

# INSPIRE at mid-term

how to use this basis for  
environmental information

3<sup>rd</sup> Czech and Slovak INSPIRE conference



INSPIRUM SE

Floret, Průhonice  
25. - 26. 11. 2014



# Preface

Statement by the German Minister of Environment - Barbara Heinrich –  
during the 3rd National INSPIRE day on October 7th in Berlin

On the

significance of INSPIRE:

"Since they are used just as much, geodata and geoinformation should as naturally be considered infrastructures as are water, energy and transport."



# Outline

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**INSPIRE at mid-term – outcome of the policy evaluation**

**An outside view on the Czech and Slovak situation**

**General EEA activities to support the usefulness of  
INSPIRE for environmental information**

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**INSPIRE at mid-term –  
outcome of the policy evaluation**



# Status 10 years ago...

## - Important obstacles related to use of geospatial data\*

- ✓ *Spatial data is often missing or incomplete*
- ✓ *The description of available spatial data is often incomplete*
- ✓ *Spatial datasets can often not be combined with other spatial datasets*
- ✓ *The system to find, access and use spatial data often function in isolation only and are not compatible with each other.*
- ✓ *Cultural, institutional, financial and legal barriers prevent or delay the sharing and re-use of existing data.*

# INSPIRE evaluation process

## - Joint EEA-JRC report

### „Mid-term evaluation report on INSPIRE implementation“

Based on:

- ✓ 2013 Member State implementation reports
- ✓ DG Environment public consultation (Dec 2013 – Mar 2014)
- ✓ INSPIRE evaluation report on technical implementation in Member States (consultants report) (April 2014)
- ✓ further references

<http://www.eea.europa.eu/publications/midterm-evaluation-report-on-inspire-implementation>

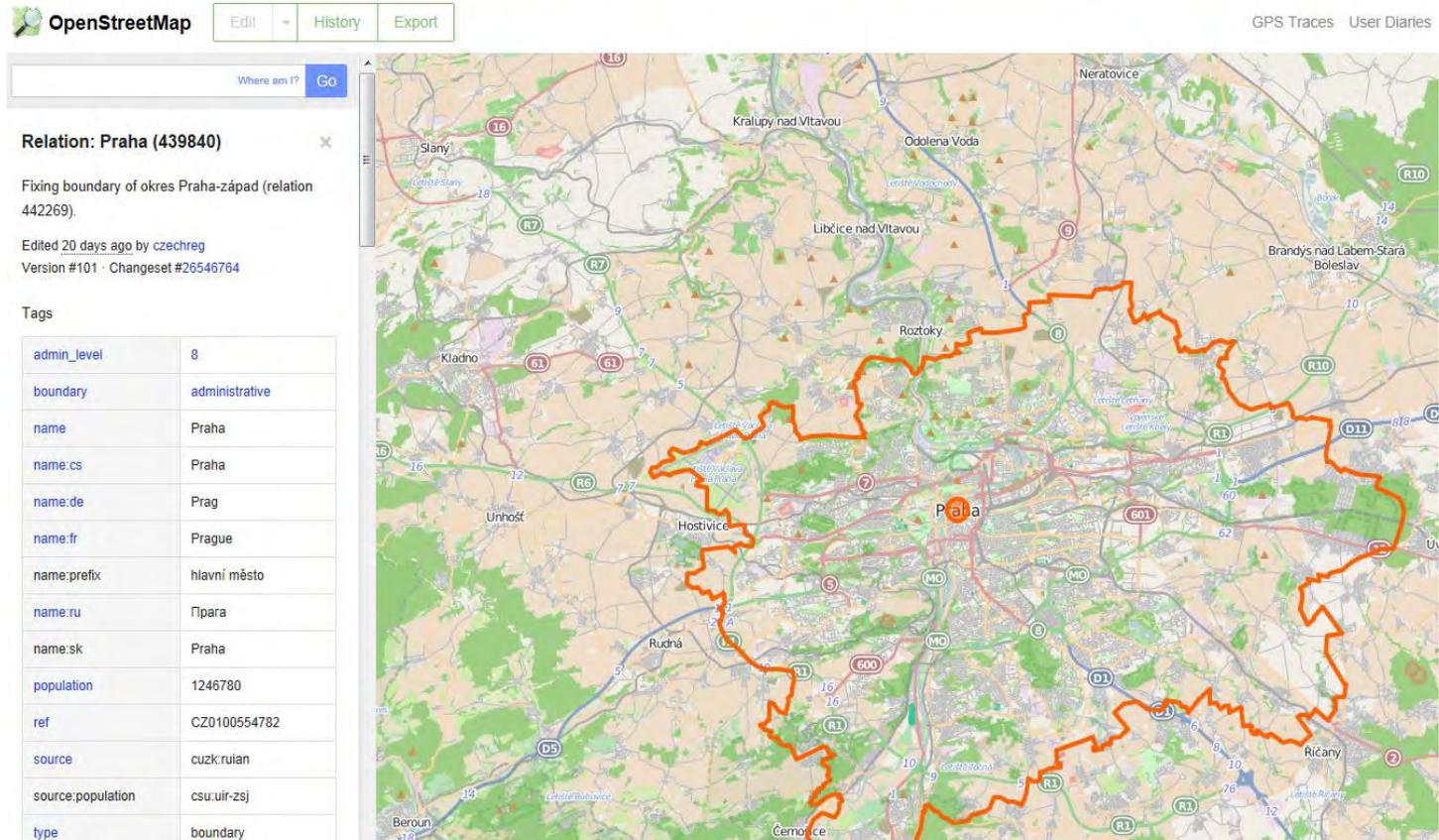


# Results of the interim assessment



# 1. Have the initial problems evolved?

- ✓ Availability
- ✓ Quality
- ✓ Organisation
- ✓ Accessibility
- ✓ Data sharing



OpenStreetMap Edit History Export

Where am I? Go

GPS Traces User Diaries

**Relation: Praha (439840)**

Fixing boundary of okres Praha-západ (relation 442269).

Edited 20 days ago by czechreg  
Version #101 · Changeset #26546764

Tags

admin_level	8
boundary	administrative
name	Praha
name:cs	Praha
name:de	Prag
name:fr	Prague
name:prefix	hlavní město
name:ru	Прага
name:sk	Praha
population	1246780
ref	CZ0100554782
source	cuzk:ruian
source:population	csu:uir-zsj
type	boundary

The map shows a satellite view of the Prague region with an orange boundary line outlining the administrative area of Praha-západ. Key locations like Praha, Hostivice, Kladno, and Rudná are visible.

# 1. Have the initial problems evolved?

	Status	Comment
<i>Availability</i>		Increased availability of spatial data; new socio-technical developments
<i>Data quality</i>		Only indirectly addressed (through documentation)
<i>Organisation of data</i>		More awareness and coordination emerging between producers and users; interoperability increasing
<i>Accessibility</i>		Improvements mainly due to progress around metadata and technological developments e.g. network services
<i>Data sharing</i>		Has evolved due to open data agenda but much more remains to be done

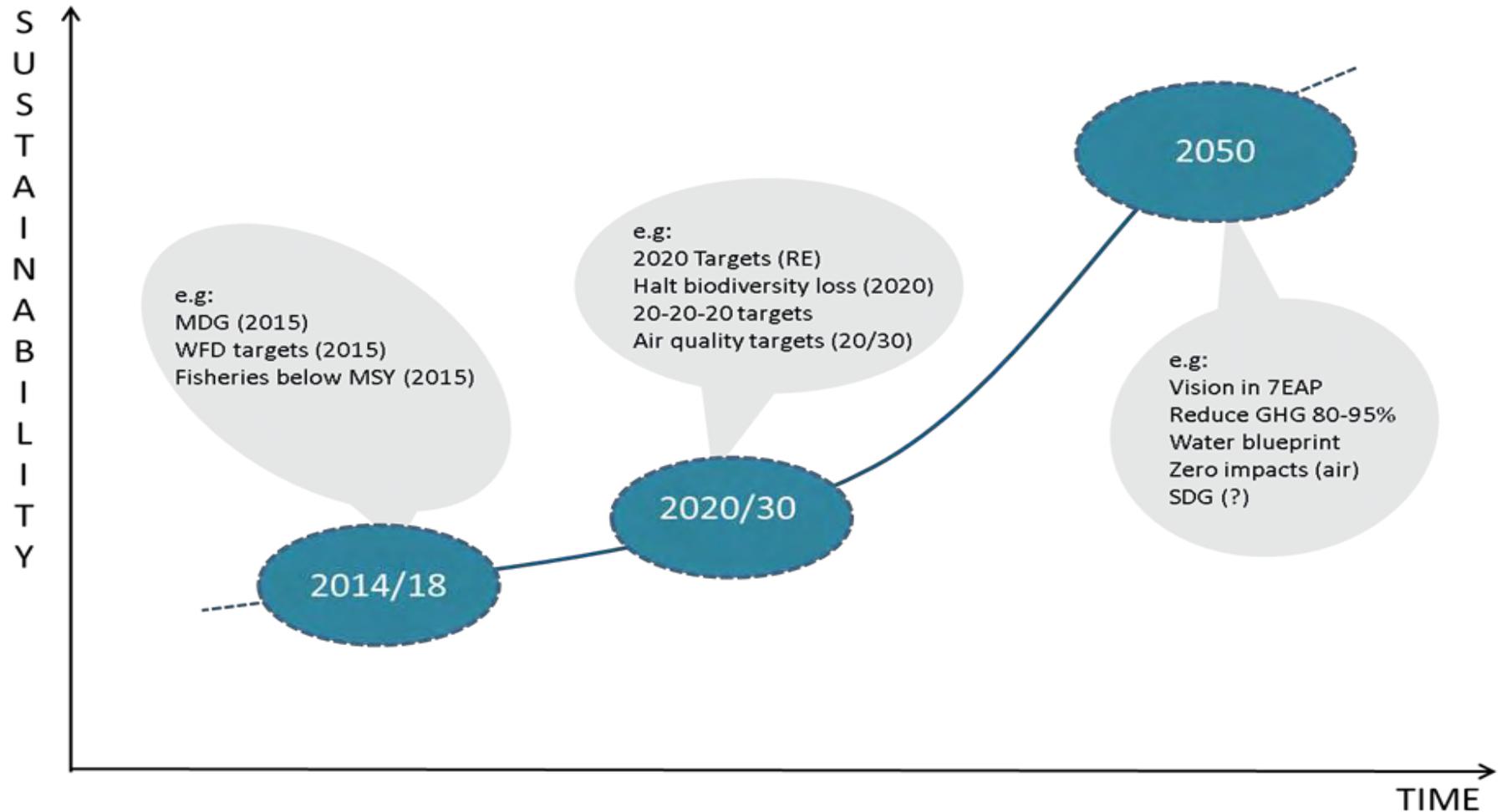
## 2. Are the objectives still relevant to the initial issues – is a review needed?

Public consultation: 92.5 % consider INSPIRE objectives still relevant

	Status	Comment
<i>Documentation</i>	 *	Metadata availability and quality is evolving; finding and accessing data remains a barrier (44% of respondents)
<i>Services</i>	 *	Insufficiently implemented in a consistent way but progressing
<i>Interoperability</i>	 *	Issues persist since the majority of data under Annex II and III are not yet available
<i>Data and service policy</i>		A review of objectives is needed to overcome barriers in sharing (53% of spatial data with no adequate data policy)
<i>Coordination</i>		Objective needs a review to enable further improvement efforts (poorly coordinated policy initiatives)

\* Existence of issues acknowledged but objectives are still valid as described

# 3. Do the actions need modification?



### 3. Do the actions need modification?

	Actions	Comment
<i>Creating metadata</i>		Handled by maintenance process
<i>Establishing network services</i>		Only integration of new technical approaches with network services
<i>Ensuring interoperability</i>		e.g. better sharing of Member State implementation measures
<i>Facilitating data and service sharing</i>		Improving arrangements to overcome differences amongst countries
<i>Coordinating the implementation</i>		Strengthening at EU level, in many countries and cross-border

## 4. Are changes attributable to INSPIRE implementation?



- There is a generally positive evolution – due to socio-technical developments – to which INSPIRE contributed

## 5. Are results achieved so far in-line with expectations? (e.g. from ex-ante evaluation)



- Limits in assessing cost-benefits due to the mid-term character of the evaluation
- Generally, costs are in line with expectations
- Benefits are around data discovery, documentation and availability
- Continuous monitoring is required

## 6. Is the geographical coverage of implementation consistent?



- Clearly not, due to different reasons
- Positive trends are visible
- Support needs for countries lagging behind

# Seven additional REFIT questions I

	Analysis	possible Measures
<i>What kind of administrative burden and cost is there?</i>	<p><b>Cost on public sector</b></p> <p>Not on citizens and private sector</p>	none
<i>How can burden and cost be minimised?</i>		<ul style="list-style-type: none"> <li>• <b>Awareness raising</b></li> <li>• <b>Capacity building</b></li> <li>• <b>Implementation strategies</b></li> </ul>
<i>Estimated value of cost saving?</i>	<p>Only limited evidence available</p> <p>Largely qualitative statements</p>	none
<i>Gaps and inconsistencies in working methods?</i>	Lack of acceptance and understanding between technical, thematic and governance communities	<ul style="list-style-type: none"> <li>• Clarify conformance versus compliance</li> <li>• Address data sharing obstacles</li> </ul>

# Seven additional REFIT questions II

	Analysis	possible Measures
<i>How can directive and implementing rules be modernised?</i>	<b>Main obstacles:</b> <ul style="list-style-type: none"> <li>• Technical complexity</li> <li>• Coordination and communication</li> <li>• Data harmonisation</li> </ul>	<ul style="list-style-type: none"> <li>• Improve communication</li> <li>• <b>Enhance integration on governance level EU/Member States</b></li> <li>• <b>reduce administrative burden</b> (e.g. licensing)</li> </ul>
<i>What could generate more value for users?</i>	Already many effects in other policy areas (more than initially targeted)	Stronger aligning with PSI directive and open data initiatives (amongst other eGovernment activities)
<i>What is the EU added value?</i>	Improved linking of EU and Member States  Creation of community	<ul style="list-style-type: none"> <li>• <b>Improve coordination on all levels</b></li> <li>• <b>Remove data sharing obstacles</b></li> </ul>

# Consultation on EEA/JRC technical report

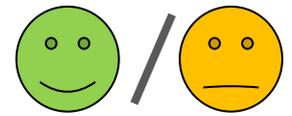
„Midterm evaluation report  
on INSPIRE implementation“

Consultation period:  
19 June – 31 July 2014



- DG Environment asks INSPIRE National Contact Points (NCPs) for consultation.
- EEA asks EIONET National Focal Points (NFPs) to coordinate input with the INSPIRE National Contact Points (NCPs).
- The EU Commission interservice group on the Coordination Of Geographic Information (COGI) will be consulted.
- Copernicus stakeholders

# Summary



- Implementation with some delay and non-uniformity
- According to 92 % of respondents, objectives remains pertinent
- So far in line with expected costs and benefits
- Major investments and benefits have yet to materialize
- Implementation has taken place in the most difficult financial circumstances in many European countries
- More effort is needed to embed INSPIRE into environmental legislation
- Improving coordination between neighbouring countries
- Technical complexity and communication are main areas of concern.

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# An outside view on the Czech and Slovak situation



# Some reflections on the CENIA keynote at the European INSPIRE conference 2014

www.cenia.cz

## Implementation

- **METADATA** - 250 records in 2008, almost 2 000 in 2014
- **SERVICES** e.g. cadaster data – „use of service“ from 36,5 mil in 2009 to 708 mil in 2012 (WMS)
- **DATA** Large involvement in data specs testing (doubts feasibility of harmonization)
- **STAKEHOLDERS**
  - nearly 500 contacts in INSPIRE mailing list
  - 29 responses to the INSPIRE evaluation questionnaire



www.cenia.cz

## Success story? Yes, and...

INSPIRE is being implemented because of INSPIRE itself, not because of government/s needing its data for their policies.

- Does government need the data for making policies?



- Do we offer the right data?



- Do we offer the data in the right form?



### Implementation:

How much of the above is environment related? What is the dynamic for that area?

### Success story:

Create multiple national benefits! How is that going?



# Some more reflections on the CENIA keynote at the European INSPIRE conference 2014

www.cenia.cz

- **INSPIRE is the way forward, but it is by no means a goal!**
- **INSPIRE is a tool for successful data management**
- Data management is an instrument for **successful** transparent, consistent and user oriented **state administration**
- **Build INSPIRE not for INSPIRE itself, but for our users.**

www.cenia.cz

*Do not ask us „How are you“? You will get wrong answer.*

*Do not ask us whether we have implemented INSPIRE.*

*Ask us whether and how we have satisfied our users by implementing*

Here again: **The big user story!**

Do you know what the users want?

What have you done for them?

What is lacking?

Where are the obstacles?



# Excellent technology out there: INSPIRE services in CZ – discovery ...

The screenshot displays the INSPIRE Geoportal CZ interface. The browser address bar shows the URL <http://geoportal.gov.cz/web/guest/catalogue-client>. The page features a navigation menu with options like WELCOME, MAPS, METADATA, ESHOP, VALIDATE, INSPIRE, DOCUMENTS, GEOREPORTS, and HELP. A search bar is visible at the top left.

The main content area shows search results for 'GEOPORTÁL ČR (164)'. The selected result is 'BIOTOPAKT' with the following details:

- Resource Locator:** CZ-AOPK\_BIOTOPAKT
- Identifier:** CZ-AOPK\_BIOTOPAKT
- Coupled Resource:** Czech
- Language:** Czech
- Topic category:** biota
- Keywords:**
  - T\_AOPKCR v. 1.1:*
    - vegetation.mapping
    - vegetation.biotope
    - monitoring.biotope
  - GEMET - INSPIRE themes, version 1.0:*
    - Habitats and biotopes
  - GEMET - Concepts version 2.4:*
    - biosphere > ecology > synecology > biotope
- Bounding box:** 11.938484, 48.234098, 18.956597, 51.354847

A map view shows the location of the resource in the Czech Republic, with a red bounding box highlighting the area around Plzeň and České Budějovice. The map includes labels for neighboring countries (DE, AT, PL, SK) and cities (Leipzig, Dresden, Jelenia Gora, Walbrzych, Opole, Usti nad Labem, Praha, Hradec Kralove, Brno, Ostrava, Plzen, České Budějovice, Linz, Graz).

Additional metadata for the resource includes:

- Date:** publication: 2014-05-14
- Lineage:** Ruční vymezení nad ZM10 a ortofotomapouManual vectorization over the base map 1: 10 000 and orthophoto map
- Spatial Resolution:** Equivalent Scale 1:10000
- Specification:** INSPIRE Data Specification on Habitats and biotopes – Guidelines
- Use Limitation:** měřítko mapového podkladu 1 : 10 000 podmínky licence
- Access Constraints:** license other restrictions
- Contact Info:** Nature Conservation Agency of the Czech Republic



# and view services ...

The screenshot displays the Geoportal.cz web application interface. The browser address bar shows the URL [http://geoportal.gov.cz/web/guest/map?openNode=Population di](http://geoportal.gov.cz/web/guest/map?openNode=Population%20di). The page header includes the 'PORTAL eo' logo, navigation tabs (WELCOME, MAPS, METADATA, ESHOP, VALIDATE, INSPIRE, DOCUMENTS, GEOREPORTS, HELP), and a search bar with the text 'Specify an address or locality'. A user login section is visible with fields for 'Email:' and 'Password:', and a 'Login' button. Below the header, the 'MAP VIEW' section is active, showing a map of the HAVLÍČKŮV BROD region. The map displays various geographical features, including roads, rivers, and administrative boundaries. A sidebar on the right side of the map shows a 'Layers' panel with the following items:

- AOPK - Chráněná území
  - Maloplošné zvláště chráněné území (MZCHÚ)
  - Zákonné ochranné pásmo MZCHÚ
  - Zonace velkoplošného zvláště chráněného území
  - Velkoplošné zvláště chráněné území
  - Smluvně chráněné území
  - Shaded Relief
  - Labels
- Cadaster maps
  - Cadastral map
  - Definition points of parcels
  - Cadastral map of estates
- Fundamental Base of Geographic Data
  - Topo map COSMC
  - DMU
  - Orthophoto map (50's)
  - Orthophoto map COSMC (current)
  - 3rd Military Survey
  - 2nd Military Survey
  - Military maps (raster)
  - Road Map

The map includes a scale bar (0 to 5 km), a copyright notice, and a small inset map of the Czech Republic. The bottom of the browser window shows the Windows taskbar with the system clock displaying 12:43 on 24/11/2014.

# ... more view services – CZ ...

## Thematic Maps

Czech National INSPIRE Geoportal on ArcGIS Online

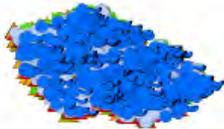


### Bathing water quality

Web Map by CzechINSPIRE. Last Modified Feb 14, 2013.

Quality of bathing water in the Czech Republic.

(4 views)

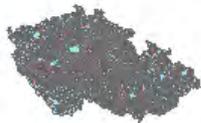


### Network of water monitoring stations

Web Map by CzechINSPIRE. Last Modified Feb 14, 2013.

Network of water monitoring stations in the Czech Republic.

(4 views)



### Public facilities

Web Map by CzechINSPIRE. Last Modified Feb 14, 2013.

Public facilities in municipalities of the Czech Republic (census 2001).

(4 views)



### Water bodies and main drainage basins

Web Map by CzechINSPIRE. Last Modified Feb 14, 2013.

Water bodies and main drainage basins of the Czech Republic.

(6 views)

## About INSPIRE

The INSPIRE directive aims at creating of European Union spatial data infrastructure. This will enable the sharing of environmental spatial information among public sector organisations and better facilitate public access to spatial information across Europe.



# ... also (shared) services in SK ...

The screenshot displays a web browser window with the URL <http://geportal.sazp.sk/web/guest/map?openNode=Administrativ>. The browser tabs include "INSPIRE", "Czech National INSPIRE Geopo...", "Search - Národní geoportál IN...", "INSPIRE Geoportál", and "Prezeranie - Geoportál NIPI". The page header features navigation links: "VITAJTE", "MAPY", "METAÚDAJE", "VALIDÁCIA", "NIPI A INSPIRE", "PREZERANIE", "ZOBRAZOVACIE SLUŽBY", and "ĎALŠIE GEOPORTÁLY".

The main content area shows a geological map of Slovakia with various layers and a legend. The legend, titled "Vrstvy", includes the following items:

- Pódna mapa
- Pódna mapa Slovenska v mierke 1:400 000
- REZM10
- REZM10 bez vrstevnic
- RETM25
- RETM50
- Spojitá vektorová mapa 1:50000 (SVM50)
- OpenStreetMap Slovensko (OSMSR)
- Základná báza GIS (ZBGIS)

The map displays various geological features and labels, including "H7", "H10", "R1", "R2", "R3", "R6", "R8", "G1", "G2", "G3", "G4", "G5", "G6", "G7", "G8", "G9", "G10", "N1", "N2", "N3", "N4", "N5", "M1", "M2", "M3", "M4", "M5", "M6", "M7", "M8", "M9", "M10", "L1", "L2", "L3", "L4", "L5", "L6", "L7", "L8", "L9", "L10", "P1", "P2", "P3", "P4", "P5", "P6", "P7", "P8", "P9", "P10", "H1", "H2", "H3", "H4", "H5", "H6", "H8", "H9", "H11", "H12", "H13", "H14", "H15", "H16", "H17", "H18", "H19", "H20", "H21", "H22", "H23", "H24", "H25", "H26", "H27", "H28", "H29", "H30", "H31", "H32", "H33", "H34", "H35", "H36", "H37", "H38", "H39", "H40", "H41", "H42", "H43", "H44", "H45", "H46", "H47", "H48", "H49", "H50", "H51", "H52", "H53", "H54", "H55", "H56", "H57", "H58", "H59", "H60", "H61", "H62", "H63", "H64", "H65", "H66", "H67", "H68", "H69", "H70", "H71", "H72", "H73", "H74", "H75", "H76", "H77", "H78", "H79", "H80", "H81", "H82", "H83", "H84", "H85", "H86", "H87", "H88", "H89", "H90", "H91", "H92", "H93", "H94", "H95", "H96", "H97", "H98", "H99", "H100".

The bottom of the browser window shows the Windows taskbar with icons for Internet Explorer, File Explorer, Outlook, PowerPoint, and a globe. The system tray displays the date and time: "12:55 24/11/2014".

Copyright CENIA 2010 - 2014, za prevádzku zodpovedá SAŽP

# and also download services (CZ example)

The screenshot shows a web browser window displaying the 'Gallery' page of the National Geoportal (geoportal.gov.cz). The page features a navigation menu with options like 'WELCOME', 'MAPS', 'METADATA', 'ESHOP', 'VALIDATE', 'INSPIRE', 'DOCUMENTS', 'GEOREPORTS', and 'HELP'. The main content area is titled 'CORINE Land Cover 2012 databáze České republiky'. It includes a small map thumbnail, a price of 0 Kč, and details about the data provider (CENIA) and product type (Product file). Below this, there is a 'Product info' section with descriptive text about the data sets (CLC 2012, CLC 2006, and CLC 2012-2006). A 'Product variants' table lists five different license types, each with a 'Click licence' type, a '0 Kč' price, and an 'Add to cart' button. An 'Additional info' table provides details about the file type (application/pdf) and the filename (tridy\_CORINE.pdf). The page also has a search bar and a 'Back to shopping gallery' link.

Product categories: [View all](#)

- INSPIRE příloha I (9)
  - 8. Vodopis (9)
- INSPIRE příloha II (1)
  - 2. Krajinný pokryv (1)
- INSPIRE příloha III (1)
  - 8. Výrobní a průmyslová zařízení (1)

[Back to shopping gallery](#)

## CORINE Land Cover 2012 databáze České republiky

CORINE Land Cover 2012 (CLC12\_CZ), CORINE Land Cover 2006 - revidovaná (CLC06R\_CZ), CORINE Land Cover 2006-2012 - změnová (CHA12\_CZ)

**Price:** Price from 0 Kč

**Duration access:** Unlimited

**Data provider:** CENIA, česká informační agentura životního prostředí

**Max. downloads:** Unlimited

**Product type:** Product file

### Product info

CLC 2012 - Databáze s klasifikací pokryvu zemského povrchu v rozsahu ČR v roce 2012. Databáze CLC 2012 byla interpretována z aktualizované databáze CLC 2006. Velikost nejmenší mapovací jednotky pro polygony CLC 2006 byla stanovena na 25 ha (CLC12\_CZ).

CLC 2006 - Revidovaná databáze s klasifikací pokryvu zemského povrchu v rozsahu ČR v roce 2006. V rámci tvorby databáze CLC2012 byla revidována a aktualizována databáze CLC 2006. Velikost nejmenší mapovací jednotky pro polygony CLC 2006 je stanovena na 25 ha (CLC06R\_CZ).

CLC 2012-2006 - Změnová databáze CORINE Land Cover 2012 byla odvozena z databáze s klasifikací pokryvu zemského povrchu v roce 2006 vizuálním porovnáním rastrových podkladů z roku 2006 a 2012. Zaznamenány byly všechny změny splňující mapovací kritéria (rozloha > 5 ha, posun hranic > 100 m) (CHA12\_CZ).

### Product variants

Licence name	Type of licence	Use type	Price for data	Price		
Základní INSPIRE licence (Basic INSPIRE Licence)	Click licence	Komerční užití	0 Kč	0 Kč	1	Add to cart
Základní INSPIRE licence (Basic INSPIRE Licence)	Click licence	Státní správa a...	0 Kč	0 Kč	1	Add to cart
Základní INSPIRE licence (Basic INSPIRE Licence)	Click licence	Osobní potřeba	0 Kč	0 Kč	1	Add to cart
Základní INSPIRE licence (Basic INSPIRE Licence)	Click licence	Neziskové účely	0 Kč	0 Kč	1	Add to cart
Základní INSPIRE licence (Basic INSPIRE Licence)	Click licence	Akademické účely	0 Kč	0 Kč	1	Add to cart

### Additional info

Name	Filename / Link	File type
Třídy CORINE Land Cover	tridy_CORINE.pdf	application/pdf

### Images

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**General EEA activities  
to support the usefulness of  
INSPIRE for environmental information**



# Communication and Cooperation



## Create an understanding of INSPIRE benefits

*Navigating between supporting a generic eGovernment, SDI (Spatial Data Infrastructure) and Open Data agenda (“data access”) and providing concrete benefits to environmental data management (“data interoperability”)*

### Activities

- Attend selected (cross-)national INSPIRE activities (conferences, coordination meetings etc.) on request (shared task with JRC and DG Env)  
*(CZ-SK, DE, Nordic cooperation)*
- Advise EU funded projects in support of INSPIRE implementation around environmental topics  
*(GS Soil, Nature SDI, eENVplus, ENPI, Danube Strategy ...)*
- Contribute to an INSPIRE training program – related to EIONET
- Editing and publishing a mid-term evaluation report
- Support EIONET in implementation matters

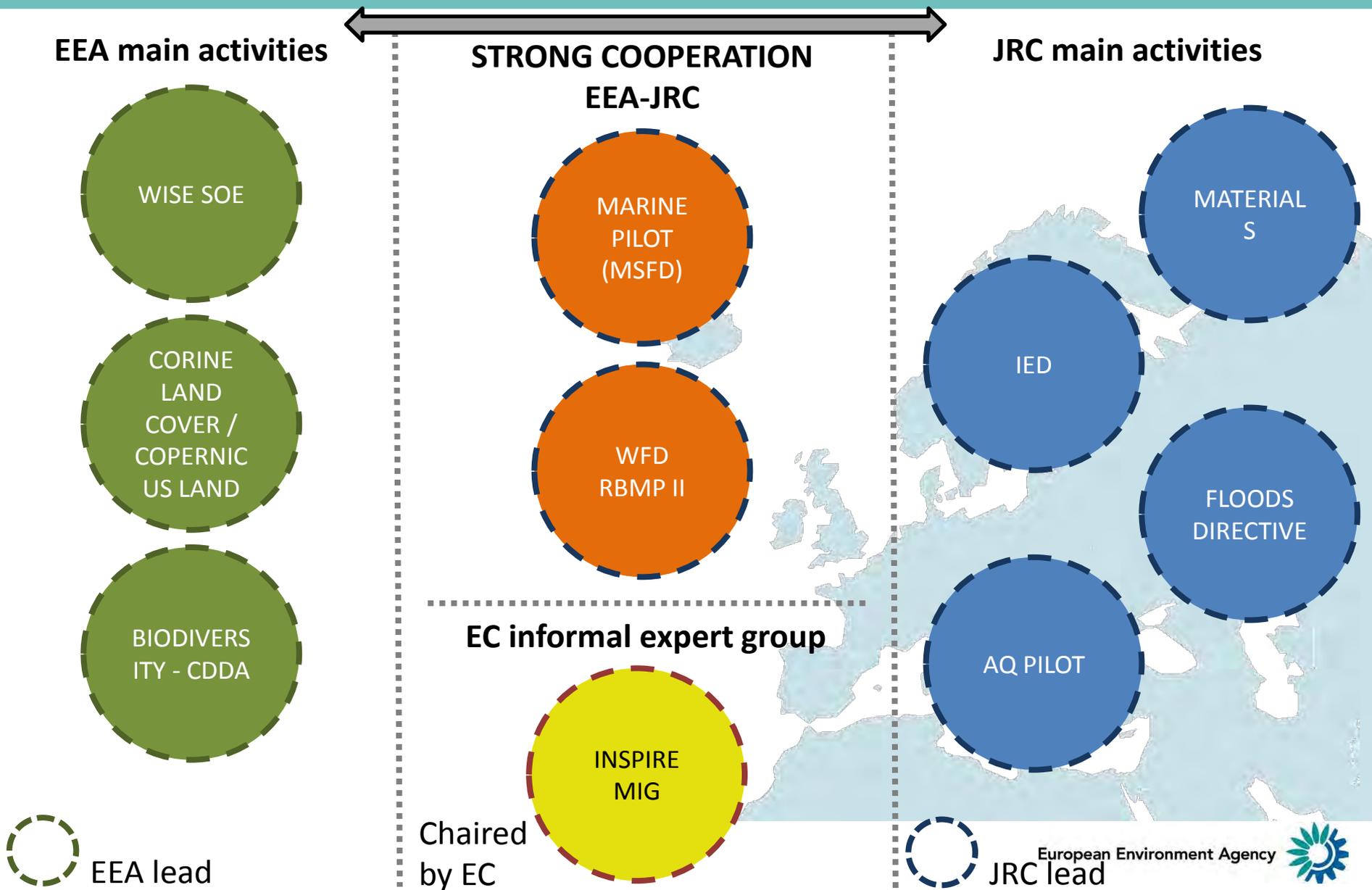
## Identify and establish EEA role as technical service provider

- EEA data stewardship where countries are the major implementers
- Establish European reference datasets
- EIONET specific codelists and related registers
- How Reportnet need to change to accommodate for countries providing INSPIRE services?
- What are INSPIRE network services EEA publishes – with which data?
- **Maintain an INSPIRE metadata compliant metadata catalogue**

## Applying a pragmatic approach – still maintaining the overall interoperability goals

- Support eReporting pilots - mapping of INSPIRE data specifications into thematic schemas
- Developing topics of EEA/EIONET interest as part of our MIG involvement
- Identify implementation issues and channel them to the MIG
- Solve selected issues as part of our MIG work
- Test support tools e.g. for transformation and validation

# 2015 Summary planning: EEA - JRC INSPIRE cooperation



# Summary

## EEA's general work plan and principles

- Stepwise pragmatic implementation
- „Learning by doing“
- Based on thematic interest and needs (*eReporting pilots*)
- Based on milestones coming from reporting obligations (*eReporting pilots*)
- Building data models, data sets and services
- Involving EIONET in stages (*CDDA project*)
- Capacity building through EIONET NRC EIS and other networks (e.g. INSPIRE MIG) and tools (e.g. INSPIRE FORUM)

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**What could be missing –  
Where could we support you?**



# Thank you for your attention!

