

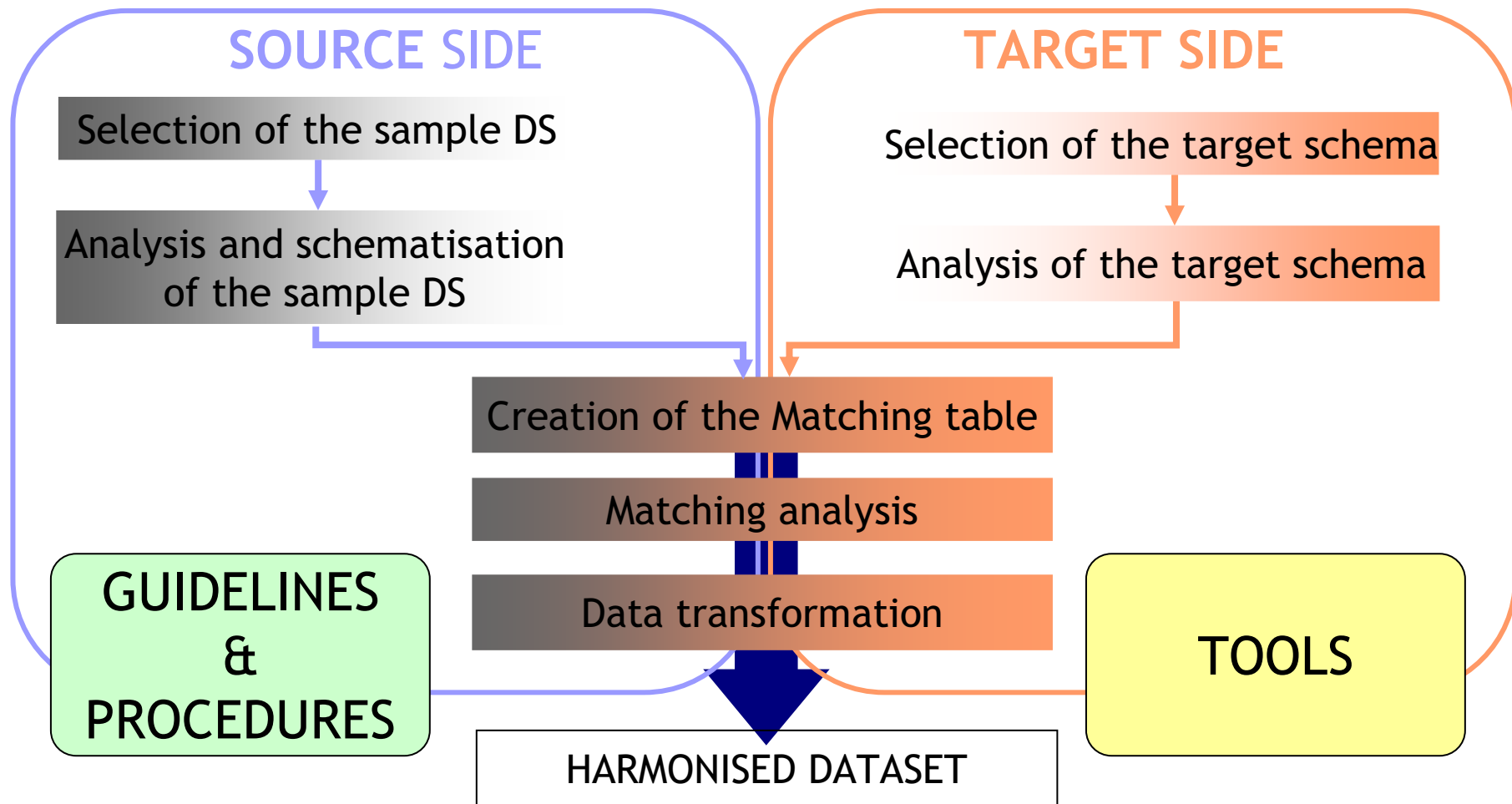
L'approccio eENVplus all'armonizzazione e validazione dei dati

Giacomo Martirano
Epsilon Italia

Sommario

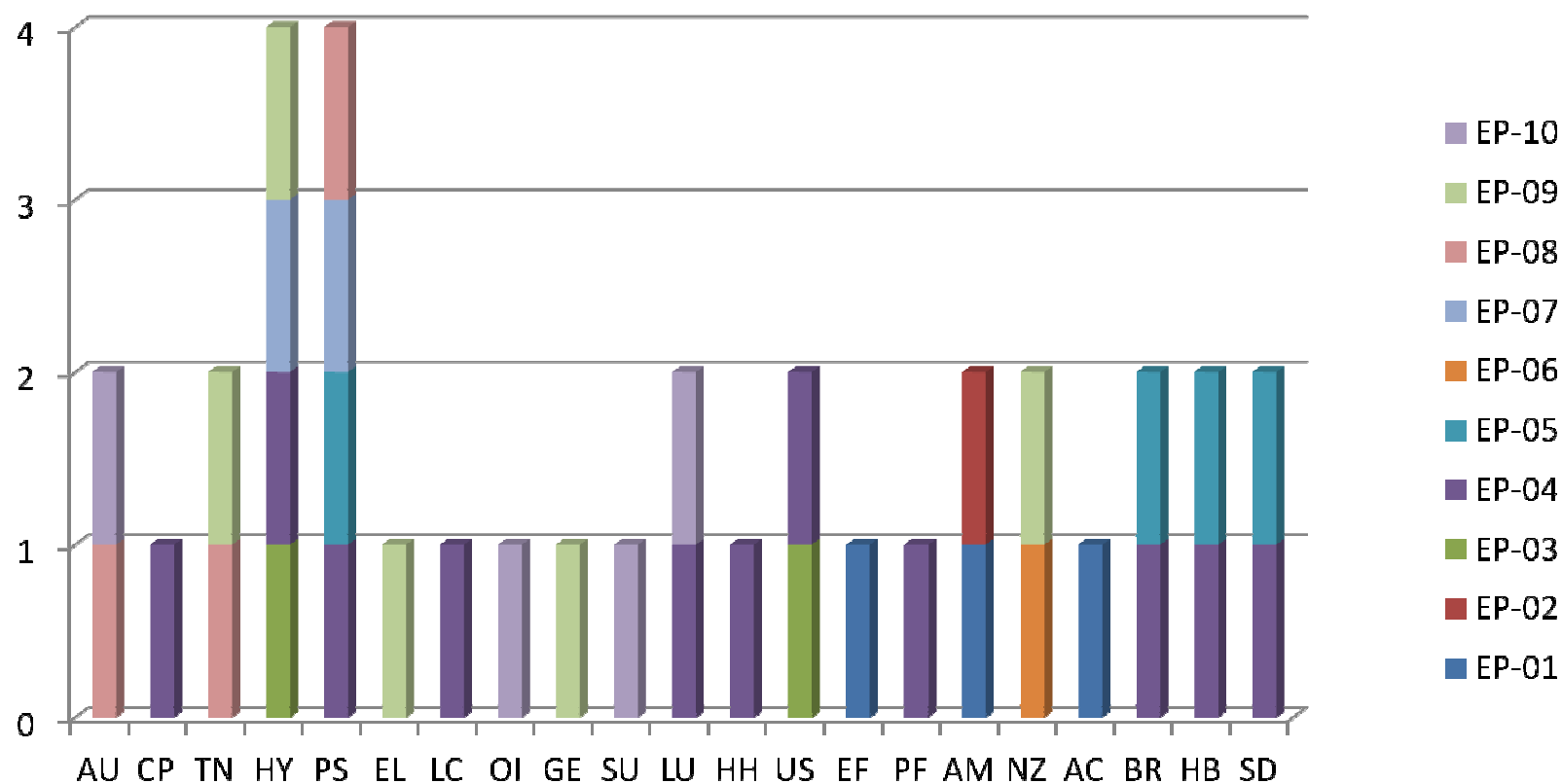
- Uno sguardo d'insieme alla metodologia di Data Harmonisation
- I dati sorgente
- Il toolkit di armonizzazione e validazione
- Le mapping tables
- I tool di trasformazione
- Il processo di validazione
- Guidelines, tutorials, templates ...

The overall DH methodology

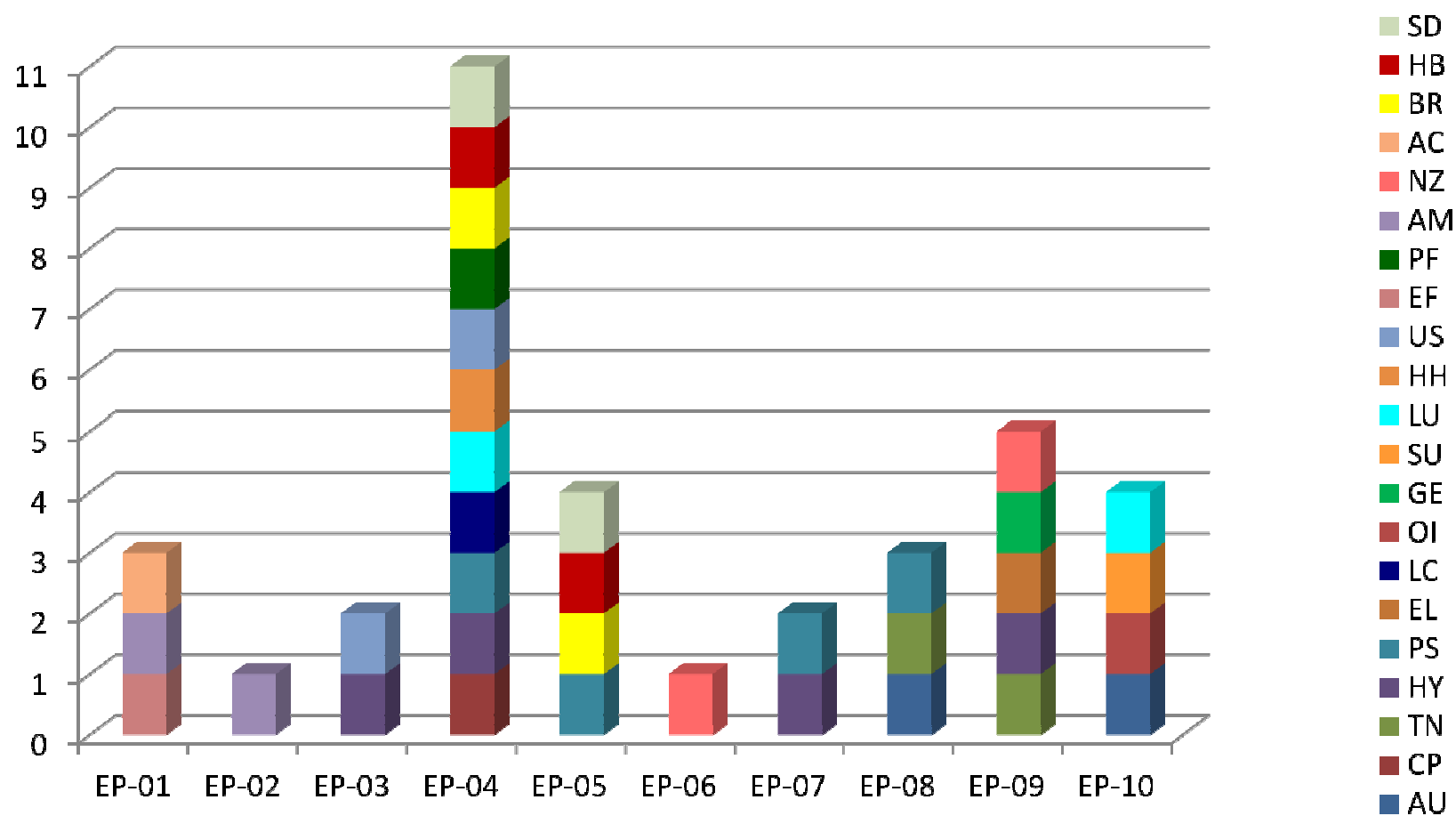


Detailed information on the
datasets listed in the Use Cases

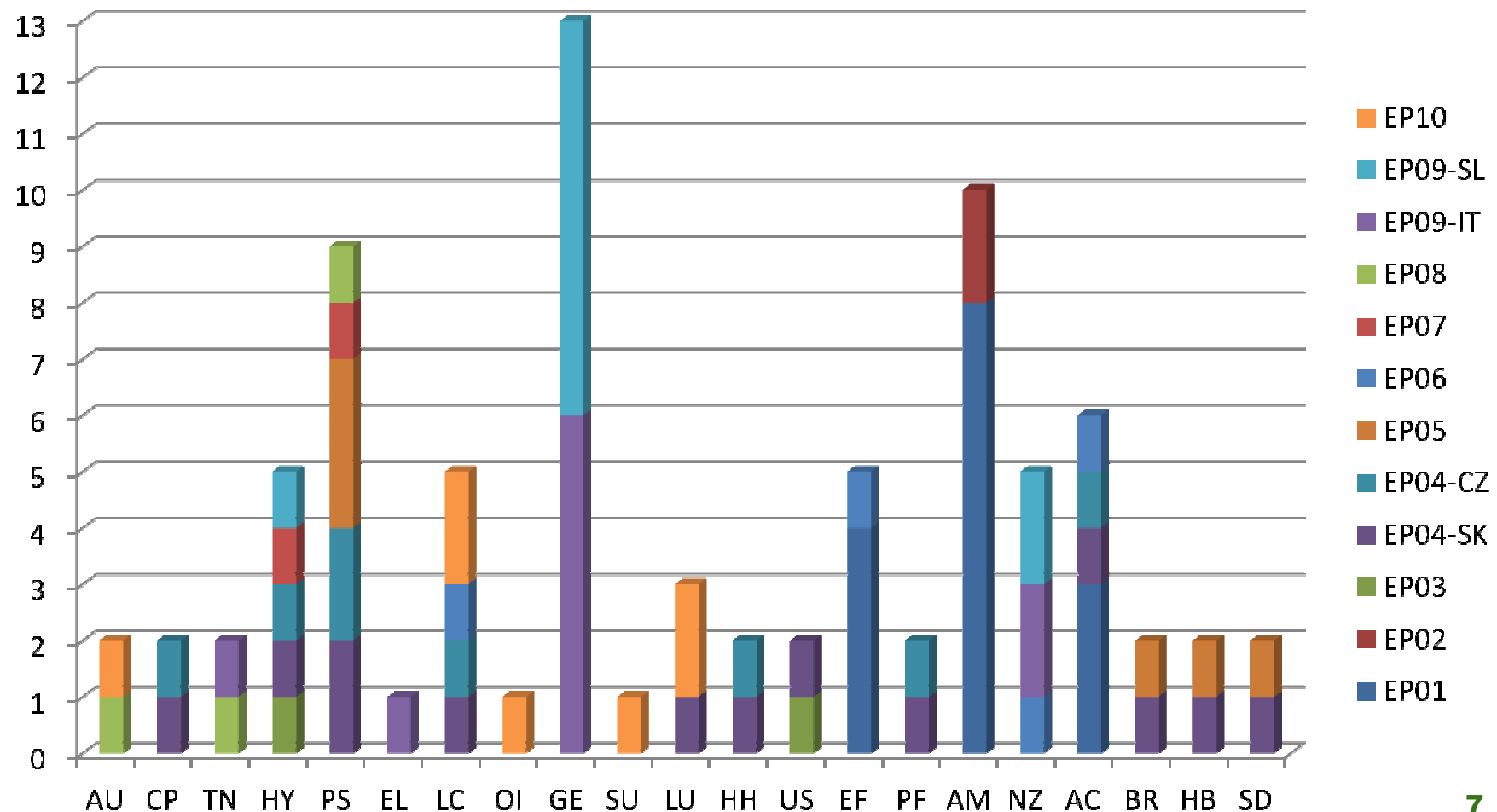
Distribution of the 21 INSPIRE data-themes per Pilot (1/2)



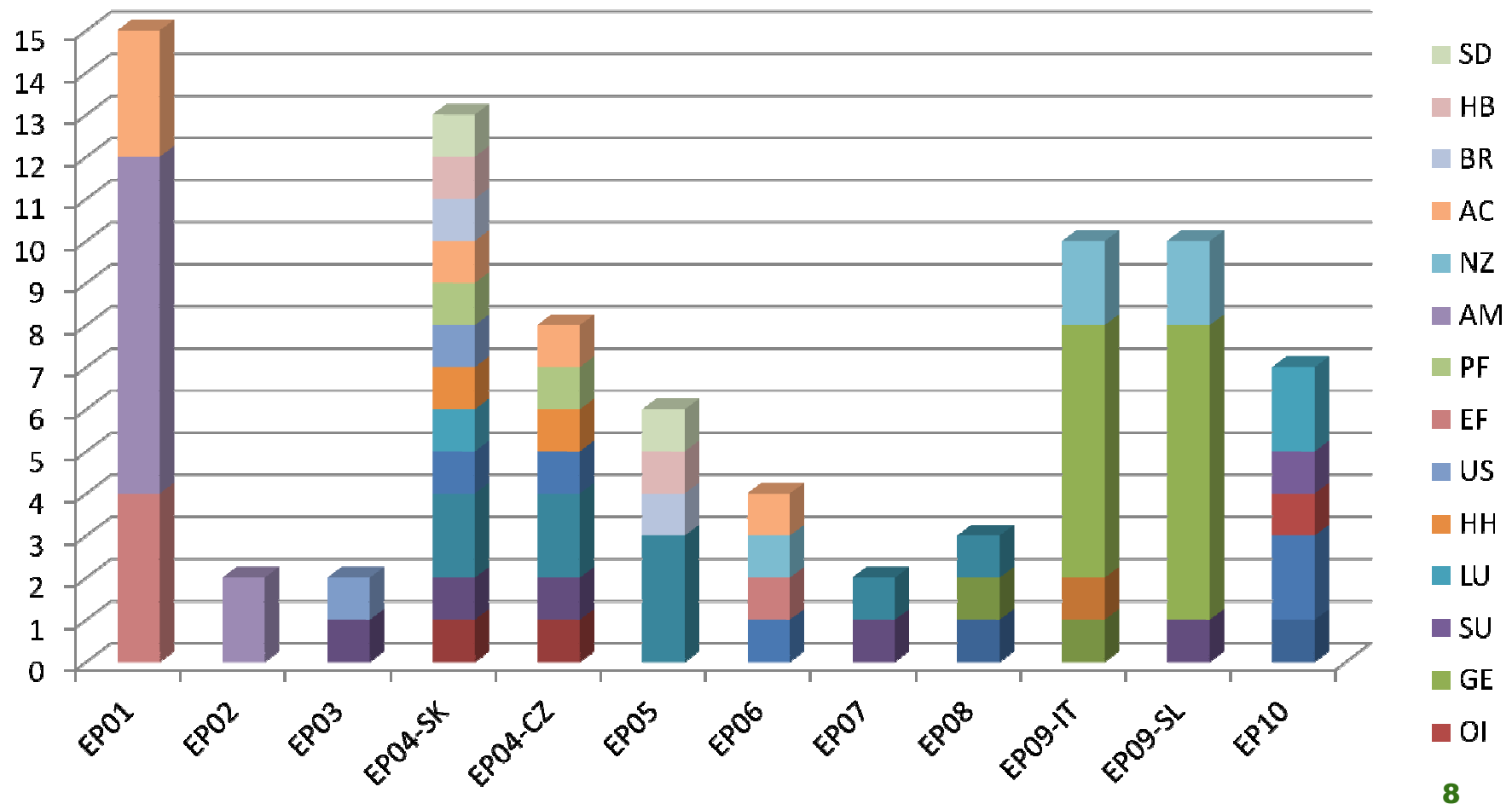
Distribution of the 21 INSPIRE data-themes per Pilot (2/2)



Distribution of the 82 datasets per Pilot and per INSPIRE data-theme (1/2)



Distribution of the 82 datasets per Pilot and per INSPIRE data-theme (2/2)



The harmonisation and validation toolkit



- The INSPIRE Data Specifications of the relevant data themes (Annex I, II, III)
- Other target data models (EEA AQD, AGIV - IMKL2.1)
- The mapping tables
- The transformation tools
- The validation tools
- Guidelines, Tutorials, Workflows, Procedures, Templates, etc.

The mapping tables and associated guidelines

- A first example of MT (taken from another project related to SEIS implementation at national level): [Bathing Water dataset → EF \(Annex III\)](#)¹
- A second example of MT, taken from [AQ portal](#)²
- An example of very useful guidelines:
 - [AQD_dataModel_v0.3.7c.pdf](#)³
 - [UserGuide2_AQD_XML_v19.3b.pdf](#)⁴

The mapping tables and associated guidelines

- A third example of MT (ready to be used for the eENVplus pilots dealing with EF datasets): [EF_MT_3.0rc3.xls](#)⁵

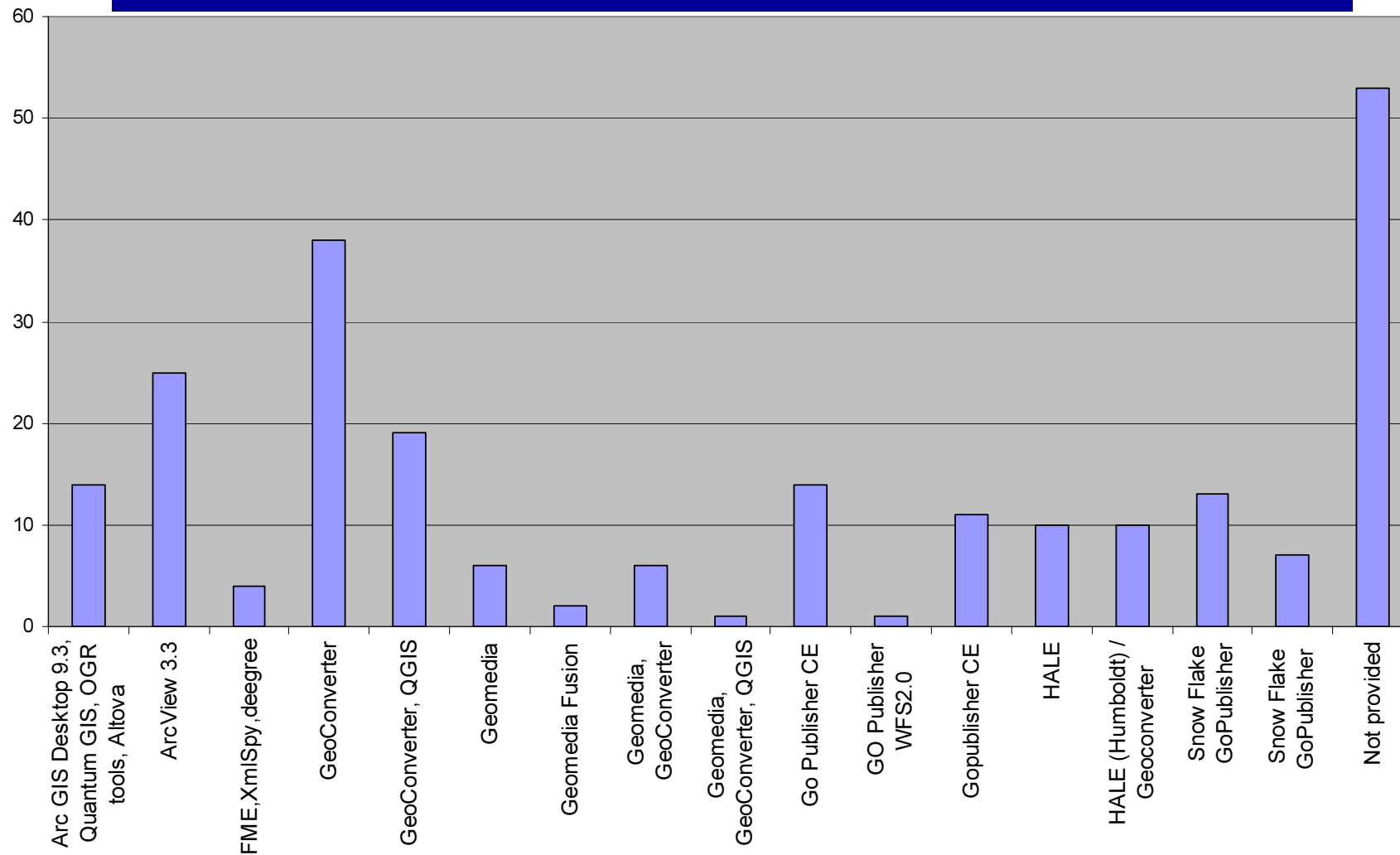
The mapping tables and associated guidelines

- Regarding the preparation of all the MTs, preliminary and very fruitful contacts have been established with JRC, who provided eENVplus with all the MTs (even though not in a full detailed version as the third example showed before) for all the INSPIRE data themes, automatically generated with ShapeChange.

The Transformation Tools

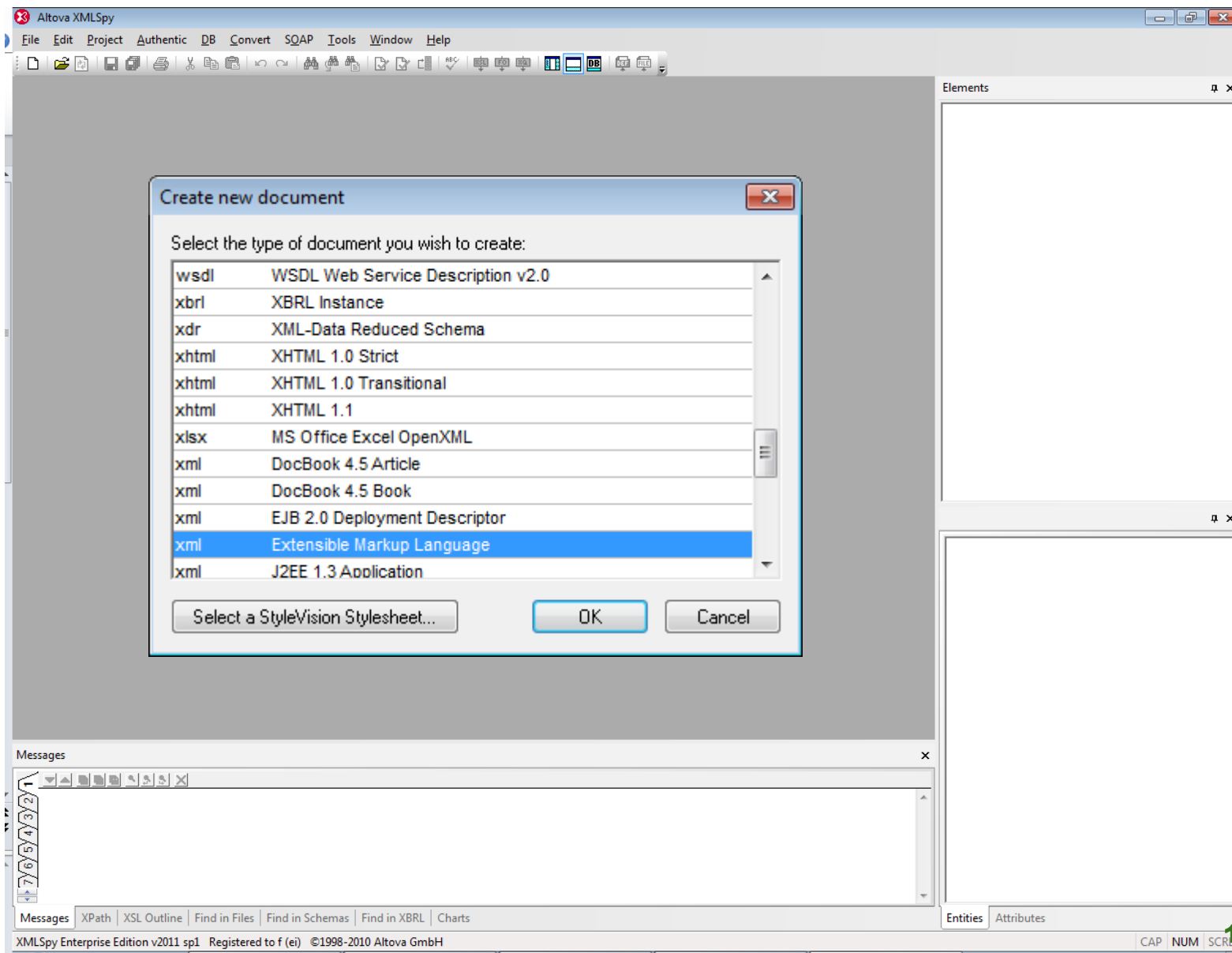
- Many transformation tools have been tested during past projects (NatureSDIplus)
 - Transformation tools for metadata
 - MDweb (IRD), INSPIRE Metadata Editor, CatMDEdit, GeoNetwork, MIG Metadata Editor, disy Preludio, etc.
 - Transformation tools for spatial datasets
 - GeoConverter, GeoMedia Fusion, Humboldt Alignement Editor, Go Publisher, FME, etc.

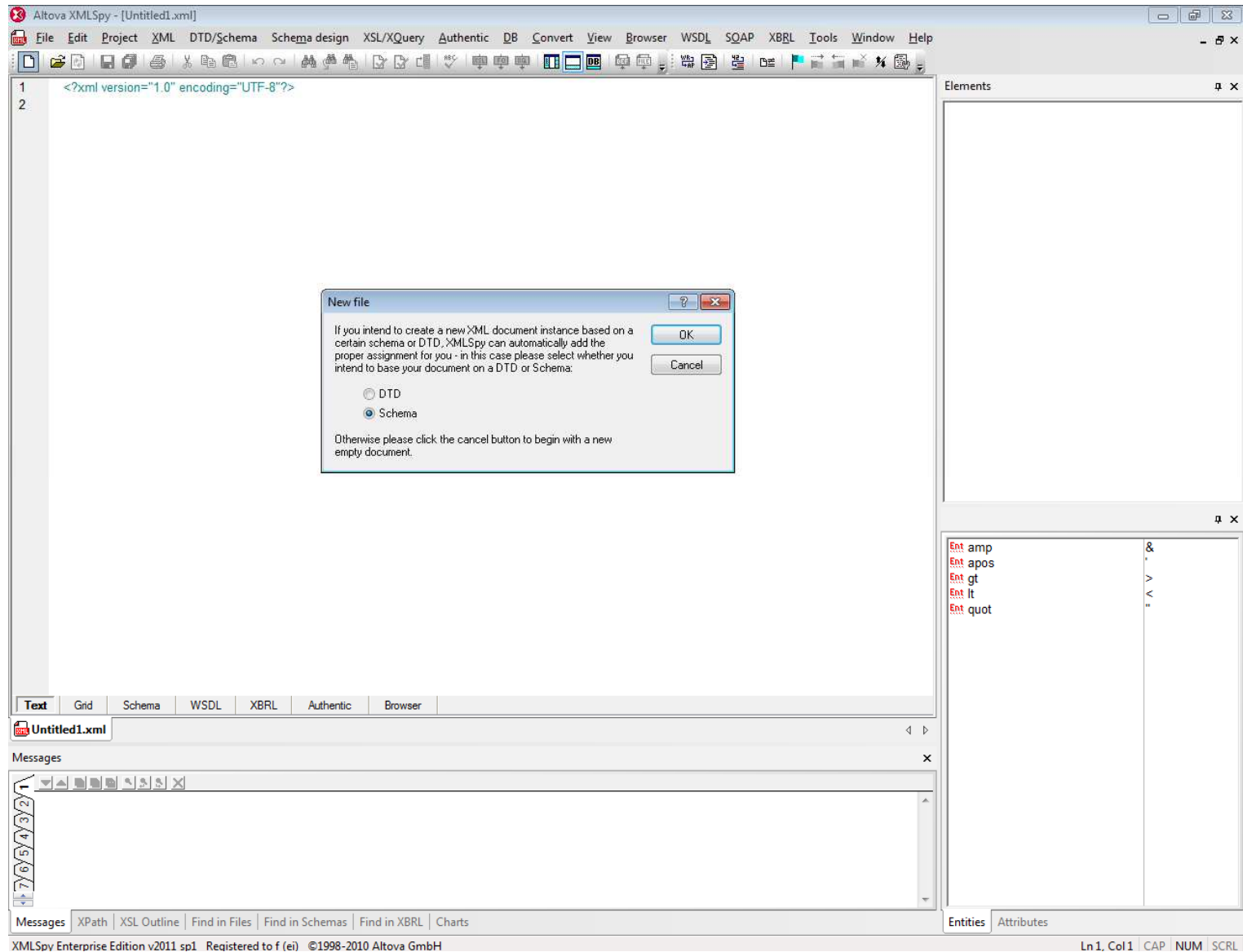
16 different “tool configurations” used by Data Providers in the Datasets Harmonisation Process

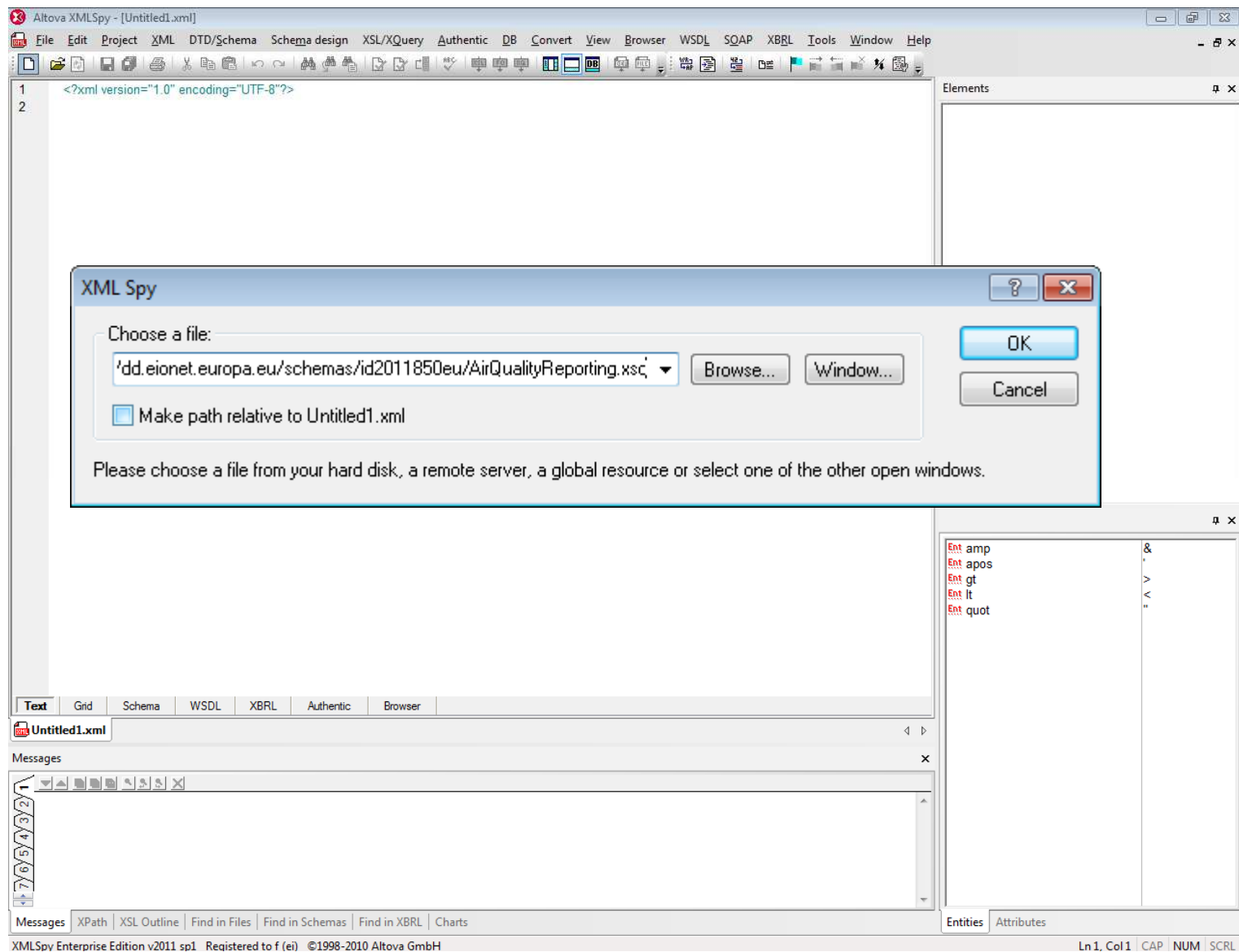


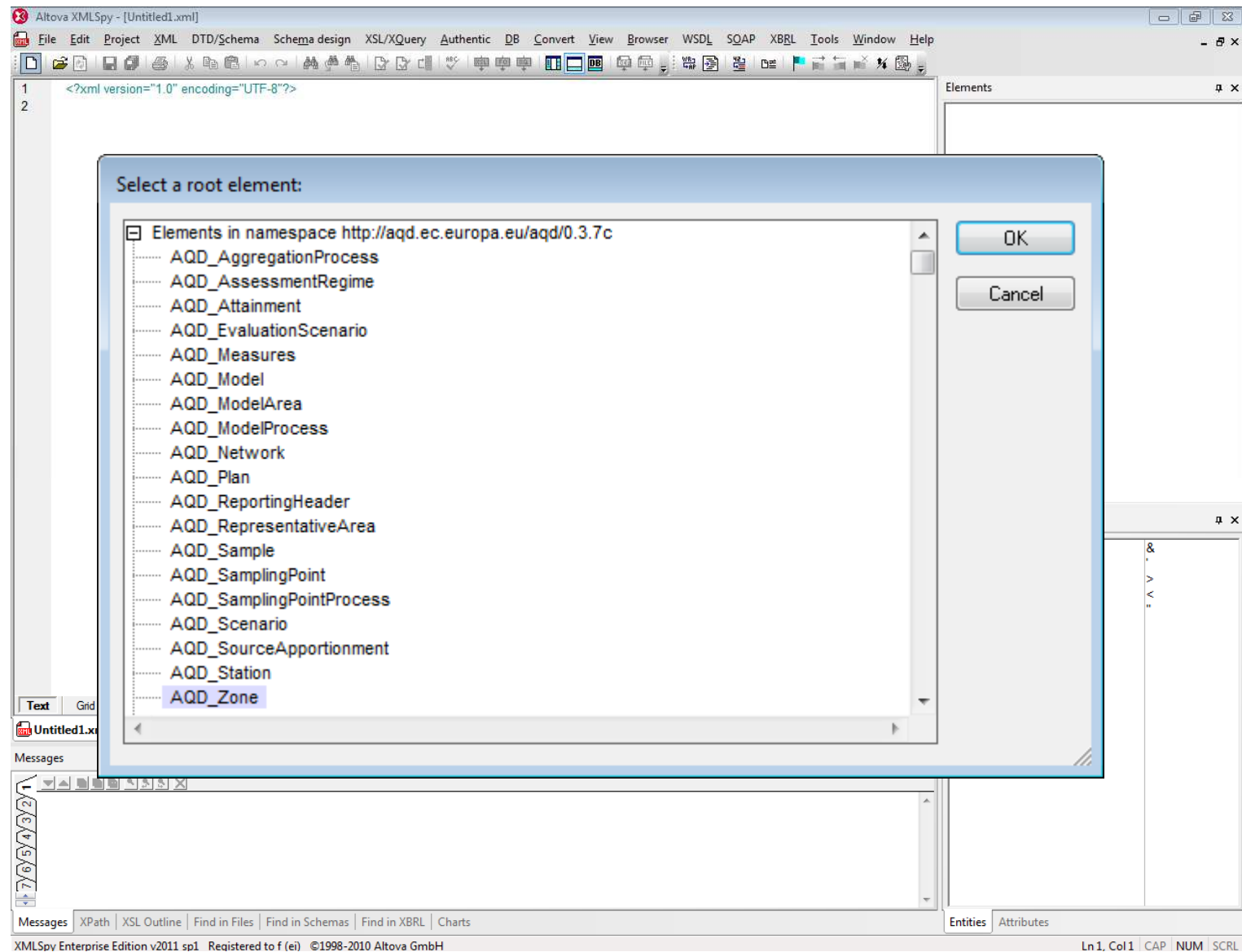
The Transformation Tools

- For data transformation focus will be given (in terms of support to the pilots) on Humboldt and GO Publisher, unless someone is willing to use an xml editor.
- Any pilot who already experienced or is willing to experience the use of other transformation tools, is more than welcome to do, but with a limited support by us.









Altova XMLSpy - [Untitled1.xml *]

File Edit Project XML DTD/Schema Schema design XSL/XQuery Authentic DB Convert View Browser WSDL SOAP XBRL Tools Window Help

```

1 <?xml version="1.0" encoding="UTF-8"?>
2 <aqd:AQD_Zone gml:id="" xmlns:aqd="http://aqd.ec.europa.eu/aqd/0.3.7c" xmlns:am="http://inspire.ec.europa.eu/schemas/am/3.0rc3" xmlns:base="
  http://inspire.ec.europa.eu/schemas/base/3.3rc3" xmlns:base2="http://inspire.ec.europa.eu/schemas/base2/1.0rc3" xmlns:gml="
  http://www.opengis.net/gml/3.2" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://aqd.ec.europa.eu/aqd/0.3.7c
  http://dd.eionet.europa.eu/schemas/id2011850eu/AirQualityReporting.xsd">
3   <am:inspireId>
4     <base:Identifier>
5       <base:localId/>
6       <base:namespace/>
7     </base:Identifier>
8   </am:inspireId>
9   <am:geometry/>
10  <am:zoneType/>
11  <am:designationPeriod/>
12  <am:environmentalDomain/>
13  <am:competentAuthority>
14    <base2:RelatedParty/>
15  </am:competentAuthority>
16  <am:beginLifespanVersion/>
17  <aqd:zoneCode/>
18  <aqd:aqdZoneType/>
19  <aqd:pollutants>
20    <aqd:Pollutant>
21      <aqd:pollutantCode/>
22      <aqd:protectionTarget/>
23    </aqd:Pollutant>
24  </aqd:pollutants>
25  <aqd:timeExtensionExemption/>
26 </aqd:AQD_Zone>
27

```

Elements

- aqd:Pollutant

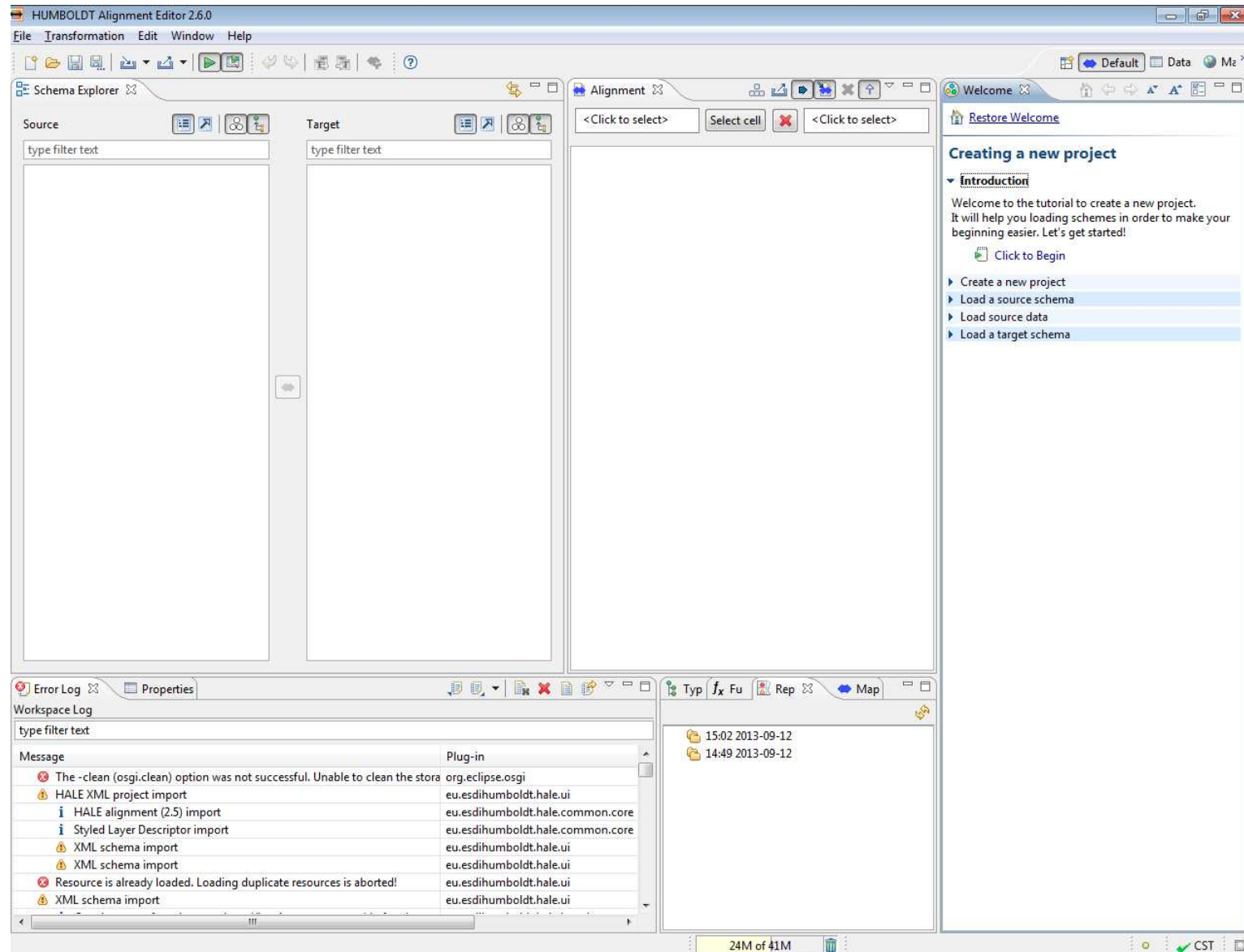
Ent amp
Ent apos
Ent gt
Ent lt
Ent quot

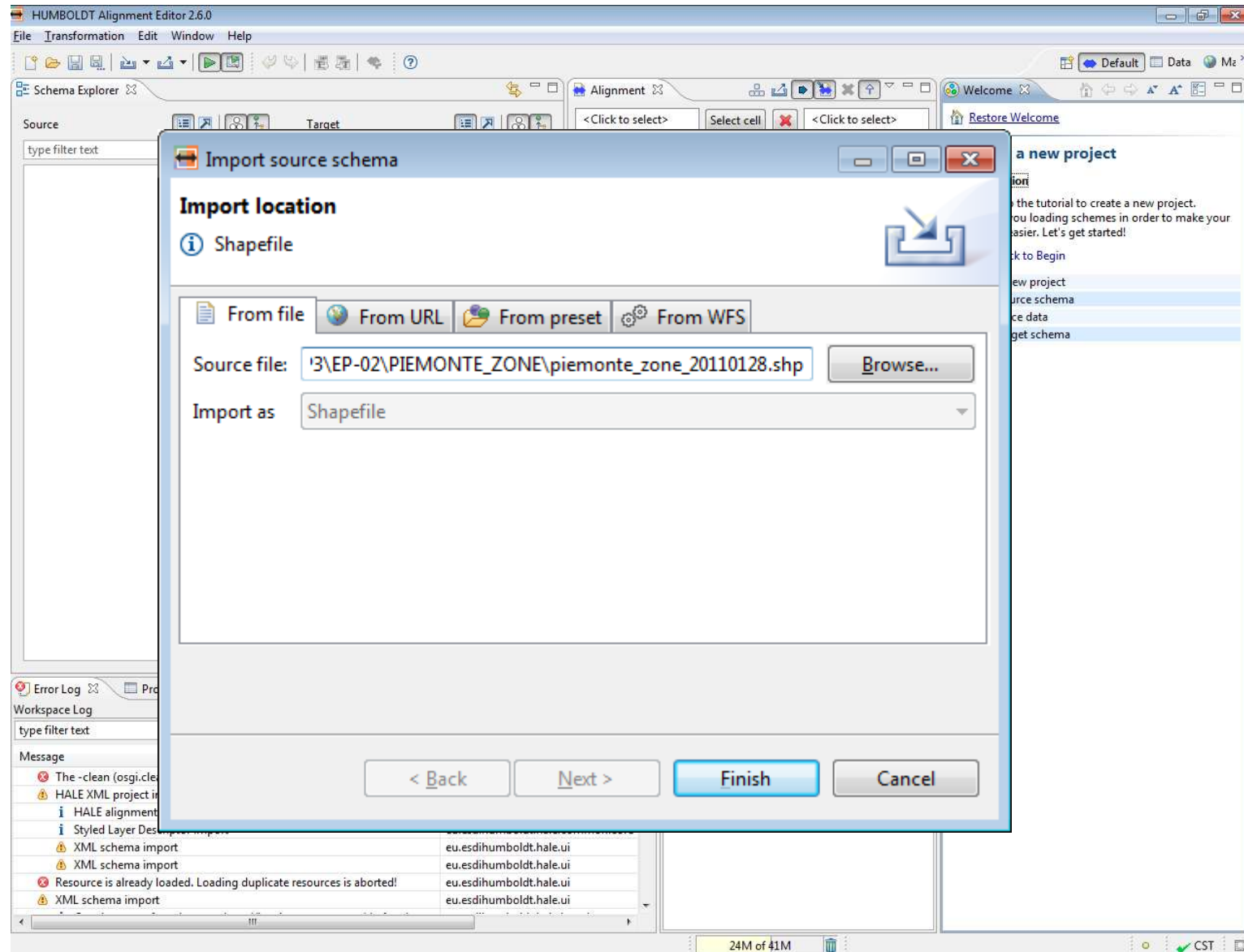
Messages

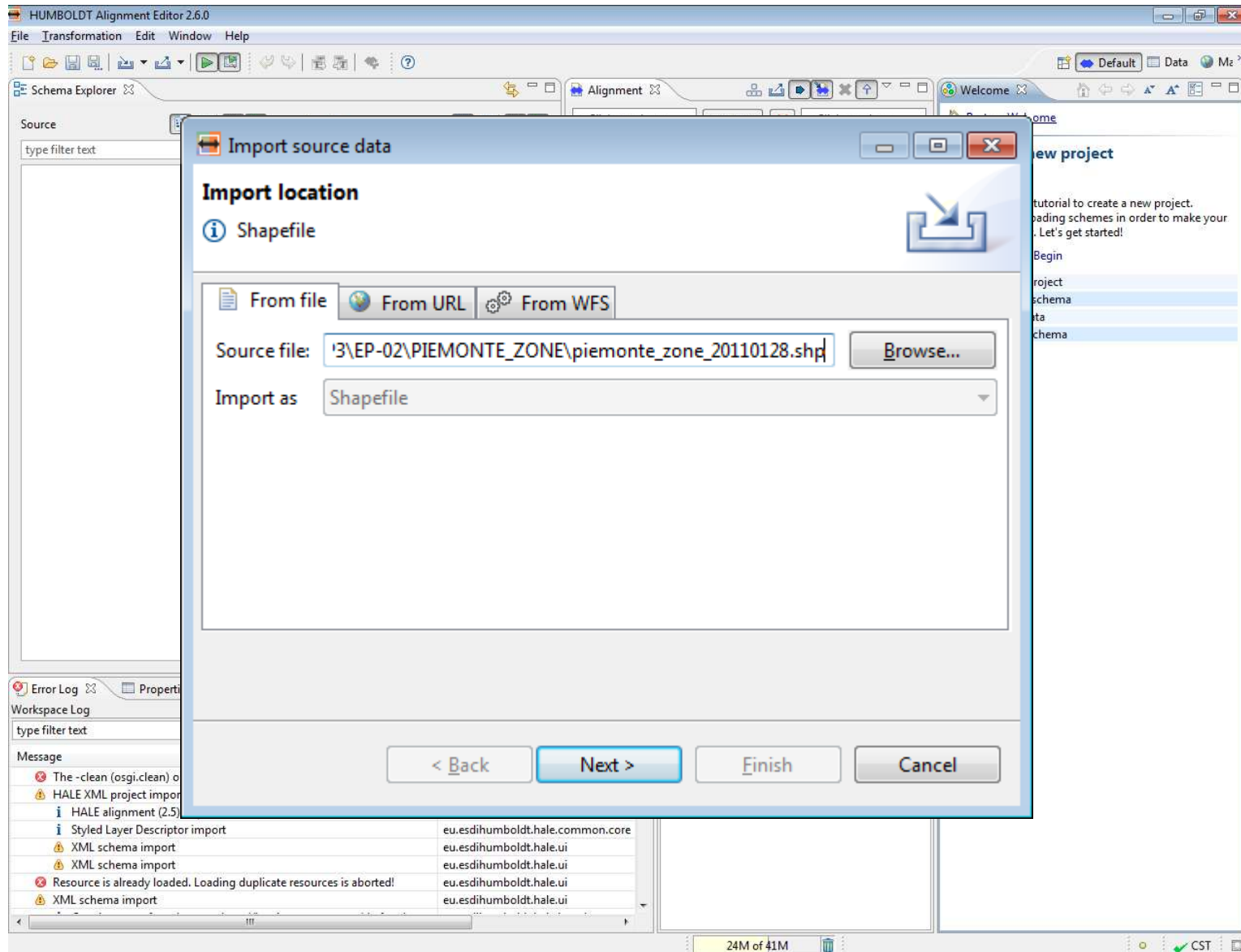
Messages XPath XSL Outline Find in Files Find in Schemas Find in XBRL Charts

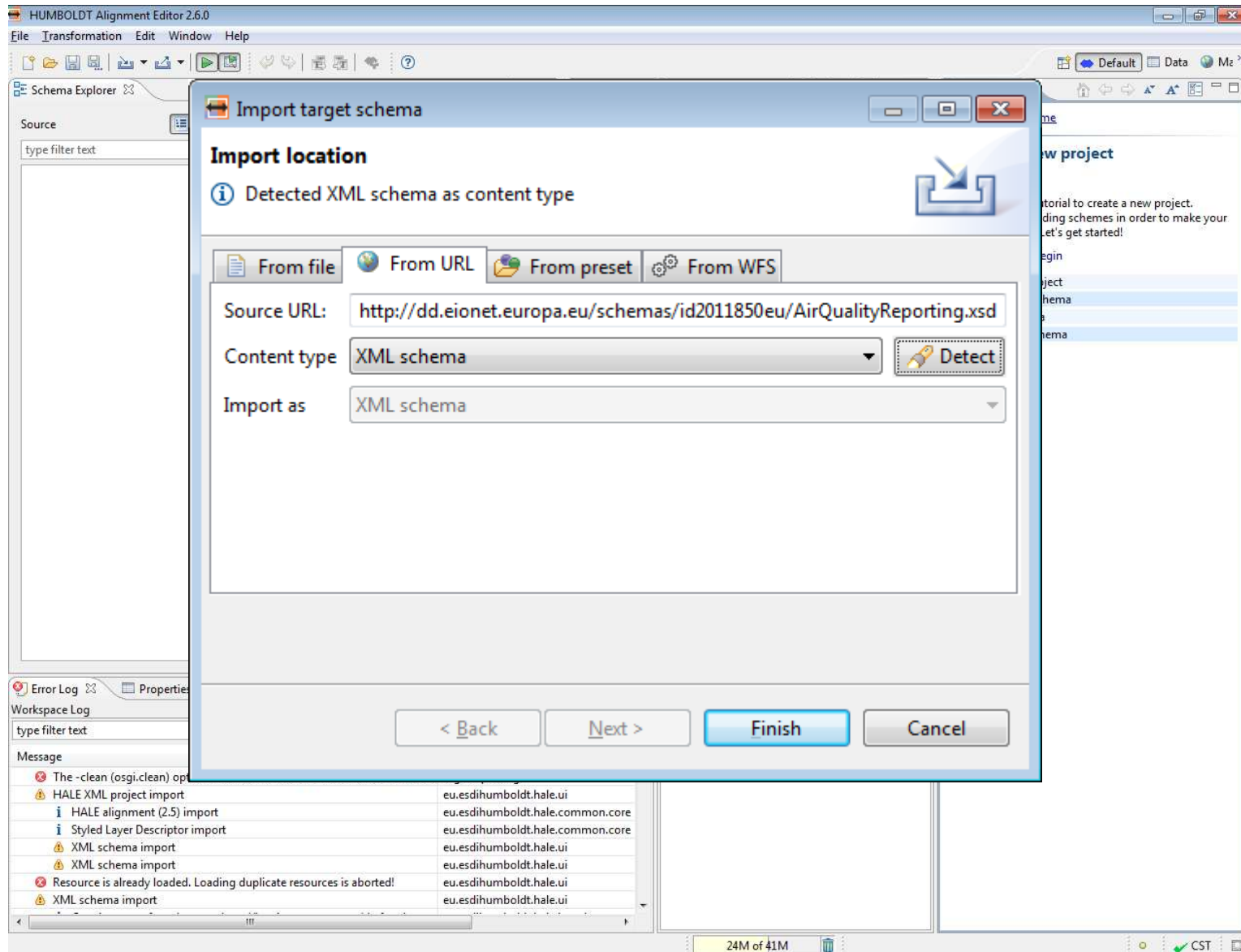
XMLSpy Enterprise Edition v2011 sp1 Registered to f (ei) ©1998-2010 Altova GmbH

Ln 19, Col 18 CAP NUM SCRL









HUMBOLDT Alignment Editor 2.6.0*

File Transformation Edit Window Help

Schema Explorer

Source

type filter text

- piemonte_zone_20110128
 - AS_AT (0..1) x5
 - B_AT (0..1) x5
 - BAP_AT (0..1) x5
 - C_AT (0..1) x5
 - CD_AT (0..1) x5
 - L_AT (0..1) x5
 - NEW_SUB (0..1) x5
 - NH_H_AT (0..1) x5
 - NH_Y_AT (0..1) x5
 - NI_AT (0..1) x5
 - NV_AT (0..1) x5
 - O_H (0..1) x5
 - Q_V (0..1) x5
 - P2_5_Y_AT (0..1) x5
 - P_D_AT (0..1) x5
 - P_Y_AT (0..1) x5
 - POLL_TARG (0..1) x5
 - SE_AT (0..1) x5
 - SH_AT (0..1) x5
 - the_geom (0..1) x5
 - ZONE_CODE (0..1) x5
 - ZONE_NAME (0..1) x5
 - ZONE_TYPE (0..1) x5

Target

type filter text

- AQD_SourceApportionment
- AQD_Station
- AQD_Zone
 - location (0..1)
 - aqdZoneType
 - area (0..1)
 - beginLifespanVersion
 - boundedBy (0..1)
 - changeDocumentation (0..1)
 - competentAuthority (1..n)
 - description (0..1)
 - descriptionReference (0..1)
 - designationPeriod
 - endLifespanVersion (0..1)
 - environmentalDomain (1..n)
 - geometry
 - id
 - identifier (0..1)
 - inspireId
 - LAU (0..n)
 - legalBasis (1..n)
 - metaDataProperty (0..n)
 - name (0..n)
 - name (0..n)
 - plan (0..n)
 - pollutants (1..n)
 - predecessor (0..1)
 - relatedZone (0..n)
 - residentPopulation (0..1)
 - residentPopulationYear (0..1)

Alignment

piemonte_zone_20110128 Retype AQD_Zone

...nte_zone_20110128 Retype AQD_Zone

ZONE_CODE Rename zoneCode

Error Log

Workspace Log

type filter text

Message

- NLS unused message: WFSFeatureTypesReaderDialog_StatusText in:
- NLS unused message: WFSFeatureTypesReaderDialog_HostPortTool
- NLS unused message: WFSFeatureTypesReaderDialog_HostPortLabe
- NLS unused message: WFSFeatureTypesReaderDialog_CancelText in:
- NLS unused message: WFSDataReaderDialog_ValidationOKText in: e
- NLS unused message: WFSDataReaderDialog_ValidationFailedText2 i
- NLS unused message: WFSDataReaderDialog_ValidationFailedText in

Type hierarchy

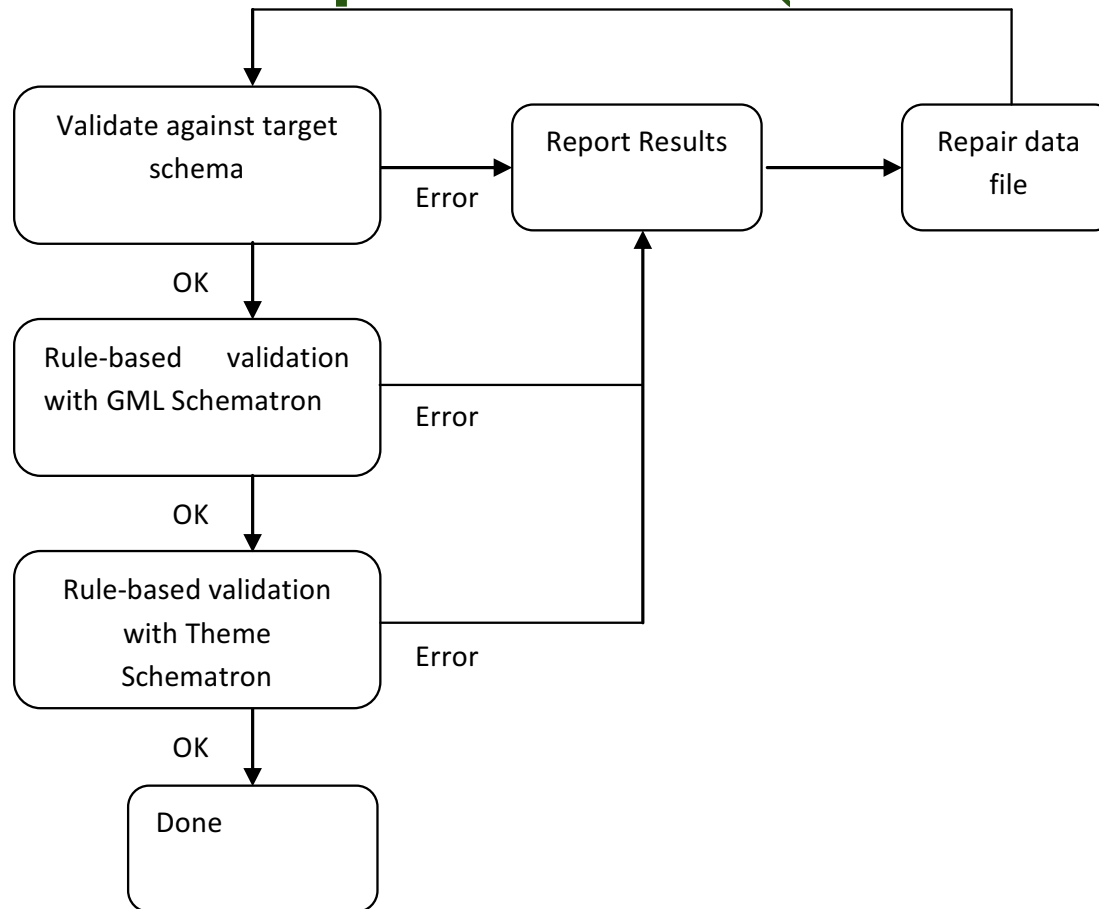
AQD_Zone

AQD_Zone	1	2
residentPopulationYear	no value	no value
shapefileLink	no value	no value
specialisedZoneType	no value	no value
thematicId	no value	no value
timeExtensionExemption	no value	no value
zoneCode	IT0118	IT0120
zoneType	no value	no value

131M of 208M

CST

Validation process (datasets)



Guidelines, Tutorial, Templates, etc.

- An example of tutorial for validation ⁶
- An example of template for a validation report ⁷

Grazie!

Domande?

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