# INSPIRE ACTION PLAN FOR BELGIUM 2016-2020

National plan outlining the implementation of the INSPIRE directive in Belgium for the period 2016-2020.

1.05.2016

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# 1 INTRODUCTION

The INSPIRE directive (2007/2/EC) aims at establishing a European Spatial Data Infrastructure. This increases the accessibility and exchangeability of geographic databases between administrations and allows for a public access of these databases by citizens and business.

However, the Commission notes that the implementation of the INSPIRE Directive in the majority of Member States does not proceed smoothly. Several deadlines (on the creation of metadata and setting up network services for Annex I data) have passed. For this reason, bilateral talks were launched in the autumn of 2015 between the Commission and the Member States. On October 7, 2015 a meeting was held between Belgium and the Commission.

The major discussion points of the bilateral meeting with Belgium were

- There are missing datasets resorting under Annex I, II and III.
- What are the plans regarding data harmonization?
- Metadata and network services are missing for several datasets. OR if they are available they are not always implemented along the INSPIRE guidelines.
- What are the (remaining) barriers to data sharing and what can be done about it.

This action plan is the logical complement to the Belgian national answer¹ on the perceived deficiencies by the European Commission (DG ENV) on the implementation of the INSPIRE directive in Belgium². This plan is thus built up based on the discussion points mentioned above. It also takes into account the proposal of a list of priority datasets from existing environmental directives to be incorporated into the INSPIRE framework. This list was only circulated shortly before the MIG-T meeting of April 2016 and will (presumably) be agreed on at the MIG-P meeting of June 2016. We regret that the list was circulated at such a late stage as this hampered the elaboration of a more detailed action plan.

The remarks given by the commission have been analysed, put in the right perspective and an actual state of play is given in this document. Specific actions have been identified to substantially improve the perception of the Commission on the implementation of the INSPIRE directive. These actions and the expected outcomes are listed in this document.

This action plan is the result of the intense cooperative efforts within the Framework of the Coordination Committee INSPIRE (which coordinates and harmonises the implementation of INSPIRE in Belgium).

The take away message from this action plan is that at every responsible level actions have been taken to identify the missing data and a clear and very specific willingness to add these datasets to the European Geoportal has been formulated. The deadlines might vary due to several factors. Most important however are the reporting rules for the Environmental Acquis. If these reporting rules were to be brought in line with the INSPIRE directive, Belgium (through the CC INSPIRE) expects to be able to add the said datasets (i.e. their spatial component) within less than a year (after agreement on the definitive and rolling list of

Letter of January 20th, 2016 from Belgium to the Commission (ref env.d.4(2015)3074604 drawn up after the Bilateral meeting of October 7th, 2015

 $<sup>^{\</sup>rm 2}$  Letter of July, 8th 2015 with reference env.d.4(2015)3074604

spatial datasets linked to reporting obligations in EU environmental legislation, agreement expected at the MIG-P in June 2016).

Significant efforts have been made at all the concerned Belgian administrative levels to ensure the full compliance with the INSPIRE directive. These are highlighted in this document and clearly indicate the willingness to realise significant advancement in the implementation of the INSPIRE directive in Belgium.

A this point it needs highlighting that there is a tremendous cooperative effort realized by all parties involved in the INSPIRE implementation. All are active in several working groups (BestAdress, Buni, Cadastral Parcels to name but a few) to ensure a national concerted approach.

Notable is also the effort that will culminate shortly in a report including the inventory and assessment of ANNEX I & II data to determine a coordinated and harmonized national approach.

There are factors at Commission level that make it sheer impossible to ensure full compliance. The most important factor is the lack of legislative coordination between the different directives, even within DG Environment. The alignment of the reporting requirements for the different environmental directives is a legislative deficit that needs to be addressed and corrected as soon as possible.

# **2** ABBREVIATIONS AND ACRONYMS

Abreviation/Acronym	Details	Level
AAPD / AGPD	Algemene administratie van de Patrimoniumdocumentatie (FOD Financiën) / Administration générale de la Documentation patrimoniale (SPF Finances)	Federal
ADSEI / DGSIE	See "Statistics Belgium"	
AGIV	Agentschap voor Geografische Informatie Vlaanderen – currently known as "Informatie Vlaanderen"	Flemish
BDU / BSO	Bruxelles Développement urbain / Brussels Stedelijke Ontwikkeling	Brussels
BGD / SGB	Geological Survey of Belgium / Belgische Geologische Dienst / Service Géologique de Belgique	Federal
BRIC / CIRB / CIBG	Brussels Regional Informatics Centre / Centre d'Informatique pour la Région Bruxelloise / Centrum voor Informatica voor het Brusselse Gewest	Brussels
CC INSPIRE	INSPIRE Coordination Committee	National
CGRB / RNBB	Conseil des Gestionnaires des Réseaux de Bruxelles / Raad van de Netwerkbeheerders in Brussel	Brussels
CRAB	Centraal Referentieadressenbestand	Flemish
CSG	Comité Stratégique de la Géomatique	Walloon
DAR	Beleidsdomein Diensten voor het Algemeen Regeringsbeleid	Flemish
DOV	Databank Ondergrond Vlaanderen	Flemish
Fedict	Federal Public Service for Information and Communication Technology / Service Public Fédéral Technologie de l'Information et de la Communication / Federale Overheidsdienst voor Informatie- en Communicatietechnologie	Federal
GDI-decreet	Decreet van 20 februari 2009 betreffende de Geografische Data-Infrastructuur Vlaanderen	Flemish
Geobru Committee	Regional committee responsible for the implementation of the INSPIRE directive at the level of the Brussels Capital Region	Brussels
GRB	Grootschalig Referentiebestand	Flemish
IBGE / BIM	Environment Brussels / Bruxelles Environnement / Leefmilieu Brussel	Brussels
IBSA / BISA	Institut Bruxellois de Statistique et d'Analyse / Brussels Instituut voor Statistiek en Analyse	Brussels

INSPIRE	INSPIRE Directive 2007/2/EC / Directive INSPIRE 2007/2/EC / INSPIRE richtlijn 2007/2/EC	European
	3	
IRCEL-CELINE	Belgian Interregional Environmental Agency	Federal
ISP / WIV	Scientific Institute of Public Health / Institut Scientifique de	Federal
	Santé Publique / Wetenschappelijk Instituut Volksgezondheid	
MS	Member State	
MSCP	Member State Contact Point	
MUMM / BMM / UGMM	Management Unit of the North Sea Mathematical Models and the Scheldt estuary / Beheerseenheid van het Mathematisch Model van de Noordzee / Unité de Gestion du Modèle Mathématique de la mer du Nord	Federal
NGI / IGN / NGI	National Geografical Institute of Belgium / Institut National Géographique de Belgique / Nationaal Geografisch Instituut België	Federal
OD Natuur / DO Nature	Directorate Natural Environment	
PCC	Permanent Committee on Cadastre in the European Union	European
PSI	Public Sector Information Directive (and its revision)	European
RMI / IRM / KMI	Royal Meteorological Institute / Institut Royal Météorologique / Koninklijk Meteorologisch Instituut	Federal
ROB / ORB / KBS	Royal Observatory of Belgium / Observatoire Royal de Belgique / Koninklijke Sterrenwacht van België	Federal
SDI / GDI	Spatial Data Infrastructure / Geografische Data Infrastructuur	
SPW	Service Public de Wallonie	Walloon
Statistics Belgium	Statistics Belgium – Directorate-general Statistics / Direction générale Statistique / Algemene directie Statistiek	Federal

## **3** MISSING DATA

Based on an assessment of the yearly Member State monitoring reports and the status of the availability through the EU geo-portal, the Commission is of the opinion that a considerable amount of spatial data has not yet been brought online.

It states that a clear priority should be to bring data online that is already reported within the reporting obligations of environmental directives requiring spatial data for their implementation and reporting.

# 3.1 CURRENT SITUATION

The current position of the Belgian INSPIRE team has been to report only the spatial component of data that will eventually be harmonized. The philosophy underlying this approach is based on the current reporting obligations.

Few exceptions aside, the majority of the existing European environmental directives have devised their own reporting obligations that are not INSPIRE compliant. As such reporting these datasets under INSPIRE would require a duplication of work and represents an unfair burden on the already resource stretched administration.

The explicit willingness exists to report these datasets under INSPIRE soon after the individual directives have adapted their reporting obligations to the INSPIRE requirements.

The philosophy underlying the approach of reporting the spatial component of these datasets and not the full list of attributes is that the attributes are directly related to the assessment of the environmental directive concerned and not to the reporting of the INSPIRE directive. Moreover the number and content of attributes may vary over time, whereas spatial entities are less subject to changes.

At national level repeated and sustained efforts are being made by the INSPIRE community to reach out to the Environmental community and its reporters. The current actions of the commission (REFIT and the drive by the Governance, Information and Reporting unit of DG ENV) have been extensively highlighted during 4 different meetings in Q1-Q2 2016. The plan is to follow up these detailed introductions by in-depth talks with more thematic oriented working groups so as to help the screening of the rolling list of priority datasets to be agreed upon during the MIG-P of June 2016.

We note however, that several EU directives have not yet incorporated the INSPIRE specifications in their reporting rules (e.g. Urban Waste Water directive). As to avoid double work we will first tackle those directives of which the reporting rules are conformant to INSPIRE (as with the Water framework directive).

All responsible entities have approached known data providers and asked whether they do have any (environmental) datasets that could fall under the INSPIRE directive.

The following are the detailed positions of the implementing INSPIRE entities in Belgium.

#### 3.1.1 Brussels Region

As of January 2016, 65 datasets have been identified within 20 of the 34 INSPIRE themes. They are all available online via WMS (view) services. A non-compliant version of the WFS (download) services is already available. The compliant version will be available before the end of 2017.

We are aware that some datasets from the environmental acquis might be missing. This can be partly explained by the current (non geographical) format of these and by a necessary coordination at national level leading to the creation of a new transformed dataset.

#### 3.1.2 Federal administration

According to the last mid-term review, the list of datasets and services have been deeply reviewed and reactualised with the federal data/services providers. All recoverable newly discovered metadata, have been added 'AS IS' in the federal discovery service.

At the time of the reporting, the federal discovery service has gained 48 datasets, 3 data series and 30 services. Additional datasets and services have been identified (with no metadata) and have been documented in the monitoring list, reaching a total of 65 datasets, 3 data series et 34 services.

Among them, datasets related to Air Quality monitoring obligations are now reported and documented on the federal discovery service, which is harvested on the INSPIRE portal.

The identified datasets are:

- Air quality assessment zones (III.11 Area management restriction/regulation zones and reporting units).
- Air quality monitoring network (III.7 Environmental monitoring facilities), and
- Air Quality modelled data (III.13 Atmospheric conditions)

The identification of the data providers of each of the INSPIRE theme is indicated in the INSPIRE report

Investigation on missing data is going on in several sectors :

- meteorological geographical features, atmospheric conditions, marine sector. Some datasets have already been documented in the monitoring list. However deeper analysis on what should be in or out the INSPIRE scope is underway.
- Health sector: a data provider (the scientific Institute of Public Health) has been identified with potential datasets. Meetings and discussion are underway for making them accessible on the INSPIRE platform.

Other datasets need to be investigated to see if they are relevant to INSPIRE. Some work meetings are planned in the following months.

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#### 3.1.3 Flemish Region

As of January 2016, 140 datasets have been identified within 28 of the 34 INSPIRE themes. In excess of 80% of these datasets are available online for governmental bodies within the EU. External analysis (conducted at the end of 2015) has shown that only around 60% can be found on the European geoportal. This is mainly due to the missing keyword ("harvesting"). This is being resolved by mid-2016.

Some 20% of the data is not yet available online. The data providers have been approached at the end of 2015 during a sensibilisation drive and have been asked to do the necessary.

The implementation of the missing discovery and download services will be monitored on a 3 monthly basis and the necessary actions will be taken based on the outcomes of this monitoring.

We are aware that some datasets from the environmental acquis might be missing. However the example given by the Commission about missing water treatment plans (UWWD 91/271/EEC) is telling as the data is actually available as an attribute in the reported sewage database.

Currently the data regarding Conduits and Cables is missing in the reporting. An internal discussion is currently under way as for the relevance of Article 13, point b of the INSPIRE directive) for these datasets. For the case that these datasets fall under this exception, currently no metadata has to be provided.

Points of Interest from theme III.6 are missing. The identification of these datasets is under way.

#### 3.1.4 Walloon Region

Following the bilateral meeting, data providers from the regional administration have been approached to have an exhaustive view of spatial datasets not yet reported or available online. One person is specifically dedicated to identify and contact all data owners that are not reporting their data into the Walloon catalogue Metawal.

For this monitoring, 84 datasets have been identified and documented within 20 INSPIRE themes. Some 80% of them have compliant metadata and appear on the European Geoportal. Most of them are available online and accessible for public bodies.

Some environmental datasets might be still missing mainly due to lack of knowledge of their existence. A broader panel of administrators of geographical databases will be contacted and inquiries will continue in mid-2016 to refine datasets not yet reported or available online. These missing datasets identified under the INSPIRE directive will be considered in priority.

To cover both reported priority datasets and INSPIRE themes, coordination will also be strengthened between INSPIRE experts and regional experts on reporting on environmental legislation in order to facilitate effort in data-identification covering.

Identified missing dataset implementation will be monitored on a 3-monthly basis and compared with the estimated timetable. Necessary actions will be taken based on the outcomes.

# 3.2 ACTIONS

	ACTION	PLANNING
1.	Reporting to the EU  The European Commission wishes to see the relevant geographic data from the Belgian reports to the EU under various environmental	Delivery date of list + 6 months (Q3 – Q4 2016)
	directives on the European geoportal.	
	To select the relevant data sets, the environmental guidelines and their reporting instructions will be screened based on the initial list agreed upon by the MIG-P (June 2016).	
	The screening process will be executed in close cooperation with the CCIM-coordination Committee for International Environmental Policy (Environmental Steering Committee) which is responsible for following up the reports in the context of international environmental directives.	
	This screening will then serve to make the necessary arrangements with the reporting responsible and the data producers.	
	<u>Action taker(s)</u> : DLNE, Bruxelles Environnement, SPW, NGI (on behalf of federal administration)	
2.	Cables and Conduits	Q2 – Q3 2016
	Inform Cable and Conduit network administrators who are also member of GDI Flanders (Flemish public authorities in other words), about their INSPIRE responsibilities.	
	Identify missing conduits and cable networks Resolve current national security issues about making this data publicly available (Access control).	
	Action taker(s): AIV, GeoBru Committee, SPW, SPF economie	

3.	Adding the right keywords in the metadata  A number of datasets or services do not seem to appear on the European portal due to the lack of the exact keyword needed for harvesting. Provided that this keyword (list M & R INSPIRE) is added, these datasets or services will be listed in the European portal.	Q1 – Q2 2016
	Action taker: AIV, GeoBru Committee, SPW	
4.	Inquiry  Administrators of geographical databases were contacted (AIV) or are going to be contacted on a short term and inquiries were made about missing datasets.  Action taker: AIV (finished), GeoBru Committee, NGI (on behalf of federal administration)	December 2015 – December 2016
5.	Compliant version of the WFS service available online  A non-compliant version of the WFS (download) services is already available. The compliant version will be made available.  Action taker: GeoBru Committee	Q4 2017
6.	Points of interest  Points of interest distributed by Information Flanders Agency (eg. Sites of schools) will be screened on whether they fall under the INSPIRE Directive and will be added to the GDI.  Action taker: Information Flanders Agency	Q3 – Q4 2016
7.	3-monthly monitoring  The implementation of the missing view and download services at Flemish level will be followed by a three-monthly monitoring.	Continuous actions

	Action taker: Information Flanders Agency, SPW	
8.	Inquiry and Identification of missed datasets  Administrators of geographical databases will be contacted and inquiries will be made to have an exhaustive view of spatial datasets not yet reported or available online.  Action taker: SPW and other data providers, NGI (on behalf of federal administration)	Continuous actions
9.	Adding identified missing datasets to the SDI  All the identified missing datasets will be in priority implemented in the InfraSIG SDI and documented Metawal.  Action taker: SPW	Continuous actions

#### 4 HARMONISATION

The European Commission asked Belgium what were the actual plans and timeframes for the harmonisation of the geographic information falling under the INSPIRE directive. The EC asked about existing priorities (if any) and suggests to (at least partially) start with the datasets reported under and needed for the reporting under the Environmental acquis.

By 1/10/2020 all INSPIRE-datasets have to be harmonised according to the INSPIRE-data specifications. Datasets falling under Annex I should be harmonised by 23/11/2017.

The Commission states that at European level the conformity of new annex I data or annex I data that has been heavily restructured is very low.

# 4.1 CURRENT SITUATION

Substantial preliminary work has been carried out by several thematic working groups such as to facilitate the work of each INSPIRE implementing entity.

#### Working groups

An intergovernmental working group is currently defining data specifications for addresses as long as rules to create, update and delete them, in close cooperation with the municipalities. A cooperation agreement has been signed by the 3 Regions and the Federal state to put an authentic source for addresses in place. The other main Belgian authentic sources are partners in this agreement (business register, persons register, crossroad bank of the social security, statistics, universal postal service provider). This authentic source is due to be available on January, 1st 2017 and it will be mandatory to use it as the unique reference for addresses in Belgium from January 1st, 2018.

Another intergovernmental working group called "BUNI" is currently defining data specifications for addresses as long as rules to create, update and delete them, in close cooperation with the municipalities and other foremost players like the federal land registry and the regional urban planning departments. Links are made with the address working group. It intends to build dedicated regional building registers that will become the authentic source for buildings in Belgium.

A third working group is cooperating in establishing an authentic source for administrative borders. It is conducted by the Land registry with the active involvement of the 3 regions.

Finally, a 4<sup>th</sup> working group will focus on the general adoption of the INSPIRE conformant CRS, Lambert 2008. The first meeting of the group is scheduled for June 2016.

A study is ongoing to assess the needed actions to achieve compliance for themes of Annexes I and II in Belgium. This will likely result in the creation of a new working group..

#### **Datasets**

A majority of data managers indicate that as of April 2016 they have no concrete plans regarding data harmonization. There are only estimates of the potential costs. For data that are no longer updated, the benefits of harmonization are being questioned.

The data managers must be able to determine independently the impact of the specifications for their data sets, and whether they will achieve reconciliation through restructuring their data or by transformation services. A first step in order to estimate the cost and the difficulty of data harmonisation, is to compare the data with the specifications.

Unlike creating view and download services (2013-2014) only one of the four responsible implementing administrations has a plan to achieve full compliance of harmonization of the data for the upcoming deadlines of 2017 and 2020.

There is also no general assessment of the impact and costs. Unlike setting up networks, the adjustments required by different dataset have to be assessed individually. A process that is therefore considerably more time consuming and complex.

The Commission's assertion that a significant amount of thoroughly restructured data sets, or new datasets do not meet the specifications data is incorrect. There are currently no thoroughly restructured datasets. New datasets such as the Roads Index have been structured according to the INSPIRE data specifications.

We are adamant that it is absolutely necessary that the commission aligns the reporting requirements for the different environmental directives with the INSPIRE specifications. Especially seeing that these environmental datasets constitute a priority!

It would be very helpful if the Commission could provide, or endorse existing conformity checking tools.

#### 4.1.1 Brussels Region

Brussels Environment is planning to initiate the harmonization of the authentic data of Annex I (themes: hydrography and protected sites) in 2016.

As far as the BRIC is concerned, 26 datasets are reported yearly, among which 16 related to Annex I, 6 to Annex II and 4 to Annex III. A study is ongoing in close cooperation with Brussels Environnement to harmonize those datasets meeting the INSPIRE deadlines. The harmonization work will be as follows:

- Selection of a limited number of the most representative datasets
- Call for external consultancy to coach the local data providers in the harmonization process
- Harmonization of all remaining datasets by applying the built-up expertise.

Brussels Environnement will adopt the same work plan. Other partners have been invited to join.

There are currently neither new nor thoroughly restructured datasets at Brussels level.

#### 4.1.2 Federal administration

Currently, some datasets have been made INSPIRE compliant and are accessible through a series of INSPIRE WFS download services for the following themes: Administrative units, geographical Names, transport, hydrography and buildings. Datasets come from the in-situ datasets of reference of NGI (scale 1:10 000). These WFS services are currently tested by internal users before publication on the ELF<sup>3</sup> (European Location framework) platform. The expected date of publication will be Q4 2016, dependent on test results.

Similarly, generalised cross-border in-situ datasets of the national territory at scales ranging from 100.000 to 250.000 are now available in INSPIRE compliant structure and they will be made accessible on the ELF platform (Q4 2016) for the following INSPIRE themes :

- Administrative units,
- Geographical Names,
- Transport,
- Hydrography,
- Sea Region,
- Elevation,
- Landcover and
- Protected Sites

Other datasets like the geological maps of Belgium at scale 1:250.000 are declared INSPIRE compliant but still need to be validated.

#### Data harmonisation plan:

It is expected that INSPIRE compliant administrative boundaries and cadastral parcels will be accessible through WFS by the end of 2016.

The NGI plans to transform its authoritative in-situ datasets (master level) in 2017 to INSPIRE compliant datasets (version 4.0) according to the INSPIRE roadmap for Annex I but also the ortophoto's and the digital terrain model.

Harmonisation coordination and support is currently undertaken to help the other federal stakeholders to make their datasets INSPIRE compliant as well as the quality assurance processes ( see the report)

#### 4.1.3 Flemish Region

Currently, only the address register (CRAB) (Information Flanders Agency), the Roads Register (Information Flanders Agency & NGI) and the air quality monitoring network (Flemish Environment Agency (VMM /

<sup>&</sup>lt;sup>3</sup> ELF: European Location Framework is unique gateway to harmonised pan-European maps, geographic and land information based on INSPIRE implementation. ( see http://www.elfproject.eu ).

Belgian Interregional Environment Agency (IRCEL - CELINE)) are fully conformant with the INSPIRE data specifications.

Flanders Innovation & Entrepreneurship will initiate the harmonization of the authentic data source "business parks" in 2016. The Flemish Environment Agency (VMM) is currently restructuring the sewer database in accordance with the INSPIRE specifications and expects to extend its coverage to the whole of Flanders by the end of 2017.

The Heritage Agency plans to ensure full data harmonization of its datasets of protected areas by mid-2016.

Information Flanders Agency (ex AGIV) has extensive plans to work on their base registries by linking them and making them INSPIRE compliant.

The data managers are asking for more detailed information on data harmonization, how to deal with this and what efforts it will require.

The INSPIRE data specifications are included in the development of new datasets or in-depth restructuring (such as the registry building and the new sewer database). By November 2016 all conduits and cable networks in Flanders should be offered digitally to prevent excavation damage (KLIP-decree). The exchange format is has been based on the INSPIRE data specifications.

A central supporting service for harmonization is in the making and should be active by mid-2016. The aim is to help data managers by offering clarification on and guidance through the harmonizing process.

Information Flanders Agency has started with the monitoring of the sensibilisation of the harmonization. The datasets that already conform to the harmonization requirements (i.e. the Address registry, the road network and the air quality network) have been given the pass mark. All other have been given a warning label.

#### 4.1.4 Walloon Region

Currently, no data are fully conformant with the INSPIRE data requirements. In this context and following the InfraSIG Decree (INSPIRE transposition at the Walloon regional level – Décret du 22/12/2010), the first Strategic Geomatics Plan of Wallonia ("Plan Stratégique Géomatique pour la Wallonie - PSGW") was approved by the Walloon Government in May 8, 2014. This plan highlights and strengthens the implementation of a regional harmonisation.

Priority is to work with owners that already have good data modelling practice. The Addresse dataset (ICAR) is planned to be conformant with the INSPIRE data specification.

For "Hydrography" and "Transport Networks "work is in progress but considerable as we have several data sets (SPW, public agencies...) with no unique authentic sources, different data models and quality levels.

Given this situation, a study related to the harmonisation of datasets is ongoing in order to estimate the cost and the difficulty of data harmonization. This study focuses on a limited number of dataset and the implementation of a dedicated transformation platform for harmonisation.

# 4.2 ACTIONS

ACTION	PLANNING
1. ETRS 89	Q2 2016
A working group will convene to find a common approach to the non-conformity of the widely used CRS (Lambert 72). The working group is commonly referred to as Lambert 2008 (the name of the INSPIRE conformant CRS).	
<u>Action Taker</u> : CC inspire	
2. Inquiry	Q4 2015 - Ongoing
Data administrators have been asked or are going to be about their priorities regarding data harmonization.	
Action Taker: Information Flanders, GeoBru, NGI (on behalf of federal administration)	
<ul> <li>3. Study related to the harmonisation of datasets with INSPIRE data specification requirements</li> <li>Identification of a limited number of dataset to harmonise</li> <li>Harmonisation processing and compliance validation</li> <li>Implementation of a dedicated transformation platform</li> </ul>	2016-2017
<u>Action Taker</u> : SPW, GeoBru,	
<ol> <li>In 2016, AADP-AGDP will provide INSPIRE compliant administrative boundaries and cadastral parcels will be accessible through WFS.</li> <li>IN 2017, NGI will transform its authoritative in-situ datasets ( master level) INSPIRE compliant ( version 4.0) according to the INSPIRE roadmap (Annex I) but also the orthophotos and the digital terrain model and the land coverage.</li> </ol>	2016-2017

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	Harmonisation coordination and action plan is currently undertaken to help the other federal stakeholders to make their datasets INSPIRE compliant as well as the quality assurance processes ( see the report)  Action Taker: NGI with federal data/services providers	
5.	Harmonization of all remaining datasets by applying the built-up expertise	2017-2020
	Action Taker: SPW, GeoBru	
6.	Information moments	Q1/2 2016
	To provide an answer to the question of data managers for more information and clarification on data harmonization, several public information moments will be organized in 2016. The purpose of these information sessions is to illustrate how data harmonization can be done by showing best practices	
	Information will be given during the Trefdag (open day) of Information Flanders Agency in June.	
	Action Taker: Information Flanders Agency	
7.	Support	From Q3 2016 onwards
	Based on the reactions received during the information moments the Information Flanders Agency will develop a support offer for data administrators.	
	Action taker: Information Flanders Agency, SPW	
8.	3-monthly monitoring	Continuous actions
	The evolution of the level of conformity of the harmonization of the datasets will be monitored on a three monthly base.	
	Action Taker: SPW , Information Flanders Agency	

## **5** METADATA

The European Commission sees a positive trend when it comes to the availability of metadata for datasets since 2010. However, the availability of metadata for network services is low (25%). For most metadata, the Commission finds validation problems.

The European Commission has also determined that for some data sets metadata are missing and further highlighted the fact that the relevant deadlines have already passed (see Annex 1). The Commission expects 100% compliance in these areas and expects to see a significant improvement on 15.05.2016 (the annual reporting following the bilateral meeting).

## 5.1 CURRENT SITUATION

One of the main reasons for the elevated level of non-conformity of the metadata is the commonly used reference coordinate system in Belgium that is not ETRS conform. In order to alleviate this problem a work group has been convened to make and coordinate the necessary decisions in order to conform to the INSPIRE requirements.

There is currently an error in the validation tool provided by the Commission. ETRS89 is currently a default value and will only become an obligation when the harmonization deadlines have passed. The current level of metadata conformity is currently higher than reported by the Commission tool, even though some small technical issues remain.

#### 5.1.1 Brussels Region

An observed bug in the discovery service of the geoportal (leading to instability into the results of the harvesting) has been investigated and solved in the staging environment. It will be soon available in the production environment. Some errors within the keywords have also been corrected.

All the metadata will be checked by the method used by the Commission, so that small technical issues can be addressed in 2016.

#### 5.1.2 Federal administration

In 2014, the federal discovery service has been set up and currently holds 48 datasets, 3 data series and 30 services. Many of those metadata are already INSPIRE compliant.

Compared to the monitoring report of last year, 5 additional federal partners have made metadata accessible through the federal discovery service.

#### 5.1.3 Flemish Region

#### 5.1.3.1 Accesibility of geographic databases

90% of the approximately 140 identified data sets / dataset sequences have been documented. External analysis (conducted at the end of 2015) has shown that not all of existing metadata can be found on the European geoportal. This is mainly due to the missing keyword ("harvesting"). This is being resolved by mid-2016 together with other minor technical reasons.

Some 10% of the metadata of data sets does not exist. The responsible data managers were informed by the end of 2015 and encouraged to do the necessary.

The realization of the missing metadata will be monitored by the three-monthly monitoring.

All technical issues in the existing metadata should be resolved by mid 2016, which will increase the availability of metadata with 20%. The general and specific action should further more increase the availability with some percentages.

The aim remains 100%.

#### 5.1.3.2 Conformity analysis

An external contractor has been asked to evaluate the conformity of the metadata at Flemish level..

All the metadata will be checked by the method used by the Commission, so that small technical issues can be addressed by mid-2016.

#### 5.1.4 Walloon Region

Currently all identified INSPIRE dataset are documented and 80% of them (67 datasets) are INSPIRE compliant and validated by the method used by the Commission. The totality will be soon covered.

The validation of the compliance of metadata is part of the publishing process.

It is possible that some metadata of network services is missing. This is being investigated and can be addressed in 2016.

Effort will be realised on the monitoring that will be based on a 3 monthly basis instead of an annual frequency. Thus, necessary actions will be adapted easier based on the outcomes.

# 5.2 ACTIONS

ACTION	PLANNING
Keywords  Some datasets lack the right keyword for harvesting. This will be solved by the responsible data managers.	Q1-Q2 2016
<u>Action Takers</u> : Information Flanders Agency, GeoBru	
<ol> <li>Conformity check.</li> <li>Control in how far the metadata and the networkservices are available in INSPIRE conformant versions. This has served to report correctly and fully to the Commission and to inform the data administrators about their shortcomings.</li> <li>Actienemer: SADL – KUL for Flanders Information Agency, GeoBru, SPW</li> </ol>	Continuous action (all action takers)  Q4 2015 (initial research for Flanders Information Agency)
<ol> <li>Solve the bug in the discovery service         The bug will be soon solved in the production environment.     </li> <li>Action Taker: BRIC</li> </ol>	Q1-Q2 2016
4. Keywords  Some datasets lack the right keyword for harvesting. This will be solved by the responsible data manager.  Action Taker: Information Flanders Agency and the responsible administrators	Q1-Q2 2016

5.	Support offer	Continuous action
	The agency Informatie Vlaanderen, MercatorNet en Databank Ondergrond Vlaanderen already offer support for the production of metadata. This action will be continued.	
	<u>Action Taker</u> : Information Flanders Agency, MercatorNet en Support Centre DOV , SPW	
6.	Information moments	Q1 2016
	Information meetings have been organized to inform the data providers about the results of the conformity check.	
	Action Taker: Information Flanders Agency	
7.	3-monthly monitoring	Continuous action
	The evolution of the amount of data documented by metadata will be monitored using the three monthly monitoring.	
	Action taker : SPW, Information Flanders Agency	
8.	All identified datasets and services will get INSPIRE compliant metadata	2016
	Action taker: NGI with the federal data/services provider	

# **6** NETWORK SERVICES

The European Commission states that network services are lagging behind and highlighted the fact that the relevant deadlines have already expired. The Commission expects 100% compliance in these areas and expects to see a significant improvement on 15.05.2015 (the next annual reporting).

The Commission differentiates between the regions and sees significant differences. In general, it notes that implementation of transfer services is lagging behind, that not all search services are documented, that the number of view services is low and there are nearly half of the available network services have compliance problems.

# **6.1 CURRENT SITUATION**

The 4 discovery services from the 4 different INSPIRE implementing authorities are registered and documented on the European portal.

#### 6.1.1 Brussels Region

The known issues have been solved and will be deployed in the production in 2016 (cfr Error! Reference source not found.).

Services metadata have been added to the discovery service.

All data sets are visible through the compliant view services without restrictions.

Download services have recently evolved. An implementation of the hybrid technology Atom Feeds/Open Search + WFS has been put in production. Brussels Region partners are working on their datasets metadata to make them downloadable through the Atom Feeds technology. Some download services metadata are still missing or not properly qualified with the keyword "Reporting INSPIRE" but it will be corrected in 2016. Therefore, as of today, the automatically generated XML report build by harvesting our portal may not show all those services.

#### 6.1.2 Federal administration

On the 30 services documented within the discovery service, 4 discovery services and an equivalent number of viewing (WMS) and download services (SOAP, Atom feed and WFS). WMS, Atom feed and WFS services have been mostly made INSPIRE compliant.

Testing and validating procedures are underway since uncertainty exists about the INSPIRE conformity.

#### 6.1.3 Flemish Region

#### 6.1.3.1 Accessibility of geographic databases

Network services and transfer services are available for more than 80% of the approximately 140 identified data sets / series.

By mid 2016 Information Flanders Agency will construct INSPIRE-compliant transfer services for the datasets it offers.

Data providers have been polled as to their plans to provide missing network services. Information sessions, support and 3-monthly monitoring will be provided.

#### 6.1.3.2 Conformity check

A conformity check was done by Spatial Applications Division Leuven – KU Leuven (SADL – KUL). Part of the transfer services do not appear to be INSPIRE compliant. Solutions will be implemented.

#### 6.1.4 Walloon Region

#### Discovery service

The Wallonia's discovery service is documented and registered on the EU-Geoportal. It is not 100% conformant, but errors are minor and do not impede the use of the discovery service. We are exploring what the errors are and correct them if it turns out that they are real errors. This is an ongoing work.

#### View and download services

85% of documented datasets are accessible through view services without restrictions but none are INSPIRE compliant.

Wallonia does not have any conformant download service yet.

The analysis and implementation to become compliant are "Ongoing". The last results and degree of conformity with the implementing rules on interoperability of spatial data sets and services are encouraging.

Hybrid implementation is considered with at very short term the availability of "pre-defined DL service" using "Atom" feed and in a second step using WFS after technical survey and validation with IT services.

# 6.2 ACTIONS

	ACTION	PLANNING
1.	Conformity testing	Q4 2015 – 2016
	Research as to whether metadata and network services are available and compliant with INSPIRE so as to report more correctly to the commission, and data providers can be informed more specifically on where to focus their efforts.	
	Action taker: Information Flanders Agency (SADL – KUL), GeoBru, SPW	
2.	Consultation	Q4 2015
	Data providers have been polled as to their plans to provide missing network services at the same time as they were informed about the bilateral meeting, and the request trickling down to them.	
	Action taker: Information Flanders Agency, GeoBru	
3.	INSPIRE-compliant download services	Q4 2016
	The hybrid technology Atom Feeds/Open Search + WFS will be implemented. Brussels Region aims to set up INSPIRE conformant download services for all the INSPIRE datasets it distributes by the end of 2016.	
	Information Flanders Agency aims to set up INSPIRE conformant download services for all the datasets it distributes by the end of 2016.	
	Action taker: GeoBru Committee, Information Flanders Agency	
4.	Support  Information Flanders Agency, MercatorNet and Databank Ondergrond Vlaanderen have been offering support for the production of network	Continuous actions

	services. They plan to continue this offer.	
	Action taker: Information Flanders Agency, MercatorNet en Support Centre-DOV	
5.	Information moments	Q1 2016
	An information moment to highlight the results of the conformity test has been organized in January 2016.	
	Action taker: Information Flanders Agency	
6.	3-monthly monitoring	Continuous action
	The evolution of the INSPIRE conformant data with INSPIRE conformant services will be monitored through the 3 monthly monitoring.	
	Action taker: Information Flanders Agency, SPW	
7.	INSPIRE View services: Solutions analysis and Implementation strategy	Q3-2016
	Action taker: SPW	
8.	INSPIRE View services: Implementation	Q4-2016
	Action taker: SPW	
9.	INSPIRE Download services: Solutions analysis and Implementation strategy	Q1-2017
	Action taker: SPW	
10.	INSPIRE Download services: Implementation	Q2-2017
	Action taker: SPW	

11. QoS: solution analysis and implementation	Q4-2016 & Q2-2017
ii. Qos. solution analysis and implementation	Q2-201/
Action taker: SPW	
Action taxer. SP W	
Action plan to provide INSPIRE networks convices at federal level	Q2-2016
Action plan to provide INSPIRE networks services at federal level with INSPIRE network services for all identified datasets of AGDP and	
NGI by end 2016	
Action taker: NGI with data: services providers	

## 7 DATASHARING AND REUSE.

The commission wishes to see the data and network services being widely accessible for the public, the administration and the private sector.

The commission asks about practical or procedural obstacles to the exchange of data and services. Where they exist the commission asks for plans to solve these.

# 7.1 CURRENT SITUATION

Since July, 10th 2015 the updated PSI directive has entered into force. This obliges all administrative actors to share their (geographical) data that are of a public interest.

In Brussels an ordinance that will transpose the Directive into Brussels law was adopted at first reading the 28<sup>th</sup> January 2016.

As a result of the revised PSI directive and the actions planned a further increase in free and reusable datasets is expected.

In January 2016 the Belgian Ministry of Defense sent a mailing to all major geospatial data providers (administrations and private sector). In this letter all data providers were asked to comply to art 120ter 1° of the Belgian Criminal Code. This article states that "the reproduction, presentation, selling or distribution of photographic material of Military installations is prohibited and punishable by law unless explicitly allowed by the Ministry of defense".

All data providers have been asked to stop the distribution, reproduction and presentation of all photographic records including, but not limited to video, maps, aerial photographs of military installations for which the explicit authorization was not obtained.

In May 2016 all data providers have been offered a confidential file with the exact locations of such military installations for masking purposes. A degradation of aerial photographs to a resolution of 3m pixel size has been ordered within a buffer of 50m outside of military installations.

This is expected to have a significant impact on data provision.

#### 7.1.1 Brussels Region

All INSPIRE datasets that are added to the Brussels geoportal are currently accessible free of charge, via an Open data license or equivalent.

A regional open data license (<a href="http://cirb.brussels/fr/nos-solutions/urbis-solutions/licence-urbis-open-data">http://cirb.brussels/fr/nos-solutions/urbis-solutions/licence-urbis-open-data</a>) has been created. This license is planned to be proposed as the default license for data sharing (included geographical datasets) under the transposition of PSI directive. But this proposal has to be confirmed.

#### 7.1.2 Federal administration

The data sharing policy is a case to case situation for the federal stakeholders (see report). Strong willingness to promote free access to data exists but the main barriers are legal (linked to existing royal decrees) or financial.

The federal stakeholders are seeking for a common licensing strategy.

#### 7.1.3 Flemish Region

Datasets and services that are added to the Flemish Spatial Data Infrastructure (GDI) are accessible free of charge for all the Flemish government services. Access is regulated through one non-transactional license. For other government services the access is regulated by another non-transactional license Since 1/1/2016 the last dataset (GRB) has been made freely accessible for all government services.

For the use of some data registration is required. Access should be granted within 2 days for Flemish government services and within 20 days for other government services. This may be perceived as an obstacle. In the case of emergency or crisis situations access must be granted immediately.

Since July, 10th 2015 the updated PSI directive has entered into force. This obliges all administrative actors to share their (geographical) data. More than 80% of the approximately 140 identified data sets / dataset sequences are made reusable, mainly through an Free and Open Data-license.

With the most important Federal data providers some sharing agreements have been signed. Payments are made at the start of the sharing agreements so that data flows never become impaired by outstanding negative balances.

#### 7.1.4 Walloon Region

All identified INSPIRE datasets documented on Metawal are accessible free of charge by EU public bodies but the access is regulated by a license.

Furthermore, datasets that are added to the Walloon SDI are mainly accessible via "view services" with a completely open access to the public and professionals beyond the public authorities.

A regional open data license is planned under the transposition of PSI directive and the digital Wallonia plan adopted in 2015 by the Walloon Government.

# 7.2 ACTIONS

ACTION	PLANNING
1. Information moments	2015-2018
Information moments are planned to inform the data providers about the PSI directive and digital Wallonia plan outcomes.	
Action taker: SPW, Information Flanders Agency, NGI	
2. 3-monthly monitoring	Continuous action
The evolution of the access of datasets will be monitored through the 3 monthly monitoring.	
Action taker: SPW, Information Flanders Agency	
3. Restart "Talks between data providers"	Continuous action
To ensure good communication and agreements between data providers concerning the optimal data sharing, a restart of this action is deemed necessary.	
Action taker: Information Flanders Agency, NGI	
4. Consultation	December 2015
Data providers have been asked to highlight their plans to provide data for reuse.	
Action taker: Information Flanders Agency	
5. To encourage the establishment of framework agreements, open licenses and minimum or no charge license fees standardized for the federal level.	2016-2017
Action taker: NGI with federal stakeholders	

# **8** CONCLUSION

Significant efforts have been made at all the concerned Belgian administrative levels to ensure the full compliance with the INSPIRE directive. These have been highlighted in the above document and the addition of provisional deadlines clearly indicate the willingness to realise significant improvements in the implementation of the INSPIRE directive in Belgium.

A this point it needs highlighting that there is a tremendous cooperative effort realized by all parties involved in the INSPIRE implementation. All are active in several working groups (BestAdress, Buni, Cadastral Parcels to name but a few) to ensure a national concerted approach.

Notable here is also the effort that will culminate shortly in a report including an inventory and assessment of ANNEX I & II data to determine a coordinated and harmonized national approach.

There are factors at Commission level that make it sheer impossible to ensure full compliance. The most important factor is the lack of legislative coordination between the different (environmental) directives. The alignment of the reporting requirements for the different environmental directives is a legislative deficit that needs to be addressed and corrected as soon as possible.

It is our understanding that these issues are finally being recognized and are starting to be addressed at Commission level. The relative lateness of these exercises within the INSPIRE implementation roadmap means however that the full implementation of the INSPIRE directive will most probably not succeed within the initial timeframe in any MS, let alone Belgium with its intricate administrational and political structure.

This being said, the efforts that have been made, that are currently being undertaken and that are planned for the near future are the single most best proof that Belgium supports the philosophy of the INSPIRE directive and will continue to do the possible to implement this directive to their best capacity within the current far reaching budgetary restrictions.

It needs repeating that these budgetary restrictions explicitly forbid the needless multiplication of work for the sole need of compliance to differing reporting requirements of environmental directives. Therefore we explicitly applaud the pragmatic approach of the Commission to add datasets currently being reported within the framework of other directives as they are (i.e. conform their individual reporting requirements) to the European Geoportal. We would like to see this pragmatic approach extended to the enforcement of the harmonization requirement, meaning that this can only been done once the reporting requirements of the directives have been aligned.

Finally we would like to stress the cooperative spirit in which the implementation roadblocks of the INSPIRE directive have been solved up to date through the maintenance and implementation workgroup. We explicitly wish this cooperative spirit to extend towards the coming years and are prepared to do our utmost for this to happen. We are confident that the commission also subscribes to this view.