

GeoSmartCity

GeoSmartCity implements a platform for the sharing and publication of geographical open data coming from public administrations, companies, citizens.

Green-Energy scenario

- to support implementation of energy efficiency policies lifecycle, with focus on energy performance of buildings.

Underground scenario

- to support integrated management of underground utility infrastructures.



Building Data Specification

NOTE: Data producers may also extend INSPIRE profiles by other information not included in this specification, under the condition they respect the rules provided in the Generic Conceptual Model.

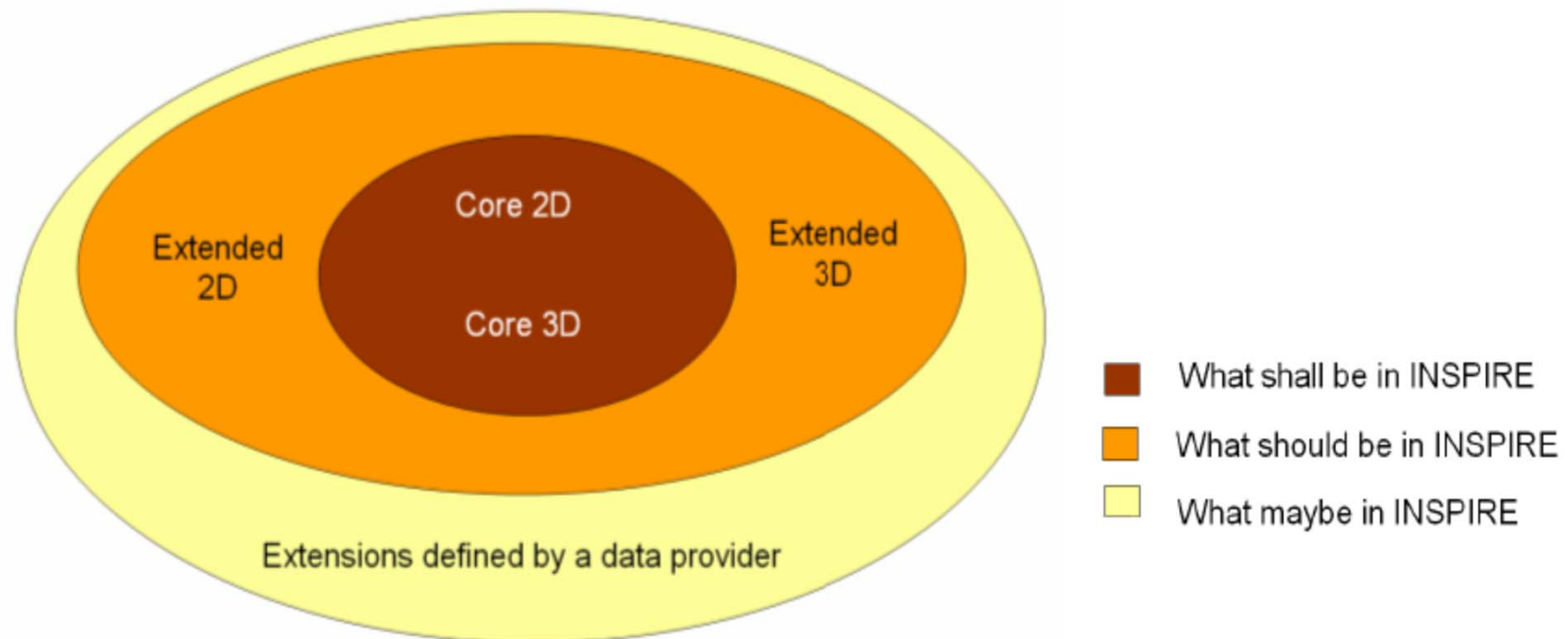
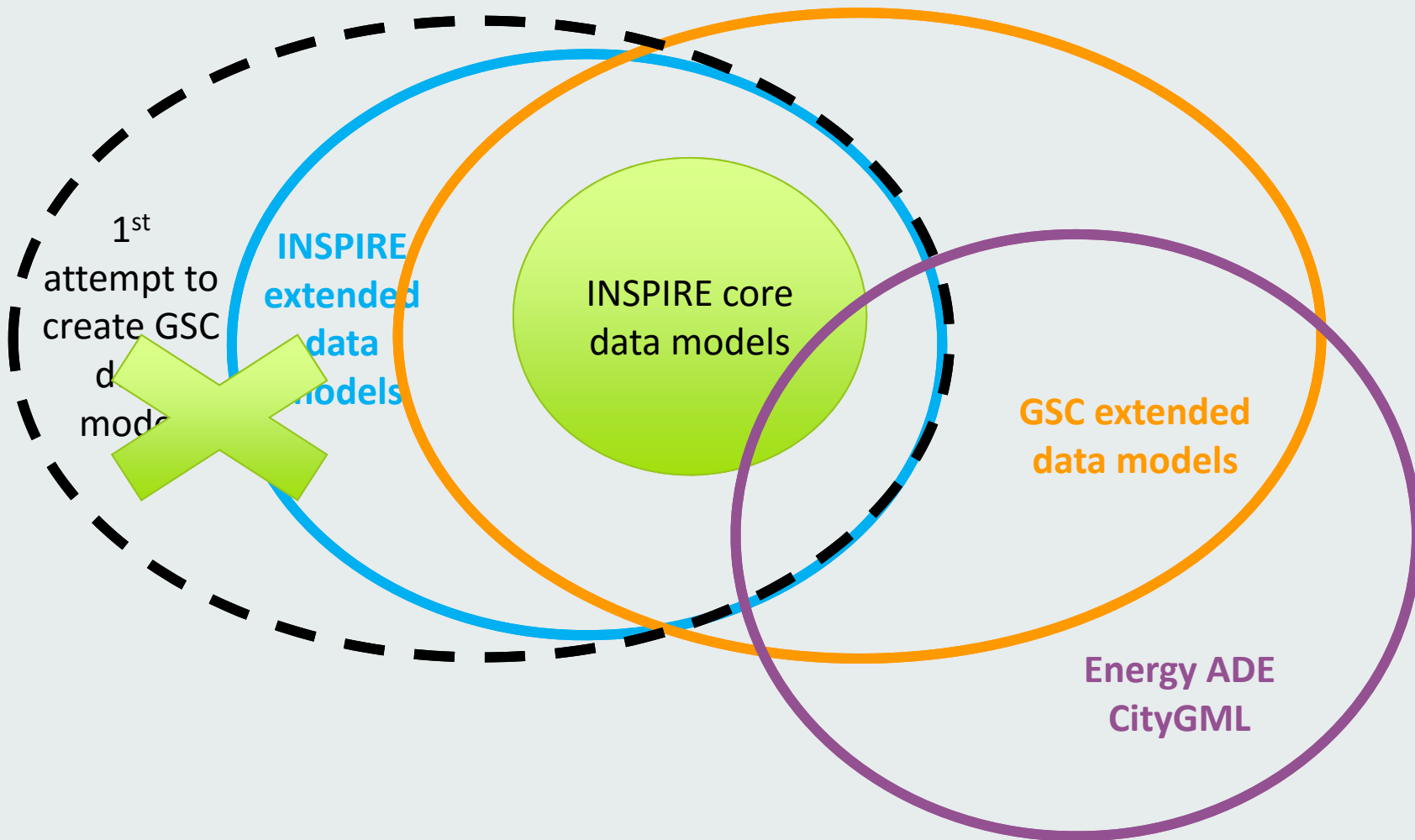


Figure 4: Modular approach for modelling Buildings theme

The GSC Data Model extension approach



The GSC Data Model extension approach

Starting point: relevant INSPIRE core schemas.

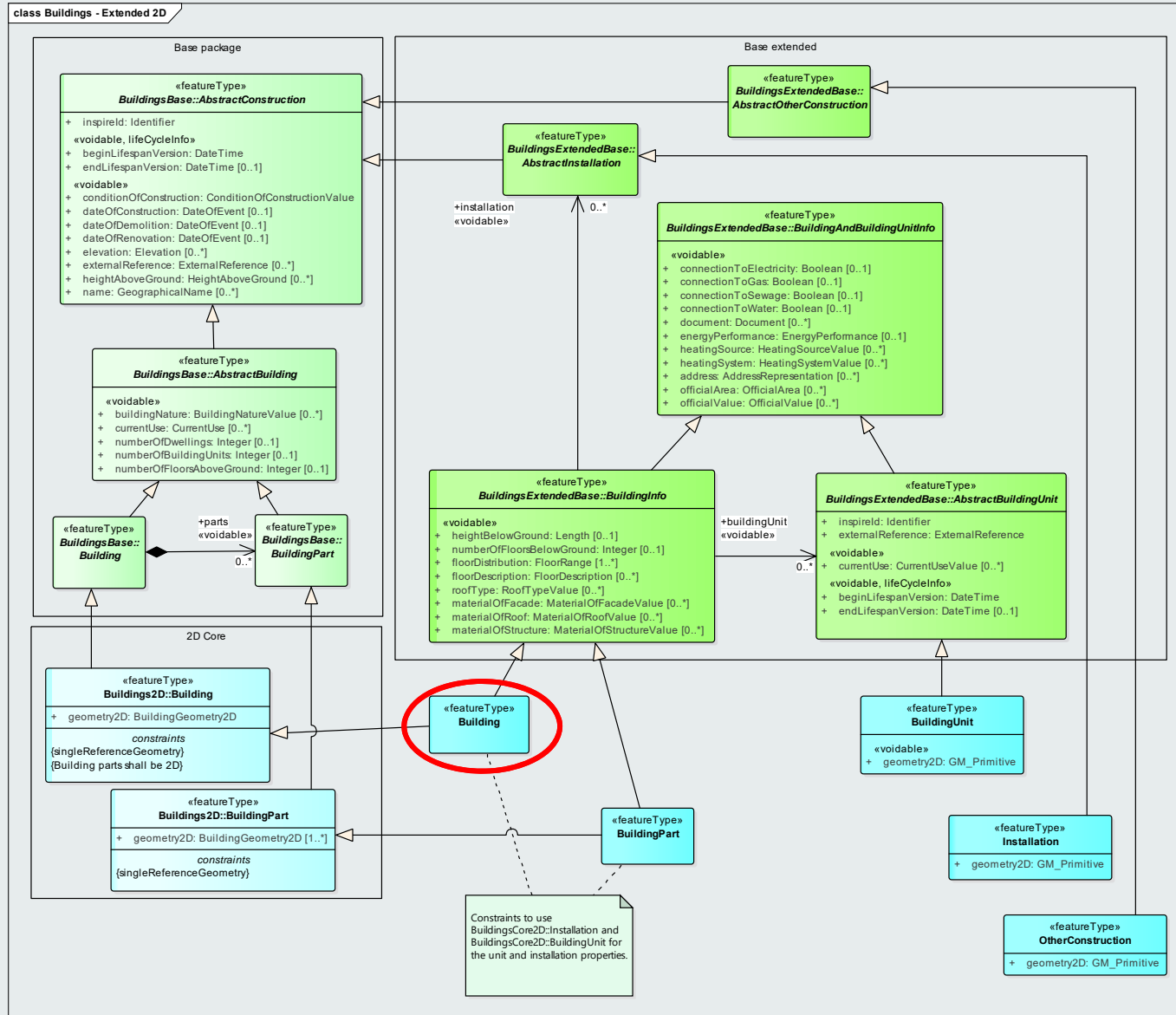
Steps of the development process:

- INSPIRE matching tables were used to identify the corresponding concepts (attributes, associations, code lists) between INSPIRE and GeoSmartCity data models.
- Enterprise Architect software tool was used to create the logical model using UML class diagrams and to transform them into relevant application schemas. To extend the INSPIRE schemas the relevant INSPIRE themes were imported into the GSC data model in the EA project.

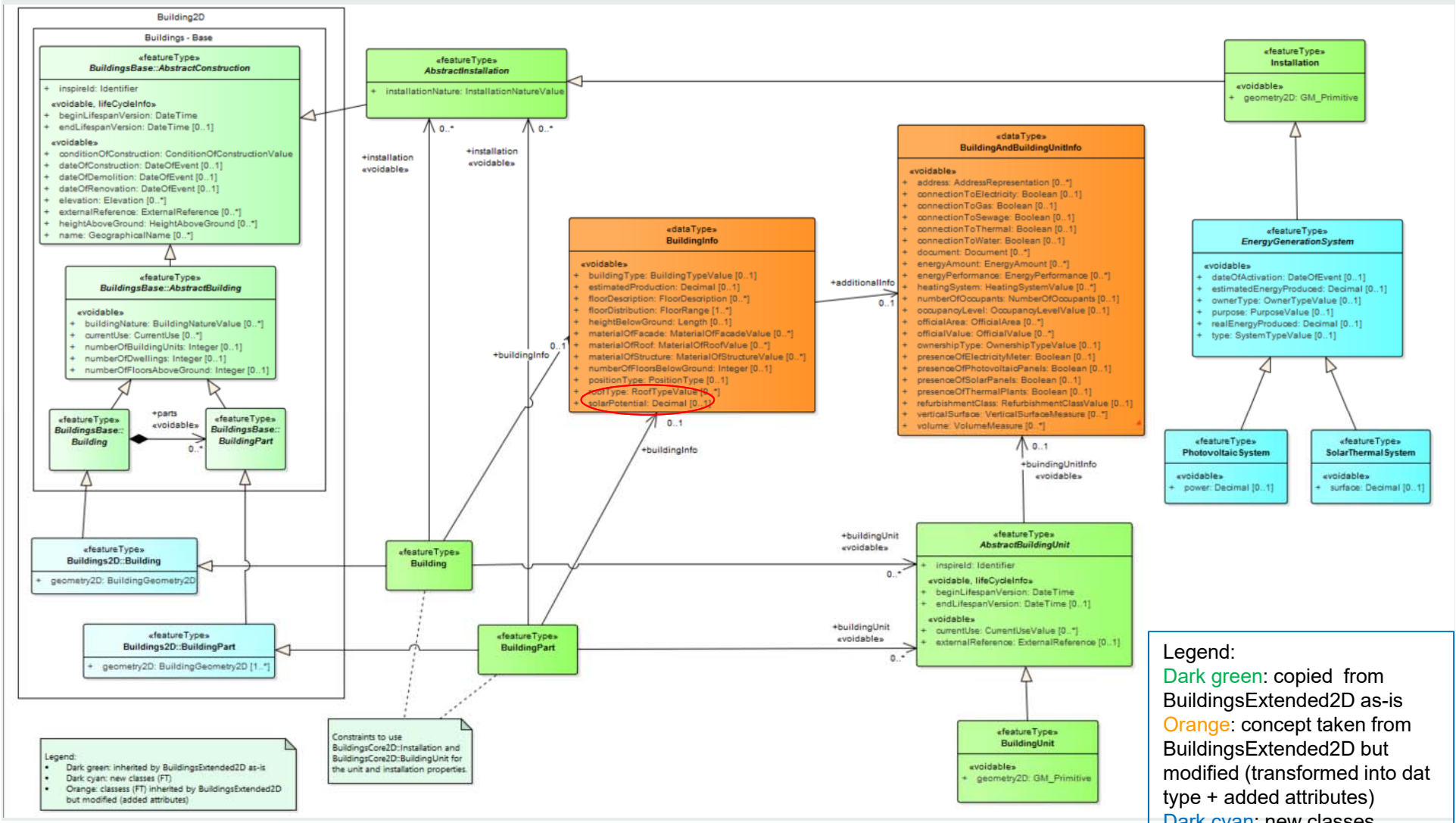
The GSC Data Model extension approach

To comply with GSC requirements for which no matching attributes were found in the INSPIRE schemas:

- additional attributes were added in GSC feature types derived from the INSPIRE feature types via a generalization relationship in the application schemas (when feasible).
- new feature types – i.e. not derived from INSPIRE ones – were added to deal with concepts not present in INSPIRE
- new code lists / code list values were created only if no corresponding INSPIRE value exists. A registry has been created for GSC codelists at <http://hub.geosmartcity.eu/registry/>

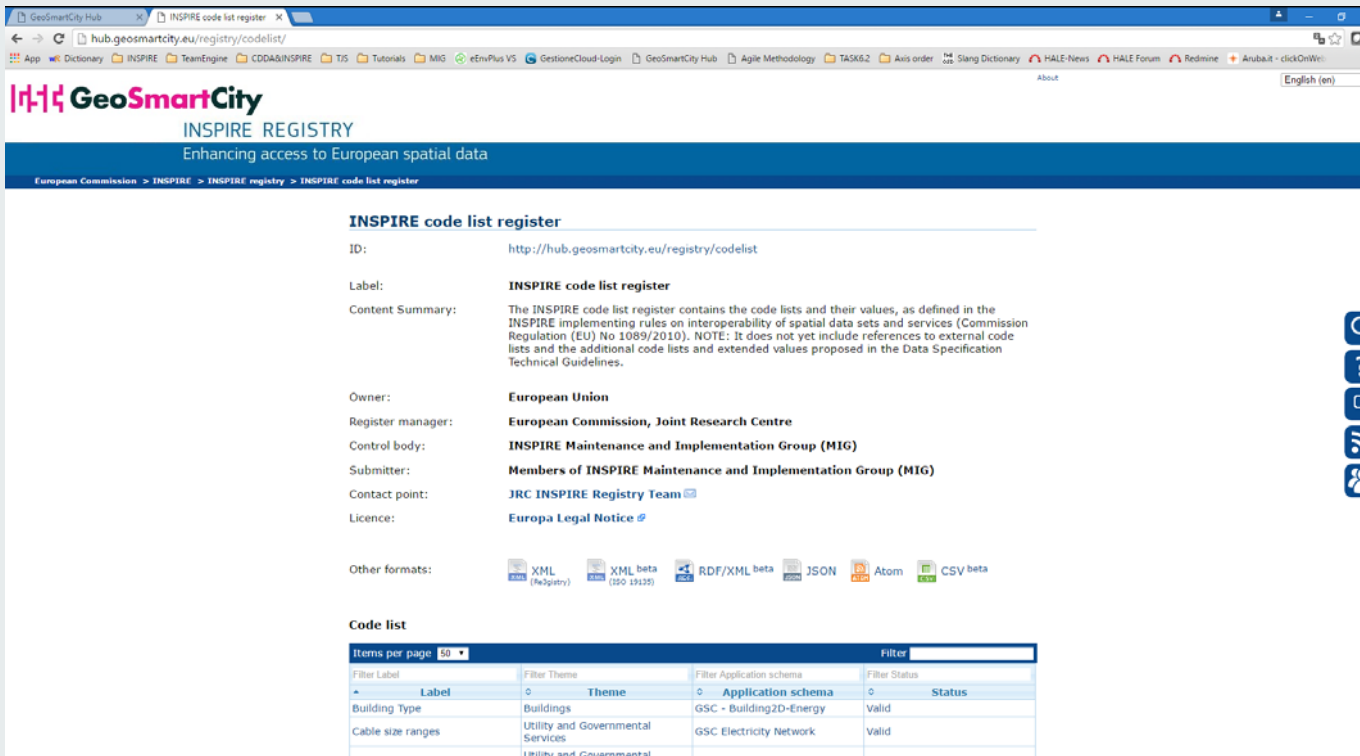


GeoSmartCity – Green Energy Scenario Data Model



Legend:
 Dark green: copied from BuildingsExtended2D as-is
 Orange: concept taken from BuildingsExtended2D but modified (transformed into datatype + added attributes)
 Dark cyan: new classes

GeoSmartCity – code lists management



INSPIRE code list register

ID: <http://hub.geosmartcity.eu/registry/codelist>

Label: **INSPIRE code list register**

Content Summary: The INSPIRE code list register contains the code lists and their values, as defined in the INSPIRE implementing rules on interoperability of spatial data sets and services (Commission Regulation (EU) No 1089/2010). NOTE: It does not yet include references to external code lists and the additional code lists and extended values proposed in the Data Specification Technical Guidelines.

Owner: **European Union**

Register manager: **European Commission, Joint Research Centre**

Control body: **INSPIRE Maintenance and Implementation Group (MIG)**

Submitter: **Members of INSPIRE Maintenance and Implementation Group (MIG)**

Contact point: **JRC INSPIRE Registry Team**

Licence: **Europa Legal Notice**

Other formats: [XML \(Re3gistry\)](#) [XML beta \(ISO 19135\)](#) [RDF/XML beta](#) [JSON](#) [Atom](#) [CSV beta](#)

Code list

Items per page: 50

Filter Label	Filter Theme	Filter Application schema	Filter Status
Label	Theme	Application schema	Status
Building Type	Buildings	GSC - Building2D-Energy	Valid
Cable size ranges	Utility and Governmental Services	GSC Electricity Network	Valid
Cable size ranges	Utility and Governmental	GSC Electricity Network	Valid

The Re3gistry open source software has been reused in order to manage new code lists and/or code list values.

thank you

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