



# Why we need extensions in INSPIRE – the European perspective

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**Joint Research Centre**

The European Commission's science  
and knowledge service

<http://ec.europa.eu/jrc>

# Overview

- Why do we need extensions
- Governance of extensions
- European examples
- Issues for discussion

# Why we need extensions



<https://youtu.be/Ftgy8uU9y2A>

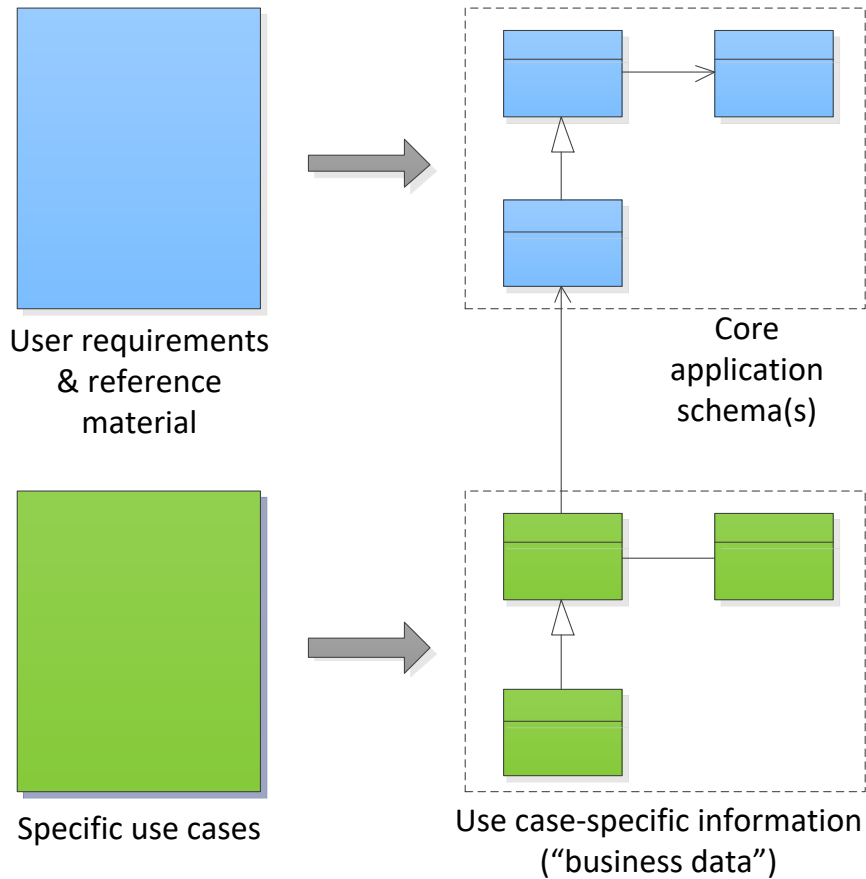




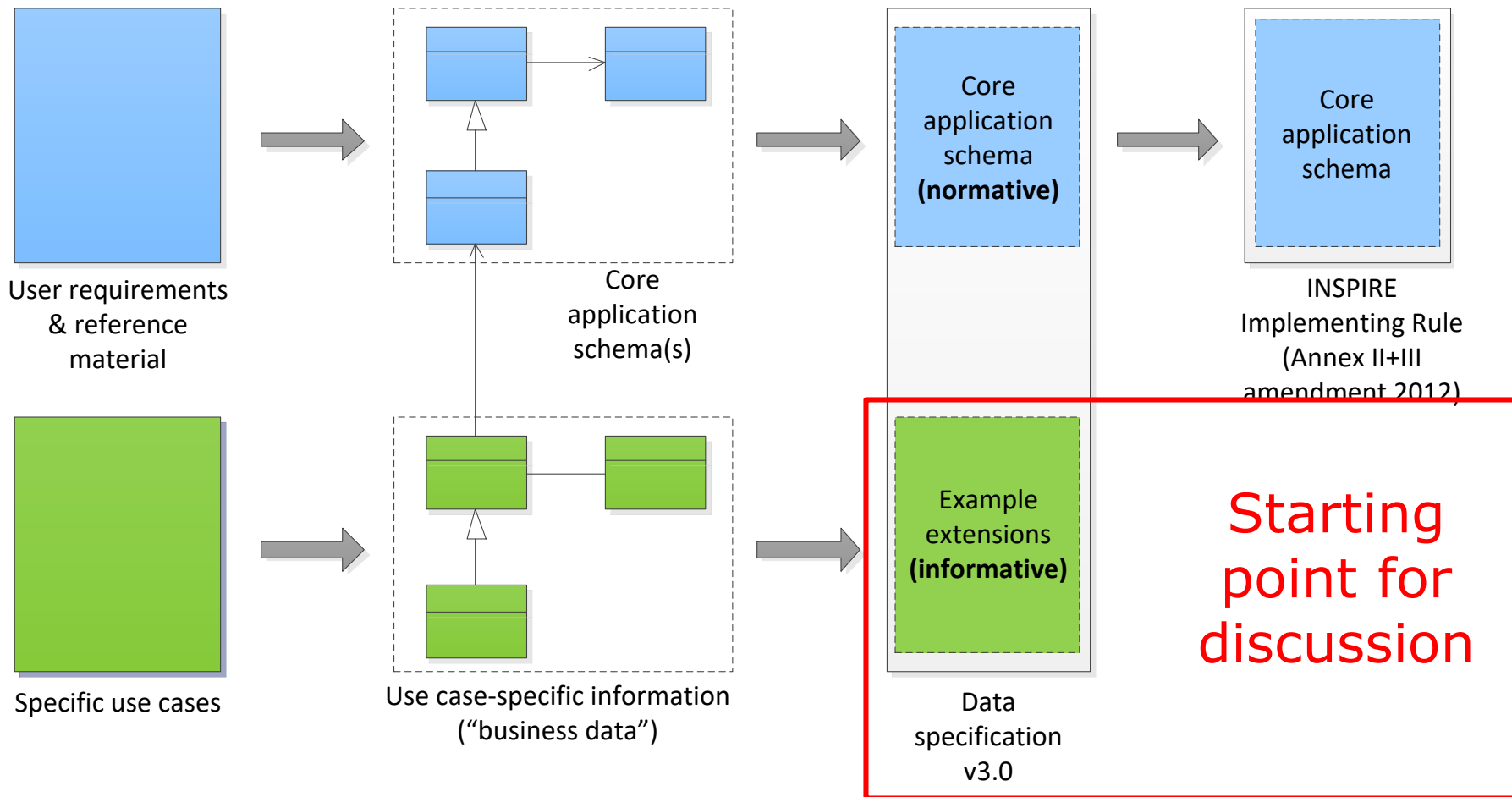
# Meeting national needs with INSPIRE

- Different implementation approaches
  - INSPIRE implementation  $\neq$  national implementation  
→ no extension needed ("tick the INSPIRE box")
  - INSPIRE implementation = national implementation  
→ need to extend the INSPIRE model in order to add properties / types relevant for national requirements

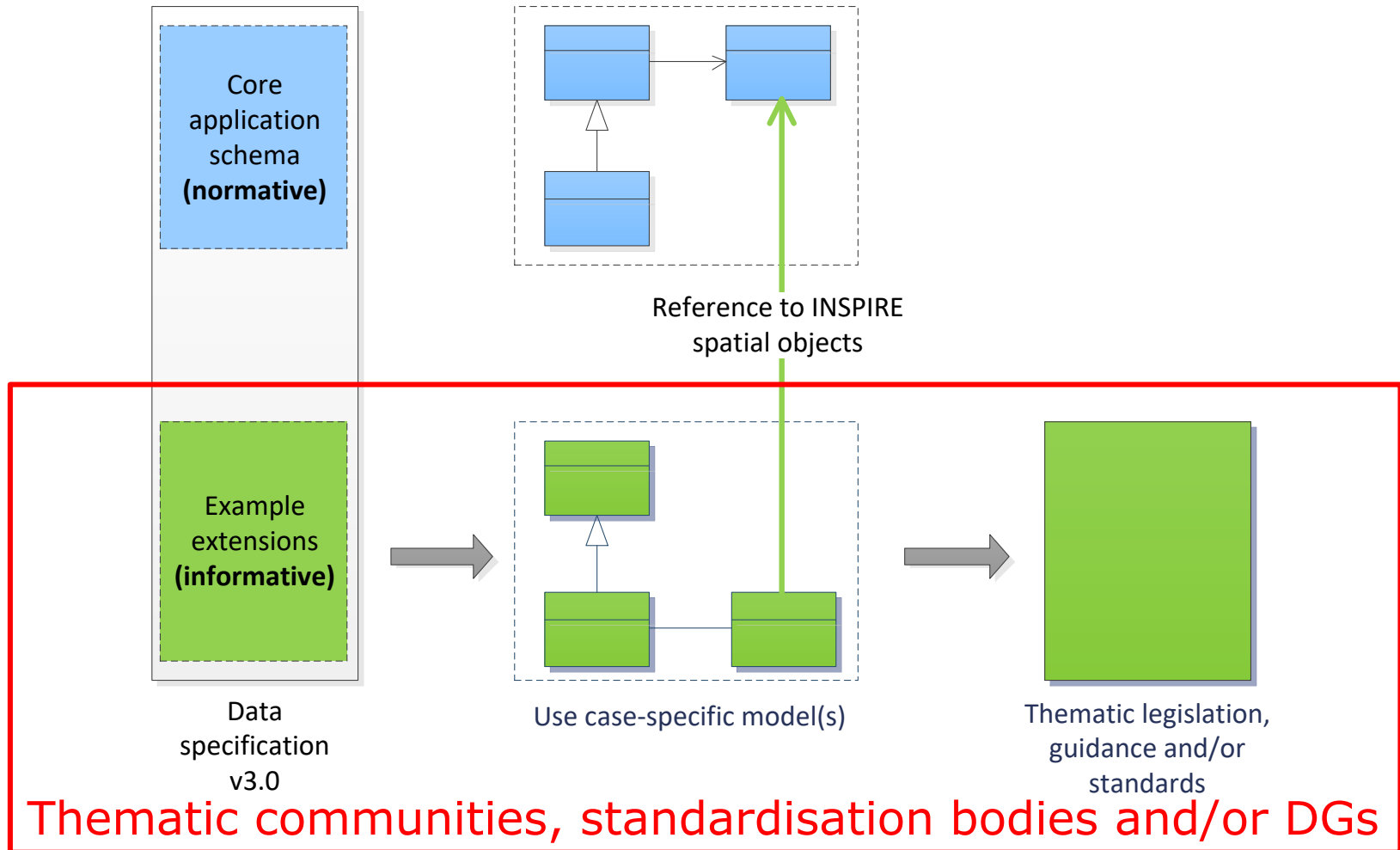
# INSPIRE core and extension models



# INSPIRE core and extension models

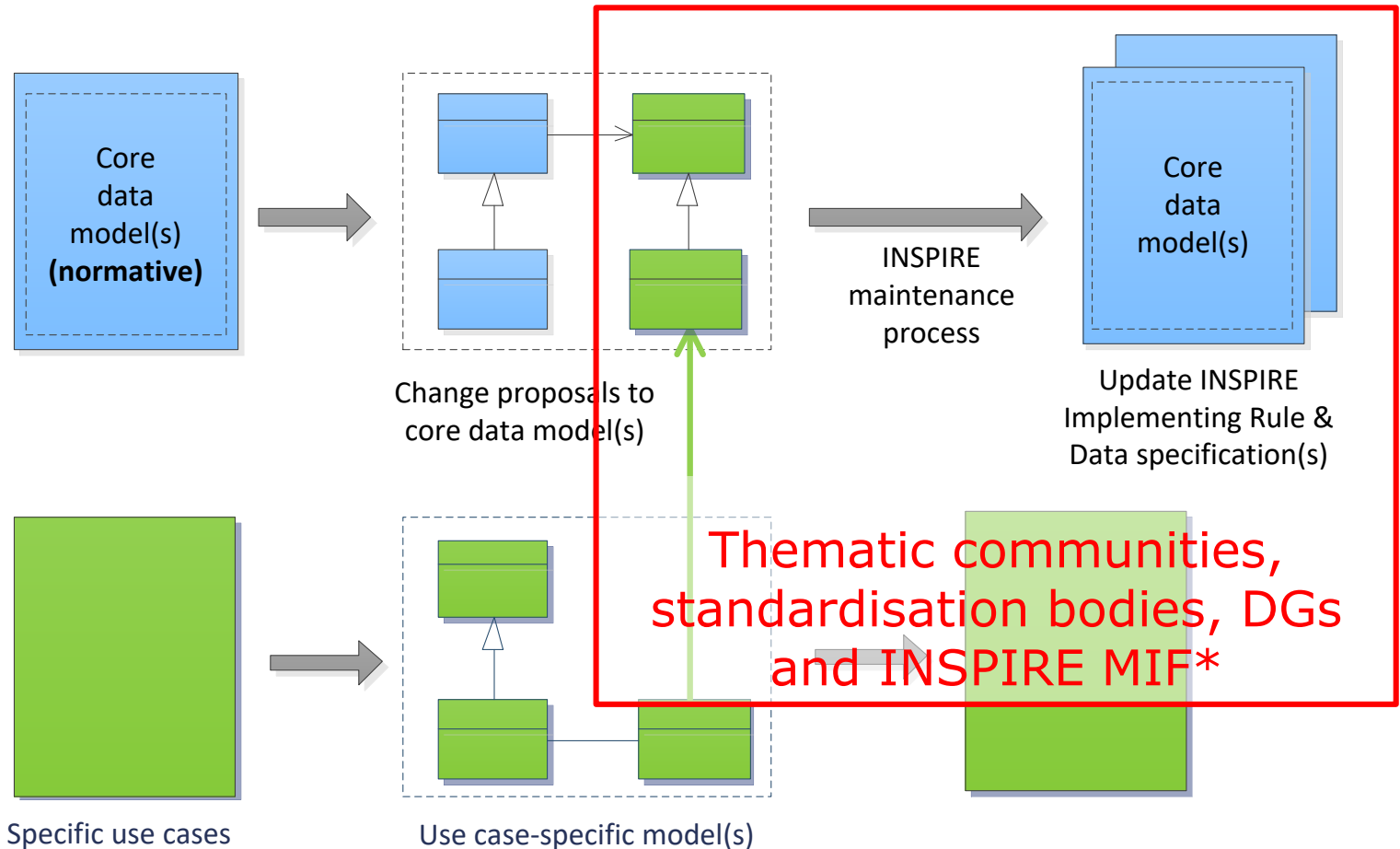


# INSPIRE extensions: Governance





# INSPIRE extensions & maintenance



\* MIF = Maintenance and implementation framework












# Thematic Clusters platform

## INSPIRE Thematic Clusters

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► **About the INSPIRE Thematic Clusters Platform**



▲ **Site-wide Categories**

- Thematic use case *146*
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# Extension patterns

## INSPIRE Data Specification Extensions

Get the most out of INSPIRE by extending data specifications!



This project is maintained by [wetransform](http://wetransform.com).

[View the Project on GitHub](https://github.com/wetransform/inspire-extensions)  
wetransform/inspire-extensions

## Site Purpose and Overview

We collect and document best practices for extending INSPIRE models. This documentation shows how organisations can align their processes with the INSPIRE reference infrastructure. Below, you'll find an **extension methodology** that describes the process, people and tools needed to make an INSPIRE extension project successful, and provides common extension approaches in the form of a **pattern catalogue**.

The site has three core elements: The initial survey and inventory of existing INSPIRE Model Extensions, the extension pattern catalogue and an end-to-end tutorial project:

1. [Introduction](#)
2. [Results of the Survey](#)
3. [Model Extensions Inventory](#)
4. [The INSPIRE Model-Driven Approach](#)
5. [The Extension Methodology](#)
6. [The Pattern Catalogue](#)
7. [An End-to-End Tutorial Project](#)
8. [Conclusions and Outlook](#)

## Current Project Activities

1. [Kickoff Workshop \(Amersfoort\) – 9th of March 2016](#) ✓
2. [Model Extensions Inventory Delivery](#) ✓
3. [Advisory Board Meeting \(Ispra\) – 21st of April](#) ✓
4. [Extension Methodology Draft](#) ✓
5. [Full Pattern Catalogue](#) ✓
6. [Tutorial Project and Running Example Documentation](#)
7. [Advisory Board Review Meeting \(Ispra\) – 29th to 30th of June 2016](#) ✓
8. [Final Report](#) ✓
9. [Workshop at INSPIRE Conference \(Barcelona\) – 26th of September, 09:00 to 12:30](#) ✓



# INSPIRE register federation



INSPIRE

Register Federation

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English (en) ▾

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## Registries

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Label	Publisher	URI
INSPIRE registry	<a href="#">European Commission, Joint Research Centre</a>	<a href="http://inspire.ec.europa.eu/registry">http://inspire.ec.europa.eu/registry</a>
Spanish Registry - Test version	<a href="#">Instituto Geográfico Nacional</a>	<a href="http://www.ideo.es/register-inspire">http://www.ideo.es/register-inspire</a>
EEA Data Dictionary vocabularies	<a href="#">European Environment Agency</a>	<a href="http://dd.eionet.europa.eu/vocabularies">http://dd.eionet.europa.eu/vocabularies</a>
Lithological Classification Austria - extended values	<a href="#">Geological Survey of Austria</a>	<a href="http://resource.geolba.ac.at/lithology/0">http://resource.geolba.ac.at/lithology/0</a>
Austrian INSPIRE registry	<a href="#">CCCA Data Centre</a>	<a href="http://registry.inspire.gv.at">http://registry.inspire.gv.at</a>
IUGS CGI Geoscience Vocabularies for Linked Data	<a href="#">Geoscience Terminology Working Group (GTWG)</a>	<a href="http://resource.geosciml.org/">http://resource.geosciml.org/</a>

Items per page  Showing 1 to 6 of 6 entries

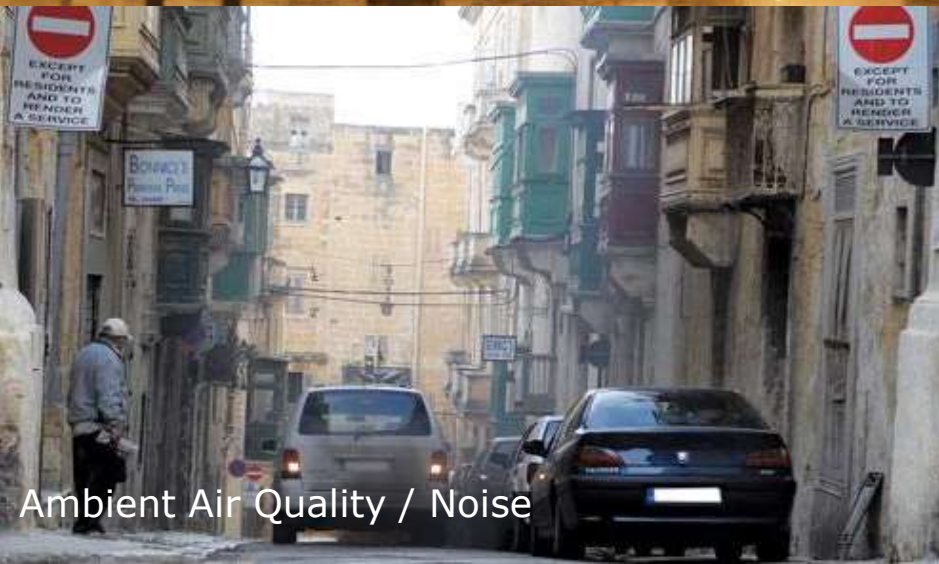
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REST URL: <http://inspire-regadmin.jrc.ec.europa.eu/ror/rest/registries>

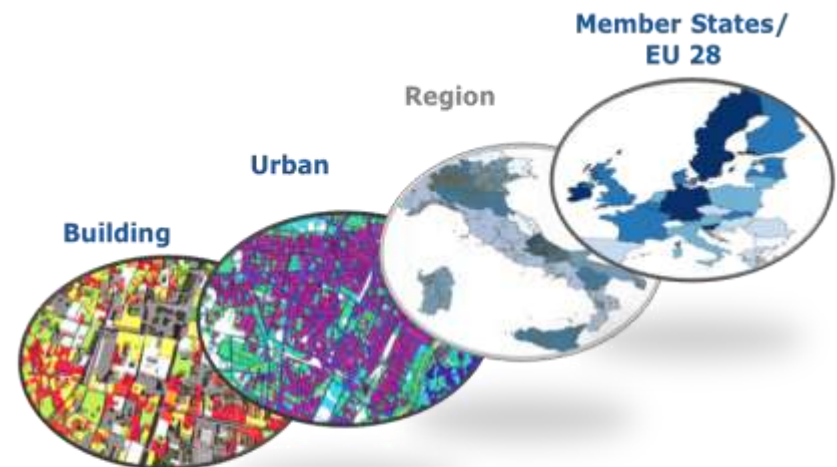
[Web Service details](#)



# Examples – e-Reporting



# Examples – other applications



**EPBD**

Energy Performance  
of **Buildings** Directive

**CoM**

Covenant of Mayors  
(**Cities**)

**EED-RED**

Energy Efficiency –  
Renewable Energy  
Directives  
(**Member States**)

# Topics for discussion

- Extensions vs. profiles
- Different patterns for extensions (and their implications for services)
- Extensions in the INSPIRE reference validator
- Extensions and business processes (e.g. e-Reporting)
- A register for extensions?
  - why?
  - who should operate/fund it?
  - all welcome vs. only quality-assured/endorsed
  - are (some) examples/good practices enough (→ e.g. one per theme)