Workshop sobre Experiências de Harmonização de Dados

HARMONIZAÇÃO E VALIDAÇÃO DE CONJUNTOS DE DADOS GEOGRÁFICOS REFERENTES A SONDAGENS GEOTÉCNICAS EFETUADAS NO ARQUIPÉLAGO DOS AÇORES

Sessão 3: Validação

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Lisboa
21 de junho de 2017

ESTRUTURA DA APRESENTAÇÃO

1. ENQUADRAMENTO

2. CASO DE ESTUDO: SONDAGENS GEOTÉCNICAS

3. HARMONIZAÇÃO

4. VALIDAÇÃO

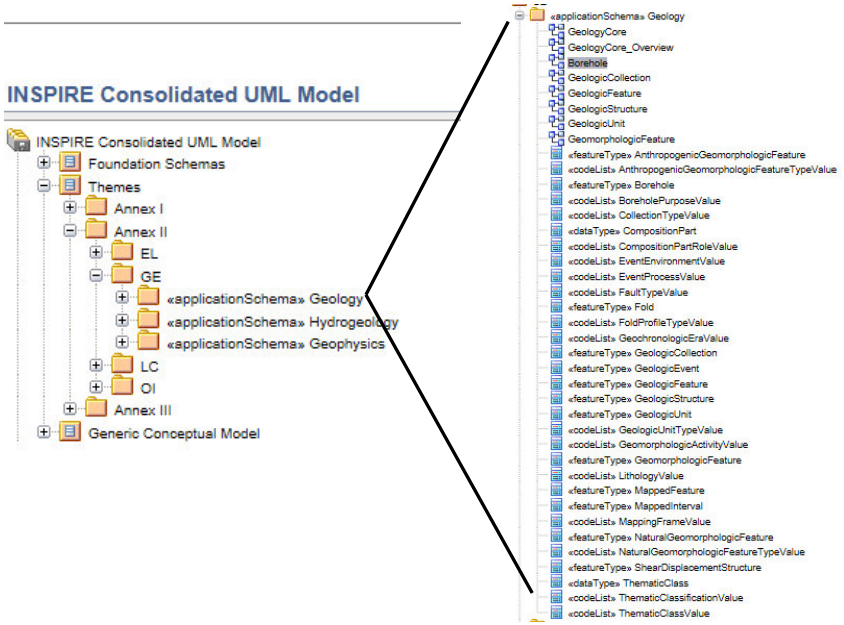
5. CONSIDERAÇÕES FINAIS

1. ENQUADRAMENTO

Grupos de trabalho temáticos

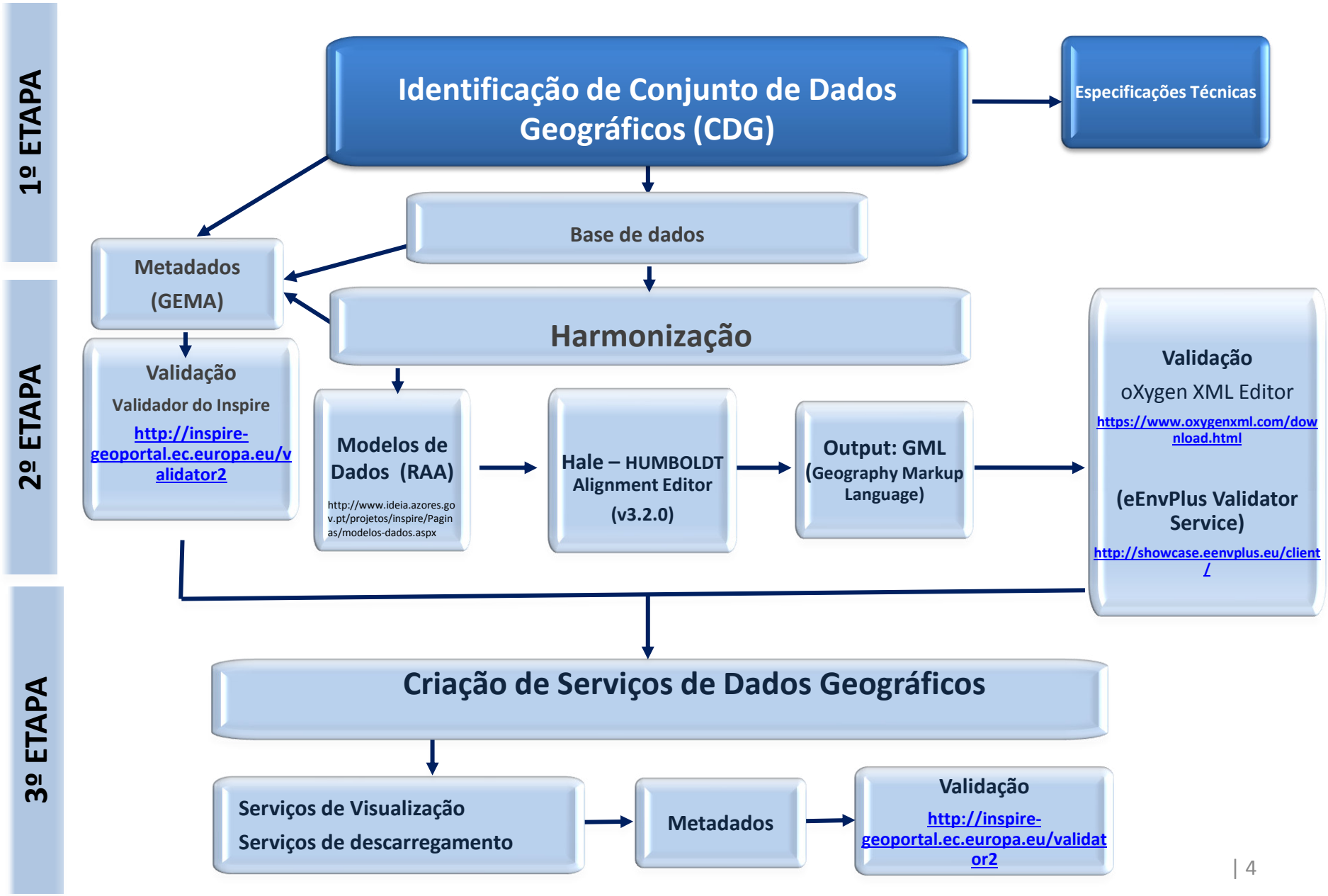
GT	Tema do Anexo	Abrev. Tema	Instituições responsáveis	Grupo de Trabalho
GT03RAA Ciências da Terra	II.4 Geologia	GE	DRA, LREC	DRA, DRAM, SRPCBA, LREC, IROA, DREn, EDA, DRAIC
	III.3 Solo	SO	LREC, IROA	
	III.12 Zonas de risco natural	NZ	DRA, DRAM, SRPCBA, LREC	
	III.20 Recursos energéticos	ER	DREn, EDA	
	III.21 Recursos minerais	MR	DRAIC	

Estruturação do modelo UML consolidado da INSPIRE para o tema da Geologia (Anexo II)



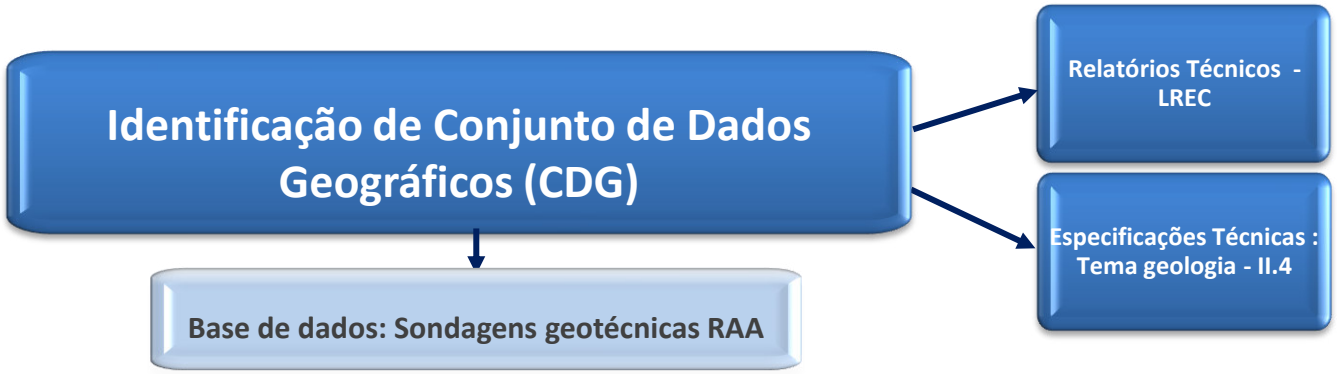
- 3 pacotes – Geology; Hydrogeology e Geophysics, divididos em subpacote contendo classes e respetivas associações;
- No modelo de dados da Geology encontram-se várias classes, entre elas os furos de sondagens (Borehole).

1. ENQUADRAMENTO



2. CASO DE ESTUDO: SONDAGENS GEOTÉCNICAS

1º ETAPA

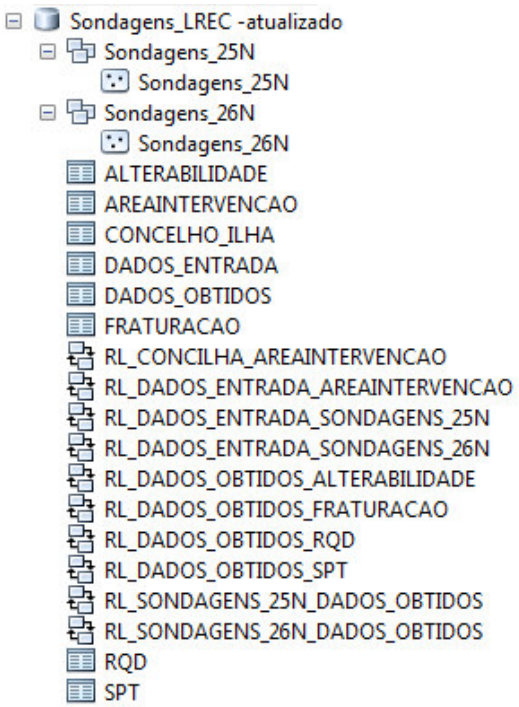


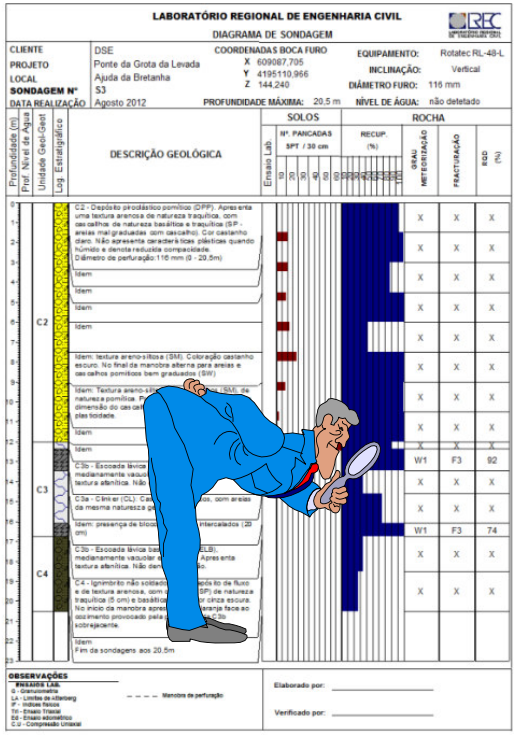


- O LREC realiza serviços no âmbito da prospeção geológica e geotécnica no Arquipélago dos Açores (Sondagens à Rotação);
- A informação encontra-se em relatórios técnicos e Boletins de Ensaios em formato analógico;
- Consulta e a exploração dos dados obtidos é um processo moroso.

2. CASO DE ESTUDO: SONDAGENS GEOTÉCNICAS

- Desenvolveu-se uma base de dados em software ESRI, de modo a conter informações sobre sondagens geotécnicas





- ✓ Relatórios geológicos e geotécnicos;
- ✓ Diagramas de sondagens;

- ✓ D2.8.II.4 Data Specification on *Geology* – Technical Guidelines
  - ✓ 5.3.2.1.2. Borehole

5.3.2.1.2. Borehole

Borehole

Definition:	A borehole is the generalized term for any narrow shaft drilled in the ground.
Stereotypes:	«featureType»

Attribute: inspireId

Value type:	Identifier
Definition:	External object identifier of the spatial object.
Multiplicity:	1

Attribute: downholeGeometry

Name:	The downhole geometry of the borehole
Value type:	GM_Curve
Multiplicity:	1
Stereotypes:	«voidable»

Attribute: boreholeLength

Value type:	Quantity
Definition:	The distance along a borehole.
Description:	This will be determined by the data provider (ie, "length" can have different sources, like drillers measurement, loggers measurement, survey).
Multiplicity:	1
Stereotypes:	«voidable»

Attribute: elevation

Value type:	DirectPosition
Definition:	The vertical height above datum of the borehole collar.
Description:	This is a compromise approach to supply elevation explictly for location; this is to allow for software that cannot process 3-D GM_Point. Use null if elevation is unknown. Direct position shall have a dimension of 1, and CRS will be a "vertical" CRS (e.g. EPSG CRSs in the range 5600-5799).
Multiplicity:	1
Stereotypes:	«voidable»

Attribute: location

Value type:	GM_Point
Definition:	The location of the borehole collar.
Multiplicity:	1

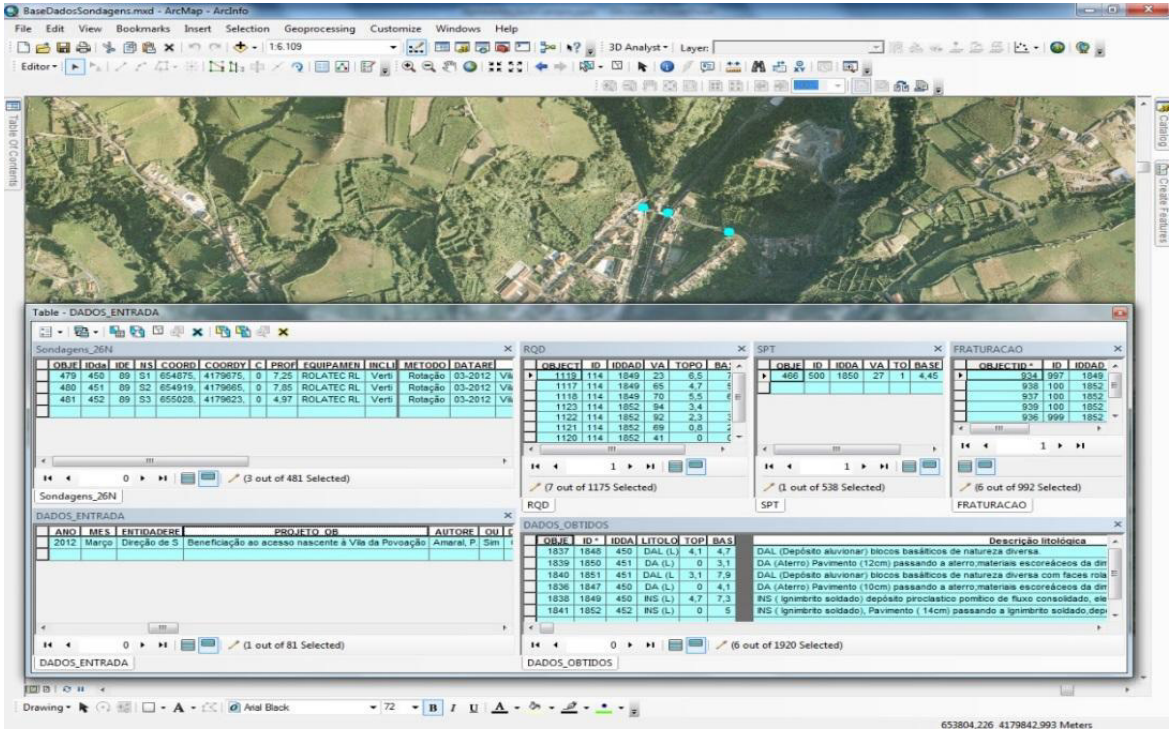
Attribute: purpose

Value type:	BoreholePurposeValue
Definition:	The purpose for which the borehole was drilled.
Description:	EXAMPLE: site investigation, mineral exploration, hydrocarbon exploration, water resources.
Multiplicity:	1..*
Stereotypes:	«voidable»

Association role: logElement

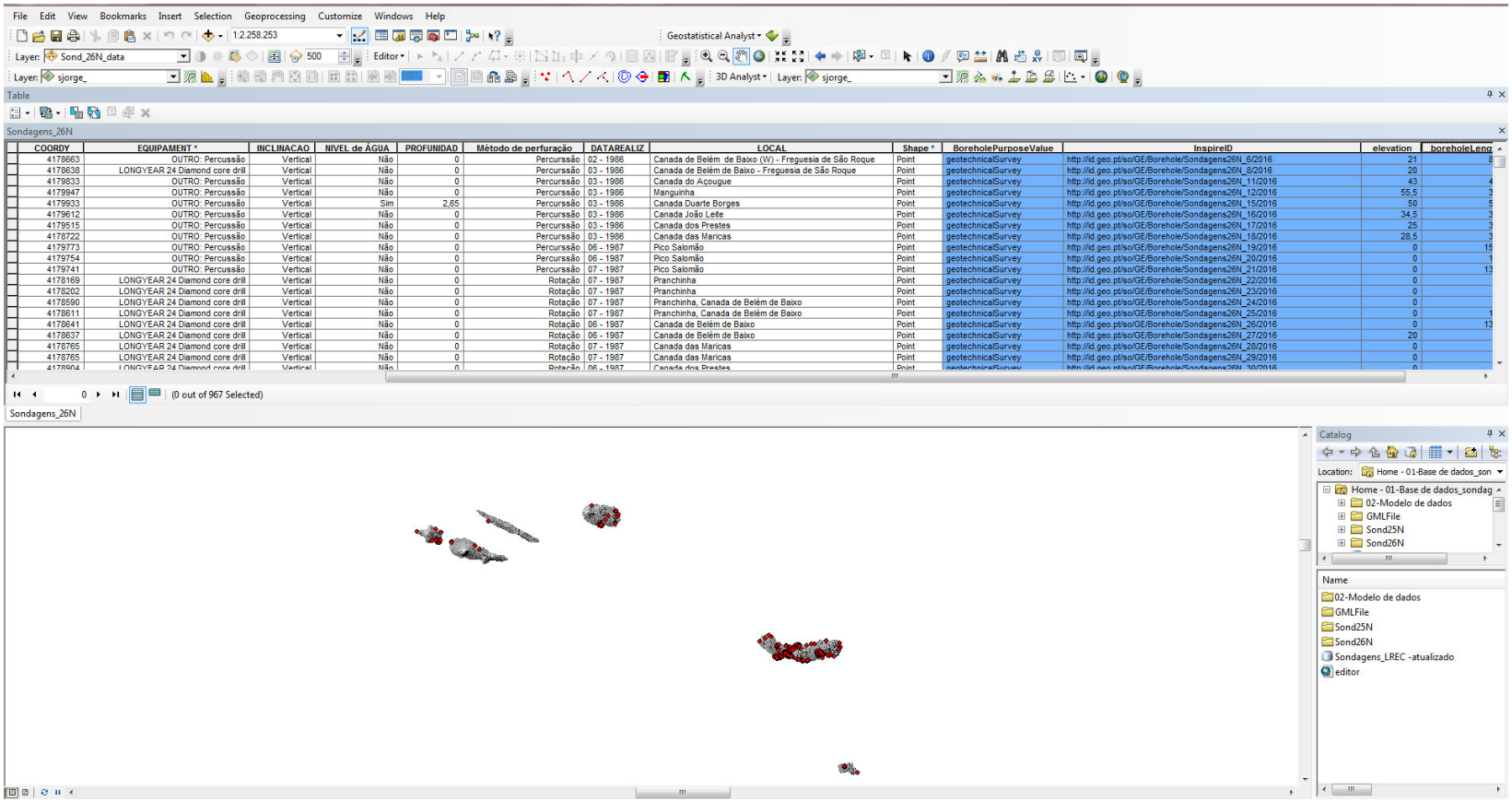
Value type:	MappedInterval
Definition:	1-D MappedFeature instances that are logged (interpreted) intervals within a

2. CASO DE ESTUDO: SONDAGENS GEOTÉCNICAS



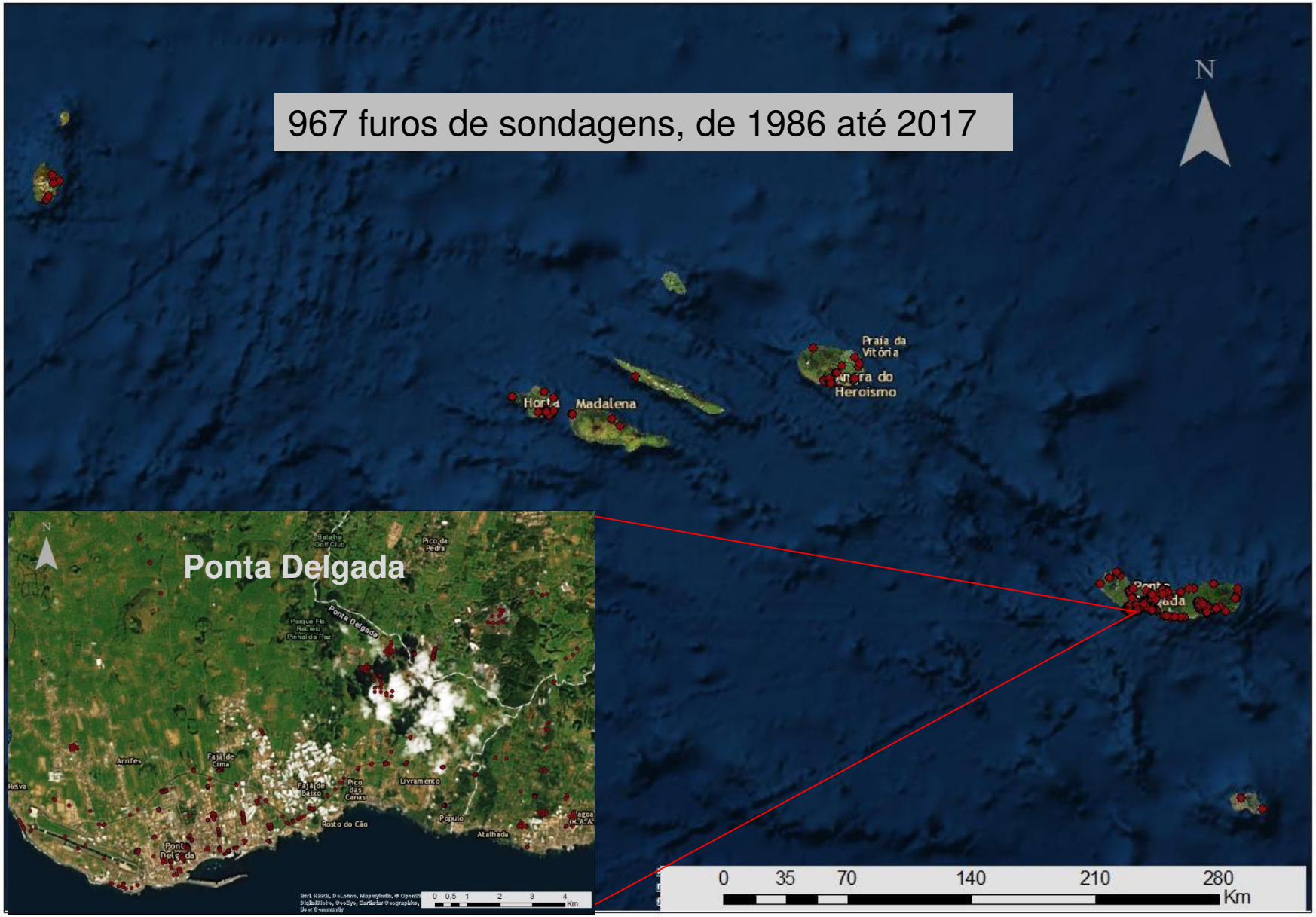
- Introdução de conteúdos sobre sondagens geotécnicas: Informações gerais; localização espacial; caracterização lito-estratigráfica; Índices de qualidade de maciços rochosos; resultados de ensaios de campo e de laboratório, desde o início da atividade do LREC (1986) até ao presente.

2. CASO DE ESTUDO: SONDAGENS GEOTÉCNICAS



COORDY	EQUIPAMENT *	INCLINACAO	NIVEL de ÁGUA	PROFUNIDAD	Método de perfuração	DATAREALIZ	LOCAL	Shape *	BoreholePurposeValue	InspireID	elevation	boreholeLeng
4178663	OUTRO: Percussão	Vertical	Não	0	Percurssão	02 - 1986	Canada de Belém de Baixo (W) - Freguesia de São Roque	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_6/2016	21	8
4178638	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Percurssão	03 - 1986	Canada de Belém de Baixo - Freguesia de São Roque	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_8/2016	20	
4179833	OUTRO: Percussão	Vertical	Não	0	Percurssão	03 - 1986	Canada do Acougue	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_11/2016	43	4
4179947	OUTRO: Percussão	Vertical	Não	0	Percurssão	03 - 1986	Manguinha	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_12/2016	55,5	3
4179933	OUTRO: Percussão	Vertical	Sim	2,65	Percurssão	03 - 1986	Canada Duarte Borges	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_15/2016	50	5
4179612	OUTRO: Percussão	Vertical	Não	0	Percurssão	03 - 1986	Canada João Leite	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_16/2016	34,5	3
4179515	OUTRO: Percussão	Vertical	Não	0	Percurssão	03 - 1986	Canada dos Prestes	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_17/2016	25	3
4178722	OUTRO: Percussão	Vertical	Não	0	Percurssão	03 - 1986	Canada das Maricas	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_18/2016	28,5	3
4179773	OUTRO: Percussão	Vertical	Não	0	Percurssão	06 - 1987	Pico Salomão	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_19/2016	0	15
4179754	OUTRO: Percussão	Vertical	Não	0	Percurssão	06 - 1987	Pico Salomão	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_20/2016	0	1
4179741	OUTRO: Percussão	Vertical	Não	0	Percurssão	07 - 1987	Pico Salomão	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_21/2016	0	13
4178169	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	07 - 1987	Pranchinha	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_22/2016	0	
4178202	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	07 - 1987	Pranchinha	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_23/2016	0	
4178590	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	07 - 1987	Pranchinha, Canada de Belém de Baixo	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_24/2016	0	
4178611	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	07 - 1987	Pranchinha, Canada de Belém de Baixo	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_25/2016	0	1
4178641	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	06 - 1987	Canada de Belém de Baixo	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_26/2016	0	13
4178637	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	06 - 1987	Canada de Belém de Baixo	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_27/2016	20	
4178765	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	07 - 1987	Canada das Maricas	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_28/2016	0	
4178765	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	07 - 1987	Canada das Maricas	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_29/2016	0	
4178904	LONGYEAR 24 Diamond core drill	Vertical	Não	0	Rotação	06 - 1987	Canada dos Prestes	Point	geotechnicalSurvey	http://id.geo.pt/so/GE/Borehole/Sondagens26N_30/2016	0	

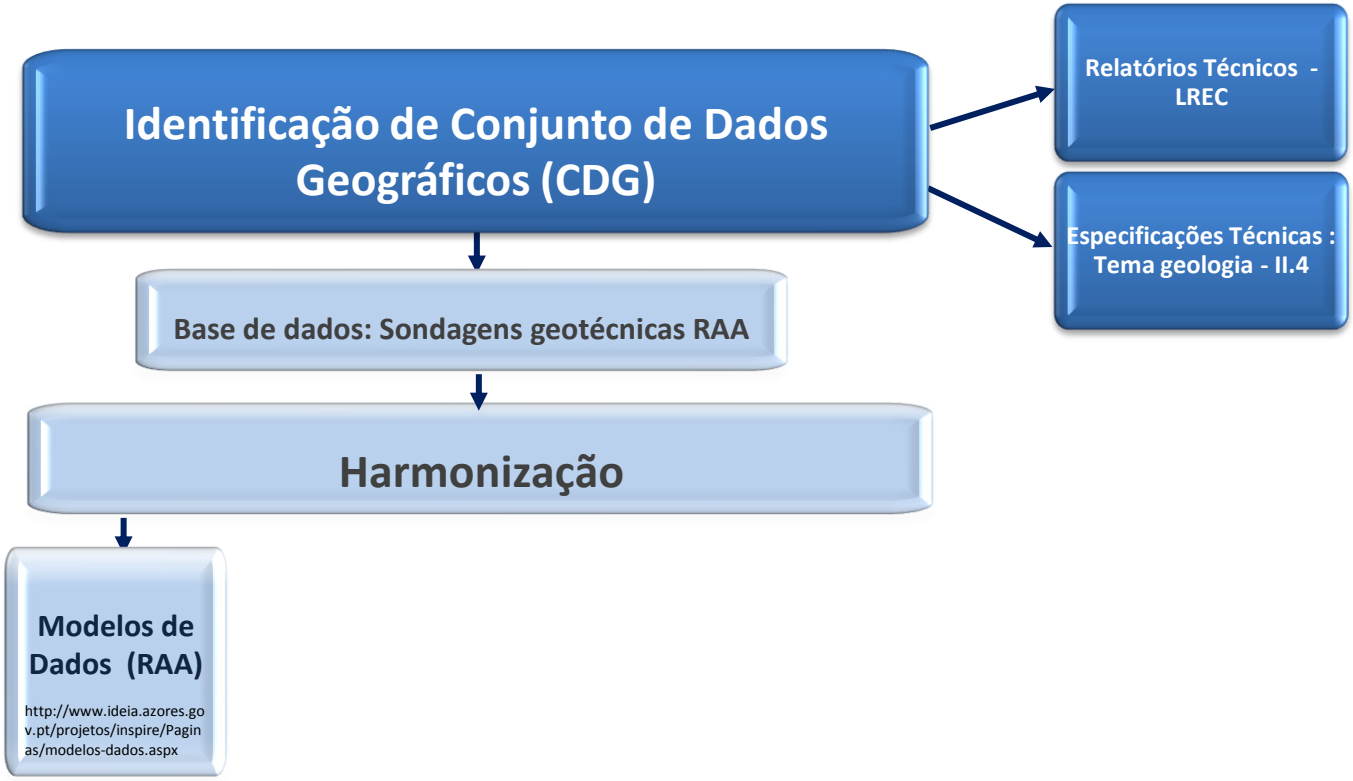
2. CASO DE ESTUDO: SONDAGENS GEOTÉCNICAS



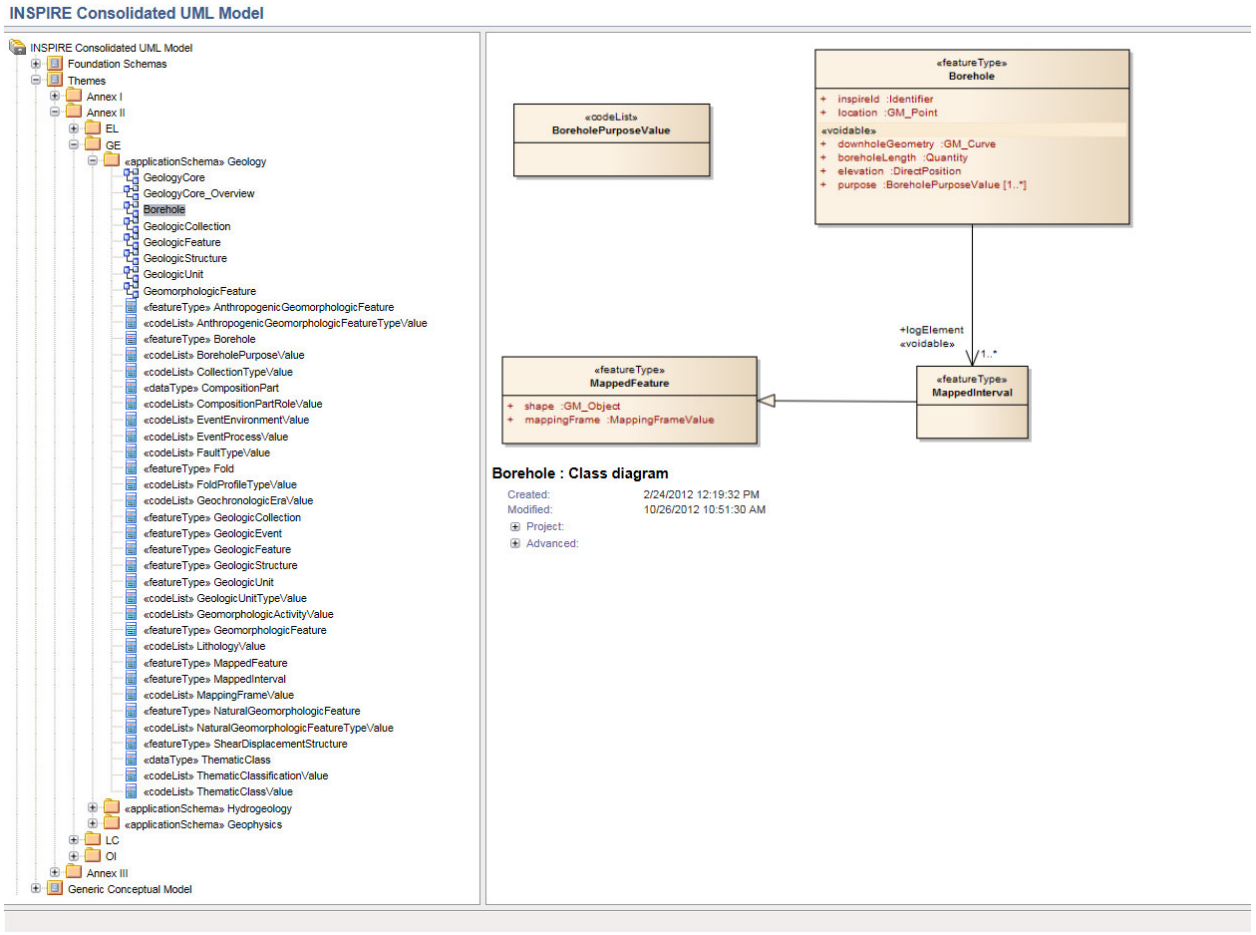
3. HARMONIZAÇÃO

1º ETAPA

2º ETAPA



3. HARMONIZAÇÃO



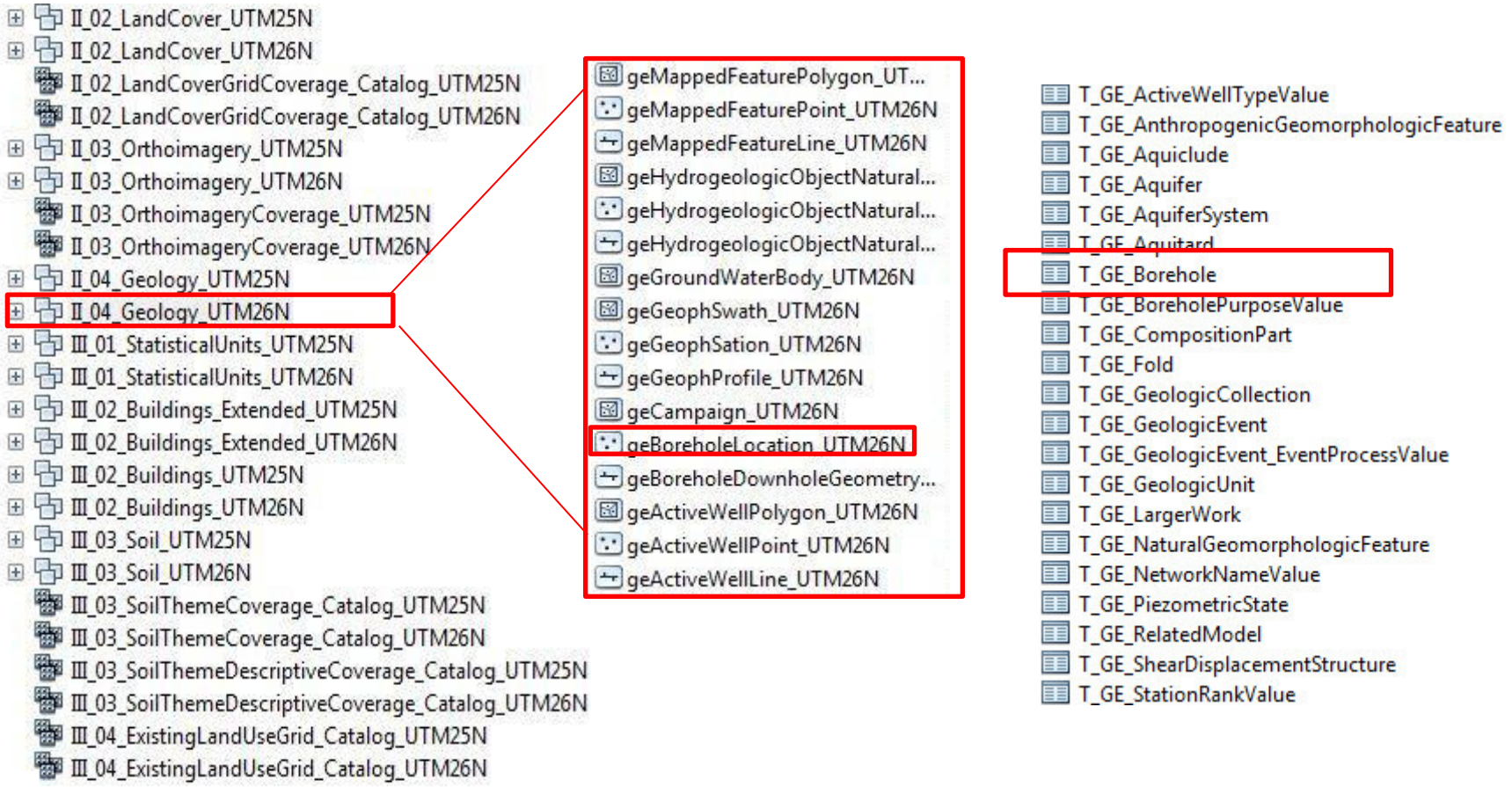
Modelo UML: visão geral da esquematização da informação sobre furos (boreholes)

http://inspire.ec.europa.eu/data-model/approved/r4618-ir/html/

3. HARMONIZAÇÃO

❑ Modelo de Dados RAA

http://www.ideia.azores.gov.pt/projetos/inspire/Paginas/modelos-dados.aspx

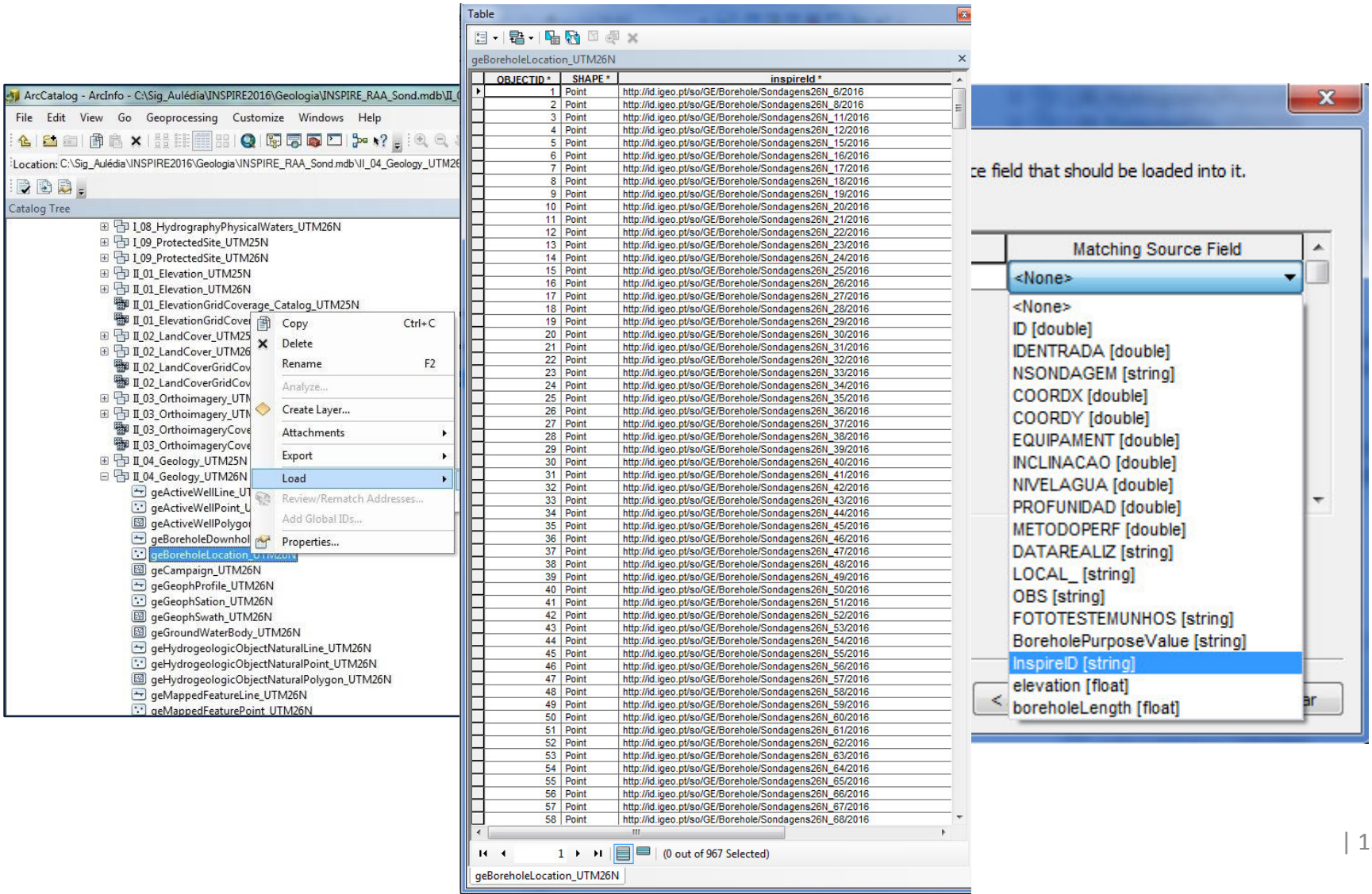


✓ Espelha a arquitetura dos UML - Geologia

3. HARMONIZAÇÃO

❑ Modelo de Dados RAA

✓ Estrutura equivalente aos esquemas UML das especificações



3. HARMONIZAÇÃO

❑ Modelo de Dados RAA

✓ Criação de shapefile: input para Hale

Table

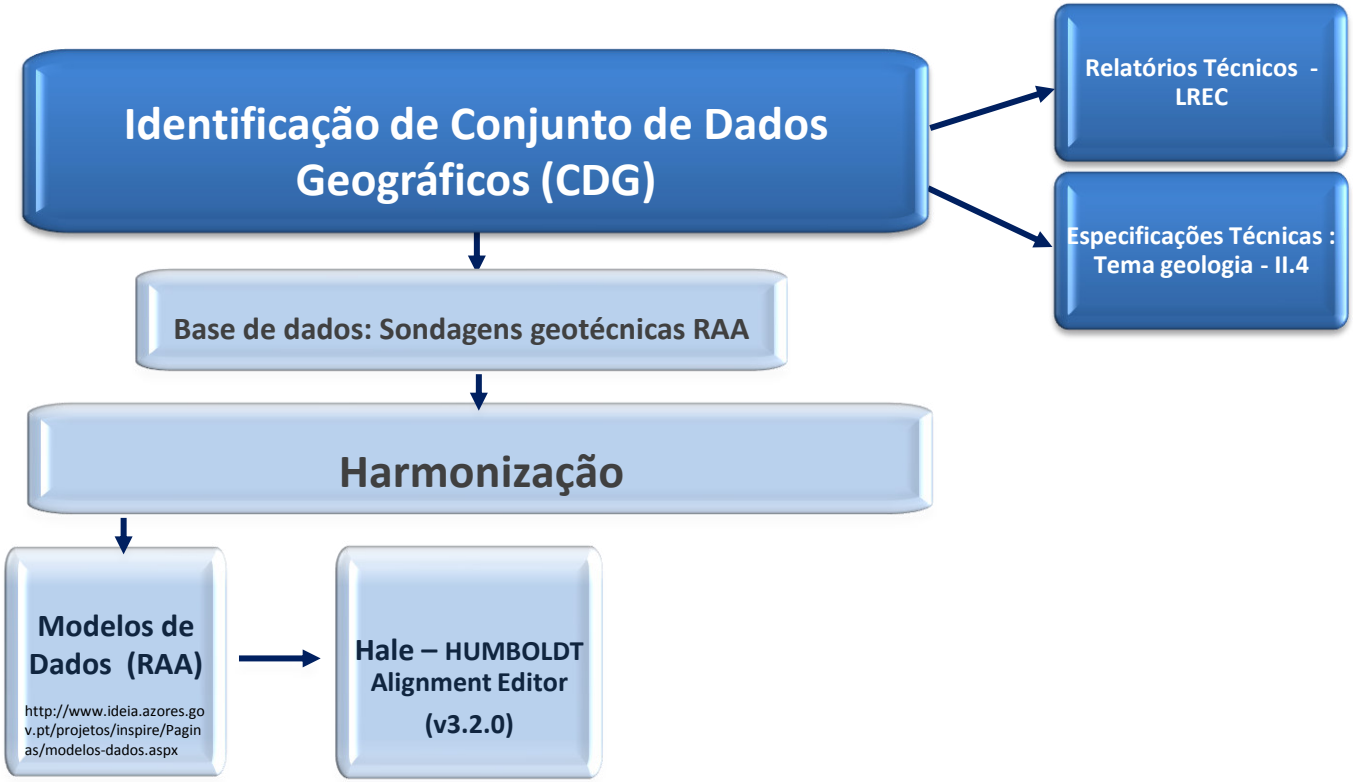
borehole_2017

FID	Shape	OBJECTID	inspireId	boreholeLe	elevation	elevation	downholeGe	BPurposeVa	nameSpace	localid	versionId
0	Point	1	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_6/2017	8,19	21		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_6	2017
1	Point	2	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_8/2017	8,5	20		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_8	2017
2	Point	3	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_11/2017	4,04	43		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_11	2017
3	Point	4	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_12/2017	3,97	55,5		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_12	2017
4	Point	5	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_15/2017	5,33	50		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_15	2017
5	Point	6	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_16/2017	3,53	34,5		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_16	2017
6	Point	7	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_17/2017	3,97	25		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_17	2017
7	Point	8	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_18/2017	3,01	28,5		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_18	2017
8	Point	9	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_19/2017	15,05	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_19	2017
9	Point	10	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_20/2017	10,9	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_20	2017
10	Point	11	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_21/2017	13,95	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_21	2017
11	Point	12	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_22/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_22	2017
12	Point	13	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_23/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_23	2017
13	Point	14	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_24/2017	10	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_24	2017
14	Point	15	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_25/2017	12,5	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_25	2017
15	Point	16	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_26/2017	13,55	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_26	2017
16	Point	17	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_27/2017	11	20		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_27	2017
17	Point	18	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_28/2017	6	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_28	2017
18	Point	19	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_29/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_29	2017
19	Point	20	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_30/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_30	2017
20	Point	21	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_31/2017	7,65	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_31	2017
21	Point	22	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_32/2017	15	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_32	2017
22	Point	23	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_33/2017	9	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_33	2017
23	Point	24	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_34/2017	12,5	34,5		Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_34	2017
24	Point	25	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_35/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_35	2017
25	Point	26	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_36/2017	6,1	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_36	2017
26	Point	27	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_37/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_37	2017
27	Point	28	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_38/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_38	2017
28	Point	29	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_39/2017	8,5	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_39	2017
29	Point	30	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_40/2017	10	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_40	2017
30	Point	31	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_41/2017	14	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_41	2017
31	Point	32	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_42/2017	14	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_42	2017
32	Point	33	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_43/2017	9	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_43	2017
33	Point	34	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_44/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_44	2017
34	Point	35	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_45/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_45	2017
35	Point	36	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_46/2017	9,5	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_46	2017
36	Point	37	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_47/2017	12,4	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_47	2017
37	Point	38	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_48/2017	8,85	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_48	2017
38	Point	39	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_49/2017	8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_49	2017
39	Point	40	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_50/2017	7	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_50	2017
40	Point	41	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_51/2017	3,2	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_51	2017
41	Point	42	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_52/2017	6	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_52	2017
42	Point	43	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_53/2017	5,9	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_53	2017
43	Point	44	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_54/2017	4,45	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_54	2017
44	Point	45	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_55/2017	2,8	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_55	2017
45	Point	46	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_56/2017	4,6	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_56	2017
46	Point	47	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_57/2017	3,25	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_57	2017
47	Point	48	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_58/2017	3	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_58	2017
48	Point	49	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_59/2017	4,1	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_59	2017
49	Point	50	http://id.igeo.pt/so/GE/Borehole/Sondagens26N_60/2017	4,5	0	Unpopulated	Unknown	geotechnicalSurvey	http://id.igeo.pt/so/GE/Borehole	Sondagens26N_60	2017

0 (0 out of 967 Selected)

borehole_2017

3. HARMONIZAÇÃO

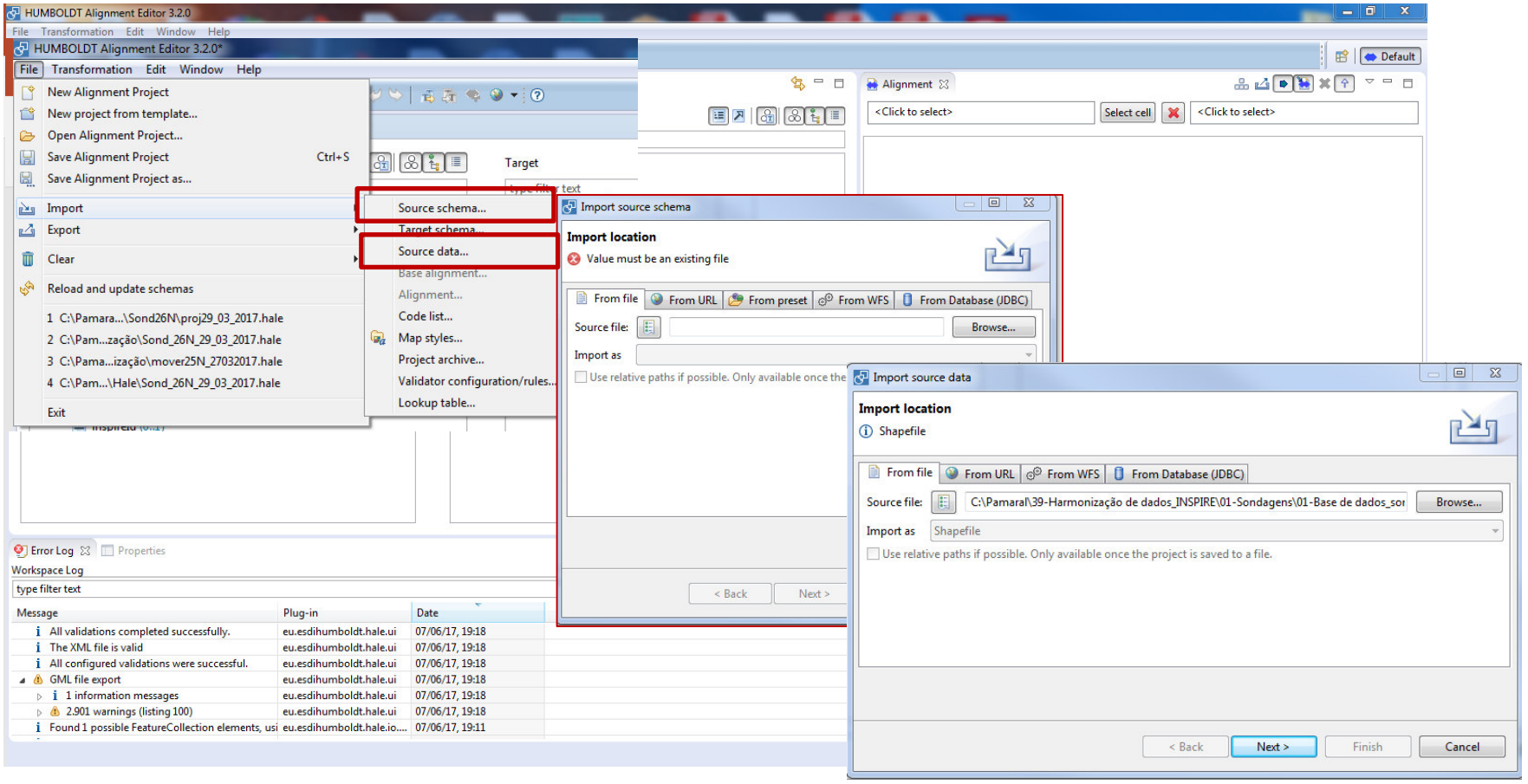


The HUMBOLDT Alignment Editor - HALE



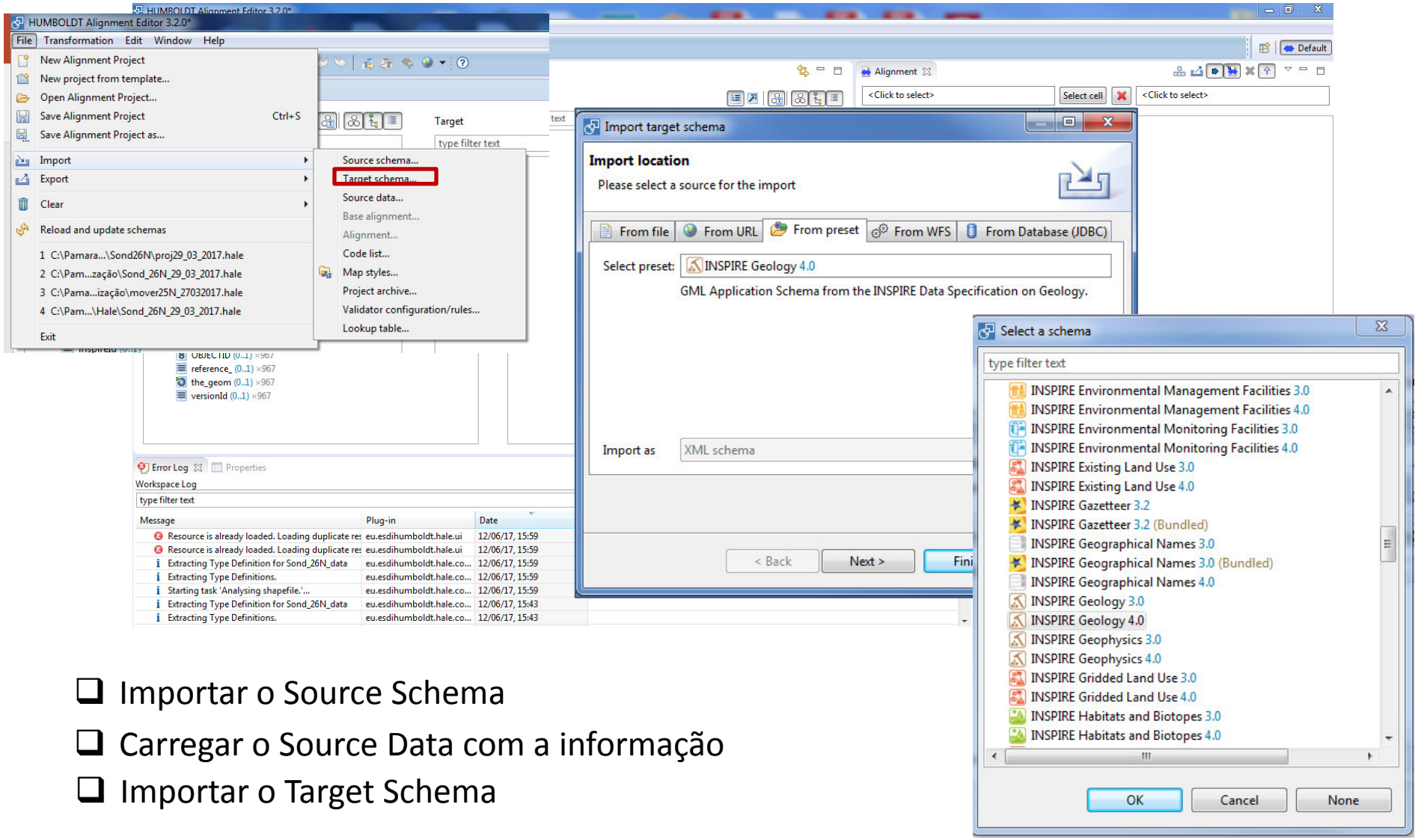
http://www.esdicommunity.eu/projects/hale

3. HARMONIZAÇÃO



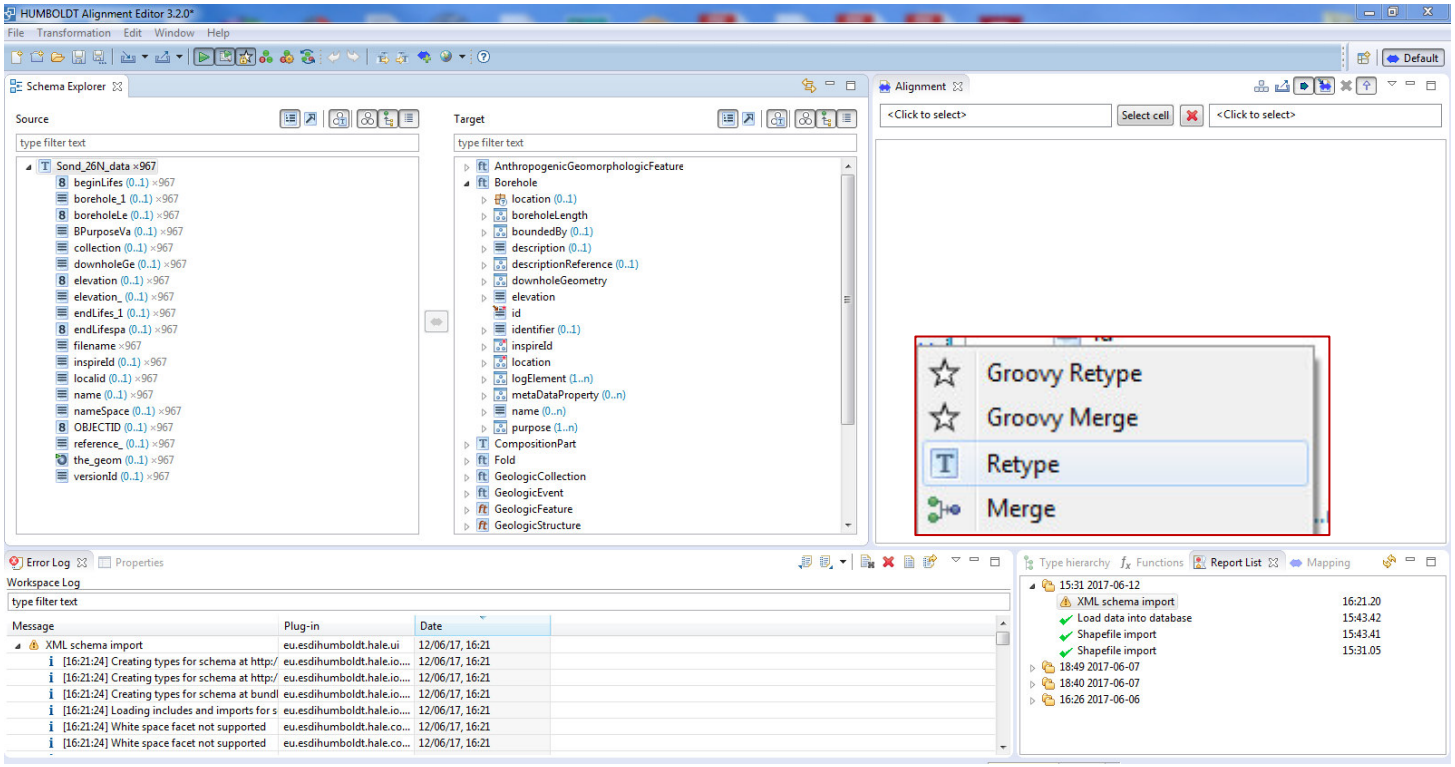
- Importar o Source Schema
- Carregar o Source Data com a informação

3. HARMONIZAÇÃO



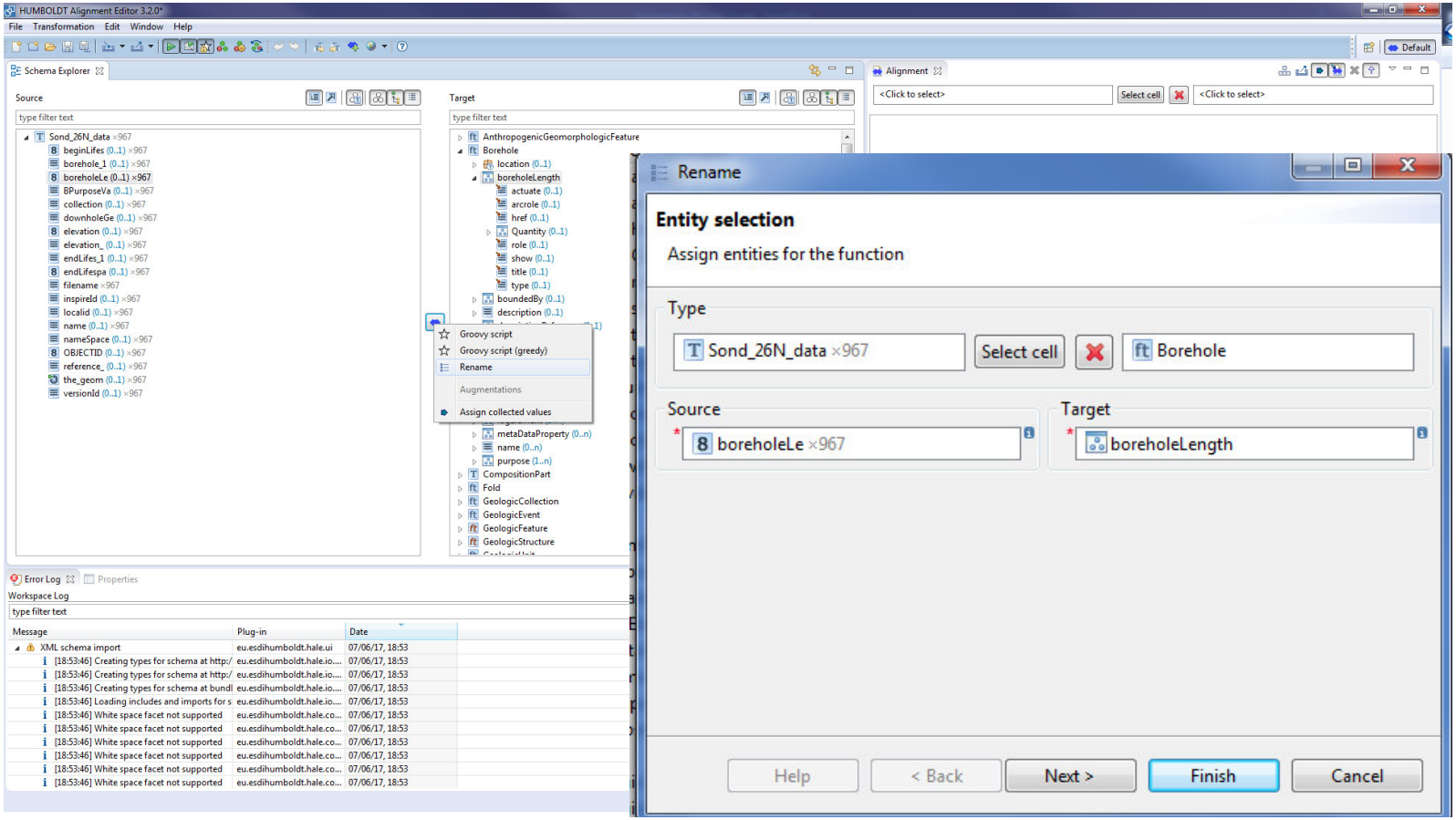
- ❑ Importar o Source Schema
- ❑ Carregar o Source Data com a informação
- ❑ Importar o Target Schema

3. HARMONIZAÇÃO



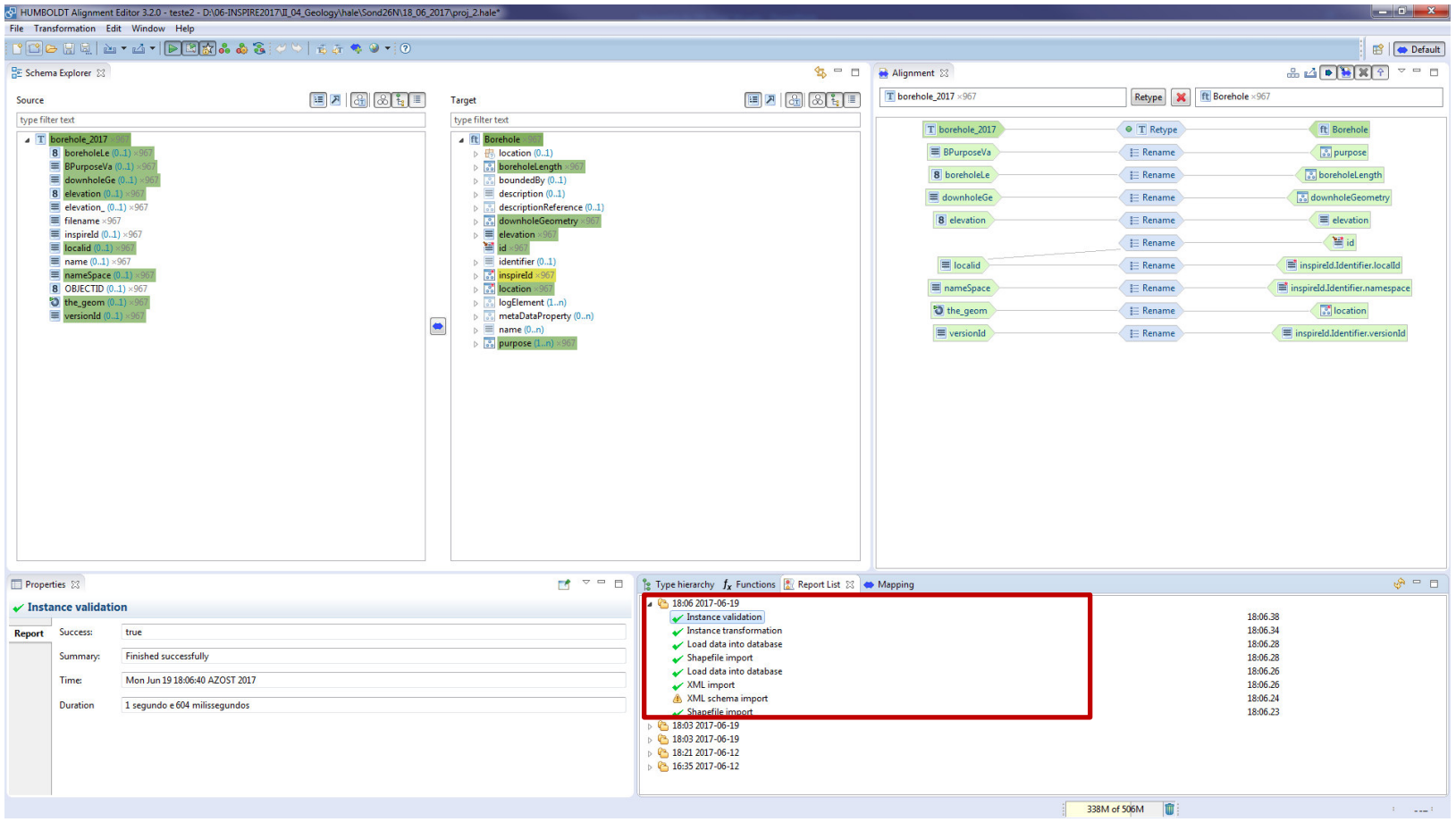
- Fazer ligação da nossa Source com a Target através da mapping function - **RETYPE**

3. HARMONIZAÇÃO



- Passagem de dados (informação) do Source para o Target – **função RENAME**

3. HARMONIZAÇÃO

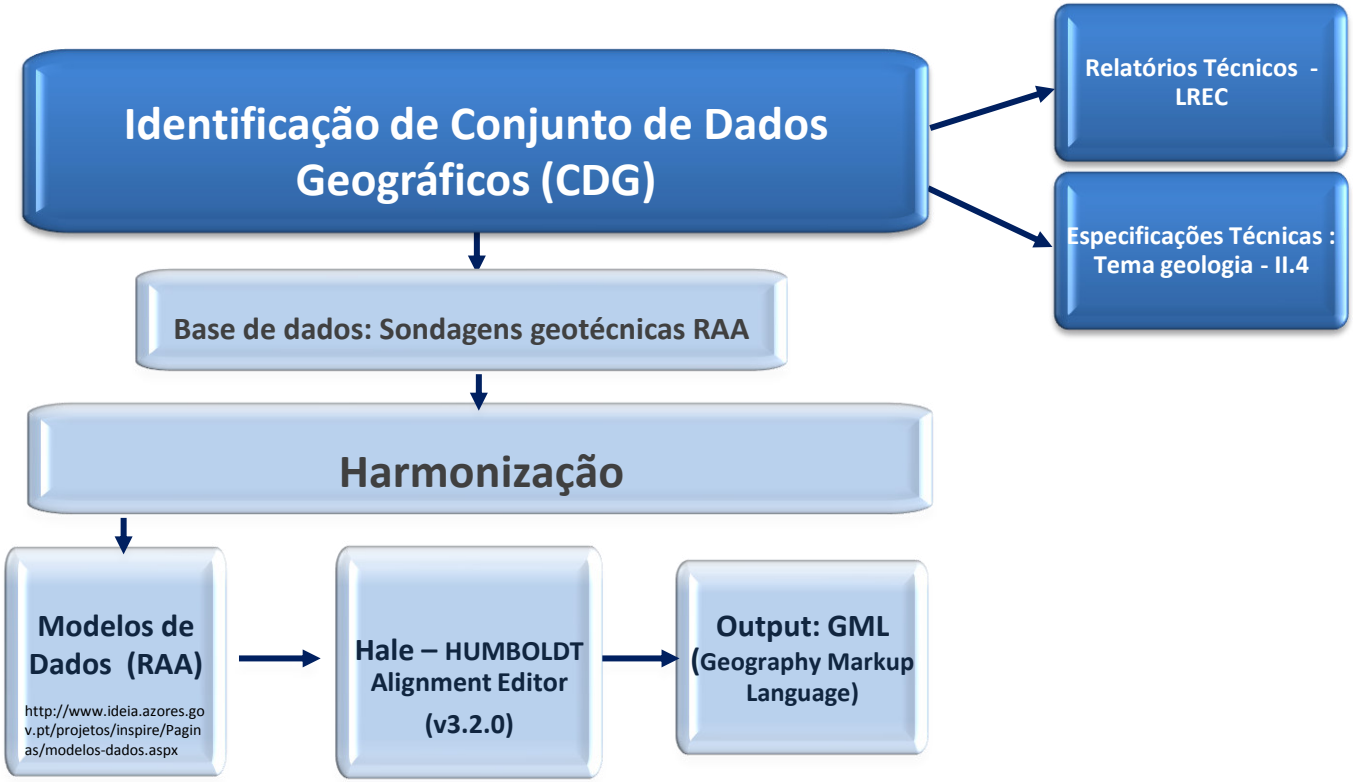


- ✓ Após a realização do mapeamento das relações entre o Source Schema e Target resolvem-se os avisos.
- ✓ Instâncias validadas.

3. HARMONIZAÇÃO

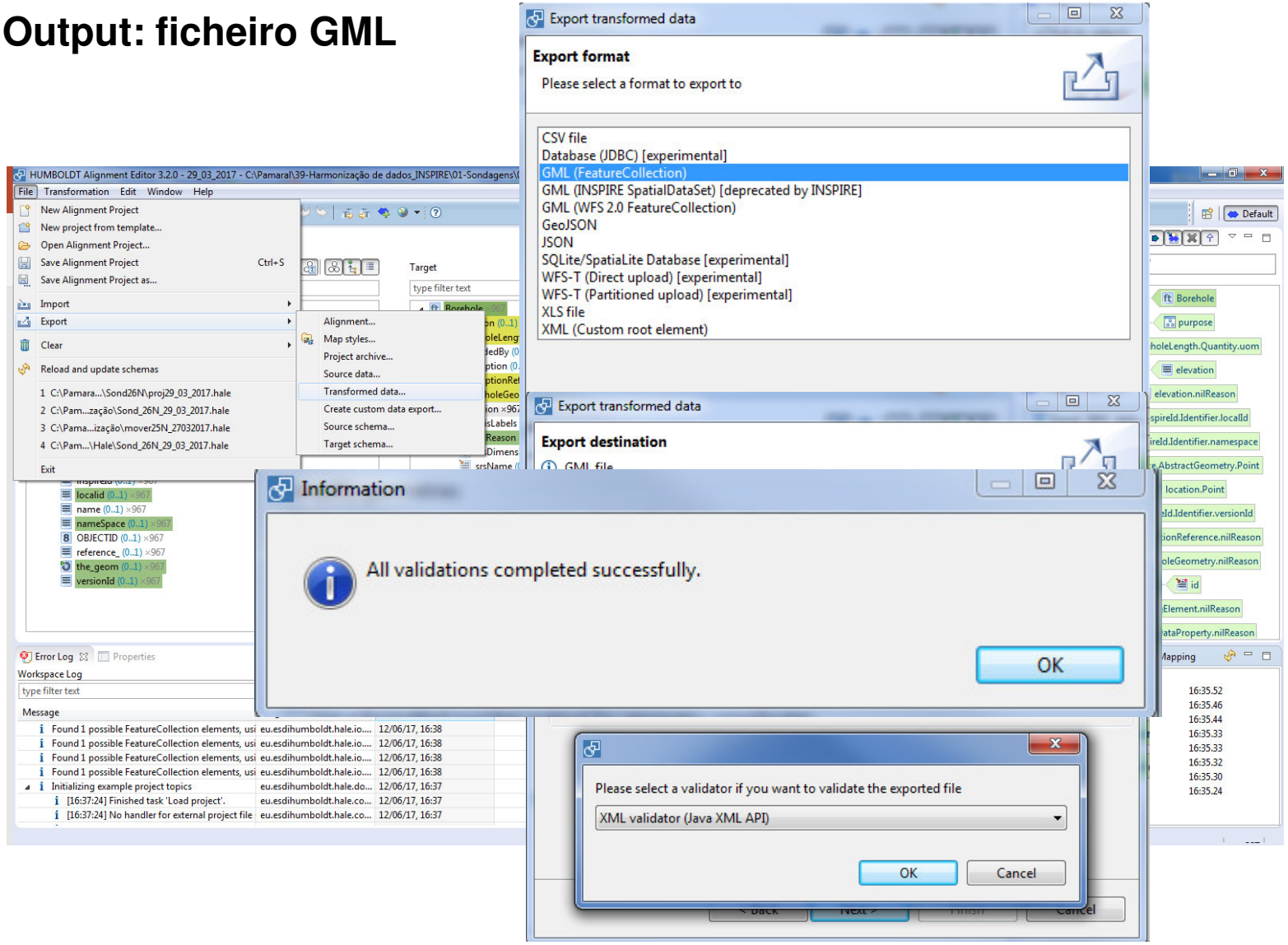
1º ETAPA

2º ETAPA

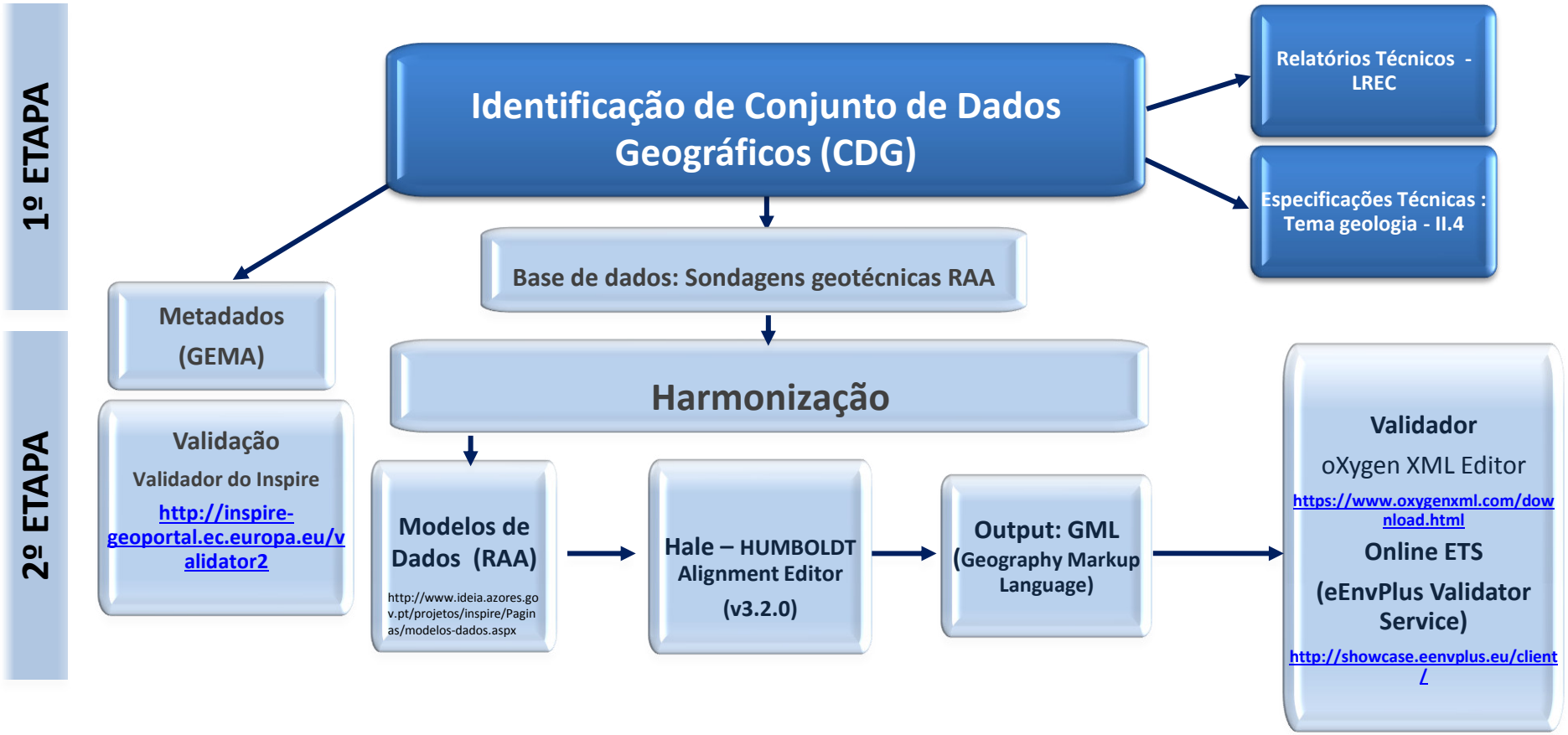


3. HARMONIZAÇÃO

- **Output: ficheiro GML**



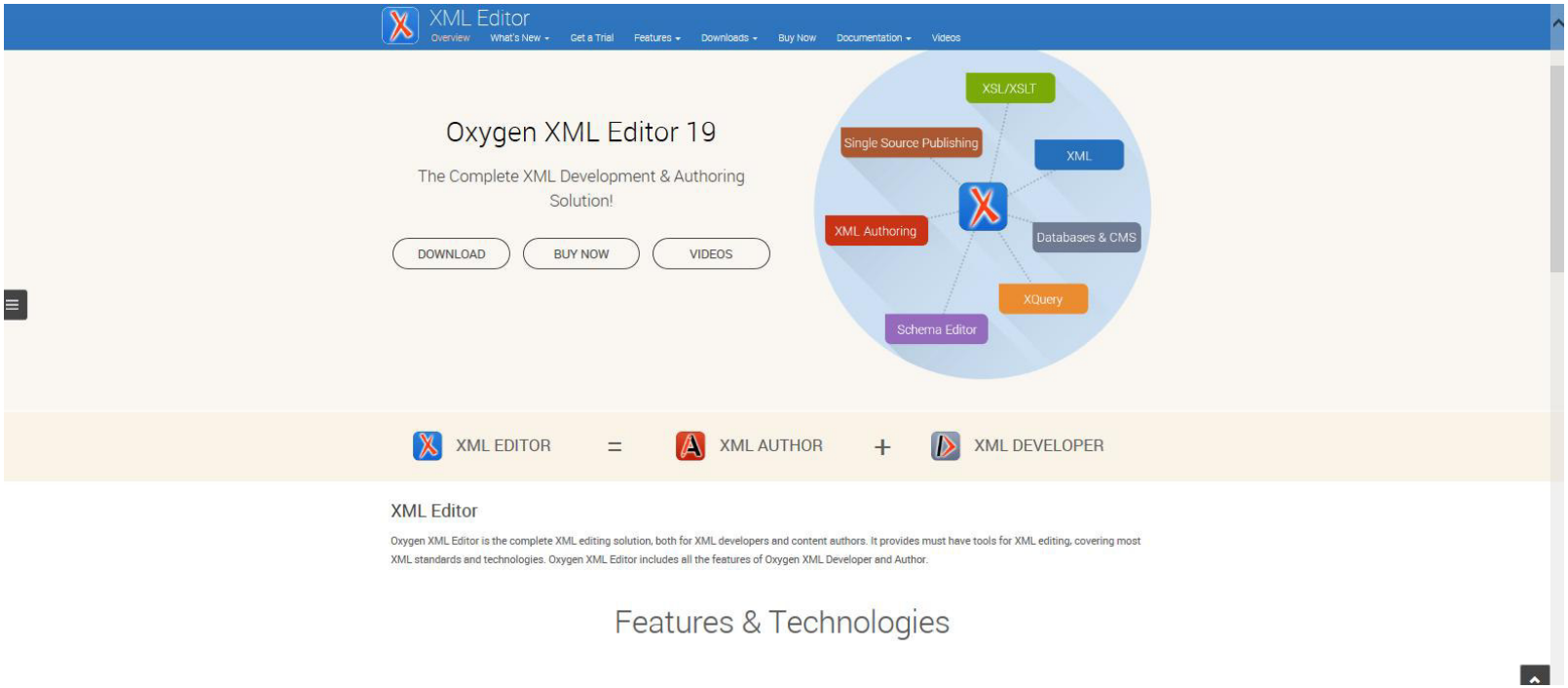
4. VALIDAÇÃO


1º ETAPA
2º ETAPA
Identificação de Conjunto de Dados Geográficos (CDG)
Relatórios Técnicos - LREC
Especificações Técnicas : Tema geologia - II.4
Base de dados: Sondagens geotécnicas RAA
Metadados (GEMA)
Harmonização
Validação
Validador do Inspire
http://inspire-geoportal.ec.europa.eu/validator2
Modelos de Dados (RAA)
http://www.ideia.azores.gov.pt/projetos/inspire/Paginas/modelos-dados.aspx
Hale – HUMBOLDT Alignment Editor (v3.2.0)
Output: GML (Geography Markup Language)
Validador
oXygen XML Editor
https://www.oxygenxml.com/download.html
Online ETS
(eEnvPlus Validator Service)
http://showcase.eenvplus.eu/client/

4. VALIDAÇÃO

Objetivo da Validação: Verificar se o conjunto de dados fornecido segue as regras de codificação padrão especificadas no anexo II.4

Validador: [Oxygen XML Editor 19](https://www.oxygenxml.com/) https://www.oxygenxml.com/



4. VALIDAÇÃO

A metodologia de validação foi com base no target shema – GeologyCore.XSD

O esquema XML está disponível no website INSPIRE: http://inspire.ec.europa.eu/schemas/

Index of /schemas

Name	Last modified	Size	Description
Parent Directory		-	
ac-mf/	2015-04-29 10:03	-	
act-core/	2015-04-29 10:03	-	
ad/	2015-04-29 10:03	-	
af/	2015-04-29 10:03	-	
am/	2015-04-29 10:03	-	
au/	2015-04-29 10:03	-	
base/	2015-04-29 10:03	-	
base2/	2015-04-29 10:03	-	
br/	2015-04-29 10:03	-	
bu-base/	2015-04-29 10:03	-	
bu-core2d/	2015-04-29 10:03	-	
bu-core3d/	2015-04-29 10:03	-	
bu/	2015-04-29 10:03	-	
common/	2015-04-29 10:03	-	
cp/	2015-04-29 10:03	-	
cvbase/	2015-04-29 10:03	-	
cvgvp/	2015-04-29 10:03	-	
ef/	2015-04-29 10:03	-	
el-bas/	2015-04-29 10:03	-	
el-cov/	2015-04-29 10:03	-	
el-tin/	2015-04-29 10:03	-	
el-vec/	2015-04-29 10:03	-	
elu/	2015-04-29 10:03	-	
er-b/	2015-04-29 10:03	-	
er-c/	2015-04-29 10:03	-	
er-v/	2015-04-29 10:03	-	
er/	2015-04-29 10:03	-	
gaz/	2015-04-29 10:03	-	
ge-core/	2015-04-29 10:03	-	

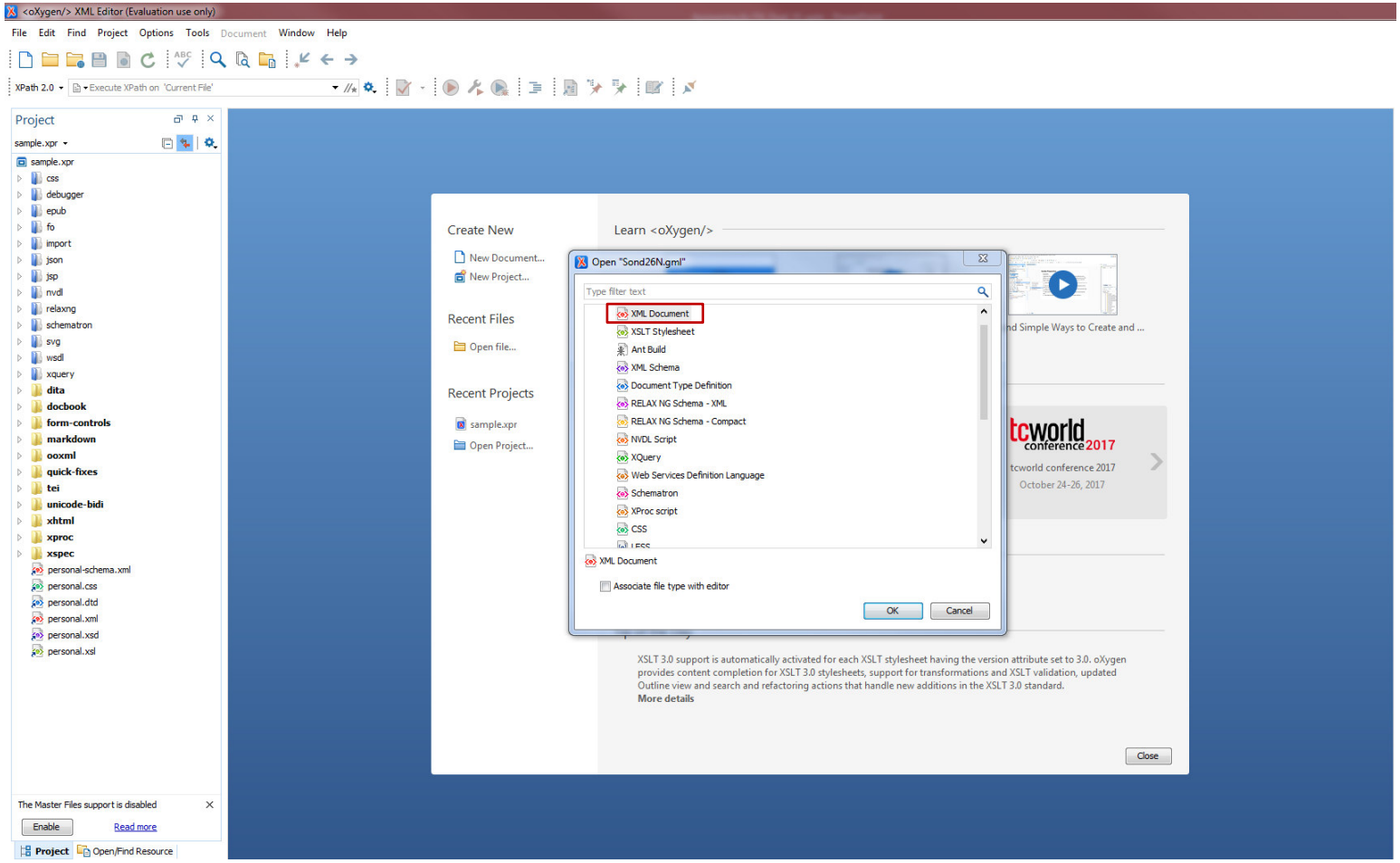
Index of /schemas/ge-core

Name	Last modified	Size	Description
Parent Directory		-	
3.0/	2015-04-29 10:03	-	
4.0/	2015-04-29 10:03	-	

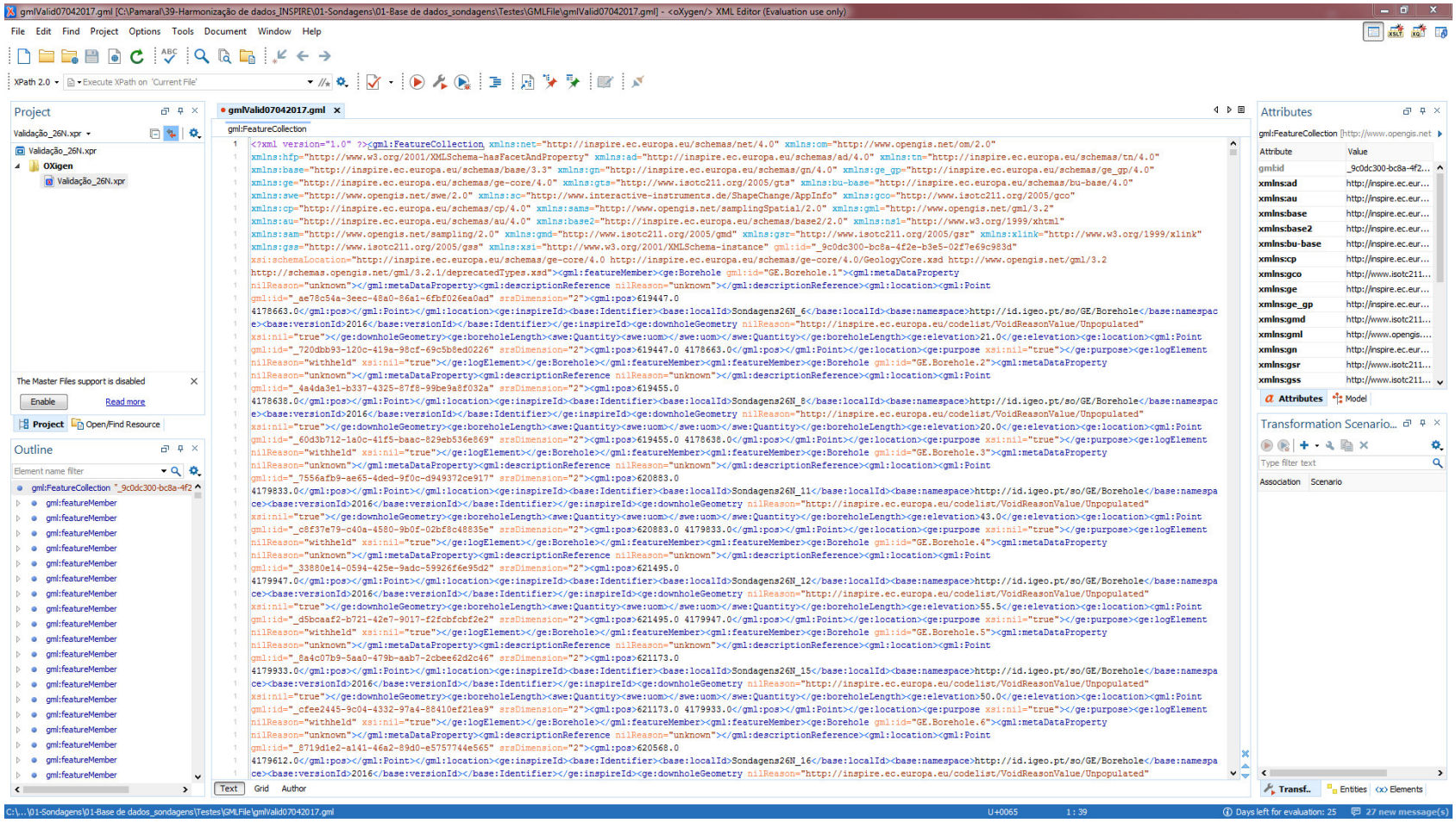
Index of /schemas/ge-core/4.0

Name	Last modified	Size	Description
Parent Directory		-	
GeologyCore.xsd	2015-04-28 18:36	37K	

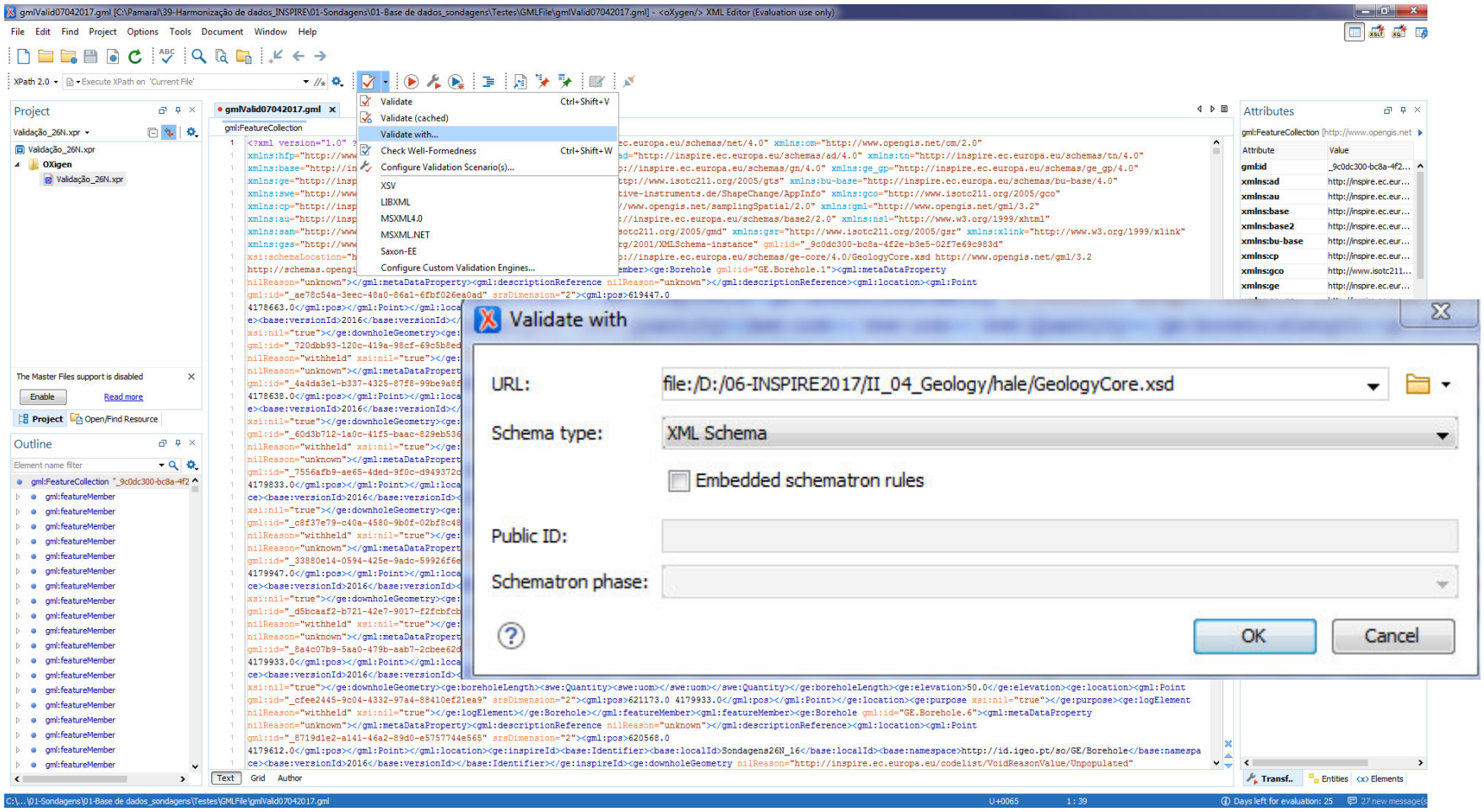
4. VALIDAÇÃO


<oXygen/> XML Editor (Evaluation use only)
File Edit Find Project Options Tools Document Window Help
XPath 2.0
Execute XPath on 'Current File'
Project
sample.xpr
sample.xpr
css
debugger
epub
fo
import
json
jsp
nvdl
relaxng
schematron
svg
wsdl
xquery
dita
docbook
form-controls
markdown
ooxml
quick-fixes
tei
unicode-bidi
xhtml
xproc
xspec
personal-schema.xml
personal.css
personal.dtd
personal.xml
personal.xsd
personal.xsl
The Master Files support is disabled
Enable
Read more
Project
Open/Find Resource
Create New
New Document...
New Project...
Recent Files
Open file...
Recent Projects
sample.xpr
Open Project...
Learn <oXygen/>
Open "Sond26N.gml"
Type filter text
XML Document
XSLT Stylesheet
Ant Build
XML Schema
Document Type Definition
RELAX NG Schema - XML
RELAX NG Schema - Compact
NVDL Script
XQuery
Web Services Definition Language
Schematron
XProc script
CSS
XML Document
Associate file type with editor
OK
Cancel
tcworld conference 2017
October 24-26, 2017
XSLT 3.0 support is automatically activated for each XSLT stylesheet having the version attribute set to 3.0. oXygen provides content completion for XSLT 3.0 stylesheets, support for transformations and XSLT validation, updated Outline view and search and refactoring actions that handle new additions in the XSLT 3.0 standard.
More details
Close

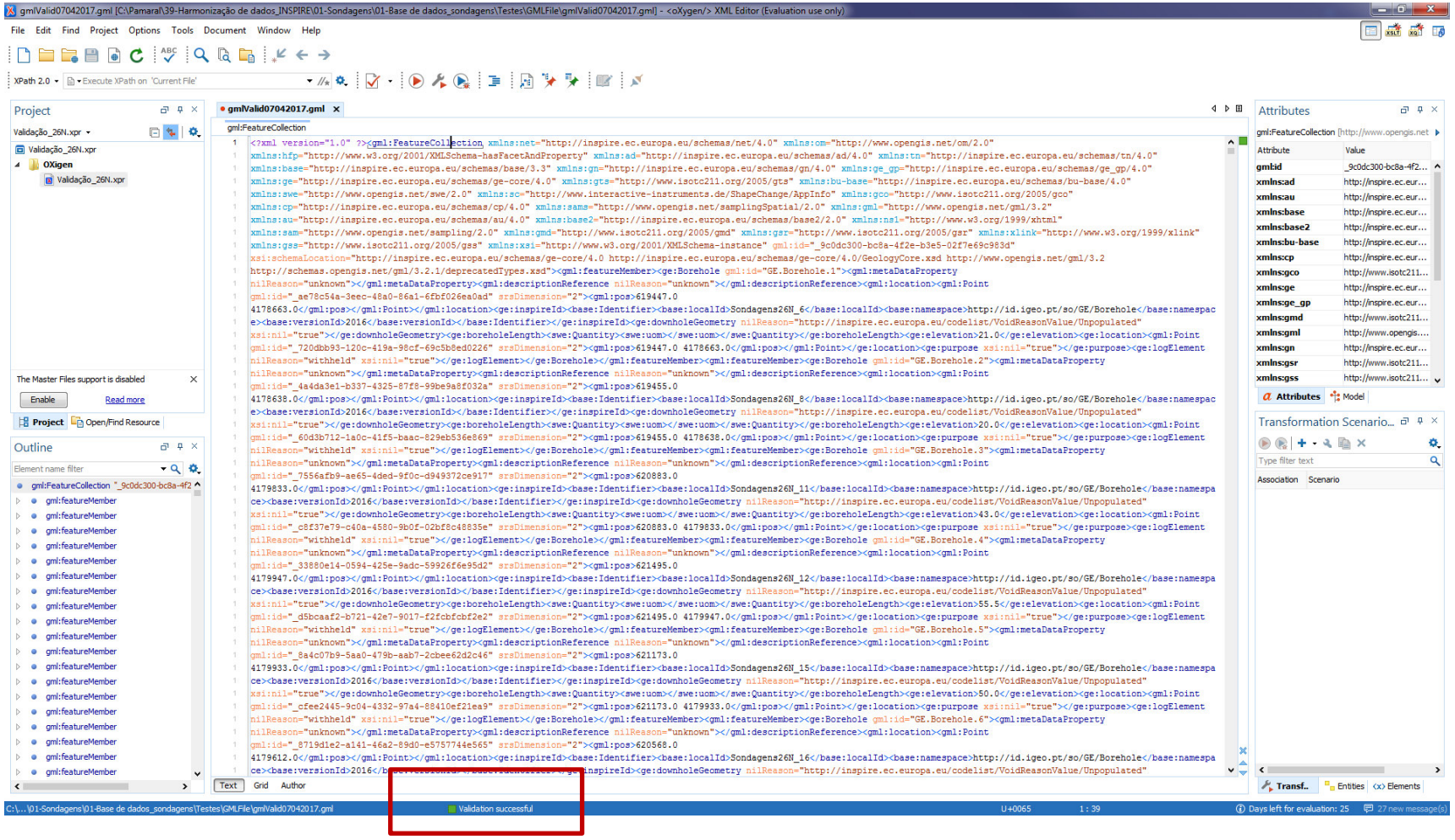
4. VALIDAÇÃO


gmlValid07042017.gml [C:\Pamaral\39-Harmonização de dados_INSPIRE\01-Sondagens\01-Base de dados_sondagens\Testes\GMLFile\gmlValid07042017.gml] - <oXygen/> XML Editor (Evaluation use only)
File Edit Find Project Options Tools Document Window Help
Project
Validação_26N.xpr
OXigen
Validação_26N.xpr
The Master Files support is disabled
Enable
Read more
Project
Open/Find Resource
Outline
Element name filter
gml:FeatureCollection "_9c0dc300-bc8a-4f2
gml:featureMember
gmlValid07042017.gml
gml:FeatureCollection
Text
Grid
Author
Attributes
gml:FeatureCollection [http://www.opengis.net
Attribute
Value
gml:id
_9c0dc300-bc8a-4f2...
xmlns:ad
http://inspire.ec.eur...
xmlns:au
http://inspire.ec.eur...
xmlns:base
http://inspire.ec.eur...
xmlns:base2
http://inspire.ec.eur...
xmlns:bu-base
http://inspire.ec.eur...
xmlns:cp
http://inspire.ec.eur...
xmlns:gco
http://www.isotc211...
xmlns:ge
http://inspire.ec.eur...
xmlns:ge_gp
http://inspire.ec.eur...
xmlns:gmd
http://www.isotc211...
xmlns:gml
http://www.opengis....
xmlns:gn
http://inspire.ec.eur...
xmlns:gsr
http://www.isotc211...
xmlns:gss
http://www.isotc211...
Attributes
Model
Transformation Scenario...
Type filter text
Association
Scenario
Transf..
Entities
Elements
C:\...\01-Sondagens\01-Base de dados_sondagens\Testes\GMLFile\gmlValid07042017.gml
U+0065
1 : 39
Days left for evaluation: 25
27 new message(s)

4. VALIDAÇÃO


Validate with
URL:
file:/D:/06-INSPIRE2017/II_04_Geology/hale/GeologyCore.xsd
Schema type:
XML Schema
Embedded schematron rules
Public ID:
Schematron phase:
OK
Cancel

4. VALIDAÇÃO


gmlValid07042017.gml [C:\Pamaral\39-Harmonização de dados_INSPIRE\01-Sondagens\01-Base de dados_sondagens\Testes\GMLFile\gmlValid07042017.gml] - <oXygen/> XML Editor (Evaluation use only)
File Edit Find Project Options Tools Document Window Help
Project
Validação_26N.xpr
OXigen
The Master Files support is disabled
Enable
Read more
Outline
gml:FeatureCollection
gml:featureMember
gmlValid07042017.gml
Attributes
gml:FeatureCollection
Transformation Scenario...
Validation successful

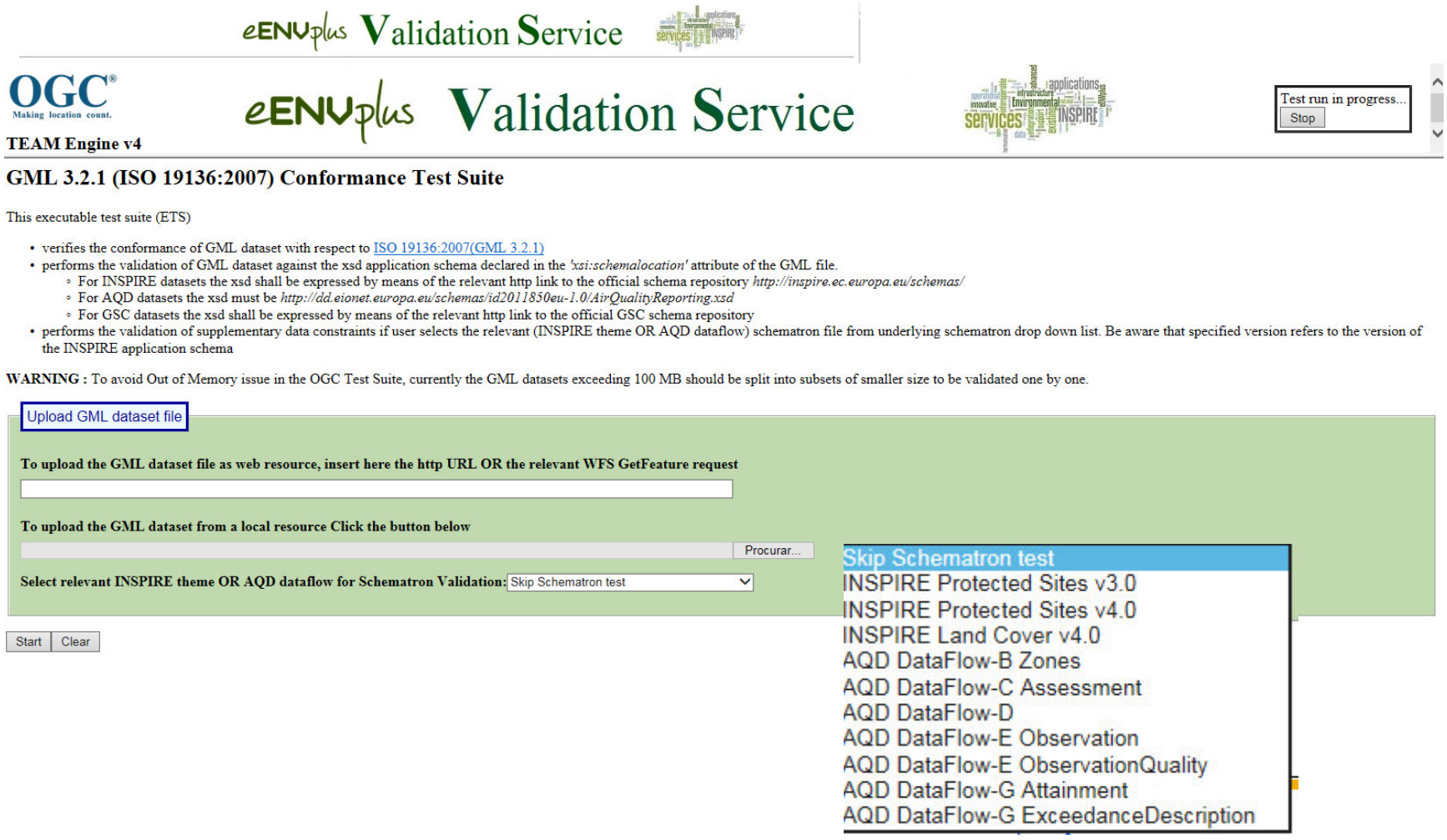
4. VALIDAÇÃO

eENVplus Validation Service



4. VALIDAÇÃO

http://cloud.epsilon-italia.it/eenvplus_new/



5. CONSIDERAÇÕES FINAIS

- Umas das principais tarefas para o processo de harmonização e validação é a obtenção da informação de base (processo mais trabalhoso);

- O modelo de dados da RAA é um contributo importante para o mapeamento da informação, espelhando a arquitetura dos UMls para a harmonização com o Hale;

- A utilização do Hale permite a correspondência entre os esquemas conceptuais e a definição de transformações entre atributos destes mesmos esquemas relativos a sondagens geotécnicas executadas na RAA; Para além disso, permitiu gerar um ficheiro GML que serviu de input para a utilização de validadores;

- Presentemente, o programa Oxygen XML Editor foi aplicado com sucesso na validação da informação (XML). É um validador de simples utilização e intuitivo; Pretende-se complementar a validação da harmonização efetuada com recurso a outros programas.



Obrigada pela atenção!