

# INSPIRE Thematic Cluster on Topographic and Cadastral Reference data

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The screenshot shows the homepage of the INSPIRE Thematic Clusters platform. The header includes the INSPIRE logo, the title 'INSPIRE Thematic Clusters', a search bar, and navigation links for 'News', 'Events', 'Categories', 'Clusters', and 'More'. Below the header, there are sections for 'About the INSPIRE Thematic Clusters Platform', 'Tag cloud', 'INSPIRE on Twitter' (with a tweet from GEO NEXT), and a vertical stack of buttons for 'INSPIRE Website', 'INSPIRE GeoPortal', and 'INSPIRE Conference 2015'. The main content area features a grid of images representing various themes, and a section for 'Thematic Clusters names and themes' and 'Cross group discussions'.

[www.jrc.ec.europa.eu](http://www.jrc.ec.europa.eu)




*Serving society  
Stimulating innovation  
Supporting legislation*

# Introduction to Thematic cluster scope

## Topographic and Cadastral Reference Data (79)

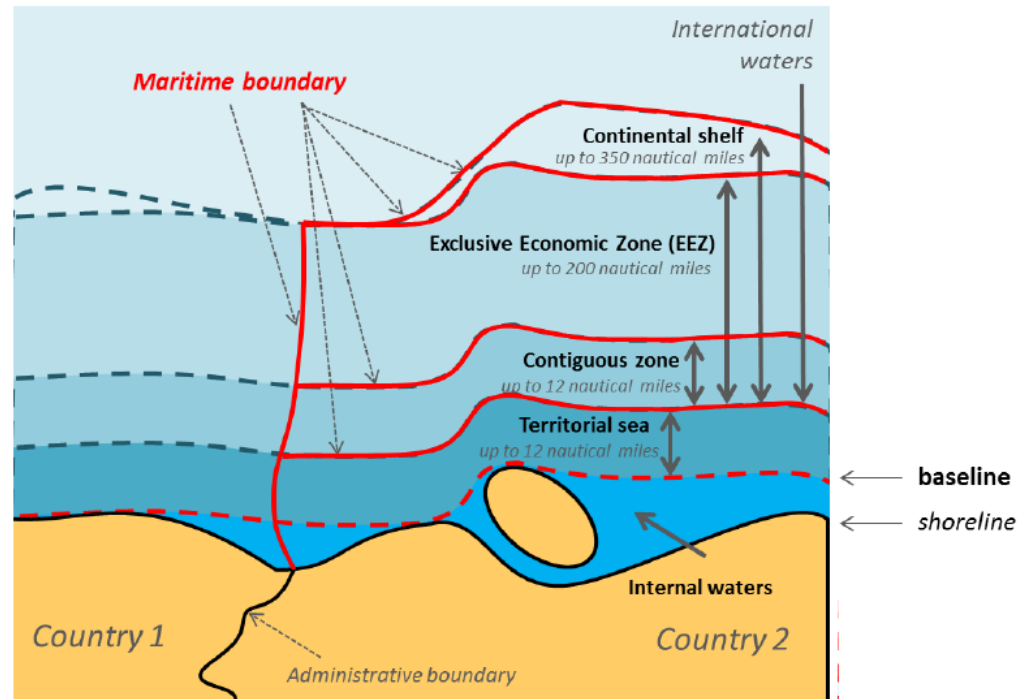
Main stakeholders: NMCAs, Road and Water authorities



	Administrative Units	(12)
	Addresses	(15)
	Buildings	(11)
	Cadastral Parcels	(13)
	Geographical Names	(6)
	Hydrography	(4)
	Transport networks	(12)

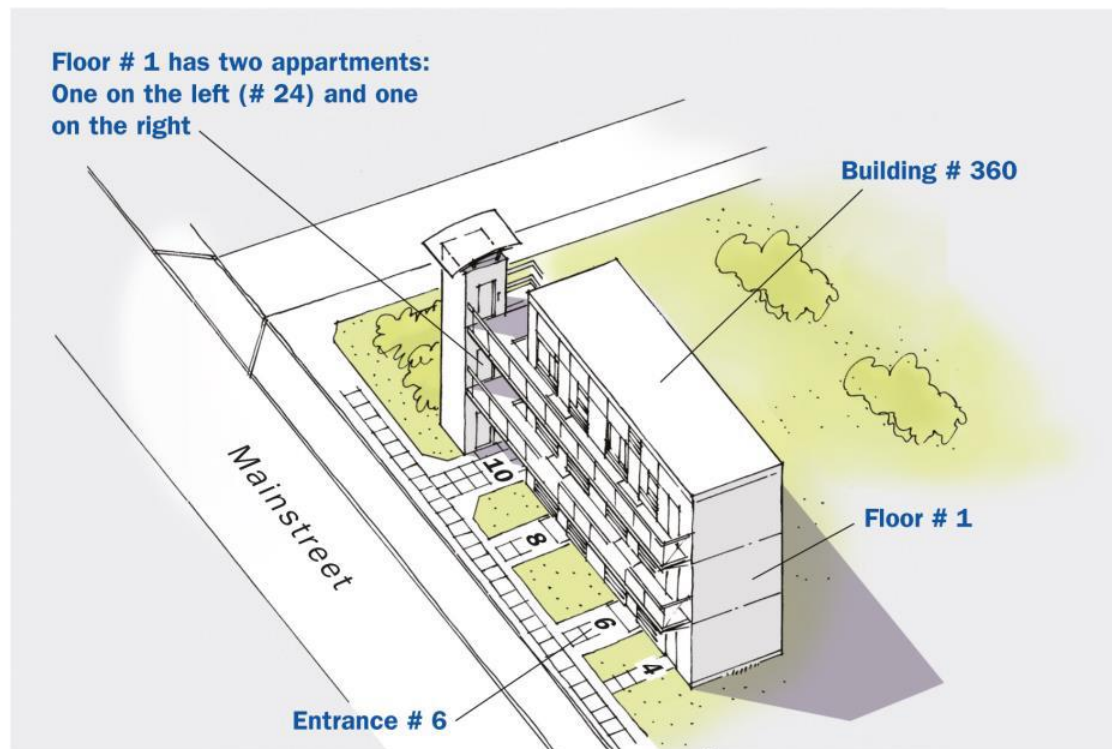
# AU – Administrative Units

- Units of administration, dividing areas where Member States have and/or exercise jurisdictional rights, for local, regional and national governance, separated by administrative boundaries



# AD - Adresses

- Location of properties based on address identifiers, usually by road name, house number, postal code



# BU - Buildings

- Geographical location of buildings [Directive 2007/2/EC]
- Use cases

Census - Statistics			
Census	Urban units	Environmental statistics / Reporting	
<b>Safety</b> Natural risks (flood, fire, earthquake, landslide) Human risks (transport) Prevention / rescue management	<b>Environment</b> Pollutions (air, noise, sol) Quality of habitat Sustainable buildings (energy, ...) Historical interest	<b>Urban expansion</b> Definition of urban areas Urbanism planning and monitoring	<b>Infrastructures</b> Location for new infrastructure Infrastructure management Public patrimony management and valorisation
Risk / travel maps	City maps	Thematic / tourism maps	3D models
Communication – Public awareness			

**Open issue 1:** The articulation between *Buildings* and facilities was poorly tested or not tested at all during the consultation phase. So, there is a real risk that data between these themes will not connect as expected. This will be a point to be carefully monitored by the maintenance process of INSPIRE specifications

# CP – Cadastral Parcels

- Areas defined by cadastral registers or equivalent [Directive 2007/2/EC]



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# GN– Geographical Names

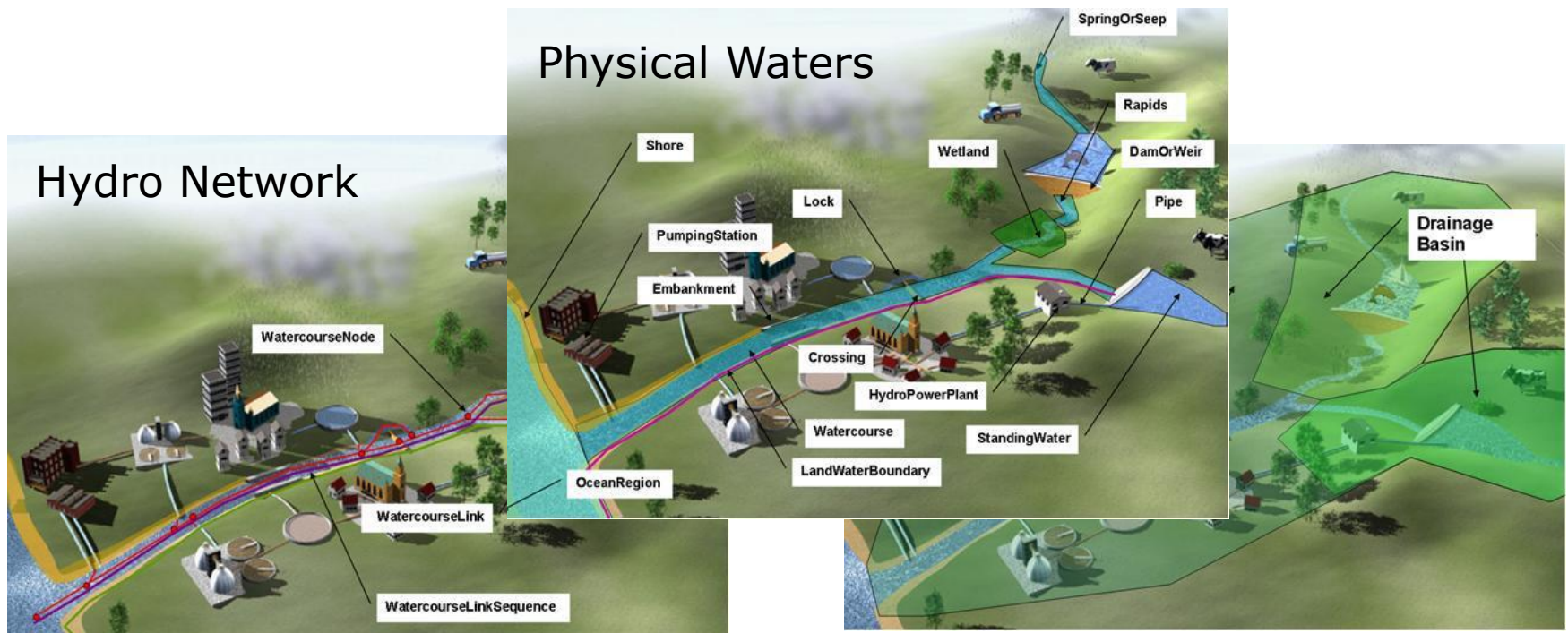
- Names of areas, regions, localities, cities, suburbs, towns or settlements, or any geographical or topographical feature of public or historical interest



© National Land Survey Finland

# HY– Hydrography

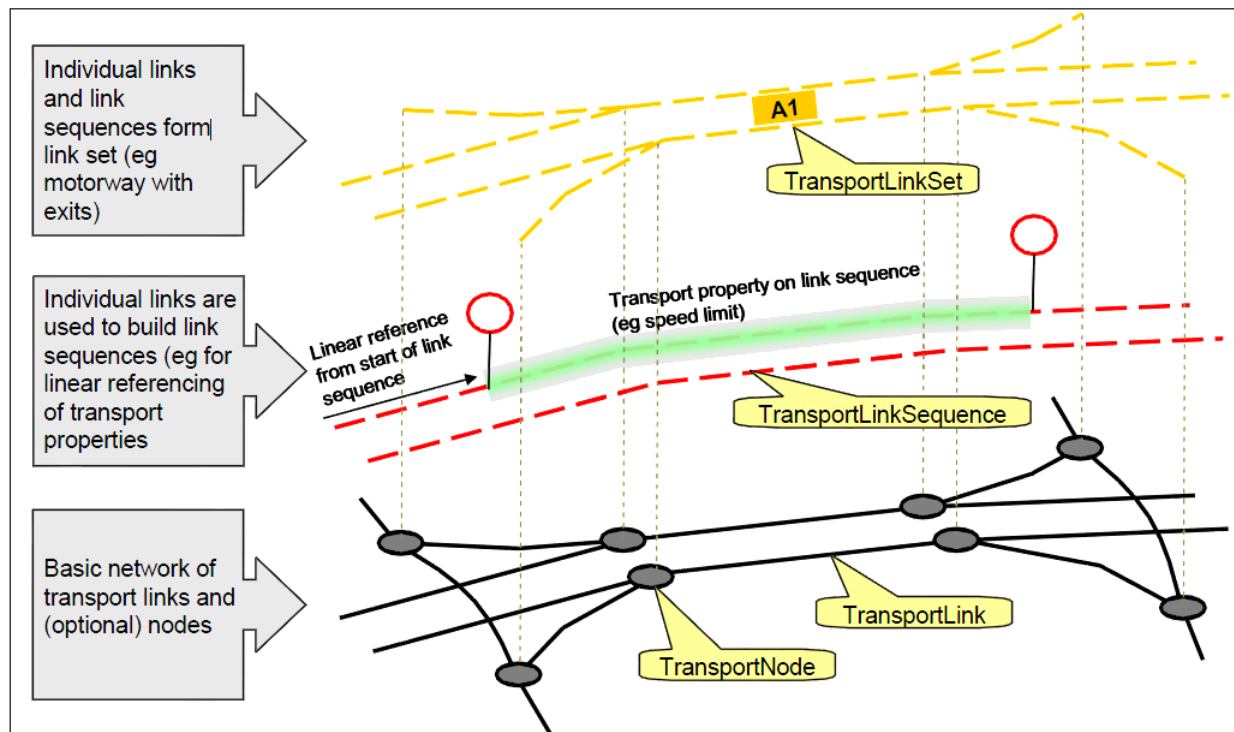
- Hydrographic elements, including marine areas and all other water bodies and items related to them, including river basins and sub-basins. Where appropriate, according to the definitions set out in WFD and in the form of networks.





# TN– Transport Network

- Road, rail, air and water transport networks and related infrastructure. Includes links between different networks. Also includes the trans-European transport network...



# Open issues with Annex I data themes

In the amendment of the Implementing Rules, a number of changes have been introduced to the Annex I data models and the xml schemas need to be updated:

- **AD**
  - In the Addresses data model, the type of the building association role of the Address spatial object type has been changed from the Building placeholder type to the type AbstractConstruction in the Buildings theme.
- **AU**
  - In the Administrative Units data model, the association between AdministrativeUnit and the candidate type NUTSRegion has been removed.
- **HY**
  - The candidate types Shore, Wetland and Embankment have been reintroduced into the Hydro – Physical Waters model, while the candidate types HydroPowerPlant, InundatedLand, OceanRegion, Pipe and PumpingStation have been removed.
- **TN-Air**
  - In the Air Transport Elements data model, the type targetElement of the controlTowers property has been changed from the Building placeholder type to the type AbstractConstruction in the Buildings theme.

# Thematic cluster/sub-group best practices

## Best practices

- [EuroGeographics INSPIRE KEN](#)  
NMCAs strategy to implement INSPIRE specifications  
Webinars on implementation issues, tools, etc.  
Workshops on data transformation

## Projects

- [ELF](#)
- [Plan4business](#)



## Thematic pilots

- [JRC/TN-ITS/ELF Transportation Pilot](#)



# Thematic cluster/sub-group discussions

## Categories

### Topographic and Cadastral Reference Data Categories

- Thematic use case 2
- Data model/scope 4
- Common terminology 3
- Encoding 1
- Data quality 0
- Evolution - Thematic extensions 0
- Portrayal 1
- EU Thematic databases 0
- S/W tools 5
- Member State issues 3
- Platform utilisation 0
- Political/organisational framework 0
- Codelists 0
- Best Practice 5
- Interoperability 3
- Data provision 3
- Data used for e-reporting 0

## Data model/scope

- Update of INSPIRE Network model
- Management of PID and temporal aspects
- Definition of HY::StandingWater
- HY Topological consistency

## S/W tools

- Application schemas to modelling software
- Download services using ArcGIS for INSPIRE

## Portrayal

- Points or Pixel?

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## Thematic use case

- Application of TN to trekking trails
- Modelling rural paths/ways
- Characterization of streets / urban thoroughfares
- Harmonisation of Functional Road Class at EU level
- Link between AD and TN
- Natural identifiers in BU

No discussion in AU, AD, GN

# Questions?

