SKILLS

GOVERNMENT

INFRASTRUCTURES

BUSINESS

DIGITAL DECADE 2030

ROADMAP BELGIUM

FÉDÉRATION WALLONIE-BRUXELLES

.be

economie

FPS Economy, S.M.E.s, Self-employed and Energy

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Belgium is a federal state, composed of communities and regions. Belgian entities were granted autonomy on several, yet mostly different competences due to multiple state reforms thus giving them a legal basis to act upon.

The Communities

The redistribution of power occurred along two lines. The first line relates to language and, in a broader sense, to everything related to culture. This also includes the policy areas important for Europe's Digital Decade 'scientific research' and 'education'."

The concept of a 'community' refers to persons that make up a community and the bond that unifies them, namely their language and culture. Belgium sits across the fault line that separates German and Latin cultures. This explains why Belgium has three official languages: Dutch, French and German. As a result, Belgium today, has three communities: the Flemish Community, the French Community and the German-speaking Community. These communities therefore correspond with the population groups.

The Regions

The second line of state reform was historically inspired by economic interests. The regions, which aspired to more economic autonomy, conveyed these interests. The establishment of three regions became a reality: the Flemish Region*, the Brussels Capital Region and the Walloon Region. Up to a certain level they can be compared with the American states or the German 'Länder'.

Belgium is further divided into 10 provinces and 581 municipal councils.

The Federal State

The Federal State nevertheless retains important powers, for example in the area of foreign affairs, national defence, justice, finance, social security, important parts of national health and domestic affairs... However, the Communities and the Regions also have the power to establish and maintain foreign relations.

The measures in this roadmap reflect the different levels of powers and responsibilities within the federal organization of Belgium. In particular, it compiles the answers provided by those different levels.

The axis "business" for example, belongs to some extent to the competencies of the regions and to some extent to the competencies of the federal level. For the most part 'skills' are communal yet also regional competencies.

A Belgian Digital Strategy

The Belgian government has defined a clear objective to digitalise Belgian society during this legislature, but with the Federated structure that it has, the implementation of certain aspects is developed and executed by the different entities (Regions, Communities, Federal level). Coordination of all these efforts is done via several governance bodies.

*As mentioned by the EU Parliament and Council establishing the Digital decade Policy Programme (decision 2022/2481), Flanders has seized the possibility to submit a regional roadmap, which can be found in attachment.

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[1] https://www.belgium.be/en/about_belgium/government/federale_staat

Section 1: Analysis of the state of play of digital transformation in the Member state context

1.1. State of play of digital transformation

GENERAL

When we make a snapshot of where Belgium stands in its digital transition in relation to the Digital Decade Policy Programme (DDPP), we can argue that Belgium performs solid on the digitalization of businesses, performs well in relation to digital public services for businesses and citizens and has a rather mixed performance on digital skills and digital infrastructure.

We will analyse the state of play of each cardinal point (subdivided along the targets) of the DDPP compass to have a more comprehensive view to see what's behind these dynamics. To conclude this section we will talk about the general objectives of the DDPP and their state of play.

SKILLS

Target: at least 80% of those aged 16-74 will have at least basic digital skills

Individuals with basic or above basic overall digital skills (in % of individuals)			
	2017	2019	2021
BE	60.56	60.83	54.23
EU27	55.25	56.06	53.92

In 2021, more than half of the population had at least basic digital skills (54.23%), which is a bit above the European average (53.92%). The Belgian situation was better in 2019 with 60.83% of individuals having at least basic digital skills. However, this historical trend has to be interpreted carefully due to some methodology changes for this indicator between 2019 and 2021.

According to the latest indicator, Belgium is ranked 19th in the EU27 ranking, which means that extra efforts are needed to reach the desired level of 80%.

Target: at least 20 million ICT specialists are employed within the Union, while promoting the access of women in this field and increasing the number of ICT graduates

Evolution of the number of ICT specialists					
	2017	2018	2019	2020	2021
BE	228.6	244.8	238.9	240.8	272.1
EU27	7 182.9	7 576.7	7 857.1	8 426.4	8 922.9

Along with the EU, the number of ICT specialists in Belgium shows a slow uptrend in the past 5 years. However, Belgium faced a stagnation (or even a small drop) of the number in 2019-2020. If we take the Belgium population (as share of EU inhabitants) into account, we should attain 514.000 specialists in 2030 (or 10% of our workforce population). As a state of play and at the beginning of the decade we could establish that we are merely halfway.

Based on the DESI-index published in 2022 (figures 2021) Belgium was ranked 7th for this indicator among the EU Member States, well above the EU baseline. Since 2017 Belgium gained one place in the DESI-index.

In Belgium less than 1 out of 5 ICT-expert is a woman (17% of total ICT specialists – compared to the 19% EU baseline). If we consider the number of ICT-graduates: only 7,5 women out of 1000 graduates followed a STEM education (compared to 20,7 men). In case of gender convergence in this field, Belgium has (along with almost all the EU Member States) still a lot of work to be done.

BUSINESS

Target: at least 75% of Union enterprises have taken up one or more of the following, in line with their business operations: cloud computing, big data, artificial intelligence

Enterprises buying cloud computing services used over the internet (in % of enterprises)				
	2017	2018	2020	2021
BE	39.6	40.2	53.2	53.0
EU27	no data	23.9	36.1	41.0

In 2021, 53% of enterprises in Belgium were buying cloud computing services. The score is quite clearly above the European average and the trend is positive, with a growth of 13 percentage points between 2017 and 2021. When analysing the figures according to company size, it can be seen that large enterprises (+249 employees) are already exceeding the 75% target as 90% of them in Belgium use cloud computing. The performance of medium-sized enterprises (between 50 and 249 employees) is 67%. On the other hand, it is mainly the microenterprises (2 to 9 employees) that are lagging significantly behind with 29.5% in 2021. Small enterprises (10-49 employees) are also behind the average with 49% using the cloud.

Enterprises analysing big data internally from any data source or externally (in % of enterprises)	
	2020
BE	22.9
EU27	14.2

In 2020, 23% of enterprises in Belgium used Big Data and our country ranks fifth in the EU. There is a strong correlation between the use of Big Data and the size of the company since 57% of large enterprises use it against only 36% for medium-sized enterprises and 19% for small enterprises. There is also considerable heterogeneity depending on the sectors of activity: the Information and Communication sector is by far the main user of Big Data with 30.5% of enterprises followed by Transport and Warehousing with 23.1%. and real estate activities with 20.2%.

Enterprises using AI technologies (in % of enterprises)	
	2021
BE	10.3
EU27	7.9

In Belgium, 10% of enterprises used at least one artificial intelligence (AI) technology in 2021, which puts us slightly above the EU average. We notice very clearly the correlation between the use of AI and the size of enterprises since 41% of large enterprises use it against 17% for medium-sized enterprises and only 8% for small enterprises. The Information and Communication sector is by far the one with the highest proportion of enterprises using AI in Belgium.

It appears that - for AI - the challenge will be the most important in order to achieve the objective set for 2030 not only for Belgium but also for the EU. This technology is still for the moment less mature than the cloud or Big Data in its use within enterprises, but its very rapid development suggests favourable prospects in the medium term.

Target: more than 90% of Union SMEs reach at least basic level of digital intensity

Enterprises with at least basic level of digital intensity						
	2017	2018	2019	2020	2021	2022
BE	70.6	59.0	73.5	75.0	65.3	77.1
EU27	56.5	46.9	59.9	60.2	54.9	69.2

Remark: the Digital Intensity indicator has been revised multiple times over the years (v1 for 2017 and 2019, v2 for 2018 and 2020, v3 for 2021, v4 for 2022).

As the Eurostat-methodology of calculating the indicator changed over time (4th version over 6 years' time – ref. Methodological note), it's hard to talk about the trend for this target. If we consider the longest period of the same methodology used for this indicator (2018-2020) we can untangle a clear and strong uptrend. As a worldwide phenomenon, no doubt the COVID-pandemic made a strong boost of enhancing the digital technologies used in the Belgian SME companies when e.g. e-commerce being sometimes the only way to carry on business.

Based on the DESI-index published in 2022 (figures 2021) Belgium was ranked 7th for this indicator among the EU Member States, well above the EU baseline (+10%). Concerning this target, Belgium is therefore among the frontrunners.

Target: the Union facilitates the growth of its innovative scale-ups and improves their access to finance, leading to at least doubling the number of unicorns

According to Dealroom data[2], Belgium has 7 established unicorns: Team.blue, Deliverect, Odoo, Ablynx, Argenx, Mithra Pharmaceutical and Galapagos. There should be no surprise that the majority of this list belongs to the biotech sector. Galapagos, Mithra, Argenx and Ablynx are part of the very elaborated biotech & pharmaceutical ecosystem of our country, which has a worldwide strong reputation.

INFRASTRUCTURES

Target: Secure, resilient, performant and sustainable digital infrastructures, where: all end users at a fixed location are covered by a gigabit network up to the network termination point, and all populated areas are covered by next-generation wireless high-speed networks with performance at least equivalent to that of 5G, in accordance with the principle of technology neutrality.

Belgium scores higher than the EU average in terms of VHCN coverage (78% of the households were covered in 2022, compared to the EU average of 73%), thanks to an extensive cable network. There is less development in terms of fibre deployment (FTTP) (17% of households were covered with FTTP in

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[2] Dealroom data, retrieved on 16/01/2023

2022 compared to the EU average of 56%. Seeing that the FTTP coverage roll-out is gaining pace, Belgium will be catching up in the following years. With regard to 5G deployment there is some delay, but it is expected to improve swiftly following on the allocation of 5G spectrum in the multiband spectrum auction which took place in July 2022.

Target: Secure, resilient, performant and sustainable digital infrastructures where the production, in accordance with Union law on environmental sustainability, of cutting-edge semiconductors in the Union of at least 20 % of world production in value.

As in most of the European countries, Belgium relies on the rest of the world for its demand of manufacturing semiconductors (mainly Taiwan (TSMC)/ South Korea (Samsung)). However Belgium is a world-class leader in the R&D behind next generation chips (see 1.3 strengths).

Target:. Secure, resilient, performant and sustainable digital infrastructures where at least 10 000 climate-neutral highly secure edge nodes are deployed in the Union, distributed in a way that guarantees access to data services with low latency (i.e. a few milliseconds) wherever businesses are located.

 No data available yet.

Target:. Secure, resilient, performant and sustainable digital infrastructures where the Union has, by 2025, its first computer with quantum acceleration, paving the way for the Union to be at the cutting edge of quantum capabilities by 2030.

N/A

GOVERNMENT

Target: The digitalisation of public services where 100 % online accessible provision of key public services and, where relevant, the possibility for citizens and businesses in the Union to interact online with public administrations.

As the eGovernment Benchmark 2022 shows, 74% of Belgian public services measured under the life events in 2020 and 2021 are available online (versus an EU-average of 71%), which equals the number of e-Government users in Belgium in that year (versus an EU-average of 71%). in the Digital Economy & Society Index (DESI) of 2022, Belgium received a score of 81/100 for its offering of digital public services for businesses.. With over 25 proposed projects under this target, Belgium is well on track to unlock its potential of having 100% key public services available online by 2030.

Target: The digitalisation of public services where 100 % of Union citizens have access to their electronic health records.

Belgium has a strong track record when it comes to the digitalisation of health services. The Belgian Crossroads Bank for Social Security continues to be an example for the rest of the EU and the world at large. It enables the seamless exchange of data between health instances and facilitates the creation of proactive health services for every Belgian citizen. Not only the federal level plays an important role in this field: the different Belgian regions are contributing actively to the digital extension of high-quality healthcare.

Target: The digitalisation of public services where 100 % of Union citizens have access to secure electronic identification (eID) means that are recognised throughout the Union, enabling them to have full control over identity transactions and shared personal data.

Belgium offers six eID schemes (eCards, itsme®, e-mail OTP, SMS OTP, TOTP and Username/Password). Almost 70% of the Belgian population uses at least one of them. 100% of Belgian citizens have access to an eID means that is notified under eIDAS on this day.

Target: Embracing the general objectives set out in article 3 of the DDPP decision for establishing the Digital Decade Policy Programme of 14 December 2022

Every federal or federated entity in Belgium mentions the general objectives of the DDPP in their vision or mission regarding digital policy. The federal government has for example the #smartnation strategy[3] in place. This strategy aims to align these general objectives along 10 ambitions: minimal access, enhancing digital competences, digital citizenship, data governance enhancement, online democracy, digital innovation, digital sanity, digital champions and ecological digital.

Twin transition, digital inclusion, skills and enforcing trust towards emerging technologies such as AI are top priorities across all governments. Belgium will host an event called Tomorrow's Tech Today on the 7th and 8th of February during its presidency of the Council of the EU, where we will create an opportunity to exchange views on the importance of greening the IT sector and the need for green by IT solutions. New technologies such as blockchain and AI will be discussed from different angles, including ethical aspects on the second day of this conference.

Belgium considers a human-centered approach to the EU's digital transformation, in line with the European Declaration on Digital Rights and Principles of utmost importance. These principles are especially relevant in the domains of artificial intelligence and the creation of more competitive data markets. Particular attention will be given to algorithmic transparency and virtual identity protection during our EU presidency.

Detailed information on our Belgian contribution towards the general objectives (evolutions, examples, etc.) can be found in section 4 of this roadmap.

1.2. Challenges

SKILLS

Shortages of skilled human resources could hinder the Belgian economy's green and digital transitions.

Concerning the digital transition this is reflected by the job vacancy rate in the ICT sector, which was at a record high of 8.9% in the fourth quarter of 2021[4] . Although the share of individuals employed as ICT specialists is above EU average (cfr. state of play), demand for ICT specialists remains high.

While the proportion of tertiary education graduates is high in Belgium, the proportion of graduates in science and technology is still below EU average[5] and the situation is even more problematic for girls, where the graduation rate is among the lowest in the EU. If we take a closer look at a complementary indicator of the DESI-index that was published in 2022, the number of ICT-graduates, Belgium takes a second to last position. No doubt facing too little students studying ICT, will put a lot of pressure on the labour market and will make it dificult to attain the target of more than half a million ICT- specialists by 2030.

If we climb the ladder of aging further and look at the share of adults (aged 25-64) participating in learning activities (measured according the Eurostat methodology by the past 4 week), we noticed that 10.3% of them where practicing life-long learning (vs 10.2% in 2021), scoring lower than the EU average of 11.9%[6]. It was particularly low among low-qualified people (2021, 4% BE vs. 4.3% EU). Some

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[3] https://smartnation.be

[4] Eurostat

[5] OECD Economic Surveys: Belgium 2022 (oecd-ilibrary.org)

[6] Statistics | Eurostat (europa.eu), *The indicator is part of the EU Sustainable Development Goals (SDG) indicator set. It is used to monitor progress towards SDG 4 on quality education, which is embedded in the European Commission's Priorities under 'A Europe fit for a digital age', 'An economy that works for people'and 'Promoting our European way of life'.*

additional efforts to elevate adult training could help to attain the two targets of the skills cardinal point towards 2030.

Furthermore the proportion of people with at least basic digital skills matches the EU average, however it is below the EU average for young people, in particular for those with a low level of education. The rapid increasing shortage of skilled teachers[7] in this respect is also a potential thread to be monitored closely.

The 2022 Digital Inclusion Barometer, which was initiated by the King Baudouin Foundation, also states that the percentage of people with **weak** digital skills is rising. This percentage is higher than most of the countries surrounding Belgium. In 2021, 39% of the people in Belgium have weak digital skills, versus 34% on EU average. If we also include the non-digital users, almost 46% or 1 in 2 Belgian inhabitants faces digital vulnerability[8] .

BUSINESS

While small firms' adoption of digital technologies tends to be higher in Belgium than in the EU, the gap between small and large firms in Belgium is larger than the rest of the EU[9]. Supporting programs for the medium-sized enterprises and small enterprises will be key in this regard.

Although Belgium has a very strong R&D ecosystem (see 1.3 "Strengths & assets"), the business dynamic in the innovation ecosystem remains low, the business creation rate is among the lowest in the EU. In 2020 the Belgian enterprise "birth rate" (creation of new enterprises) was 6.9 % compared to the EU average of 8.85% and high-growth enterprises accounted for merely 6.88% (EU average 9.43%)[10] ,therefore Belgium was in the tail of the pack. This points out to some sort of weakness in translating ideas between the elaborated R&D system into the business ecosystem. There seems to be an innovationgap between research and commercially financed production. The Belspo (Belgian Federal Science Policy) report on science, technology and innovation indicates that "although all three regions have a variety of measures to support entrepreneurship and to encourage firms to engage in innovation in place, there is less an emphasis on scale-up and growth."[11]

INFRASTRUCTURES

Concerning the infrastructure cardinal point, Belgium lags behind in terms of FTTP (fibre to the premises) coverage[12]. The reason for this delay is historical: considering the nationwide VDSL (copper) and cable networks, Belgian operators have been able to meet the requirements for fixed broadband coverage in the past. Hence, the need for a swift roll-out of highspeed fiber networks was less pronounced in Belgium compared to other countries. However, Belgium is catching op now. Proximus is carrying out an ambitious fibre roll-out plan both directly and indirectly through its joint ventures Fiberklaar and Unifiber. Telenet will also kick-off its fibre plans in Flanders in cooperation with Fluvius (joint venture "Wyre"). Finally, we draw the attention to the public-private cooperation between Proximus, Ethias and the German-speaking Community of Belgium (joint venture "Glasfaser Ostbelgien"), aiming at deploying fibre in the entire German-speaking Community by 2026. It should also be noted that further progress is made with respect to fixed VHCN coverage through the increasing availability of gigabit cable networks, positioning Belgium above the EU average with respect to this indicator.

GOVERNMENT/GENERAL

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[7] EU Semester Country report 2023 (draft)
[8] Barometer Digitale Inclusie 2022 | Koning Boudewijnstichting (kbs-frb.be)
[9] OECD Economic Surveys: Belgium 2022 (oecd-ilibrary.org)
[10] Key figures on European business 2023 Edition (Eurostat)
[11] FWB_rapport_2021_en.pdf (belspo.be)
[12] The roll-out of the FTTP fibre networks can be monitored via an interactive map of the regulator BIPT: ibpt | Data Portal - FTTH fibre map (bipt-data.be)

Cybersecurity is a priority of the Belgian Government. A report by Agoria[13] showed that cyberattacks surged during the COVID-19 lockdown, which emphasises the importance of the implementation of a cybersecurity strategy. Many companies were not prepared for hybrid working in terms of infrastructure, policies and training, which extended their digital vulnerabilities. Approximately 50% of all organisations in Belgium do not have an active cybersecurity strategy.

The implementation of the National Coordination Centre Belgium (NCC-BE), the Belgian component of the European Cybersecurity Competence Centre (ECCC) wider framework, will reinforce essential digital capabilities of every entity that encounters cybersecurity challenges, by focusing on the support of cybersecurity knowledge building and innovation activities.

The rapid digitalisation in Europe also creates digital threats for various stakeholders, implying that there is a need for building collective capabilities to respond to major cyberattacks and working with the European Community to ensure overall security and stability in the cyberspace. The growing numbers of cyber incidents increased exponentially with the conflict in Ukraine, and this only added to the need for more cybersecurity policy and education. This conflict increased the public awareness of the general public by exposing more and more incidents on the Belgian public broadcasting services and (social) media. The NCC-BE will, amongst others, focus on creating more awareness on cybersecurity, help creating specific graduate programs on cybersecurity in Belgium, create on the mid and long term more skilled cybersecurity professionals.

The NCC-BE's mission, namely to bring together relevant stakeholders from industry, academia, SMEs and public entities from the relevant Belgian Community will thus bring important benefits for society and strengthen competitiveness. This is needed to address the knowledge and innovation challenges that Belgium – as part of the European Union – faces with the aim to build a cyber resilient European Union and Belgium.

1.3. Strengths and assets to be leveraged

The Covid 19 pandemic has put an acceleration of the digital transition in the economic and social society. To make sure everyone can benefit from this evolution, it's important that no one is left behind. Although it has not translated in numbers yet (see 1.1 state of play & 1.2 challenges) the federated entities and the federal state have all made a priority to tackle the digital divide and promote an inclusive, green digital transition. There's an inter-federal strategy "women in digital" in place which encompasses various projects, plans, measures and budgets to make sure that digital exclusion will be reduced (see 3.2) as much as possible by 2030. Non-gender initiatives are also taken with the same objectives of digital inclusion.

The integration of digital technologies within companies is a strong point for Belgium. We achieve our best result in the 2022 DESI ranking with a 6th place; as in 2021 Belgium ranks first in terms of the percentage of companies using ERP (Electronic Resource Planning) software. The basic digital intensity of SMEs in Belgium is well above the European average. Belgian companies also perform well in the use of the cloud (9th in the EU27), Big Data (4th) and social networks (4th). Belgian SMEs are well positioned in e-commerce (online sales and online sales abroad). When it comes to the use of AI (artificial intelligence) in companies, our country is 2 percentage points above the European average.

Thanks to a very strong R&D system, Belgium is among Europe's 'innovation leaders' according to the European innovation scoreboard. Its innovation performance relative to the EU average has steadily risen over the last decade, as did its total R&D intensity, which reached 3.19% of GDP in 2021 (compared with just 2.06% in 2010), well above the EU average of 2.27%.

The excellent science base is a major asset with world-class universities well-connected internationally and to the business sector. The share of the country's international co-publications in its total number

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[13] First socio-economic study on the cyber security sector in Belgium, AGORIA, November 2022

of publications has gradually increased, from 55.8% in 2010 to 70.2% in 2021, well above the EU average of 55.4%. The share of joint public-private publications has also increased over the last decade and Belgium scores second in the EU in terms of public R&D financed by businesses as a percentage of GDP[14].

The strong R&D system and multiple academic-private partnerships are the ideal breeding ground for further development of some **key drivers of the digital transition**: quantum computing, edge computing, AI, green transition, high-end semiconductors, … For instance, public-private research centre IMEC (with his 300 mm cleanroom, the largest and most advanced R&D cleanroom in the world)[15] has been the key partner (and will be in the future) of various semiconductor equipment manufactures for next generation chips (nanotechnology) suitable for the green transition, artificial intelligence (e.g. self-driving cars), …

The combination of high-performing research institutions and an economy structured mainly around internationally competitive and innovative SMEs, is an asset all Belgian governments cherish and want to strengthen further. Creating the optimal conditions for the digitalisation of Belgian companies is one of the axes of the federal #SmartNation-strategy[16]. In the regions as well, multiple initiatives are currently deployed: the digital innovation journey in Brussels[17], the future of industry programme in Wallonia[18] and Flanders Technology & Innovation[19] are only a few examples.

1.4. Digital Decade country report "recommended actions"

Belgium has taken notice of the recommend actions that have been proposed by the Commission in the 2023 BE country report. As the time between the writing of this roadmap and the publication of the report itself was very short, many of the propositions are still in an embryonic stage of becoming solid actions.

SKILLS

Along with many other Member States, Belgium is aware of the importance on the targets set out for this cardinal point, as these targets involve nudging human behaviour it will be one of the most challenging to reach by 2030. The Digital Decade Working Group (which coordinates different digital strategies at a federal level) will invite all competent entities both federal and federated in a "skills working group (IEC/CEI)" where entities can exchange best practices, raise awareness and share expertise. The group will also discuss best practices of other Member States, which we hope the Commission will share in upcoming Digital Decade Boards.

BUSINESS

As 99% of the Belgian economic tissue is formed by enterprises with less than 250 FTE's[20], competent policy bodies have a lot of measures in place to enhance the further digitalisation of SME's (section 3). As with the skills axis, this axis is very transversely in nature, therefore the Digital Decade Working Group will also invite competent policy administrations to exchange knowledge and explore how Belgium can accelerate its efforts in this area.

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[14] EU Semester Country report 2023 (draft)
[15] Semiconductor technology: exploring the next generations | imec (imec-int.com)
[16] SmartNation - #convergence #inclusion #ambition
[17] https://innovationjourney.brussels/nl/onze-journeys/digitale-innovatie/

[18] https://www.digitalwallonia.be/fr/programmes/industrie-du-futur/

[19] https://fti.vlaanderen/

[20] Bruwier, C. (2020) *Statistiques structurelles sur les entreprises*, StatBel.

INFRASTRUCTURE

In October 2022, the Belgian Broadband Competence Office (BCO) was set up in order to exchange knowledge and good practices with operators, public instances, experts and the European BCO Network but also to facilitate the deployment of reliable, high-speed broadband connectivity towards all citizens. The BCO specifically aims at a better coordination between different stakeholders, continuing the implementation of the best practices in the European Connectivity Toolbox. In 2023, the BCO organized several initiatives to exchange best practices and knowledge between public authorities and operators, and has taken several concrete actions, such as organizing regional conferences, creating a database with information about relevant physical infrastructure owned and controlled by public authorities and the creation of a website with all the useful and legal information about permits required per region. All these actions increase transparency and reduce barriers to deployment.

As far as the 26 GHz band is concerned, the 2019 consultation did not indicate a market demand for this band. Following the multiband auction in 2022, which gave legal certainty to operators for the next 20 years in all important mobile bands, BIPT organised a new public consultation in Q4 2023. The consultation indicated that the ECO-system at 26 GHz is not fully developed yet, but it is expected that the need for this band will become more pronounced in the period 2025-2030, for which operators expect to see localised market requirements emerging for e.g. Fixed Wireless Access and low latency applications. This result will be taken on board and an appropriate regulatory reaction will be developed in the course of 2024.

E-GOVERNMENT

Belgium will continue to accelerate its efforts on e-gov targets. To align and to further strengthen collaboration between governments, federal institute BOSA has put an intergovernmental consultative body in place: "ICEG". A meeting with the relevant actors within the e-gov landscape takes place every quarter, during which good practices are exchanged, a coordinated approach regarding international benchmark studies is aligned, cooperation agreements for specific projects are signed (e.g. agreements on common data standards to optimise interoperability between the entities involved) and the implementation of European regulations is coordinated. There is also room for informal consultations.

Section 2: National trajectories and target values that contribute to the EU's digital targets

SKILLS

	Basic digital skills	**ICT specialists***
Baseline BE*	54%	5,6%
Baseline EU*	54%	4,5%
Gap baseline	0 pp	1,1 pp
Target 2030	80%	10%
Gap BE today towards target	26 pp	4,4 pp
Annual growth	2,89%	0,49%
Expected growth	linear	linear

*based on last available Eurostat data: 2021

Basic digital skills	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	54%	56,9%	59,8%	63%	65,6%	68,5%	71%	74,2%	77,1%	80%

ICT specialists**	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	5,6%	6,1%	6,6%	7,1%	7,6%	8,1%	8,5%	9%	9,5%	10%

**This target is described as an absolute number with no real national target in the DDPP. If Belgium wants to aprox. double its ICT specialists along with the EU, then we have to grow the number by 0.49% every year until 2030. We take the percentage of total employment into account here because this makes a comparision possible with the EU numbers as this is how it is/was measured by the DESI.

INFRASTRUCTURES

	5G	**VHCN**
Baseline BE	30%	78%
Baseline EU	81%	73%
Gap baseline	-51 pp	5 pp
Target 2030	100%	100%
Gap BE	70 pp	22 pp
Annual growth*	8,75%	2,75%
Expected growth	S-shaped	S-shaped

*as the growth is to be expected S-shaped (the way technology innovation is supposed to be adopted), annual growth does mere reflect here the mean

5G	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	30%	50%	99.5%	99.5%	99.5%	99.5%	>99.8%	>99.8%	100%

VHCN	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	78%	82%	>82%	>85%	>88%	>91%	>94%	>97%	100%

Based on the fiber-rollout publicly announced by the SMP operator, the following indicative trajectory can be provided. Other initiatives are also in progress or announced, therefore the real coverage will probably be higher.

Fiber/ FTTP	2022	2025	2028	2032
Trajectory BE	>20%	>50%	>70%	>95%

Production Semiconductors

N/A (insufficient data)

10.000 Edge Nodes

N/A (insufficient data)

Quantum Computer

N/A (insufficient data)

BUSINESS

	Cloud*	Big data*	AI*	Digital intensity	Unicorns**
Baseline BE	47%	23%	10%	77%	7
Baseline EU	34%	14%	8%	69%	
Gap baseline	13 pp	9 pp	2 pp	8 pp	
Target 2030	75%	75%	75%	90%	14
Gap BE	28 pp	52 pp	65 pp	13 pp	
Annual growth*	3,1%	5,2%	7,22%	1,63%	1
Expected growth	S-shaped	S-shaped	S-shaped	linear	exponential

*as the growth is to be expected S-shaped (the way technology innovation is supposed to be adopted), annual growth does mere reflect here the mean

Cloud	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	47%	51%	56%	62%	67%	71%	73%	74%	75%	75%

Big data	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	23%	26%	30%	36%	44%	53%	62%	67%	70%	72%	75%

AI	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	10%	11%	13%	15%	20%	30%	45%	63%	70%	75%

Digital intensity	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	77%	78,6%	80,3%	81,9%	83,5%	85,1%	86,8%	88,4%	90%

**If we relate to the EU goal of doubling the number of unicorns, then Belgium needs to "grow" by aprox. 1 unicorn *extra* each annum the following 7 years. However this is just merely a guidance number, the number is highly depending on the economic situation and should be exponential according to the EU guidance information.

GOVERNMENT

	Digitalisation of public services "citizens"	Digitalisation of public services "business"	E-health
Baseline BE	81%	88%	84%
Baseline EU	77%	84%	71%
Gap baseline	4 pp	4 pp	13 pp
Target 2030	100%	100%	100%
Gap BE	19 pp	12 pp	16 pp
Annual growth	2,38%	1,5%	2,29%
Expected growth	Linear	Linear	Linear

Citizens	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	81%	83%	85%	87%	89%	91%	93%	95%	97%	100%

Business	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	88%	90%	92%	94%	96%	98%	100%	100%	100%	100%

E-health	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Trajectory BE	84%	86%	88%	90%	92%	94%	96%	98%	100%	100%

Electronic identification

N/A (insufficient data)

A brief justification of the national target values.

Given our starting points across all targets and resources, policies and measures available in our country, the Digital Decade Working Group considers the 2030 targets as feasible. As described above Belgium has a powerful, innovative business ecosystem fuelled by a lot of public-private academic partnerships, therefor we believed that the numbers according to the business targets will rise quickly. In the domain of e-government, Belgium has shown a lot of progress in recent years which confirms our believe that Belgium will meet relevant goals even before the end of 2030.

When we take a look at the infrastructure axis, we notice that a lot of data isn't yet available with regard to the quantum, edge nodes and semiconductor objectives. Especially quantum and semiconductors are targets we believe are to be handled in a cross border manner. For a smaller country like Belgium we can provide the knowledge and inkind contributions to European initiatives, but the building capacity from a national perspective does not appear to be realistic. Belgium will engage in the EU semiconductor board and awaits for the Spanish final draft and negociations of the "quantum pact' before aligning its strategy to it. As to the targets of 5G and VHCN, as described in

other sections, we suffer from a historic backlog but Belgium is expected to catch up rapidly in consideration of the available resources and the programmes and measures that are put in place.

The most challenging cardinal point will be "skills", it will be of utmost importance to closely monitor efforts in this field as it will be difficult to keep up with the ever-increasing speed of the digital transition. As you will notice in the upcoming sections, Belgium has a large range of measures in place to enhance the number of ICT-profiles in the labour market and the number of STEM-graduates as well as uplifting basic digital skills and reducing the digital divide. However it will take some time to evaluate the impact of these actions and measures on the Belgian citizens. If we look at very recent figures from the Belgian statistical institute Statbel, we see that for basic digital skills the numbers are perfectly in line with our mapped out trajectory. In 2023, 59% of the Belgian population was considered having basic digital skills[21] compared to 55% in 2021, thus increasing by 4% over two years.

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[21] Digitale vaardigheden | Statbel (fgov.be)

Section 3: Policies, measures and actions to achieve the digital targets

3.1. General overview of measures per digital target

SKILLS	2023	2024	2025	2026	2027	2028	2029	2030
Target: at least 80% of those aged 16-74 will have at least basic digital skills								
Measure 1. Coaching the empowerment of stakeholders from adult learning in their pedagogical uses of digital resources	▨	▨	▨	▨	▨	▨	▨	▨
Measure 2: DigComp framework based individual digital skills autodiagnosis' for professionals of education and linking of Pix pathways with digital training opportunities and resources for teachers	▨	▨	▨	▨	▨	▨	▨	▨
Measure 3: Skills development from secondary education onwards and certification as part of digital strategies for higher education and life-long learning institutions	▨	▨	▨	▨	▨	▨	▨	▨
Measure 4: Integration and upgrading of digital skills in curricula and continuous training for students and for teachers	▨	▨	▨	▨	▨	▨	▨	▨
Measure 5. Future Skills: Project from the employment office								
Measure 6. Projects from the Centre for media literacy								
Measure 7. Digital development of the education system								
Measure 8. Digital Strategy for Flanders	▨	▨	▨	▨	▨	▨	▨	▨
Measure 9. Everyone Digital Action plan	▨	▨	▨					
Measure 10. VDAB services regarding digital skills	▨	▨	▨	▨	▨	▨	▨	▨
Measure 11. Digibanks	▨	▨	▨	▨	▨			
Measure 12. Human capital and digital transformation	▨							

Measure									
Measure 13. Development of AI & Cybersecurity trainings									
Measure 14. Mediawijs, Flemish Knowledge Centre for Media Literacy									
Measure 15. News in the Classroom (2.0)									
Measure 16. ICT offer in Basic Adult education and Centres for Adult Education and ICT in secondary adult education									
Measure 17. Digisprong									
Measure 18. ICT in the curriculum of compulsory education									
Measure 19. Edusprong									
Measure 20. MyTalent									
Measure 21. digital skills assessment (BCR-Actiris)									
Measure 22. Action plan for the digital inclusion and autonomy of learners									
Measure 23. Digital Appropriation Plan 2021-2024									
Measure 24. The "Brussels Youth To Digital" (BYTD) project									
Measure 25. Regional Contact Centre									
Measure 26. Inclusive Neighbourhood Hubs									
Measure 27. Chatbot/Livechat									
Measure 28. User Experience Observatory									
Measure 29. Flying Team									
Measure 30. Fostering cybersecurity awareness and educational programmes by NCC-BE (Work package 4)									
Measure 31. Annual awareness cybersecurity campaign by the CCB									
Measure 32. Connectoo training									

Measure								
Measure 33. Digital School Programme	▓	▓	▓	▓				
Measure 34. Walloon "Basic Digital Training" Programme	▓	▓	▓	▓				
Measure 35. Digital Inclusion Plan for all Walloons	▓	▓	▓	▓				
Measure 36. Digital Public Spaces scheme	▓	▓	▓	▓		▓	▓	▓
Measure 37. Walloon Recovery Plan - project 231	▓	▓						
Measure 38. Walloon Recovery Plan – project 29 + 33	▓	▓						
Measure 39. Walloon Recovery Plan – project 4	▓	▓						

SKILLS	2023	2024	2025	2026	2027	2028	2029	2030
Target: at least 20 million ICT specialists are employed within the Union, while promoting the access of women in this field and increasing the number of ICT graduates								
Measure 40. Oriented curricula and job profiles to increase the number of ICT specialists or to upgrade work's skills.	▓	▓	▓	▓	▓	▓	▓	▓
Measure 41. Promote women in the digital world	▓	▓	▓	▓	▓	▓	▓	▓
Measure 42. Digital Strategy for Flanders	▓	▓	▓	▓	▓	▓	▓	▓
Measure 43. Flanking policy on Cybersecurity	▓	▓	▓	▓	▓	▓	▓	▓
Measure 44. The Flemish AI Academy	▓	▓	▓	▓	▓	▓	▓	▓
Measure 45. Brussels Diversity Plan "Women in Digital"								
Measure 46. Regional Web Strategy								
Measure 47. Regional Contact Center								
Measure 48. Inclusive Neighbourhood Hubs								
Measure 49. Chatbot/Livechat								

Measure								
Measure 50. Public Crowdfunding Platform								
Measure 51. User Experience Observatory								
Measure 52. Embedded Digital Translator								
Measure 53. Fostering cybersecurity awareness and educational programs by NCC-BE (Work package 4)	▒	▒	▒	▒	▒	▒	▒	▒
Measure 54. Cysec Education & Research pool by the CCB	▒	▒	▒	▒	▒	▒	▒	▒
Measure 55. Cyber Security Challenge Belgium (CSCBE) and the European Cyber Security Challenge (ECSC) co-managed by the CCB	▒	▒	▒	▒	▒	▒	▒	▒
Measure 56. Egov Select	▒	▒	▒	▒	▒	▒	▒	▒
Measure 57. Walloon Recovery Plan – project 13	▒	▒						
Measure 58. Walloon Recovery Plan – project 24	▒	▒						
Measure 59. Numeria	▒	▒						
Measure 60. Walloon Recovery Plan – project 34	▒	▒						
Measure 61. Walloon Recovery Plan – programme 40	▒	▒						
Measure 62. Everybody digital (supralocal)								
Measure 63. Women in tech initiative								

BUSINESS	2023	2024	2025	2026	2027	2028	2029	2030
Target: at least 75% of Union enterprises have taken up one or more of the following, in line with their business operations: cloud computing, big data, artificial intelligence								
Measure 1. Programme DW4AI	▒	▒						
Measure 2. Programme DW4Business	▒	▒						
Measure 3. Programme Digital Commerce	▒	▒						
Measure 4. Programme Agriculture du Futur	▒	▒						

Measure 5. Programme Industrie du futur								
Measure 6. Digital Strategy for Flanders								
Measure 7. Athumi (Flemish Data utility company)								
Measure 8. Grants for collective research and knowledge transfer								
Measure 9. Grants for individual or cooperative company projects								
Measure 10. Information, guidance and advice for entrepreneurs								
Measure 11. Support for digitalization under ERDF programme 2021-2027								
Measure 12. Digital transformation programme for the Flemish media industry								

BUSINESS	2023	2024	2025	2026	2027	2028	2029	2030
Target: more than 90% of Union SMEs reach at least basic level of digital intensity								
Measure 13. UpSkills Wallonia								
Measure 14. Programmes Leadership et Organisation numérique								
Measure 15. Programme Digital Commerce[22]								
Measure 16. Digital Strategy for Flanders								
Measure 17. Grants for collective research and knowledge transfer								
Measure 18. Grants for individual or cooperative company projects								
Measure 19. Information, guidance and advice for entrepreneurs								
Measure 20. Support for digitalization under ERDF programme 2021-2027								

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[22] Each of the Walloon regional programs also emphasises the development of digital skills in the sector

Measure	2023	2024	2025	2026	2027	2028	2029	2030
Measure 21. Digital transformation programme for the Flemish media industry	■	■	■	■				
Measure 22. Grant for an external consulting mission concerning the optimization or development of a website or an e-commerce platform (Brussels Economy and Employment)								
Measure 23. Grant for an external consulting mission concerning the digitalization and IT security improvements (Brussels Economy and Employment)								
Measure 24. Call for projects "Digitalization and economic transition" (Brussels Economy and Employment)								
Measure 25. Public Crowdfunding Platform								
Measure 26. Measures of the digitalisation thematic of the 'SHIFTING ECONOMY' strategy of the Brussels-Capital Region : part focusing on digital transformation	■	■	■	■	■	■	■	■
Measure 27. Construction 4.0								
Measure 28. Dissemination and sharing of knowledge, tools and material by the NCC-BE (part of Work Package 4)	■	■	■	■	■	■	■	■

BUSINESS	2023	2024	2025	2026	2027	2028	2029	2030
Target : the Union facilitates the growth of its innovative scale-ups and improves their access to finance, leading to at least doubling the number of unicorns								
Measure 29. Scale-up		■	■					
Measure 30. Digital Strategy for Flanders	■	■	■	■	■	■	■	■
Measure 31. Imec I-start	■	■	■	■				
Measure 32. Scaleup Vlaanderen	■	■	■	■	■			

Measure								
Measure 33. Digital transformation programme for the Flemish media industry	X	X	X	X				
Measure 34. Regional Web strategy	X	X	X	X				
Measure 35. Public Crowdfunding Platform	X	X	X	X	X			
Measure 36. Coordination and management of EU investment opportunities	X	X	X	X	X			

INFRASTRUCTURES	2023	2024	2025	2026	2027	2028	2029	2030
Target: all end users at a fixed location are covered by a Gigabit network up to network termination point and all populated areas are covered by next generation wireless high-speed networks with at least 5G equivalent performance, in accordance with the principle of technology neutrality								
Measure 1. Digital Strategy for Flanders	X	X	X	X	X	X	X	X
Measure 2. 100 gigabit plan Flemish Research Networks	X	X	X	X	X	X	X	X
Measure 3. Spectrum reservation for a newcomer (5G)	X	X	X	X	X	X	X	X
Measure 4. Regulated access (VHCN)	X	X	X	X	X	X	X	X
Measure 5. Project funding (5G pilot projects, VHCN in "white areas", 5G coverage along railways and 6G research)	X	X	X					
Measure 6. Awareness Campaigns (VHCN & 5G)	X	X	X	X	X	X	X	X
Measure 7. BCO	X	X						
Measure 8. Project funding: Last Mile (gigabit)	X	X	X	X	X	X	X	X
Measure 9.: Project funding: Proof of Concept 5G	X	X	X	X	X	X	X	X
Measure 10. Accords Tax on Pylons 3	X	X						

INFRASTRUCTURES	2023	2024	2025	2026	2027	2028	2029	2030
Target: the production, in accordance with Union legislation on sustainability, of cutting-edge semiconductors in the Union is at least 20% of world production in value								
Measure 11. Digital Strategy for Flanders								
Measure 12. Imec convenant								
Measure 13. Imec Xpand II								
Measure 14. Imec SSTS								

INFRASTRUCTURES	2023	2024	2025	2026	2027	2028	2029	2030
Target: at least 10 000 climate neutral highly secure "edge nodes" are deployed in the Union, distributed in a way that guarantees access to data services with low latency (few milliseconds) wherever businesses are located								
Measure 15. Digital Strategy for Flanders								

INFRASTRUCTURES	2023	2024	2025	2026	2027	2028	2029	2030
Target: by 2025, the Union has its first computer with quantum acceleration, paving the way for the Union to be at the cutting edge of quantum capabilities by 2030								
Measure 16. Digital Strategy for Flanders								
Measure 17. Flemish Supercomputer Center								

GOVERNMENT	2023	2024	2025	2026	2027	2028	2029	2030
Target: 100% online accessible provision of key public services and, where relevant, the possibility to interact online with public administrations for Union citizens and businesses								
Measure 1. IRISbox platform								
Measure 2. eBox								
Measure 3. Digital Strategy for Flanders								
Measure 4. Municipality without Municipal Hall								
Measure 5. My Citizen Profile								
Measure 6. Submit requests in digital form to the central administration								

Measure 7. Description of services at community level								
Measure 8. "Bruxelles Numérique" program								
Measure 9. Brussels Governance and Data Code (BGDC), Brussels Data Strategy (BDS) and Regional Data Exchange Platform (RRF-project I-2.10)								
Measure 10. Digitalization of citizen-business processes, RRF-project I-2.11								
Measure 11. "We Pulse" program.								
Measure 12. MyBEE 3.0								
Measure 13. "housing passport"								
Measure 14. DIGIPERMIT initiative								
Measure 15. Challenge 5 of EASYWAY: support and training for target audiences								
Measure 16. Regional Web Strategy								
Measure 17. Regional Contact Center								
Measure 18. Inclusive Neighbourhood Hubs								
Measure 19. Chatbot/Livechat								
Measure 20. Embedded Digital Translator								
Measure 21. Public Crowdfunding Platform								
Measure 22. User Experience Observatory								
Measure 23. Video Calls								
Measure 24. Co-browsing enabler								
Measure 25. User Experience Commando Team								
Measure 26. For each application Brussels Regional Public Services develops where citizens or								

businesses (public & private) are implicated we foresee a front office or communication portal								
Measure 27. Interoperability of subsidies								
Measure 28. online services for jobseekers (BCR-Actiris)								
Measure 29. eGov - SPW								

GOVERNMENT	2023	2024	2025	2026	2027	2028	2029	2030
Target: 100% of Union citizens have access to their electronic health records								
Measure 30. Digital Strategy for Flanders								
Measure 31. Vitalink (digital data-sharing platform for care and health)								
Measure 32. Alivia (Flemish integrated digital care and support plan)								
Measure 33. Athumi (Flemish Data utility company)								
Measure 34. Project PARTNER								
Measure 35. Project PHARMA								
Measure 36. Project TEAM								
Measure 37. INHA Project								
Measure 38. The Brussels Health Network								

GOVERNMENT	2023	2024	2025	2026	2027	2028	2029	2030
Target: 100 % of Union citizens have access to a secure electronic identification (eID) means recognised throughout the Union, enabling users' full control over identity transactions and shared personal data								
Measure 39. Digital Strategy for Flanders								
Measure 40. My Citizen Profile								
Measure 41. Athumi (the Flemish data utility company)								

Measure 42. GOV_03: Building authentic sources and using existing sources in applications								
Measure 43. Online authentication awareness and training								
Measure 44. Regional web strategy								
Measure 45. Inclusive Neighborhood Hubs								

3.2. Description of the measures*

*Measures have been attributed a color based on their executive entity: blue = Fédération Wallonie-Bruxelles; pink = Brussels Capital; red = Walloon Region; green = German speaking Community; yellow = Flanders; grey = Federal government.

3.2.1. Skills

Measure 1 New measure: no	Coaching the empowerment of stakeholders from adult learning in their pedagogical uses of digital resources
Description of the measure	An individual approach is proposed by the SGNE's Centre de Ressources pédagogiques to enable teachers identify their digital skills needs or uses and help them to choose purposeful devices. Peer meetings are organized to disseminate best practices and accompany the paradigm shift in non-compulsory education. Finally, a network of techno pedagogical advisors and digital referents has been set up. In 2024, at least 85 OER projects will be created by teachers with the help of CRP, 380 individual training plans will be made. About 15 workshops or meetings will be organized every year.
Budget & HR	FW-B (2021-2027): 1,74 M€ FW-B (OER program): 0,3M€ per year ESF+ (2021-2027): 1,520 M€ RRF (2021-2026): - 4,16M€ (LLL advisors) - 0,72M€ (OER program) Mobilization of human resources, within the service and/or partners, not specific to the project (general budget).
Impact & timing	The main objective is for each lifelong learning institution to have on average at least 5 people who have benefited from the scheme at the end of the ESF+ programming (2027). End of 2024: evaluation and orientation of the program.

Measure 2 New measure: no	DigComp framework based individual digital skills autodiagnosis' for professionals of education and linking of Pix pathways with digital training opportunities and resources for teachers
Description of the measure	An online platform (Pix) proposes specific pathways selected by the administration (first convention between FW-B and the GIP Pix France till 2026) to all in-service teachers and staff members to auto diagnose their digital skills and self-target their needs of digital skills training (started September 2022). For compulsory education, in addition, project Form@ion (ESF +) aims to analyse and integrate network and inter-network training and resources offers into specific pathways.
Budget & HR	FW-B: estimated the cost of use 7.00€ for each teacher and 0.07€ for each student. FW-B: 3,52 M€ (Form@ion) ESF+ (2021-2027): 3,18M€ (Form@ion) Mobilization of human resources, within the service and/or partners, not specific to the project (general budget).
Impact & timing	By end of 2024, 33.750 teachers will have followed digital training offers or will have completed Pix pathways and increase their level of digital skills. Furthermore 11.250 teachers will follow digital training offers or complete Pix pathways and increase their level of digital skills by the end of 2025. The target of the Form@ion project is 45.000 teachers (27.000 women - 18.000 men) by the end of ESF+.

Measure 3 New measure: no	Skills development from secondary education onwards and certification as part of digital strategies for higher education and life-long learning institutions
Description of the measure	A network of certification centers will allow adults to voluntarily certify their digital skills. Pix Certif certification should also be integrated into the curriculum of post-graduate students. The three years valid certification serves as proof of mastery of the evaluated skills. Voluntary deployment of Pix Orga environments started in September 2022 for higher education and lifelong learning. A deployment of the Pix Orga pilot phase for secondary education is planned in 2023-2024 extending to all voluntary schools starting in 2024-2025. The certification network will not be implemented before 2024. Students aged 16 and above, as well as lifelong learners, can assess and improve their digital skills with the support of their educators; and each French-speaking citizen will be able to test its level of proficiency on his own.
Budget & HR	Mobilization of human resources, within the service and/or partners, not specific to the project (general budget).
Impact & timing	In April 2023, 6 universities out of 6, 2 out of 16 higher education institutions and 97 out of 150 life-long learning institutions have

| | already solicited a Pix Orga environment. 6.018 users in higher education and 801 in life-long learning are already enrolled. No specific target is identified for adult education, but up to 100 classrooms of secondary education – not only 16 years old and on (maximum 2500 students) – will have used Pix pathways until June of 2024. |

Measure 4 New measure: no	Integration and upgrading of digital skills in curricula and continuous training for students and for teachers.
Description of the measure	A specific curriculum, built for its digital aspects on DigComp Citizen, defines learning outcomes including digital knowledge and competencies from first of primary to third of secondary.
	The reform of continuous training for teachers is marked by a decree adopted on the 17th of June 2021. A set of priority themes built on the DigCompEdu have been determined to help training institutions adapt their training offer.
	To facilitate upgrading of professional curricula in higher and life-long learning education in response for digital and ecological transitions and challenges of tomorrow's skills, a new pedagogical function was created and keyed with a specific formation in EdTech and techno pedagogy (LLL's certification 980514S36D1, 980500S36D1).
Budget & HR	Mobilization of human resources, within the service and/or partners, not specific to the project (general budget).
Impact & timing	The adoption of the curriculum about manual, technical, technological, and digital knowledges and competencies will permit for youngsters under 16 to acquire digital skills, therefore reinforcing the attainment of the goal of basis digital skills for Europeans from 16 to 74 years old.
	This curriculum is gradually put in place (2022-2023 for 1st and 2d of primary, 2023-2024 for 3d and 4th of primary, 2024-2025 for 5th of primary, and so on).
	Renewed measure in 2022: all teachers of non-compulsory education have an exemption of fees for trainings which develop digital skills useful for their professional life.

Measure 5 New measure: no	Future Skills, a project from the employment office
Description of the measure	Content of the measure:
	Through new approaches to qualification, Future skills aims to provide the unemployed with the skills (mainly digital skills) they need for a successful future on the labour market through training and education.
	Link to the target:

	Teaching basic digital skills required for active participation in society. These include a range of skills for using digital services, e.g. online registration with the employment office. These competencies are part of the cross-sectional competencies that job seekers should have and can already be used, for example, when creating an application portfolio. In addition, professionally relevant competencies in the office area are taught. These are basic knowledge in Excel, Word, Outlook, ...
	Tentative timeline:
	The courses will take place in 2023-2024 in classroom/hybrid form in the Skills Centres of the Employment Office or, if required, in the premises of the project executing agencies. One module includes 7 hrs/week (2 half days) during 4 weeks, regular entry.
Budget & HR	2023: 592.524,12 EUR
	2024: 601.937,79 EUR
	Funding: 50% European Social Fund, 50% German Speaking Community
Impact & timing	2023: 27 Participants
	2024: 36 Participants

Measure 6 New measure: no	Projects from the Centre for media literacy
Description of the measure	Content of the measure:
	The mission of the centre for media literacy of the German-speaking Community is to empower citizens to use media competently, to enable them to participate actively in all areas of society.
	The media literacy team of the centre for media literacy develops media literacy programs for children, young people, adults, seniors, …and supports libraries, schools and other institutions of the German speaking community with the implementation of media projects:
	- "Digitalbotschaftler"
	- "Medienwerkstatt"
	- Workshops
	- Consultations on request
	- Media literacy network
	- Meeting point
	- Set up area-wide contact points for digital help
	Link to the target:
	These projects help to achieve the following goals: promote media literacy and basic digital skills to a large audience.

Budget & HR	The centre for media literacy receives an annual dotation with an annual indexation to fulfil its tasks. In 2022, the dotation was 257.000€. On top of that, staff costs were 1.505.144,25 EUR in 2022.
Impact & timing	All projects listed above last until 2030. A large audience gets provided with basic digital skills

Measure 7 New measure: no	Digital development of the education system
Description of the measure	Content of the measure: Making students and teachers fit for the digital world requires the interplay of many factors: A digital infrastructure (e.g. laptops), the structured teaching of digital skills from kindergarden to high school graduation, the provision of hourly capital, and structured training and continuing education for teachers. Link to the target: The basis for life in the digital world is taught at school
Budget & HR	TBC
Impact & timing	All the projects listed above last until 2030.

Measure 8 New measure: no	Digital strategy for Flanders
Description of the measure	Content of the measure: The Steering Body ICT of the Flemish Government has set up a working group on digital strategy to draft a 2030 digital strategy for Flanders by the end of 2023. In co-creation together with the policy domains and external experts, this new digital strategy for Flanders will be further developed through several thematic workshops. The digital decade objectives of the European Commission will be used as a target. Link to the target: All the digital decade objectives of the European Commission will be translated into measures in this project. Tentative timeline: The project started in September 2022. A first draft is expected by the end of 2023. A list of identified measures and the needed budget for each will be presented to the government negotiators after the elections of June 2024. The new government will decide which measures get funding as part of the government negotiations in the Summer of 2024.

Budget & HR	Flemish: (please indicate if budget is allocated and/or planned): 30 kEUR
Impact & timing	The identified measures will allow the Flanders region to reach the Flemish targets by 2030.

Measure 9 New measure: no	'Everyone Digital' action plan
Description of the measure	Content of the measure: This action plan consists of several projects: - Resources for cities and municipalities in Flanders to develop a policy on digital inclusion and implement various actions related to digital inclusion. - Several civil society organizations who are experts in digital inclusion, support the cities and municipalities in developing their policy and actions on digital inclusion. - The City Deal 'E-inclusion by Design' in which larger Flemish cities make their digital services more user-friendly. - The development of screening tools that measure digital skills of employees of the Flemish government and local municipalities. - Computers in the emergency villages for Ukrainian refugees. - Scientific research on this action plan and on digital inclusion. Link to the target: Many local authorities organise courses for citizens to improve their basic digital skills. Together with civil society organizations they also train volunteers to support citizens with their digital questions. The objective of the screening tools is to guide employees towards training on several (more basic) digital skills. One project also focuses on the digital skills of Ukrainian refugees. Tentative timeline: The projects will end in 2024, the scientific research will end mid-2025.
Budget & HR	Flemish: 31,5 MEUR
Impact & timing	All cities end municipalities in Flanders are committed to a policy on digital inclusion by the end of 2024.

Measure 10 New measure: no	VDAB services regarding digital skills
Description of the measure	Content of the measure: VDAB, the Flemish Service for Employment and Vocational Training, categorizes digital skills into three customer profiles: digitally proficient, digitally basic proficient, and digitally low literate. VDAB

offers competence-enhancing actions for each profile, either independently or in collaboration with partners, utilizing various tools and support options such as workshops, webinars, online courses, screenings, and assessments. Additionally, the development of digital skills is integrated implicitly or explicitly within other VDAB courses. The target audience for these initiatives includes both job seekers and workers.

More details in the regional roadmap of Flanders in Annex.

Link to the target:

The VDAB services focus on basic digital skills and attributes to the target to have at least 80% of those aged 16 – 74 have at least basic digital skills

Tentative timeline:

This measure is ongoing. The actions are implemented and frequently updated.

Budget & HR	Part of the regular working budget
Impact & timing	Increase in basic digital skills (DigComp level 0-1) for citizens by 2030

Measure 11 New measure: no	Digibanks
Description of the measure	Content of the measure: The Flemish Government has established "digibanks" to address the risk of digital exclusion among (vulnerable) adult citizens. Firstly, they ensure equal access to digital technology by providing hardware and support. Secondly, they strengthen digital skills through training and knowledge sharing. Thirdly, they promote digital access to essential online services through guidance and training. Digibanks are collaborative partnerships involving local municipalities, enterprises, civil society organizations, educational institutions, and social economy initiatives. With 54 active digibanks covering over 200 municipalities, they address local needs and offer integrated services for easier digital engagement. More details in the regional roadmap of Flanders in Annex. Link to the target: Not only citizens benefit from strengthened digital skills. Digital government services can only be successful if citizens have sufficient knowledge and skills. Tentative timeline: The projects were allocated financial support till the end of 2024 (potentially extendable till mid 2026).
Budget & HR	EU: 50 million euro (part of RRF)

Impact & timing	The initial timing was 2022-2024, for a minimum of 2-year projects, depending on the timing of the calls.
	The Flemish government has decided to grant the possibility to extend the projects for another 1.5 years until July 2026.

Measure 12 New measure: no	Human capital and digital transformation (Joint ESF/VLAIO-calls)
Description of the measure	Content of the measure: ESF-VLAIO joint project calls to develop and set-up guidance/guidance trajectories for companies on human capital and digital transformation by data driven technologies and after testing and finetuning resulted in blueprints for this kind of guidance (besides regular project reporting). More info on the VLAIO-website[23]. <u>Link to the target:</u> The guidance trajectories led to better prepared/trained/reinforced employees. <u>Tentative timeline:</u> 01/11/2021 – 31/10/2023
Budget & HR	National: AI/CS-Agenda-budgets Flemish: total budget per call: 1.000.000 VLAIO EU: total budget per call: 666.667 euro ESF
Impact & timing	A brief inspirational guide[24] was written for company advisers/counsellors/sector counsellors when it comes to companies in digital transformation and how to ensure that their human capital is retained and reinforced.

Measure 13 New measure: no	Development of AI & CS-trainings (Joint ESF/VLAIO-calls)
Description of the measure	Content of the measure: Joint ESF/VLAIO-calls led to funding for the development of training materials to prepare companies and their employees towards the implementation of cybersecurity and artificial intelligence. <u>Link to the target:</u> Trainings are being deployed or will be deployed to their specific target audience in the near future and this will help reach the target. <u>Tentative timeline:</u> ongoing

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[23] Begeleidingstrajecten ondersteunen shift naar industrie 4.0 | Agentschap Innoveren en Ondernemen (vlaio.be)
[24]   https://europawse.be/nieuws-en-publicaties/nieuwsberichten/publicatie-digitalisering-medewerkers-als-krachtige-hulpbronè

Budget & HR	National: AI/CS-Agenda-budgets
	Flemish: total budget per call: 500.000 euro VLAIO
	EU: total budget per call: 340.000 euro ESF
Impact & timing	Developed training materials that will be used or are currently already in use (output from the projects in the early calls) by companies and their employees.
	Running projects are ending Q2 2023.

Measure 14 New measure: no	Mediawijs, Flemish Knowledge Centre for Media Literacy
Description of the measure	Content of the measure: Mediawijs, the Flemish Knowledge Centre for Media Literacy, aims to empower the residents of Flanders and Brussels to actively, creatively, critically, and consciously use and understand digital technology and media. Their target group encompasses the general population of the Flemish community, with special attention given to vulnerable groups such as children, young people, seniors, individuals in poverty, and those with physical or mental disabilities. They also focus on facilitating groups involved in teaching digital and media literacy, including parents, youth workers, caregivers, librarians, and teachers. Mediawijs operates in four main subdomains: digital inclusion, digital safety, news and information literacy, and digital creation, addressing various topics such as basic digital skills, online risks, disinformation, and digital art. More details in the regional roadmap of Flanders in Annex. Link to the target: By providing information, tools, education, etc. to citizens, teachers, parents, policy makers, etc. they help the general population to use and understand digital technology and media actively, creatively, critically and consciously and thus stimulate basic digital skills for the general public with attention to vulnerable target groups. Tentative timeline: Current grant agreement until 31st December 2025. Expected to be renewed.
Budget & HR	Flemish: 940.000 EUR
Impact & timing	By providing tools, education, information to different groups of the general public, digital skills are stimulated, and a multiplier effect is created by sharing and collectively building the accumulated knowledge within families, schools, organisations and businesses.

Measure 15 New measure: no	News in the Classroom (2.0)

Description of the measure	Content of the measure:
	News in the Classroom is an educational project designed for students from the third grade of primary education and beyond, that encourages young people to engage with news and current affairs critically, consciously, and actively.
	The project offers three initiatives tailored to different age groups: News Makers for 12-14-year-olds, Fact Checkers for 14-16-year-olds, and Opinion Makers for 16-18-year-olds. Each initiative focuses on specific competencies related to interpreting news, assessing its trustworthiness, and understanding its societal impact.
	The educational materials include online learning modules, classroom manuals, methodology bundles, and inter-school challenges.
	More details in the regional roadmap of Flanders in Annex.
	Link to the target:
	By providing tools for teachers and students concerning (digital) information literacy, digital skills are stimulated.
	Tentative timeline: Yearly recurrent programme
Budget & HR	Flemish: 1.000.000 EUR (yearly) + 750.000 EUR (Flemish Resilience)
Impact & timing	Developing classroom tools for teachers and students to heighten (digital) information literacy.

Measure 16 New measure: no	ICT offer in Basic Adult Education and Centres for Adult Education and ICT in secondary adult education
Description of the measure	Content of the measure:
	the Centres for Basic Education (CBE) provides a safe and supervised environment for adults to experiment with ICT integration. The primary focus of the CBE is addressing illiteracy, low literacy levels, digital competence, and numerical skills.
	Apart from the CBE there are also Centres for Adult Educationhosting courses on a broad range of topics. The ICT course is based on the European DigComp Framework for Citizens. If we rank the most popular courses, ICT comes third.
	Link to the target:
	Direct training courses in the field of digital competences for citizens
	Tentative timeline: ongoing
Budget & HR	Flemish: no separate budget for ICT
Impact & timing	Specific and accessible training offer for citizens is available in the field of digital competences.

Measure 17 New measure: yes	Digisprong
Description of the measure	Content of the measure: The Flemish ICT in Education Strategy (Digisprong) strategy has been transformed into 24 measurable and specific actions clustered in four crucial and interconnected focal points: A future-oriented and safe ICT infrastructure for all schools of compulsory education, A strong, supporting and effective ICT school policy Digitally skilled teachers and teacher trainers The provision of digital learning resources and platforms Link to the target: Fulfilling preconditions for effective digital transformation Tentative timeline: 2020 - 2024
Budget & HR	Flemish: 460 million euros
Impact & timing	All Flemish schools in primary and secondary education have sufficient ICT infrastructure Teachers acquired basic digital skills through extra in-service training offers and extra training budget Better access to and better offer of digital learning resources Better coordination and support of digital policies at school level Additional support, funding and coordination of policies through the Knowledge Centre Digisprong.

Measure 18 New measure: yes	Curriculum reform
Description of the measure	Content of the measure: Basic digital skills are now a part of compulsory secondary education in Flanders. . Digital competence is one of the 16 competence areas, comprising ICT, media literacy, and computational thinking. While ICT objectives can be found in other clusters due to their cross-cutting nature, students are encouraged to strive for the highest attainment levels. Some objectives are marked as basic literacy, indicating that all students should individually work towards achieving these skills. Ongoing curriculum reforms are currently addressing the final objectives for the second and third grades, and periodic inspections by the Education Inspectorate ensure compliance with these targets. More details in the regional roadmap of Flanders in Annex. Link to the target:

	Integration of digital competences for all pupils in compulsory education
	<u>Tentative timeline:</u>
	New final objectives for 2nd and 3d grade will go into effect as from 1/9/2023 on.
Budget & HR	No budget involved
Impact & timing	All children leaving compulsory education have obtained a basic digital competence.

Measure 20 New measure: no	MyTalent
Description of the measure	MyTalent is a program launched by talent.brussels in 2020. The objective of this program is to enable the digitalization of soft-HR processes for talent and its partners. Soft-HR processes encompass all processes ranging from personnel recruitment to their departure and potential replacement, including onboarding, training, evaluations, and more.
	To date, this project has seen the creation of a platform called MyTalent.
	There is also focusing on activities and tools that would allow us to incorporate more AI into the recruitment process as well as integrations between candidate testing tools and MyTalent. This is aimed at making the recruitment procedures faster and more efficient.
	My talent is a regional HR digitalization tool. This tool allows civil services to digitise internal HR practices such as recruitment, training and evaluation of public servants. This tool is inclusive and easy to use.
Budget & HR	Licences: ~200K€/Y
	Projects: ~100K€/Y
	Support: ~50K€/Y
	Digital training content: ~70K€/Y
	Resources:
	1 Implementation Manager: ~120K€/Y
	0.8 Project Manager: ~120K€/Y
	2 system Admins: ~150K€/Y
Impact & timing	MyTalent/Performance: Rollouts to talent.brussels partners (2024-2025).
	MyTalent/Training: 1 wave/year (inclusion of new partners).
	Onboarding: 2023-2024.

	MyTalent/Recruitment: Recruitment of contract personnel (2023-2024).

Measure 21 New measure: yes	digital skills assessment (BCR-Actiris)
Description of the measure	Content of the measure: The aim is to improve the basic digital skills of job seekers, for example 17.5% of whom do not have an email address. The increase in digital skills makes it possible to improve the employability of this group and to reduce the digital divide. Link to the target: This measure will contribute to raising the number of unemployed Brussels citizens who have at least basic digital skills.
Budget & HR	The planned budget is (staff not included) : 2 million euro for the execution in 2023 4 million euro per year for the following years: 2024, 2025, 2026
Impact & timing	Entry into force on the 1st of September 2023. Implementation will be gradual and will focus on jobseekers under 30 years of age and long-term jobseekers who have been registered for more than one year.

Measure 22 New measure: no	Action plan for the digital inclusion and autonomy of learners
Description of the measure	Content of the measure & link to the target: The action plan has two strategic objectives: the inclusion of digitally vulnerable job seekers in Bruxelles Formation's training offer and the strengthening of the digital autonomy of learners when in a situation of digital vulnerability. All the actions presented in this plan aim to attain the objective of at least 80% of those aged 16-74 having at least basic digital skills as it targets Brussels' population, without restrictions concerning the age. Tentative timeline: The action plan was elaborated in 2022 and the deployment of all the measures was expected to take place over the course of 18 months. Following adaptation in the deployment of the plan, it should be carried out until the end of 2024 with the actions becoming structural.
Budget & HR	The budget for this plan comes from regional financial means that are channelled through Actiris (PES) via a cooperation agreement in the framework of cross-employment-training policies Other actions, including the human resources necessary to carry out the structural measures, are covered by Bruxelles Formation's budget.

Impact & timing	Increased digital autonomy and digital inclusion of learners at Bruxelles Formation to allow them further access to vocational training.
	Increased basic digital skills of Brussels' citizens.

Measure 23 New measure: no	Digital Appropriation Plan 2021-2024
Description of the measure	Content of the measure:
	With the 2021-2024 Digital Appropriation Plan, the Brussels Region 's ambition is to help citizens to take ownership of digital technology by focusing on the accessibility of digital tools, training from a very young age and supporting our society towards a universally accessible digital transformation.
	The Plan is composed of four areas, 17 projects and 66 actions.
	Tentative timeline: 2021-2024
Budget & HR	900.000 € per year + 3.5 ETP
	Paradigm : 800.000 € (including 3 ETP)
	Easy.brussels : 100.000 € (including 0.5 ETP)
Impact & timing	The expected impacts are the following:
	Create a broad ecosystem of the many actors of digital inclusion and increase their visibility by centralising the offer and services provided to help the citizens.
	Coordinate all the actions and the actors of digital inclusion to have a greater impact within the Region.
	Implement digital inclusive recommendations about the digitalisation of the public services in order to assure the accessibility of the public services to all citizens
	Equip and support the front-line actors for them to be able to support citizens (IT material, train the trainers trainings, create a framework around ethics while helping the citizens, …)
	Support 6 target groups requiring a specific approach adapted to their needs in collaboration with the other administrations in charge of those publics (eg. Actiris for the jobseekers, …)
	The DAP will be ended by December 2024 and the following strategy will then be presented to the new government.

Measure 24 New measure: yes	The "Brussels Youth To Digital" (BYTD) project
Description of the measure	The "Brussels Youth To Digital" (BYTD) project aims to bring the "young" population (18-25 years of age which has been immersed in the digital revolution for many years now) closer to the public

administration and improve the administration's image with this demographic. and to encourage this group to use the innovative digital tools made available by the public authorities: Itsme, IRISbox, eBox, chatbots, social networks, etc.

Actions arising from this project:

awareness and support for young people

setting up of events (training, support & awareness)

dissemination of information kits (ITSME, IRISbox, eID, eBox, MyActiris, etc.)

mapping of the steps taken by 18-25-year-olds in the BCR (analysis and recommendations) in order to change young people's vision of the administration.

Budget & HR	National : 15 000 euros/year 1 FTE / fulltime
Impact & timing	The programme will start in december 2023. The programme is expected to be available at least until end of 2025.

Measure 25 New measure: no	Regional Contact Center
Description of the measure	Content of the measure: The regional public contact center is a centralized facility established to provide citizens with a single point of contact to access information and assistance for a range of public services. It aims to improve accessibility and convenience for citizens by providing multiple communication channels, such as phone, email, chat, and co-browsing. The regional contact center can be staffed by a dedicated team or can be integrated with existing public service departments to provide seamless service delivery. Link to the target: improve digital inclusion for all citizens single point of entry for multiple administrations with co-browsing, the contact center staff can promote and coach citizens into using more public digital applications the regional contact will unload some public administrations with calls/emails and enable them to focus on core businesses while guaranteeing a better service Tentative timeline: 2024 : Analysis and setup phase 2025 : Launch
Budget & HR	1M€ per year for staffs and tools

Impact & timing	240K calls or emails per year for the entire brussels region

Measure 26 New measure: no	Inclusive Neighbourhood Hubs
Description of the measure	Content of the measure: Neighbourhood Hubs are centralized locations established in local neighbourhoods that provide citizens with a single location where they can access multiple public services. The Hubs aim to improve accessibility, convenience, and efficiency of public service delivery by prioritizing services based on the specific needs of the community. The measure involves identifying suitable locations, developing physical infrastructure, identifying services to be offered, developing a system for managing service delivery, and ongoing monitoring and evaluation to ensure that the Hubs meet the needs of the community. Link to the target: Improve digital inclusion for all citizens, welcome new citizens by introducing local public services, provide a first human support and guidance for difficult situations (violence at home, neighbourhood conflict, financial difficulty, housing issues, etc.). Being a single point of entry for multiple administrations. Having computers available to the public, where staff can help citizens use digital tools. Enable proximity and accessibility for citizens (public administration within 15 min walks) Tentative timeline: 2024 : analysis 2025 : opening of 3 hubs 2026 and + : targets to have at least 40 hubs throughout brussels
Budget & HR	+-150K€/hubs per year 2025 : 450K€
Impact & timing	1M citizens have access to public services at 15 min walks

Measure 27 New measure: no	Chatbot/ Livechat
Description of the measure	Content of the measure: The project is an initiative to improve accessibility and convenience for citizens seeking information and assistance for public services by implementing a chatbot and livechat system. The chatbot and livechat system provides citizens with a platform to ask questions,

make requests, and receive assistance in real-time through either an AI-powered chatbot or a livechat agent.

Link to the target:

Enabling access to digital services 24h/24 and 7d/7 except for livechat

Decrease digital barriers as chatbot can be plugged to popular messaging apps such as whatsapp, facebook messenger, etc.

Increase the use of AI for public administrations

Budget & HR	TBC
Impact & timing	2024 : analysis, 2025 : launch

Measure 28 New measure: no	User Experience Observatory
Description of the measure	Content of the measure: This project is an initiative to improve the usability and user experience of public services by establishing a UX observatory. The UX observatory aims to gather feedback and insights from citizens about their experiences with public services and to use that information to inform design and development decisions. Link to the target: improve ux design of digital procedures. monitor accessibility of public services better prioritization of development and design resources
Budget & HR	1 FTPs per year + 30K€ for tooling
Impact & timing	TBC

Measure 29 New measure: no	Flying Team
Description of the measure	Content of the measure: The Flying team is a group of public service providers who travel to the location of citizens who are not mobile anymore and are in need of assistance, and provide timely and accessible services to them. Ongoing monitoring and evaluation will be conducted to ensure that the Mobile Team is meeting the needs of the citizens and is effective in providing accessible and timely public services to those who are not mobile anymore. Link to the target: Access to public services to all citizens
Budget & HR	+/-100K€ per year for staffs, vehicles and tools
Impact & timing	TBC

Measure 30	Fostering cybersecurity awareness and educational programmes by NCC-BE (Work package 4)
New measure: no	
Description of the measure	Content of the measure:
	The NCC-BE will foster cybersecurity awareness and educational programmes. Here, the NCC-BE will partner up with educational institutions to advance and boost existing educational programmes. The NCC-BE will carry out a one-on-one relationship/bilateral collaboration with the main educational institutions to foresee the development of ongoing and existing educational programmes. The NCC-BE will also support all education programs, in Belgian secondary or higher education that aim to develop a new graduate program in Cybersecurity.
	Link to the target:
	Since this initiative aims to advance and boost existing educational programmes in the cybersecurity field for both secondary or higher education it will support on one hand the target of at least 80% of those aged 16-74 having at least basic digital skills and on the other that at least 20 million ICT specialists are employed within the Union, while promoting the access of women in this field and increasing the number of ICT graduates.
	Tentative timeline: activities will start in Q3 2023 and will continue until at least Q2 2025.
Budget & HR	32 203 EUR (HR cost for 2023)
Impact & timing	50% increase in the number of educational programmes in the cybersecurity field for both secondary or higher education in Belgium by 2027;
	50% increase in the number of qualified cybersecurity professionals in Belgium by Q2 2025;

Measure 31	Annual awareness cybersecurity campaign by the CCB during the European Cybersecurity Month (ECSM)
New measure: no	
Description of the measure	Content of the measure:
	The mission of the Centre for Cybersecurity Belgium (CCB) is to inform and raise awareness among users of information and communication systems. It wants to achieve that all ICT users have continuous access to sufficient, up-to-date and correct information on the safe use of the Internet. The CCB therefore participates annually in the ECSM.
	The goals of this measure are to raise awareness among internet users on threats and scams, offer continuity of information access and create behavioural change in order for citizens to enjoy a safe journey online.
Budget & HR	800 000 EUR

Impact & timing	Yearly evaluation in October

Measure 32 New measure: no	Connectoo
Description of the measure	The Connectoo Training aims to reduce the digital divide in Belgium by training public officials to better take into account citizens on the digital fringe. Accessible free of charge and 100% online, connectoo trains and certifies public agents in the challenges of digital inclusion and in the reflexes to adopt to help the most vulnerable citizens with online administrative procedures. Together, we are reconnecting digital public services to citizens. In 2022, the digital divide remains more than ever a reality in Belgium, where nearly one adult in two is in a situation of digital vulnerability. Link to the target: The training will contribute to the goal of having at least 80% of those aged 16-74 with at least basic digital skills, especially those working in public service.
Budget & HR	TBC
Impact & timing	The training course went online in 2022 and had already attracted nearly 1.000 participants in just a few months, before the official communication was launched. We plan to launch a first qualitative impact analysis in early 2023. We hope to issue 10,000 connectoo patents by 2030.

Measure 33 New measure: no	Digital School Programme
Description of the measure	Content of the measure: Two schemes to facilitate the acquisition of basic digital skills are being carried out simultaneously by Wallonia (Public Service of Wallonia), aimed at the territory's compulsory education schools, reaching young people from the basic level upwards: 1) Provision of internal wi-fi connectivity, permanent and scalable, and assumption of operating and maintenance costs, in Wallonia's school sites 2) Provision of digital education equipment, support for its use and maintenance (possibility for all schools in the territory to apply for an equipment plan over 5 years) Link to the target: Acquisition of basic digital skills Tentative timeline: 2026
Budget & HR	1) € 62.000 K 2) € 60.000 K

Impact & timing	Impact = 2000 sites (650 "digital divide" schools equipped, and 1,350 schools equipped with internal connectivity)

Measure 34 New measure: yes	Walloon "Basic Digital Training" Programme
Description of the measure	Content of the measure: Enable people who are not in employment to acquire one or more of the skills listed in the European Digcomp reference framework. Trainees and learners will be awarded a certificate of successful training in the skills listed in DigComp. Link to the target: Acquisition of basic digital skills Tentative timeline: 2026
Budget & HR	€ 3.250 K
Impact & timing	Impact = 3000 trainees/year - 150.000 hours of training

Measure 35 New measure: yes	Digital Inclusion Plan for all Walloons
Description of the measure	Content of the measure: The Digital Inclusion Plan for all Walloons aims to make digital technology accessible to all citizens, whether in terms of usage, skills or equipment The Plan therefore addresses the various aspects of the digital divide: the access divide, the usage divide and the skills divide. It is also working to raise the profile of the services on offer in Wallonia. The Digital Inclusion Plan comprises 14 actions divided into 4 axes. Link to the target: Acquisition of basic digital skills Tentative timeline: 2026
Budget & HR	€ 4.100 K
Impact & timing	The aim is to reach as many people as possible (young and elderly, jobseekers, senior citizens, single-parent families, etc.) and to create synergies between those involved in digital support.

Measure 36 New measure: no	Digital Public Spaces scheme (DPS)
Description of the measure	Content of the measure:

	DPS teach all citizens how to access, search for and use services on the Internet, they are particularly aimed for those who are furthest from Internet.
	In 2022, in order to stimulate the network of existing DPS, an initial call for expressions of interest supported 66 innovative, cross-disciplinary projects to strengthen their service offering, with the aim of helping citizens to become digitally literate and acquire new digital skills. In 2023, the objective of the call for expressions of interest will be subdivided into two parts; further support and extended coverage.
	Link to the target:
	Acquisition of basic digital skills
	Tentative timeline: 2024
Budget & HR	2.400 K € (included in Digital Inclusion Plan)
Impact & timing	Impact = pending

Measure 37 New measure: yes	Develop a basic digital skills training strategy (DigComp) for workers (Walloon Recovery Plan – project 231)
Description of the measure	Content of the measure:
	The project involves extending the use of the tools that have been created and made available to the working public in order to define, maintain and improve their skill levels, and to prescribe training that matches the skills required to keep pace with digital developments in their working environment, thereby ensuring that they remain in employment over the long term.
	Link to the target:
	Acquisition of basic digital skills
	Tentative timeline: 2024
Budget & HR	€ 1.767 K
Impact & timing	Impact = 100 onboarding workshops planned for 1,000 managers and 2,000 users of online tools

Measure 38 New measure: yes	Lifelong Digital training Programme (linked with National Recovery and Resilience Plan – NRRP project 33)
Description of the measure	Content of the measure:
	Section Forem + And
	Wallonia is planning to set up 9 digital factories across the region, which will provide training in basic digital skills, immersive digital training (prototyping workshops) and digital skills certification. At the same time, a digital learning engineering platform will be set up for training professionals, which will design and make available online

	training modules and courses, as well as providing support for their implementation for the benefit of learners.
	Section Ifapme
	All digitally disadvantaged groups - jobseekers, senior citizens, young people, women, people with disabilities and low-skilled workers - must be able to benefit from access, support and the basic skills they need to play an active part in social, economic, cultural and political life.
	<u>Link to the target:</u>
	Acquisition of basic digital skills
	<u>Tentative timeline:</u> 2026
Budget & HR	€ 39.200 K
Impact & timing	Impact =
	Section Forem + And = pending
	Section Ifapme =
	Indicator of achievement :
	*39 Ifapme digital learning spaces equipped.
	Result indicators:
	*10,000 hours of digital transition training for teaching staff and trainees.

Measure 39 New measure: yes	Deploying digital teaching methods in work-linked training courses (Walloon Recovery Plan – project 4)
Description of the measure	<u>Content of the measure:</u>
	The project responds to the dual challenge of providing equal access to digital technology and reducing the digital divide for the entire population, and training young people, senior citizens, workers and jobseekers in the latest digital developments, as part of a lifelong training and guidance process.
	<u>Link to the target:</u>
	Acquisition of basic digital skills
	<u>Tentative timeline:</u> 2024
Budget & HR	Budget = € 6.065 K
	RH = € 4.110 K (2021-2024)
Impact & timing	Indicators of achievement:
	* 30,000 learners trained on the digital platform
	* 2,000 trainers trained on the digital platform
	Result indicators:

	* 5% increase in the number of people on sandwich courses

Measure 40 New measure: no	Oriented curricula and job profiles to increase the number of ICT specialists or to upgrade work's skills.
Description of the measure	In 2022, the FW-B, Wallonia region's and COCOF governments have signed 6 new job profiles : IT support operator, Hardware technician in workshop, Workstation technician, System administrator, System operator, Network & Systems Technician. Actors now have three years to put training profiles and pathways in place. In third degree of Qualifying education, two options are related to computer science: "Computer Technician" and "PC-Network Maintenance Assistant". Oriented curriculum in higher education were created, e.g. new bachelors in AI studies (UNamur) and life-long learning schools (EPS) as bachelors in e-business (714500S32D3), integrated supply chain (719120S32D1), IT automation systems (298250S31D3).
Budget & HR	Mobilization of human resources, within the service and/or partners, not specific to the project (general budget).
Impact & timing	Number of needs identified and covered by new curricula. More specific ICT profiles will be open for employment thanks the new offers. Computer Technician" (regrouping more than 750 pupils/year - 2016 till 2021) and PC-Network Maintenance Assistant" (regrouping between 100 and 140 pupils/year - 2016 till 2021). – estimation of similar results further on.

Measure 41 New measure: no	Promote women in the digital world
Description of the measure	Through its diverse platforms, the SGNE sensitizes on women's place in the digital world, aiming for women to embrace training or a career in ICT. For example, this translates into the use of inclusive editorial charters for OER, the creation of toolkits or guides for teachers (e.g. "Women's place in the digital world" on e-classe), or the dissemination of pedagogical tools (e.g. free learning module on crp.education called "Women's place in the digital world"). These sensitizing dispositions tend on promoting the access of women in this field and increasing the number of ICT graduates. The target audience is all stakeholders in society, in particular education professionals and their learners. Continuous process, adapted according to the needs expressed by stakeholders.
Budget & HR	Mobilization of human resources, within the service and/or partners, not specific to the project (general budget).

Impact & timing	Evolution of the official indicator concerning women and ICT (Statbel & Eurostat).

Measure 44 New measure: no	The Flemish AI Academy
Description of the measure	Content of the measure: The Flemish AI Academy is a collaboration of all Flemish Universities and VLHORA (the Flemish Council for Higher Education) to map all available education on AI and to set up new education where needed using co-creation methods. The Flemish AI Academy also offers services for organisations (mostly intermediary) to design new education tracks. This initiative is both focussed on researchers as well as employees. An overview of all the available education possibilities on their website: Boost your career with artificial intelligence - VAIA - Flanders AI Academy Link to the target: This initiative contributes to the goal of employing 20 mil.ICT-specialist and the uptake of AI by businesses (as a lack of expertise is indicated as the biggest hurdle to roll out AI in organisations). Tentative timeline: ongoing
Budget & HR	1 million euro stemming from the Flemish AI Policy Plan
Impact & timing	We expect this initiative to in time have a positive impact on the uptake of AI on the one hand and the number of ICT-specialists on the other hand.

Measure 45 New measure: no	Brussels Diversity Plan "Women in Digital"
Description of the measure	Content of the measure: Brussel's implementation of the inter-federal strategy plan "Women in Digital": regional organisations are committed to actively work on the sensibilisation and the incitement of female citizens, in order to orientate them towards jobs in the digital sector or environment. Link to the target: Direct impact to the access of women in this field
Budget & HR	TBC
Impact & timing	Example of successful impact: by applying the exact same conditions of employment (training opportunities, promotion opportunities, working conditions and remuneration) to female and to male employees; the main Brussels governmental ICT company, IRISteam,

	reached a female employment rate of 26,5% by end 2022, compared to the score of only 17,7 % in the digital sector in general.

Measure 46 New measure: yes	Regional Web Strategy
Description of the measure	Content of the measure: The regional web strategy project aims to review the entire digital landscape of the Brussels Capital Region and will focus on the search behaviour of the users. Within this project the creation of a central 'Digital Competence Center' at regional level is foreseen, to further develop the project, guide and assist the regional entities, ensure technical support and maintain a customer-centric strategy. For his new team, new people will be recruited and trained. Link to the target: By creating this new team, new interesting positions are available for ICT specialists. Tentative timeline: The programme started in may 2022and is planned to be completely operational by the end of 2026. However the 'Digital competence center(should be already fully operational by the end of 2023
Budget & HR	For the total programme a budget of 12.000.000 euro is foreseen until the end of 2026. Xxx euro is allocated for the 'Digital Competence Center'.
Impact & timing	Expected impact is that new ICT specialists will be hired and trained to create a central 'Digital Competence Center' which will be used by all Regional public administrations.

Measure 50 New measure: no	Public Crowdfunding Platform
Description of the measure	Content of the measure: A Public Crowdfunding Platform project is an initiative to encourage and enable public institutions and administrations to contribute to projects or startups through an online crowdfunding platform. Instead of having each individual startups submit a subsidy request to each public administrations, the startup can upload his own project once on the platform where many administrations can participate. This will allow more transparency in public funding, better efficiency in financing projects and avoid cross-analysis for each subsidy file. Link to the target:

	improve transparency and access to funding for startups and ngos
	increase access to funding for a wider range of startups
Budget & HR	1M€ of development + dedicated team for support and managing the platform (3-4 FTPs)
Impact & timing	TBC

Measure 52 New measure: no	Embedded Digital Translator
Description of the measure	Content of the measure: A Digital Translator is a tool that provides real-time translation services for websites, apps, and video conference or calls. The tool uses machine learning algorithms and natural language processing to accurately translate written or spoken language in real-time. The project involves developing a user-friendly interface that can be easily integrated into websites, apps, and video conferencing platforms. The tool will require ongoing training and updates to improve accuracy and keep up with changes in language usage. The Digital Translator can help improve inclusion and accessibility, allowing people who may not speak the same language to communicate and access public services, information, and resources. The project requires establishing clear protocols and procedures for use, ensuring data privacy and security, and ongoing monitoring and evaluation to ensure that the Digital Translator is meeting the needs of the users and is effective in breaking down language barriers. Link to the target: Enable access to public services for all citizens regardless of their native language To be integrated to digital tools such as chatbot, livechat, video conferences, websites and digital apps Tentative timeline: 2024 : analysis & 2025 : launch
Budget & HR	Budget to be defined as well as scope and integrations Business analyst is required
Impact & timing	11M citizens

Measure 54 New measure: no	Cysec Education & Research pool by the CCB
Description of the measure	Content of the measure: The Cysec Education and Research pool is a Belgian initiative that will be implemented in 2023, to ensure that Belgium remains a competitive knowledge economy and that Belgium's digital autonomy in cybersecurity is strengthened. In particular, the

initiative is supposed to support and expand existing research activities in Belgium in close cooperation with academia but also the private sector. The Cysec Education and Research pool should increase the number of qualified cyber security professionals and aims to close the cyber security skills gap that IT (security) professionals and organisations are struggling with.

Link to the target:

Since the Cysec Education and Research pool should increase the number of qualified cyber security professionals and aims to close the cyber security skills gap that IT (security) professionals and organisations are struggling with, the initiative should directly support the goal to increase the number of ICT specialists employed within the Union, while promoting the access of women in this field and increasing the number of ICT graduates.

Tentative timeline:

The program will make its first start in 2023. If the project receives additional budget in 2024 and following year bigger impact will be achieved.

Budget & HR	Budget: no budget for 2023, budget will be requested for 2024 and following years. Human resources: Starting 2023 1 FTE will dedicate its time to the Cysec Education and Research pool initiative.
Impact & timing	increase the number of qualified cyber security professionals in Belgium; increase the number of female professionals in the cybersecurity domain; increase the number of cybersecurity (or ICT with a focus/ specialty on cybersecurity) graduates.

Measure 55 New measure: no	Organisation of cyber security challenges like Cyber Security Challenge Belgium (CSCBE), the European Cyber Security Challenge (ECSC) and the International Cybersecurity Challenge (ICC) by the CCB
Description of the measure	Content of the measure: The CSCBE, ECSC and ICC are annual competitions aimed at strengthening cybersecurity talent across respectively Belgium, Europe and worldwide and connecting high potentials with leading organisations. This competition allows young non-professionals (15 to 26 years old) who are passionate about cybersecurity to compete against their peers in a so-called CTF competition. Link to the target: Since the goal of the challenges is to motivate students to start or continue a career in cybersecurity and with that increase cybersecurity expertise in the future and close the shortage of cybersecurity experts, it directly supports the target of at least 20 million ICT specialists being employed within the Union, while promoting the access of women in this field and increasing the number of ICT graduates.

	Tentative timeline: All competitions (CSCBE, ECSC, ICC) are yearly initiatives and are likely to be continued in the next years up to 2030.
Budget & HR	Budget: 25 000 EUR per year Human resources: 1 Project Manager + 1 technical expert
Impact & timing	Increasing awareness of cybersecurity among Belgian students; Increase number of Belgian students who want to start or continue a career in cybersecurity, thereby increasing cybersecurity expertise in Belgium in the future and closing the shortage of cybersecurity experts; Bringing together motivated international students and thus helping them to build an (international and national) network that will help them in their future career, gain experience and learn new techniques.

Measure 56 New measure: no	Egov Select
Description of the measure	Content of the measure: Egov Select selects and recruits ICT profiles for federal government departments and affiliated agencies. They also assist their members in their strategic personnel planning to proactively respond to their need for ICT specialists. Link to the target: At least 20 million ICT specialists are employed within the Union, while promoting the access of women in this field and increasing the number of ICT graduates
Budget & HR	TBC
Impact & timing	TBC

Measure 57 New measure: yes	Coordinated plan to promote job-creating trades/skills and raise awareness of STEAM (Sciences, Technology, Engineering, Arts, Mathematics) and digital technology (Walloon Recovery Plan – project 13)
Description of the measure	Content of the measure: The aim of this project is to increase the attractiveness of job-creating sectors, professions, skills and study disciplines associated with STEAM and digital technology, thereby helping to reduce shortages and increase the employment rate. The plan will focus primarily on STEAM (Science, Technology, Engineering, Arts, Mathematics), but also on the social profit sector and healthcare companies in particular. It aims to federate initiatives and deploy actions, and to ensure greater visibility through the implementation of a coherent communication strategy.

	This programme will enhance the impact of initiatives to promote careers and raise awareness.
	<u>Link to the target:</u>
	ICT specialist, digital technologies, STEAM
	Tentative timeline: 2024
Budget & HR	€ 16.345 K
Impact & timing	Impact = pending

Measure 58 New measure: yes	Deploying work-linked training for adults throughout their lives (Walloon Recovery Plan - project 24)
Description of the measure	Content of the measure:
	The aim of the project is to open up the field of possibilities for young people and adults undergoing retraining by offering them a range of new work-linked training courses focusing on practical issues. This project will be implemented by creating and/or updating several training reference frameworks each year in the trades associated with the objectives of the Wallonia Recovery Plan (trades of the future, essential, promising or in short supply, STEAM and digital trades). Additional training courses will be organised in the apprenticeship, company manager and coordination and management training streams.
	<u>Link to the target:</u>
	ICT specialist, digital technologies, STEAM
	<u>Tentative timeline: 2024</u>
Budget & HR	Budget = € 27.649 K
	RH = € 3.892 K (2021-2024)
Impact & timing	Impact =
	Indicators of achievement :
	- 15 new or updated apprenticeship training courses in GUW trades (future-oriented, promising, essential, in short supply, STEAM and digital)
	- 15 new or updated adult training courses in GUW trades (future-oriented, promising, essential, in short supply, STEAM and digital).
	Result indicator :
	- Increase in the number of IFAPME partner companies
	- 1,600 adult learners in STEAM and digital training courses
	- +400 learners on work-linked training contracts in the STEAM and digital sectors
	- Increased awareness of the IFAPME work-linked training scheme
	Timing = 2021-2026

Measure 59	Numeria
New measure: no	
Description of the measure	Content of the measure:
	Numeria is a consortium organised as a platform and made up of Wallonia's digital skills centres: Cepegra, Technifutur, Technobel, Technocité and Technofutur TIC.
	Numeria is aimed primarily at the core audiences of the skills centres: jobseekers, workers and educators.
	The operational objectives of this Numeria platform are to:
	- Improve the visibility of the services offered by the ICT Competence Centres.
	- Strengthen the capacity to respond to large-scale offers by pooling human and material resources.
	- To be able to respond to specific local offers by pooling the specific offers of each Consortium member centre.
	- Simplify access to the ICT products developed by each Consortium member centre by providing a single service desk.
	The themes of the "long" training courses include audiovisual & 3D, BigData, office automation, Data, graphics & web design, the Internet of Things (IOT) and Networks & Infrastructures.
	Link to the target:
	ICT specialist, digital technologies, STEAM
Budget & HR	TBC
Impact & timing	2024

Measure 60	Walloon Recovery Plan - project 34
New measure: yes	
Description of the measure	Content of the measure:
	Establish a digital and technological innovation and training hub (Charleroi Métropole area)
	Link to the target:
	ICT specialist, digital technologies, STEAM
	Tentative timeline: 2024
Budget & HR	€ 86.800 K
Impact & timing	Impact = pending

Measure 61	Walloon Recovery Plan – programme 40

New measure: yes	
Description of the measure	Content of the measure: Setting up new state-of-the-art infrastructures and platforms of excellence This programme has three priority strands, including one relating to the development of high-level digital skills through the structuring of a network of supercomputers within universities and research centres. Developing the skills of the staff managing the supercomputers is also part of the project. Link to the target: ICT specialist, digital technologies, STEAM Tentative timeline: 2024
Budget & HR	Budget = € 9.700 K RH = € 1.000 K
Impact & timing	Impact = pending

Measure 62 New measure: no	Everybody Digital (supralocal)
Description of the measure	Content of the measure: 'Iedereen Digitaal Bovenlokaal' is a media literacy project that accelerates the development and implementation of a supra-local digital inclusion policy within sectors and organisations working with vulnerable young people, people with disabilities or seniors in Flanders. Mediawijs will provide support in drawing up a framework and guidelines for a digital inclusion and media literacy policy within these sectors and organisations. They will also collect and scale up good practice examples and informative or educational materials on digital inclusion and media literacy tailored to these sectors. Link to the target: By providing tools on digital inclusion for intermediaries which come into contact with vulnerable target groups, basic digital skills are stimulated.
Budget & HR	Flemish: 250.000 EUR
Impact & timing	Developing tools for intermediaries to heighten digital inclusion and promote basic digital skills.

Measure 63 New measure: no	Women in Tech initiative
Description of the measure	Content of the measure:

	Gathering around 50 partners active in Brussels-Capital Region, the platform WomeninBusiness.brussels coordinated by hub.brussels organizes numerous activities to encourage women to discover the opportunities of entrepreneurship and to support women entrepreneurs. Among the activities, one of the priorities is the Women in Tech initiative wich aims to increase the number of women entrepreneurs in the ICT sector.
	Hub.brussels (Brussels-Capital Region Economic Development Agency) organizes events and campaigns to develop the desirability of entrepreneurship for women and to develop the skillset to grow a sustainable business in ICT.
	Every year, the women code festival is one of the highlight activities for entrepreneurs in ICT with a full week of activities dedicated to women entrepreneurs in ICT sector.
Budget & HR	2 FTEs Yearly operational budget (range) of : 0-200 K €
Impact & timing	Running activity and should be developed further on the long term

3.2.2. Business

Measure 1 New measure: no	Program DW4AI
Description of the measure	Content of the measure:
	Supported by Agence du Numérique, Agoria, the Infopôle ICT Cluster and the AI Network, the main objective of the DigitalWallonia4.ai programme is to accelerate the adoption of artificial intelligence (AI) in Wallonia and the development of its Walloon ecosystem. In addition to awareness-raising and training initiatives, it includes concrete actions to support companies wishing to incorporate artificial intelligence into their business up to the development of prototypes.
	Link to the target:
	The measure focuses on all companies as well as the public sector, enabling them to:
	to be made aware of the challenges of artificial intelligence
	to be supported in the ideation of potential projects/developments including AI for their organisation
	start testing and development, until the proposed solution is put on the market.
	Tentative timeline:
	The programme started in 2021, and is monitored annually by the Walloon Government until 2024. Thereafter, the programme will be re-evaluated and adapted to achieve the objectives.

	This programme will probably be extended until 2028.
Budget & HR	Regional budget allocated : 18 MEUR (2022-2024) EU (TEF): 1,705 MEUR
Impact & timing	See the evolution of the barometer and the number of companies sensitised/accompanied

Measure 2 New measure: no	Programme DW4Business
Description of the measure	Content of the measure: This Digital Wallonia programme offers a set of services and resources to raise awareness and support the actors of the Walloon economy in the challenges and opportunities of digital technology (barometers, self-diagnosis tools, aid, training, etc.). It is based in particular on the Digiscore of digital maturity and public funding aids (business vouchers, etc.). It addresses specific sectors not covered by other programmes. Link to the target: This programme encourages the digital transformation of companies by guiding them either towards the actions of more technological programmes (DW4AI or Cyberwal by DW), or by offering them analysis and transformation tools such as maturity or digital transformation vouchers. Tentative timeline: See evolution of the barometer Add evolution of the use of vouchers? As this programme is composed of different actions, it will still be available by 2028 but its range of actions could be significantly modified.
Budget & HR	Regional budget allocated : 57 MEUR (2017-2021)
Impact & timing	14.276 SMEs receive funding and increase their level of digitalisation until end of 2021 3.000 SMEs expected for 2022-2024

Measure 3 New measure: no	Programme Digital Commerce
Description of the measure	Content of the measure: The Digital Commerce programme aims to accelerate the digital transformation of businesses through online commerce and digital marketing by promoting the adoption of digital uses and technologies. In this context, it mainly targets the local distribution sector (Commerce, HORECA, Tourism), VSEs & liberal professions.

	Link to the target:
	To train local retailers in the use of digital tools to implement a real digital sales strategy and to take the step into e-commerce via the organisation of webinars. These webinars will be organised in coherence and in a useful collaboration with the training operators and the training plan agreed with the AdN.
	Tentative timeline:
	This programme, launched in 2016, took a new turn in 2022. The new version of the programme foresees that it will be monitored annually by the Walloon government until 2024. Thereafter, the programme will be re-evaluated and adapted to meet the objectives.
Budget & HR	Regional budget allocated : 3,2 MEUR (2022-2024)
Impact & timing	1000 SMEs trained at e-commerce and having raised their digital maturity

Measure 4 New measure: no	Programme Agriculture du Futur
Description of the measure	Content of the measure:
	The Agriculture of the Future programme aims to accelerate the adoption and deployment of digital technology within the agricultural sector in order to improve agricultural practices, optimise production, reconnect with the consumer and develop its commercial activities.
	The actions will target three main challenges for the agricultural sector:
	Increase the number of connected farms, harmonise and secure the data collected, set up a showcase network.
	Link to the target:
	Wallonia has 12,728 farms with an average size of 58.2 ha, and in 2020, 22,000 people are regularly working in agriculture, 27% of whom are women. Needless to say that the agricultural sector plays an important role in the Walloon economy.
Budget & HR	Regional budget allocated : 7,3 MEUR (2022-2024)
Impact & timing	The programme has seen a strong investment from the Walloon Government for the period 2022-2024. It must be evaluated at the end of this period to improve/adapt the actions that make it up.

Measure 5 New measure: no	Programme Industrie du futur
Description of the measure	Content of the measure:
	The "Industry of the Future" programme aims to accelerate the digital transformation of Walloon manufacturing companies and improve

	their competitiveness. By acting on production methods and the use of key digital technologies, companies can innovate, strengthen their competitive position and nurture an industrial fabric that creates local jobs. Tentative timeline: Started in 2016, the Industrie du Futur programme is reviewed on a regular basis in order to adapt to the reality and needs of the field. It is funded at 10 million from 2022 to 2024 and will probably be available after 2024.
Budget & HR	Regional budget allocated : 10 MEUR (2022-2024)
Impact & timing	1540 manufacturing companies made aware of 4.0 880 manufacturing companies supported in their digital transformation 50 manufacturing companies supported in advanced technologies All these results are expected by the end of 2024.

Measure 7 New measure: no	Athumi, the Flemish Data Utility Company
Description of the measure	Content of the measure: Athumi, the Flemish data utility company, is an intelligent traffic changer of data that ensures that there is a level data playing field for all public and private players within connected ecosystems. Confidence in the data economy is secured by establishing a neutral third party - the data utility - that can bring data sharing within vertical sectors and between sectors within reach without companies, organisations and governments in this ecosystem losing control over access to their data. Link to the target: The measure is focused on making the data exchange more fluent between government and enterprises (small, medium & large) in a privacy friendly and secure way using solid data pods. This measure is expected to contribute directly to the digital late adopters target and the new digital technology uptake target. In addition, the data vaults carrying health care data are directly linked to the health data records target.
Budget & HR	Flemish: 23 million euro
Impact & timing	Launched in May 2023. Funding programme is expected to run until Q4 2025.

Measure 8 New measure: no	Grants for Collective research and knowledge transfer

Description of the measure	Content of the measure:
	This measure contains 2 subsidy programs (TETRA and COOCK) with the objective to valorise research results of research organisations by accelerating the introduction of technology and knowledge to a broad group of companies (especially SMEs). Since 2019 there is also a specific TETRA-AI-call (as a part of the Flemish AI-action Plan).
	Link to the target:
	As the programs are bottom up, the themes vary, but include many projects with a focus on digitalization in a broad mix of sectors. Latter projects contribute to the uptake of new digital technologies and the digital maturity of the SMEs in the Flemish Region.
	Tentative timeline:
	TETRA as well as COOCK are regular VLAIO grant programs without an end date.
Budget & HR	In 2022 about 22 MEUR (including projects from clusters and TETRA AI) was granted for collective projects with a link to AI, CS and other digitalisation topics. As those projects are result of calls of regular subsidy programs and or from clusters this amount can vary every year. Especially for TETRA AI an annual budget of 2,5 MEUR is available.
Impact & timing	In 2022 45 projects (including projects from clusters and TETRA AI) with a link to AI, CS and other digitalization topics were granted. Each project reaches at least 50 companies during 2/3 year project period.

Measure 9 New measure: no	Grants for individual or cooperative company projects
Description of the measure	Content of the measure:
	VLAIO grants for companies encompass a range of subsidy programs that support digitalization. The development project subsidy aids enterprises in creating new and innovative products and services. Research project grants enable companies to conduct high-risk research with the potential for significant positive impacts. Feasibility study grants assist companies and organizations in preparing for innovative projects. ICON project grants facilitate interdisciplinary collaboration between research organizations and companies. The SME-growth subsidy supports SMEs in hiring external support or new employees for data-driven digitalization projects. VLAIO also offers cybersecurity improvement trajectories, providing SMEs and social enterprises with guidance to enhance their cybersecurity maturity. The grants for R&D projects, which cover various themes including digitalization, contribute to the adoption of new digital technologies in the Flemish Region. ICON projects are strongly linked to digitalization, with IMEC, FLANDERS MAKE, and clusters serving as co-owners. Specific AI-ICON and CS-ICON calls are part of the AI and CS action plans. The SME-growth subsidy and CS improvement trajectories align with the AI and CS action plans. These grant

	programs collectively support technology leaders, providers, users, and innovation followers.
	More details in the regional roadmap of Flanders in Annex.
	Link to the target:
	This measure and the different project types are expected to contribute directly to the target with regards to the 'basic level of digital intensity' as well as the target to increase the uptake of AI, big data, …
	Tentative timeline:
	The different subsidy programs are ongoing programs without an end date.
Budget & HR	As the Flemish subsidy programs are bottom up, this amount can vary from year to year. In 2022 about 120 MEUR was granted for R&D projects with a link to AI, CS and other digitalisation topics. The annual budget for the SME growth budget (specific for digitalization) is about 3 MEUR. For the CS improvement trajectories there is a budget of 5 MEUR (with possibilities to allocate extra budgets)
Impact & timing	In 2022 at least 210 Flemish companies are granted for R&D support for projects with a strong link to AI, CS and other digitalization topics. With the SME growth subsidy about 60 companies are granted every year. The CS improvement trajectories have an annual reach of about 50 SMEs.

Measure 10 New measure: no	Actions with a focus on sensibilisation, orientation and advice for entrepreneurs
Description of the measure	Content of the measure:
	Different actors in the Flemish Regions are engaged in informing, raising awareness, and coaching on digitalization topics. These partners offer various activities such as workshops, masterclasses, individual advice, and digital maturity scans, focusing on AI, CS, industry 4.0, and digital products and services. The goal is to enhance companies' digital readiness and promote the adoption of new digital technologies. Efforts to increase the uptake of AI and CS are part of the AI and CS action plans initiated in 2019. Flemish university colleges, as VLAIO partners, also provide individual advice and information under the brand 'BLIKOPENER,' with a significant emphasis on digitalization topics.
	More details in the regional roadmap of Flanders in Annex.
	Link to the target:
	this measure and the different related actions are expected to contribute directly to the target with regards to the 'basic level of digital intensity' as well as the target to increase the uptake of AI, big data, …

	Tentative timeline:
	The current 'contract ondernemerschap' with the structural partners ends in 2024. The procedure for renewal of those kind of 4-year partnerships will be launched in 2023. VLAIO will ask the structural partners to continue their efforts in the new contract (2024-2027) on the topic of digitalisation (AI, Data, CS, industry 4.0, …).
	For the actions of the University colleges there is no end date.
Budget & HR	Flemish: Every year approximately 3 MEUR is oriented to the structural partners of VLAIO (*contract ondernemerschap*) for advice and guidance on digitalization topics (AI, CS, industry 4.0, digital readiness).
	The total annual budget for Blikopener amounts to 5 MEUR, from which at least 1,25 MEUR can be linked to Digitalisation.
Impact & timing	Every year at least 6.500 Flemish companies are reached by the structural partners of the contract ondernemerschap with a broad mix of activities related to digitalisation. The current contract runs until 2024.
	The university colleges reached in 2022 at least 1750 SMEs with regards to digitalization (linked to Blikopener)

Measure 11 New measure: no	Support for digitalisation under the Flemish ERDF programme 2021 – 2027
Description of the measure	Content of the measure:
	The Flemish ERDF programme 2021 – 2027 pays great attention to the theme 'smart', which includes digitisation. Over the period different project calls will be launched with a focus on digitalisation. The ERDF programme gives preference to investment projects although operational projects are not excluded.
	Link to the target:
	The different calls are expected to contribute directly to the target with regards to the 'basic level of digital intensity' as well as the target to increase the uptake of AI, big data, …
	Tentative timeline:
	The timeline of the current ERDF-program is 2021-2027
Budget & HR	Flemish: under the ERDF-program 2021-2017 about 40 MEUR is reserved for digitalisation.
Impact & timing	Several targets/KPI with regards to digitalization are included in the operational program
	Value of digital services, products and processes developed for enterprises: 50 MEUR
	Companies that are guided in the introduction of digital services, products and processes: 150

	Enterprises achieving higher digital intensity: 600

Measure 12	Digital transformation program for the Flemish media industry
New measure: no	
Description of the measure	Content of the measure:
	The Flemish media ecosystem aims to enhance its technological resilience and economic viability through investments in shared digital media infrastructure and innovative services. The digital transformation program comprises seven projects. These include the development of a cross-media measurement system to provide comprehensive insights into media consumption and improve the media experience and revenue models. A mediahub cloud platform will enable secure connections and resource sharing among media creators, enhancing efficiency and scalability. Financial support is granted to collaborative projects combating disinformation, focusing on media literacy, fact-checking, and innovative tools. Regional broadcasters receive support for their digital transformation plans, and there are project calls for media innovation and cooperation. Financial assistance is also provided for ecosystem-strengthening activities, incubator programs for young media companies, and an incubator and accelerator program for the Flemish games sector.
	More details in the regional roadmap of Flanders in Annex.
Budget & HR	Flemish: 27.9 MEUR
Impact & timing	The projects aim to strengthen the technological resilience and economic viability of the Flemish media ecosystem, with a target timeline for completion by the end of 2026.

Measure 13	UpSkills Wallonia
New measure: no	
Description of the measure	Content of the measure:
	In a context of accelerated digital transformation, UpSkills Wallonia aims to complement the programmes of support to the digital transformation of companies with a skills development component. In particular, it focuses on internal mobility to respond to the growing shortage of qualified profiles on the job market
	The aim is therefore to:
	Complement organisational transformation strategies based on the Industrie 4.0 model (Industrie du Futur programmes, Factory 4.0, etc.) with a skills development component (while integrating environmental, energy and ethical issues)
	maintain employment by encouraging internal mobility to meet the shortage of qualified profiles;

support the deployment of a harmonised training offer for ICT professions and digital skills to be developed by training and education operators in initial and continuing education;

Link to the target:

This measure directly concerns the skills of company employees. Without this, the digitalisation of companies would not be possible. In order to be able to use the new tools, the skills of employees must be adapted.

Tentative timeline:

This measure underpins all the programmes of the Digital Wallonia strategy. It will therefore continue as long as the strategy exists. The current version of the strategy is valid until the end of 2024.

Budget & HR	Regional budget allocated : a part of each program composing the Digital Wallonia Strategy.
Impact & timing	No indicators for the time being

Measure 14 New measure: yes	Programmes Leadership et Organisation numérique
Description of the measure	Content of the measure: This programme aims to coordinate support actions (awareness, training, communication, ownership) to drive and lead the digital transformation. It aims to provide resources to enable managers to play their role in the digital transformation. This programme concerns managers and all those involved in supporting them in this change: HRD, consultants, etc.
Budget & HR	N/A
Impact & timing	Program starting.

Measure 22 New measure: no	Grant for an external consulting mission concerning the optimization or development of a website or an e-commerce platform
Description of the measure	Content of the measure: https://economie-emploi.brussels/prime-web This funding programme supports micro and small enterprises of specific business sectors by providing a yearly grant consisting of between 500 and 5 000 EUR (one mission per civil year) to businesses that hire external consultants to increase their level of digitalisation. Link to the target: The measure is focussed on micro and small businesses of specific sectors that are at the beginning of their digitalisation process and supports especially their basic digitalisation needs. Tentative timeline:

	The programme started in Q2 2019 and is expected to be available at least until end of 2023.
Budget & HR	Budget granted between Q2 2022 and Q1 2023 = 1 924 000 €
Impact & timing	Number of supported companies : 539

Measure 23 New measure: yes	Grant for an external consulting mission concerning the digitalization and IT security improvements
Description of the measure	Content of the measure: https://economie-emploi.brussels/prime-consultance This funding programme supports VSE's and SME's of specific business sectors by providing a yearly grant between 500 and 10 000 EUR (one mission per civil year) to businesses that hire external consultants to increase their level of digitalisation. Link to the target: The measure is focussed on VSE's and SME's of specific sectors that are at the beginning of their digitalisation process and supports especially their basic digitalisation needs Tentative timeline: The programme started in Q2 2019 and is expected to be available at least until end of 2023.
Budget & HR	Budget granted between Q2 2022 and Q1 2023 = 1 749 885 €
Impact & timing	Number of supported companies : 235

Measure 24 New measure: no	Call for projects "Digitalization and economic transition"
Description of the measure	Content of the measure: https://economie-emploi.brussels/appel-projets-numerique-2022 Call for projects with the aim of supporting VSEs and SMEs in their digitalisation, on the one hand, and ensuring the digital transition of the Brussels economy, on the other, by supporting digital projects with a positive social and environmental impact. The call for projects aims to support projects that fall within one of the following two areas: Support for the responsible digitalisation of VSEs/ SMEs and the development of digital solutions with a positive social and environmental impact Link to the target: The measure is focussed on private actors or associations helping SMEs at the beginning of their digitalisation process and supports especially their basic digitalisation needs

	Tentative timeline:
	Yearly call for projects during the period 2022 – 2030
Budget & HR	600.000 € (2022)
Impact & timing	ShiftingEconomy-Brochure-FR_092022.pdf
	Five winners for the 2022 call for projects (possibly 400 companies helped)

Measure 26 New measure: no	Measures of the digitalisation thematic of the 'SHIFTING ECONOMY' strategy of the Brussels-Capital Region NB: part focusing on digital transformation
Description of the measure	Digitalisation is one of the levers of action of the Brussels regional plan for economic transition ("shifting economy"). The shifting economy plan supports awareness-raising and support actions with the private sector to remind people of the economic opportunities linked to the development of solutions based on new technologies, For example: DIGI 2: a digital maturity self-diagnosis tool that will allow companies to know their level of digitalization compared to other companies in the same sector and to identify opportunities to optimize their processes (sales, logistics, accounting, etc.). This tool is under development.
Budget & HR	2 FTE's Yearly operational budget (range) of : 0-200 K €
Impact & timing	Running activity and should be developed further on the long term

Measure 27 New measure: no	Construction 4.0
Description of the measure	The construction sector is facing such challenges that some call for the implementation of Construction 4.0, which is a concept that takes into account the new developments in the sector through three dimensions: digital/digital transition, industrialization and sustainability (Boton & Forgues, 2018).
Budget & HR	0,5 FTE
Impact & timing	TBC

Measure 28 New measure: no	Dissemination and sharing of knowledge, tools and material by the NCC-BE (part of Work Package 4)
Description of the measure	Content of the measure: The NCC-BE will disseminate tools, materials and resources generated in EU projects or otherwise shared through the NCC

	Network. The NCC-BE will provide and facilitate access to cybersecurity knowledge and raise awareness for tools to smaller entities, such as micro-SMEs.
	Link to the target:
	The measure is focussed on SMEs and even smaller entities like micro-SMEs, that are at the beginning of their digitalisation process and supports especially their basic cybersecurity needs. The measure is relevant for all business sectors, therefore this measure is expected to contribute to the goal of at least 80% of those aged 16-74 having at least basic digital skills.
	Tentative timeline:
	In 08/23 the NCC-BE will provide a strategy document including timeline describing how and when the NCC-BE will disseminate tools, knowledge, materials and resources generated in EU projects or otherwise shared through the Network of NCCs. From then on it will be disseminating tools, knowledge, materials and resources etc. until at least Q2 2025.
Budget & HR	Total amount: 165.203€ (2023+2024)
Impact & timing	Increase of cybersecurity knowledge for smaller entities, such as micro-SMEs by Q2 2025.
	By M12 2023, the NCC-BE will have taken the first steps to support the capacity building of the Belgian cybersecurity landscape. We ought to do so through the organisation of events, by disseminating information about EU funding opportunities and by becoming an information and awareness hub on cybersecurity knowledge.

Measure 29 New measure: no	Scale-up
Description of the measure	Content of the measure:
	This project aims to encourage the emergence of more medium and large companies in Wallonia and to inspire a maximum number of company directors in order to generate a knock-on effect, to cultivate entrepreneurship and multiply Walloon "success stories" and to equip companies to face up to current challenges (economic, managerial, social and digital ...) through support and funding.
	Link to the target:
	Accompagnying SMEs to grow into bigger companies.
Budget & HR	budget 2022-2023 : 2.290k €
Impact & timing	2022-2023

Measure 31 New measure: no	Imec I-start

Description of the measure	Content of the measure:
	Imec i-start, is an open accelerator program, that offers tech start-ups pre-seed funding and tailored support to succeed and grow globally.
	Support from Imec i-start means access to coaching, finance, technology, community, talent, and market.
	Link to the target:
	Contributes to the target to increase the growth of its innovative scale-ups and improves their access to finance.
	Tentative timeline:
	Since 2011, IMEC has invested in more than 260 companies. Every year, they select at least 20 high-potential start-ups to join a 12-month program in Belgium
Budget & HR	An annual budget of 4,5 MEUR
Impact & timing	Since 2011, IMEC has invested in more than 260 companies. Every year, they select at least 20 high-potential startups to join a 12-month program in Belgium.

Measure 32 New measure: no	Scale up Vlaanderen
Description of the measure	Content of the measure:
	Scale up Vlaanderen is part of the 'contract ondernemerschap'. It is a mentoring program for innovative digital scale-ups that are on the eve of an (international) growth acceleration. By means of workshops, group sessions, lectures and individual trajectories. Scale up Vlaanderen offers guidance/support in the field of Growth plans, Internationalisation, Network, Funding and Technology Choices.
	Link to the target:
	Contributes to the target to increase the growth of its innovative scale-ups and improves their access to finance.
	Tentative timeline:
	The current 'contract ondernemerschap' of which Scale up Vlaanderen is part, ends in 2024. The procedure for renewal of those kind of 4-year partnerships will be launched in 2023. VLAIO will ask the structural partners to continue their efforts in the new contract (2024-2027) on the support/coaching of scaleups.
Budget & HR	A budget of 819.340 euro is allocated for the period 2021-2024.
Impact & timing	Scale up Vlaanderen has the ambition to support 120 scale ups during the period 2021-2024.

Measure 36	Coordination and management of EU investment opportunities

New measure: no	
Description of the measure	Content of the measure: The objectives of the measure are ▪ Supporting Belgian entities and the Belgian Community to find suitable funding opportunities for cybersecurity projects; ▪ Operationalising an FSTP programme for Belgian beneficiaries. Link to the target: The NCC-BE will allocate grants through an FSTP system to distribute public funding to assist beneficiaries, such as start-ups, scale-ups, SME and/or mid-caps, in the uptake or development of digital innovation. Tentative timeline: End of 2024 – mid-2025.
Budget & HR	Total (2023+2024): 317 850 EUR
Impact & timing	The NCC-BE will set up and activate a support programme on investment opportunities by the end of 2024. The NCC-BE will implement an FSTP programme by mid-2025.

3.2.3. Infrastructures

Measure 2 New measure: no	100 gigabit plan Flemish Research Networks
Description of the measure	Content of the measure: Further investments in fibre and networking equipment for the Flemish universities and research institutes. The aim is to provide connectivity up to 100Gb (upstream as well as downstream) to the main sites, in order to stimulate research deployment in the Flanders Region. This will also enable these institutions to be ready for the EU Open Science Cloud. Link to the target: This is an enabler to deploy fibre to every household Tentative timeline: This is a continuous improvement of existing infrastructure. Based on our long-term relationship with these institutes we estimate that by 2027 all upgrades will be performed.
Budget & HR	Flemish: Allocated budget of 1,5 MEUR/year.
Impact & timing	With this project, universities and institutes will not have to worry about bandwidth while developing new services and projects

Measure 3 New measure: no	Spectrum reservation for a newcomer (5G)
Description of the measure	Content of the measure: In June 2022, BIPT organised its auction for the radio spectrum frequencies of, among other things, 5G spectrum (700 MHz, 1400 MHz and 3600 MHz) in which 5 operators (including the 3 existing MNOs) participated. One of the two other operators is Citymesh/Digi, to roll out a fourth mobile network. This means that there will soon be four MNOs in Belgium. The 5th operator to acquire spectrum, NRB, will focus on the corporate market. The (5G) usage rights came into effect on September 1, 2022. The 700 MHz frequency band is subject to coverage obligations. Existing operators must cover 70% after 1 year, 99.5% after 2 years and 99.8% after 6 years. For new operators this is 30% after 1 year, 70% after 2 years and 99.8% after 8 years. Link to the target: The coverage roll-out obligations will ensure that the DDPP target will be met. Tentative timeline: Please refer to the coverage obligation requirements above.
Budget & HR	Not applicable
Impact & timing	Through this auction, a new competitor for 5G services will be able to enter the market. The consortium Citymesh/Digi announced that in addition to mobile also fixed internet services will be offered in the residential market. This measure may therefore also indirectly benefit the roll-out of VHCNs.

Measure 4 New measure: no	Regulated access (VHCN)
Description of the measure	Content of the measure: In 2022 the BIPT started working on various regulatory aspects in relation to the Proximus Joint Ventures (JVs), who are rolling out a fibre network (Unifiber in the South and Fiberklaar in the North). It is crucial that both JVs publish a complete reference offer that is usable for alternative operators to deliver gigabit services to their customers. Regarding the JV between Fluvius (utilities operator) and Telenet (cable network operator) named Wyre, that plans to deploy FTTH and upgrade its HFC network in the Flemish Region, some initial work has been done in consideration of the green light for this cooperation given by the European Commission in May 2023. Link to the target:

	This measure, which primarily aims at stimulating the take-up of fixed VHCN based services, also has an indirect (non-measurable) effect on the coverage objectives.
	<u>Tentative timeline:</u>
	Q3 2023: publication of the final decisions on the reference offers.
Budget & HR	Not applicable
Impact & timing	Facilitating the access to the fibre networks that will be deployed by the Proximus JVs and assuring the continuity of the access to Telenet's HFC network that will be transferred to Wyre, will contribute to achieving the 1Gbps for all target in 2030.

Measure 5 New measure: no	Project funding: - 5G pilot funding programme - Projects to promote fixed internet access in "white areas" - 5G coverage along railways - 6G research
Description of the measure	<u>Content of the measure:</u>
	5G pilot funding programme
	In July 2022, the Federal Public Service Economy published a call for the development of 5G pilot projects that was initiated by the Minister for Telecommunications. Twenty projects were awarded to foster partnerships and to stimulate Belgian actors of all kinds to embrace the different possibilities of 5G.
	Projects to promote fixed internet access in "white areas"
	As part of the national broadband plan, a call for projects was launched in December 2022 to promote fixed Internet access infrastructures in the "white areas" of the Belgian territory.
	As a result, three projects were awarded. As there is a remaining budget, a second call for projects will be launched.
	5G coverage along railways
	Also as part of the national broadband plan, a budget of 11,2M euro was allocated to improve the mobile connection of rail passengers along the less populated railway lines. A call will be launched in 2023.
	6G research
	1,5M euro of funds was made available in 2023 and 2024 to support research into future mobile technologies (6G) with a grant. A call will be launched in 2023.
	<u>Link to the target:</u>
	It is expected that the above measures will lay a foundation for a swift deployment of 5G (and future mobile) services. The funding to support the deployment of VHCN in white areas will establish Gigabit

access in areas that may not have been included in the current roll-out plans of the operators and JVs.

Tentative timeline:

5G pilot projects: the projects that were already awarded will be finalised by the end of 2024; for other projects it will be by the end of 2025.

White areas: the projects that were already awarded will be finalised by the end of 2024; for other projects it will be by the end of 2025.

5G along railways: 2023-2025

6G research: 2023-2024

Budget & HR	5G projects: 24M euro.
	White areas: 40.7M euro of the federal government.
Impact & timing	The 5G projects will demonstrate how 5G can have a social and economic impact.
	White areas projects will extend VHCN coverage roll-out in the concerned regions in a relatively short time frame

Measure 6 New measure: no	Awareness campaigns to stimulate the take-up of gigabit connectivity and 5G services
Description of the measure	Content of the measure:
	Gigabit connectivity
	At the end of 2021 the BIPT published fibreinfo.be with the aim to provide a central and neutral information point about fibre.
	Various stakeholders are involved in the deployment of FTTH (municipalities, syndics of MDU's, citizens…) that may be unaware of the use of fibre networks. The BIPT therefore believed that a central website that contains neutral information about fibre could help in creating this awareness.
	In 2022 this website was complemented by an FTTH fibre map[25], showing the areas where FTTH is rolled out, or will be deployed in the coming year and the operators that offer services on these infrastructures. This map is updated on a quarterly basis.
	The coverage map of fixed networks (Landline Atlas)[26] was adapted at the end of 2022 to include 1 Gbps speeds, and to show the different technologies that are available at address level (including speeds). This enables end-users to directly compare different technologies.
	5G services

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[25] https://www.bipt-data.be/en/projects/atlas/ftth

[26] https://www.bipt-data.be/en/projects/atlas/landline

	While the deployment and take-up of 5G is still at its infancy, a dedicated informative website[27] is made available to the public. This website is an initiative of the federal and regional governments, the Federal Public Service 'Health, food chain and environment' and the BIPT, in cooperation with Sciensano which performs public and animal health assignments.
	<u>Link to the target:</u>
	Making a broad audience aware of the ins and outs of fiber deployment in Belgium and 5G is expected to support the take-up of high-speed fibre and 5G enabled products.
	<u>Tentative timeline:</u>
	The websites will be updated on a regular basis, no end date foreseen.
Budget & HR	N/A
Impact & timing	The above measures were taken to incentivize the take-up of gigabit connectivity and 5G.

Measure 7 New measure: no	Establishment of the Broadband Competent Office (BCO)
Description of the measure	<u>Content of the measure:</u>
	The main goal of the BCO is to:
	- Lower the cost of deployment of (1) very high-capacity networks and (2) 5G networks
	- Guarantee a fast and favorable access to investments
	- Eliminate useless administrative obstacles
	- Rationalise permit granting procedures
	- Facilitate access to physical infrastructures
	- Coordinate with municipalities, provinces, regions and the federal state
	<u>Link to the target:</u> implementation of the best practices in the BE Roadmap Connectivity Toolbox
	<u>Tentative timeline:</u> 2022- 2024
Budget & HR	The budget allocated in 2023 to the Telecom division for personnel costs is 1 Mio and 1,4 Mio for operating credits.
Impact & timing	Within the best practices, 10 solutions are identified to be implemented on the short term in collaboration with a consultant. The implementation of these solutions started in June 2023.

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[27] https://over5g.be/

Measure 8 New measure: yes	Call for project – Last Mile
Description of the measure	Content of the measure: In the framework of the Giga Region programme of Digital Wallonia, the Digital Agency launches the call for projects for the implementation of the "Last Mile" fixed connectivity action for all areas lacking HSBB connectivity. This action is financed by the Walloon Recovery Plan. (The same initiative exists at the federal level) Link to the target: The "Last mile" action can enable the wider deployment of any solution that helps prepare our region to meet the European 2030 targets: Gigabit and 5G for all. Tentative timeline: Call for projects, once a year between 2022 and 2024. The selected projects may last until 2026.
Budget & HR	Regional: 33 MEUR (2022-2026)
Impact & timing	All end users at a fixed location are covered by a Gigabit network up to network termination point

Regional measure 9 New measure: yes	Proofs of Concept (POC) 5G
Description of the measure	Content of the measure: The main objective of this call for projects is to test and demonstrate realistic and relevant use cases that mobilise 5G technology. This means conducting Proofs of Concept (POCs) in order to test the performance of 5G-related use cases from a technical, commercial, social, health, economic and environmental point of view. Link to the target: It will be a question of testing how 5G can help develop new uses, among others in rural areas and in connected agriculture, and for example improve or optimise their production or crop monitoring processes, ensure predictive or remote monitoring (via drones), etc. Tentative timeline: 4 calls for projects from 2022 to 2026 (once a year). The selected projects may need some time to be developed, and then last until 2027.
Budget & HR	Regional: 15 MEUR
Impact & timing	70 beneficiaries (enterprises, or public services) at the end of 2026.

Regional measure 10 New measure: no	Accords Tax on Pylons (TOP): new agreement between Wallonia and the operators
Description of the measure	Content of the measure: The Walloon Government has validated an agreement with the telecommunications operators for the benefit of the digital transition of local authorities and the improvement of the territory's mobile coverage. This includes maintaining the abolition of regional taxes, recommending to the provinces and municipalities not to levy taxes on masts, masts and antennas in 2021 and in 2022, establishing a facilitating framework for the development of network coverage of the territory and supporting local authorities in their digital transformation for the benefit of their citizens. Link to the target: This measure is focussed on improving the possibility for all local public services to provide a better mobile coverage for their territory.
Budget & HR	Regional: 10 MEUR
Impact & timing	276 applications were received in the framework of the call for projects for a total amount of 13.8 million eligible expenses. The 168 projects, i.e. 60% of the applicants, which received an evaluation of at least 50% will thus be able to be financed for a total amount of 10M euros.

Measure 12 New measure: no	Imec convenant
Description of the measure	Content of the measure: The Flanders Government has signed a covenant for the period 2022 – 2026 with the semiconductor Research Institute Imec, to continue to conduct fundamental research into cutting-edge and sustainable semiconductor technology.. Link to the target: By adopting a broader, more ambitious covenant to support the work of Imec, the Flanders Government ensures that the European semiconductor ecosystem is strengthened, thereby contributing to the target. Imec's core program research is also driven by further scaling PPAC-E (power, performance, area, cost, environment) performance, thereby contributing to these goals. Tentative timeline: The covenant covers the period of 01/01/2022 until 31/12/2026.
Budget & HR	Flanders: The yearly budget attributed to this measure amounts to ca. 130MEUR, with recurring yearly increases of 8MEUR, as well as possibilities for additional ad hoc investments.

Impact & timing	Imec continues to be at the cutting-edge of semiconductor research and other digital technologies. This delivers results in numerous ways, ranging from the strengthening and deepening of the European semiconductor ecosystem, to a myriad of specific imec deliverables in the areas of health tech, EdTech, smart public services, start-up development and more.

Measure 13 New measure: no	Imec Xpand II
Description of the measure	Content of the measure: New deep tech investment fund with 200.000.000+ EUR in capital committed aimed at setting up new deep tech companies in Belgium, based on imec research. Link to the target: Adding investment into the deep tech industry strengthens the European position in the semiconductor supply chain as a whole. This fund also stimulates the flow of research to the market. Tentative timeline: Ongoing - Maximum until 23/03/2036
Budget & HR	Flanders: Ca. 200 MEUR of funding from a whole range of investors
Impact & timing	A growth in deep tech companies in Europe working around the latest semiconductor technology.

Measure 14 New measure: no	Imec SSTS
Description of the measure	Content of the measure: Engraining sustainability in the entire global semiconductor value chain by setting up joined research programs aimed and reducing the carbon footprint, reducing water consumption and improving the recyclability of semiconductor materials, joined by leading international partners. Link to the target: This research will make the semiconductor supply chain more sustainable supporting the twin transition (green & digital)
Budget & HR	Funding through Imec, which is partially funded by Flanders Government, and partially through collaboration with partner entities.
Impact & timing	More sustainable semiconductor technology.

Measure 17	Flemish Supercomputer Center

New measure: no	
Description of the measure	Content of the measure: The Flemish Supercomputer Center (Vlaams Supercomputer Centrum - VSC) is a partnership between the five Flemish universities and their university associationsthat brings together knowhow in scientific and technical computing housing infrastructure in four hubs: the data centers of the universities of Antwerp, Brussels, Ghent and Leuven. Link to the target: The VSC offers infrastructure, training and services. The use of these supercomputing technologies paves the way for the development and better understanding of quantum technologies.
Budget & HR	Flanders: 12.9 MEUR for 2023
Impact & timing	The current financing plan is established for the period 2023 – 2025, with a longer-term strategic roadmap currently being developed.

3.2.4. Government

Measure 1 New measure: no	IRISbox platform
Description of the measure	Content of the measure: Via IRISbox citizens and businesses have the possibility to digitally access the main services offered by: - Local/municipal authorities (19 for the region of Brussels) - Regional Brussels authorities: environmental, mobility, …etc. Link to the target: Direct impact on online accessible provision of key public services for citizens and businesses Tentative timeline: The development of the online services is ongoing and implemented based on a yearly priority listing (top 30 of most requested services).
Budget & HR	TBC
Impact & timing	The IRISbox platform is growing significantly with a yearly increase of 110.000 new users (figures 2022)

Measure 2 New measure: no	My eBox
Description of the measure	The eBox Citizen is a digital mailbox in which Belgian citizens can receive official documents from Belgian public instances at every

	level. Given the complex nature of Belgium's federal state structure, the deployment of such a centralized eBox has proven to be a crucial step in the continuous digitalization of public services in Belgium.
	Link to the target: 100% online accessible provision of key public services and, where relevant, the possibility to interact online with public administrations for Union citizens and businesses
Budget & HR	TBC
Impact & timing	3.964.677 Belgians (i.e. over 30% of all Belgians over 18 years old) gave their consent to receive official documents in their eBox on this day. 74.036.492 documents were sent in 2021. 429 senders are currently using eBox for sending official documents.

Measure 4 New measure: no	Municipality without Municipal Hall
Description of the measure	Content of the measure: The Municipality without Municipal Hall programme is a funding programme that supports local governments by providing them with a grant between 100.000 and 2.000.000 EUR (depending on the size and impact of the projects/proposals). The investments can cover digitalisation efforts to improve: - Citizen-centricity and accessibility of services. - Proactiveness. - Stimulate participation that goes beyond transactional and administrative contact. - Effectiveness of service, avoiding multiple interactions and repetitive data gathering, oriented on useful solutions. More info: https://gzg.vlaanderen.be/ Link to the target: The measure is focused on all local governments in Flanders and stimulates collaboration. On average 8 local governments participate in one project. As the measure covers all services provided by local government, the application areas vary. Tentative timeline: The programme started in July 2021 and the projects must be finished by the end of 2025.
Budget & HR	EU: 35 million euro (part of RRF)
Impact & timing	78% of all the Flemish local governments were involved in the call for proposals, 64% of the local governments are involved in the granted projects which run from 2021 till 2025.

| Measure 5 | My Citizen Profile |
New measure: no	
Description of the measure	Content of the measure:
	My Citizen Profile ("Mijn Burgerprofiel") is a Flemish e-government platform for citizens. It is a digital counter where citizens can arrange all kinds of government affairs. Citizens can download certificates such as your birth or marriage certificate, apply for permits and subsidies, etc. Everything can be done digitally and via self-service as much as possible, wherever and whenever you want.
	Through My Citizen Profile, the use of the eID as a means of electronic identification is continuously further stimulated through repeated communication and publicity campaigns.
	Link to the target:
	This is directly linked to the target of making all key public services available to citizens and stimulating the use of e-id by citizens.
	Tentative timeline: ongoing
Budget & HR	EU: 8.300.000 EUR
	Flanders: 1.700.000 EUR
Impact & timing	Have all key public services available to citizens through My Citizen Profile & have all local communities connected.

| Measure 6 | Project GOV_01: Submit requests in digital form to the central administration |
New measure: no	
Description of the measure	Content of the measure:
	Together with the Walloon Region, the German speaking community uses a joint solution that allows us to submit applications in electronic form. The solution allows the contact between the citizen and the back-office applications of the administration.
	Link to the target:
	Affected are: citizens, businesses and associations in Belgium and in Europe. Condition is the use of EIDAS compatible Eid
	Tentative timeline:
	All infrastructure requirements have been met, in 2023 we will start publishing the e-forms and by 2030 all services of the ministry will be accessible through this channel.
Budget & HR	TBC
Impact & timing	In 2023 we will start publishing the e-forms and by 2030 all services of the ministry will be accessible through this channel.

Measure 7 New measure: no	Project GOV_2: Description of services at community level
Description of the measure	Content of the measure: In a multilingual service catalogue, services are described and categorised, they can be related to each other and assigned to life situations to offer services to the client. Link to the target: Better findability of the existing services. Tentative timeline: All infrastructure requirements have been met, in 2023 we will start publishing the services in relation with the published requests in measure GOV_01 by 2030 all services offered in the community will be accessible through this channel.
Budget & HR	TBC
Impact & timing	We will start publishing the services in relation with the published requests in measure GOV_01 by 2030 all services offered in the community will be accessible through this channel.

Measure 8 New measure: no	"Bruxelles Numérique" program
Description of the measure	Content of the measure: The objectives of this legislative prom are : to create new digital rights for all citizens; putting all citizen at the center of digital transformation; to implement the principles of solidarity, inclusion, web accessibility and freedom of choice for all citizens between digital and physical or paper contacts with the institutions, in respect of the Brussel digital Appropriation Plan; to implement digital public service and digital contacts online; to implement ebox system in brussels institutions; to implement the principle once only in brussels institutions; to allow the institution for administrative simplification to issue opinion and recommendations on compliance with the principles of digital inclusion and once only ; Link to the target: Direct impact on online accessible provision of key public services for citizens and businesses Tentative timeline: 2023 - 2028

Budget & HR	TBC
Impact & timing	All targeted local and regional procedures must be digitalized during the foreseen timeline. The alternative, non-digital versions will also remain in place.

Measure 9 New measure: no	Brussels Governance and Data Code (BGDC), Brussels Data Strategy (BDS) and Regional Data Exchange Platform (RRF-project I-2.10)
Description of the measure	Content of the measure: A Brussels Governance and Data Code is being drafted; it will bring together in a single corpus several existing texts, such as the "Open data" ordinance or the "Once only" ordinance; it will be completed to integrate current and future European regulations. The setup of a data platform for the Brussels Region, allowing the secure exchange of personal data and data issued from authentic sources, between the public institutions and services. Link to the target: Direct impact on online accessible provision of key public services for citizens and businesses Tentative timeline: BGDC: 2023Q3 : Adoption by the Brussels Government, 2024Q1 : Adoption by the Brussels Parliament BDS: tbd Setup platform: 2021 until 2024
Budget & HR	BGDC: around 600 k€ for external consultancy BDS: tbd Setup platform: 100% RRF budget
Impact & timing	Obstacles to the exchange of data between administrations will be removed, facilitating the implementation of the "Once Only" principle for the benefit of citizens and businesses.

Measure 10 New measure: no	Digitalization of citizen-business processes, RRF-project I-2.11
Description of the measure	Content of the measure: Roll out for the Brussels Region of online accessibility of key public services (environmental, building permits, etc) based on a CRM platform. In 2022: 7 projects were in production, 5 are under implementation, 3 have been analyzed and are ready to implement, 5 are under analysis.

	Link to the target:
	Direct impact on online accessible provision of key public services for citizens and businesses
	Tentative timeline:
	2021 until 2025
Budget & HR	RRF budget
Impact & timing	By 2025 the CRM rollout should be completed

Measure 11 New measure: no	"We Pulse" program.
Description of the measure	Content of the measure:
	The "We pulse" program, initiated by the Brussels regional government, aims to provide standardization of ICT systems and municipal services to the population for all the 38 Brussels local authorities (19 municipal administrations and 19 public welfare services).
	Link to the target:
	Direct impact on online accessible provision of key public services for citizens and businesses
	Tentative timeline:
	2021 until 2025
Budget & HR	TBC
Impact & timing	Currently a total of 33 local authorities have expressed their interest in the "We Pulse" program.

Measure 12 New measure: no	MyBEE 3.0 – Upgrade of the online platform for the management of applications for business subsidies
Description of the measure	Content of the measure:
	In 2019 Brussels Economy and Employment launched the online platform MyBEE to give the opportunity to Brussels-based businesses to introduce online their applications for subsidies or accreditations.
	https://mybee.brussels
	Link to the target:
	This measure enables Brussels-based businesses to digitally introduce their applications for subsidies or accreditations and to track the follow-up by the administration
Budget & HR	Budget MyBEE 3.0 : 325.000 € VAT included

Impact & timing	About 7600 applications introduced by Brussels-based companies between Q2 2022 and Q1 2023.

Measure 13 New measure: no	"housing passport"
Description of the measure	Content of the measure: The "housing passport" ("Passeport bâtiment") is a unique digital platform that brings together administrative and technical data (e.g. energy, soil pollution,...) of a building; it can be consulted by the owner (or persons with a power of attorney, such as building professionals) and, depending on the documents, by the competent administration. It is intended to accompany the building throughout its life. In addition, the passport will also allow for greater use of building data and therefore better target the actions and communications to be put in place by public authorities to meet other regional objectives (green transition, urbanism, …). Link to the target: Target: 100% online accessible provision of key public services and, where relevant, the possibility to interact online with public administrations for Union citizens and businesses Tentative timeline: (2019 - 2024) Residential Housing Passport 1.0 - energy focus (2030) Passport residential housing X.0 - energy, environment Passport Building (for multi-family housing) Non-residential Passport 1.0 (if relevant)
Budget & HR	The collective budgetary effort for the BCBO program is estimated at 28.01 million €. The amount relating to Brussels environment being broken down as follows: (2023) 1.485.000 € (2024) 1.322.000 € (2025) 1.188.000 € (2026) 963.000 € (2027) 633.000 € (2028) 638.000 €
Impact & timing	(2019 - 2024) Residential Housing Passport 1.0 - energy focus

	(2030)
	Passport residential housing X.0 - energy, environment
	Passport Building (for multi-family housing)
	Non-residential Passport 1.0 (if relevant)

Measure 14 New measure: no	DIGIPERMIT
Description of the measure	Content of the measure: The DIGIPERMIT initiative is a pluri-annual program composed of 13 projects aiming to cover all aspects of environmental permits specificities, and assist applicants in completing their procedures digitally, efficiently and diligently. Link to the target: Target: 100% online accessible provision of key public services and, where relevant, the possibility to interact online with public administrations for Union citizens and businesses
Budget & HR	Overall project is still under elaboration.
Impact & timing	The program is in its early stage, an overall timeline is hence still to be clarified. Nonetheless, the delivery date for some of the projects that have already been initiated are available (2023) Digithemes project (2023) Supernova (2024) MyPermit Environnement [final product iteration]

Measure 15 New Measure: no	Challenge 5 of EASYWAY: support and training for target audiences
Description of the measure	Content of the measure: The aim of the Appropriation Plan is for officials to be trained and for all Brussels citizens to access or become familiar with digital services and tools. In this context, easy.brussels is coordinating various awareness and training actions on several themes.
Budget & HR	TBC
Impact & timing	2021-2025

Measure 23 New measure: no	Video Calls
Description of the measure	Content of the measure: A public video conference project is an initiative to improve accessibility and convenience for citizens seeking information and

assistance for public services by implementing a video conference system. The system enables citizens to attend virtual meetings, consultations, or public hearings with public officials and service providers remotely, from any location with internet access.

Link to the target:

Enable easy access to public services andsave time for citizens and companies

| Budget & HR | +-50K€ per year for licences |
| Impact & timing | TBC |

Measure 24 New measure: no	Co-browsing enabler
Description of the measure	Content of the measure: A co-browsing solution project is an initiative to improve accessibility, inclusion, and convenience for citizens seeking information and assistance for public services by implementing a co-browsing solution. The co-browsing solution enables public service agents to remotely access and view a citizen's device screen to provide assistance with filling out forms, navigating websites, or resolving technical issues. Link to the target: with co-browsing, staff can promote and coach citizens into using more public digital applications
Budget & HR	+-50K€ per year for licences
Impact & timing	2024 : analysis, 2025 : launch

Measure 25 New measure: no	User Experience Commando Team
Description of the measure	Content of the measure: A UX Commando Team project is an initiative to improve the usability and user experience of public services by establishing a dedicated team of UX professionals. The UX Commando Team aims to provide rapid and effective solutions to UX problems that are identified within public services. Link to the target: improve ux design of digital procedures and improve accessibilty
Budget & HR	4-5 FTPs per year
Impact & timing	2024 : recruitment and start of the project

Measure 26	For each application Brussels Regional Public Services develops where citizens or businesses (public & private) are implicated we foresee a front office or communication portal
New measure:no	
Description of the measure	Content of the measure:
	All the applications we develop aim to give an online/digital access to the public services
	Link to the target:
	Promote the online/digital access to the public services.
	100 % digital services
	Tentative timeline:
	permanently
Budget & HR	An annual budget of 5,5 million is foreseen
Impact & timing	100% digital access for all public services. Timing relying upon IT capacity for development and distribution.

Measure 27	Interoperability of subsidies
New measure: no	
Description of the measure	Content of the measure:
	Interoperability for subsidies is a project aimed at improving the efficiency and effectiveness of subsidy programs by enabling seamless data sharing and communication between different public agencies. The project involves the development and implementation of interoperable systems and standards to facilitate the exchange of information related to subsidy applications and approvals.
	Link to the target:
	improve transparency and access for funding to startups and ngos
Budget & HR	1FTP
Impact & timing	TBC

Measure 28	Online services for jobseekers (BCR-Actiris)
New measure: no	
Description of the measure	Content of the measure:
	Through the strategic objective 1 of its management contract 2023-2027, Actiris is committed to promoting digital services for autonomous users and/or users who request them, while informing them of their rights and duties, and offering human support for those users who need it most.
	Link to the target:
	Target: 100% online accessible provision of key public services and, where relevant, the possibility to interact online with public

	administrations for Union citizens and businesses ⬚ the measures developed to achieve this goal will allow citizens to access a more significant part of the services of the Public Employment Service through digital channels. Tentative timeline: By 2027
Budget & HR	TBC
Impact & timing	TBC

Measure 29 New measure: no	eGov - SPW - (Public) permits issued by Delegated Officials - Single permits issued by Delegated Officials and Technical Officials - (Private) permits issued by the Municipalities: connection of the Municipalities Delegated Officials and Technical Officials
Description of the measure	Content of the measure: The main users are citizens or companies who apply for a permit, carry out an activity with an impact on the environment or urban planning, lodge an appeal... They can delegate to architects, design offices... All exchanges with the Cities and Municipalities, with the Government, with the public services of Wallonia or with the companies concerned by a permit application are done via the web application or via an application that communicates with the web service. These exchanges concern requests for opinions, the organisation of public inquiries, decisions, etc. In the case of a single permit, the two web applications of the different entities of the SPW ARNE and TLPE must communicate with each other via intermediate front office applications and web applications.
Budget & HR	TBC
Impact & timing	Should be fully available online by end 2025

Measure 31 New measure: no	Vitalink (digital data-sharing platform for care and health)
Description of the measure	Content of the measure: Vitalink is a system that enables healthcare providers to easily and securely share digital patient data with each other. Currently, Vitalink shares data on vaccinations, medication schedules, population screenings, child records, and a summary of the patient record from the GP. Vitalink operates with strict security and privacy guarantees. Link to the target:

	This approach ensures that a broad group of citizens can access their health data.
	Tentative timeline:
	Vitalink started in 2011. In 2023, we are launching a renewed Vitalink data exchange platform that exclusively uses international information standards and follows the latest technological principles.
Budget & HR	Flemish: 5 million euro per year
Impact & timing	Our goal with Vitalink is to have a significant impact on healthcare and support services. By making all relevant information readily available in Vitalink, we can provide the best possible care, assistance, and support. We hope to realise this goal by the end of 2030

Measure 32 New measure: yes	Alivia
Description of the measure	Content of the measure:
	We invest as a priority in a digital care and support plan, Alivia, for the primary care. These investments contribute to multidisciplinary collaboration and data sharing in the context of integrated care. The life and care and support goals of the person are taken as the starting point. Data from Alivia can be shared between care providers and with the patient, with respect for medical confidentiality and privacy.
	Link to the target:
	Digital information flow between care actors and government is essential to achieve qualitative and efficient care provision throughout the chain of care and welfare.
	Tentative timeline:
	2022: Program set-up and stakeholder workshops
	2023: Development Alivia and elaborate legal basis
	2024: Testing Alivia in 2 pilot regions and further development of Alivia + developing care planning methodology, impact assessment and training
	2025: roll-out in Flanders
Budget & HR	Flemish: 19 million euro
Impact & timing	The implementation by 2025 will result in increased interdisciplinary collaboration, improved care quality, better informed care teams, enhanced care planning, higher transparency within the care team with guaranteed privacy, and empowered patients through a user-friendly mobile app.

Measure 34	Project PARTNER

New measure: no	
Description of the measure	Content of the measure: The original focus of the project was on the digital exchange of medical data between hospitals and general practitioners. But the project was refocused due to the Covid-19 pandemic. The focus was then on information and communication for the citizen/patient around the topic of medical data. Link to the target: Citizens need access to their medical data. The project informs the citizen about the different offers and how to use them. Tentative timeline: The program started in 2019 and ended in September 2022.
Budget & HR	Regional budget allocated: 28.000 EUR
Impact & timing	The number of people with access to their medical data is increasing.

Measure 35 New measure: no	Project PHARMA
Description of the measure	Content of the measure: The aim of the project is to share information about medication between different health care actors and patients. Link to the target: The medication scheme is a very important tool for health care actors to understand what medications the patient is taking. It can be very important for the patient's care and maybe save his life. The patient can see all his medications at a glance. Tentative timeline: The program started in Q3 in 2022 and expected to end in Q4 2023.
Budget & HR	Regional budget allocated: 28.000 EUR
Impact & timing	The number of shared medication scheme is increasing till end 2023

Measure 36 New measure: no	Project TEAM
Description of the measure	Content of the measure: The project involves home caregivers, i.e. patient-centred services in the home environment and nursing homes. A pilot project with volunteer nurses in the home environment will show the strengths and weaknesses of the exchange with other health care actors and what can be improved. In addition, a mobile solution should be available for the caregivers.

	Link to the target:
	Home care is very important for elderly citizens who are dependent on assistance. To facilitate care and to have the best and most complete health information possible, a functioning exchange with other health care actors is essential
	Tentative timeline:
	The program is expected to start in Q4 2023 and last 1 year
Budget & HR	Regional budget allocated: 28.000 EUR
Impact & timing	The communication between home caregivers and other health care actors is improving by the end of 2024.

Measure 37 New measure: no	Institute of Analytics for Health (INAH) project
Description of the measure	Content of the measure: Access to medical data must nevertheless meet challenges of three kinds: - technical, linked to the challenges of standardised digitisation of data in hospitals - legal and ethical, in view of the sensitive nature of these data, which requires their use to be secure, anonymised if necessary and controlled - economic, through a complex value chain involving different types of players. At the same time, structural and technological solutions are maturing to enable citizens to manage their personal data in full sovereignty. A MedTech ecosystem is also emerging which is both a source and user of data. Link to the target: Access to medical files
Budget & HR	510.000€ (one shot) for platform developments
Impact & timing	An initial pilot phase is being finalised and has enabled the development of a technological base allowing access to and the secure transfer of data. In the long term, this institute will enable the implementation of a quality standard that will secure, improve and facilitate access to data for all stakeholders.

Measure 38 New measure: no	The Brussels Health Network
Description of the measure	The Brussels Health Network brings together all public and private Brussels hospitals as well as the French and Dutch speaking associations of general practitioners in Brussels (FAMGB and BHAK).

	One of their missions is to improve cooperation and the sharing of health data in an efficient and qualitative manner between all healthcare players in the Brussels region.
Budget & HR	1 FTE
Impact & timing	Therefore, they want to support the health professionals regarding digitalization and provide support to technical issues, specific coaching and training for health professionals: https://brusselshealthnetwork.be/en/health-professionals/i-am-training/tools-to-help-you/

Measure 42 New measure: no	Project GOV_03: Building authentic sources and using existing sources in applications
Description of the measure	Content of the measure: In 2023 and 2024: Establish the legal and technical basis for making the authentic sources available. Once the legal basis has been established, we can in the meantime build up or already existing data sources to meet the requirements of the Authentic Sources and then make them accessible. Link to the target: Implementation of the once-only principle.
Budget & HR	TBC
Impact & timing	Create de base in 23 and 24, starting publishing end 2024 or in 2025

Measure 43 New measure: no	Online authentication awareness and training
Description of the measure	Content of the measure: As part of the front-line employee training, easy.brussels is training officials in the various means of online authentication. In addition, various brochures have been created to support citizens in demonstration mode to create an account and log in, or by highlighting the steps in a process by authenticating with the eID, for example.
Budget & HR	National Budget : 10 000 euros/year - training and materials
Impact & timing	2021 -2025

Section 4: Policies, measures and actions that contribute to the general objectives

General objective	Examples of areas of possible contributions from MS
Digital Citizenship	**Flanders:** Trust is one of the 5 main principles of the digital services strategy of the Flemish government. Maintaining a high level of user trust is an important cornerstone of the digital ecosystem for the Flemish government. This trust can only be maintained by promoting the responsible use of technology by anyone who uses computers, the Internet, and digital devices to engage with society on any level. The Flemish data strategy envisages a priority area of action around data quality and the use of data in a way that does not violate user trust. Digital Citizenship puts a strong emphasis on the importance of rights in the digital world, in that sense the Knowledge Center for Data & Society, an initiative under the Flemish AI Policy plan, contributes to the discussions and expertise of the legal (but also societal and ethical) aspects of AI and data driven applications. **German-speaking community:** There are 2 full-time employees in the ministry of the German-speaking community, which act as a coordination office for digitalization as a point of contact for all specialist departments, institutions and citizens. This is where the measures for implementing the digital strategy are coordinated, speakers are connected, institutions are networked, best-practice examples are collected, target group offerings are defined, coordinated and made visible. **Brussels Capital Region:** Child benefit: The application for the management and payment of child benefit files by Famiris is one of our core applications that utilizes data from external authentic sources in an automated manner. Citizens can access their own files and upload response forms, as well as download a payment certificate, by securely logging into Myfamiris.brussels using their personal code, eID, Itsme, or token. Additionally, in the near future, they will also have the option to receive a payment certificate automatically at fixed intervals. Iriscare is responsible for conducting the assessment of Autonomy and Disability for children who qualify for a monthly increase in child benefits due to a condition or disability, as well as for individuals who have applied for an allowance for elderly care. The digital portal MyIriscare allows both social security beneficiaries and professionals from partner organizations of Iriscare (public centers for social welfare and health insurance funds) to interact digitally with Iriscare's services. Users can access the status of their files, submit an application for payment, and more. The digital platform consists of a publicly accessible section and a secure zone for personal data, accessed through a personal code or via CSAM (Belgian federal authentication service). Currently, the target groups for digital interaction through this channel are (potential) beneficiaries of the allowance for elderly care (APA/THAB) and parents eligible for increased child benefits due to the health condition of their children. The applications for an allowance for elderly care (APA/THAB)

	were processed through the ALIS application, which goes through the necessary processes for calculating and disbursing the monthly amount entitled to the individual in question.

The data collection and exchange in the Brussels child benefit sector is carried out almost entirely through digital flows. For this purpose, Iriscare has a central application (Portiris) that allows obtaining data through consultations and distribution flows from external sources within the Social Security network, the National Register, Febelfin, etc. Digitalization projects are also planned for the minority of processes that have not yet been digitized.

BruWelcome: in the Brussels Region, newcomers can be obliged to follow an integration trajectory based on the person's private situation. COCOM is responsible for organizing and monitoring these trajectories and provides the BruWelcome application to the Brussels municipalities, as well as to the BON (Flemish Community) and BAPA's (French Community Commission) integration partners. In this portal, the legal data from the national register and waiting register are used in an automated way analyzing whether the newcomer falls under the obligation or not or whether based on this information the newcomer is exempted. Through a portal, newcomers are provided with the opportunity to access their own file containing data and documents and can use this platform to request prolongations or suspensions. The data and certificates are sent directly to the other actors through the newcomer's file preventing the newcomer from travelling between BAPA/BON and the communes.

VacciCard: The COCOM is responsible for the development and implementation of a digital vaccination register in the Brussels region. The goal is to register all administered vaccinations by the end of 2023. In a subsequent phase, electronic records from hospitals and extramural institutions will be integrated. This project also aims to provide researchers and the preventive medicine unit with a tool and data that are strictly regulated by legal frameworks for interregional cooperation and a regional legal framework.

Federal (BOSA):

100 % of citizens on this day already have access to a secure electronic identification (eID) means in Belgium. |
| Fostering Leadership and sovereignty | **Flanders:**

The Flemish government launched a Digital Leaders Academy. The Digital Leaders Academy provides training on digital strategy and transformation, collects best practices on these topics and connects interested parties through networking sessions.

The Digital Leaders Academy is an overarching programme designed to develop both the leadership and professional skills needed within a digital government. The main focus here is awareness of the potential of digital technologies to transform government operations. The professional skills you need in this regard are understanding stakeholder needs, iterative delivery and data-driven operation.

Brussels Capital Region: |

	Iriscare: A leadership training course has been organized in 2022-2023, in collaboration with the ULB and the KUL, for middle management.
Contributing to the Green transition	**Flanders:** Through the STTS programme of imec (mentioned as measure), Flanders is engraining sustainability in the entire global semiconductor value chain by setting up joined research programs aimed and reducing the carbon footprint, reducing water consumption and improving the recyclability of semiconductor materials. As part of the elaboration of a digital strategy for Flanders (see measure description above), the Flemish government wants to identify how digital technology and data can enable the green transition. **Walloon Region:** Digital Wallonia for Circular Program The environmental and circular dimensions are now at the heart of European and Walloon strategies. The link between digital and the environment is becoming more and more important in the use of digital technologies as a facilitator of sustainable development or in support of a more responsible, ecological and circular digital economy. The Circular Wallonia strategy was approved on 4 February 2021 by the Walloon Government after a year-long inventory of the needs and challenges in the field. It brought together various stakeholders in working groups to define the key areas to be implemented. The strategy aims to move the Walloon economy towards a carbon neutral, resilient and inclusive economy. It defines innovation as a catalyst to mobilise all actors to transform both supply and demand. The Circular Wallonia strategy is in line with the Green Deal, the European strategy also called "A Green Deal for Europe". It aims at more international cooperation and Belgian representation within the European Union. The strategy is based on seven priority value chains. The strategy includes a green IT vision (development of a more environmentally friendly digital sector, more rational use of ICT) and IT 4 Green (digital is an accelerator of the ecological and circular transition). Digital technology plays, among other things, a key role in demonstration, innovation and mobilisation of stakeholders. During the various working groups that mobilised various strategic actors in Wallonia, digital technologies and solutions emerged as an indispensable factor for achieving the objectives set in each priority value chain more quickly. **Brussels Capital Region:** Iriscare is engaged in a green transition. This was officiated in Iriscare's current governance agreement in strategic objective 9.1: Take initiatives to reduce Iriscare's environmental impact. The Regional Strategy for Economic Transition 2022-2030 of the Brussels-Capital Region : it aims at ensuring the development of a prosperous, local economy, sustainable, resilient and responsive to the needs of residents and

entrepreneurs; It wants to be less consuming of resources, fossil energy, provider of jobs and respectful of workers but also less dependent on external and international shocks.

ShiftingEconomy-Brochure-FR_092022.pdf

PACE 2023

Elaboration of The PACE (Plan Air Climat Energie), a policy endorsed by the regional parliament aiming to drive the Brussels' region towards a sustainable future.

In regard of digital transition, the PACE includes a large section dedicated to digital aspects.

Shifting economy

Elaboration of the Brussels Capital Region's Economic Transition Strategy framework, or Shifting Economy.Brussels, defined as "the progressive transformation of Brussels' economic activities with a view to contributing to local and global social and environmental challenges, as well as to the creation and maintenance of quality jobs for the people of Brussels".

The Shifting Economy thus proposes a reference framework that links economic dynamism with social justice and environmental protection, while promoting the development of citizens.

Federal (BIPT):

In 2022, the BIPT has commissioned a study that analyses the telecom networks' footprint, specifically looking into the evolution of the energy consumption, the carbon emissions, the water consumption and the waste processing over the past 4 years.

The report demonstrates that sustainability is already an important theme for the three examined major telecom operators (Orange, Proximus and Telenet), which have already defined multiple initiatives and goals. Overall, the share of the telecom sector in the total Belgian energy consumption and carbon emission is limited, contributing to less than 1% of either.

During the 2018-2021 period their energy consumption dropped by 11%. The electricity consumed by the network as such decreased by 77%. The consumption of the mobile network (comprising 2G to 5G) is twice as large as the consumption of the fixed access network. In 2021, 79% of the total energy consumed was renewable.

Over the same period, the carbon emissions dropped by 38%. Although the Belgian telecommunications market is already carbon neutral thanks to the purchased emission allowances, further efforts are being made to continue reducing the carbon emissions. The objective is to achieve net zero emission based on science-based targets (SBTi) by 2040 at the earliest.

Among other things, operators are also working on reusing and recycling set-top boxes and modems to reduce the waste mountain. The waste generation of the Belgian telecom market decreased by 40% between 2018 and 2021.

Monitoring the environmental efforts of the operators and making these visible, will eventually help in reducing the environmental footprint of the telecoms industry.

	An update of the study on telecom networks will be carried out in Q4 2023.
Promoting an inclusive, transparent and open digital environment	**Flanders:** The digital services strategy of the Flemish government focuses on customer-centric and e-inclusive design of public service delivery. The Flemish government's ambition is to make its services 'low touch'. For citizens, businesses, associations but also local authorities, this means that their contact with the government should be as smooth as possible and with as few contact moments as possible. The following five principles of the digital services strategy will guide the design and delivery of future digital services of Flemish and local governments and form the core of this strategy: Standard digital: Our services are constantly evolving and improving based on the ambition to offer services digitally to users. User-centric: Our digital services are developed from the user's point of view. The needs of all users are central to our services. Digitally reimagined: To transform our services digitally, we work together across governments and partners. We reimagine government processes so that they are maximally mobile usable. Data-driven: Our services make best use of available data and insights, both to provide our services and to rethink our government processes. Reliable: Our digital services are recognizable, secure and respect privacy, ensure data protection and provide user trust. Each principle is in turn linked to user and digital inclusion criteria that indicate how you as a user experience the application of the principle and how the principle can be applied in a digitally inclusive way. **Walloon Region:** Digital inclusion plan for all Walloon citizens (ref. measure 35 skills) **German speaking community:** -The Decree of October 15, 2018 on individual and public electronic communication of public authorities in the German-speaking area serves to partially implement Directive (EU) 2016/2102 of the European Parliament and of the Council of October 26, 2016 on barrier-free access to the websites and mobile applications of public authorities (see Chapter 3 of the Decree). A working group was formed with the purpose of implementing this on all public authorities' websites. A series of seminars for the employees of the concerned authorities also took place in this regard. In addition, the public authorities are producing a growing number of accessible publications and audiovisual material, including the use of texts in plain language, the use of subtitles and the use of German Sign Language. First audit report as of June 9, 2022, pursuant to Article 24(2) of the Decree of October 15, 2018, on the individual and public electronic communications of the authorities of the German-speaking area, carried out by the German-

	speaking Community as the competent supervisory body in matters of digital accessibility.
	- Within the framework of the European Social Fund (ESF) project Skills, the employment office offers low-threshold computer courses which in certain cases can also be used by persons with support needs.
	COCOM follows the Regional guidelines for IT inclusion and transparency and share meeting notes and decisions / information through the transparency project being a legal requirement for public organizations.
Reduce the gender and geographical divide	Walloon Region:
	Measures concerning the gender and geographical divide for the Walloon region please consult section 3.1 and 3.2.
	Brussels Capital Region:
	My talent learning, a regional tool for worker training, includes the following teaching: gender-neutral job offers, gender-sensitive communication, sexism and bullying in a professional context, pregnancy and discrimination, transgender people at work, gender and well-being at work, gender and public procurement and boost: more women in middle management.
	In the framework of the diversity project, an action around raising awareness on the reception of transgender people has been included in Iriscare's action plan for the 2023-2024 cycle. The diversity working group, together with various departments, will be responsible for implementing this action within the institution during the 2023-2024 cycle.
	All regions/communities & federal:
	The inter-federal and intersectoral plan 'Women in Digital' promotes coordination and synergy between the various initiatives taken to promote women in STEM/ICT at all policy levels in our country.
	This strategy aims to achieve the following five strategic objectives: more women graduates in ICT/ STEM, promoting the inclusion and retention of women in the digital sector, creating new images and rolemodels in the digital sector and eliminating the gender gap in specific target groups.
Cybersecurity	Flanders:
	The Flemish government has an information security strategy in place to improve resilience to cyberattacks, contribute to increasing risk-awareness and the knowledge of cybersecurity processes, and increasing the efforts of public organizations to achieve at least basic levels of cybersecurity.
	For the implementation of the information security strategy, the Flemish government has launched an information security programme that aims to:
	- realize a comprehensive approach to information security across the entire Flemish government;
	- increase the organisation's digital competences;
	- make the digital processes more resilient and the infrastructure more robust.

	Walloon Region:
	Program Cyberwal by Digital Wallonia
	The programme aims to federate the various Walloon cyber security actors in the field of research, innovation and training and to ensure its governance. It implements a decentralised physical and digital environment for Wallonia, favouring the development of an ecosystem dedicated to cybersecurity issues, bringing together and structuring all the appropriate solutions and skills.
	To guarantee maximum impact and coordination on a regional scale, Walloon players active in the field of cybersecurity have come together as a dome under the CyberWal (Cyber Security in Wallonia) by Digital Wallonia programme.
	This programme embodies Wallonia's ambition in terms of cybersecurity. It aims to develop and enhance a strong cybersecurity ecosystem and to activate a partnership and network dynamic.
	The cybersecurity challenges identified in the framework of the Cyberwal by Digital Wallonia programme are translated into 4 main objectives
	- Preserve the digital sovereignty of the territory.
	- Protecting citizens and companies.
	- Enhance the potential of research and develop appropriate training courses.
	- Develop strategic tools and services for all the organizations concerned.
Synergies between private and public actors	**Flanders:**
	Athumi, the Flemish Data Utility Company was launched by the Flemish government in May 2023 to increase data sharing between private and public actors.
	Walloon Region:
	Digitalization project "ICT Master Plan" for facilities in the health and care sector: The rest homes should have their processes digitalized. This includes software that makes it possible to view a resident's medical record and share health information with other health care actors. Other processes that are to be digitized are, for example, the creation of caregivers' duty schedules. The rest homes are provided with the software and are supported in its integration.
	German-speaking community:
	By 2026, 36,000 homes and businesses in the German-speaking Community of Belgium will have access to fiber. This is the ambitious objective of the memorandum of understanding signed on Monday 16 May 2022 between the German-speaking Government, Proximus and Ethias.
Digital rights and principles	**People at the center**
	Belgium is currently implementing the Digital Services Act (DSA) in order to align with the European values that ensure that all digital players act responsibly and safely.

Solidarity and inclusion

Our country strongly emphasizes the importance of equality and equity, thus promoting a just digital transition for our citizens. With regard to inclusion, several entities have adopted a plan to promote STEM and ICT education and jobs for women. Administrations such as VDAB in Flanders make it a priority to re- and upskill jobseekers, even when the jobs in itself do not require digital skills in the first place, making sure that no one is left behind in the digital transition.

Freedom of choice

Belgium welcomes the political agreement on the AI act and will continue it efforts in that domain thus acknowledging the importance for a fair online environment that that is safe from illegal and harmful content.

Participation

Belgian citizens are strongly encouraged to participate and engage in the digital era. All regions and communities have set up digital points in public spaces where citizens have access to computers, internet and skilled employees to help them interact with public services and other digital tasks.

Safety and security

The Center for Cybersecurity in Belgium was established in 2014 and outlines the national cybersecurity policies to create a digital environment that it safe and secure for all. They also encourage all sectors to make efforts in this regard by organizing national campaigns and offer educational trainings.

Additionally, the Federal Public Service of Economy actively contributes to foster cybersecurity among SME's. They have for example launched a cyberscan that offers companies a cyber risk assessment as well as advice tailored to their situation in the form of a personalized cybersecurity guide, to help them improve their security. For two years in a row, the FPS Economy has also launched calls to increase the cyber resilience of SME's and self-employed.

Sustainability

Our Deputy Prime Minister and Minister of Civil Service, Public Enterprises, Telecommunications and Postal Service underlines the importance of a green digital transitions meaning that we should make ICT infrastructures in itself greener but also explore innovative green by ICT solutions. During the Belgian Presidency of the Council of the EU as of January 2024, Belgium will host an event on Green IT.

Section 5: EU level cooperation

5.1. Multi-country projects

European Digital Innovation Hubs (EDIHs)	Three Flemish European Digital Innovation Hubs have been set up as part of the European Digital Innovation Hubs network: A consortium coordinated by EnergyVille with a focus on Energy in the Built Environment (EDIH-EBE), budget: +- €1.675.262 A consortium coordinated by Flanders Make with a focus on the manufacturing industry (Digitalis), budget: +- €2.381.458 A consortium coordinated by imec with a focus on Artificial Intelligence (Flanders AI EDIH), budget +- €1.045.856 Timing: They have been selected for the period 2022 to 2025 with a possibility of extension after that. Deliverd results: 3 EDIHs operational in Flanders Expected impact: a positive impact on the uptake of advanced digital technologies by businesses and other organisations The Walloon region has also engaged itself in two EDIHs: - WalHub pour l'Industrie 4.0 - Connect pour la Construction 4.0
Testing & Experimentation Facility for Edge-AI chips	This Testing & Experimentation Facility for Edge-AI[28] will be a platform to allow the European ecosystem around AI Chips to find the right components and solutions, which in itself should ensure that the path to market is shortened for this technology. Timing: the project started on the first of December 2022 and will run until 2026 Budget: 20 million comes from the RRF budget of Flanders, 3 million from imec and 23 million from the Digital Europe Programme. Delivered results: a platform where developers of AI hardware can easily test their designs. Expected impact: this initiative should both contribute to obtaining 10.000 edge nodes as it does necessary research and innovation in edge node technology as well as having 20% of chip production in the EU as it is effectively a pilot line as envisioned in the EU Chips Act. The Walloon region has a similar initiative for this matter.
Sectoral Testing & Experimentation Facilities for AI : **- Smart Cities & Communities** **- Agrifood**	Flanders provides co-financing for 2 Sectoral Testing & Experimentation Facilities (TEF) for AI that aim to test proof of concepts on AI in real environments so that they find their way to the market faster and can also be offered to companies in these thematic areas and thereby be incorporated.

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[28] https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/projects-details/43152860/101083307/DIGITAL

	Each TEF is taken up by European consortia consisting of organisations from different member states. Complementarity is thus sought between organisations, work is done on cooperation across borders and standardisation. It thus also applies as a Multi-Country Project under Europe's Digital Decade. Budget: - Agrifood (Flemish contribution = 2 mil. euro) - Smart Cities & Communities (Flemish contribution = 1.763.032 euro)
Pioneer 2.0 project	The Katholic University of Louvain (KUL) is the coordinator of the Pioneer 2.0 project that was selected in the first call of the Digital Europe Programme and that will put up Advanced Digital Skills in Public Sector Innovation and eGovernance, the project has partners from Germany and Estonia and consists of a total of budget of €29.863.504 Cumulative EU Contribution
Set up of Quantum Communication Infrastructure	A number of Flemish, Walloon and national organisations have joined forces under the Digital Europe Programme to set up the project Belgian-QCI, the first quantum key distribution network in Belgium. Some of the developments within this project are made in cooperation with other EU27 partners to indeed raise the maturity of EU27 QKD terminal equipment and gain not only EU sovereignty but even international leadership in the field. The cooperation with other EU27 Member States also includes the deployment of a QKD link to Luxembourg, a neighbor country, and preparation of further cross-border links with the Netherlands, France and Germany This project began in January 2023, and will run for 30 months. Budget: National-BE: 3.000.000 EUR Flanders: 300.000 EUR EU: 3.000.000 EUR
Participation in IPCEI-CIS (Cloud)	Flanders is participating in IPCEI-CIS (Cloud), enabling companies to join the initiative and collaborate with organisations in Europe. Through the different Horizon Europe partnerships under cluster 4, we stimulate organisations to participate in consortia on all levels and more specifically in cloud computing services, big data and artificial intelligence. Examples are: Institutionalised partnerships Key Digital Technologies and EIT Digital, Co-Programmed partnerships AI-Data-Robotics, Made in Europe and Photonics, as well as on co-funded partnerships and networks like Eureka.
Healthcare partnerships	The Flemish administration is participating in various healthcare partnerships. For example, Flanders is an active partner in Interreg Europe and EUREGHA, where cross-border data sharing in healthcare is on the agenda. The Benelux cooperation has in

	recent years worked on a regulatory framework for sharing health information between these neighboring countries.

5.2. European Digital Infrastructures Consortia (EDICs)

EDIC	Belgian entity of interest	Stage of the process
Agrifood	ILVO Flanders	Call for expression
Blockchain	BOSA	Notification send to EC
Cyber security academy	Flanders	Call for expression
Digital commons	BOSA	Call for expression
Digital skills	FWB	Call for expression
Language data space	Flanders/ BOSA	Notification send to EC
European mobility data space	Flanders	Call for expression
GovTech	BOSA	Call for expression
Local digital twins	Flanders	Notification send to EC
1+MG initiative	Flanders	Call for expression

5.3. Joint commitments

| EuroHPC LUMI pre-exascale supercomputer consortium | Belgium is a member of the EuroHPC LUMI pre-exascale supercomputer consortium, with an investment of 15.5 million euro resulting in 7,65% of the compute time of the non-EuroHPC share of the supercomputer.

The decision to co-initiate the large-scale LUMI consortium with 11 countries, 8 EU member states and 3 associated countries resulted in an excellent example of the power of collaboration to achieve common supercomputing goals at a scale unimaginable for any of the member countries on its own.

The LUMI machine will offer researchers all over Europe a world-class tool and platform for the development of complicated, cutting-edge technologies, such as artificial intelligence or quantum computing.

The LUMI machine has been operational since June 2022 and has an expected lifespan beyond 2026.

Budget:

National – BE: 15.500.000 EUR

Flanders: 3.500.000 EUR

EU: 101.300.000 EUR

Expected impact:

Increase of large-scale computing capacity for Flemish researchers, industries and government agencies.

Increase of supercomputing skills well above the level of the regional Tier, as a step up to the use of exascale computing. |
|---|---|

Section 6: Stakeholder feedback

Belgium has set up a solid governance model regarding the establishment of a national roadmap based on the Digital Decade Policy Programme. This model aims to create synergies between stakeholders and emphasizes a holistic, transparent cooperation. What follows is an overview of all the structures that were created, either by the European Commission or the Belgian government, to facilitate the process of consulting public partners:

- Digital Decade Board

- Digital Decade Committee

- Digital Task Force (DTF) DDPP

The DTF DDPP will be responsible for the overall coordination of the BE preparation for the 2030 Digital Decade Policy Programme in joint consultation between the federal and federated entities as some of the items under the Digital Decade Compass fall under the competence of the federated entities. This group will also be responsible for the elaboration and monitoring of the national roadmap. Political validation of the decisions are done through a DGE procedure.

- Inter-ministerial economic commission (IEC) on infrastructure

This IEC will assist the DTF on a more technical level concerning the axis on infrastructure. An IEC serves as an independent administrative and technical coordination entity for files requiring common economic decisions. An IEC is the ideal forum to discuss the economic issues raised by federal and federated governments on a certain topic.

- Inter-ministerial economic commission (IEC) on skills and businesses

The purpose of this IEC group is to share best practices between different stakeholders (governments, employment, education etc.) and inpire each other for collaboration and cross-fertilization.

- Inter-Community Consultation on e-Government (ICEG)

This ICEG will assist the DTF on a more technical level concerning the axis on e-government.

- IT-liaison manager

An IT-liaison manager helps to adopt the relevant IT-applications concerning DDPP for BE.

The Digital Decade Working Group has launched several consultation rounds between January and October 2023. The SPOC of every federal or federated entity were kindly invited to deliver input on measures they are taking right now or would like to take in order to achieve the Digital Decade objectives. These inputs were consolidated by the SPF Economy and analized in depth. Substantial changes were transmitted to all the stakeholders of the DTF DDPP WG and their feedback has always been taking into account before submitting the roadmap to the Commission for the first time on the 6th of October.

For the consultation of the private sector, federal and federated entities were given absolute autonomy on how to approach them. Flanders for example hosted a workshop for each axis in order to exchange knowledge with local governments, academic and private partners. Agoria (the Belgian federation of the technology industry) has been consulted by many BE levels for this exercise.

Section 7: Overall impact and conclusion

This roadmap shows that Belgium has the potential to be a major contributor to the EU Digital Decade targets. Regarding the state of play related to the axes business and e-government, Belgium is a frontrunner. Nonetheless we have to keep the focus on. Measures supporting the smallest businesses in their digital transitions will be important to hold a leadership position among the other member states for the axis of business. In the e-government field Belgium's performance is solid, however having access to e-services doesn't imply being familiar with its utility. This is why all e-government institutions support a lot of measures related to the skills cardinal point.

Not only the long list of measures in this document but also the ambitions of the various regions, communities, private organizations and other political and non-political levels show a huge emphasis on the "skills" axis. There is a common understanding that it's essential for the Belgian economy and society that no one should miss out the rapid digital transition that reached its acceleration phase during the COVID 19 pandemic. Not having the appropriate skills to take part in everyday life which becomes less and less analog, will definitely create social and economic costs that should be avoided. As statistical numbers are always lagging behind, peoples behaviour doesn't shift overnight and multiple measures are just in their starting grid, it's not easy to have a clear view on the impact of the multiple measures just yet. Therefore it will be important to closely monitor the evolution of the basic digital skills within our society and remove the main barriers that withhold these measures of being successful. It is remarkable that many of these barriers could be linked to the general objectives like cybersecurity, untrusting e-government practices, etc. (~digital citizenship). Section 4 outlines how Belgium will handle these more general targets. Furthermore if we want to boost the number of ICT-specialists a lot of the latter is also true. Enhancing basic digital skills will make people more and more familiar with the digital world and thus narrow the gap to become a pro specialist. It goes without saying that it will be even harder to see an immediate effect of the measures taken in this respect, certainly those targeting young scholars. The two yearly updating of the Belgium roadmap could be an excellent moment to evaluate a lot of the new and already running measures. To be conclusive on the skills axis; Belgium supports the former EU initiative "Women in Digital" (WiD) to encourage and inspire women to take on more leadership roles in the digital era, looking for a gender convergence in this field. In this respect we wish to highlight the importance of increasing the visibility of existing EU national WiD initiatives in order to multiply the leverage effect and stress the need of informal European coordination on this topic.

In the state of play section of the infrastructure cardinal point we discussed the mixed result of our country. However the future looks bright. As the main obstructions have been removed in the recent past, 5G coverage and the fiber rollout will soon meet the EU average and rapidly attain the DDPP set out goals as the national trajectories unveil. These targets will deliver the framework or backbone needed to keep up with the digital transition beyond 2030. Quantum computing, chip manufacturing and to a lesser extent edge nodes are targets that are eminent goals surpassing member state borders and should be evaluated in this context. With cutting-edge research center imec we deliver an important contribution on EU level.

As a general conclusion we feel that with the support of the well elaborated R&D ecosystem (reminder: Belgium was ranked as "innovation leader" by the European Innovation Scoreboard 2023) combined with the running and brand-new measures launched in the DDPP context, the foundations are strong to lead our country through a successful digital transformation towards 2030 and assist the EU to attain the general goal of reinforcing digital leadership.