

Working session Group 2. Tech.models/encodings

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List of wishes/challenges

- Just conceptual model gives no system interoperability
- At least two steps in implementation
 1. Country profile → need methodology (best practices)
 2. Encoding → which/how
- Connecting legal spaces and real world physical objects
- Having constraints in the technical model
- Tech encoding of both schema and the data (not relevant for RDF)?
- O&M part of model is not optimal for cadastral survey, will this change?
- Same encoding for different parts of model: survey, legal, party?
(alternative options for survey InfraGML, LandXML,...)
- What about code lists, language used...
- Our encoding should fit into the (international) SDI.
- Issues in converting conceptual model in tech model (whatever approach/tools used: Enterprise architect, INTERLIS tools,...)
- At least for data storage/exchange, but much more needed for full system implementation

- Annex describing a methodology for developing country profile models
- Create toy data set/use cases to be expressed in different encodings and in instance level diagrams compared to Annex C
- Annexes with different encodings:
 1. Make a complete mapping of LADM concepts to **IFC** eg including group party which works with current reality (Dutch 'Basis ILS' could starting point) Include geo coordinates. Concurrently, define a domain layer within IFC (.ifc) in co operation with Building Smart, OGC, ISO,... (resulting in software support/implementations)
 2. Make a stable & complete schema in **INTERLIS** version 2 for use in the annex which includes the imported schemas from other ISO standards eg ISO19107 (.ili) The use of constraints should be emphasized (and perhaps constraints should be more formal in LADM core; e.g. UML/OCL)

3. Begin with a schema based on LADM and then express it in **RDF**. Work with existing code lists for semantics. Collaborate with INSPIRE SDI Joint Research Centre Linked Data research. Specify of 3D GeoSPARQL Endpoints. Consult ISO TS 19150 (Geographic Information Ontology) for guidelines on how to convert application schemas to .rdf
4. **InfraGML** (xml encoding), Try to cover RRR's, parties, group parties
5. **CityGML** and make an Application Domain Extension (ADE).

We are concerned about the Survey Package, because from experience it does not seem optimal (maybe InfraGML is better here).

We are also concerned about the meta data in the conceptual model. This could be addressed better, more refined through the use of profiles – meta data at instance level, single object, group of objects