

EnviTori - Metadata

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What is metadata?

- Loosely defined as data about data
 - Describes: content, structure, quality, availability
- Very important information when searching
- Example: metadata of files
 - Name
 - Path
 - Date
 - Permissions

Where to use?

- Identifying data
- Searching
- Evaluating data
- Internal data of programs

Exploitation of metadata

- Advantage of computers:
 - Saving data
 - Communication
 - Automatic data processing
- In EnviTori
 - Describes file formats
 - Descriptions of structure and content
 - Sources of data
 - Availability

Problems

- Abundance and complexity of languages
- Difficulties in the interpretation of data by computers
- Problems in the development and use of dictionaries
- Programs store the metadata in a format that is not possible to take advantage of without the program

Standards for spatial metadata

■ ISO 19115

- determines the formal model of metadata content
- about 400 metadata elements, a small part is mandatory

■ ISO/TS 19139

- The technical specification defines structure of the document

■ JHS 158

- defines the spatial metadata content, and provides guidance to describe metadata documentation
- a coherent policy to describe spatial data and services

The starting point for metadata in EnviTori

- A user searches for information on pollen and wants information:
 - Region of Helsinki
 - Birch and mugwort
 - Forecast for next 24h
 - Free

The starting point to metadata in EnviTori

■ A user searches for info and wants information:

- Region of Helsinki
- Birch and mugwort
- Forecast for next 24h
- Free

Geographical area

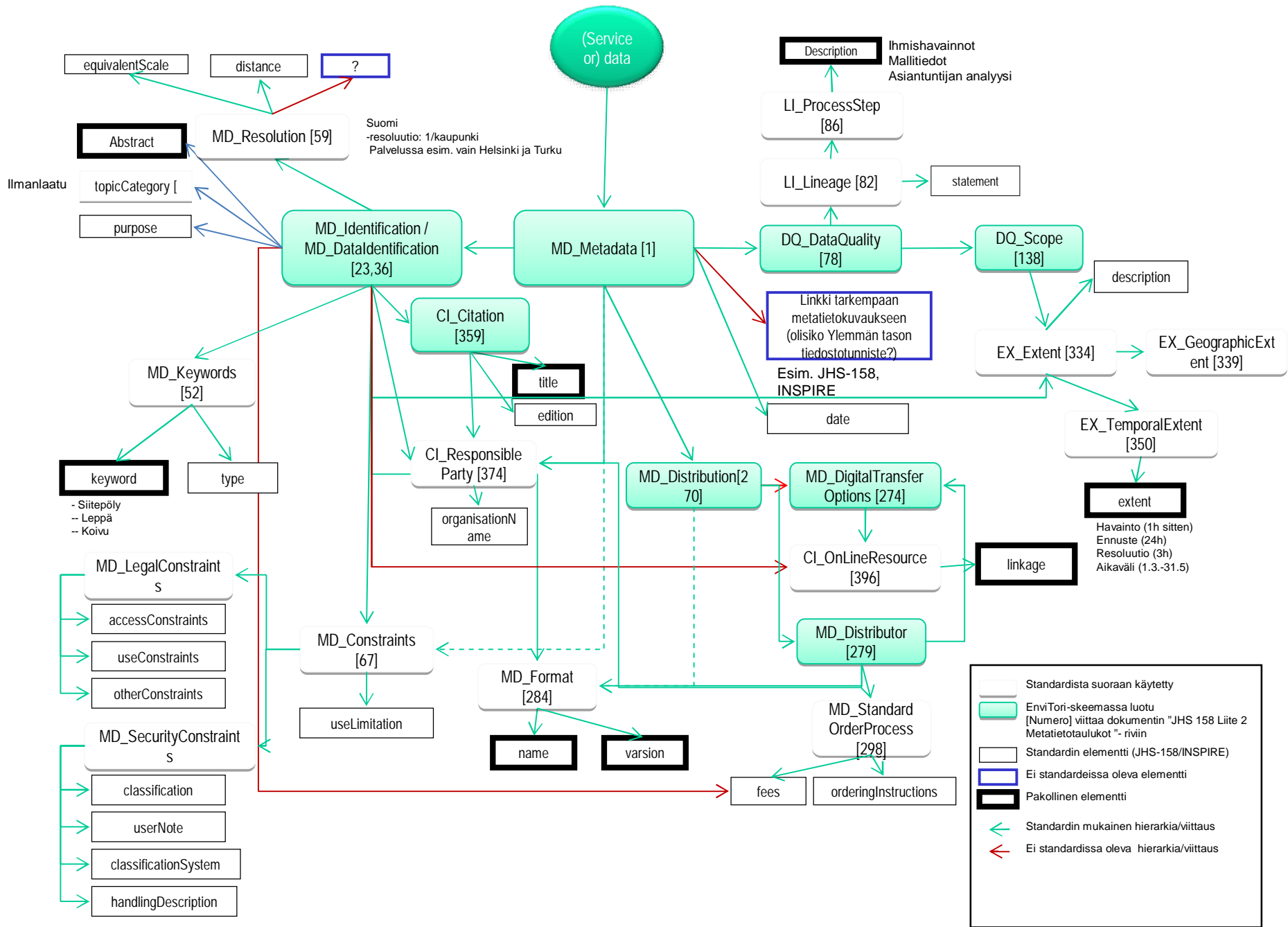
Type/theme
• Pollen

Time

Price

Metadata in EnviTori

- The first version is based on JHS158
 - JHS158 based on ISO 19115 and ISO/TS 19139
- Public administration have already metadata in JHS / ISO formats
 - easily transferable to EnviTori
- Use only a part of JHS 158 elements
 - Modified elements
 - Part used directly from recommendation/standard



Example

```
<?xml version="1.0" encoding="UTF-8"?>
<et:MD_Metadata xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:gco="http://www.isotc211.org/2005/gco" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xlink="http://www.w3.org/1999/xlink" xmlns:et="EnviTori" xsi:schemaLocation="EnviTori EnviTori/EnviTori.xsd">
  <et:language>
    <gmd:LanguageCode codeListValue="fin"
codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/Codelist/ML_gmxCodelists.xml#LanguageCode">fin</gmd:
LanguageCode>
  </et:language>
  <et:contact>
    <gmd:CI_ResponsibleParty>
      <gmd:organisationName>
        <gco:CharacterString>SYKE</gco:CharacterString>
      </gmd:organisationName>
      <gmd:role>
        <gmd:CI_RoleCode codeListValue="originator"
codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/Codelist/gmxCodelists.xml#CI_RoleCode">originator</gmd:
:CI_RoleCode>
      </gmd:role>
    </gmd:CI_ResponsibleParty>
  </et:contact>
  <et:dateStamp>
    <gco:Date>2010-09-30</gco:Date>
  </et:dateStamp>
  <et:identificationInfo>
    <et:MD_ServiceIdentification>
      <et:citation>
```

...

Result

- Defined content of Metadata
- Described structure of metadata document
 - XML schema

Future

- How to produce metadata to EnviTori?
 - Open Source tools
- Weaknesses of the first version?
 - All the scenarios are not gone through
- Defining methods for metadata expansion and maintenance
 - Versioning

Thank you