

Experiences from Inspire Land Cover and Land Use implementation in Sweden

National and local level

Åsa Sehlstedt, National Land Survey of Sweden

National level - responsibilities

- Land Cover
 - Swedish Environmental Protection Agency(SEPA)
<http://www.miljodataportalen.naturvardsverket.se>
 - SMD (Svensk Marktäckedata = Swedish Land Cover Data)
 - National Land Cover Data
 - National Land Survey of Sweden (NLSS)
 - (background in Property Map)
- Land Use
 - Swedish Board of Agriculture
 - (LPIS)
 - Sami Parliament (Reindeer management)



Svensk geoproces - a local level initiative

A collaboration between Swedish
counties, SALAR and NLSS

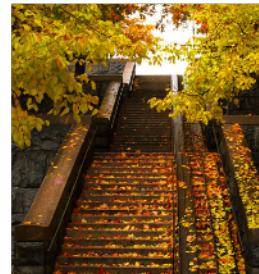
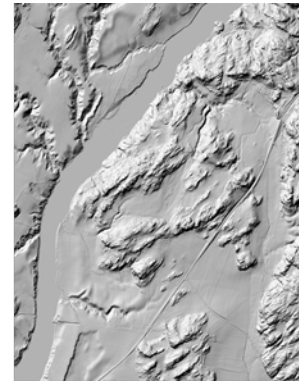
SALAR = Swedish Association of Local Authorities and Regions

Svensk geoprocess

- Provides a basis for effective and unambiguous spatial data exchange.
 - ERS: Support for municipalities to implement new reference systems: Sweref 99 and RH 2000
 - ES: New/updated processes for cooperation and exchange – 9 themes.
 - ES: Data specifications – 9 themes.
- Joint project: Lantmäteriet, municipalities and SALAR
(Swedish association of local authorities' and regions)

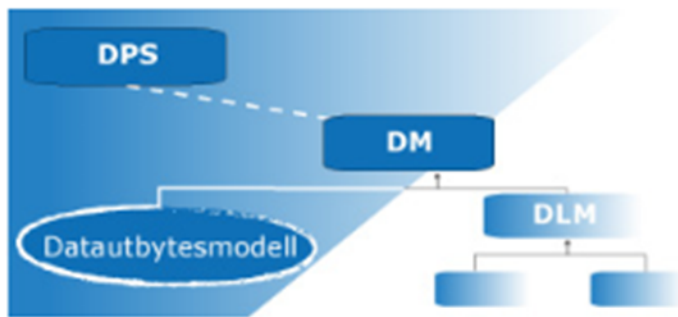
9 Themes

- Aerial images/**Orthoimagery**
- **Hydrography**
- **Land use/Land cover**
- Constructions (Physical objects)
- **Elevation** (including Point clouds)
- **(Roads and railroads)** - Trails
- **Buildings**
- **Addresses**
- Control points (survey)



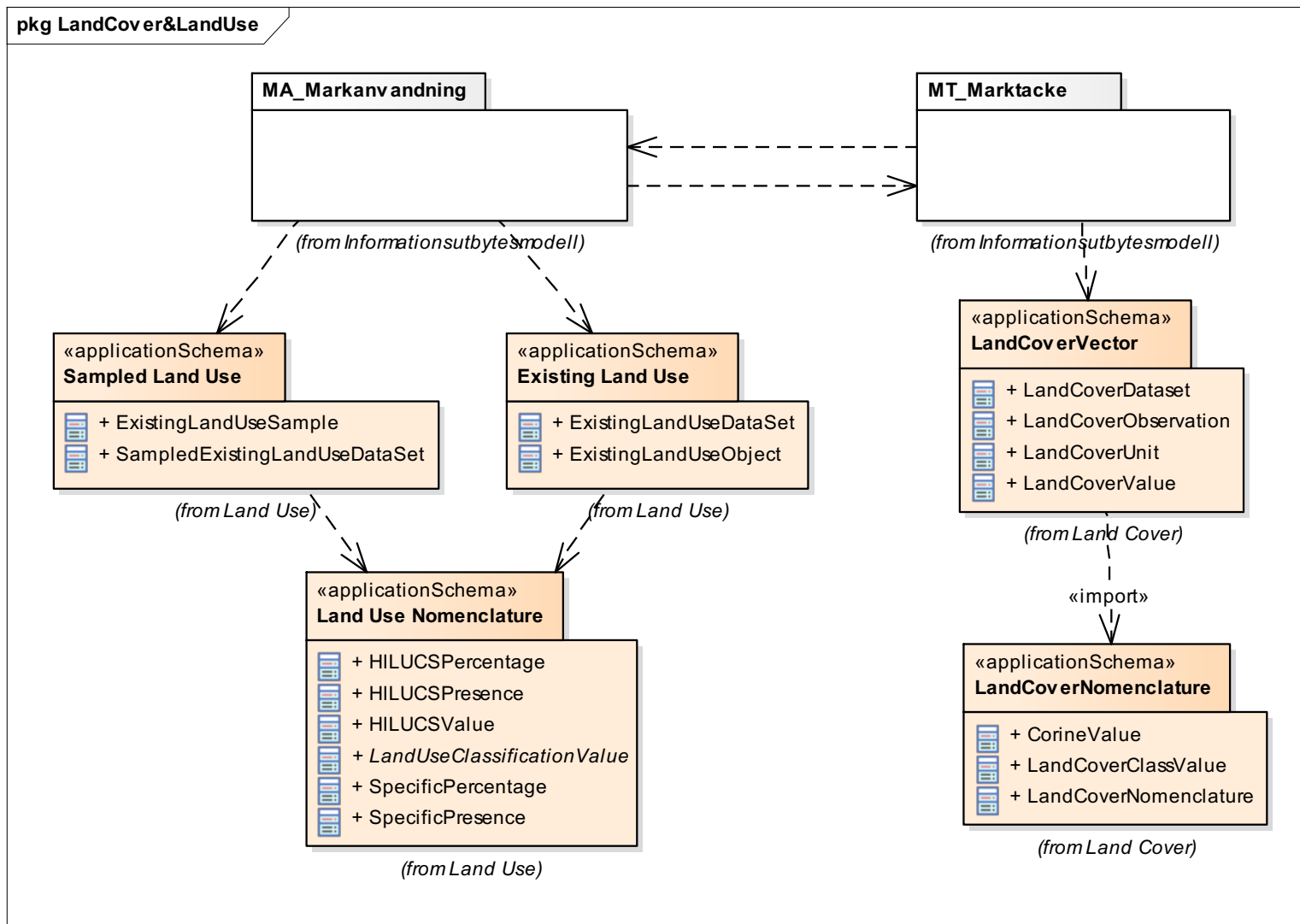
In addition

- Demo systems
- Guide for measuring
- XML-schemas
- XML-instance examples



Models in Svensk geoprocess

Svensk geoprocess	Geometry	Inspire model
Land Use	Surfaces	Existing Land Use
Land Cover	Surfaces	Land Cover Core Vector
Svensk geoprocess	Geometry	Inspire model
Land Use	Points and lines	Sampled Land Use
Land Cover	Points and lines	Land Cover Core Vector

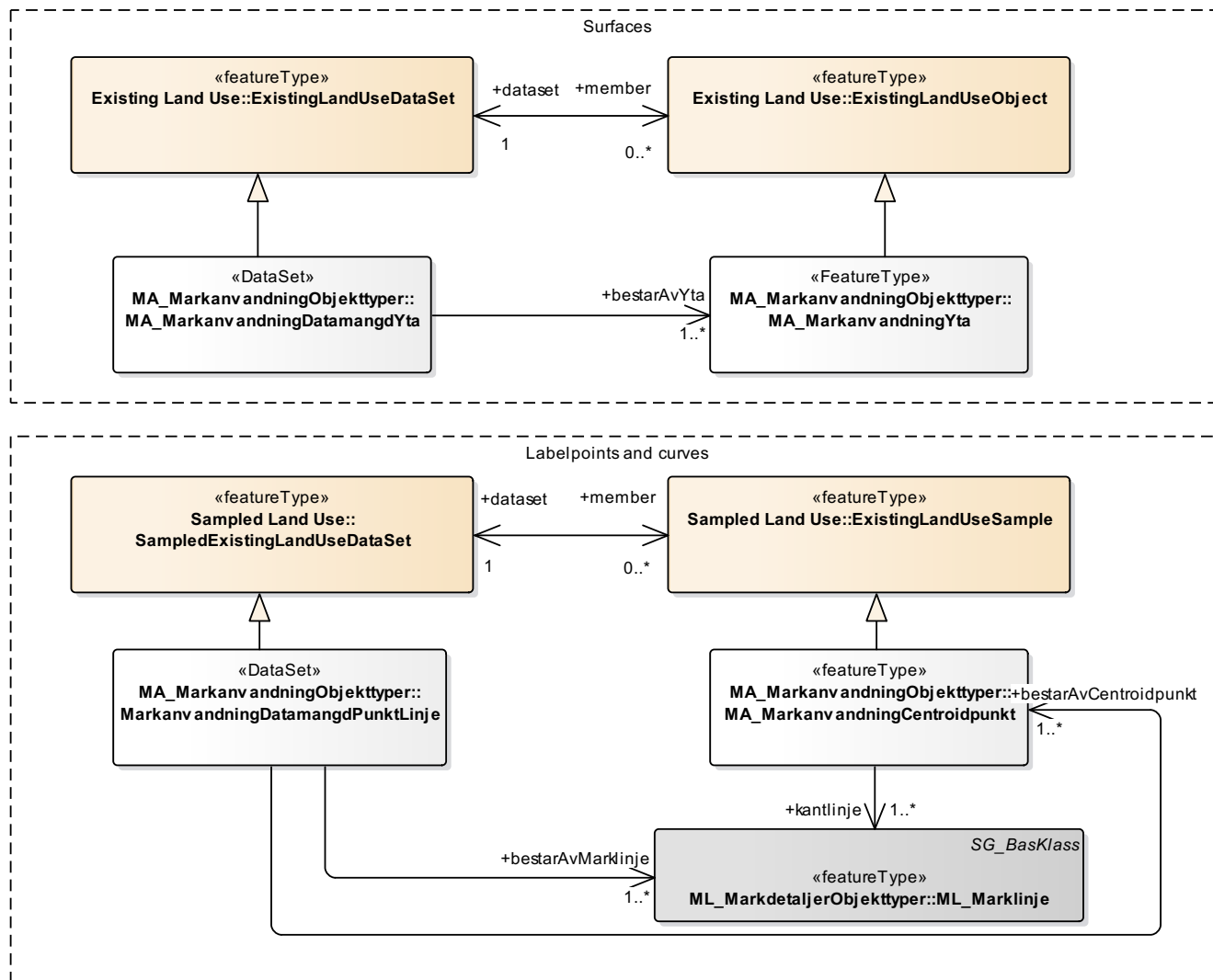


Model changes

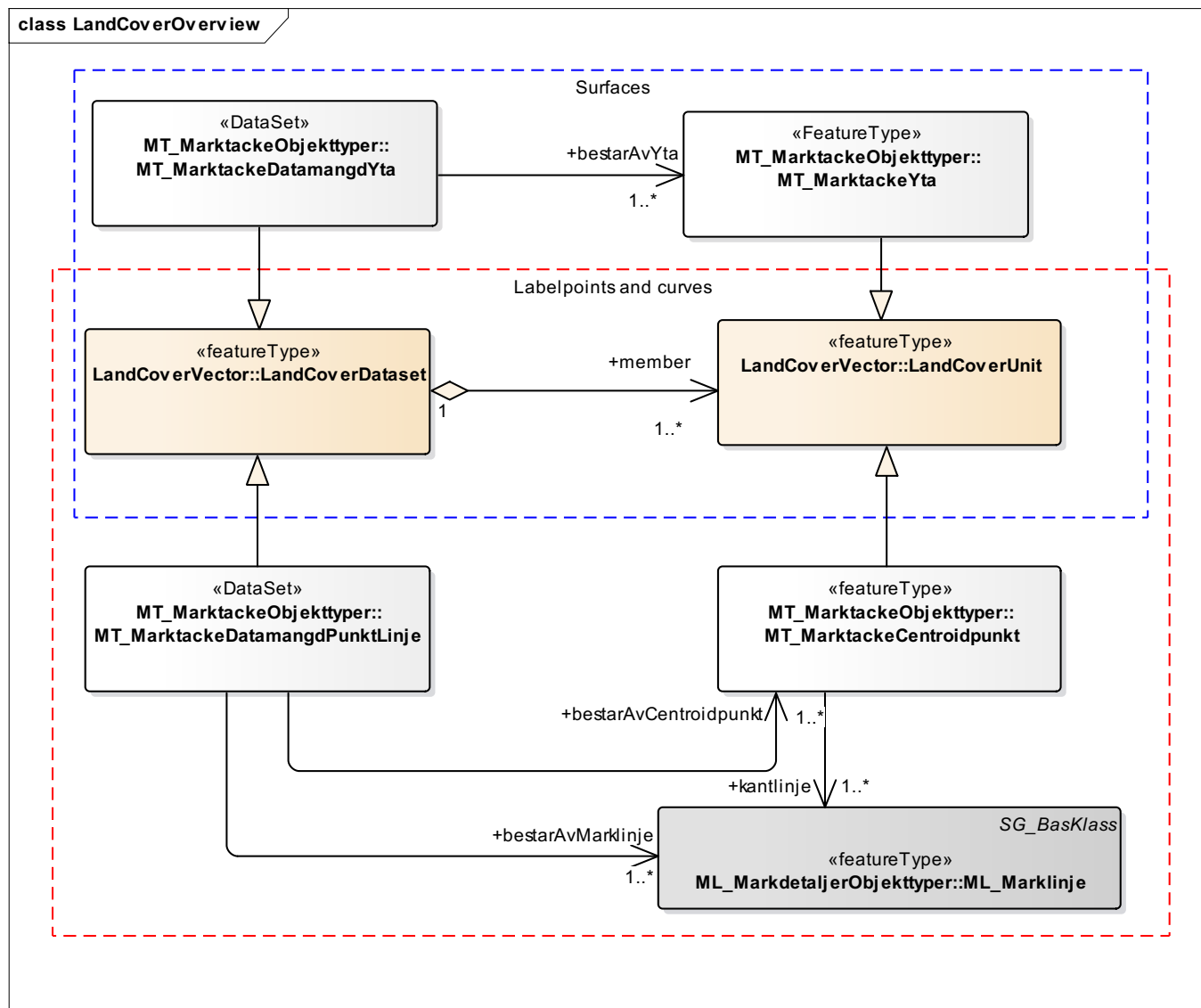
- Starting point
 - Inspire-like copies (LU, LC)
 - Add (replace) generalizations to Inspire feature types
 - Delete multiple attributes (e.g. geometry)
 - Add missed attributes from broken old generalizations
 - Associations to imported classes (lines)
- Model finished
 - Nomenclature documentation
 - Updating xml-schemas, import Inspire schemas
- Issues
 - Points and lines
 - Codelists – how to connect to Inspires empty codelists?

Land Use

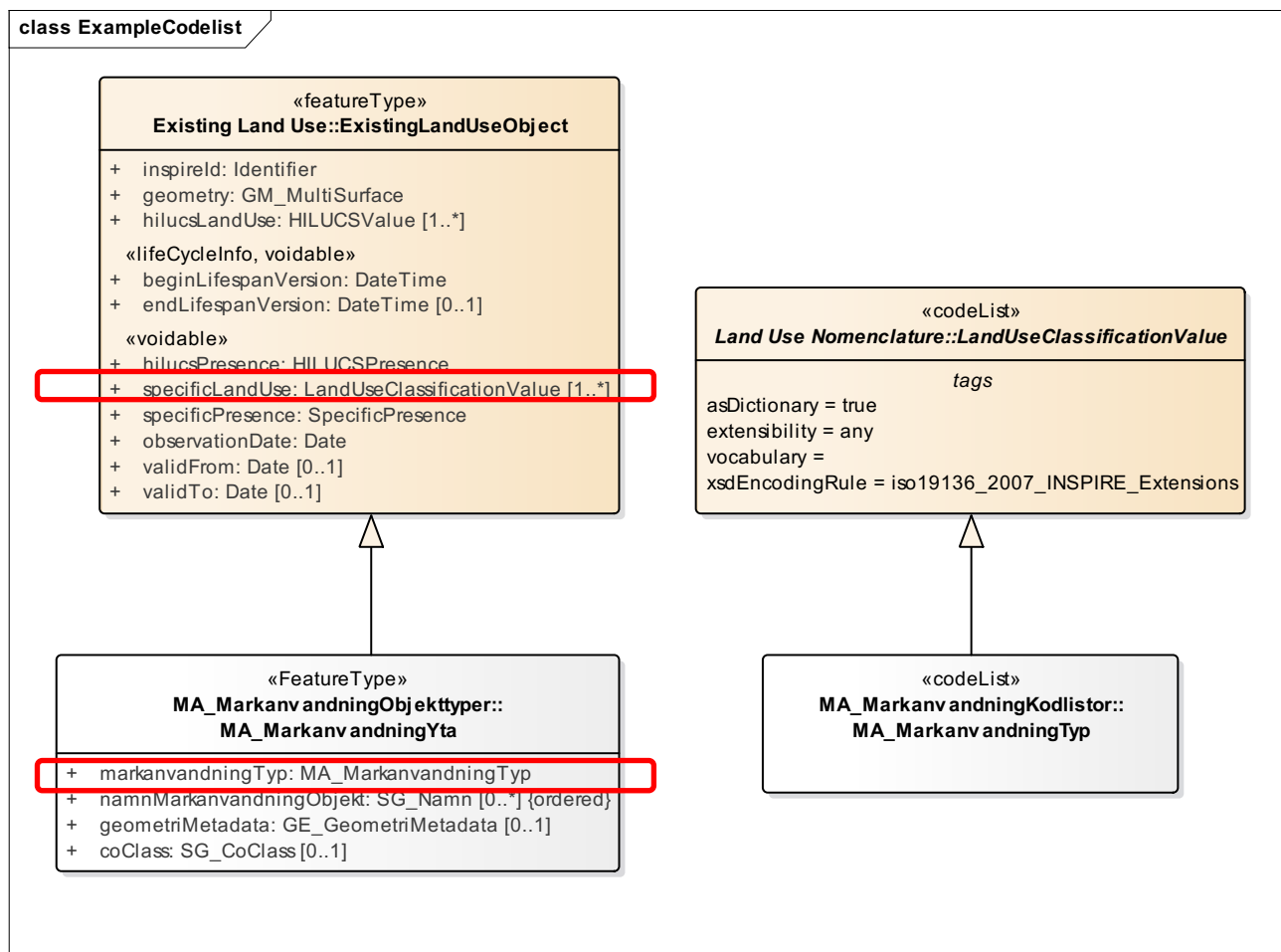
class LandUseOverview



Land Cover



Codelist problem



Summary – issues & solutions

- Issue: Point and lines in exchange data
 - Solution: Separate model for points + imported lines
 - Other possible solutions?
- Issue: Empty codelist in Inspire model, own subtype with values. We can't remove our own duplicate attribute in the extension.
 - Solution: Keep a duplicate classification attribute in the extension featureType
 - Other possible solution?
- Please send comments to asa.sehlstedt@lm.se