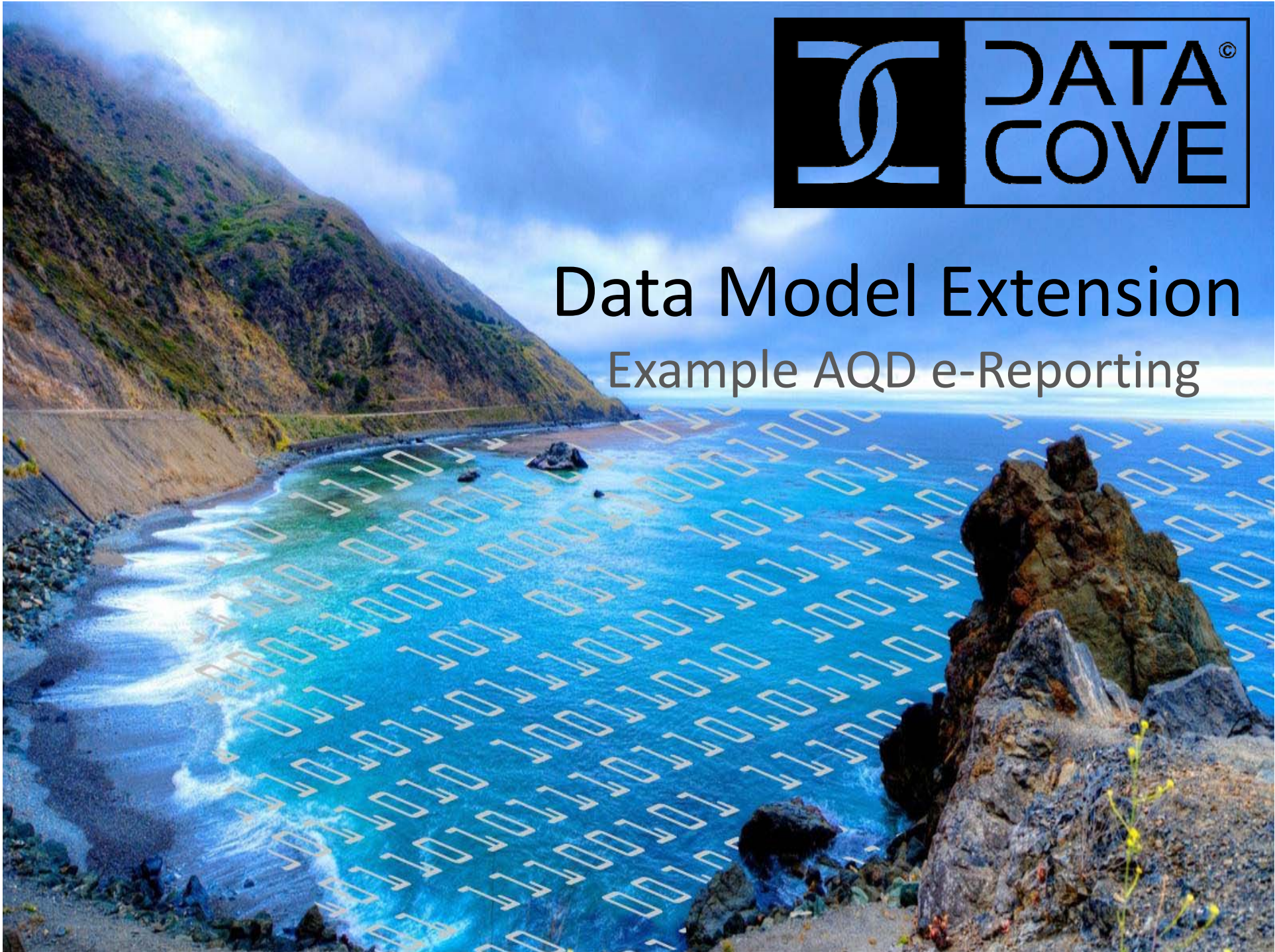




Data Model Extension

Example AQD e-Reporting



Introduction

- Requirements to AQD e-Reporting
- Extension pattern used
- Benefits gained
- Reflection

AQD e-Reporting

- Air Quality Reporting under Directive 2008/50/EC & Implementing Provisions 2011/850/EU
- Requires yearly reporting of air quality data together with assessment methods and attainment of objectives
- Includes Up To Date (UTD) measurement data
- Requirement for provision of AQD data under INSPIRE 2007/2/EC. Implications:
 - Data models in accordance with INSPIRE, ISO and OGC Standards
 - Data made available via web services

AQD e-Reporting

Reporting Dataflows:

- B. Zones and Agglomerations
- C. Assessment Regime
- D. Information about Assessment Methods
- E. Primary data (both validated & UTD)
- F. Generated Aggregated Data
- G. Attainment of Environmental Objectives

AQD e-Reporting

Reporting Dataflows:

B. Zones and Agglomerations

~~C. Assessment Regime~~

D. Information about Assessment Methods

E. Primary data (both validated & UTD)

F. Generated Aggregated Data

~~G. Attainment of Environmental Objectives~~

No corresponding INSPIRE Theme. Modelled in accordance with INSPIRE specifications & underlying data models for data model consistency

AQD e-Reporting

Reporting Dataflows:

B. Zones and Agglomerations

~~C. Assessment Regime~~

D. Information about Assessment Methods

E. Primary data (both validated & UTD)

F. Generated Aggregated Data

~~G. Attainment of Environmental Objectives~~



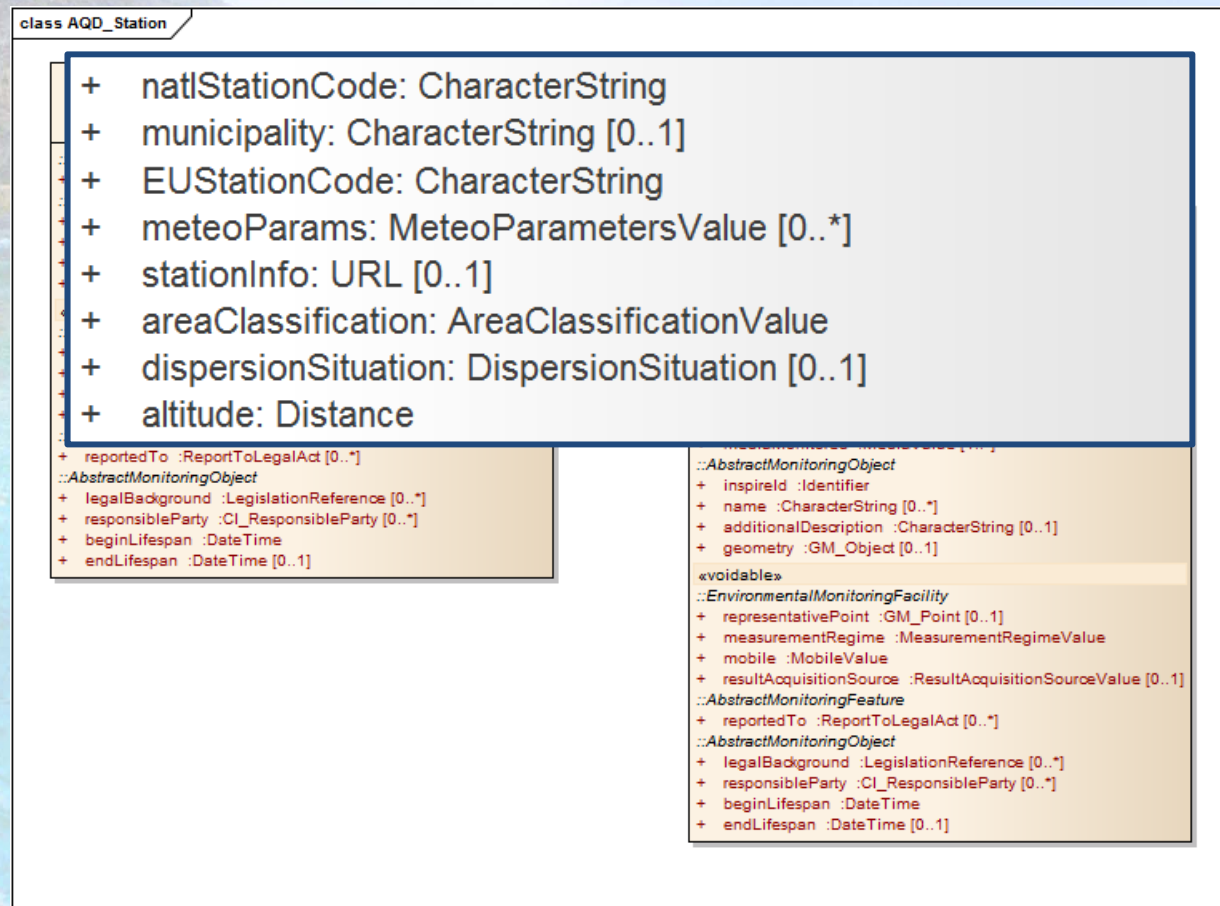
AM



EF

Extension Pattern

- Inheritance



Extension Pattern

Reasoning:

- Additional information tightly coupled with the class being extended
 - Relevant beyond European Reporting
- Less Features to deal with
- And – we were still learning!

Benefits gained

Serve once, reuse often:

- Only one implementation fulfills both INSPIRE and EEA e-Reporting
- Full information available to all interested parties
- Reuse of both server and client technologies across INSPIRE, e-Reporting, other uses

Critical Reflection

Not just benefits, problems with derivation approach:

- New „unknown“ feature types, requires understanding of derivation hierarchy to understand feature types provided
 - Hint in the Metadata would be valuable
- Not supported by all technologies
 - Some libraries do not support derivation

Conclusions

- Both approaches (derivation, new features) have their strengths and weaknesses
- Still learning, time will tell

Thanks for your Attention!

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