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Harmonização e validação de um conjunto de dados segundo o INSPIRE: o caso de estudo de sondagens geotécnicas realizadas nos Açores

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ESTRUTURA DA APRESENTAÇÃO

1. INTRODUÇÃO

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1. INTRODUÇÃO

“A Diretiva INSPIRE pretende viabilizar a disponibilização de conjuntos de dados geográficos e serviços de dados geográficos de acordo com princípios e regras comuns, com o intuito de permitir qualquer utilizador pesquisar, visualizar e aceder a informação geográfica proveniente de diferentes Estados Membros (EM)”.



(Decreto Legislativo Regional n.º 42/2012/A de 8 de outubro de 2012)

(IDEiA) - Infraestrutura de Dados Espaciais Interativa dos Açores

- ❑ Disponibiliza serviços de dados geográficos para o público em geral; estabelece o sistema regional de Metadados (GEMA); envolve entidades públicas regionais, câmaras municipais, institutos públicos, empresas de capitais maioritariamente públicos e centros de investigação; e; aplica a diretiva INSPIRE na Região.

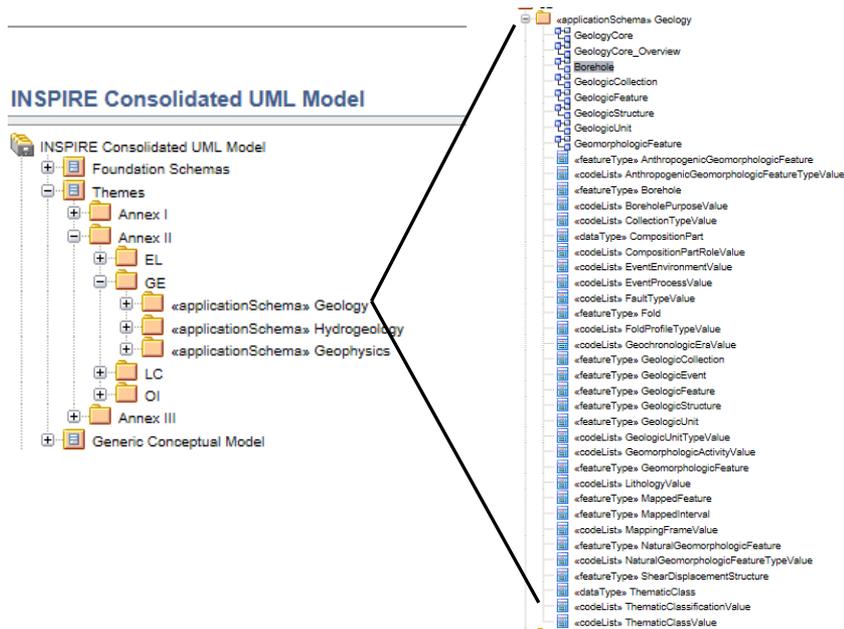


LREC (Açores): enquanto entidade aderente ficou responsável pela produção de informação referente à **Geologia**.



1. INTRODUÇÃO

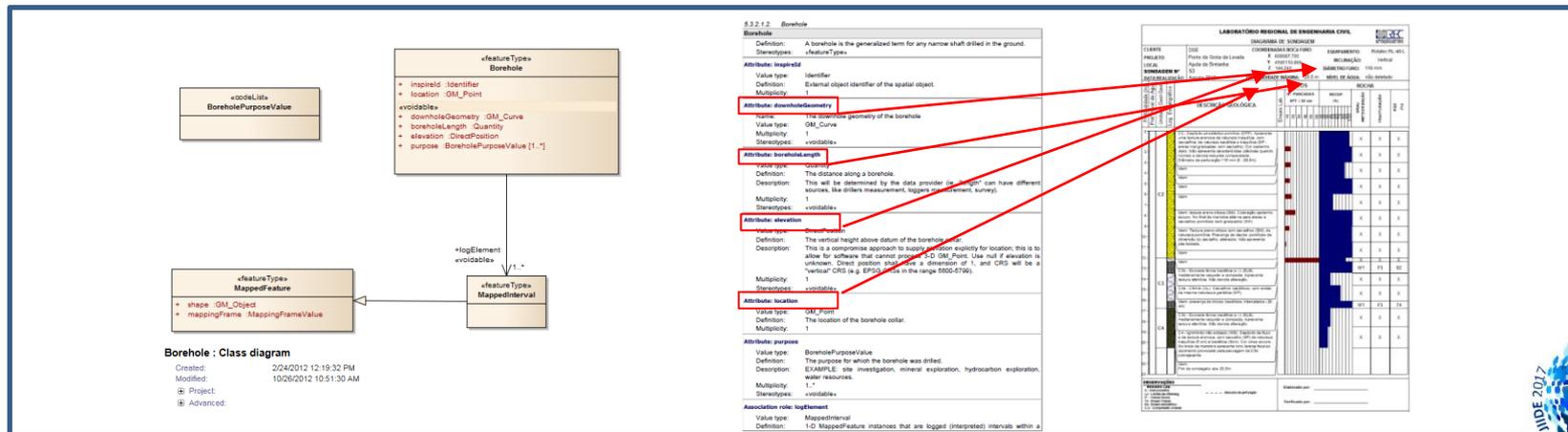
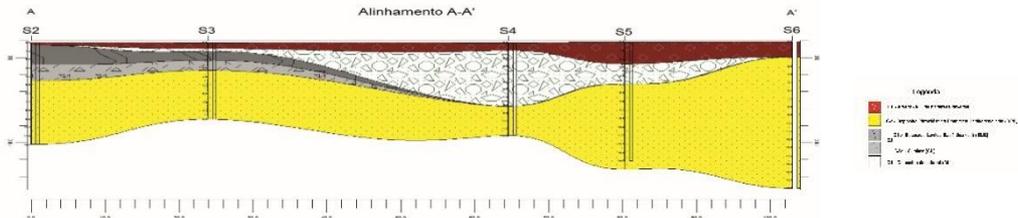
Estruturação do modelo UML consolidado da INSPIRE para o tema da Geologia (Anexo II)



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

2. CASO DE ESTUDO: SONDAGENS GEOTÉCNICAS

- As sondagens geotécnicas (Borehole) são uma importante fonte de informação referente às características geológicas sub-superficiais de uma determinada região;



2. CASO DE ESTUDO: SONDAGENS GEOTÉCNICAS

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

- Sondagens_LREC -atualizado
 - Sondagens_25N
 - Sondagens_25N
 - Sondagens_26N
 - Sondagens_26N
 - ALTERABILIDADE
 - AREAINTERVENCAO
 - CONCELHO_ILHA
 - DADOS_ENTRADA
 - DADOS_OBTIDOS
 - FRATURACAO
 - RL_CONCILHA_AREAINTERVENCAO
 - RL_DADOS_ENTRADA_AREAINTERVENCAO
 - RL_DADOS_ENTRADA_SONDAGENS_25N
 - RL_DADOS_ENTRADA_SONDAGENS_26N
 - RL_DADOS_OBTIDOS_ALTERABILIDADE
 - RL_DADOS_OBTIDOS_FRATURACAO
 - RL_DADOS_OBTIDOS_RQD
 - RL_DADOS_OBTIDOS_SPT
 - RL_SONDAGENS_25N_DADOS_OBTIDOS
 - RL_SONDAGENS_26N_DADOS_OBTIDOS
 - RQD
 - SPT

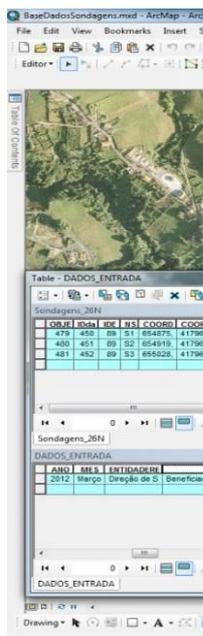


Table - DADOS_ENTRADA

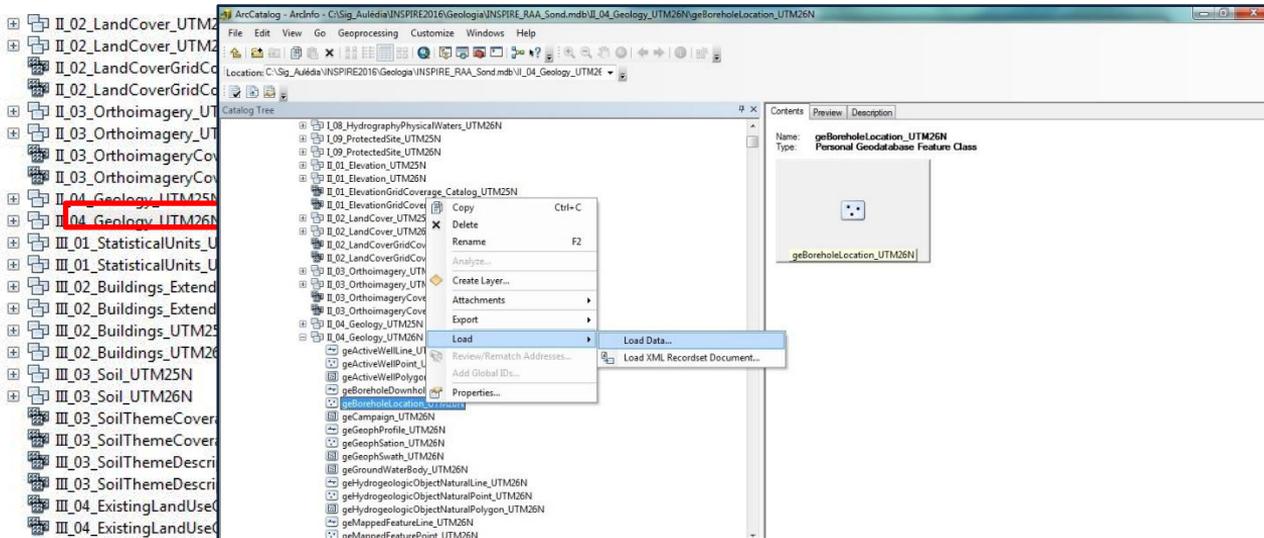
OBJET	ANOS	IDE	NS	COORD	COORD
479	450	89	51	654275	41796
480	451	89	52	654919	41796
481	452	89	53	655028	41796

ANO	MES	ENTIDADE
2012	Março	Direção de S. Benefícios



3. HARMONIZAÇÃO DE DADOS

❑ Modelo de Dados RAA <http://www.ideia.azores.gov.pt/projetos/inspire/Paginas/modelos-dados.aspx>

The image shows a data table window titled 'geBoreholeLocation_UTM26N'. The table has three columns: 'OBJECTID', 'SHAPE', and 'INSPIREID'. It contains 58 rows of data, each representing a borehole location. The 'INSPIREID' column contains a mix of numeric and alphanumeric values, such as '52016', '112016', and '642016'.

OBJECTID	SHAPE	INSPIREID
1	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_52016
2	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_82016
3	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_112016
4	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_122016
5	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_152016
6	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_162016
7	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_172016
8	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_182016
9	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_192016
10	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_202016
11	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_212016
12	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_222016
13	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_232016
14	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_242016
15	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_252016
16	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_262016
17	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_272016
18	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_282016
19	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_292016
20	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_302016
21	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_312016
22	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_322016
23	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_332016
24	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_342016
25	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_352016
26	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_362016
27	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_372016
28	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_382016
29	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_392016
30	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_402016
31	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_412016
32	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_422016
33	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_432016
34	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_442016
35	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_452016
36	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_462016
37	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_472016
38	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_482016
39	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_492016
40	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_502016
41	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_512016
42	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_522016
43	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_532016
44	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_542016
45	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_552016
46	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_562016
47	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_572016
48	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_582016
49	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_592016
50	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_602016
51	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_612016
52	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_622016
53	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_632016
54	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_642016
55	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_652016
56	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_662016
57	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_672016
58	Point	http://id.geop.pt/raa/GE/Borehole/Sondagens26N_682016

- ✓ Estrutura equivalente aos esquemas UML das especificações técnicas; espelha a arquitetura dos UML – Geologia;
- ✓ Facilita o mapeamento entre os schemas (source e target).



3. HARMONIZAÇÃO DE DADOS

Modelo de Dados RAA

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

FID	Shape	Id	inspireID	downholeGe	purpose	elevation	length	nameSpace	localld	versionId	coord_x	coord_y
430	Point	409	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_409/2017	unknown	geotechnicalSurvey	511.228	7.33	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_409/2017	645877.316	4182813.622	645877.316	4182813.622
416	Point	395	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_395/2017	unknown	geotechnicalSurvey	511.175	9.4	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_395/2017	645893.336	4181562.183	645893.336	4181562.183
429	Point	408	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_408/2017	unknown	geotechnicalSurvey	511.016	6.36	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_408/2017	645801.262	4182756.045	645801.262	4182756.045
428	Point	407	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_407/2017	unknown	geotechnicalSurvey	510.934	8.21	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_407/2017	645727.415	4182702.271	645727.415	4182702.271
427	Point	406	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_406/2017	unknown	geotechnicalSurvey	510.93	9.45	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_406/2017	645631.139	4182629.159	645631.139	4182629.159
422	Point	401	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_401/2017	unknown	geotechnicalSurvey	510.762	10.3	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_401/2017	645624.211	4182339.735	645624.211	4182339.735
417	Point	396	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_396/2017	unknown	geotechnicalSurvey	510.602	9.4	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_396/2017	645623.921	4181626.057	645623.921	4181626.057
423	Point	402	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_402/2017	unknown	geotechnicalSurvey	510.44	8.4	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_402/2017	645627.395	4182154.115	645627.395	4182154.115
421	Point	400	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_400/2017	unknown	geotechnicalSurvey	510.408	6.94	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_400/2017	645618.805	4181921.698	645618.805	4181921.698
420	Point	399	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_399/2017	unknown	geotechnicalSurvey	509.959	9.22	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_399/2017	645571.38	4181823.236	645571.38	4181823.236
508	Point	501	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_501/2017	unknown	geotechnicalSurvey	487.409	10.15	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_501/2017	625047.25	4178838.7856	625047.25	4178838.7856
507	Point	500	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_500/2017	unknown	geotechnicalSurvey	478.833	9.16	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_500/2017	625016.6753	4178838.8366	625016.6753	4178838.8366
681	Point	672	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_672/2017	unknown	geotechnicalSurvey	477.149	30	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_672/2017	647815.1281	4182911.6381	647815.1281	4182911.6381
684	Point	675	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_675/2017	unknown	geotechnicalSurvey	476.17	30	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_675/2017	647883.3908	4182908.7277	647883.3908	4182908.7277
679	Point	670	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_670/2017	unknown	geotechnicalSurvey	474.941	21	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_670/2017	647700.8279	4182842.0526	647700.8279	4182842.0526
685	Point	676	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_676/2017	unknown	geotechnicalSurvey	471.78	30	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_676/2017	647885.5075	4182891.5298	647885.5075	4182891.5298
683	Point	674	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_674/2017	unknown	geotechnicalSurvey	471.572	30	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_674/2017	647824.3886	4182884.6506	647824.3886	4182884.6506
680	Point	671	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_671/2017	unknown	geotechnicalSurvey	471.476	30	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_671/2017	647740.7001	4182866.9235	647740.7001	4182866.9235
627	Point	618	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_618/2017	unknown	geotechnicalSurvey	447.01	10.2	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_618/2017	647686.1166	4182831.8947	647686.1166	4182831.8947
628	Point	619	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_619/2017	unknown	geotechnicalSurvey	441.98	9.7	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_619/2017	647711.7164	4182848.8946	647711.7164	4182848.8946
629	Point	620	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_620/2017	unknown	geotechnicalSurvey	437.88	10.2	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_620/2017	647768.7159	4182884.8943	647768.7159	4182884.8943
630	Point	621	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_621/2017	unknown	geotechnicalSurvey	428.57	10.4	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_621/2017	647869.715	4182891.8943	647869.715	4182891.8943
631	Point	622	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_622/2017	unknown	geotechnicalSurvey	423.57	10.4	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_622/2017	647884.6467	4182895.8319	647884.6467	4182895.8319
632	Point	623	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_623/2017	unknown	geotechnicalSurvey	419.39	10.8	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_623/2017	647916.7146	4182871.8945	647916.7146	4182871.8945
206	Point	102	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_102/2017	unknown	geotechnicalSurvey	306.741	12.95	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_102/2017	662757.725	4184651.983	662757.725	4184651.983
207	Point	102	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_102/2017	unknown	geotechnicalSurvey	304.934	14.56	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_102/2017	662739.096	4184632.488	662739.096	4184632.488
208	Point	102	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_102/2017	unknown	geotechnicalSurvey	284.74	12.32	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_102/2017	662465.798	4184470.348	662465.798	4184470.348
455	Point	433	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_433/2017	unknown	geotechnicalSurvey	283	8	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_433/2017	666990.5	4094748.7999	666990.5	4094748.7999
456	Point	435	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_435/2017	unknown	geotechnicalSurvey	282	4.34	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_435/2017	666778.7	4094885.1999	666778.7	4094885.1999
457	Point	435	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_435/2017	unknown	geotechnicalSurvey	279	4.58	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_435/2017	666805.5	4094877.2999	666805.5	4094877.2999
454	Point	432	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_432/2017	unknown	geotechnicalSurvey	267	6.03	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_432/2017	666915	4094902.9999	666915	4094902.9999
257	Point	268	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_268/2017	unknown	geotechnicalSurvey	255.08	18	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_268/2017	616413.765	4183683.305	616413.765	4183683.305
456	Point	434	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_434/2017	unknown	geotechnicalSurvey	253	12.35	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_434/2017	666806.05	4094967.5499	666806.05	4094967.5499
760	Point	769	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_769/2017	unknown	geotechnicalSurvey	231.389	11.65	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_769/2017	650053.965	4180795.189	650053.965	4180795.189
256	Point	267	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_267/2017	unknown	geotechnicalSurvey	227.72	17.5	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_267/2017	616186.29	4184354.101	616186.29	4184354.101
252	Point	263	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_263/2017	unknown	geotechnicalSurvey	226.396	10.1	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_263/2017	615154.421	4186274.056	615154.421	4186274.056
761	Point	770	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_770/2017	unknown	geotechnicalSurvey	226.218	10.9	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_770/2017	650481.142	4180778.44	650481.142	4180778.44
255	Point	266	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_266/2017	unknown	geotechnicalSurvey	224.12	18.3	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_266/2017	616156.477	4184375.449	616156.477	4184375.449
254	Point	264	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_264/2017	unknown	geotechnicalSurvey	222.499	12	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_264/2017	616162.075	4186313.765	616162.075	4186313.765
254	Point	265	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_265/2017	unknown	geotechnicalSurvey	222.45	10	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_265/2017	615925.58	4184884.143	615925.58	4184884.143
235	Point	262	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_262/2017	unknown	geotechnicalSurvey	203.63	10	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_262/2017	615037.849	4186550.091	615037.849	4186550.091
762	Point	771	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_771/2017	unknown	geotechnicalSurvey	201.976	9	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_771/2017	650021.099	4180340.525	650021.099	4180340.525
234	Point	260	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_260/2017	unknown	geotechnicalSurvey	200.11	12	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_260/2017	614983.2017	4186744.745	614983.2017	4186744.745
762	Point	259	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_259/2017	unknown	geotechnicalSurvey	199.122	12.2	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_259/2017	614984.511	4186781.125	614984.511	4186781.125
764	Point	773	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_773/2017	unknown	geotechnicalSurvey	198.163	10.5	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_773/2017	650009.338	4180317.243	650009.338	4180317.243
763	Point	772	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_772/2017	unknown	geotechnicalSurvey	197.276	10.5	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_772/2017	650036.28	4180330.394	650036.28	4180330.394
776	Point	776	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_776/2017	unknown	geotechnicalSurvey	191.401	9	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_776/2017	649993.4149	4180284.915	649993.4149	4180284.915
766	Point	775	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_775/2017	unknown	geotechnicalSurvey	193.39	11.62	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_775/2017	649974.439	4180265.617	649974.439	4180265.617
348	Point	359	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_359/2017	unknown	geotechnicalSurvey	190.42	9	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_359/2017	610736	41939991	610736	41939991
347	Point	358	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_358/2017	unknown	geotechnicalSurvey	190.3	9	https://id.igeo.pt/so/GE/Borehole/Sondagens26N_358/2017	610736	41939991	610736	41939991

✓ Criação de shapefile: input para Hale para realização do mapeamento



3. HARMONIZAÇÃO DE DADOS

✓ Output: ficheiro GML

The screenshot displays the HUMBOLDT Alignment Editor 3.2.0 interface. The 'Export' menu is open, and the 'Export transformed data' dialog is active. The 'Export format' is set to 'GML file' and the 'Target file' is 'C:\Pamara\39-Harmonização de dados_INSPIRE\01-Sondagens\01-B...'. An 'Information' dialog box is overlaid on the main window, displaying the message: 'All validations completed successfully.' with an 'OK' button.

Workspace Log

Message	Plug-in	Date
Found 1 possible FeatureCollection elements, use	eu.esdihumboldt.hale.io...	12/06/17, 16:38
Found 1 possible FeatureCollection elements, use	eu.esdihumboldt.hale.io...	12/06/17, 16:38
Found 1 possible FeatureCollection elements, use	eu.esdihumboldt.hale.io...	12/06/17, 16:38
Found 1 possible FeatureCollection elements, use	eu.esdihumboldt.hale.io...	12/06/17, 16:38
Initializing example project topics	eu.esdihumboldt.hale.co...	12/06/17, 16:37
[16:37:24] Finished task 'Load project'.	eu.esdihumboldt.hale.co...	12/06/17, 16:37
[16:37:24] No handler for external project file	eu.esdihumboldt.hale.co...	12/06/17, 16:37

Task Log

Task	Time
Instance validation	16:35:52
Instance transformation	16:35:46
INSPIRE code list import	16:35:44
Load data into database	16:35:35
Shapefile import	16:35:33
XML schema import	16:35:32
Shapefile import	16:35:30
HALE project import	16:35:24



4. VALIDAÇÃO

- ✓ Abstract Test Suites (ATS) definem um conjunto de testes que devem de ser aplicados (metadados, dados e serviços) para avaliação da conformidade, devendo passar em todos;
- ✓ Validador oficial - **INSPIRE Validator (ETF)**, disponível em: <http://inspire-sandbox.jrc.ec.europa.eu/>;
- ✓ Ao ficheiro GML gerado foram executados os *Executable Test Suites* que implementam os ATS;
- ✓ Relatório de testes detalhado, com a indicação da passagem do teste, ou não, por intermédio de cores:
 - (1) **Vermelho**: não passou;
 - (2) **Laranja**: passou, mas necessita de verificações manuais;
 - (3) **Verde**: passou.



4. VALIDAÇÃO

- ✓ Foram executados *Test Suites* para as classes de conformidade aplicáveis à categoria de *Interoperable data sets in GML*;

Interoperable data sets in GML (Guidelines for the Encoding of Spatial Data version 3.3)

Start

- Conformance class: Data consistency, General requirements
- Conformance class: INSPIRE GML application schemas, General requirements
- Conformance class: Information accessibility, General requirements
- Conformance class: Reference systems, General requirements

Configure Test Run

Label: Test run on 14:58 - 13.11.2017 with test suite Conformance class: Data consistenc

Data source: File upload

ZIP or XML path: Procurar...

Test Suite parameters

Files to test:

Test Suites Credentials Optional Parameters Start

<http://inspire-sandbox.jrc.ec.europa.eu/etf-webapp/>

Test run on 16:15 - 23.10.2017 with test suite Conformance class: Data consistency, General requirements and 4 more test suites

Status	Passed, manual checks required	Total	Count	Skipped	Failed	Warnings	Manual
Started	23/10/2017 18:17:00 GMT	Test suites	5	0	0	0	2
Duration	12 s	Test cases	12	0	0	0	2
		Assertions	34	0	0	0	4

Show: All Only failed Only manual Level of detail: All details Less information Simplified

- Conformance class: INSPIRE GML encoding 1
- Conformance class: Data consistency, General requirements 2
- Conformance class: INSPIRE GML application schemas, General requirements 6
- Conformance class: Information accessibility, General requirements 1
- Conformance class: Reference systems, General requirements 2

Resultado final dos testes efetuados para as classes de conformidade aplicados



4. VALIDAÇÃO

Test run on 16/15 - 23.10.2017 with test suite Conformance class: Data consistency, General requirements and 4 more test suites

Status	Passed, manual checks required	Total	Count	Skipped	Failed	Warnings	Manual
Started	23/10/2017 18:17:00 GMT	Test suites	5	0	0	0	2
Duration	12 s	Test cases	12	0	0	0	2
		Assertions	34	0	0	0	4

Show: All All details Only failed Less information Only manual Simplified

Level of detail

- + Conformance class: INSPIRE GML encoding [1]
- + Conformance class: Data consistency, General requirements [2]
- + Conformance class: INSPIRE GML application schemas, General requirements [4]
- + Conformance class: Information accessibility, General requirements [1]
- + Conformance class: Reference systems, General requirements [2]

Report generated by ETF

Classe de conformidade *INSPIRE GML application schemas*

+ Schema	[2]
+ Schema validation	[2]
+ GML model	[3]
+ Simple features	[11]
+ Code list values in basic data types	[4]
+ Constraints	[1]

Schema [2]

Verify whether each relevant element of the dataset under inspection carries a name specified in the target application schema.

Status Passed, manual checks required
Duration 0.001 s

gmlas.a.1: Mapping of source data to INSPIRE

Verify whether each relevant element of the source data set under inspection has been properly mapped to the INSPIRE application schemas. Inspect the documentation of the source data set and determine, if all relevant information has been mapped correctly to the INSPIRE application schema, i.e. that spatial object types, data types, attributes, association roles, code lists, and enumerations are mapped to the INSPIRE application schemas with the correct designation of mnemonic names.

Relevant requirements:

- Article 4(1) - For the exchange and classification of spatial objects from data sets meeting the conditions laid down in Article 4 of Directive 2007/2/EC, Member States shall use the spatial object types and associated data types, enumerations and code lists that are defined in Annexes II, III and IV for the themes the data sets relate to.

Source: [Abstract Test Case "Schema"](#), [INSPIRE Data Specification Template, A.1.1](#)

Status Passed, manual checks required
Duration 0.001 s

gmlas.a.2: Modelling of additional spatial object types

Inspect the XML Schema namespace of each feature element. If a namespace URI does not start with "http://inspire.ec.europa.eu/schemas/" or "urn:x-ignite:specification:gmlas:" it is not one of the approved INSPIRE application schema namespaces. Review the extension documentation for the identified namespaces to check that any extensions do not overlap with the spatial object types and associated data types and enumerations that are defined in Annexes II, III and IV of the Implementing Rule.

Relevant requirements:

- Article 4(1) - For the exchange and classification of spatial objects from data sets meeting the conditions laid down in Article 4 of Directive 2007/2/EC, Member States shall use the spatial object types and associated data types, enumerations and code lists that are defined in Annexes II, III and IV for the themes the data sets relate to.

Source: [Abstract Test Case "Schema"](#), [INSPIRE Data Specification Template, A.1.1](#)

Status Passed, manual checks required
Duration 0.001 s



5. CONSIDERAÇÕES FINAIS

- ❑ Um das principais tarefas para o processo de harmonização e validação foi a obtenção da informação de base, que consistiu na fase mais trabalhosa;
- ❑ O modelo de dados da RAA foi um bom contributo para organizar a informação existente na base de dados, permitindo a criação de um *shapefile* para servir de input ao Hale;
- ❑ O Hale constitui uma ferramenta interessante para a harmonização de dados em conformidade com as disposições INSPIRE, permitindo a exportação de um ficheiro GML e validação do XML;
- ❑ Aplicou-se o validador oficial – ETF por forma a serem executados todos os *Test Suites* à categoria da *Interoperable data sets in GML*. Nas classes de conformidade *Information accessibility* e *reference systems* os testes foram concretizados com sucesso. Nas restantes duas classes (*Data consistency*; *INSPIRE GML application schemas*), o teste passou, embora necessitando de verificações manuais; Considera-se os **dados validados**.
- ❑ A próxima etapa: criação de serviços de visualização e de descarregamento de acordo com a Diretiva INSPIRE.





Obrigado pela atenção!

