

# Converging Policies, Practices and Processes – from Local to European through coordination


Eva Pauknerová

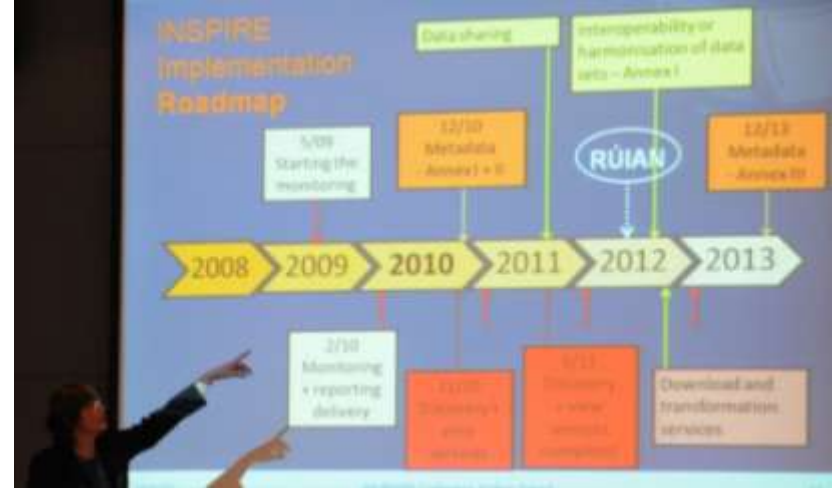


ČESKÝ ÚŘAD ZEMEMĚŘICKÝ A KATASTRÁLNÍ  
CZECH OFFICE FOR SURVEYING, MAPPING AND CADASTRE  
TSCHECHISCHES AMT FÜR LANDESVERMESSUNG UND KATASTER



# Presentation outline

- Introduction
-  roles and products
  - from local to national data
  - from national to European SDIs
- Lessons learned and Conclusions



# Goals: Data maintenance at one place and sharing across different levels ...



Location  
data in  
CZ Base  
Registers  
(RÚIAN)



location  
data used  
by PAs at  
the EU+

## Feasible ?

# Czech Office for Surveying, Mapping and Cadastre

## Key information sources:

- **ISKN** Information System of the Cadastre of Real Estates
- **RUIAN** Base Register of Territorial Identification, Addresses and Real Estates
- **ZABAGED** the Fundamental Base of Geographic Data of the Czech Republic
- **CUZK Geoportal**

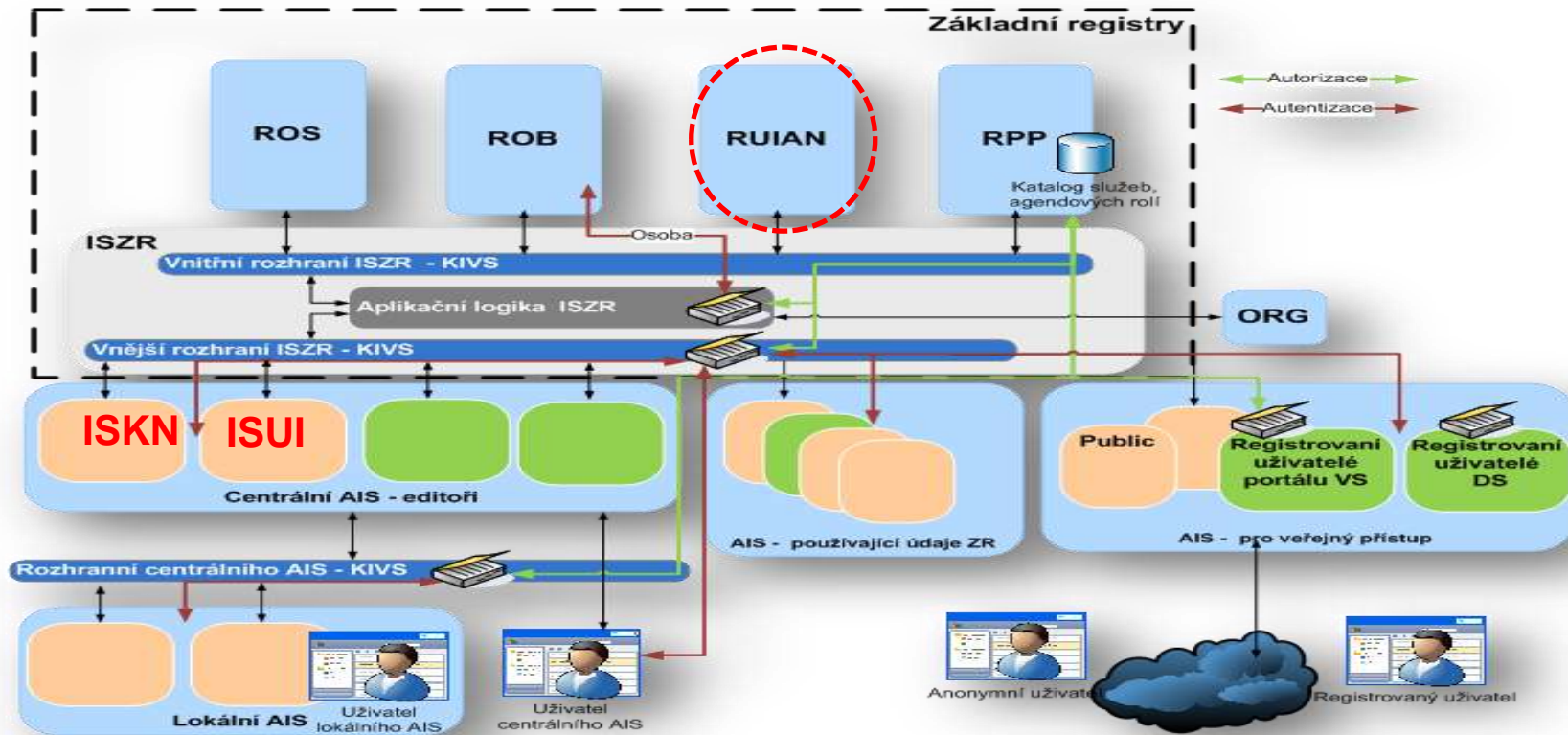


The screenshot displays the Geoportal ČÚZK website interface. At the top, the logo for ČÚZK (Czech Office for Surveying, Mapping and Cadastre) is visible, along with the text "Geoportal ČÚZK" and "Access to map products and services". A navigation bar includes links for "Welcome", "Applications", "Data sets", "Network services", and "INSPIRE". Below this, a secondary navigation bar lists "Intro", "Cadastre of real estates", "Maps", "Orthophoto", "Altimetry", "ZABAGED", "Administrative boundaries", and "Geonames". The main content area is titled "You are here: Data sets / Intro" and features a grid of ten data set tiles, each with a representative image and a brief description:

- Cadastre of Real Estate**: Cadastre of Real Estate of the Czech Republic
- ZABAGED®**: The Fundamental Base of Geographic Data of the Czech Republic
- Maps**: State map series
- Boundaries**: Administrative and cadastral boundaries
- Orthophoto**: Orthophotographic Representation of the Czech Republic
- Geonames**: Database of geographic names of the Czech Republic
- Altimetry**: Altimetry of the Czech Republic
- Geodetic control**: Database of geodetic control of the Czech Republic
- Archival documents**: Archival documents of the Central Archives of Surveying, Mapping and Cadastre

At the bottom right of the screenshot, the URL <http://geoportal.cuzk.cz> is displayed.

# The Base Registers of Czech Public Administration / location data as an integral part of e-Government



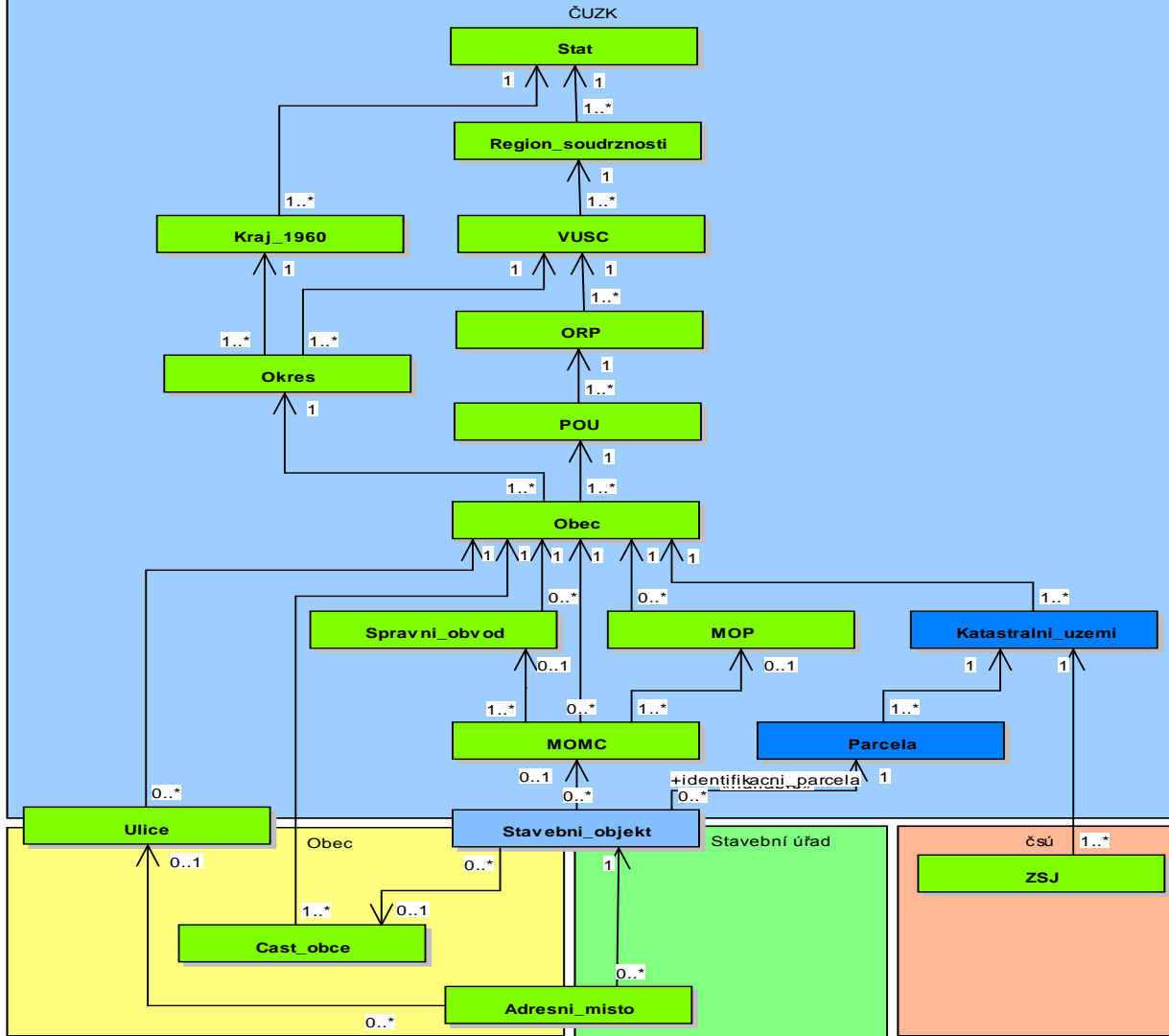
# Cooperation !

## RUIAN editors:

- RUIAN Administrator - CUZK
- Municipal offices
- Building authorities
  - Local
  - specialized
- Czech statistical office

= cca 8000 bodies of PA  
for info see [www.ruian.cz](http://www.ruian.cz)

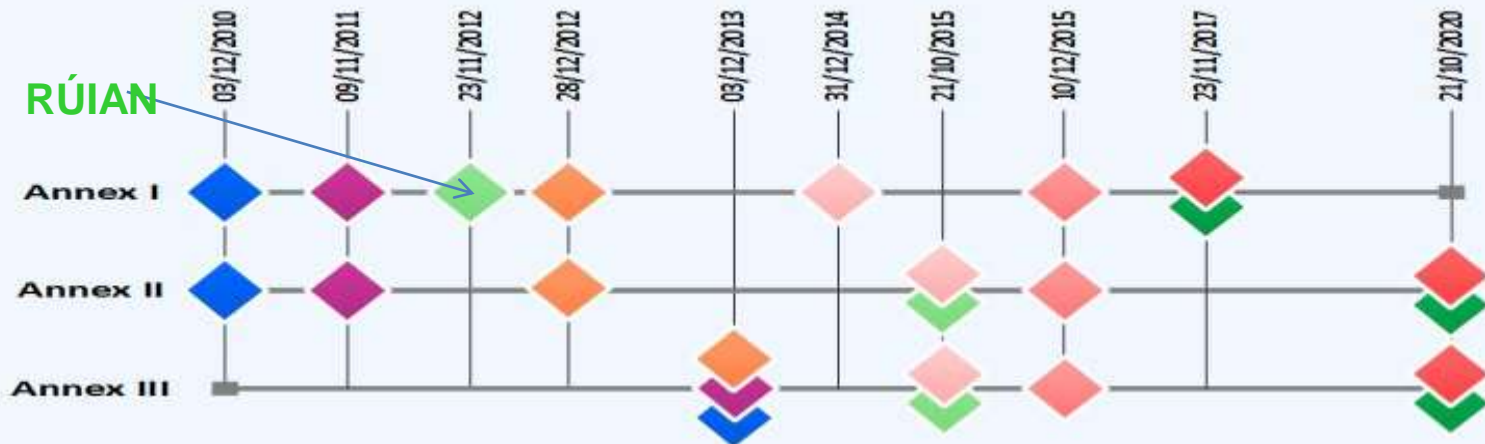
26.5.2015



# Some RUIAN territorial object and unit types (2015)

Object type	Numbers
Municipalities	6253
Municipal parts	15072
Cadastral units	13093
Building constructions	4074624
Building constructions (with house numbers)	2827902
Address points	2898747
Parcels	21761030
Basic Settlement Units (ZSJ)	22429
Streets	81249
Street definition lines (DCU)	80206

# INSPIRE Implementation Roadmap



**Discovery metadata** shall be available for spatial data sets and services



Spatial data sets shall be available for **discovery and view** from the INSPIRE geo-portal (data does not yet need to be conformant to IR-ISDSS)



Spatial data sets shall be available for **download and transformation** (whenever applicable<sup>1</sup>) from the INSPIRE geo-portal (data does not yet need to be conformant to IR-ISDSS<sup>2</sup>)



**Newly collected and extensively restructured spatial data sets** shall be **conformant** to IR-ISDSS (incl. **metadata for interoperability**) and available through network services



**All spatial data sets** shall be **conformant** to IR-ISDSS (incl. **metadata for interoperability**) and available through network services



**Invocable spatial data services related to newly collected and extensively restructured spatial data sets** shall be **conformant to Annexes V, VI and (where practicable) VII of IR-ISDSS** (incl. **metadata**)



**All invocable spatial data services** shall be **conformant to Annex V of IR-ISDSS** (incl. **metadata**)



**All invocable spatial data services** shall be **conformant to Annexes VI and (where practicable) VII of IR-ISDSS** (incl. **metadata**)

IR-ISDSS = Implementing Rules on interoperability of spatial data sets and services (Commission Regulation (EU) No. 1089/2010), including its amendments Regulations (EU) No. 102/2011, 1253/2013 and 1312/2014

<sup>1</sup> Transformation Services only need to be provided if data sets are not made conformant with the IR-ISDSS by some other means (see Art. 7(3) of the INSPIRE Directive)

<sup>2</sup> With the exception of newly collected and extensively restructured Annex I data sets, which already have to be compliant with the IR-ISDSS by 23/11/2012



# Czech Office for Surveying, Mapping and Cadastre

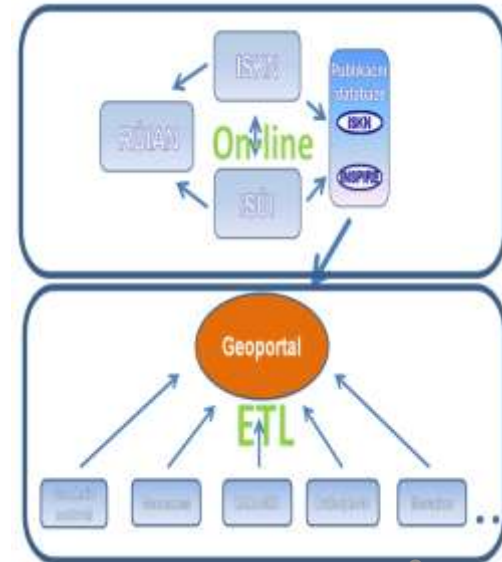
## Key words:

- public on-line access to authoritative data&services



- spatial data for e-Government; base register(s)
- INSPIRE compliance:**  
CP, HY, GN, AU, AD, TN, BU, GG

*Two modes to reach compliance with INSPIRE DSs*



# NSDI - other key stakeholders

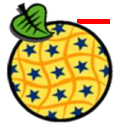
## Ministry of Interior

- Coordination role for ITC in PA
- Smart Administration (eGon, ect);
- Base registers project 2009-2012; EC supported

## Ministry of Environment

- Coordination role for environmental affairs

### – CENIA:



- MSCP for INSPIRE, **KOVIN / nat. coordination board**,
- National geoportal for INSPIRE

## Ministry of Transport

- Copernicus, Galileos

## Ministries of Regional Development, Finance

## Nemoforum

- national platform for information on territory estates (NGII Program 2001-2005)



# From RUIAN to INSPIRE

## Step by step



Ready !?

# CUZK download services for INSPIRE harmonized data sets



## WFS services compliant with:

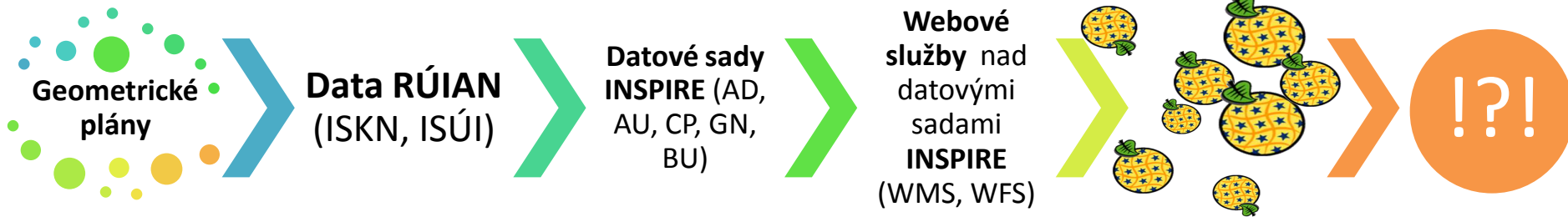
OGC WFS 2.0.0; INSPIRE Regulation 1089/2010/ES, GML 3.2.1.; INSPIRE download services v 3.1.

- **Parcels (CP):** <http://services.cuzk.cz/wfs/inspire-cp-wfs.asp?>
- **Adresses (AD):** <http://services.cuzk.cz/wfs/inspire-ad-wfs.asp?>
- **Administrative Units (AU):** <http://services.cuzk.cz/wfs/inspire-au-wfs.asp?>
- **Geographic Names (GN):** [http://geoportal-inspirewfs.cuzk.cz/WFS\\_INSPIRE\\_GN/WFService.aspx?](http://geoportal-inspirewfs.cuzk.cz/WFS_INSPIRE_GN/WFService.aspx?)
- **Hydrography (HY):** [http://geoportal-inspirewfs.cuzk.cz/WFS\\_INSPIRE\\_HY/WFService.aspx?](http://geoportal-inspirewfs.cuzk.cz/WFS_INSPIRE_HY/WFService.aspx?)
- **Transport (TN\_AIR):** [http://geoportal-inspirewfs.cuzk.cz/WFS\\_INSPIRE\\_TN\\_AIR/WFService.aspx?](http://geoportal-inspirewfs.cuzk.cz/WFS_INSPIRE_TN_AIR/WFService.aspx?)
- **Transport (TN\_CABLE):** [http://geoportal-inspirewfs.cuzk.cz/WFS\\_INSPIRE\\_TN\\_CABLE/WFService.aspx?](http://geoportal-inspirewfs.cuzk.cz/WFS_INSPIRE_TN_CABLE/WFService.aspx?)
- **Transport (TN\_RAIL):** [http://geoportal-inspirewfs.cuzk.cz/WFS\\_INSPIRE\\_TN\\_RAIL/WFService.aspx?](http://geoportal-inspirewfs.cuzk.cz/WFS_INSPIRE_TN_RAIL/WFService.aspx?)
- **Transport (TN\_ROAD):** [http://geoportal-inspirewfs.cuzk.cz/WFS\\_INSPIRE\\_TN\\_ROAD/WFService.aspx?](http://geoportal-inspirewfs.cuzk.cz/WFS_INSPIRE_TN_ROAD/WFService.aspx?)
- **Transport (TN\_WATER):** [http://geoportal-inspirewfs.cuzk.cz/WFS\\_INSPIRE\\_TN\\_WATER/WFService.aspx?](http://geoportal-inspirewfs.cuzk.cz/WFS_INSPIRE_TN_WATER/WFService.aspx?)



# But

*Implementation results differ  
in different MSs*



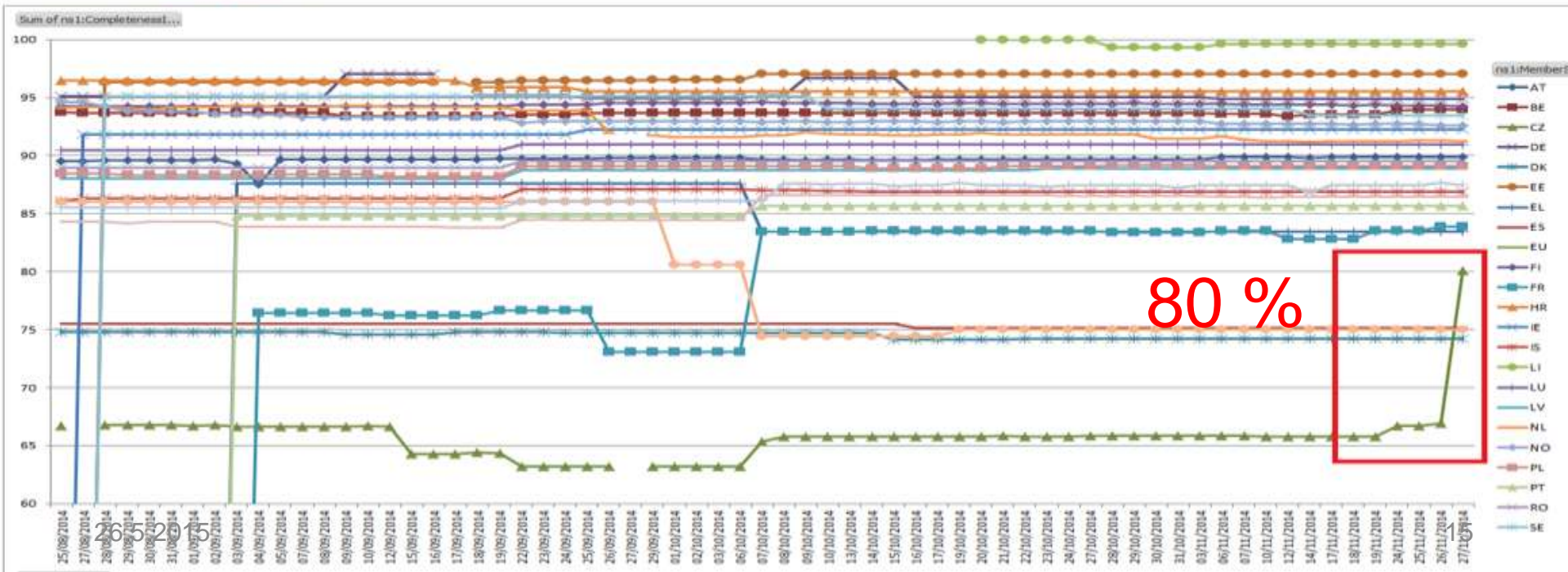
# INSPIRE Geoportal – quality evaluation by the EC and 1<sup>st</sup> quality enhancement (KOVIN + TWGs involved)

di: Angelo Quaglia <angelo.quaglia@ext.jrc.ec.europa.eu>  
omu: Jiri.Kvapil@cenia.cz  
opie: Paulknerová, Eva; inspire-geoportal@jrc.ec.europa.eu; Poláček, Jiří; Med, Michal; robert.tomas@jrc.ec.europa.eu; 'Freddy Fierens'  
edmět: RE: INSPIRE Geoportal validation report

Odesláno:

The new endpoint has already been re-harvested and I have regenerated the reports.

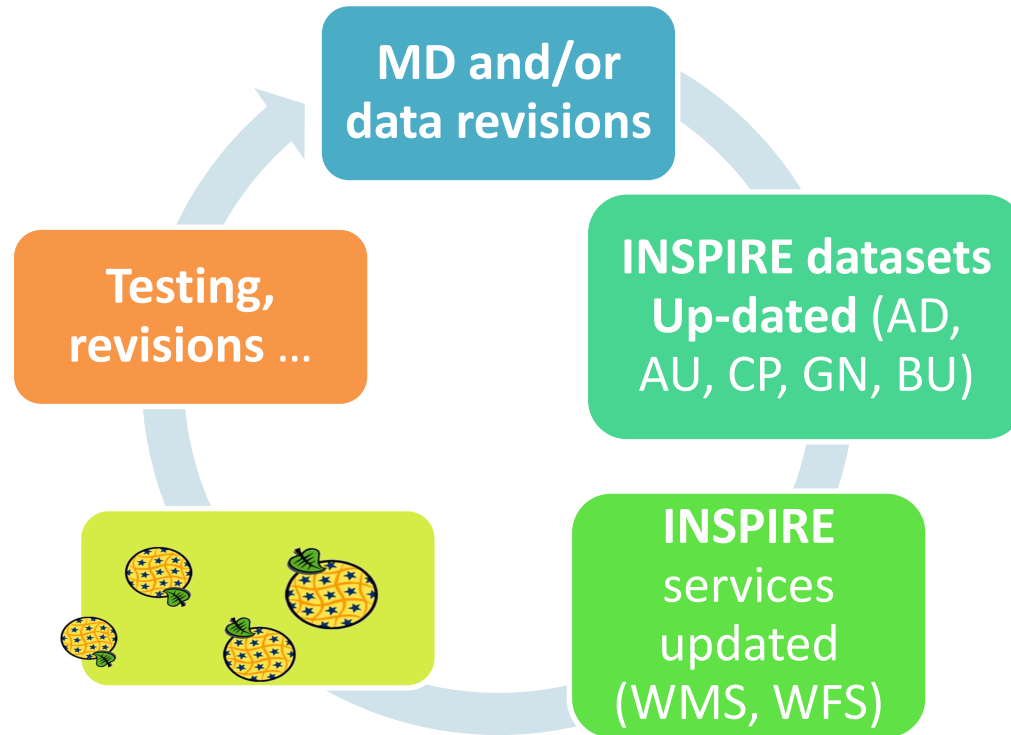
The situation looks **so much better**, now:





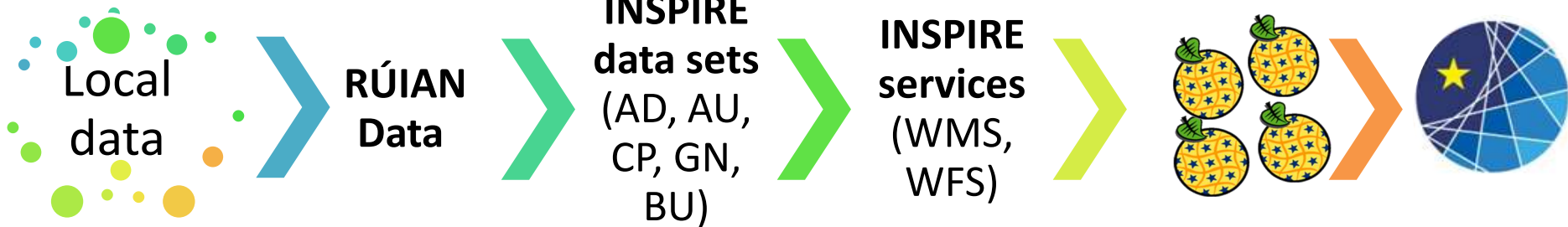


# MD-quality a interoperability enhancement



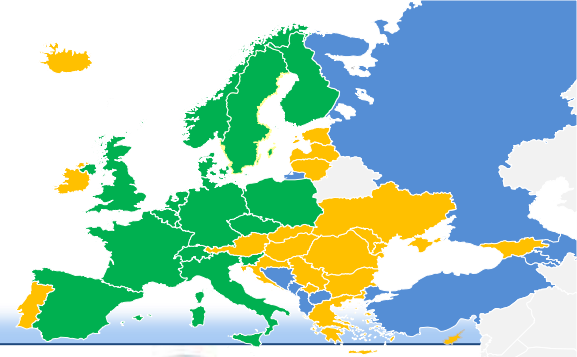


# ... into the European infrastructure, participation in the ELF project - European Location Framework



# European Location Framework – ELF

<http://www.elfproject.eu>



The screenshot shows the top part of the ELF project website. It features a navigation menu with links: Home, About ELF, News, Documentation, Events, Applications, Links, and Contact. Below the menu are flags of various European countries. The main image shows a row of colorful houses (green, orange, and blue) with the text "One Reference Geo-Information Source for Europe" overlaid at the bottom.

This section shows three content boxes from the website. The first is titled "LOCATIONFRAMEWORK" and contains the text "ELF Services Website". The second is titled "Latest News" and contains the text: "Be inspired by the ELF Project this May Monday, May 18, 2015 - 17:09 Members of the ELF Project Consortium are participating in this year's INSPIRE Conference and Geospatial World Forum being held in Lisbon,..." followed by a "Read more" link. The third is titled "UPCOMING EVENTS" and contains the text: "8th Regional Conference on Cadastre &amp; SDI Prishtina, Kosovo Tuesday, June 16, 2015 to Wednesday, June 17, 2015".



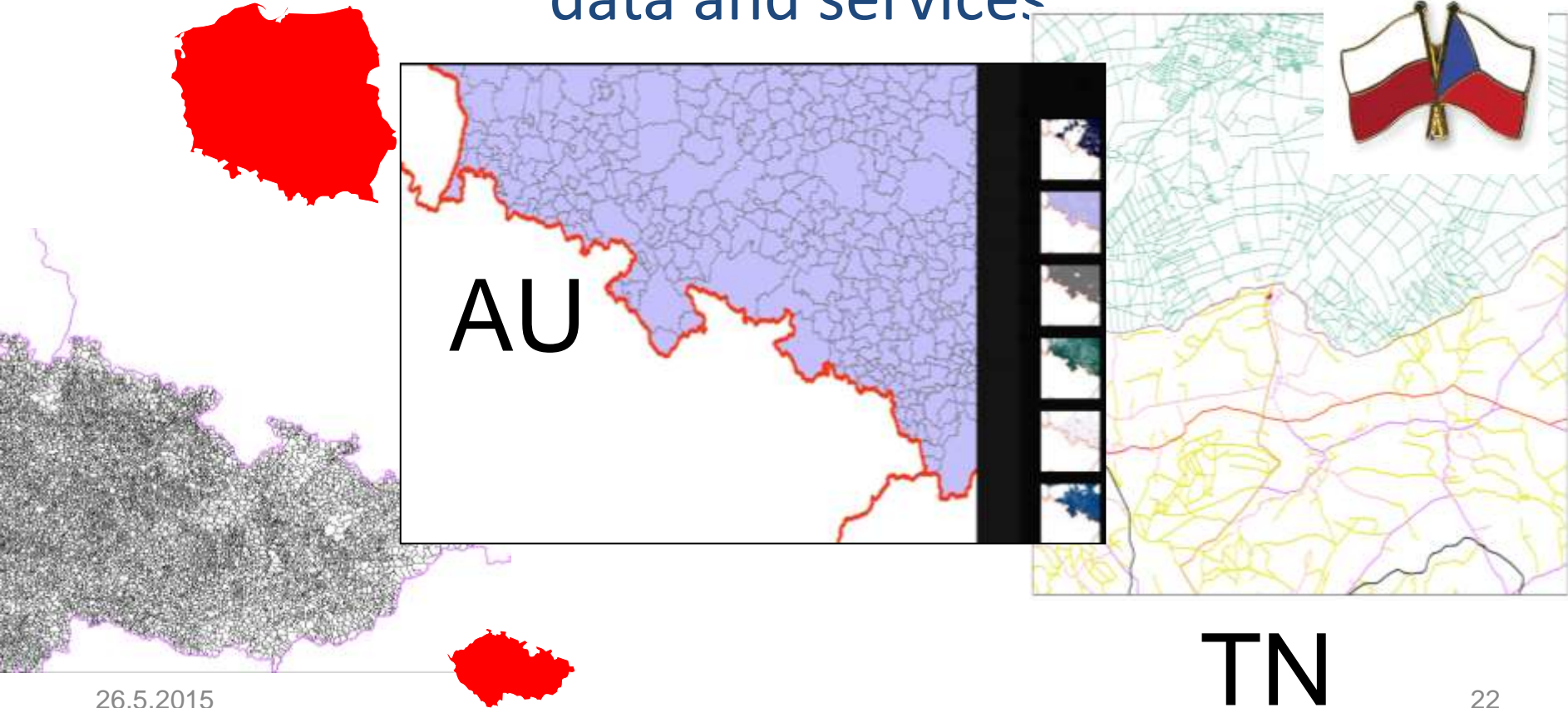
# ELF data



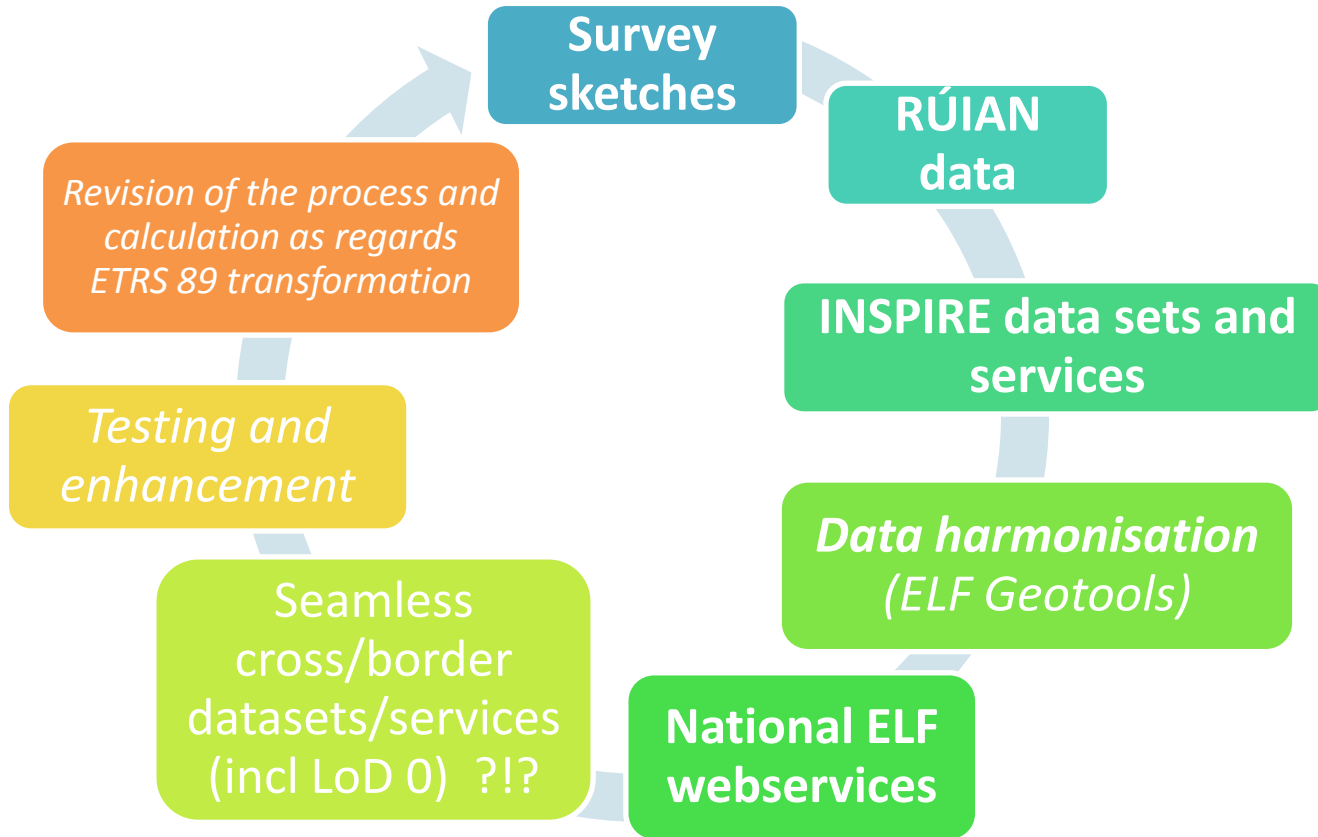
## themes and levels of detail (LoD)

MASTER LoD0	Master LoD1/2	REGIONAL	GLOBAL
Cadastral Parcels (CP)	Administrative Units (AU)	Administrative Units (AU): AU & NUTS	Administrative Units (AU)
Addresses (AD)	Hydrography (HY) Sea Regions (SR)	Hydrography (HY): HY & SR	Hydrography (HY): HY & SR
	Transport Networks (TN)	Transport Networks (TN)	Transport Networks (TN)
Geographical Names (GN)	Geographical Names (GN)	Geographical Names (GN): GN & POP	Geographical Names (GN): GN & POP
Elevation (EL)	Elevation (EL)	Elevation (EL)	Elevation (EL)
	Land Cover (LC)	Land Cover (LC): POP & VEG	Land Cover (LC): POP
Buildings (BU)	Buildings (BU)	Buildings (BU)	
	Protected Sites (PS)	Protected Sites (PS)	

# Analyses of accessibility and interoperability of data and services



# Data comparison at state borders – *new requests*





Survey sketches, local decisions

Base Registers Data (RÚIAN edited by ISKN, ISÚI)

INSPIRE compliant data sets and services



National webservices for the ELF

Seamless cross-border data sets and služby services

Cross-border *thematic applications*

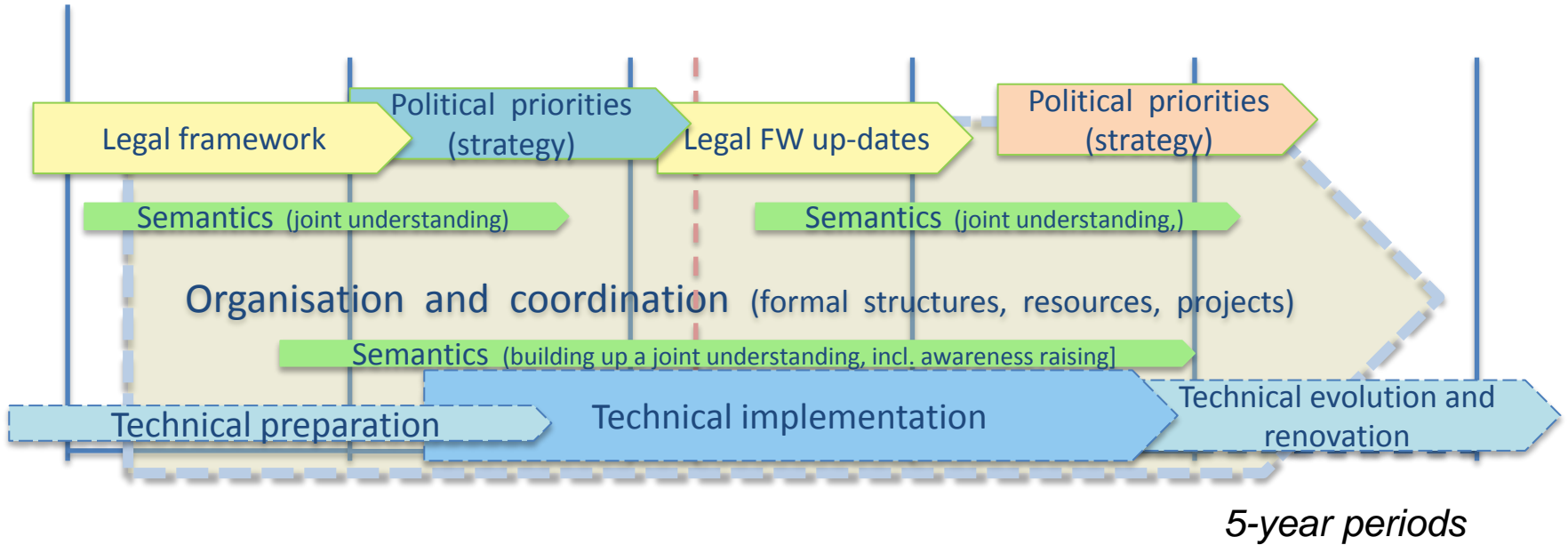
Seamless ELF data sets and services for EU+ (via ELF platform)



*Thematic applications for European Regions and the EU+*

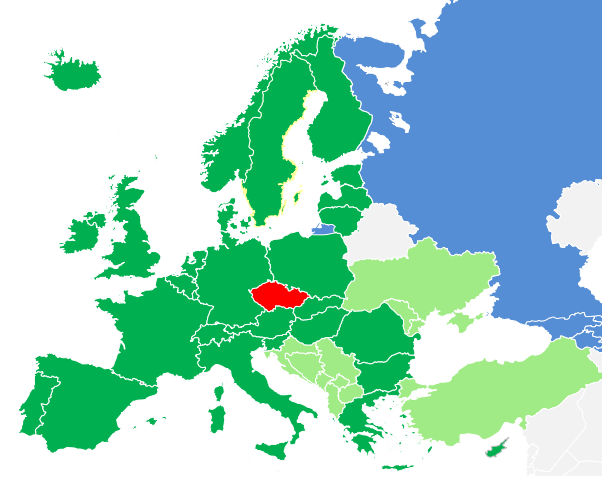


# NSDI / development, implementation and evolution phases



# Conclusions

- INSPIRE provides useful tools (legal, coordination etc) to invoke and underpin a NSDI development;
- but it is **not** a one-way linear development; as such it even does not fulfil its own principles (seamless).
- Policies, Practices and Processes can converge or support each other,
- but it is a **long term challenge** requiring attention and a coordinated (+/-) cooperation of many stakeholders inside and also outside the country.



Questions?  
Thanks for your attention.

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<http://geoportal.cuzk.cz>

<http://inspire.gov.cz/>

<http://www.elfproject.eu>



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