



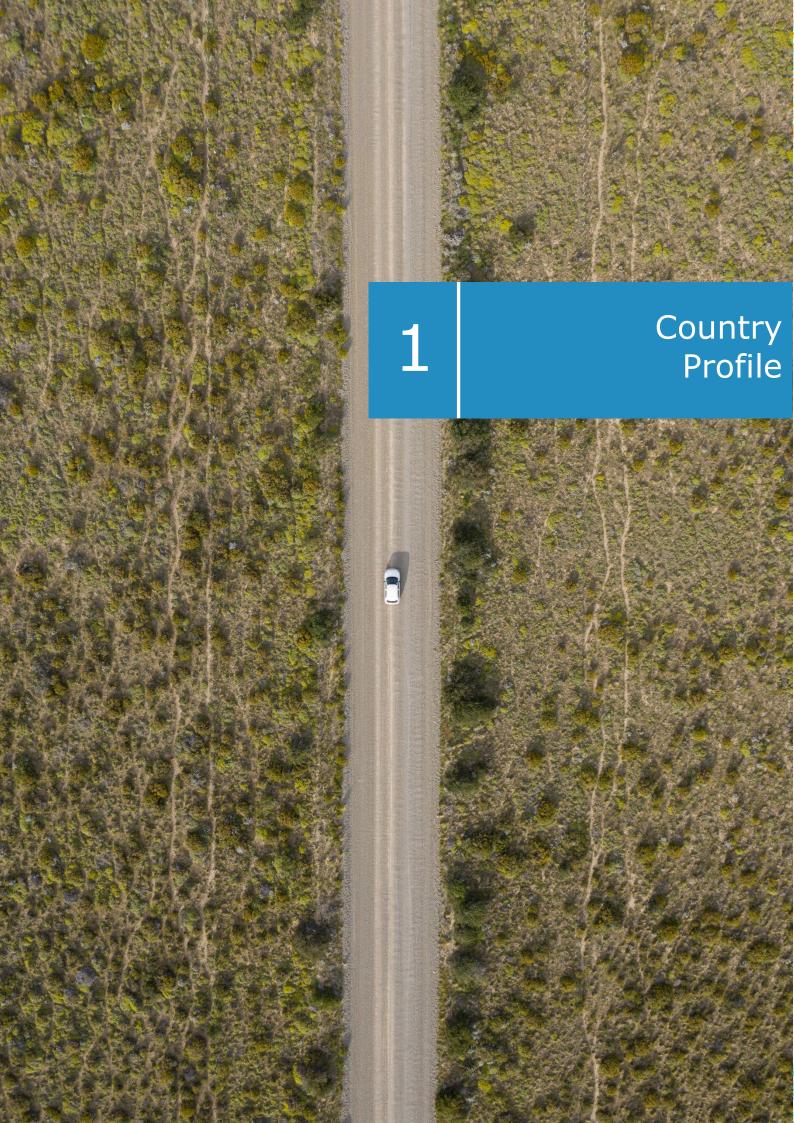
Digital Public Administration factsheet 2022

Belgium



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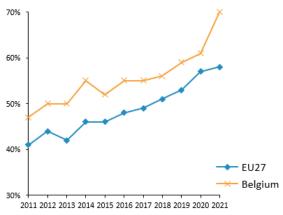


1 Country Profile

1.1 Digital Public Administration Indicators

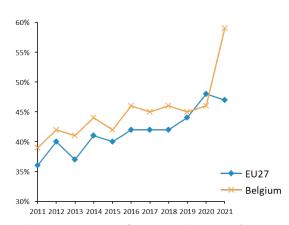
The following graphs present data for the latest Generic Information Society Indicators for Belgium compared to the EU average. Statistical indicators in this section reflect those of Eurostat at the time the Edition is being prepared.

Percentage of individuals using the internet for interacting with public authorities in Belgium



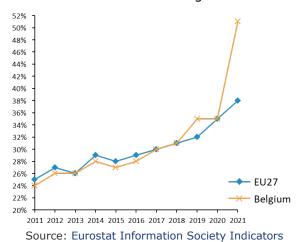
Source: Eurostat Information Society Indicators

Percentage of individuals using the internet for obtaining information from public authorities in Belgium

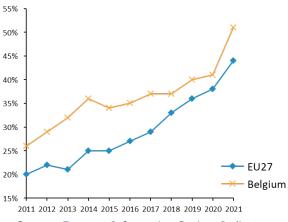


Source: Eurostat Information Society Indicators

Percentage of individuals using the Internet for downloading official forms from public authorities in Belgium



Percentage of individuals using the Internet for sending filled forms to public authorities in Belgium



Source: Eurostat Information Society Indicators

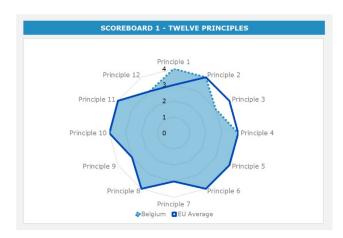
1.2 Interoperability State of Play

In 2017, the European Commission published the European Interoperability Framework (EIF) to give specific guidance on how to set up interoperable digital public services through a set of 47 recommendations. The picture below represents the three pillars of the EIF around which the EIF Monitoring Mechanism was built to evaluate the level of implementation of the EIF within the Member States. It is based on a set of 71 Key Performance Indicators (KPIs) clustered within the three main pillars of the EIF (Principles, Layers and Conceptual model), outlined below.



Source: European Interoperability Framework Monitoring Mechanism 2021

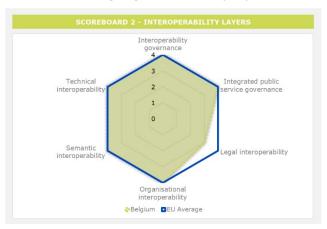
For each of the three pillars, a different scoreboard was created to breakdown the results into their main thematic areas (i.e. the 12 principles of interoperability, the interoperability layers and the components of the conceptual model). The thematic areas are evaluated on a scale from one to four, where one means a lower level of implementation and 4 means a higher level of implementation. The graphs below show the result of the third EIF Monitoring Mechanism data collection exercise for Belgium in 2021.



Source: European Interoperability Framework Monitoring Mechanism 2021

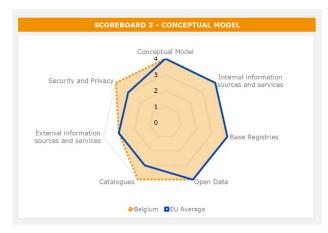
The Belgian results in Scoreboard 1 stand for an overall good implementation of the EIF Principles. Belgium performs above the European average for Principle 1 (Subsidiarity and Proportionality). Potential areas of improvement relate to the implementation of Principles 3 (Transparency) for which the score of 3 could be further improved to reach

the European average. Particularly, the provision of internal visibility and external interfaces for European public service to make administrative procedures available and accessible online (Principle 3 – Recommendation 05) is partial and could be improved to reach the maximum score of 4. In addition, Belgium could increase its score on Principle 9 (Multilingualism) to reach the maximum score of 4 by enhancing its use of information systems and technical architectures that cater for multilingualism when establishing a European public service (Principle 9 – Recommendation 16) and more specifically, the total number of language resources proposed to users.



Source: European Interoperability Framework Monitoring Mechanism 2021

Belgium's scores in Scoreboard 2 illustrate an overall good performance of the country with scores of 3 and 4 in all the interoperability layers. Areas of improvement to strengthen the country's implementation of the recommendations under Scoreboard 2 concern the interoperability governance and the legal interoperability. More specifically, with regard to the interoperability governance, Belgium has a middle performance in the consultation of relevant catalogues of standards, specifications and guidelines at national and EU level when procuring and developing ICT solutions (Recommendation 23). Furthermore, concerning the integrated public service and governance, the score of 2 in the implementation of interoperability and coordination over time when operating and delivering integrated public services (Recommendation 25) could be further improved to achieve the EU average. To match the European average on legal interoperability, Belgium could pay more attention to ensuring that legislation is screened by means of 'interoperability checks' in order to identify any barriers to interoperability (Recommendation 27).



Source: European Interoperability Framework Monitoring Mechanism 2021

The Belgian results in relation to the Conceptual Model in Scoreboard 3 show a very good performance of the country. Belgium has a high performance in the

implementation of catalogues as well as security and privacy, performing better than the EU average in these areas. To perfect its score on external information sources and services, Belgian public administrations could use more external information sources and services while developing European public services, when useful and feasible to do so (Recommendation 45).

Additional information on Belgium's results on the EIF Monitoring Mechanism is available online through interactive dashboards.

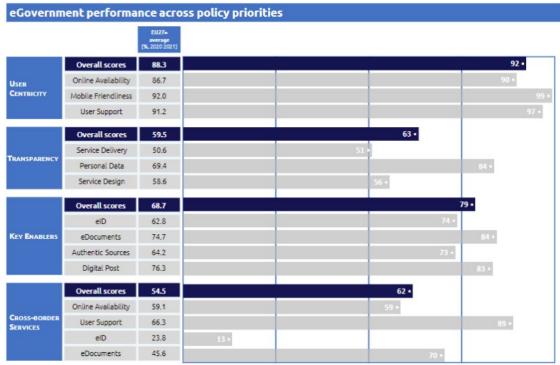
1.3 eGovernment State of Play

The graph below presents the main highlights of the latest eGovernment Benchmark Report, an assessment of eGovernment services in 36 countries: the 27 European Union Member States, as well as Iceland, Norway, Montenegro, the Republic of Serbia, Switzerland, Turkey, Albania and Macedonia (referred to as the EU27+).

The study evaluates online public services on four dimensions:

- User centricity: indicates the extent to which a service is provided online, its mobile friendliness and its usability (in terms of available online support and feedback mechanisms).
- Transparency: indicates the extent to which governments are transparent about
 (i) the process of service delivery, (ii) policy making and digital service design
 processes and (iii) the personal data processed in public services.
- Cross-border services: indicates the extent to which users of public services from another European country can use the online services.
- Key enablers: indicates the extent to which technical and organizational preconditions for eGovernment service provision are in place, such as electronic identification and authentic sources.

The 2022 report presents the biennial results, achieved over the past two years of measurement of all nine life events used to measure the above-mentioned key dimensions. More specifically, these life events are divided between seven 'Citizen life events' (Starting a small claim procedure, Moving, Owning a car, Health measured in 2021, and Career, Studying, Family life, measured in 2020) and two 'Business life events' (Regular Business Operations, measured in 2021, and Business start-up, measured in 2020).



Source: eGovernment Benchmark Report 2022 Country Factsheets



2 Digital Public Administration Highlights



Digital Public Administration Political Communications

A national plan for fixed and mobile broadband, or in short, the national broadband plan, was approved in principle on 30 April 2021, followed by final approval on 20 October 2021 by the Belgian Council of Ministers. The plan's main objective is to eliminate the so-called "white areas" in Belgium and thus contribute to the European connectivity targets by 2025.



Digital Public Administration Legislation

In December 2021, a draft law that modernises Belgium's telecommunications legislation and transposes a significant part of the European rules, has been approved. The new series of provisions aim to better inform the consumer, to better fight cybercrime, and to promote the development of 5G and access for all to high-speed internet with a view to a "gigabit society".



Digital Public Administration Governance

In the spring of 2021, the Brussels Region, the *Université Libre de Bruxelles* (ULB) and the *Vrije Universiteit Brussel* (VUB) launched the Artificial Intelligence for the Common Good Institute (FARI). FARI and the BRIC (Brussels Regional Informatics Centre) are working together on a roadmap for the development of artificial intelligence in the Brussels Region. The objective is to have a development framework, to guarantee the coherence of projects and to rely on knowledge sharing.



Digital Public Administration Infrastructure

A new roadmap for 2021-2025 for the Walloon potal 'Mon Espace' has been validated in the context of the Recovery Plan for Wallonia. The objectives are to make Mon Espace the Walloon one-stop-shop for administrative procedures and to provide new efficient services, including personalised and proactive services, offering citizens and businesses an enhanced user experience. In addition, a new addition, called Mijn Burgerprofiel (My citizen profile) was added to the Flemish Regional Portal. It is a user-friendly and scalable plug-and-play website feature that allows for data consultation in a safe and reliable manner, allowing citizens to see what the government knows about them and what the government has done and is doing for them. This project won the Digital Society Award in 2022 in the category 'Best Project' in Belgium.



3 Digital Public Administration Political Communications

3.1 Specific Political Communications on Digital Public Administration

Digital Belgium (2015–present)

On 20 April 2015, the action plan Digital Belgium was introduced by Deputy Prime Minister and Minister of Digital Agenda and Telecom Alexander De Croo, together with the Digital Minds for Belgium (a group of approximately 20 leading digital-world professionals), with the key objective to promote growth and create jobs through digital innovation. Digital Belgium outlined the government's long-term digital vision for the country, which was then translated into specific policy goals. More specifically, the programme set three goals, to be achieved by 2020, namely turning Belgium into one of Europe's top three digital economies, generating 1 000 new start-ups and creating 50 000 jobs for the national economy. In addition, Belgium identified five major priorities that contained three to six priority projects, each in the areas of:

- 1. Digital economy;
- 2. Digital infrastructure;
- 3. Digital skills and jobs;
- 4. Digital trust and digital security; and
- 5. Digital government.

A number of new initiatives were introduced. The Start-up Plan, for example, was a concrete first step to encourage young and beginner entrepreneurs to set up new businesses in innovative sectors via initiatives such as tax shelters for start-ups and fiscal incentives for crowdfunding. Another initiative aimed to roll out eInvoicing for suppliers. Further initiatives are to be launched, such as the National Alliance for Digital Skills and Jobs, a plan for a high-speed internet roll-out, the Digital Health Valley, the Digital Act (a series of legislative proposals enabling, among other things, the use of electronic signatures and digital archiving, in order to replace paper-based solutions), the deployment of the federal cloud, a mobile authentication for eGovernment applications, a multi-directional digital communication platform and an open data strategy.

On 20 November 2020, the Belgian government announced to the Chamber of Representatives that the drafting of the action plan Digital Belgium 2.0 was ongoing. The new 'Smart Nation' Digital Strategy of the Belgian federal government is expected to be published in mid or late 2022, as the preparatory work was concluded in early 2022, in cooperation with the Digital Minds for Belgium, the group of experts from the public and private sectors advising the Secretary of State for Digitalisation in order to commonly draft a convergent, ambitious and inclusive digital strategy.

Federal eGovernment Strategy for the Social Sector (2009–present)

The Federal eGovernment Strategy for the Social Sector aims to create a single virtual public administration while respecting the privacy of users, as well as the specificities and competences of all government bodies and administrative layers.

Its main objective is to improve the delivery of public services for citizens and businesses by rendering it faster, more convenient, less constraining and more open.

The current strategy is outlined as follows:

- Formulation of specific objectives, such as optimal service delivery to citizens, limitation of administrative burden, and optimisation of the efficiency and effectiveness of public services;
- Explicit choice to opt for stakeholders' collaboration in order to create added value for users of eGovernment services;

- Common vision for the use of information in terms of information modelling, mandatory reporting of supposed errors, electronic exchange of information and single collection of information;
- Use of a common vision for information security and protection of privacy;
- Maximum use of common elements for networks, eID, interconnected middleware and related basic services;
- Role of the Crossroads Bank for Social Security (CBSS) as driver for eGovernment development in the social sector; and
- Establishment of a strong partnership among all social security institutions.

To meet the above-mentioned objectives, the Federal eGovernment Strategy was based in the past on four main strategic streams:

- 1st stream: re-engineering and integrating service delivery.
 This first stream focused on user needs, life events and simplification of all administrative procedures.
- 2nd stream: cooperation among all levels of government to provide integrated services across organisational boundaries and administrative layers. The second stream was based on two documents. The first one, the eGovernment Cooperation Agreement, was signed in March 2001 by the federal, regional and local authorities. It laid down a cooperation framework according to which all layers of government committed to using the same standards, the same identification infrastructure and the same eSignature. The second one, the Cooperation Agreement on the Principles of a Seamless eGovernment, signed in April 2006, set the objective of using those information and communication technologies (ICTs) that provide information to all citizens, businesses and public institutions in a user-friendly way.
- 3rd stream: simplification of administrative procedures for citizens and businesses.
- The third stream requires an increased exchange and sharing of both data and information among government departments and agencies.
- 4th stream: back-office integration and protection of personal data.

 The department or agency requiring specific data is considered most frequently as a trusted source by other administrations that may need such data. Hence, the department or agency in question is responsible for maintaining a personal data repository.

Communication Campaign on eBox

In February 2019, a new law introduced eBox. eBox is an electronic mailbox that can be used by public actors to send electronic communications to Belgian citizens, and registered companies and organisations, including registered mail. During the second half of 2019, the Belgian government developed a communication campaign on social media to promote private partners in the eBox ecosystem. These private partners offer to their clients the possibility to consult government documents with their applications. During this campaign, the following partners were promoted: Doccle, bpost bank and Trusto. Now, *Mijn Burgerprofiel* (by the Flemish region) and KBC (a bank) are also eBoxprivate partners/Human Interface Providers, offering the possibility to consult government documents on their applications. Subsequently, in December 2019, the government released a communication campaign on national television and radio aimed to raise awareness around eBox. In 2020, the Flemish government and local governments also started to use eBox as their electronic mailbox for sending official government documents.

Digital Wallonia Strategy (2015–2024)

On 6 December 2018, the Walloon government adopted the second version of its Digital Wallonia Strategy for the period 2019–2024. The strategy set the direction to allow the region of Wallonia to seize the socio-economic opportunities of the digital transformation. Just like the first version of 2015, which was based on the contributions

of more than 100 actors and organisations, Digital Wallonia 2019–2024 is the result of the work of the Digital Wallonia Champions.

This strategy is structured around five major goals:

- 1. Digital sector: the goal is to create a strong technological sector by means of a growth programme, which aims to give Wallonia's digital sector an international dimension;
- 2. Digital economy: the goal is to increase the digital capabilities of companies, which is essential for the development of connected commerce;
- 3. Connected and intelligent territory: the goal is to achieve full high-speed connectivity in Wallonia;
- 4. Open utilities: the goal is to foster open and transparent digital public services; and
- 5. Skills and employment: the goal is to develop Wallonia's citizens' digital skills.

More than 20 projects have been implemented as part of the Digital Wallonia Strategy. For example, Digital Wallonia 4 AI is now the roadmap for the development of artificial intelligence (AI). Moreover, while Digital Wallonia Industry of the Future is the framework for the adoption of the industry 4.0 by factories of the manufacturing sectors, Digital Wallonia Giga Region defines the priorities to offer high-speed fixed and mobile networks to all citizens and companies in Wallonia.

The strategy marked the Walloon government's stated ambition to transform Wallonia into a connected and smart territory, where technological companies are recognised as leaders and as the driving force behind the region's successful industrial transformation. In 2019, the new regional government confirmed Digital Wallonia as the digital roadmap for Wallonia. Consequently, the Digital Wallonia Strategy is now fully integrated into the political declaration of the Walloon government. Digital Wallonia also contributes to the digital objectives of the Declaration of Regional Politics 2019–2024 and Wallonia's Recovery Plan 2021–2024.

Master Plan and Digital Vision of the Ministry of the Wallonia-Brussels Federation

In May 2016, the Belgian government signed the first Master Plan of the Ministry of the Wallonia-Brussels Federation (MFWB). This Master Plan for public services represented a first-time effort to set up a global, integrated and consistent roadmap with precise goals, proper governance and adequate funding.

The digital part of the Master Plan is divided into eight areas, which constitute the pillars of the government's digital vision. The first pillar aims to work on the user experience, which includes both external users of the public service (e.g., citizens, non-marketers) and internal users. The second pillar concerns data, which represent a relevant component of the entire digital approach. The third pillar is mainly internal and focuses on the digital workplace. The fourth pillar is dedicated to innovation, while the fifth pillar concerns digital governance. The sixth pillar targets the digital culture of the organisation, including the acquisition of digital skills and management changes. The seventh pillar is devoted to the necessary resources, including the information technology (IT) infrastructure. The eighth and most important pillar is the digital platform, consisting of all the IT capabilities of the MFWB.

The government of the French community also included a chapter on digitalisation in its global strategy named 2020–2025 Strategy of the Government of the Wallonia-Brussels Federation. It focuses on six main pillars: governance, data, digital workplace, innovation, digital culture and users.

Flanders eGovernment Strategy

As to the Flemish Region, the eGovernment Strategy is under the responsibility of the Minister-President of the Flemish government. It is now managed by the Flanders Digital Agency, which was created in 2021 by the fusion of the Flanders Information Agency and the Information and Communication Technology (ICT) Department of the Flemish government. This agency was responsible for the eGovernment programme *Vlaanderen Radicaal Digitaal* (Radically Digital Flanders), an investment programme that ran from

2015 till 2017. The programme substantially increased the digital maturity of the Flemish government digital service provision. It also ensured that the Once-Only data collection principle (known in Flanders as the MAGDA principle) was adopted by the whole Flemish administration. In 2021, a follow-up investment programme, *Vlaanderen Radicaal Digitaal II*, was launched that will again invest EUR 30 million in the creation of a state-of-the-art digital government. As part of 'Vlaamse Veerkracht' (Flemish Resilience), the Flemish recovery plan after the COVID-19 crisis, further substantial investments are also being made in the digitalisation of the Flemish administration and the local authorities.

The main responsibility of the Flanders Digital Agency is to determine the strategic aims and priorities for the transformation of the Flemish government into a data-driven government, while taking part in eGovernment projects in an advisory and supportive role. The Agency is also in charge of developing eGovernment-related knowledge and skills, coordinating and providing incentives, and creating a generic eGovernment infrastructure to facilitate cooperation among the different entities within the Flemish administration and the local authorities. This generic eGovernment infrastructure consists of a number of eGovernment building blocks (electronic identification and trust services, electronic documents, eProcurement, authentic sources, etc.) that can be used as shared systems to improve existing (electronic) service delivery and streamline government operations. The Agency also provides additional funding for cross-departmental eGovernment projects (*Vlaanderen Radicaal Digitaal II* projects).

A key policy element in this eGovernment policy is the continued development of authentic sources of information (base registries). These are databases that can be used to obtain complete, correct and up-to-date data on businesses, natural persons, addresses, plots, buildings, maps, etc. A comprehensive system of Flemish authentic data sources and related services is in the process of being built.

The Flemish eGovernment strategy 2014–2019 aimed to 'radically digitally' transform the Flemish administration, by opting for a digital-first approach in the (increasingly mobile) delivery of new (or existing) Flemish government services. The new Flemish eGovernment strategy 2019–2024 aims to turn the Flemish government into a state-of-the-art digital government, by becoming more data-driven and further adopting the Once-Only principle to proactively deliver digital services to citizens and enterprises.

In addition, the Flemish Data Utility Company wants to stimulate citizens' trust in sharing data, by focusing on responsible and secure data sharing, as well as to support the Flemish economy by making data more findable and exchangeable, and by building bridges between citizens, companies and associations for better cooperation. The Region of Flanders acts as a neutral third partner and catalyst for innovative initiatives to stimulate economic and social prosperity.

Finally, an element of the Flemish Data Strategy is the establishment of personal data vaults. For this, Flanders is the first government to work with the data vaults of the Solid project of Sir Tim Berners-Lee, the inventor of the World Wide Web (www).

eGovernment Strategy of the Brussels-Capital Region

In May 2014, after the elections, the Brussels government unveiled its policy. Highlights included:

- Brussels Smart City, aiming to make Brussels the digital capital;
- The goal of progressing as much as possible in terms of online administrative management;
- The installation of hotspots at every public transport stop; and
- The extension and simplification of Irisbox, the regional one-stop-shop.

In July 2019, the Brussels government brought forward the new policy that, among other digital measures, seeks to address inequalities and poverty by automatically granting derivative rights resulting from the social status of the citizens. Furthermore, the new policy includes an entire section on the ambition of the Brussels Region to become a smart city. The transition towards becoming a smart city has multiple purposes:

- To democratise the access to digital wealth;
- To improve the quality, the performance and the synergies across public services;
- To reduce the costs and the consumption of available resources; and
- To streamline and improve the interactions between citizens and public administration.

Aware of the exponential increase in IT costs generated by the societal evolution towards a more digital world, as accentuated by the COVID-19 pandemic, the Brussels government approved in 2020 the implementation of a new IT governance. Its aim is to better meet the needs of users while adopting a harmonised and coordinated approach to regional IT with a view, among other things, to achieving economies of scale and limiting its environmental impact.

Also in 2020, the government approved the new Data Governance Strategy to coordinate, strengthen and professionalise data exchange within the Region and to ensure coherence across regional public administrations. The strategy includes:

- The establishment of a data governance structure called 'Regional Data Office';
- The development of a Brussels Data Exchange Platform; and
- The creation of a 'Brussels Code of Governance'.

The Data Exchange Platform aims to carry out innovative data management and development projects, particularly of the 'big data' type, for the benefit of public authorities. It will bring together three blocks of functionalities:

- The storage, processing and analysis of data;
- The tools enabling these exchanges to take place by promoting the flows management; and
- A catalogue enabling public authorities to communicate on the data available.

Strategic Plan of the Steering Body for the Flemish Information and ICT Policy

In June 2020, a new Strategic Plan of the Steering Body for the Flemish Information and ICT Policy was adopted by the Flemish government (VR 2020 2606 DOC.0643/1). The plan outlines the priorities with regards to information and ICT policy for the Flemish administration and local authorities for the period 2020–2024. The plan also implements the *Vlaanderen Radicaal Digitaal II* investment programme, which has been in use since 2021 to support the realisation of the objectives of this strategic plan. The management and follow-up of the Strategic Plan is under the responsibility of the Steering Body for the Flemish Information and ICT Policy.

Berlin Declaration on Digital Society and Value-Based Digital Government

In December 2020, the Belgian government signed the Berlin Declaration on Digital Society and Value-Based Digital Government, thus re-affirming its commitment – together with other EU Member States – to foster digital transformation in order to allow citizens and businesses to harness the benefits and opportunities offered by modern digital technologies. The Declaration aims to contribute to a value-based digital transformation by addressing and strengthening digital participation and digital inclusion in European societies.

3.2 Interoperability

BelgIF – Belgium's National Interoperability Framework

BelgIF is Belgium's official National Interoperability Framework, to be followed by all levels of public administration in Belgium.

In line with the revised European Interoperability Framework (EIF), the Belgian federal government and the regions have agreed to use the twelve principles of the EIF as the basis for defining their interoperability. A number of recommendations are derived from

these principles. The 47 recommendations are also endorsed within the context of BelgIF, as a valuable foundation to define the architecture, applications and solutions for data exchange and interoperability within and between the federal government, the communities and the regions.

The main integrators supporting the implementation of BelgIF are the Flanders Information Agency, the Banque Carrefour d'Échange de Données, the CBSS, the Federal Public Service Policy and Support (BOSA), the eHealth portal and FIDUS.

The BelgIF website also lists the main building blocks enabling and supporting interoperability in the country: the G-Cloud, the Federal Service Bus, FedMAN, eBirth and CSAM.

Digital Transformation Office Strategy

Within BOSA, the Digital Transformation Office (DTO) implements the Belgian Digital Agenda, which is based on the EU Digital Agenda 2020.

The DTO's main functions are:

- To support the federal government on digitalisation;
- To be a driving force for the innovation and digital transformation of the federal government; and
- To advise on technology and projects from an enterprise and citizen-centric perspective.

The DTO's main services are:

- Developing the digital strategy and standards for the federal government;
- Executing and monitoring the digital transformation of the federal government;
- Developing cross-cutting digital services and platforms such as digital communication services, life events, operations and infrastructure services; and
- Overseeing the G-Cloud Strategic Board and Committees while reporting to the federal government.

In order to support this strategy, the DTO, together with the Belgian regional governments, adopted the EIF as reference for BelgIF. The DTO mapped their architecture based on the European Interoperability Reference Architecture (EIRA). This has allowed the DTO to:

- Communicate the DTO enterprise architecture in a standardised way;
- Detect gaps in the existing DTO architecture;
- Make use of the available Solution Architecture Templates to complete the DTO architecture; and
- Compare the DTO architecture with the architecture of other Belgian and EU partners (provided their architecture is also built according to EIRA), and in this way, detect gaps and overlaps between different architectures.

3.3 Key enablers

3.3.1 Access to Public Information

Charter on Open Data Use by Local Authorities

The Smart Flanders Initiative included the Open Data Charter, which established 20 principles, such as open-by-default and machine-readable data, enabling local authorities to foster an open data ecosystem.

The Open Data Charter was approved in the summer of 2018 and ratified by 13 Flemish cities. To translate the Charter into practice, a dedicated document was developed with sample clauses to be used in tenders, concessions and contracts in order to make arrangements with suppliers about (Linked) open data. The use of these formulations was recommended, so as to strive for a more joint approach to open data.

3.3.2 eID and Trust Services

ITSME Agreement

In February 2021, BOSA renewed the agreement with Belgian Mobile ID, the developer of the mobile identity app ITSME, for a period of three years. This agreement responds to the federal government's intention to continue engaging in public-private partnerships. The use of the mobile identity app represents a win-win result for all stakeholders with the final objective of developing a future-oriented ecosystem.

3.3.3 Security Aspects

Strategic Plan 2019–2025

On 12 December 2019, the Belgian Data Protection Authority (DPA) released its Strategic Plan for the period 2019–2025. In the plan, the Belgian DPA described its vision for the years to come, defining its priorities and strategic objectives, and listing the necessary means to achieve said objectives.

The Belgian DPA focuses its actions on five sectors:

- Telecom and media;
- Public institutions;
- Direct marketing (including data brokers);
- Education; and
- Small- and medium-sized enterprises (SMEs).

The Belgian DPA indicated that its actions are focused on the following aspects of Regulation (EU) 2016/679:

- 1. The role of the data protection officer (DPO);
- 2. The lawfulness of data processing activities; and
- 3. Data subjects' rights, specifically the scope of some of these rights.

The societal priorities addressed by the Strategic Plan are the following:

- 1. Pictures and cameras;
- 2. Online data protection; and
- 3. Sensitive data (such as biometric data, health data, etc.).

3.3.4 Interconnection of Base Registries

No political communication has been adopted in this field to date.

3.3.5 eProcurement

eInvoicing Measures

The Directorate-General for Digital Transformation, part of BOSA, acts as a centre for technical expertise when it comes to eInvoicing and is a central player regarding the intergovernmental programme to promote eInvoicing in Belgium. It is the official Belgian Peppol authority and knowledge partner of the Belgian eInvoicing Event 2022.

Several measures to promote electronic invoicing have been taken by the various levels of Belgian government. From 1 November 2020, only electronic invoices are accepted for all public contracts awarded by the administrations and public organisations of the Brussels-Capital Region. All eInvoices sent to the Flemish government pass through Mercurius. In addition, the Flemish authorities have appointed a project team to coordinate the regional and local deployment of eInvoicing. Wallonia and the Wallonia-Brussels Federation have entrusted the eAdministration and Simplification Unit (eWBS) with the implementation of promotional and awareness-raising activities for electronic invoicing. This service invites Walloon and local administrations to register on the Mercurius platform in order to receive their invoices electronically. From 1 January 2022,

the WBFIN software implemented in the Walloon public service provides for the fully dematerialised handling of invoices.

3.4 Domain-Specific Political Communications

eHealth Action Plan 2019–2021

On 28 January 2019, the Inter-ministerial Conference for Public Health (*Conférence interministérielle Santé publique*, CIP SP) approved the eHealth Action Plan for 2019–2021. By approving this plan, the eight ministers that participated in the CIP SP reinforced their commitment to the digital transformation of the Belgian healthcare system.

The eHealth Action Plan is based on four main principles:

- Development of cooperation at the federal level on topics related to eHealth;
- Research of synergies among existing projects;
- Focus on operational efficiency; and
- Enhanced interest for European initiatives related to eHealth.

More information on the eHealth Action Plan for 2019–2021 can be found here. A new 2022 eHealth Action Plan is in preparation.

3.5 Emerging technologies

3.5.1 Artificial Intelligence (AI)

Digital Wallonia 4 AI

Following its launch in 2019, the main goal of Digital Wallonia 4 AI became to speed up the adoption of AI in Wallonia and develop the Walloon ecosystem around this new technology. The strategy is supported, among others, by the AI Network, Agoria, Infopôle Cluster TIC and the Wallonia Digital Agency.

The programme includes practical actions to support companies that want to incorporate AI into their business model by developing prototypes. In this regard, an important component of the programme is the support to businesses through awareness-raising and training initiatives.

For the first two years, the strategy was based on two main streams:

- Start AI: an analysis of the company's activities and identification of AI opportunities to improve the business process and create new products or services; and
- Springboard AI: implementation of Proof of Concepts (PoCs) on AI.

In 2021, new measures were put forward to reinforce the impact of Digital Wallonia 4 AI. The programme now revolves around four structuring axes:

- 1. Society and AI;
- 2. Companies and AI;
- 3. Training and AI; and
- 4. Partnership, innovation, research and AI.

Each axe foresees numerous initiatives, such as awareness-raising activities, training from beginner to advanced level, marketing support, call for projects and ecosystem cartography. Within this context, the TRAIL consortium aims to provide businesses with the expertise and tools developed by the five Walloon universities and four approved research centres active in the AI field.

Flanders' Action Plan on Artificial Intelligence

The Flemish Minister for Innovation, Philippe Muyters, has made EUR 32 million available in the coming years to put Flanders at the forefront of AI. The funds have been injected into the Flemish economy through a dedicated Flemish Action Plan on AI, signed in March 2019.

The Flemish plan is made up of three major components, namely research, industry applications and a supporting policy on education, awareness-raising and ethics:

- 1. **Research**: money will be invested in strengthening the internationally renowned Flemish AI research programmes. Special attention will be given to leading AI technology platforms with clear market potential;
- 2. **Industry applications**: according to the action plan, Flanders can be at the forefront of the application of AI in the business world. It aims to achieve this goal by acting as a laboratory for Flemish and international AI applications; and
- 3. **Education, awareness and ethics**: in Flanders, broad awareness is needed about the disruptive potential of AI technology. The action plan foresees several training programmes as well as the setting up of a dedicated AI think-tank to address the ethical implications of AI.

AI4Belgium

Whilst not a strategy, AI4Belgium is an important project that aims to promote a community-driven AI development across the country. Its goal is to enable Belgian citizens and organisations to seize the opportunities of AI, while responsibly facilitating the ongoing transition. That way, AI4Belgium has the ambition to position Belgium in the European AI landscape. The project has seven general objectives:

- 1. Providing policy support on ethics, regulation, skills and competences;
- 2. Providing a Belgian AI cartography;
- 3. Co-animating the Belgian AI community;
- 4. Collecting EU funding and connecting EU ecosystems;
- 5. Proposing concrete action for training in AI;
- 6. Contributing to the uptake of AI technologies by the industry; and
- 7. Promoting new products and services based on AI technologies.

3.5.2 Distributed ledger technologies

European Infrastructure for Blockchain Services

Belnet actively participated in the construction of and co-organised a series of events in 2021, with the aim of informing and meeting the Belgian blockchain community. The first event took place on 24 February 2021. These events are the result of a collaboration between Belnet, Smals, BOSA and KU Leuven, who have formed a Belgian consortium whose objective is to deepen the use of blockchain technologies in the fields of research, education and public services.

3.5.3 Big data

No political communication has been adopted in this field to date.

3.5.4 Cloud computing

G-Cloud Programme

The G-Cloud Programme is the result of a joint initiative of several public institutions: federal public services, social security institutions and the care sector. The G-Cloud is a hybrid cloud service which uses services provided by private companies operating in public cloud environments and services hosted in government datacentres. The G-Cloud is managed by the government, while its expansion and operational functioning largely rely on private sector services. The Cloud Governance Board controls its implementation.

The development of this government-based community cloud is laid out in a joint roadmap. The first-generation G-Cloud services became operative in March 2015 and many improvements are still being implemented.

The G-Cloud services operate in four different domains. The services offer is gradually being extended and improved, based on the actual needs of the participating institutions. Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS) are all included. The G-Cloud programme also encompasses synergy initiatives undertaken by the government in the field of classic ICT. New services will be added upon availability.

'Hard' infrastructure services ensure that government applications are able to run in a reliable physical environment including datacentre housing, servers and storage. The complete virtual capacity can be flexibly modified in a fully managed IaaS environment. These services are supplemented by a 'soft' infrastructure, which allows for high-quality back-ups, security, and identity as well as authorisation management.

PaaS services mainly focus on developing the new software generation, namely cloudenabled and cloud-native applications using the latest architecture. Generic online applications via SaaS for translations, document management, website management and IT service management, among others, are a priority.

3.5.5 *Internet of Things (IoT)*

No political communication has been adopted in this field to date.

3.5.6 High-performance computing

No political communication has been adopted in this field to date.

3.5.7 High-speed broadband connectivity

National Broadband Plan

On the proposal of the Minister of Telecommunications, a national plan for fixed and mobile broadband, in short the National Broadband Plan, was approved in principle on 30 April 2021. The plan was then granted final approval by the Belgian Council of Ministers on 20 October 2021. The plan's main objective is to eliminate the so-called 'white areas' in Belgium and thus contribute to the European connectivity targets by 2025.

The plan contains five axes:

- Mapping network coverage and identifying white areas;
- Facilitating the roll-out;
- Stimulating investments in the white areas;
- Creating a support base for fibre and 5G; and
- Setting up a permanent broadband unit within the Federal Public Service (FPS) Economy.

The FPS Economy and the Belgian National Regulatory Authority (NRA), the Belgian Institute for Postal Services and Telecommunications (BIPT), are in charge of implementing this plan for the period 2022–2024. On 15 July 2021, the government of the Brussels-Capital Region approved the mutualisation of the regional public fibre optic networks and their future commercialisation.



4 Digital Public Administration Legislation

4.1 Specific Legislation on Digital Public administration

Governance Framework for the Digital and Information Technology Policy

On 25 October 2018, the Parliament of the French Community adopted key legislation on the governance framework for the digital and information technology policy. The governance framework is an important piece of legislation, as:

- It defines general principles for the digital government transformation;
- It establishes a Strategic Council for Digital Transformation;
- It gives a legal basis to the governance structures; and
- It establishes a five-year strategic plan for digital and IT development in the French Community.

Brussels Ordinance Once-Only

Since the entry into force of the Ordinance of 17 July 2020, Brussels administrations and services must apply the Once-Only principle: they must use the unique identification key of natural or legal persons in all the administrations' forms, and no longer ask citizens and companies for information accessible in authentic sources. The ordinance also specifies that electronic forms and their annexes are deemed to have the same value as paper forms.

4.2 Interoperability

No legislation has been adopted in this field to date.

4.3 Key enablers

4.3.1 Access to Public Information

Law on the Right of Access to Administrative Documents

The right of access to documents held by the public sector is guaranteed by Article 32 of the Belgian Constitution and by the Law of 11 April 1994. It was amended in 1994 precisely to provide everyone with the right to consult any administrative document and get a copy, except in the cases and conditions stipulated by the laws, decrees or rulings referred to in Articles 39 and 134. Government agencies must respond immediately, or within thirty days in case the request is delayed or rejected.

The 1997 Law, related to the publication of information by provinces and municipalities, provided for the same type of transparency obligations for provinces and municipalities. Furthermore, the Flanders Region/Community (lastly amended in 2007), the French Community (lastly amended in 2007) and the Brussels-Capital Region (lastly amended in 2010) have also adopted their own legal acts on the right of access to administrative documents.

Law on the Reuse of Public Sector Information

The Law of 4 May 2016, adopted at federal level to replace the Law of 7 March 2007, transposed into Belgian law the general principles governing the reuse of public sector information in line with the provisions of the European Parliament and of the Council of 26 June 2013, amending Directive 2003/98/EC on the re-use of public sector information.

Royal Decree Establishing the Procedures and Time Limits for the Handling of Requests for Public Sector Information Reuse

The Royal Decree of 2 June 2019 regulated formal aspects related to the procedure and timelines for handling requests for public sector information reuse. In addition, regional and community governments too were required to transpose the directive on the reuse of public sector information. Flanders, the Brussels-Capital Region and the French- and German-speaking Communities also have their own decrees which were inspired from the relevant federal legislation. In 2016, the existing Flemish decree on reuse of public sector information was adapted, to be in line with the new European directive.

Open Data Decree of Wallonia and the Wallonia-Brussels Federation

On 12 July 2017, the Walloon Parliament adopted the Open Data Decree of the Walloon government and the Wallonia-Brussels Federation. Following this decree, public administrations will open their data in digital format so that they can be reused easily, whether by citizens, companies or the administrations themselves, such as local authorities.

Data Governance Act (European Regulation)

The negotiations on the text of the Data Governance Act were finished by the end of 2021 and its publication is foreseen during the French Presidency of the Council of the European Union.

Its Chapter II on the reuse, within the Union, of certain categories of data held by public sector bodies, concerns data held by public sector bodies which are protected on grounds of:

- (a) Commercial confidentiality, including business, professional and company secrets;
- (b) Statistical confidentiality;
- (c) Protection of intellectual property rights of third parties; or
- (d) Protection of personal data, insofar as such data fall outside the scope of Directive (EU) 2019/1024.

The future implementation of this regulation is currently discussed in order to prepare its entry into force at Belgian level.

4.3.2 eID and Trust Services

Law on Electronic Identification

The Belgian Law on Electronic Identification, dated 18 July 2017, completed Regulation (EU) No.°910/2014 on electronic identification and trust services for electronic transactions in the internal market (eIDAS Regulation). Under the new law:

- Each Belgian public sector body determined the required assurance level to grant access to its services and transmitted this information to the DTO;
- The DTO determined the assurance level of the Belgian electronic identification means to be notified to the European Commission and notified two Belgian electronic identification schemes; and
- The DTO, designated as the Belgian hub for IT cross-border exchange, transfers a minimum set of personal identification data to the node of another Member State when a user wants to access an online service in that second Member State.

To enable mobile identification, BOSA drew up the Royal Decree of 22 October 2017, which set out the rules governing the recognition of private electronic identification services, and in particular mobile services. Working with private partners allowed the government to keep costs under control and foster innovation. These external identification services, developed and operated by private sector companies, were added to the CSAM Platform devised by BOSA and complemented the already existing set of digital keys.

Legal Framework on Trusted Services

The eIDAS Regulation was completed by several clauses in Book XII of the Economy Code.

It is worth mentioning that on a regional level, a law on electronic forms and electronic identity (eID) card signature of December 2006, as well as two related decrees of July 2008 were adopted by the Walloon Parliament and the Walloon government, respectively. These decrees gave to electronic forms the same legal value as paper forms.

Moreover, the legal framework for the use of eID cards was set in a series of royal and ministerial decrees, among others: (i) the Law and the Royal Decree of 25 March 2003 on the Legal Framework for eID Cards; (ii) the Ministerial Decree on the Format of eID Cards of 26 March 2003; (iii) the Royal Decree on the Generalisation of eID Cards of 1 September 2004; and (iv) the Royal Decree on the eID Document for Belgian Children under 12 of 18 October 2006.

Law on the Use of Electronic Signature in Judicial and Extra-Judicial Proceedings

A law dating 20 October 2000 introduced the use of the electronic signature within judicial and extra-judicial proceedings. It was the first law to address the eSignature issue in Belgium. The law was lastly amended in September 2006.

4.3.3 Security aspects

Flemish Data Protection Decree

Adopted on 8 June 2018, the Flemish Data Protection Decree adapted existing Flemish decrees to the new legal rights and obligations introduced by the General Data Protection Regulation (Regulation (EU) 2016/679).

Law on the Protection of Private Life with regard to the Processing of Personal Data

The General Data Protection Regulation was completed by the new act of 3 December 2017 establishing the data protection authority and by the new act of 30 July 2018 on the protection of natural persons with regard to the processing of personal data.

Law on the Establishment of a Security Framework for the Information Systems Having General Interest

Adopted on 7 April 2019, the new Law on the Establishment of a Security Framework for the Information Systems Having General Interest transposes at federal level the EU Directive 2016/1148 (NIS Directive). It aims at enhancing the cybersecurity measures put in place by the public and private organisations that provide essential and digital services to the community. The transposing law sets obligations for providers of specific essential and digital services related to technical and organisational security measures in order to avoid incidents or limit their impact. Furthermore, it specifies the requirements for the development of security policies in accordance with ISO/IEC 27001. The law also foresees reporting obligations in case of incidents, annual audit obligations and the requirement to designate a contact point for reaching competent authorities.

4.3.4 Interconnection of Base Registries

Law on eBox

The Law of 15 August 2015 on the Incorporation and Organisation of a Federal Service Integrator organised the communication and integration of data from different data sources and promoted single data collection, central registration and access.

The eBox Law of 28 February 2019 stipulated the provisions concerning eBox, an electronic mailbox that can be used by public actors to exchange electronic communications with Belgian citizens, and registered companies and organisations, including registered mail. The Royal Decree of 2 June 2019 stipulated the conditions for private service providers to be accredited to make the eBox available to citizens.

As to the Walloon Region, the Decree of 27 March 2014 regarding electronic communications was amended in 2020, allowing the public administrations of the region to use the eBox system.

Flemish Public Governance Decree

Adopted on 7 December 2018, the Flemish Public Governance Decree significantly streamlined and simplified the digital government framework. The decree incorporated the previously separate decrees on the Steering Body for the Flemish Information and ICT Policy, on electronic intergovernmental data exchange and on the reuse of public sector information.

This decree, amongst other topics, dedicated extensive attention to the use of base registries and the adoption of the Once-Only principle by Flemish as well as local administrations. The decree defined the criteria for the recognition of Flemish base registries and specified how to manage them. It introduced the Once-Only obligation to use base registries in Flemish administrative processes (citizens may refuse to give their data more than once), with the obligation to notify back any errors found in these base registries. The decree has been adapted to take into account the new obligations introduced by Directive (EU) 2019/1024 on open data and the re-use of public sector information.

4.3.5 eProcurement

Law on Public Procurement and Several Public Works Contracts, Public Supply Contracts and Public Service Contracts

The Law of 17 June 2016 on Public Procurement, published in the Belgian Monitor of 14 July 2016, was last amended by the Law of 7 April 2019. The changes concerned the inclusion of the definition of eInvoice as well as its essential elements. Also, the new law introduced several amendments to the third chapter of the Law of 17 June 2016 concerning Concession Contracts.

eInvoicing Legislation

In Belgium, the responsible entity for eInvoicing is BOSA. However, other public services at federal and regional levels may share part of the responsibility.

There is no overall legislation in place for the country as a whole. At federal level, the Law of 7 April 2019, published in the Belgian Monitor of 16 April 2019 and transposing Directive 2014/55/EU into national law, requires contracting authorities to receive and process electronic invoices, following the European standard. Despite not being mandatory, economic operators are encouraged to submit eInvoices, and central, regional as well as local contracting authorities and entities are encouraged to receive them. Differently, in Flanders B2G eInvoicing is mandatory for regional contracting authorities.

A website has been created by the Federal Agency for Administrative Simplification to guide enterprises, private persons and governments through the concept of electronic invoicing and its future applications.

In 2016, the European Interoperability Framework PEPPOL was implemented in Belgium, with the Directorate-General Digital Transformation of BOSA taking up the role of PEPPOL Authority (PA) for Belgium.

The central gateway between the private and public sectors (B2G) is the Mercurius platform, which acts as an electronic mailroom for invoices sent to all Belgian public entities. This platform is accompanied by a web portal, which allows public service

suppliers who have not yet adopted eInvoicing to send their electronic invoices in the required structured format. For the receipt of incoming invoices, the Flemish Region has decided to collaborate with the federal level and to also use the Mercurius platform. At federal level, the Hermes Platform will be made available to companies in Belgium. This free tool will allow them to convert electronic XML invoices to PDF format. This should be seen as an incentive to initiate structured exchanges, while waiting for the IT sector to develop the appropriate reception and processing tools, and market them in attractive terms.

Law on the Acceptance of Bids, Information to Candidates and Tenderers, and Time Limits on Public Procurement and Several Public Works Contracts, Public Supply Contracts and Public Service Contracts

The legislation related to public procurement was amended several times over the last few years. It transposed into Belgian law the EU Directives on public procurement, i.e. (i) Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC; (ii) Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC; and (iii) Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts. The legislation defined the use of electronic tools in public procurement and concession contracts, such as electronic publications of tender opportunities, electronic accessibility of procurement documents, electronic submissions of tenders, acceptance of eInvoices and electronic means of procurement as having the same legal value as that of traditional means. In addition, it defined new concepts based on public procurement directives, more specifically electronic auctions and the Dynamic Purchasing System.

4.4 Domain-Specific Legislation

Decree on Primary Care

The new Decree on Primary Care, which was adopted by the plenary on 3 April 2019, laid down the provisions for the organisation of primary care in Flanders, and introduced a digital care and support plan for patients.

Amendments to the Telecommunications Act

In December 2021, a draft law modernising Belgium's telecommunications legislation and transposing a significant part of the European rules was approved. The new series of provisions aim to better inform the consumer, to better fight cybercrime, and to promote the development of 5G and access for all to high-speed internet with a view to creating a 'gigabit society'. The text also ensures the achievement of the European objective to complete the 5G coverage of the territory and to ensure the availability to all households of an internet connection of at least 100 Mbps through very high-capacity networks.

4.5 Emerging technologies

4.5.1 Artificial Intelligence (AI)

No legislation has been adopted in this field to date.

4.5.2 Distributed ledger technologies

No legislation has been adopted in this field to date.

4.5.3 Big data

No legislation has been adopted in this field to date.

4.5.4 Cloud computing

No legislation has been adopted in this field to date.

4.5.5 Internet of Things (IoT)

No legislation has been adopted in this field to date.

4.5.6 High-performance computing

No legislation has been adopted in this field to date.

4.5.7 High-speed broadband connectivity

No legislation has been adopted in this field to date.



5 Digital Public Administration Governance

For more details on Belgium's responsible bodies for digital policy and interoperability, its main actors, as well as relevant digital initiatives, please visit the NIFO collection on Joinup.

5.1 National

Directorate-General for Digital Transformation

The Directorate-General for Digital Transformation, which is part of BOSA, supports the government and federal organisations in their digitisation drive. It is the driving force behind the evolution and the digital reforms of the federal government. This DG provides advice and develops projects in connection with the new technologies, paying particular attention to citizens and businesses. It is also the main body responsible for coordinating interoperability initiatives. BOSA is also in charge of the implementation of parts of the eGovernment Strategy pertaining to several elements of the common infrastructure (e.g. the federal portal Belgium.be and the Universal Messaging Engine middleware).

The Directorate-General for Digital Transformation also includes a committee whose responsibility is to coordinate base registries interconnection. It is an entity that, by law, is charged with the organisation of eGovernment in Belgium, data electronic exchange, as well as the integrated unlocking of data. It has become the most significant actor regarding public sector services, especially after the passing of a law in 2014 that makes it mandatory for public entities to store their authoritative source data. In this context, BOSA facilitates the dialogue between base registries' owners, the operational units involved in processing base registry data and the consumers of base registries data. It covers four main tasks:

- 1. Uniting all national service integrators (three federal and one for every region);
- 2. Coordinating the working methods of service integrators;
- 3. Monitoring all authoritative data disclosed by service integrators (not bilateral data exchanged between governments/departments); and
- 4. Establishing the circle of trust between service integrators.

Agency for Administrative Simplification

Created in December 1998, the Agency for Administrative Simplification assists government departments and bodies in their endeavours to simplify their administrative internal and external procedures. More specifically, it is in charge of simplifying administrative procedures for businesses, especially SMEs and the self-employed.

Crossroads Bank for Social Security

The Crossroads Bank for Social Security (CBSS) supports the implementation of eGovernment services in the social sector. In particular, it supports integrated services across all public institutions dealing with social security. The CBSS also manages Registry bis, which contains a database of persons who do not have the Belgian nationality, yet who live in Belgium and are registered with Belgian social security.

Federal Departments, Ministries and Agencies

The Federal Departments, Ministries and Agencies are responsible for the implementation of individual or joint eGovernment projects falling within their respective areas of competence.

Belnet

The government agency Belnet, part of the Federal Science Policy Office, provides secure internet access with very high bandwidth to end users in education institutions,

research centres and public administrations. In addition, Belnet is in charge of operating the federal network FedMAN.

Smals

Smals is a not-for-profit organisation realising IT projects in the domains of eGovernment and eHealth. Smals is the main IT provider of the Belgian federal government and acts as a contracting authority.

Federal Public Service of the Interior

The Federal Public Service of the Interior is tasked with coordinating the National Registry of Natural Persons, which handles the master personal data of natural and legal persons. The National Registry contains data from several registries: the Population Registry, the Foreigner Registry and a Waiting Registry. The municipalities (and the Immigration Office for the last category of the population) are the ones responsible for recording the information. Everyone whose data is maintained in the National Registry has a unique identification code, i.e. the national registry number. The Once-Only principle is applied to the registry. The consultation of data in the National Registry is subject to authorisation from the relevant sectoral committee established within the Commission for the Protection of Privacy, which is competent to grant access to the National Registry information or communication thereof. The National Registry is managed by the Directorate for Institutions and Population, which manages the central database in which all the information related to the population is recorded.

Federal Public Service Mobility and Transport

The Federal Public Service Mobility and Transport is responsible for the coordination of the Vehicle Registry, which handles master data for vehicles. In cooperation with the Vehicles Registration Directorate, the department is also responsible for the management of the Crossroads Bank of Vehicles Registry, which handles master data of vehicles. The Vehicle Registry functions under the authority of the (federal) central government, the Vehicles Registration Directorate and the FPS Mobility and Transport. The service has been fully integrated through the WebDIV application, an IT application developed by the FPS Mobility and Transport enabling insurance companies, agents, brokers and leasing companies to register their clients' cars online.

Federal Public Service Economy

The Federal Public Service Economy is responsible for the coordination of the Crossroads Bank for Enterprises Registry, which handles master data for business. The Crossroads Bank for Enterprises (CBE) is an authentic source of information that stores all basic data regarding enterprises and their individual business locations. It incorporates data from the former National Registry of Legal Entities, the former Trade Registry, the VAT Registry and the social security administration. All the existing data from the abovementioned sources were combined by the FPS Economy in the CBE, which provides a truly centralised 'crossroad' of data on companies. It is kept up to date by the authorised organisations that input the data.

The FPS Economy is also designated as supervisory body for (qualified) trust services as mentioned in Article 17 of the eIDAS Regulation.

(Federal) Social Security

The (Federal) Social Security is responsible for the coordination of the CBSS. The CBSS Registry is complementary and subsidiary to the National Registry. Over the past 17 years, a major business process re-engineering and computerisation effort has been undertaken by about 3 000 Belgian public and private actors in the social sector from different levels (national, regional and local), under the coordination of the CBSS.

Federal Public Service Finance's National Property Documentation Centre

The National Property Documentation Centre is responsible for the coordination of the Land Registry, which handles master data for land and parcels.

Court of Audit

The Court of Audit is a body of the Belgian Parliament. It exerts external control on the budgetary, accounting and financial operations of the Federal State, the regions, the Communities, the provinces (but not the municipalities), as well as any institution depending on them. It can therefore scrutinise ICT- and eGovernment-related projects.

Parliamentary Committees

At federal level, the ICT- and eGovernment-related projects are examined by the Committee for General and Home Affairs, and the Civil Service of the House of Representatives and the Committee for Home and Administrative affairs of the Senate.

Data Protection Authority

Since 25 May 2018, the Data Protection Authority (DPA) has replaced the Commission for the Protection of Privacy (Privacy Commission). With the Act of 3 December 2017, the DPA became the new Belgian independent supervisory authority in charge of ensuring compliance with the fundamental principles of personal data protection.

Artificial Intelligence for the Common Good Institute

In the spring of 2021, the Brussels Region, the ULB and VUB launched the Artificial Intelligence for the Common Good Institute (FARI). FARI and the Brussels Regional Informatics Centre (BRIC) are working together on a roadmap for the development of AI in the Brussels Region. The objective is to have a development framework, to guarantee the coherence of projects and also to rely on knowledge sharing. The collaboration concerns:

- Support services (e.g. training and development of PoCs of software solutions) to profit and non-profit organisations, and public organisations in areas such as AI education, healthcare and employment in the Brussels Region;
- Creation of a multidisciplinary team of experts on AI data and robotics to support the public services provided by the Brussels-Capital Region and the digital transition; and
- AI services to local authorities, and in particular support to the digital twins, training and consulting activities related to citizen services.

5.2 Subnational (Federal, Regional and Local)

Regional and Community Authorities

Political responsibility for eGovernment in the Belgium's regions is held directly by the 'Minister-Presidents' (Prime Ministers) of the three regions: the Flemish Region, the Walloon Region and the Brussels-Capital Region. Within their own areas of competence, the Wallonia-Brussels French Community (WBF), in charge of education and culture policies for the French Community in Belgium, and the German-speaking Community are also working on enabling some of their services. The institutions of the Flemish Community were merged with those of the Flemish Region in 1980.

Steering Body for the Flemish Information and ICT Policy

In 2018, the Steering Body for the Flemish Information and ICT Policy became fully active as the main governance body for the Flemish information and ICT policy. It adopted a number of important new policies, such as an application programming interface (API) first strategy for service development and a public cloud first strategy for service deployment. In 2020, a new Strategic Plan for the Steering Body was adopted

that outlines the priorities with regard to information and ICT policy for the Flemish administration and local authorities for the period 2020–2024. In the framework of this strategic plan, a digital government security strategy and a government data strategy have already been defined, while a digital government service delivery strategy is in the process of being elaborated.

Regional Units/Bodies

Regional eGovernment efforts are coordinated by dedicated units or bodies set up by the regional executives: the Flanders Digital Agency in Flanders, the eAdministration and Simplification Unit (eWBS) in Wallonia and the Wallonia-Brussels Federation, and BRIC in the Brussels-Capital Region.

In 2020, the Walloon government decided to set up a CIO function for the Walloon Public Service, in charge of addressing the challenges related to digital administration. This is a major strategic decision in the context of the digital transformation of the Walloon administration.

Governance Committees for the Brussels-Capital Region

To implement the new IT governance mentioned above, the Brussels-Capital Region has set up three committees:

- 1. The IT Steering Committee, made up of the ten regional institutions with the largest IT budgets, which is responsible for ensuring transversality by integrating the realities of the various regional administrations and aiming to harmonise and reuse all types of mutualisable components available for the implementation of IT projects within the Region;
- 2. The Regional Committee for Advice and Validation of Architecture and Data Exchange, which is responsible for guaranteeing IT architectural coherence based on the different regional realities and market trends; and
- 3. The Digital and IT Steering Committee, which is responsible for identifying the main challenges facing the Brussels-Capital Region in terms of digital transition.

From now on, BRIC, currently IT services producer and provider, will embody this new open and collaborative governance and become the orchestrator of IT services for the entire Brussels ecosystem. As such, it sits on all three committees. In this context, BRIC is setting up a single Citizen Relationship Management (CRM Salesforce) Platform for the Brussels-Capital Region. This platform will make available to citizens and companies innovative and efficient services based on data from authentic sources, in compliance with the Once-Only principle and the GDPR. It will ensure coherence and mutualisation, both in terms of project implementation and the management of operations necessary for the proper functioning of the platform. The deployment of 16 projects within this platform by 2024 is financed by the Recovery and Resilience Facility.

Wallonia Digital Agency

At the end of 2014, the Walloon Agency of Telecommunications became the Walloon Digital Agency (*Agence du numérique*), a subsidiary of the Enterprise and Innovation Agency (AEI) which is in charge of promoting the development of ICT in the region, while also providing operational and expert support to Walloon administrations and municipalities.

Brussels Regional IT Procurement Office

The Brussels government has asked BRIC to set up a Regional IT Procurement Office for all IT purchases in the region. The expected benefits are:

- To increase the negotiating power with the main IT suppliers and thus make substantial savings;
- To limit the environmental impact of IT equipment, in particular through the development of a circular management of the latter; and

• To streamline the tools, software, infrastructure and IT architecture.



6 Digital Public Administration Infrastructure

6.1 Portals

6.1.1 National Portals

Federal Portal Belgium.be

The Federal Portal was first launched in November 2002. Originally, it served both as institutional site of the Federal government and as eGovernment portal providing a single and multilingual entry point to information and services provided by the Federal government to citizens, businesses and civil servants.

A new version of the portal was released in May 2008, following a review of the entire system. The objective was to simplify the way citizens and businesses communicated and interacted with the administration. The information, available in Dutch, English, French and German, is displayed in a more user-friendly manner, according to the main life events of both citizens and businesses. Apart from this new user-centric presentation, a powerful search engine allows to perform searches not only within the portal, but also outside of it. Also, a major section of the new portal contains links to all the public services available online (eServices). Users looking for a specific eService can refine their search by theme, target group and/or level of government involved. Several of these eServices are secured and thus require authentication (site token or electronic ID card).

The upgrade process was technically managed by the Federal Government Department for Information and Communication Technology (Fedict). Fedict has been incorporated into BOSA – Directorate-General for Digital Transformation. On the other hand, the external communication service of the Chancellery of the Prime Minister provided the content, in close collaboration with other federal government departments.

FedWeb Portal

FedWeb, primarily meant for government and administrations' staff, offers general information about working conditions, news, regulations, publications, online services, etc. The FedWeb newsletter, FedWeb Light, offers regular information regarding personnel and organisation.

Single Point of Contact Portal

The Belgian government launched the first version of the Single Point of Contact Portal for businesses in 2016. It contains practical information that helps users to set up business activities in Belgium. It is continuously updated with more services being added.

MvPension

MyPension.be is the online pension portal that contains all the personalised information about Belgians' statutory supplementary pensions. It is the result of a close collaboration between the Federal Pensions Service, the National Institute for Social Insurance for the Self-employed (NISSE) and Sigedis.

MyBEnefits

The MyBEnefits application allows citizens to justify their status when, for example, they apply for a cost reduction, consult the list of available benefits or report a benefit of which they are aware of.

Social Security Portal

The Social Security Portal offers citizens an extensive, completely updated website structured around three main themes: private life, professional life and health. Every page offers easy navigation to theme-related subjects, external organisations and institutions. The website is the result of a collaboration between all public social security institutions and the FPS Social Security.

MyHealth Portal

MyHealth is a secure online health portal, also called Personal Health Viewer. Through this central gateway citizens can obtain information about their health, including their health condition, administrative information, information about patient associations, etc.

Open Data Common Portal

The Open Data Common Portal has been created to enable the use and sharing of public data. The portal maintenance is under the responsibility of the Wallonia Digital Agency, which is member of the Open Data Coordination Committee.

In March 2021, the portal summed up around 650 datasets which have been consulted by more than 11 000 users. Coordination with the federal level, especially the FPS Policy and Support, is also organised to provide data for the Open Data Common Portal.

6.1.2 Subnational Portals

Walloon Regional Portal

The Walloon Regional Portal is the main source of information about Wallonia for citizens and businesses. It contains a series of information, ranging from a general overview of Wallonia to more specific step-by-step guidance for citizens and businesses for completing administrative procedures. To that end, the portal provides access to a dedicated website for carrying out administrative procedures, *Mon Espace* (My Space), that requires a secured authentication. Finally, it also includes a detailed guide to the main institutions of the Walloon region, a RSS feed of the main news in the region and a dedicated page for entrepreneurship in Wallonia.

Mon Espace Walloon Portal

Mon Espace is Wallonia's dedicated website for citizens and businesses to interact with public administrations. Once logged in, users have access to online administrative procedures, and can carry them out and follow their processing by the administration. Also, they can create their reusable profile, and access their own data and those of their company. Mon Espace reuses data from the National Registry to pre-fill online forms and is connected to eBox, the secure federal mailbox, and to other Belgian portals such as MyMinFin, MySanté and the portal of the Wallonia-Brussels Federation.

A new roadmap for 2021–2025 has been validated in the context of the Recovery Plan for Wallonia. The objectives are to make *Mon Espace* the Walloon one-stop-shop for administrative procedures and to provide new efficient services, including personalised and proactive services, offering citizens and businesses an enhanced user experience.

Mon Espace in the Wallonia-Brussels Federation

The portal, developed by the Ministry of the Wallonia-Brussels Federation, is devoted to teachers and citizens. After authentication, they can manage their administrative procedures, monitor them and interact with the administration. The portal will be extended to schools in 2022 and associations in 2023.

Flemish Regional Portal

The eGovernment portal of the Flemish regional government was launched in February 2003. Built around its users' life events to best meet their needs, this portal provides citizens and businesses easy access to information and regional public services in Dutch. The portal is constantly being updated and can be seen as a reference point for all Flemish government organisations that want to make their digital services simpler, more recognisable and optimally accessible for their customers and for citizens. An important new addition to this portal is *Mijn Burgerprofiel* (My citizen profile), a user-friendly and scalable plug-and-play website feature that allows for data consultation in a safe and reliable manner, allowing citizens to see what the government knows about them and what the government has done and is doing for them. *Mijn Burgerprofiel* is accessible both through the portal and through local governments websites, thus achieving the no-wrong-door goal of integrated government service delivery.

Brussels-Capital Region Portal

The eGovernment Portal Be Home (*Chez Vous*) of the Brussels-Capital Region provides a range of information in Dutch, English, French, German and Spanish, as well as regional online services arranged by theme; it is available in English, Dutch and French. Since 2021, the be.brussels portal offers citizens and companies a centralised catalogue of regional and municipal administrative procedures in Brussels.

Many online forms and procedures can be processed electronically via the Irisbox one-stop-shop. On 17 November 2011, the Brussels government decided that all forms should be available through that platform.

My Brussels App

Launched in 2020, 'My Brussels' is a free application that allows Brussels residents to access a vast array of information and services. In 2021, the app was improved with new features: beside weather, traffic information and public transport timetables, My Brussels now offers data on animal shelters, public job placement agencies, public computer spaces, public toilets and waste sorting.

Brussels Data Platform

datastore.brussels is the regional platform for opening up and sharing data and services in the Brussels-Capital Region. This platform aims to meet the needs of both users and data producers, allowing them to open up and freely reuse the data and services available for the Brussels-Capital Region. In addition to making data and services available, as a central portal in the Brussels-Capital Region, datastore.brussels also aims to be a tool that enables organisations to introduce datasets and services that exist but are not freely accessible, like the Fidus services that enable public bodies to exchange personal data in compliance with the Once-Only principle and the GDPR.

Users of datastore.brussels are completely free to browse the portal, and search and consult data and web services, with no obligation to register. They can also create a profile allowing them to make suggestions, as well as subscribe to the news of one or more organisations or datasets, so they can keep up to date with what's new on the portal.

Open.budgets

In May 2019, the Brussels-Capital Region sought to ensure greater transparency of its administrations by adopting the Joint Decree and Ordinance of 16 May 2019 on the Publicity of the Administration in the Brussels Institutions. Inventories of public contracts and subsidies granted are thus published each year by the administrations on the https://datastore.brussels platform giving access to the region's open data. These expenditure inventories are then collected and centralised in the cadastre of public expenditure. The data can be consulted and downloaded on the site https://openbudgets.be.brussels.

Business Support Portal for the Walloon Region

The Business Support Portal, managed by the Enterprise and Innovation Agency (the former Economic Stimulation Agency or ASE), offers to businesses and entrepreneurs all kinds of information about management, financing, development and support by public authorities.

Wallonia-Brussels Federation

The new portal of the French Community was launched in September 2014 and provides information both to business and citizens related to the competences within the scope of the WBF.

The Open Data Wallonie-Bruxelles (ODWB) Portal is an open data portal shared by the Walloon Region and the Wallonia-Brussels Federation. It is part of a proactive approach to data governance, aimed at facilitating access to information managed or generated by public service agencies, as a basis for transparent public action. It represents both a tool for increased citizen participation and an incentive to create innovative services. The data gathered within this portal are aggregated at the level of the federal portal (as is the case for the Flemish and Brussels portals), which is itself taken up at European level.

German-Speaking Community of Belgians Portal

The eGovernment Portal of the German-speaking Community provides a range of information both to businesses and citizens concerning the community's administrative procedures and services, as well as administrative forms to download.

Flemish Portal for Enterprises and Entrepreneurs

The new Flemish Portal for Enterprises and Entrepreneurs uses the federal Crossroads Bank for Enterprises as a base registry. It contains various services that Flemish enterprises can benefit from.

6.2 Networks

Belnet Network

The Belnet network operates a full optical fibre network with connections of more than ten Gbit/s, offering virtually unlimited bandwidth for internet access. The network is mainly open to researchers, academics and students at nearly 200 research and education institutions, government/public services and research centres. Belnet connectivity includes access to the pan-European research network Géant and the American Internet2.

Belnet also operates a central infrastructure for exchanging internet traffic for internet service and content providers and large private companies, called the Belgian National Internet Exchange or BNIX. Other activities include the Federal Metropolitan Area Network (FedMAN), the supercomputing network GRID and the Belgian National Computer Emergency Response Team.

FedMAN

FedMAN was launched by Fedict, currently known as BOSA's Directorate-General for Digital Transformation, in September 2002. It is the Federal Metropolitan Area Network which connects the administrations of 15 federal Ministries and government service buildings in Brussels. FedMAN offers to 80 000 federal civil servants a shared high-speed network and a number of related services supporting the delivery of eGovernment, including access to the Trans European Services for Telematics between Administrations (TESTA) network of the European Union.

The first level of FedMAN is a central platform, while the second level enables the creation of virtual networks for each federal administration. Federal departments have the right to use the central platform to create their own security environments.

An upgraded version of FedMAN, FedMAN II, whose capacities are ten times superior to the original version, has been operational since March 2006. It is intended to allow for the launch of new services, such as the Voice over IP, and for infrastructure sharing between different federal departments.

Federal Service Bus

The Federal Service Bus (FBS), which started in 2006, is service-oriented and allows for a simplified connection among the various applications and the federal administration's IT data files. At the same time, the FSB is set to ensure the follow-up of specific processes. Access should also be open to private companies, by means of an authorisation.

IRISnet

IRISnet is the name of the Brussels-Capital Region broadband network, designed to simplify telecommunications among regional public bodies. It is built upon fibre optic cables and uses the latest technologies to support data, voice and video streaming flows. A procurement procedure was launched in 2022 to find a new private partner for the next 15 years.

wifi.brussels and the Fiber to the School Project

Complementary to IRISnet and designed to close the digital divide, a WiFi network called wifi.brussels has been deployed on 221 sites, among which 15 town halls, 3 sport halls, 17 squares, many meeting rooms of a series of public administrations and 70 metro stations. An access point is also available for refugees who are lining up in front of the administrations in charge of welcoming them.

Moreover, the Brussels-Capital Region pursues the programme Fiber to the School, which aims to connect all secondary schools of the Brussels-Capital Region to the regional optical fiber network IRISnet and still maintain the existing connections of more than 300 primary schools to the IRISnet network through vDSL connections. The reinforcement of the internal connectivity of schools (WiFi access points) in secondary schools started in 2021 within the framework of the national Recovery and Resilience Facility.

6.3 Data Exchange

Federal Service Bus

The Federal Service Bus (FSB) aims to be the gateway to the main (authentic) data sources of the federal government. More specifically, the service puts a platform at the disposal of the federal administrations, bodies and institutions performing a task of general interest, to allow for the consultation or standardised exchange of data, from application to application, via the internet. The platform makes web services available in a harmonised and secure manner that offer seamless access to (authentic) data sources.

Kruispuntbank Vlaanderen

The Flanders Crossroads Bank (*Kruispuntbank Vlaanderen*) is the new Flemish data exchange platform. It fulfils four basic functions: (i) it makes data easily accessible in the form that best suits everyone's needs (to this aim, standardised APIs are used); (ii) it ensures the quality of the data (by using standards elaborated within OSLO or INSPIRE); (iii) it ensures the integrity of the data, meaning that no third party has the possibility to change the data during transport; and (iv) in case of personal data, it supports its partners in the confidential and secure processing of the data throughout

the entire process. The platform results from the merger of the existing MAGDA and GDI platforms.

Fidus

Fidus is the name given to the regional services integrator created by the relevant ordinance in 2014, i.e. the legal administrator of electronic data exchanges from and to institutions in the Brussels-Capital Region, provided that these data come from authentic sources or are personal data. This initiative aims to regulate and encourage electronic data exchanges between public bodies, in accordance with the Once-Only principle, with a view to ensuring administrative simplification, on the one hand, and protecting personal details, on the other.

6.4 eID and Trust Services

Belgian eID card

The Belgian eID card contains all the information included on the traditional identity card, and serves as an identification and travel document. It is a smart card containing two certificates: one for the authentication and another one for generating qualified electronic signatures (eIDAS Regulation). The Belgian eID thus gives access to restricted online services making internet use safer by providing an online means of identification and enables the electronic submission of official documents as well as other related services. The national registry number, that is the unique identification number for Belgian citizens, appears on the eID card and its microchip, and is used as unique identifier in the certificate of the eID card.

It is to be noted that almost all of the (qualified) electronic signature applications in the Belgian eGovernment sector make use of the Belgian eID card. On the federal eGovernment Portal, multiple levels of security exist, depending on the type of eService delivered: (1) no password required; (2) password required; (3) password and token required; (4) eID only; (5) unconnected eID; and (6) mobile authorisation (time-based one-time password (TOTP).

The eID card can only be issued for natural persons. On 16 March 2009, Belgium introduced an eID card for the under-12s (Kids-ID), which, in addition to the classic ID functions, can provide access to children-only internet chat rooms and to a range of emergency phone numbers, should the child be in danger. Furthermore, since July 2008, foreign nationals living in Belgium are entitled to replace their old paper identity card with versatile and smart eID cards. These cards come in two varieties: for EU and non-EU citizens.

The federal administration approves wireless alternatives to the wired eID reader. A first solution was approved in 2015 and integrated in the Federal Authentication Service (FAS). eGovernment applications that make use of the FAS can benefit from the new wireless authentication service. This is already the case for the Irisbox one-stop-shop of the Brussels-Capital Region.

Federal Signing Box

The Federal Signing Box application allows users to sign files electronically (with qualified electronic signature) and verify signed files by means of their eID. In addition, the Federal Trust Services (FTS), offered by BOSA, allow users to easily and reliably integrate electronic signatures, seals and time stamps using webservices or software.

eSignBox

The eSignBox tool, created by the Walloon public authorities, allows for easy digital signing of electronic documents and files (with qualified electronic signature). In practice, users can sign a file but also check an existing signed file and its certificate.

Digital Signature Platform of Flanders

The Digital Signature Platform of Flanders was launched on 20 September 2010 by the Flemish eGovernment and ICT-Management Unit (*Entiteit eGovernment en ICT-Beheer*, e-IB). Since then, all public authorities of the regional government of Flanders have been able to digitally sign documents in a legal way via the platform (with qualified electronic signature). More specifically, the platform converts the files it receives into ready-to-sign PDF documents which can be distributed to and signed by the various parties using their Belgian eID cards. Citizens, businesses and the external partners of the Flemish government benefit from many advantages such as legal validity, user friendliness, the possibility of signing by multiple parties, support for different document formats, open standards and a greener ICT.

Digital Certificates

The commercial certification authorities' certificates can be used in a number of eGovernment applications, as an alternative to eID card signatures. Since 2007, the federal government has recognised three private certification authorities complying with the required standards regarding qualified certificates, as defined in the Belgian eSignatures Act. Their certificates are used for certain eGovernment applications, in particular tax and social security eServices. Like the eID, these digital certificates contain certain identity data, the public key connected with the certificate holder, the public key usage, and the validity and category of the certificate. They are issued to natural persons and legal entities.

Biometric Passports

In November 2004, Belgium scored a world first by becoming the first country to start issuing electronic passports complying with the recommendations of the International Civil Aviation Organisation (ICAO). These passports featured a contact-less microchip storing personal identification data and biometric information (facial image of the holder). Fingerprints were added at a later stage. In 2022, Belgium launched the new version of its passport, containing 48 security elements.

ITSME Mobile Application

The ITSME Mobile Application allows citizens to securely authenticate themselves before accessing various digital public services.

Digital Keys

The Digital Keys provided by CSAM allow citizens and businesses to securely log in to various platforms and websites offering public services. All digital keys offered by CSAM are secure for logging on to government online services. CSAM is also responsible for providing the following services: FAS, for handling users' identification and authentication; BTB, for managing managers' access within a company or organisation; and SSM, for managing mandates that a user gives to another entity in order to act on their behalf.

Digital Wallet

The Federal Secretary of State for Digitalisation announced the creation of a Digital Wallet, in one digital platform, by 2023 – regardless of Belgium's institutional complexity. Belgium intends to be a frontrunner when it comes to the EU Digital Wallet. The idea is to connect the methods, tools and data of all the public sector bodies in Belgium in one Digital Wallet, a one-stop-shop where every Belgian can access his or her eID, driver's license or visa, among others. It will also allow mobile signatures and include the option to request official documents.

6.5 eProcurement

Public Procurement Portal

Launched at the beginning of 2008, the Belgian Public Procurement Portal provides links to portals and platforms which currently cover three of the main aspects of the procurement process, namely eNotification, eTendering and eCatalogue. The eProcurement platform can be used by federal, regional as well as local public entities for public procurement purposes. Companies can access the platform for new public contracts, for submitting their offers and in order to follow the status of the process. In 2020, 18 751 contracts were published on the eProcurement platform, 96.1% of which using only electronic documents.

eNotification Platform

Launched in 2002 as the instrument used by the federal government for the electronic publication of calls for tender, the eNotification Platform presents all federal and non-federal entities' calls for tender. The platform assists public bodies in drafting their calls for tender and submitting them electronically to the official publication organisations, enabling them to notify invitations to tender, contract awards, as well as other documents such as minutes of clarification meetings or technical notes. On the other hand, it allows businesses to browse and search tender opportunities and related documentation. This platform communicates with the eTendering platform in order to communicate all notices published to everyone.

eTendering Platform

The eTendering Platform is an open, secure, interoperable and reconfigurable eProcurement platform based on open European standards and the European Union directives. Via the platform, contracting authorities and economic operators can perform some of their daily eProcurement activities.

eCatalogue Platform

The eCatalogue Platform offers a collaborative environment for businesses to upload their catalogues and manage dossiers, while enabling the reception of electronic orders and modification of the status of the orders.

eOrdering Portal in OpenPEPPOL in the Flemish Region

OpenPEPPOL is a non-profit international association under Belgian law consisting of public and private sector members. The purpose of OpenPEPPOL is to enable European businesses to easily deal with any European public sector buyers electronically in their procurement process. It made it possible for economic operators to receive orders electronically from any public sector awarding entity in Europe. The region of Flanders makes use of the PEPPOL model for eOrdering and eCatalogues.

Regional eTendering Portal of the Walloon Region and the French Community

Some regional, Community and local authorities have developed their own eTendering portals. For instance, the Walloon Region and the French Community share the same portal.

eInvoice

In 2013, the Council of Ministers launched a pilot project for inbound eInvoicing to the public authorities. This pilot project gave rise to several positive developments, including the launch of the Mercurius inter-federal platform.

In 2019, eInvoice was launched by BOSA to guide users through the concept of electronic invoicing, its future applications and implications for Belgium. The website

uses the PEPPOL model of eInvoicing to support both B2G and B2B eInvoicing. At federal level, BOSA became a PEPPOL Authority.

6.6 ePayment

No particular infrastructure in this field has been reported to date.

6.7 Knowledge Management

Databases/Authentic Sources System

Belgian eGovernment strategies rest on an authentic-source system by which federal public departments gather and manage their own databases with information provided by citizens, businesses and civil servants. These databases, known as authentic sources, can be consulted by other federal services in need of this type of information. This way, citizens and businesses will be asked to convey data only once. Among the operational authentic sources there are:

- The National Registry: managed by the Interior Department, the National Registry gathers basic data relating to all persons holding the Belgian nationality;
- The Crossroads Bank for Enterprises: managed by the Economy Department, the CBE is an integrated business registry that contains all authentic sources of all Belgian enterprises, such as company name, company number, postal and email address, legal form, activities performed within the company, professional skills of the company staff, etc.

Similar infrastructure elements are implemented at regional level. For instance, in February 2006, the Flemish eGovernment Coordination Cell (CORVE) launched VKBO-GO, the online application of the Flemish Crossroads Bank for Enterprises. In Wallonia and in the Wallonia-Brussels Federation, a Crossroads Bank for Data Exchange (Banque Carrefour d'échange de données, BCED) was launched in May 2013. It is an exchange platform facilitating the sharing of data among administrations of Wallonia and the Wallonia-Brussels Federation. The bank acts as an independent entity and offers services that increase the reliability of electronic data exchange and data recording. The BCED follows rules regarding the protection of privacy and computer security in general. The staff are composed of members of eWBS, Etnic and DTIC. The BCED's mission is to create authentic sources in Wallonia and in the Wallonia-Brussels Federation.

MAGDA Platform

The MAGDA Platform, introduced in February 2006, is a service-oriented architecture (SOA)-based interconnecting infrastructure for base registries at regional level, enabling the integration of government data exchange services and facilitating both the access to authentic data sources and the data exchange among public bodies. In the last 15 years, the MAGDA Platform has continued to grow: in 2020, the number of transactions via the MAGDA web services rose to 288 million, a 40% increase compared to the previous year.

The MAGDA Platform ensures that data from authentic sources can be extracted from databases in a secure manner. Thanks to the platform, citizens and businesses do not have to submit their data to the government more than once.

MAGDA is connected with base registries at federal level through the relevant service integrators. When receiving the data in various formats, it transforms it to a single MAGDA format, thus ensuring that all users have to deal with a single data format only. It also handles data privacy issues making this process transparent for users.

MAGDA contains non-geographic data, while the Geographic Digital Infrastructure (GDI) allows for access to geospatial data. The MAGDA Platform together with the GDI are now part of the new Flemish data exchange platform, the *Kruispuntbank Vlaanderen*.

beConnected

beConnected is an electronic platform that allows all staff members of federal organisations and social security actors to collaborate and manage documents remotely. beConnected enables its users to:

- Share and edit documents;
- Manage versions;
- Send messages and links; and
- Give access to whomever they want, with the rights they want.

Additionally, beConnected is ideal for supporting networks and projects with external parties: it allows users to collaborate remotely and exchange information with other federal organisations and social security institutions, but also with people who do not work for the federal government.

Since 2010, beConnected has replaced eCommunities, a groupware application that had been made accessible to civil servants since April 2003 through the eGovernment Portal. It aimed to enable communication, cooperation, knowledge management and sharing within cross-departmental networks of expertise. Functionalities of the system include document management, simple and advanced search capabilities, content management and joint working tools.

IWF

Intelligent Web Forms (IWF) is a tool developed to help citizens and businesses filling online forms. This tool preloads information directly for clients, making the process faster and easier. In order to avoid typing the same information several times (or typing any information at all), IWF automatically displays auto-filling suggestions. Once the user is logged in, the system shows the information in compliance with the content of the National Registry.

In addition, upon users' authorisation, the tool is able to retrieve new information and categorise it by type of data. The application follows the snowball effect - each time citizens or business owners allow storage of new information, the potential for reuse is ramped up and the amount of time to fill the next form is exponentially reduced. As a secondary effect, the quality and consistency of the information supplied is only expected to improve.

This tool can have a significant impact in terms of time saved, considering the potential number of users and the number of online forms that can use this application.

Intelligent Application Framework

BOSA offers the Intelligent Application Framework (IAF), which facilitates the creation of digital forms and applications tailored to the needs of federal government services. Transactions between citizens and government are digitalised thanks to the integration with authentic data sources and the internal systems of government services.

6.8 Cross-border Platforms

Association to the European Business Registry

Belgium is a member of the European Business Registry, which is a network of national business registries.

EUCARIS

Belgium has been a member of the European Car and Driving Licence Information System (EUCARIS) since 1994, which it uses to provide vehicular information. The

Belgian authority responsible for it is the Directorate for vehicles registration (*Direction pour l'Immatriculation des Véhicules*, DIV).

Exchange of Diploma Information

A proof-of-concept project for the exchange of diploma information using blockchain between Flemish and Dutch higher education institutions has been set up and will now be extended towards a Europe-wide solution.

Gaia-X for Belgium

In November 2020, the Belgian government launched Gaia-X for Belgium during the first pan-European GAIA-X summit. Gaia-X is a European initiative aimed to make the EU a global leader in the data economy while fostering the development of data-driven economic operators across the continent. Gaia-X represents an important step towards a stronger EU digital market.

At the Belgian level, the initiative, developed by the private sector, aims to create an open community of cloud stakeholders, also part of the European Gaia-X community. It focuses on bundling interests in Belgium to bring Belgian requirements and use cases towards Gaia-X and facilitate the scaling up of Gaia-X use cases. Gaia-X for Belgium will support the Gaia-X Association in its endeavor to set up and establish a well-functioning federated data infrastructure following Gaia-X policy rules and standards, and the required federation services.

6.9 Base Registries

Federal Base Registries

BOSA maintains a list of federal authentic sources. This list includes the Company Registry, the National (Citizen) Registry and the Cadastral Parcels.

Flemish Base Registries

The Flanders Information Agency continues to work on a complete set of Flemish base registries (on buildings and addresses, roads, government organisations and government services). They are made available through an open-source generic framework (e.g. by offering APIs) based on the OSLO data management standards. Examples of such base registries are:

- The Central Reference Addresses Database (Centraal referentieadressenbestand); and
- The Proofs of education and experience database (*Leer- er ervaringsbewijzendatabank*).

Other Base Registries

BOSA provides interested users with a list of federal authentic sources of the Belgian regions and the social security system.

6.10 Emerging Technologies

6.10.1 Artificial Intelligence (AI)

Artificial Intelligence.Brussels

ArtificialIntelligence.Brussels is the online portal available to entrepreneurs, researchers, students and citizens in general to get to know all the initiatives on AI developed in Brussels. The portal presents information and relevant statistics around a variety of themes in the field of AI such as financing opportunities, research centres, start-up and business support as well as training. The portal is designed to

accommodate the needs of the different users, finding the initiatives depending on the stakeholders' interests.

6.10.2 Distributed ledger technologies

No particular infrastructure in this field has been reported to date.

6.10.3 *Big data*

No particular infrastructure in this field has been reported to date.

6.10.4 Cloud computing

No particular infrastructure in this field has been reported to date.

6.10.5 Internet of Things (IoT)

No particular infrastructure in this field has been reported to date.

6.10.6 *High-performance computing*

No particular infrastructure in this field has been reported to date.

6.10.7 High-speed broadband connectivity

No particular infrastructure in this field has been reported to date.



7 Cross border Digital Public Administration Services for Citizens and Businesses

Further to the information on national digital public services provided in the previous chapters, this final chapter presents an overview of the basic cross-border public services provided to citizens and businesses in other European countries. Your Europe is taken as reference, as it is the EU one-stop shop which aims to simplify the life of both citizens and businesses by avoiding unnecessary inconvenience and red tape in regard to 'life and travel', as well as 'doing business' abroad. In order to do so, Your Europe offers information on basic rights under EU law, but also on how these rights are implemented in each individual country (where information has been provided by the national authorities). Free email or telephone contact with EU assistance services, to get more personalised or detailed help and advice is also available.

Please note that, in most cases, the EU rights described in Your Europe apply to all EU member countries plus Iceland, Liechtenstein and Norway, and sometimes to Switzerland. Information on Your Europe is provided by the relevant departments of the European Commission and complemented by content provided by the authorities of every country it covers. As the website consists of two sections - one for citizens and one for businesses, both managed by DG Internal Market, Industry, Entrepreneurship and SMEs (DG GROW) - below the main groups of services for each section are listed.

7.1 Life and Travel

For citizens, the following groups of services can be found on the website:

- Travel (e.g. Documents needed for travelling in Europe);
- Work and retirement (e.g. Unemployment and Benefits);
- Vehicles (e.g. Registration);
- Residence formalities (e.g. Elections abroad);
- Education and youth (e.g. Researchers);
- Health (e.g. Medical Treatment abroad);
- Family (e.g. Couples);
- Consumers (e.g. Shopping).

7.2 Doing Business

Regarding businesses, the groups of services on the website concern:

- Running a business (e.g. Developing a business);
- Taxation (e.g. Business tax);
- Selling in the EU (e.g. Public contracts);
- Human Resources (e.g. Employment contracts);
- Product requirements (e.g. Standards);
- Financing and Funding (e.g. Accounting);
- Dealing with Customers (e.g. Data protection).

last update: July 2022

The Digital Public Administration Factsheets

The factsheets present an overview of the state and progress of Digital Public Administration and Interoperability within European countries.

The factsheets are published on the Joinup platform, which is a joint initiative by the Directorate General for Informatics (DG DIGIT) and the Directorate General for Communications Networks, Content & Technology (DG CONNECT). This factsheet received valuable contribution from Frank Leyman, Manager International Relations, DG Digital Transformation.



The Digital Public Administration Factsheets are prepared for the European Commission by Wavestone

An action supported by Interoperable Europe

The ISA² Programme has evolved into Interoperable Europe - the initiative of the European Commission for a reinforced interoperability policy.

The work of the European Commission and its partners in public administrations across Europe to enhance interoperability continues at full speed despite the end of the ISA² programme. Indeed, enhanced interoperability will be necessary to unlock the potential of data use and reuse for improved public services, to enable cross-border collaboration, and to support the sector-specific policy goals set by the Commission for the future.

Interoperable Europe will lead the process of achieving these goals and creating a reinforced interoperability policy that will work for everyone. The initiative is supported by the Digital Europe Programme.

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