

MEASURING INSPIRE COMPLIANCE OF REGIONAL SPATIAL DATA INFRASTRUCTURES

30/09/2016
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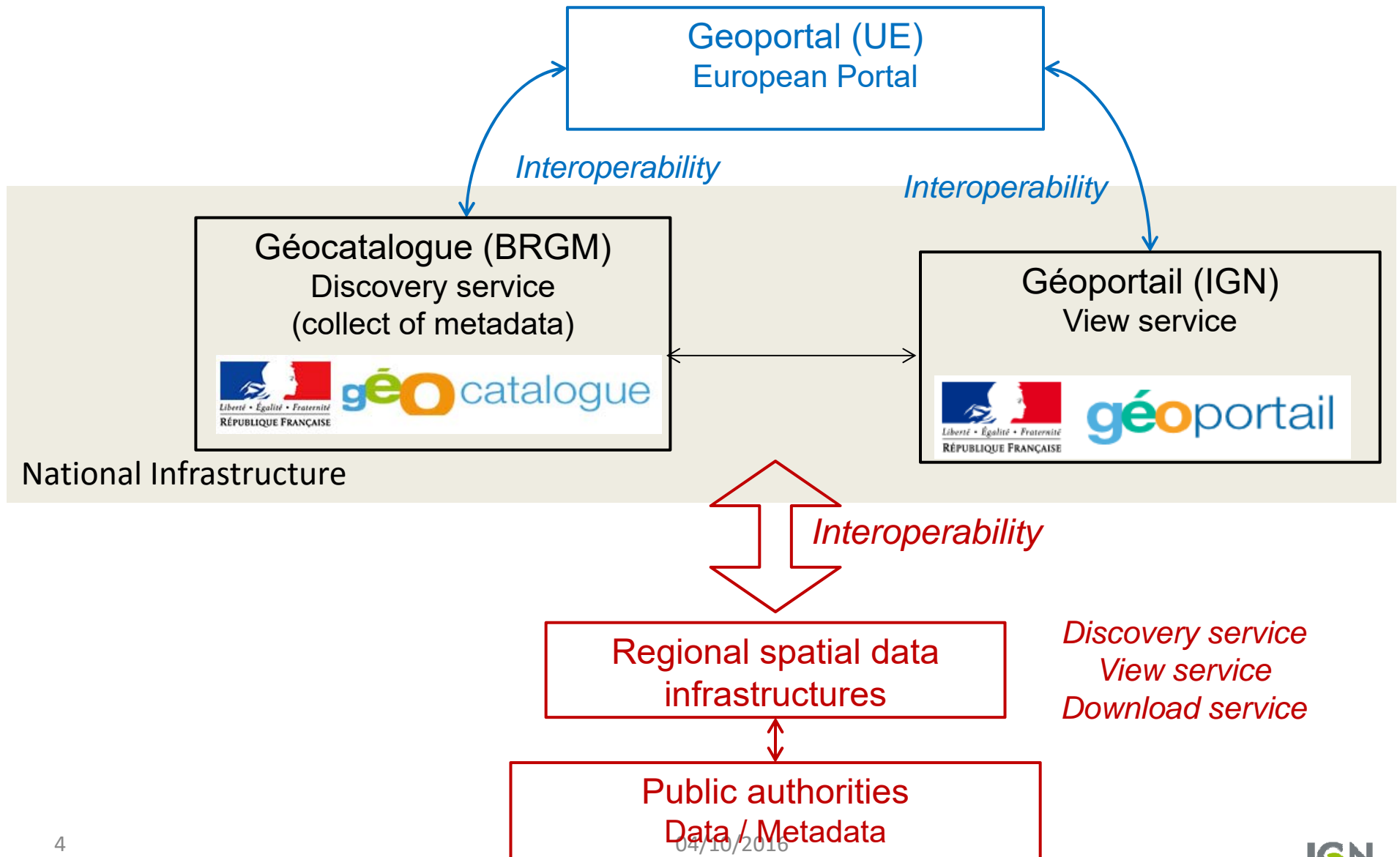


MEASURING INSPIRE COMPLIANCE OF REGIONAL SPATIAL DATA INFRASTRUCTURES

- **IMPLEMENTATION OF INSPIRE DIRECTIVE IN FRANCE**
 - French national infrastructure
 - Role of the national Institute of Geographic and Forestry Information
 - Inspire and French regions
- **MEASURING INSPIRE COMPLIANCE OF REGIONAL SERVICES**

IMPLEMENTATION OF THE INSPIRE DIRECTIVE IN FRANCE

INSPIRE INFRASTRUCTURE IN FRANCE



INSPIRE AND IGN






- **THE NATIONAL INSTITUTE OF GEOGRAPHIC AND FORESTRY INFORMATION AND INSPIRE:**
 - Participation in European Projects, in specifications writing
 - Support in France for the Ministry of Ecology
 - Formation to Inspire Metadata for French regions
 - Formation to Data Model Transformation
 - Measure of service compliance for regional spatial data infrastructure
 - Help with reporting to the European Commission
 - Implementation of the French National Geographical website « Géoportail »
 - Concerned as a reference data producer

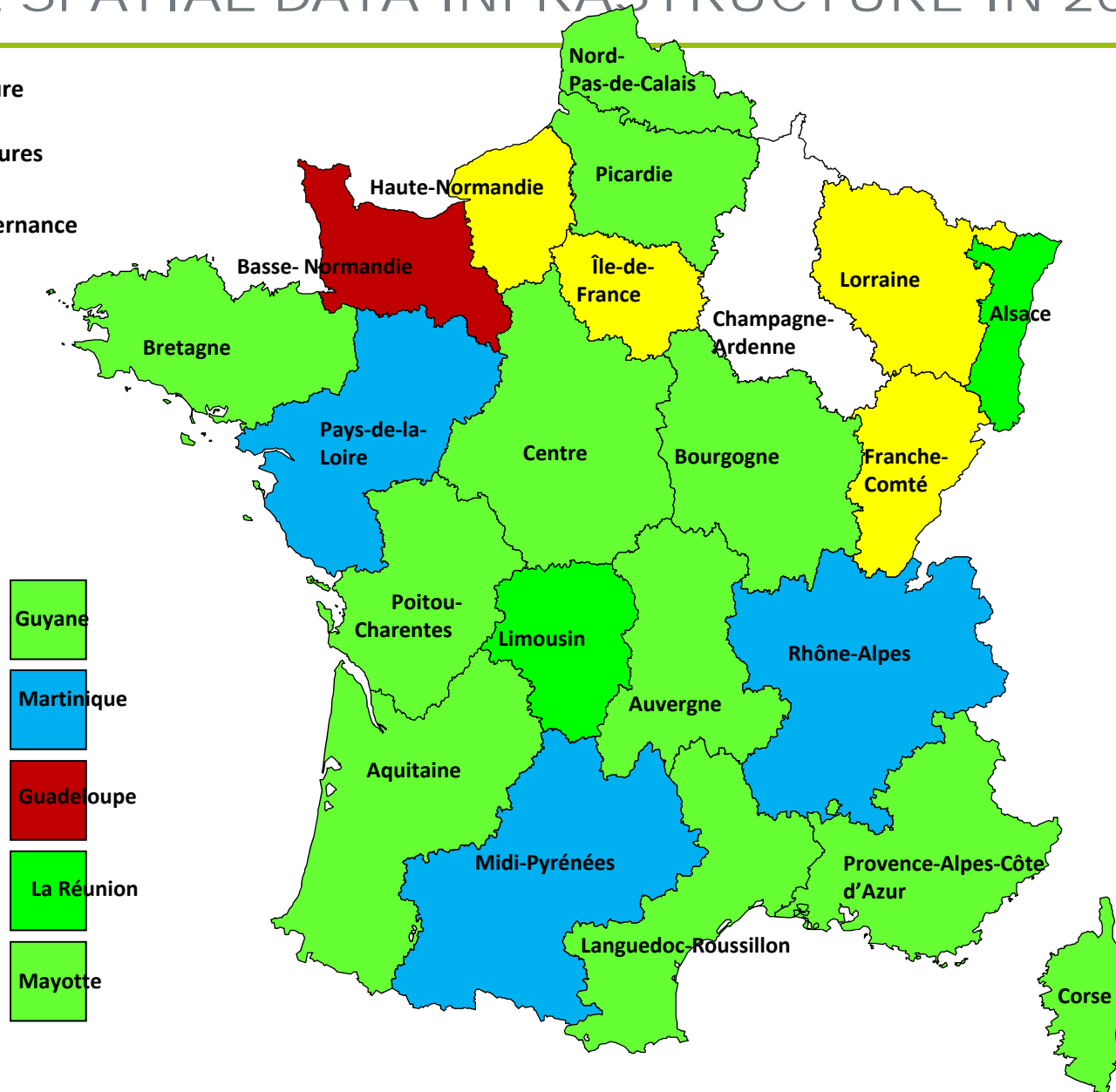


FRENCH REGIONS

- **REGIONS ARE A KEY ACTOR IN FRENCH INSPIRE INFRASTRUCTURE:**
 - Collect data and metadata from territorial authorities
 - Send metadata to the national discovery service (Geocatalogue)
- **IN MANY REGIONS, SPATIAL DATA INFRASTRUCTURES HAVE DEVELOPED**
 - Implementation of view, download and discovery services
 - Help for local actors in the implementation of Inspire Directive

REGIONAL SPATIAL DATA INFRASTRUCTURE IN 2014

-  1 region => 1 infrastructure
-  1 region => 2 infrastructures
-  Research of unique governance
-  Research of governance
-  isolated



REGIONS IN 2016

- A CONTEXT OF EVOLUTION
 - From 22 to 13 regions in metropole





MEASURING INSPIRE COMPLIANCE OF REGIONAL SERVICES

ANALYSIS OF WEB SERVICES COMPLIANCE

- IN SUPPORT OF THE MINISTRY OF ENVIRONMENT, IGN OFFERS FREE ANALYSIS ON WEB SERVICES OF REGIONAL SPATIAL DATA INFRASTRUCTURES
- WHAT KIND OF SERVICES?
 - WFS
 - WMS
 - WMTS
- WITH WHAT TOOLS?
 - Spatineo
 - Inspire metadata validator



TESTS

■ WHAT IS TESTED?

■ With Spatineo

- Presence of mandatory operations : GetMap, GetCapabilities...

Objectifs de conformité aux normes pour ce service

Ce service est actuellement validé en utilisant les ensembles de tests de standardisation suivants :

- Services de consultation INSPIRE, profile INSPIRE de la norme ISO 19128:2005 (WMS 1.3)



Résultats de validation (18/5/2016 13:30)

Valider à nouveau



✘ Services de consultation INSPIRE, profile INSPIRE de la norme ISO 19128:2005 (WMS 1.3): échoué

Tests de conformité XML général

▶ 1 test réussi

▼ 1 test échoué

Validation du schéma

Le document de capacités doit passer la validation mécanique avant le schéma XML

ligne 145, emplacement 9: string value " does not match pattern for xs:NMTOKEN

ligne 170, emplacement 9: string value " does not match pattern for xs:NMTOKEN

ligne 197, emplacement 9: string value " does not match pattern for xs:NMTOKEN

ligne 222, emplacement 9: string value " does not match pattern for xs:NMTOKEN

TESTS

■ WHAT IS TESTED?

- With Spatineo
 - Verification of the result of the requests

Temps de réponse

Temps de réponse (ms) †	Heure des requêtes	Résultat	
17552	11/9/2016 22:40	✓	Afficher les détails
12849	5/9/2016 22:38	✓	Afficher les détails
12059	20/8/2016 22:37	✓	Afficher les détails
11973	2/9/2016 22:43	✓	Afficher les détails
11965	21/8/2016 13:32	✓	Afficher les détails
11935	25/8/2016 22:38	✓	Afficher les détails
11889	22/8/2016 22:42	✓	Afficher les détails
11371	18/9/2016 22:41	✓	Afficher les détails
11231	22/8/2016 22:37	✓	Afficher les détails
10931	21/8/2016 22:37	✓	Afficher les détails

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TESTS

■ WHAT IS TESTED?

- With Spatineo
 - Performance

Métrique

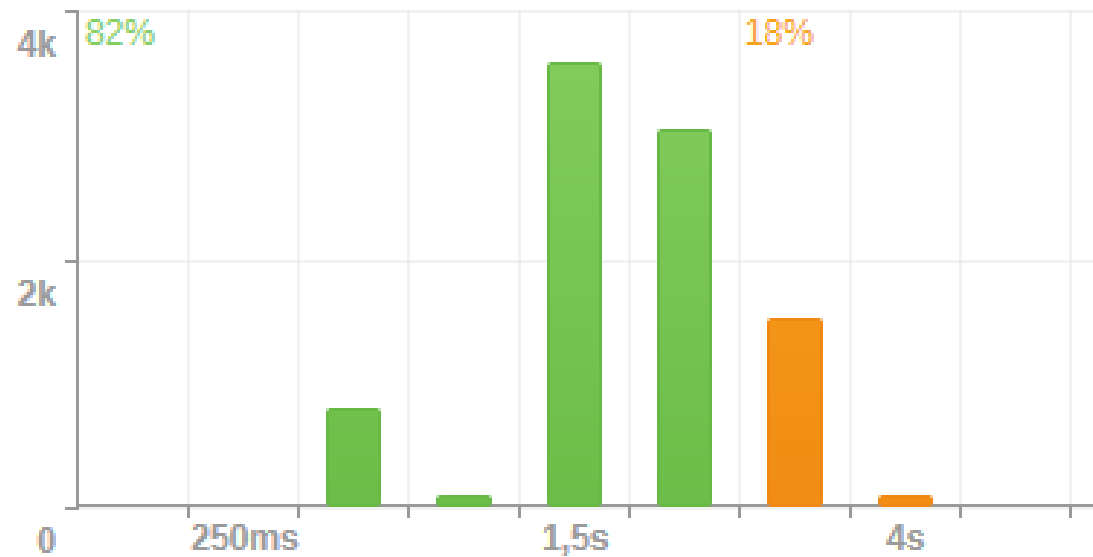


TESTS

■ WHAT IS TESTED?

- With Spatineo
 - Availability

Disponibilité du service
99,9% de la période sélectionnée



TESTS

■ WHAT IS TESTED?

- With Spatineo
 - Capacity

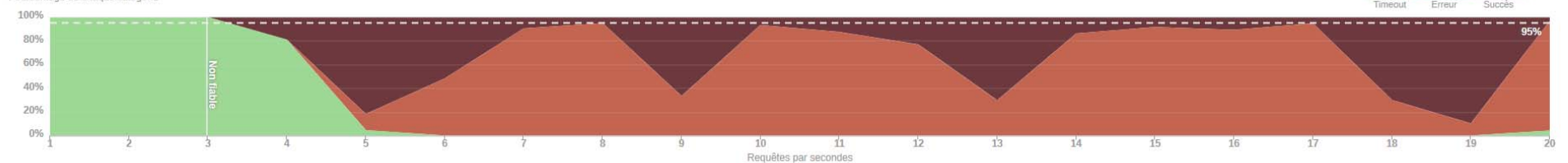
WMS GetMap: BDORTHO2012 (EPSG:2154, 800x600px, image/png)

Service Serveur WMS GéoBourgogne #8684
Endpoint du service <http://datacarto.geobourgogne.fr/WMS/wms.php?>
Charge maximum 20 requêtes par secondes

Temps de réponse des requêtes réussies



Pourcentage de chaque catégorie



Fiabilité dégradée depuis	3 req/s	Non fiable depuis	3 req/s
Nombre total de requêtes	4 820	Succès	94
Temps moyen de réponses réussies	33,0 s	5% >	~1,1 s
Nombre total d'octets reçus	35,1 MB	Nombre moyen d'octets par requête	24,9 kB
		Erreurs	1 352
		Timeouts	3 374
		Mediane	~37,7 s
		95% <	~59,9 s

Télécharger JSON



TESTS

- WHAT IS TESTED?
 - With Inspire validator
 - Service Metadata compliancy

Schema Validation Issues

Please note that schema validation issues could likely be at the origin of the issues reported in the 'Inspire Validation Issues' section below.

Relevant documentation:

- See [INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119 \(Version 1.2\)](#)

Validation Schema(s) used for validation: 19139 XSchemas TS RC (2006 May 4)

- **In content of element <SV_ServiceIdentification>: The content model does not allow element <Q{.../srv}coupledResource> to appear immediately after element <Q{.../srv}operatesOn>. Expected <Q{.../srv}operatesOn> or nothing. at column 31, line 2239**

Inspire Validation Issues

- **Information on the degree of conformity with the implementing rules on interoperability of spatial data sets and services is required**

Relevant documentation:

- See [TG Requirement 28](#) in [INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119 \(Version 1.3\)](#)
- See [Metadata for spatial data services](#) in [Commission Regulation \(EC\) No 1205/2008 of 3 December 2008 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata](#)

Expert documentation

- [UML Requirement Diagram](#)



CONCLUSION



CONCLUSION

- **FIVE REGIONS IN THE PROCESS OF BEING ANALYZED.**
- **FIRST OBSERVATIONS:**
 - Service metadata are often absent or don't respect Inspire requirements
 - Performance and capacity on big data layers such as imagery don't reach Inspire requirements.