
Broadband, connectivity, affordability	Digital Belgium	Both plans aim to reduce the number of regions that are not yet connected to broadband internet, although relatively little extra funding is available.	Improve access to digitalisation and broadband	National level	2015-2019	Uncertain	Public	Maybe - Not explicitly focused on rural areas, but rural areas are generally the last regions that still need to be connected to broadband internet	
	National Broadband Plan				2022-2024	None yet, to be determined			
Creation of digital innovation ecosystems in or with influence in rural areas	No policies								
New digital business models in rural areas, agriculture, and forestry	No policies								
Funding of digitalisation (access to technologies, digital education, broadband access, etc.) in rural areas, agriculture, and forestry.	No policies								
National rural development networks' initiatives	No policies								
Digital Literacy and Digital Divide	Digisprong	Plan for the digital transformation of education. Mainly focused on infrastructure and teachers skills	Reduce the digital divide and improve digital skills	Regional (Flanders)	2021-2025	350 million	Public	No, not specifically.	https://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=15855
	Digibanken	Developing 'digibanken' that support people in learning new digital skills and provide access to digital infrastructure	Reduce digital exclusion and bridge the digital divide	Regional (Flanders)	2021-2025	50 million	Public	No, not specifically	https://www.vvsg.be/kennisitem/vvsg/vv127-digibanken
Open data, standardisation of data, data access, etc…	Open-data decreet	Regulation to enable open-data usage and sharing between governments and in the government	Reduce administrative burden, improve data access, improve government functioning	Regional (Flanders)	2021-onwards	-	Public	No, not specifically	https://overheid.vlaanderen.be/organisatie/informatiemanagement/regelgeving-hergebruik-van-

									overheidsinformatie
Cybersecurity	Cyber Security Belgium 2.0	A cyber security programme to ensure that Belgium is ready for cyber-attacks. Mainly focused on prevention.	Ensure cyber security in Belgium, protect businesses and international organisations in Belgium, inform people about cyber security	National	2021-2025	No budget assigned	Public	No	https://ccb.belgium.be/nl/nieuws/een-cyberstrategie-20-om-van-belgi%C3%AB-een-van-de-minst-kwetsbare-landen-van-europa-te-maken
Rural development networks' initiatives	No policies								