



Factsheet:

Access to Base Registries in Belgium

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Belgium towards Interoperability

From a political perspective, Belgium is divided among the Federal Government, three Regions (Flanders, Wallonia and Brussels Capital) and three Communities (Dutch, French and German-speaking).¹ Considering this context is necessary, as division affects legislation, public policies, strategies, base registries, and other.

In order to provide qualitative public services, e-Government plays a very important role, because of the optimised use of information and communication technologies. The interoperability of base registries at national level, the cornerstone of e-Government improvement, contributes to the effectiveness and efficiency of public administrations within this complex federal structure.

The goal has been to solve problems regarding the diversity in the organisation of business processes within institutions, the inconvenience of each institution having its own set of paper forms, or the institutions not sharing directly information between themselves.

The first step, as part of the administrative simplification, was the creation of the National Register of Natural Persons at national level. As an e-Government pillar, the registry ensures the sharing of authentic identification data of individuals between different public services with limited access to data. Maintaining the National Register of Natural Persons as a base, two more registries were created: the Crossroads Bank for Social Security followed by the Crossroads Bank for Enterprises. These three registries form the Belgian authentic source of data at national level. Accordingly, the entire technical-legal environment was set up, functioning as the Belgian interoperability framework (See BELGIF – Belgian Government Interoperability Framework).

Nowadays, Belgium is implementing its own interoperability framework, **the BELGIF**, available online², and launched by the intergovernmental architecture workgroup (AWG). The website is in beta version, thus, it is still in development process. The framework is focused on e-Government and information interoperability aiming at the different government levels (federal, regional and local). It is compatible with the European Interoperability Framework (EIF). The portal BELGIF provides with a list of recommended ICT specifications (open standards and formats for data exchange) and a mapping of the EIF recommendations to various interoperability initiatives classified by legal, organisational, semantic and technical levels.

Other initiatives at federal level are **Digital Belgium** (2015 - present), **Federal Open Data Strategy** (2015 - 2020) and **Federal e-Government Strategy** (2009 - present).

Digital Belgium³, introduced on the 20th April 2015, has five focus areas: digital economy, digital infrastructure, digital skills and jobs, digital trust and digital security, and digital government. Each area is composed from three to five projects. Among them there is a creation of one single digital portal, where citizens will be able to handle digitally different 'life events' with the government. They will be using a single user-friendly digital portal, where all the federal government's services could be accessed. The goal is for the citizens to submit their personal data to the government **only once**. Many services and data in Belgium are business-centric. Therefore, moving towards a citizen-centric approach is a challenge, where base

¹ Each Region and Community has its own legislative and executive powers, as well as its own Parliament and Government. Compared to Wallonia, the Flemish Region and Community merged their executive and legislative powers, creating one single Flemish Parliament, one single Flemish Government and one single public administration, competent for Community and Regional matters. Therefore when it comes to strategies, initiatives, legislation or organisation of base registries, we have the division between the federal, regional and community level to take into account.

² Belgian Government Interoperability Framework <http://www.belgif.be/>

³ <http://www.digitalbelgium.be/en>

registries play an important role. Also under Digital Belgium, the project **Next Generation Open Data**⁴ was added. It strives for the public data that belongs to the federal government to be accessible by using a single open data portal, with the corresponding exceptions based on privacy and security.

Also, in the context of openness, the **Federal Open Data Strategy (2015 - 2020)**⁵ aims to release the data collected by the government, which has no privacy or intellectual property rights, in a machine-readable format so that it can be used for commercial and non-commercial purposes. In order to ensure the authenticity of the data, the data is to be originated from federal sources, each one being responsible for the publication and management of their data and metadata. The metadata should comply with the European standard for data portals (DCAT-AP).

The **Federal e-Government Strategy's (2009 - present)** principal goal is creating a single virtual public administration. It is based on four main strategic streams. The first one is the re-engineering and the integration of service delivery which focuses on life and business events and simplification of the administrative procedure. The second stream is the cooperation between all levels of Government in order to provide integrated services across organisational boundaries and administrative layers. For that all layers of Government are to use the same standards and the same identification infrastructure. The third stream concerns the simplification of administrative procedures for citizens and businesses. This requires an increased exchange and sharing data and information among Government Departments and Agencies. The last stream deals with the back office integration and protection of personal data, where the Government Departments or Agencies that require specific data will be considered as a trusted source by other Administrations that would need such data. The exchange with other Administrations will be channelled through the Universal Messaging Engine (UME). This exchange will, however, be submitted to the existence of a legal basis and the respect of principles of purpose and proportionality. The Commission for the Protection of Privacy monitors and controls the process. The Department or Agency will be responsible for maintaining a personal data repository. All in all, the e-Government Strategy aims to ensure interoperability at organisational, semantic and technical levels, maximise the reusability of e-Government developments and services and ensure that data would be collected only once and would be reused.

At the same time, non-federal Belgian administrative entities have developed their own e-Government strategies.

For example, in the **Flemish region**, the e-Government strategy is under the programme "**Vlaanderen Radicaal Digitaal**"⁶ (Flanders radically digital), which intends to have the majority of the Flemish government's services delivered fully digitally by 2020. The "Once-Only" Principle (OOP) for the collection of data will be respected by the whole Flemish administration. It is managed by the new Information Flanders Agency. An important element in the Flemish e-Government strategy is the development of **authentic sources of information**. These are databases that can be used to obtain complete, correct and updated data on businesses, natural persons, addresses, plots, buildings, maps, etc. An interlinked system of Flemish authentic data sources and related services is being built. At the same time, a SOA-based infrastructure, called the MAGDA platform, enables the joint use of the government data exchange services and facilitates the access to authentic data sources and the data exchange among public bodies.

In the **region of Wallonia**, the current strategy for both Wallonia and the Wallonia-Brussels Federation is set in the '**Plan for Administrative Simplification and e-Government (2016-2020)**'⁷, adopted by the Walloon Government and the French Community. The strategy focuses on creating authentic data sources, implementing the "digital by default" principle or the development of a common and shared technological platform for digital services, such as, for example, electronic payment or electronic signature.

⁴ <http://www.digitalbelgium.be/en#digital-agenda>

⁵ http://www.digitalbelgium.be/sites/default/files/content/FR_strategisch_dossier.pdf

⁶ <https://overheid.vlaanderen.be/informatie-vlaanderen/radicaal-digitaal>

⁷ http://www.ensemblesimplifications.be/sites/default/files/sites/all/files/Plan_ES_2016-2020.pdf

Legal Interoperability

As a first stage in the creation of the base registries, legislation revisions were set, a number of basic principles were stated in the law, and a legal framework was created to harmonise basic concepts. Additionally, the legal environment necessary for the technical interoperability was set. The focus was on interconnection, information exchange and security as well as the development of a coordinated back office allowing the exchange of a growing number of electronic flows.

At federal level, each type of registry has its own normative context. Some specific base registries that are considered authentic sources of information are:

- The **National Register**, whose main piece of legislation is the “Act of 8 August 1983 organising the National Register of natural persons”⁸. It defines the registry as “an information system that ensures the recording, storing and communicating of information related to the identification of individuals.” It creates a centralised computerised database of personal data relating to any natural person residing legally in Belgium or registered via the Belgian consulates abroad. It also contains all identification data and addresses of persons registered at the municipal population registry. The Act provides details regarding what information is recorded in the National Register and what is their conservation mode and updating, who is responsible for managing the registry, what rules should be applied for the use of the identification number allocated to each citizen (“National Register number”). It also specifies who can make use of the National Register number and who can optionally qualify to obtain information included in the registry. Additionally, the Sectorial Committee of the National Register is set as the only power who is competent to grant access to the institutions or persons who request permission to use the information included in the National Register.
- The **Crossroads Bank for Social Security** was given legal existence via the “Act of 15 January 1990 concerning the establishment and organisation of a Crossroads Bank for Social Security”⁹. The Act defines the notion of “social database” as “a database in which social information is stored by or on behalf of social security institutions”. The Act also states the tasks of the registry, the rights and obligation of the registry and social security institutions, the protection of social data of a natural person, the administrative organisation of the crossroad bank, supervision and penalty provisions, etc. The Crossroads Bank for Social Security and the National Register complement each other.
- The **Crossroads Bank for Enterprises** is stated by the “Law of Crossroads Bank for Enterprises (Banque-Carrefour des Entreprises (BCE))”¹⁰. The law defines the Business Registry as the “directory included in the Crossroads Bank for Enterprises containing data on commercial and trade companies registered in the Crossroads Bank for Enterprises”. The law provides information on the creation of the registry, the authorities responsible for its management, which data are to be registered, access and use of the registry’s data, implementation of the “Once-Only” Principle, registration requirements, etc. The Business Registry is managed by the Federal Public Service Economy.

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http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=1983080836&table_name=loi

9

http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=1990011531&table_name=loi
(in French)

10

http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2003011634&table_name=loi

- The **Crossroads Bank for Vehicles** was created under the “Act of 19 May 2010 on the establishment of the Crossroads Bank for vehicles”¹¹. The act provides details regarding the missions of the Crossroads Bank, registration in the Crossroads Bank, access and use of data included in the Crossroads Bank, implementation of the “Once-Only” Principle, registration, modification or deletion of registered data, special provisions concerning the operation of the Crossroads Bank, obligation to register and sanctions.

There is currently no overall e-Government legislation in Belgium. Each of the three Regions (Flanders, Wallonia and Brussels Capital) have their own pieces of legislation related to e-Government. An example is the Flemish “Decree of 18 July 2008 concerning the electronic administrative data exchange”¹², which defines authentic data sources as “a tracked electronic data collection that the Flemish government has recognised as being the most complete and of high-quality, and that is useful or necessary in the context of the electronic administrative communications”.

The main constraint identified is the “**Law on Privacy Protection in relation to the Processing of Personal Data (1992 as amended 1998)**”¹³. This Act aims to protect individuals against abuse of their personal data. With the Privacy Act, an independent supervisory authority was established: the Commission for the Protection of Privacy (also known as “the Privacy Commission”, the Belgian Data Protection Authority).

As seen in the previous section, based on well-structured e-Government strategies and initiatives, Belgium is among the countries which puts great emphasis on the OOP. The initiatives are also reinforced by concrete legislation supporting the implementation of the principle, such as the “**Act on the establishment of the principle of the unique data collection and the simplification and equalisation of electronic and paper based forms**”^{14 15}. In some cases, the unique collection of data can also be found in the **legislation that organises the services integrators** - the Crossroads Bank for Social Security (Law of 15 January 1990)¹⁶, for example. The types of data supplied only once by citizens and/or businesses are personal data related to citizens and identification data related to businesses. They are primarily collected in existing registries and shared across public administrations. From a practical point of view, to implement the OOP, re-engineered and integrated service delivery around users’ needs and life events are being used. The main tool used for the implementation of the principle in Flanders is the MAGDA-platform, which is an interconnecting infrastructure for base registries at regional level in Belgium based on the Decree from 13th July 2012¹⁷ concerning the establishment and organisation of the Flemish service integrator.

Regarding the re-use of public sector information, the PSI Directive was implemented at federal level via the “**Law on the re-use of public sector information**” (2007)¹⁸, which transposes into Belgian Law the

¹¹ <http://www.code-de-la-route.be/textes-legaux/sections/lois/loi190510/1906-loi-19-05-2010>

¹² <https://codex.vlaanderen.be/Portals/Codex/documenten/1017242.html>

¹³ <http://www.legislationline.org/topics/country/41/topic/3>

¹⁴ http://www.ejustice.just.fgov.be/mopdf/2014/06/04_1.pdf

¹⁵ the Act of 5 May 2014 on the establishment of the principle of the unique data collection

http://www.ejustice.just.fgov.be/cgi/article_body.pl?language=fr&pub_date=2014-06-04&numac=2014203384&caller=list

¹⁶ New Service Integrators were introduced, such as the e-Health-platform (Law of 21 August 2008), the Federal Services Integrator (Law of 15 August 2012), the Flemish Services Integrator (Decree of 13 July 2012), the Crossroads Bank for data exchange eWS (Cooperation agreement between the Walloon Region and the French Community of 23 May 2013) and the Brussels Services Integrator (Ordonnance of 8 May 2014). These services integrators facilitate the exchange of data and also assure a more transparent way for citizens to know what is done with his data. Source:

https://www.unodc.org/documents/corruption/WG-Prevention/Art_10_Transparency_and_integrity_in_public_administration/Belgium.pdf

¹⁷ Decree from 13th July 2012 http://www.etaamb.be/fr/decret-du-13-juillet-2012_n2012036158.html

¹⁸

http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&table_name=loi&cn=2007030736

general principles governing the directive 2013/37/EU of 26 June 2013 amending Directive 2003/98/EC on the re-use of public sector information, and the Royal Decree establishing the procedures and time limits for the handling of requests for public sector information re-use (2007). The Regional and Community Governments have to yet transpose the Directive on the re-use of public sector information. Flanders, the Brussels-Capital Region and the French and German-speaking Communities also have their own decrees which are inspired from the relevant federal legislation.

The **Federal Open Data Strategy (2015 - 2020)**¹⁹, aims to implement the open by default principle and is promoting the use of open data as much as possible from authentic sources, which are managed sources by the competent public service (The National Register, for example). This approach should lead to a set of qualitative and reliable public data, and limit the risk of errors or incorrect use.

An example of a registry making a part of their data open is the Crossroads Bank for Enterprises (ECB), which by law²⁰ provides the free public data as open data. The ECB, as a database for authentic data about companies, is responding to a significant demand for open data. The available data is limited to companies' basic information, such as the legal functions or the legal status of a company (for example if the company is in bankruptcy, etc.) The data can be accessed through the ECB Public Search²¹ portal, the mobile version available on the ECB portal²² or within the web-services Public Search²³. One can subscribe for a fee (50 euros per 2,000 queries). The ECB allows interested parties to integrate these data into their own public applications.

At the regional level, the Flemish government has made the Address Register information available as open data since 2013, and offered it as Linked Open Data in 2016. At the same time, the Federal government launched the Federal Open Data Portal. The federal ministerial council approved a federal open data strategy and made data available on 'Data.gov.be'. The site mostly contains links to data (9000+ data sets) supplied by authorities, public bodies and organisations.

¹⁹ The Federal Open Data Strategy (2015 - 2020)

http://www.digitalbelgium.be/sites/default/files/content/FR_strategisch_dossier.pdf (in french)

²⁰ http://economie.fgov.be/fr/modules/regulation/loi/20130228_code_droit_economique.jsp

²¹ http://economie.fgov.be/fr/entreprises/BCE/pub/PuS/#.V8k0H_I97IU

²² <http://economie.fgov.be/fr/entreprises/BCE/#.V8kz7vI97IU>

²³ <http://economie.fgov.be/fr/entreprises/BCE/pub/PuSSW/#.V8k0ePI97IU>

Organisational Interoperability

There is no single entity responsible for e-Government in Belgium. However, the overarching body in charge of e-Government is the **Ministry for Enterprise and Simplification**. At the operational level, the **Federal Information and Communication Technology²⁴ (Fedict) Agency** and the **Agency for Administrative Simplification (ASA)** are responsible for the design and implementation of e-Government as well as the “Once-Only” Principle.

Fedict includes a committee whose responsibility is to coordinate the interconnection of base registries. It is an entity that, by law, is charged with the organisation of e-Government in Belgium, the electronic exchange of data, together with the integrated unlocking of data. It has also become the most significant actor regarding services in the public sector, especially after the law in 2014 that makes it mandatory for the public entities to store in an authoritative source those data that have already been asked to the citizens or enterprises. Fedict facilitates the dialogue between the owners of the base registries, the operational units involved in processing base registry data and the consumers of base registries’ data. It foresees four main tasks:

1. Unites all national service integrators (three federal and one for every region);
2. Coordinates the way of working between the service integrators;
3. Monitors that all authoritative data is disclosed by service integrators (and not bilateral between governments/departments);
4. Establishes the circle of trust between the service integrators.

The cooperation between public authorities at various levels is required in order to provide integrated electronic public services. One of those cooperation agreement was signed in March 2001 between the Federal Government, Communities and Regions, called the intergovernmental cooperation agreement of March 23, 2001 concerning the construction and operation of **a common e-platform²⁵**. This agreement is designed to develop and exploit a common electronic platform which ensures rapid and direct communication between authorities and citizens, as well as between the different authorities themselves. This electronic platform is the technical infrastructure required for providing integrated electronic public services from a single portal. This electronic platform will be based on the Federal Service Bus, amongst other integrators. It is connected to MAGDA and the platforms from other integrators as well. In terms of the master data, by law, each government has its own obligations which forces them to create the sources containing this data. Each administration is responsible for its own data.

Moreover, a cooperation convention on administrative simplification was signed in December 2003 between the Federal Government and the federated entities. It was designed to reinforce cooperation and communication between various levels of government and to draw up agreements to simplify administrative procedures.

Finally, the agreement between the Federal Government, Communities and Regions ensures the use of the same personal identification codes, as well as an electronic signature during interactions with various public administrations.

Other agreements regarding inter-governmental collaboration are:

²⁴ <http://www.fedict.belgium.be/en>

²⁵ http://www.galilex.cfwb.be/document/pdf/26020_000.pdf

- Intergovernmental cooperation agreement of September 28, 2006 concerning the principles for an integrated e-Government and the construction, use and management of shared e-government services²⁶;
- Intergovernmental cooperation agreement of 26 August 2013 between federal, regional and community to harmonise and align initiatives to achieve an integrated e-Government²⁷.

On the other hand, the administration of the specific base registries takes place at national level through their respective Ministries/Authorities. The coordination of base registries is carried out both at central and regional level. The following table gathers the main base registries in Belgium, the public administration bodies to which they belong and the master data type/s they handle:

Base Registry	Authority	Master Data
National Register of Natural Persons	Ministry of Interior	PERSONAL DATA (NATURAL AND LEGAL PERSONS)
The Crossroad Bank for Vehicles	Central Government (Federal), Federal Department Mobility and Transport, Vehicles Registration Directorate	VEHICLES
The Crossroad Bank for Enterprises	Federal Department of Economy.	BUSINESS
The Crossroad Bank for Social Security	Federal Department of Social Security	SOCIAL
Vehicle Register	Federal Department of Mobility and Transport	VEHICLES
Land Registry	Federal Ministry of Finance's national property documentation centre	LAND, PARCELS

Examples of another major registries, that is kept at regional level is the Learning and Experience Database (LED)²⁸ containing the degrees and certificates that the citizens have achieved in Flanders (as education is a regional matter in Belgium). Another example is BeSt (Belgian Streets)²⁹, which is a three regional sourced, that combined contains all the street information in Belgium. The sources are being integrated on Federal level, so that it is exposed as one authoritative sources called BeSt.

The **National Register** contains data from several registries: the population registry, the foreigner registry and a waiting registry. **The communes** (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 Register has a unique identification code: the National Register number. The "Only-Once" Principle law³⁰ is applied to the registry. The consultation of data in the National Register 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 Register is managed by the Directorate Institutions and Population, which manages the central database in which all the information related to the population is recorded.

The **Crossroads Bank for Social Security** (CBSS) was created around 25 years ago. The CBSS Registry is complementary and subsidiary to the National Register. A major business process re-engineering and

²⁶ <https://wallex.wallonie.be/PdfLoader.php?type=doc&linkpdf=5656-4939-2677>

²⁷ http://www.etaamb.be/fr/accord-de-cooperation-du-26-aout-2013_n2013204999.html

²⁸ <http://www.ond.vlaanderen.be/led/>

²⁹ <https://v-ict-or.be/nieuws/2015/07/22/best-address-een-authentieke-stratenlijst-oslo-principe>

³⁰ Act on the establishment of the principle of the unique data collection and the simplification and equalisation of electronic and paper based forms

computerisation was carried out during the past seventeen years by about 3,000 Belgian public and private actors in the social sector from different levels (national, regional and local), under coordination of the Crossroads Bank for Social Security (CBSS).

The **Crossroads Bank for Enterprises** 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 register of legal entities, the former trade register, the VAT register, and the Social Security Administration, and it is kept up to date by the authorised organisations that input the data. All the existing data from the above-mentioned sources was combined by the Federal Public Service Economy in the Crossroads Bank for Enterprises (CBE), which provides a truly centralised "crossroads" of data on companies.

The general **Administration of patrimonial Documentation (Cadastre Registry, Public Property and Mortgage)** is a part of the Federal Public Service for Finances, since the tasks of the land registry and of the registration offices are mainly, but not exclusively, tax-related.

The **Vehicle Registry** functions under the authority of Central Government (Federal), the Vehicles Registration Directorate and the Federal Department for Mobility and Transport. The service has been fully integrated through the WebDIV³¹ application that allows insurance companies and car dealers to register cars online. WebDIV is an IT application developed by the Mobility and Transport Federal Public Service enabling insurance companies, agents, brokers and leasing companies to register their clients cars online.

³¹ <http://www.webdiv.inmotiv.be/nl/home>

Semantic Interoperability

Joinup Interoperability Catalogue

At national level, Belgium publishes its **Interoperability Catalogue**³² of assets on Joinup, which can be used for the development of e-Government services. It includes core vocabularies, semantic and technical standards, open source software, reusable services and protocols. The Belgian Interoperability Catalogue functions as a repository for the Asset Description Metadata Schema (ADMS), which is a standardised metadata vocabulary schema that helps public administrations, standardisation bodies and other stakeholders to document their semantic assets in a uniform and structured manner (their name, their status, version, where they can be found on the Web, etc.). The purpose of common formats is to facilitate the interconnection of Belgian National Registers.

Example Social Security Cross-roads Database - Manage Person

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- edited with XMLSPY v2004 rel. 4 U (http://www.xmlspy.com) by BANQUE CARREFOUR DE LA SECURITE SOCIALE (BANQUE CARREFOUR DE LA SECURITE SOCIALE) -->
<xs:schema targetNamespace="http://www.ksz-boss.fgov.be/XSD/SSDN/Person" elementFormDefault="qualified" attributeFormDefault="unqualified" version="20060630"
xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns="http://www.ksz-boss.fgov.be/XSD/SSDN/Person" xmlns:common="http://www.ksz-boss.fgov.be/XSD/SSDN/Common">
  <xs:import namespace="http://www.ksz-boss.fgov.be/XSD/SSDN/Common" schemaLocation="../../Common/CommonDataTypes.xsd"/>
  <xs:include schemaLocation="AddressInformation.xsd"/>
  <xs:element name="Citizen">
    <xs:annotation>
      <xs:documentation>Represents a citizen</xs:documentation>
    </xs:annotation>
    <xs:complexType>
      <xs:sequence>
        <xs:element name="SocialSecurityUser" type="common:t_SSN">
          <xs:annotation>
            <xs:documentation>SSN of the person</xs:documentation>
          </xs:annotation>
        </xs:element>
        <xs:element name="InscriptionRegister" type="InscriptionRegisterType" minOccurs="0">
          <xs:annotation>
            <xs:documentation>type of register the person is inscribed in</xs:documentation>
          </xs:annotation>
        </xs:element>
        <xs:element name="LegalData" type="LegalDataType">
          <xs:annotation>
            <xs:documentation>the legal data of the person</xs:documentation>
          </xs:annotation>
        </xs:element>
      </xs:sequence>
      <xs:attribute name="origin" type="OriginType" use="optional"/>
    </xs:complexType>
  </xs:element>
</xs:schema>
```

OSLO and OSLO²

At the regional level, the interoperability programme of the Flemish Government, **Open Standards for Linked Organisations** also referred to as **OSLO**, focuses on the semantic level and extends the ISA Core Vocabularies (Core Public Service Vocabulary, Core Public Organisation Vocabulary, Core Location Vocabulary, etc.) in order to facilitate the integration of the Flemish base registries with one another and to safeguard their implementation in business processes of both the public and private sector. The OSLO's objectives are to develop a common standardisation methodology, to create a context neutral OSLO, aggregate information from different national, regional, local e-Governments information systems or create OSLO enabled products (address LOD products). The programme³³ intends for the open standards for local administrations to become open standards for linked organisations and to support an evolution from authoritative data sources to Linked Base

³² <https://joinup.ec.europa.eu/catalogue/repository/belgian-interoperability-catalogue?page=1>

³³

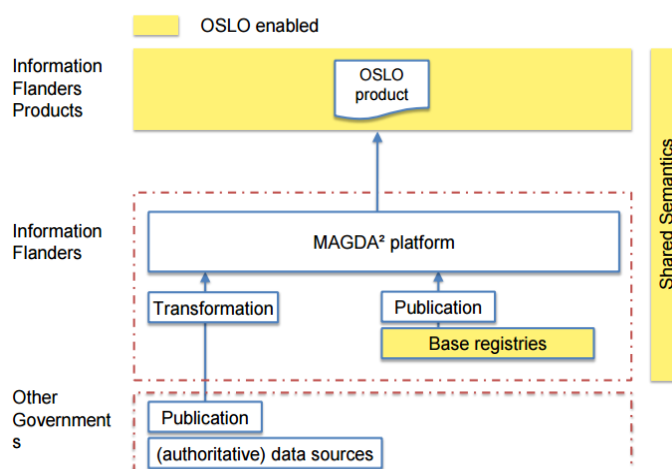
https://joinup.ec.europa.eu/sites/default/files/ckeditor_files/files/SEMIC_Linked%20Base%20Registries%20as%20a%20key%20enabler%20in%20Flanders%20-%2007_7.pdf

Registries. OSLO was created and came into existence due to the inherent need to integrate data from local registers in Flanders, in turn providing semantic interoperability at local level. Prior to this, there were over 800 local government products providing web services in a complex and disparate way.

As example of customisation of Core Vocabularies, the **Business Core Vocabulary** has been rebranded, in OSLO, into the Registered Organisation Vocabulary. It enables anyone to describe the essential elements of a registered organisation, such as the legal name of the organisation, the registered identification number of the organisation, the legal address of the organisation, the activities for which the organisation is registered for, the type of organisation.

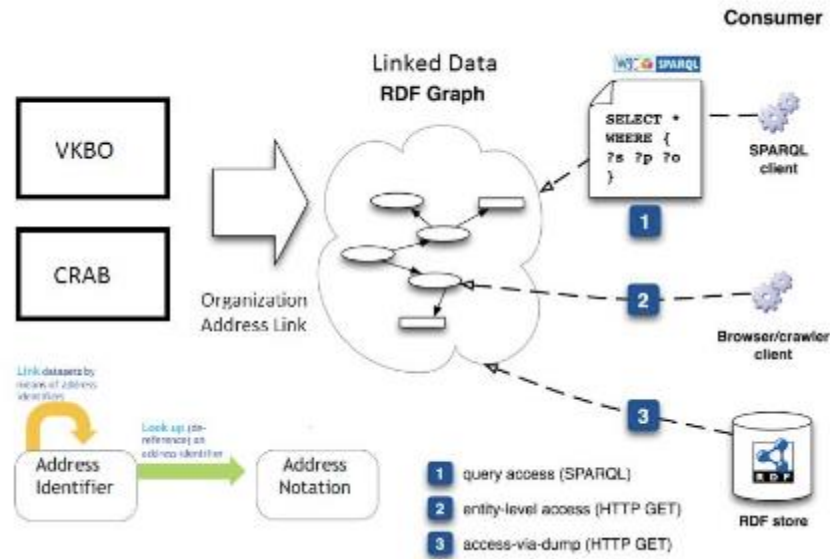
As a development on top of OSLO, the **OSLO²** project was launched. The OSLO² beta version was launched in December 2016, and was planned to enter the production phase by April 2017.

OSLO² - base registries



For the moment, the pilot version of OSLO² is using data from the regional registry that contains all valid addresses in northern Belgium area (Flanders): CRAB. The goal is to ensure integrated data for address information in the form of linked-open data (CRAB LOD), which is also in line with the ISA Core Vocabularies. Therefore, in essence OSLO² can be considered as a new building block for base registries which serves for transforming generic data to linked data.

The pilot is also using data from the authentic registry that contains all businesses in northern Belgium area (Flanders): VKBO. Each organisation is identified by a unique URI, which is aligned with the URI strategy from the Flemish Government and the European directive 2012/17/EU. The ORG Ontology is more generic and makes it possible to describe organisational structures using RDF.



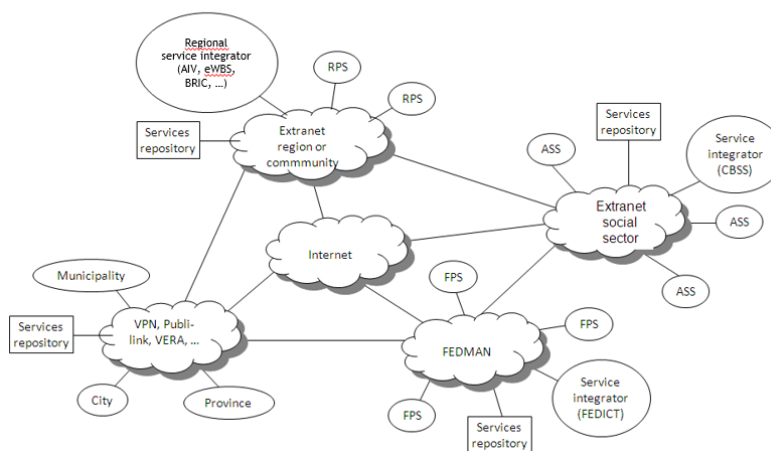
In order to inter-link the authentic data from the Business Register and the Flemish authentic source of the Addresses, the Information Flanders agency maintains a 'mapping' between the federal addresses and the unique regional addresses. Also VKBO is able to exchange data by inter-linking them to a unique identifier. This enables the integration of several disparate datasets: the data from the Federal company registry and other crossroad databases including the crossroad database of the National Social Security (RSZ).

At the federal level, common data models (core vocabularies, for example) are not used as no authority has the legal power to create and enforce these types of data models. Nevertheless, at federal level, Fedict has its own canonical data model to consolidate the data coming from the population registry. The mapping of this canonical data model to the core vocabularies has been published on <http://mapping.semic.eu/>

Technical Interoperability

Belgium has **6 service integrators**, three are federal and the remaining three are regional. The federal ones are Fedict, Cross-Road Bank of Enterprises and e-Health, while the regional ones include and integrator for Flanders (VD), one for Brussels (CIRB), and one for Wallonia (eWBS), all of them depicted in the picture below.

Networks and service integrators



Accordingly, a service integrator is set out in the Law on the Federal Service Integrator³⁴³⁵, and defines it as an organisation that is charged by law with service integration for a specific level of government or for a specific sector. Service integration means the organisation of intergovernmental electronic data exchange and the provision of integrated access to these data.

Fedict as a (federal) service integrator

The Royal Decree establishing the federal public service technology information and communication³⁶ grants **Fedict the role of the Federal service integrator**. Fedict is an entity that is responsible for the organisation of e-Government in Belgium and the electronic exchange of data, as well as the integrated unlocking of data. Fedict has become the most important partner of the Public Sector services, especially after the Law of 5 May 2014 (Law guaranteeing the principle of single data collection in the functioning of the services and agencies performing certain tasks for

³⁴ http://www.ejustice.just.fgov.be/mopdf/2012/08/29_2.pdf

³⁵ There are many other service integrators such as the Crossroads Bank for Social Security one (Law of 15 January 1990), which already has already a long history, or such as the e-Health-platform (Law of 21 August 2008), the Federal Services Integrator (Law of 15 August 2012), the Flemish Services Integrator (Decree of 13 July 2012), and the Brussels Services Integrator (Ordonnance of 8 May 2014).

³⁶ https://www.privacycommission.be/sites/privacycommission/files/documents/fedict-wet-15-08-2012_0.pdf

the authority and introducing simplification and harmonisation of electronic and paper forms)³⁷ that obliges public entities to store in an authoritative source those data that have already been asked to the citizens or enterprises, and to make it available to the whole public sector.

This being said, through Fedict, the Administration does not request from the citizen or enterprise the information it already has. This is personal data, business data, public data or a combination of all this data. This information is recorded in authentic sources (databases) in which unique and original data is retained. Via the Federal Service Bus (FSB), Fedict ensures access to authentic sources and rapid exchange of data seamlessly and securely. Additionally, to ensure continuous service provision, Fedict has Service Level Agreements³⁸ (SLAs) with the integrator provider, initiators of data and a number of authoritative sources (Cross-roads Bank of Enterprises, National Register and Juridical Register).

Fedict also offers a service catalogue. An example of such a service catalogue is FedMAN³⁹, the Belgian Federal Metropolitan Area Network, which is an infrastructure that connects the Administrations of 15 federal ministries and Government services in Brussels. FedMAN offers 80.000 federal civil servants a shared high-speed network and related services supporting the delivery of e-Government, as well as access to sTESTA.

One of the building blocks is **FSB (Federal Service Bus)**, the platform where web services are used to efficiently streamline data flows between authoritative sources (National Register, Central businesses database and the Crossroads Bank for Social Security) and the e-Government applications for citizens, businesses and civil servants. All actors connected to the network can mutually consult their databases. The mutual data exchange guarantees the unique collection of data from the citizens, the enterprises and their employees.

Fedict also developed the ArchiMate model that consists of the EIRA mapping for the federal service integrator. The model visually represents the cross-sector interactions between public administrations. It is based on the Service Oriented Architecture style and uses ArchiMate as a modelling notation.

Cooperation agreement between Wallonia and Wallonia-Brussels: the Crossroad Bank for Data Exchange

Another important service integrator is the Walloon **Crossroad Bank for Data Exchange**⁴⁰ (BCED - Banque Carrefour d'échange de données), set in the cooperation agreement between the Walloon Region and the French Community of 23 May 2013. It is a tool developed to facilitate the data sharing. It ensures reliable transmission and distribution of authentic data and information, in compliance with the law for the protection of privacy and information security rules. The tool is also based on the "Once-Only" Principle: again, not to ask users several times for the same data, if it is already stored and available somewhere. The user also has access to BCEDs Web Interface (BCEDs-WI), which allows the access and visualisation of data available in the various authentic sources.

³⁷

http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2014050506&table_name=loi

³⁸

<http://registry.fsb.belgium.be/platform/rest/location;/FSB/Global%20FSB%20documentation/GO%20Webservices%20on%20FSB%20v1.1%20fr.pdf>

³⁹https://joinup.ec.europa.eu/sites/default/files/ckeditor_files/files/eGovernment%20in%20Belgium%20-%20February%202016%20-%2018_00%20-%20v2_00.pdf

⁴⁰ <http://www.ensemblesimplifions.be/node/106>

The service catalogue a user can access via the BCED contains information about the exchange of data exchange, assistance in obtaining permission to access authentic data, support in accessing open data and access to authentic data via Web Interface BCEDs.

Regional data exchange: MAGDA

The MAGDA platform⁴¹, introduced in February 2006, is a SOA-based interconnecting infrastructure for base registries at regional level to enable the integration of government data exchange services and facilitate both the access to authentic data sources and the data exchange among public bodies.

The MAGDA platform ensures that data from authentic sources can be picked up from databases in a secure manner. Several Flemish and federal databases are accessed via MAGDA services. Thanks to the platform, the citizens and businesses do not have to submit their data more than once to the government.

MAGDA is connected with base registries at federal level through the relevant service integrators. When consuming the data in various formats, it transforms the data to a single MAGDA format, thus ensuring that all users have to deal only with a single data format. 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. In order to remove the need to access two different sources of data, the next version MAGDA², will be a front system which enables a single access-point for users to access and retrieve data from both MAGDA and GDI.

⁴¹<http://ec.europa.eu/isa/documents/publications/access-to-base-registries-good-practices-on-building-successful-interconnections-of-base-registries.pdf>

Cross-border Interoperability

Belgium is a member of European Business Register⁴², which is a network of National Business Registers.

Belgium is also a member of EUCARIS⁴³ since 1994, within which it is providing vehicle information. The Belgian authority responsible for it is DIV (Direction pour l'Immatriculation des Véhicules).

⁴² <http://www.ebr.org/index.php/member-countries/european-interactive-map/belgium/>

⁴³ <https://www.eucaris.net/countries/belgium/>

E-Government Public Services making use of Base Registries data

The portal **My.belgium.be**⁴⁴ provides a centralised access to integrated electronic public services and personal files. Through the single registration or Single sign-on with the electronic identity card (eID), a choice of personalised websites is provided. These include:

1. 'My certificates', direct personalised access to the certificates of the National Register;
2. 'My Police-on-web'⁴⁵, direct personalised access to the Police-on-web application;
3. 'My Minfin'⁴⁶, direct personalised access to My Minfin. My Minfin is a Federal Public Services Finance initiative offering a number of personal documents and e-services. These e-services help managing the income tax return of individuals. Tax-on-web allows Belgian residents to file their tax returns online, by enabling taxpayers to calculate the amount of their income tax, validate and save their data, submit their returns and receive receipts from the Tax Administration. Secure access to the My Minfin is done via electronic card.

Belgium has made its e-Government Public services accessible multi-modally⁴⁷. This implies accessibility via desktop, as well as variety of mobile devices.

Services to citizens and businesses are based on life events and data in base registries often serve as inputs or outputs to Base Registries. Some of those are:

- Civil registry/ National Register of natural persons⁴⁸: Day of birth/ death of a person, marriage. Through the application My Folder⁴⁹, one could check the personal information in the National Register of natural persons. This gives each citizen the possibility to control which government agency and civil servant has access to and are using their personal data. Also as of April 2012, the various entities of the Flemish government can consult directly the data from the National Register. Previously, this was only possible either through the network of the Crossroads Bank for Social Security or through a web application.
- Company registry/ The Crossroad Bank for Enterprises⁵⁰: information regarding the documents needed to set up a company. Also, through the application called "CBE Public Search"⁵¹, citizens can view certain data in addition to enterprise numbers. All of this is limited to public data. The application allows users to search for an enterprise using its enterprise number (its VAT number preceded by a "0") or a search word (the name of the enterprise), optionally accompanied by a postcode. These search options allow the data to be queried in a simple manner. Citizens can request corrections if necessary by filling in special forms, which are available on the Public Search website.
- The Crossroad Bank for Social Security portal⁵² (front office) offers a single main front door, through which all social security information can be communicated. The portal contains integrated

⁴⁴http://www.fedict.belgium.be/en/online_applications/interactieplatformen/mybelgium

⁴⁵ <https://www.epol.be/eloket/languageSelection.action?WLSSESSIONID=xnr-iy8FuNkvTM-ors4IAAtjIQMZIGe8h4RHZbbDvSSiH5YaFBDt!197589311>

⁴⁶ <https://eservices.minfin.fgov.be/portal/fr/public/citizen/welcome>

⁴⁷ https://joinup.ec.europa.eu/sites/default/files/ckeditor_files/files/eGovernment%20in%20Belgium%20-%20February%202016%20-%202018_00%20-%20v2_00.pdf, p.38

⁴⁸ http://www.belgium.be/fr/famille/identite/actes_et_registres

⁴⁹ <http://www.ibz.rn.fgov.be/fr/registre-national/mon-dossier/>

⁵⁰ http://www.business.belgium.be/en/managing_your_business/setting_up_your_business/main_steps/company_number

⁵¹ http://economie.fgov.be/fr/entreprises/BCE/pub/PuS/#.V8k0H_I97IU

⁵² <https://www.socialsecurity.be>

transactions and an integrated information model, instructions, glossaries, XML-schemas and test scenarios for all electronic transactions with all social security institutions.

Also, at regional level there are specific portals serving electronic public services to citizens and business as is the case of **ABC des démarches**⁵³ in Wallonia:

ABC des démarches
Rénover son habitation ?
Devenir parent ?
Rechercher un emploi ?
L'essentiel des démarches administratives à suivre...

A Vous êtes

- > Citoyen
- > Entreprise
- > Enseignement
- > Pouvoir local
- > **Non-marchand**
- > Intermédiaire
- > Fonctionnaire

B Votre démarche concerne

- > Le financement
- > Le personnel
- > Les agréments
- > Les bâtiments

C Et plus précisément

And the official website of the **Flemish government**⁵⁴ published by the **Flanders Information Agency**⁵⁵:

> **Care and family**
Flanders can boast many high-quality hospitals, administering the best of cares.

> **Enterprise and investment**
Wondering about the investment opportunities in Flanders?

> **Leisure**
The Flemish Authorities intend to open up sports to as wide a public as possible

> **Mobility**
You must have a valid driving licence for driving a motor vehicle in Flanders.

> **Moving and Housing**
Moving to Flanders, Renovation grant, Civic integration

> **Studying**
If you plan on studying in Flanders, there is a vast range of schools and universities to choose from.

> **Tourism**
Flanders. State of the arts.

> **Working**
Looking for a job in Flanders?

> **Discover Flanders**
Flanders is the northern federated state of Belgium with Brussels as its capital.

Additionally, a recent one-stop shop that is going to summarise and integrate all of the platforms (currently at different national levels), will be the **G-Cloud**⁵⁶. G-cloud is to be a common portal that will be able to connect data and provide information in the different areas (all levels). The G-Cloud is a hybrid cloud that uses services offered by private companies in public cloud environments and services housed in state-owned data centres. The management of the G-Cloud is the work of the State. The main goal is creation of the common “One-stop shop” integrated that collects all regional ones.

G-Cloud: <https://www.gcloud.belgium.be/>

⁵³ <http://www.wallonie.be/fr/demarche/theme-list/257>

⁵⁴ <http://www.flanders.be/en>

⁵⁵ <http://www.vlaamseinfolijn.be/>

⁵⁶ <https://www.gcloud.belgium.be/>