

2 Overview

2.1 Name

INSPIRE data specification for the theme Addresses.

2.2 Informal description

Definition:

Location of properties based on address identifiers, usually by road name, house number, postal code [Directive 2007/2/EC].

Description:

An address is an identification of the fixed location of a property. The full address is a hierarchy consisting of components such as geographic names, with an increasing level of detail, e.g. town, then street name, then house number or name. It may also include a post code or other postal descriptors. The address may include a path of access but this depends on the function of the address.

Addresses serve several generic purposes, these include:

- (i) location (e.g. for visits or the delivery of mail);
- (ii) identification (e.g. in context of a building registration);
- (iii) jurisdiction (e.g. authority responsible for the property identified by the address);
- (iv) sorting and ordering;
- (v) emergency response.

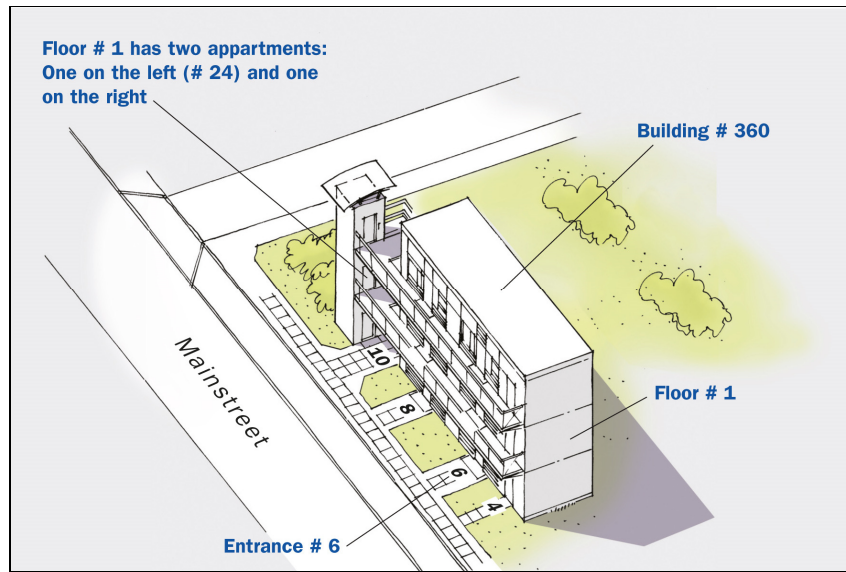
A number of different object types can be related to property. The most commonly recognised types that have addresses are land parcels and buildings (including flats or apartments). In some countries additional objects have an address, such as street furniture, water pumping stations, mooring places, parking lots and agricultural barns. Although they do not receive post they may need to have an address for other functions. This is true in both rural and urban areas.

Collectively, objects which can have addresses are referred to as addressable objects.

The location of an address is most often defined in a way that it identifies the location of the related addressable object.

Although all national or local address systems share similar concepts and general properties, differences exist in formal and informal standards, rules, schemas and data models within Europe.

To illustrate the differences let us take an example, the left apartment on the first floor of entrance 6 of building 360 on the Mainstreet:



Even within member states there are several possibilities how the address of the apartment would look like, as an example in the following table some examples are given:

Sweden	Denmark	United Kingdom
Mainstreet 6 1101 12345 Farsta	Mainstreet 6 1 TV 2400 København NV	Flat 1A 6, Mainstreet Fairfield Wandsworth London SW18 1ED
The Netherlands	Belgium (Flanders)	Germany
Mainstreet 24 2500 AA Den Haag	Mainstreet 6 bus 3 2140 Antwerpen	Mainstreet 6 67 433 Kelkheim
Spain	Czech Republic	
Mainstreet 6 left 1 1 Cortijo del Marqués 41037, Écija (Sevilla)	Mainstreet 360/6 Chodov 149 00 Prague 41	

More detailed discussion of this topic can be found in Annex G and Annex H.

NOTE The address system in many member states have less well developed regulations for rural areas.

An INSPIRE data specification needs to provide a general structure, so it becomes possible to exchange these addresses. The overall concept of addresses, a hierarchical description of a path from the country name, through the municipality and the streets to the buildings and dwellings is represented in the different address components.

In designing the application schema for exchanging addresses within Europe the general structure which can be found in each member state is used. This consists of the following elements:

- Administrative Unit Name (for example the name of the municipality)
- Address Area Name (for example the name of the town)
- Thoroughfare Name (for example the street name)
- Address locator (for example the house number)

Originally for postal delivery purposes, but now often for wider application, an additional component is recognised:

- Postal Descriptor (for example the postcode)

The combination of (some of) these components make an address.

2.3 Normative References

- [Directive 2007/2/EC] Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE)
- [ISO 19107] EN ISO 19107:2005, Geographic Information – Spatial Schema
- [ISO 19108] EN ISO 19108:2005, Geographic Information – Temporal Schema
- [ISO 19108-c] ISO 19108:2002/Cor 1:2006, Geographic Information – Temporal Schema, Technical Corrigendum 1
- [ISO 19111] EN ISO 19111:2007 Geographic information - Spatial referencing by coordinates (ISO 19111:2007)
- [ISO 19113] EN ISO 19113:2005, Geographic Information – Quality principles
- [ISO 19115] EN ISO 19115:2005, Geographic information – Metadata (ISO 19115:2003)
- [ISO 19118] EN ISO 19118:2006, Geographic information – Encoding (ISO 19118:2005)
- [ISO 19123] EN ISO 19123:2007, Geographic Information – Schema for coverage geometry and functions
- [ISO 19125-1] EN ISO 19125-1:2004, Geographic Information – Simple feature access – Part 1: Common architecture
- [ISO 19135] EN ISO 19135:2007 Geographic information – Procedures for item registration (ISO 19135:2005)
- [ISO 19138] ISO/TS 19138:2006, Geographic Information – Data quality measures
- [ISO 19139] ISO/TS 19139:2007, Geographic information – Metadata – XML schema implementation
- [ISO 19157] ISO/DIS 19157, Geographic information – Data quality
- [OGC 06-103r4] Implementation Specification for Geographic Information - Simple feature access – Part 1: Common Architecture v1.2.1
- NOTE This is an updated version of "EN ISO 19125-1:2004, Geographic information – Simple feature access – Part 1: Common architecture".
- [Regulation 1205/2008/EC] Regulation 1205/2008/EC implementing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata

2.4 Terms and definitions

General terms and definitions helpful for understanding the INSPIRE data specification documents are defined in the INSPIRE Glossary²¹.

Specifically, for the theme Addresses, the following terms are defined:

(1) Addressable object

Spatial object type which can have instances to which it is meaningful to associate addresses in the context of the INSPIRE scope.

Note: Most common addressable objects are real properties, cadastral parcels, buildings, entrances to buildings, dwellings, flats, condominiums/common holds etc., inside a building. Addressable objects can also be other types of sites or constructions like mooring places, points of interest, sports fields, parks, traffic terminals, technical constructions, points of service delivery e.g. utilities, post etc.

(2) Property

Plot of land and/or fixed objects attached to it.

NOTE 1 May include, but is not restricted to, real property.

NOTE 2 May not be restricted to only a one to one relationship with cadastral parcel."

(3) Postal address

Set of information which, for a postal item, allows the unambiguous determination of an actual or potential delivery point, usually combined with the specification of an addressee and/or mailer. (Universal Postal Union 2006)

NOTE The description of postal delivery points most often uses the common address components like e.g. thoroughfare name and locator (address number etc.), in addition they can also include specific postal designations like post codes and P.O. box identifiers.

Although these postal designators originally were intended solely for the use of the postal service, especially the post code has frequently been adopted and used for other purposes – as a generic place identifier

2.5 Symbols and abbreviations

NUTS Nomenclature of Territorial Units for Statistics – the Statistical Regions of the EU

PO Post Office

UPU Universal Postal Union

URL Unique Resource Locator

UML Unified Modelling Language

2.6 How the Technical Guidelines map to the Implementing Rules

The schematic diagram in Figure 1 gives an overview of the relationships between the INSPIRE legal acts (the INSPIRE Directive and Implementing Rules) and the INSPIRE Technical Guidelines. The INSPIRE Directive and Implementing Rules include legally binding requirements that describe, usually on an abstract level, *what* Member States must implement.

²¹ The INSPIRE Glossary is available from <http://inspire-registry.jrc.ec.europa.eu/registers/GLOSSARY>

In contrast, the Technical Guidelines define *how* Member States might implement the requirements included in the INSPIRE Implementing Rules. As such, they may include non-binding technical requirements that must be satisfied if a Member State data provider chooses to conform to the Technical Guidelines. Implementing these Technical Guidelines will maximise the interoperability of INSPIRE spatial data sets.

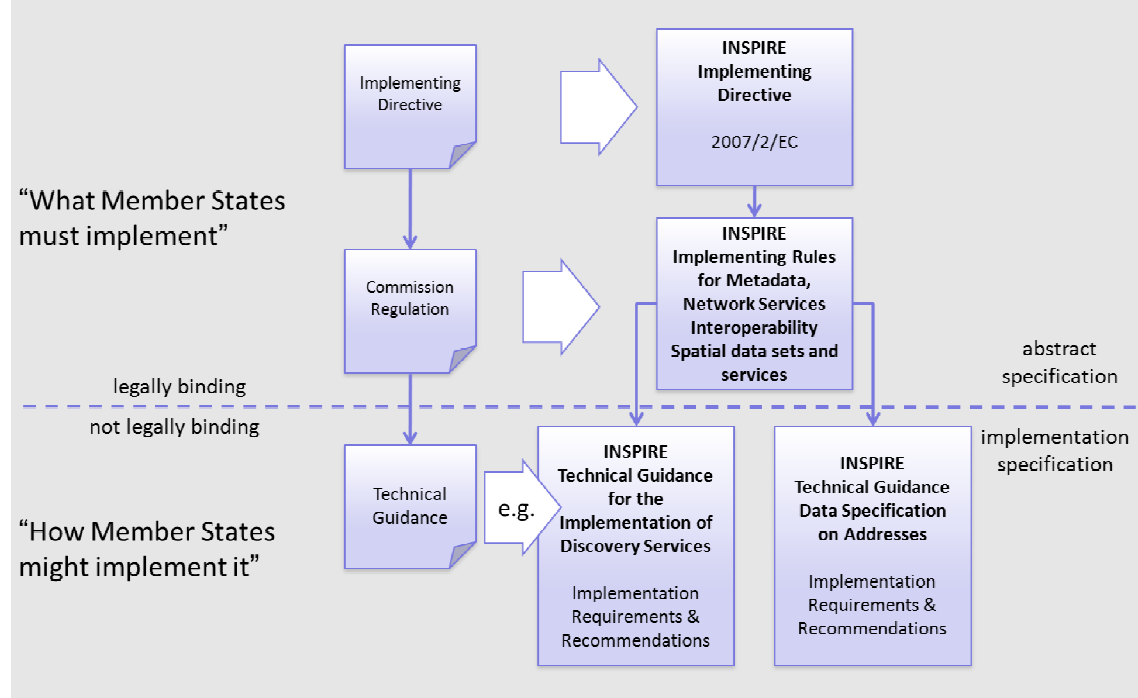


Figure 1 - Relationship between INSPIRE Implementing Rules and Technical Guidelines

2.6.1 Requirements

The purpose of these Technical Guidelines (Data specifications on *Addresses*) is to provide practical guidance for implementation that is guided by, and satisfies, the (legally binding) requirements included for the spatial data theme *Addresses* in the Regulation (Implementing Rules) on interoperability of spatial data sets and services. These requirements are highlighted in this document as follows:

IR Requirement
Article / Annex / Section no.
Title / Heading

This style is used for requirements contained in the Implementing Rules on interoperability of spatial data sets and services (Commission Regulation (EU) No 1089/2010).

For each of these IR requirements, these Technical Guidelines contain additional explanations and examples.

NOTE The Abstract Test Suite (ATS) in Annex A contains conformance tests that directly check conformance with these IR requirements.

Furthermore, these Technical Guidelines may propose a specific technical implementation for satisfying an IR requirement. In such cases, these Technical Guidelines may contain additional technical requirements that need to be met in order to be conformant with the corresponding IR

requirement *when using this proposed implementation*. These technical requirements are highlighted as follows:

TG Requirement X This style is used for requirements for a specific technical solution proposed in these Technical Guidelines for an IR requirement.

NOTE 1 Conformance of a data set with the TG requirement(s) included in the ATS implies conformance with the corresponding IR requirement(s).

NOTE 2 In addition to the requirements included in the Implementing Rules on interoperability of spatial data sets and services, the INSPIRE Directive includes further legally binding obligations that put additional requirements on data providers. For example, Art. 10(2) requires that Member States shall, where appropriate, decide by mutual consent on the depiction and position of geographical features whose location spans the frontier between two or more Member States. General guidance for how to meet these obligations is provided in the INSPIRE framework documents.

2.6.2 Recommendations

In addition to IR and TG requirements, these Technical Guidelines may also include a number of recommendations for facilitating implementation or for further and coherent development of an interoperable infrastructure.

Recommendation X Recommendations are shown using this style.

NOTE The implementation of recommendations is not mandatory. Compliance with these Technical Guidelines or the legal obligation does not depend on the fulfilment of the recommendations.

2.6.3 Conformance

Annex A includes the abstract test suite for checking conformance with the requirements included in these Technical Guidelines and the corresponding parts of the Implementing Rules (Commission Regulation (EU) No 1089/2010).