INSPIRE Community Forum
on Topographic and Cadastral Reference Data
Final activity report (Deliverable – D3)

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1. STATE OF PLAY IN THE THEMATIC DOMAIN

1.1. Overview / list of relevant EU Projects/technology/SW activities (title, short description, URL link)

The UN GGIM Europe Working Group on Core Spatial Data asked the community members for review of the *Core Data Spatial themes 'Transport Networks' and 'Hydrography'* that is based on user requirements and **on the corresponding INSPIRE Technical Guidelines (data specification).** Comments have been sent directly to the working group.

https://inspire.ec.europa.eu/forum/discussion/view/261074/review-of-un-ggim-europe-deliverable-spatial-core-data-theme-transport-networks-open-to-review

https://inspire.ec.europa.eu/forum/discussion/view/264473/un-ggim-europe-deliverable-on-core-theme-hydrography-is-open-to-review

INSPIRE Energy Pilot

https://inspire.ec.europa.eu/pilot-projects/inspire-energy-pilot/440

1.2. Overview / list of selected good / highly visited / highly replied Forum contributions (your short description + link to the Forum content)

Since the restart of the INSPIRE Community Forum only a few number of discussion topics were added. 16 discussion topics have been added since June 2018. Most of them ask for clarification regarding the data specifications and data modelling. A number of questions point out the need for change in either the data specification (20) or the data model (47).

As change requests posted in 2015 to 2018 have not yet been resolved yet, the confidence in the change management is not given.

Latest discussion topics:

https://inspire.ec.europa.eu/forum/discussion/view/268621/add-epsg7423-as-crs-for-buildings-3d (views 60)

https://inspire.ec.europa.eu/forum/discussion/view/265675/thoroughfarenamevalue-where-is-this-type-ussed-in-the-ad-scheme (views 139)

1.3. Overview / list of relevant existing applications, services (Title, description, URL link)

There is a collection of implementation examples under the title "What is best practice for implementing INSPIRE in the topographic and cadastral reference community?"

https://inspire.ec.europa.eu/forum/discussion/view/9878/what-is-best-practice-for-implementing-inspire-in-the-topographic-and-cadastral-reference-data-community

In addition UK provided a list of examples for different themes:

https://inspire.ec.europa.eu/forum/discussion/view/219818/some-example-implementations

Example GML files were provided for themes Addresses, Administrative units and Geographical names:

https://inspire.ec.europa.eu/forum/file/view/215489/gml-example-address-ad

https://inspire.ec.europa.eu/forum/file/view/216717/gml-example-administrativeunit-and-administrativeboundary-au

https://inspire.ec.europa.eu/forum/file/view/215021/gml-example-namedplace-gn

1.4. Overview and assessment of the availability of thematic domain data sets in the EU Geoportal

The diagrams at the end of the document provide an overview of the current availability of metadata, download and view services for all themes in the thematic domain. Six of the seven themes belong to Annex I and datasets as well as services should have been made available by 23.11.2017. The number of missing resources requires an evaluation of technical and organisational issues at national and European level that prevent resources to be shown in the INSPIRE Geoportal.

The analysis of the INSPIRE Geoportal show a lack of datasets for different countries and different themes. There are no metadata, download nor view services for themes

- Addresses in Bulgaria, Greece, Hungary, Ireland, Malta

- Cadastral Parcels in Bulgaria, Switzerland

There are no metadata nor download nor view services for Greece for all themes beside Cadastral Parcels in the thematic domain.

The statistics for Ireland need to be double-checked as of 30.12.2020 only was only a few number of metadata available but not services. This is a significant drop down in comparison to the 2019 report (D1).

2. OVERVIEW OF THE FACILITATOR'S ACTIVITY

Forum activity

- Follow up of new discussion topics: tagging, trying to activate the community in the different thematic domains to answer open questions (see Table 1 at the end of this report)

- Monitoring the INSPIRE Thematic Viewer regularly (see 1.4)

EuroGeographics INSPIRE KEN

- Workshop on use of INSPIRE data, 27.-28. Nov 2018, Warsaw https://eurogeographics.org/calendar-event/use-of-inspire-data-past-experiences-and-scenarios-for-the-future/

- Follow up webinar on use of INSPIRE data, 25. Jan 2019 https://eurogeographics.org/calendar-event/follow-up-webinar-on-use-of-inspire-data/

- Webinar on change in INSPIRE metadata, 29. May 2019 https://eurogeographics.org/calendar-event/inspire-ken-webinar-changes-in-inspire-metadata/

- Follow up webinar on use of INSPIRE data, 12. March 2020 INSPIRE by inspiration and not by obligation

INSPIRE Helsinki event

- Presentation at Experiences in implementing pan-European Services using national INSPIRE services

- Based on a discussion at the Helsinki event the facilitator is in contact with a company from Switzerland that has been interested in the data challenge "By the Beautiful Blue Danube" providing support in understanding the data specifications and identifying suitable data sources for their project. In January and February 2020 several phone calls have been held to exchange ideas and to provide information and contacts in the field of INSPIRE transport networks. A presentation has been planned for INSPIRE conference 2020 (see below).

INSPIRE conference 2020 - virtual

- A joint session "INSPIRE Reference Data – Ready to take off?" to share existing INSPIRE best practices and implementation experiences for INSPIRE reference data has been organized. The session has been showcasing relevant success stories regarding the above-mentioned aspects, identified within the INSPIRE Community Forum groups devoted to INSPIRE Annex I and II Reference Data themes, Software & Tools. The session presentations can be accessed through the link below:

  https://inspire.ec.europa.eu/forum/pages/view/266622/inspire-2020-inspire-reference-data-ready-for-take-off

INSPIRE Community Forum Webinar

- Supporting the preparation of the webinar. Due to absence from work I was not able to participate actively.

  https://inspire.ec.europa.eu/events/inspire-community-forum-webinar

Further activities

- The facilitator had a meeting with data provider and contractor regarding the provision of data for Transport Network – Air to elaborate the fitness-for-use of the data model. Due to changes in the day-to-day work of air traffic control the INSPIRE data model does not reflect the collection and use of the data anymore.

  https://inspire.ec.europa.eu/forum/discussion/view/261634/tn-air-should-aerodromenode-be-a-transportnode-or-a-transportpoint

  https://inspire.ec.europa.eu/forum/discussion/view/264075/tn-air-aerodromenode-no-bidirectional-reference-to-aerodrometype-and-aerodromecategory

3. FACILITATOR'S SUGGESTIONS FOR IMPROVEMENTS

3.1. For promotion, content generation, reaching new users etc.

To increase the level of interaction of the INSPIRE community it is planned to:

- Identify, collect and publish information about successful implementations, projects and use cases as group pages

- Review, update and close the discussion topics in the light of the MIG discussion on the revision of Implementing Rules

- Closely follow the MIG-T activities and agreements on other encodings

- Elaborate and publish materials for supporting the implementation in the scope of the thematic domain themes:

  a) Templates or examples of INSPIRE conformant metadata

  b) Templates or examples of INSPIRE view and download service capabilities documents

  c) Sample INSPIRE download services gathered from Member States experiences

  d) Sample GML files gathered from Member States experiences

- Evaluate the functionality and contribute to the development of the Thematic Viewer

  o Contact those Member States without data sets and services published in the INSPIRE Thematic Viewer, asking them to explain and describe the problems and drawbacks they have for implementing them.

- Actively participate in events organized by EuroGeographics INSPIRE KEN

- As the INSPIRE conference 2020 is postponed, it is planned to held a webinar covering the planned special session "INSPIRE Reference Data – Ready to take off?"

- Contribute to the INSPIRE Community Newsletter and to act as the editor to prepare a Newsletter

3.2. For the SW collaboration platform used including the new functionality and better management
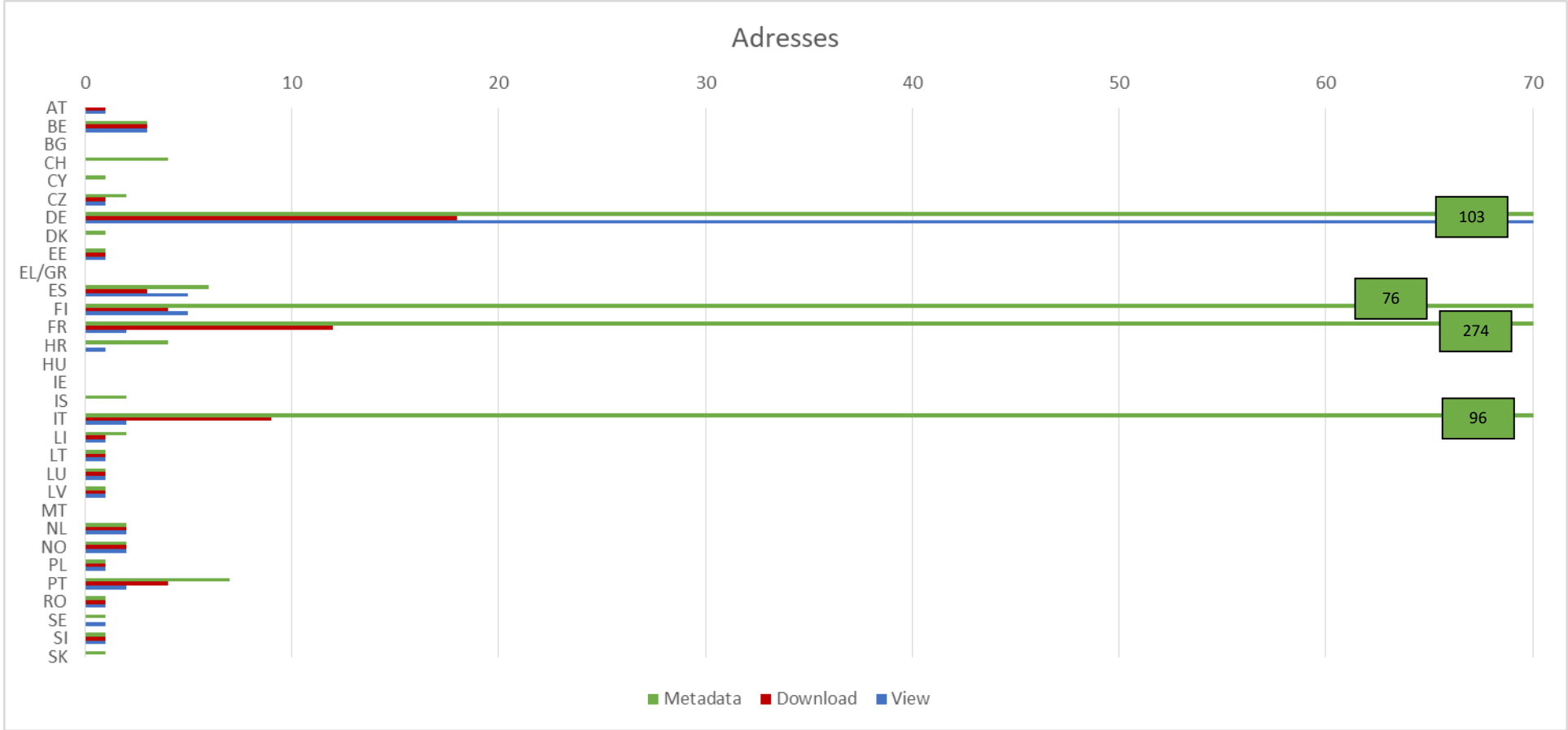
Nothing.

Addresses

Figure 1. Overview of INSPIRE Services by Country for theme Addresses
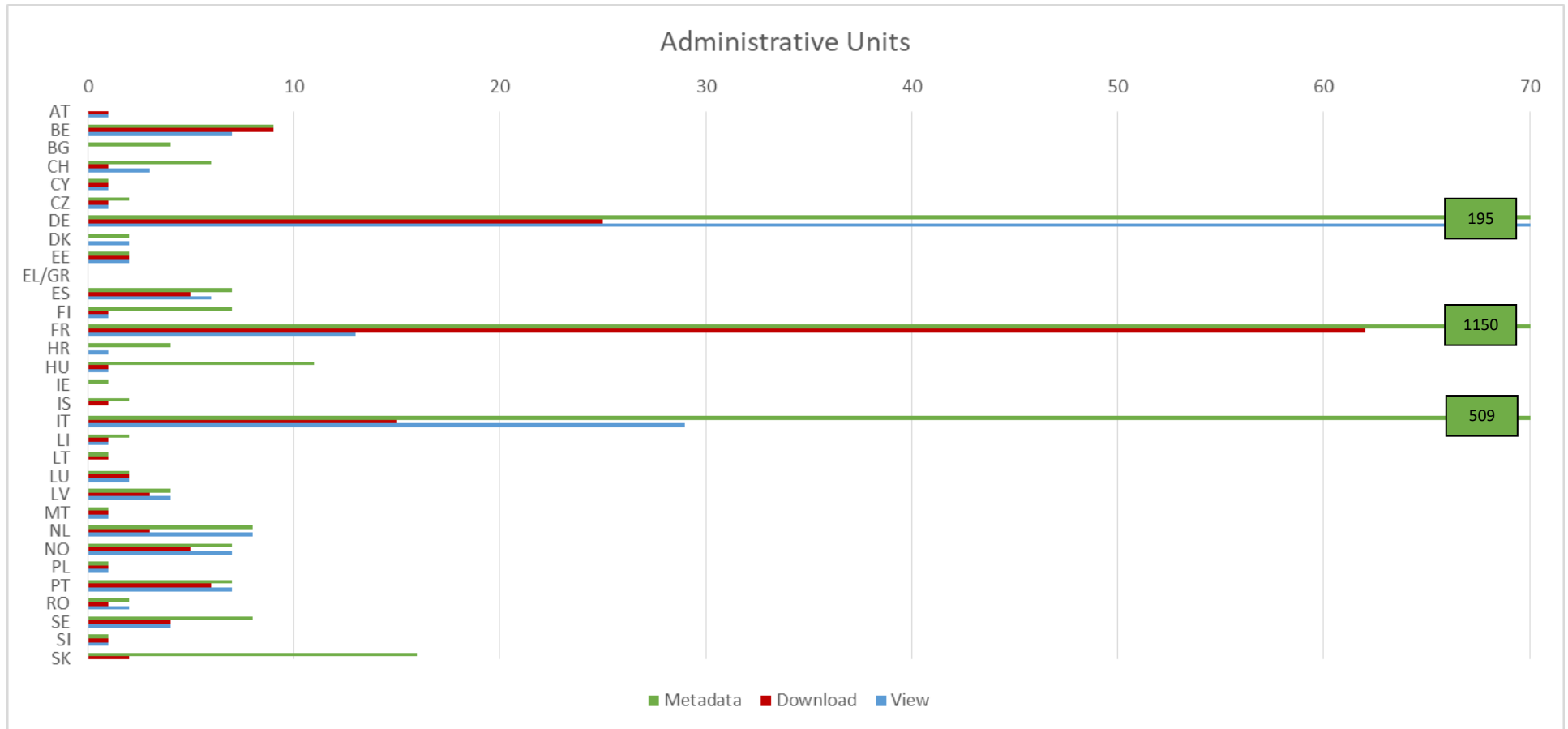
Administrative Units

Figure 2. Overview of INSPIRE Services by Country for theme Administrative Units
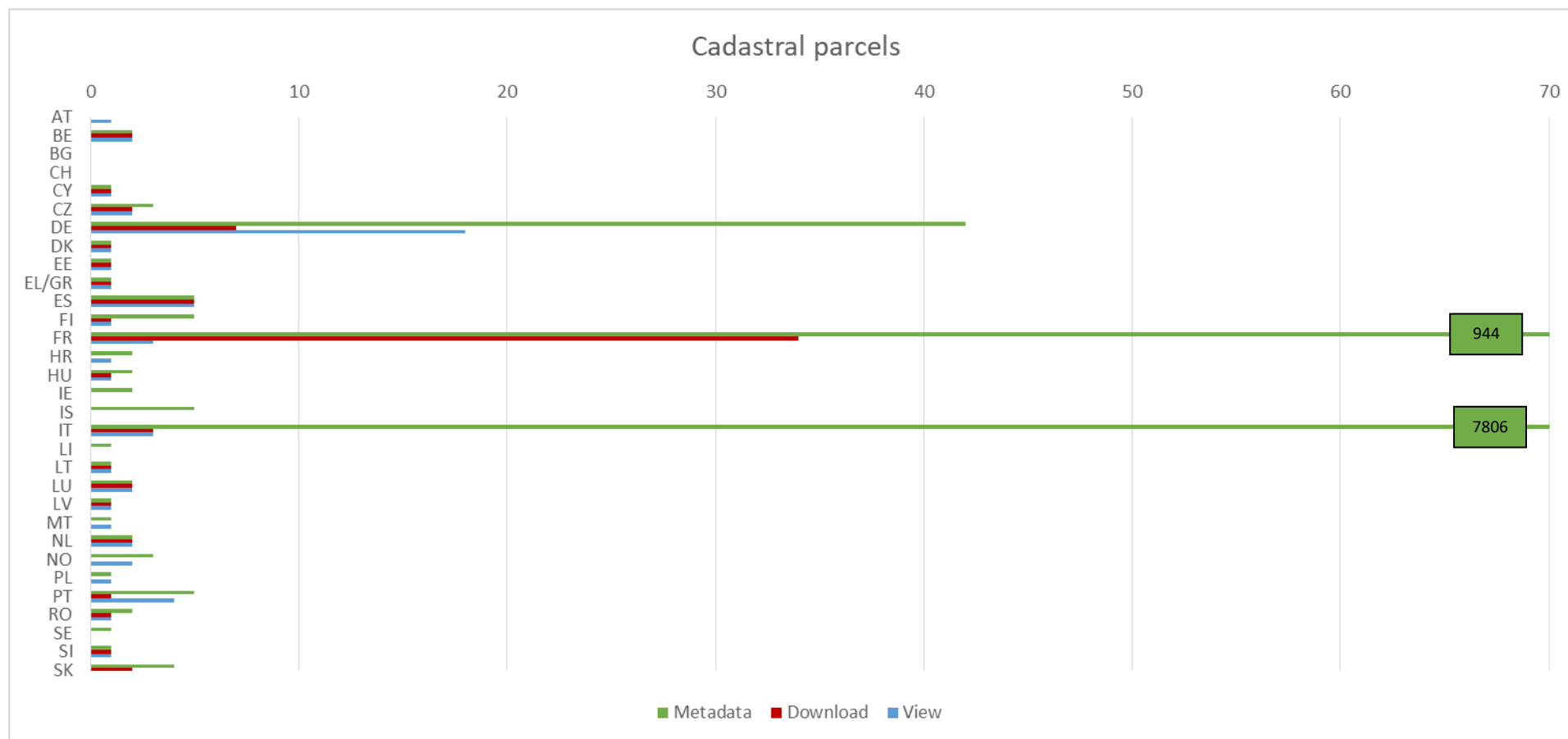
Cadastral Parcels

Figure 3. Overview of INSPIRE Services by Country for theme Cadastral Parcels
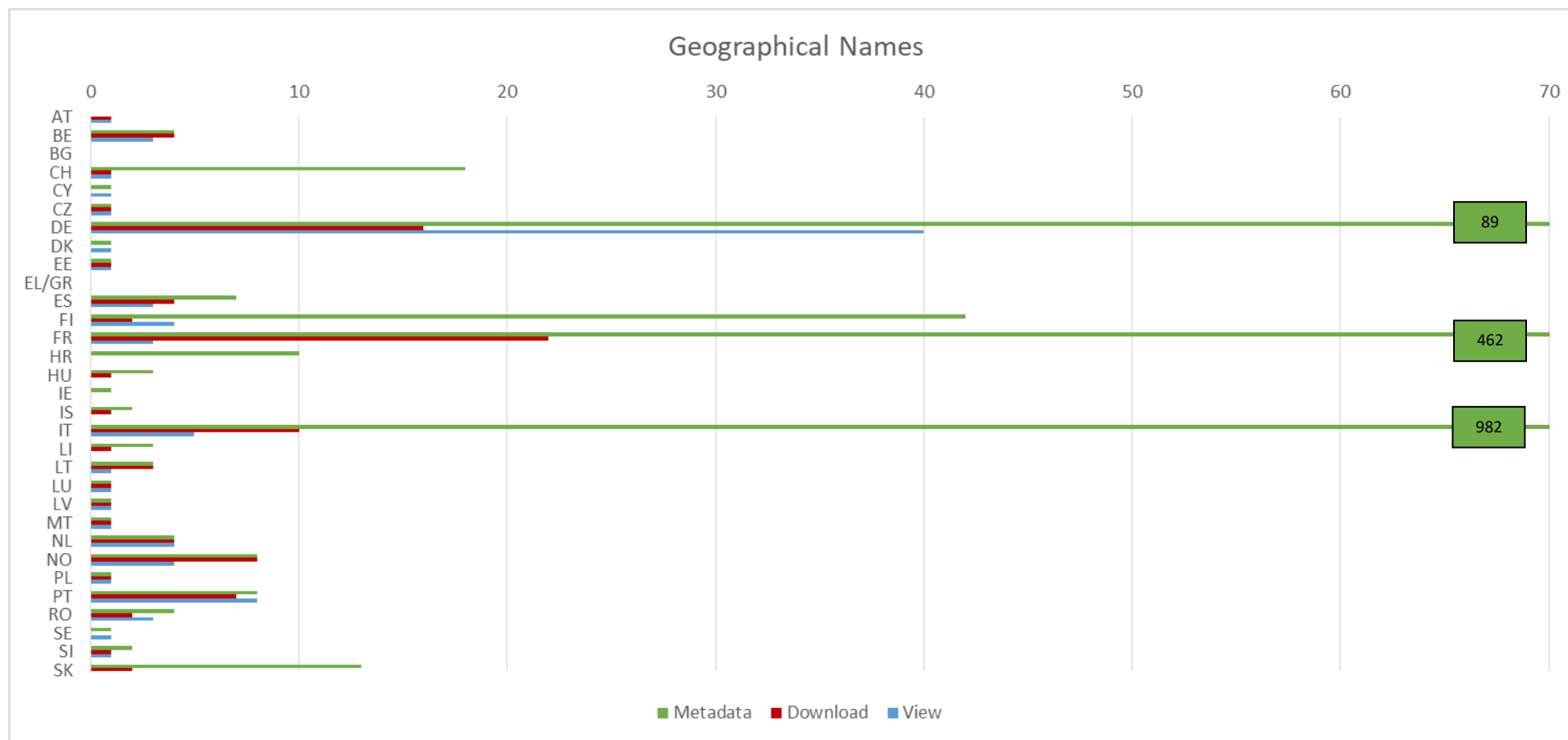
Geographical Names

Figure 4. Overview of INSPIRE Services by Country for theme Geographical Names
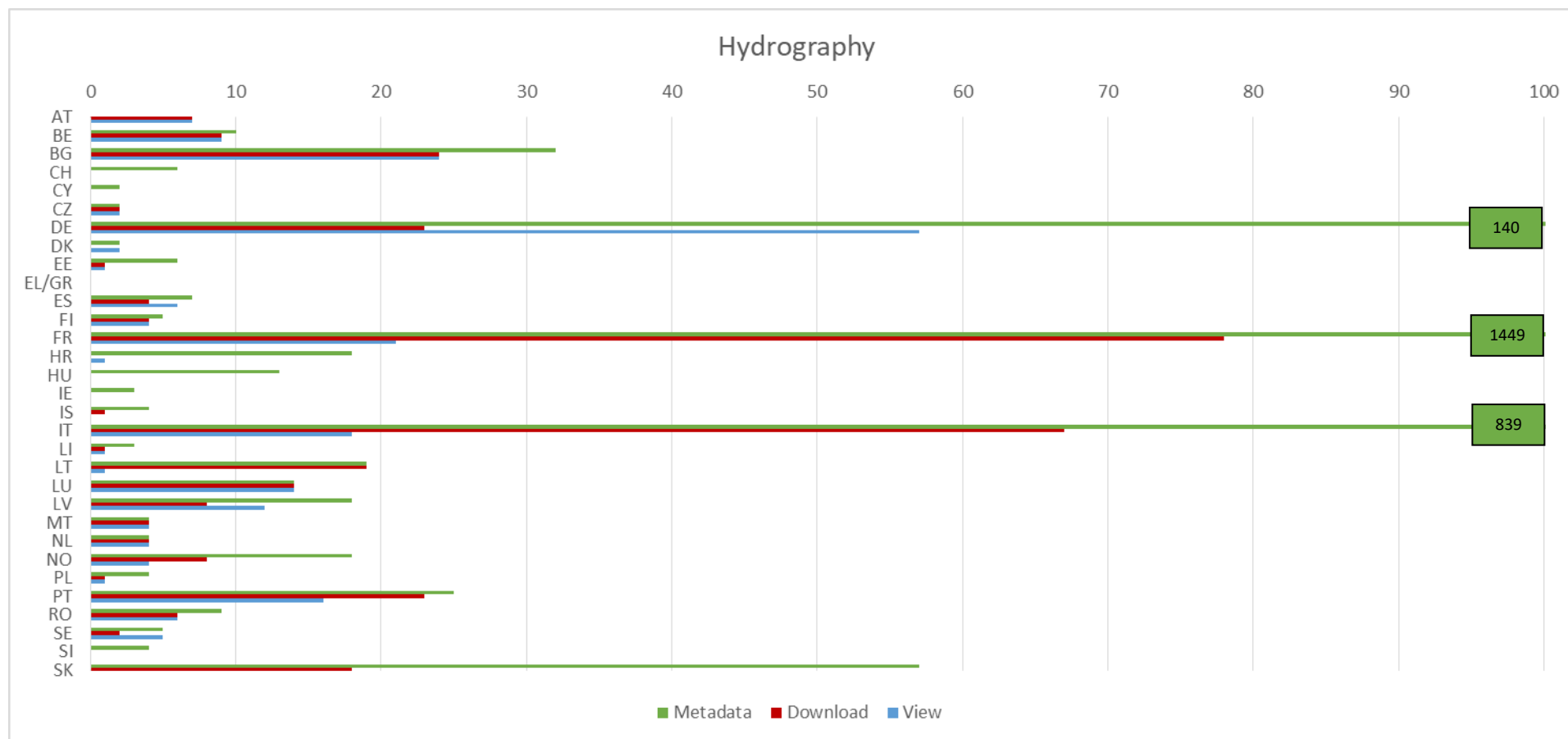
Hydrography

Figure 5. Overview of INSPIRE Services by Country for theme Hydrography
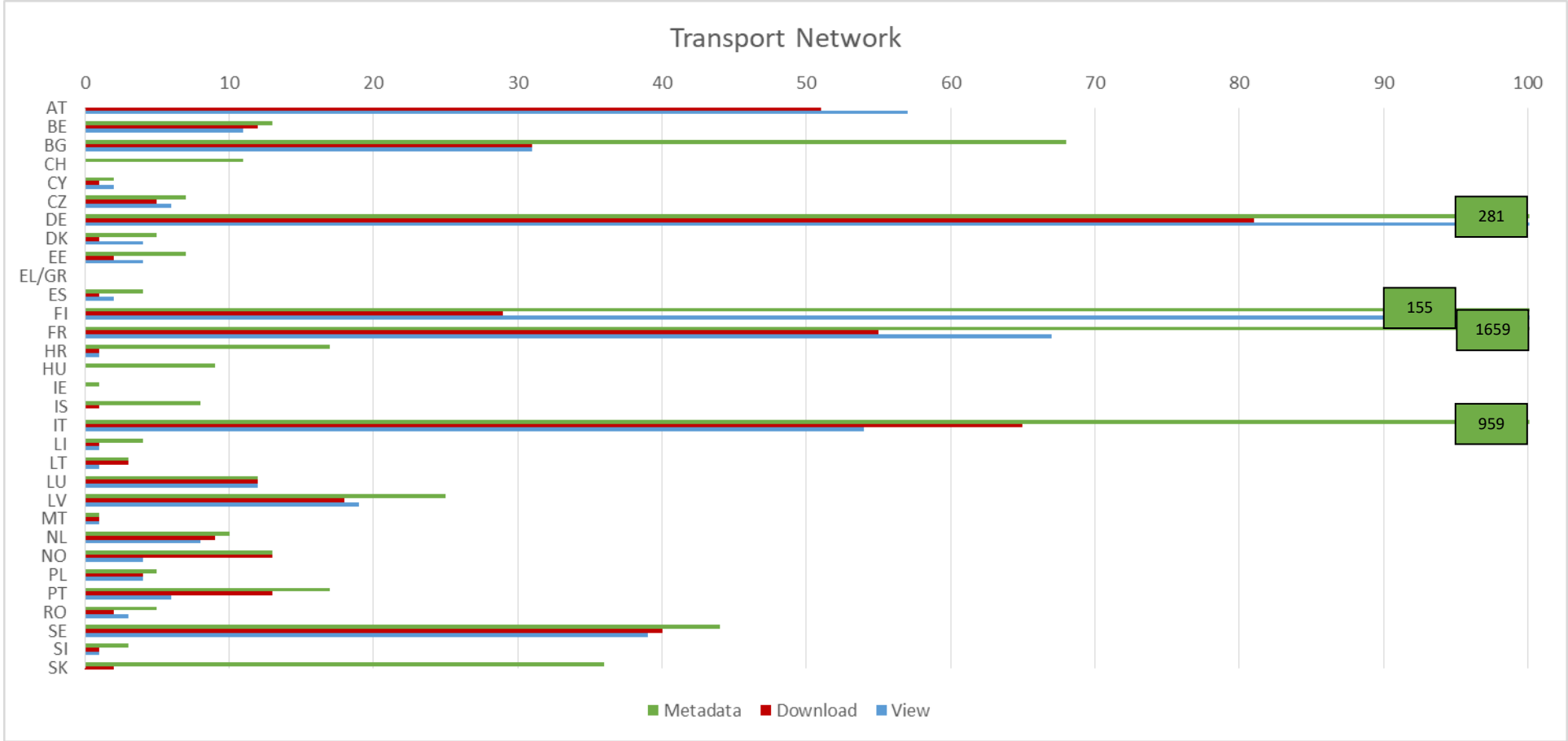
Transport Network

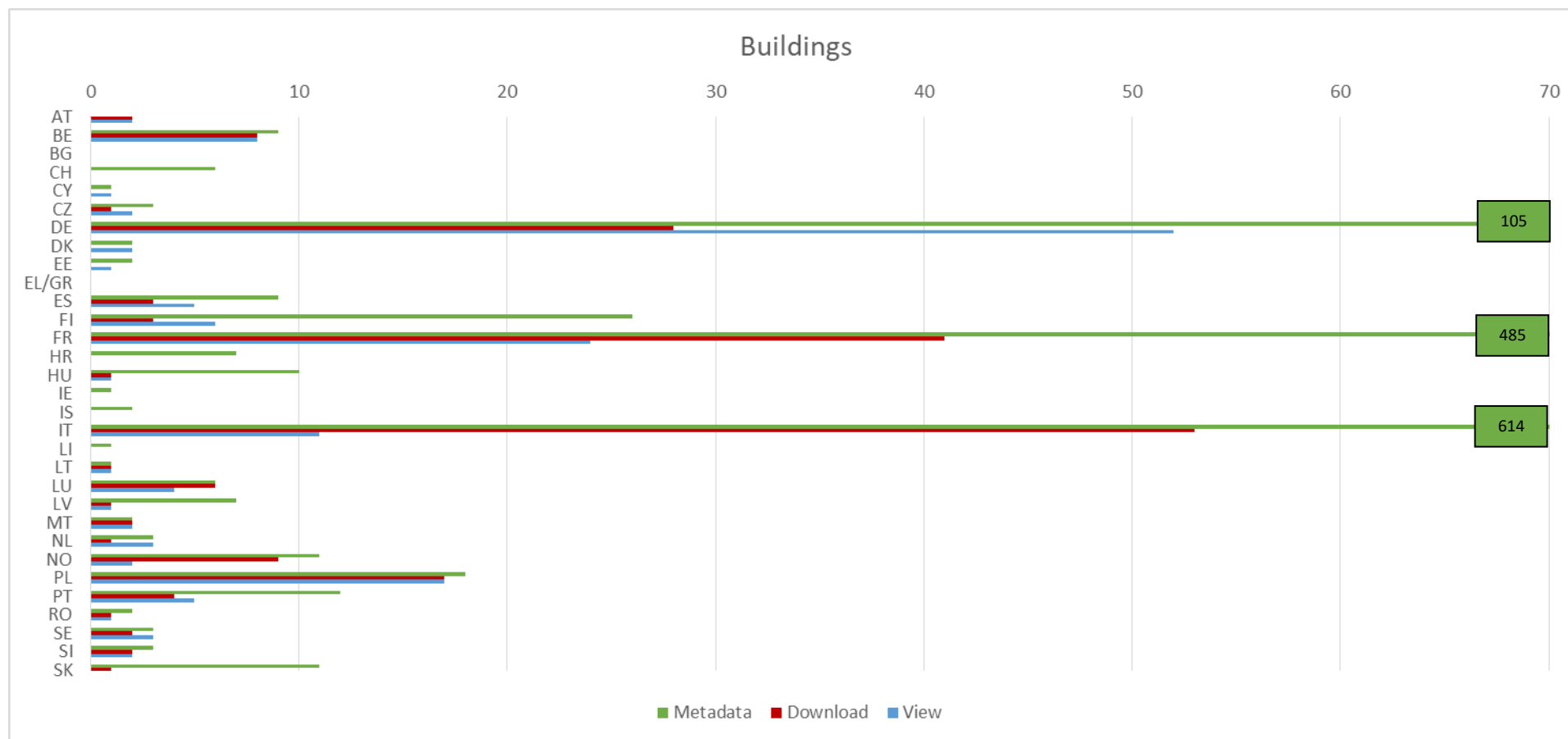*Figure 6. Overview of INSPIRE Services by Country for theme Transport Network*

Buildings

Figure 7. Overview of INSPIRE Services by Country for theme Buildings

Table 1. List of Group Discussions

Group Discussion	Date	Last Comment	Tags
Add EPSG:7423 as CRS for Buildings 3D	11.09.2020		TC-Topo_Cadaster_Reference_Data
ThoroughfareNameValue - where is this type uased in the AD scheme?	22.04.2020	24.04.2020	TC-Topo_Cadaster_Reference_Data, TC-AD, TC-GN
Un-GGIM: Europe deliverable on core theme Hydrography is open to review	05.02.2020		TC-Topo_Cadaster_Reference_Data
TN-Air: Should AerodromeNode be a TransportNode or a TransportPoint	07.10.2019	24.01.2020	TC-Topo_Cadaster_Reference_Data, TC-TN, TC-Data-modelling
TN-Air: AerodromeNode - no bidirectional reference to AerodromeType and AerodromeCate	13.12.2019		TC-Topo_Cadaster_Reference_Data, TC-TN, TC-Data-modelling
Railway Transport Network: what about velo-rail?	08.07.2019		TC-Topo_Cadaster_Reference_Data, TC-TN, TC-Data-modelling
Railway Transport network - NumberOfTracks - minMaxNumberOfTracks	08.07.2019		TC-Topo_Cadaster_Reference_Data, TC-TN, TC-Data-modelling
Review of UN-GGIM: Europe deliverable " Spatial Core Data theme Transport Networks" ope	07.06.2019		TC-Topo_Cadaster_Reference_Data, TC-TN, UN-GGIM Core-data
Separate WFS endpoint for each dataset in TN - one dataset per GetCapabilities response - h	08.04.201	28.05.2019	TC-TN, TC-WFS, TC-SW-Tools, TC-SW_Tools_Service
No requrements found for portrayal of feature types Embankment and Sluice	23.05.2019	23.05.2019	TC-Topo_Cadaster_Reference_Data, TC-HY, TC-Date-specifications
nationalLevel of administrative boundaries	12.11.2018	13.11.2018	TC-Topo_Cadaster_Reference_Data, TC-AU, TC-Good-practice
Some example implementations	19.09.2018		TC-Topo_Cadaster_Reference_Data, TC-Good-practice, TC-GN, TC-TN, TC-HY
Data quality metadata varies greatly across themes	19.09.2018		TC-Topo_Cadaster_Reference_Data, cross cluster, quality, TC-Metadata
Transport Networks theme; Data Quality metadata	19.09.2018		TC-Topo_Cadaster_Reference_Data, TC-TN, TC- Metadata, TC-Data-quality
What is best practice for implementing INSPIRE in the topographic and cadastral reference d	07.01.2015	06.09.2018	TC-AU, TC-AD, TC-BU, TC-CP, TC-GN, TC-HY, TC-TN, TC-Implementation-example, T
A new pilot project on Energy Efficiency & Buildings has been added in the INSPIRE Knowledg	30.08.2018		energy, energy efficiency, data model extension, Buildings,TC-Pilot, SDS-Metadata, T
Filling the attribute MaintenanceAuthority	30.07.2015	30.08.2018	TC-TN, TC-Question, TC-Data-modelling
A new pilot project on Energy Efficiency & Buildings has been added in the INSPIRE Knowledg	30.08.2018		energy, energy efficiency, data model extension, Buildings,TC-Pilot, SDS-Metadata, T
Correct HydroNodeCategoryValue for a HydroNode joining a non-fictitious WatercourseLink	09.02.2018	20.06.2018	TC-HY, TC-Data-specifications, TC-Code-list, TC-Question
GML attributes "owns"	06.03.2018	05.04.2018	TC-Question, GML, cross-cluster, TC-Encoding, TC-Data-provision-distribution
Transformation btw Location Referencing Methods	22.02.2018		TC-TN, network, Linear referencing
gml:id, gml:identifier and the InspireID – Clarifications and Best Practices	14.02.2018	14.02.2018	cross-cluster, GML, TC-IKB-Learn, TC-Good-practice, TC-Data-modelling, identifier
Clause Data capture in chapter 9 instead of chapter 10	05.01.2018		
TransportProperty issue	21.12.2017	03.01.2018	TC-TN, TC-Data-modelling, TC-Question, TC-Data-provision-distribution
Can you help judge the quality of the automatically generated small-scale maps?	25.11.2017		map generalization, TC-IKB, TC-SW-Tools, TC-Data-provision-distribution
Download Service WFS: StoredQuery and ResponsePaging for large datasets?	08.11.2017	24.11.2017	cross-cluster, TC-WFS, TC-Question
Multi-polygon drainage basin	22.11.2017	24.11.2017	TC-HY, TC-Data-specifications, TC-Data-modelling, TC-Change-request
Metadata and the General Data Protection Regulation	17.11.2017		TC-Metadata, cross-cluster, GDPR, TC-Question
Experience on OpenSearch implementations for INSPIRE?	19.10.2017	17.11.2017	OpenSeach, cross-cluster, TC-Atom-feed, TC-Question, TC-SW-Tools, TC-IKB
Correct use of <net:NetworkReference> element	15.11.2017	17.11.2017	TC-TN, Road, network
Distinct metadata for INSPIRE harmonised datasets?	25.10.2017	13.11.2017	cross-cluster, TC-Metadata, TC-Data-provision-distribution, TC-Question
How to add information on Long Heavy Vehicles	29.09.2017	04.10.2017	RestrictionForVehicles extension, TC-TN, TC-Extension, TC-Code-list, TC-Question
NetworkConnection table	03.10.2017	03.10.2017	TC-TN, network, TC-Question, TC-Data-modelling
Portrayal: are images of ExternalGraphics of SLDs available somewhere?	27.09.2017	27.09.2017	TC-HY, TC-Data-specifications, TC-Portrayal, TC-Question
eENVplus Validation Service v3.0 released: validate your Annex I, II, III datasets!	08.08.2017		Validation, ETS, conformity, Validator
eENVplus Validation Service v3.0 released: validate your Annex I, II, III datasets!	08.08.2017		Validation, ETS, conformity, Validator
eENVplus Validation Service v3.0 released: validate your Annex I, II, III datasets!	08.08.2017		Validation, ETS, conformity, Validator
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eENVplus Validation Service v3.0 released: validate your Annex I, II, III datasets!	08.08.2017		Validation, ETS, conformity, Validator
eENVplus Validation Service v3.0 released: validate your Annex I, II, III datasets!	08.08.2017		Validation, ETS, conformity, Validator
View service, Common Transport Elements?	12.01.2017	03.07.2017	TC-TN, TC-WMS, TC-Question, TC-Portrayal
INSPIRE download services published providing INSPIRE compliant HY data	03.07.2017		TC-HY, TC-Implementation-example, TC-Data-provision-distribution
HydroNodeCategoryValue code list	02.03.2017	31.03.2017	TC-HY, TC-Code-list, TC-Data-modelling, TC-Change-request
Bu extended schema	23.02.2017	20.03.2017	TC-BU
INSPIRE BU2D (3D) as PostGIS Schema	24.02.2017	09.03.2017	TC-BU, TC-Data-modelling, TC-MIG-2017.2, TC-Question
problem with the INSPIRE BU2d extended schema. With "other constructions".	15.02.2017	23.02.2017	TC-BU, TC-Schema, TC-Issue, TC-Code-list, TC-Validation
Linking of HY-n Network, WatercourseLinks and HydroNodes	16.02.2017		TC-HY, TC-Data-modelling, TC-Question, network, TC-WFS
One address with many positions	12.01.2017	12.01.2017	TC-AD, TC-Data-quality, TC-Code-list, TC-Portrayal, TC-Issue
Administrative borders and inland waters	16.12.2016		TC-AU, TC-TG, TC-Question
BuildingsExtendedBase and BuildingsExtended2D XSD schemas	20.05.2015	14.11.2016	TC-BU, TC-Schema, TC-Issueextended schema, TC-Good-practice
BuildingExtended3D schema	10.02.2016	14.11.2016	TC-BU, TC-Schema, TC-Question, extended schema