Atlantic Checkpoint Status

Jacques Populus and team

Retro-planning 2018

- 26/08: End of project and final report delivery
- 26/06: Panel report delivery
- 13/06: Panel meeting completed
- 26/05: DAR2 delivery
- 26/02: Atlantic Checkpoint follow-on report delivered

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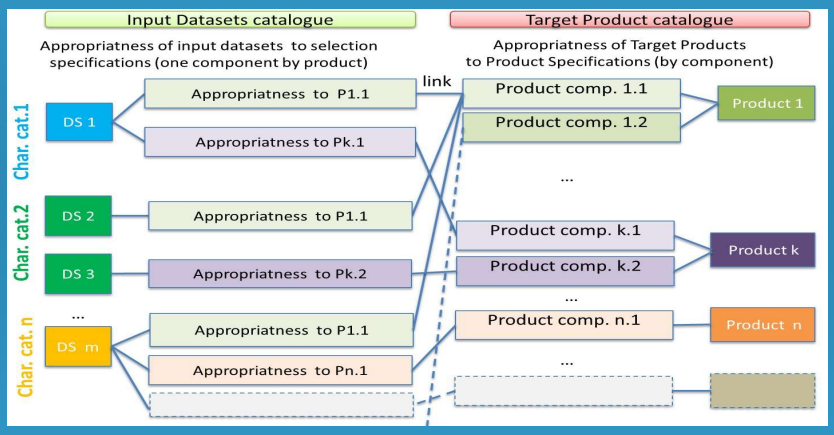
Current actions towards DAR2 and Web tools

- 22/03: All metadata stored in catalogue
- 22/03: All challenge reports delivered
- DAR2 outline: (almost) ready
- Export of whole catalogue from Sextant and software development of graphical DAR2 outputs underway
- Software development of web graphical outputs: planned from May to July

Sextant catalogue



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Sextant catalogue
Products (55) and components (138)

Three cases can be found:

- Component not made because of non-existing data
- Component not made because data not available: those data sets not available are attached to the component and reasons for lack of availability are described
- Component made
  - All contributing data sets are attached
  - Their appropriateness is described by way of quantitative indicators
  - Their availability is good (no need to assess)

Metrics for data sets appropriateness

ISO Quality element	Metric name	Definition	Unit
Completeness	Horizontal coverage	Surface area covered	km²
	Vertical coverage	Vertical depth covered	m
	Temporal coverage	Time span covered	day
	Number of occurrences	Object type	-
Coherence	Number of characteristics	Number of characteristics used	-
Accuracy	Horizontal resolution	Mean horizontal interval	m
	Vertical resolution	Mean vertical interval	m
	Temporal resolution	Time lag	day
	Thematic accuracy	Percentage	%
Vintage	Temporal validity	Data freshness (time since last update)	day

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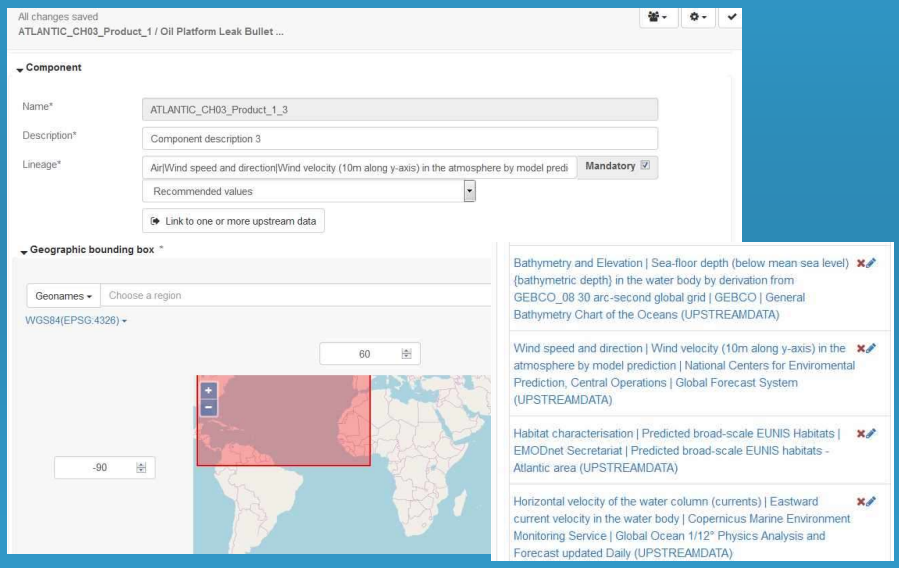
Oil leak challenge

Component 3 of product 1: Appropriateness



Oil leak challenge

Component 3 of product 1: Appropriateness

Wind speed and direction | Wind velocity (10m alon ...

Measure identification	Name of measure	Value	Value unit	Quality errors (%)	Indicator	DPS value	TDP value
UD.AP.1.1	Horizontal Spatial Coverage	360000000	km**2	240	100	32000000 km**2	106000000 km**2
	Horizontal Spatial Coverage (Descriptive result)	Global				Atlantic Basin	Atlantic basin
UD.AP.1.2	Vertical Spatial Coverage	10	meters	0	0	10 meters	10 meters
	Vertical Spatial Coverage (Descriptive result)					10m above surface	10m above surface
UD.AP.1.3	Temporal Coverage	10	days	100	100	5 days	5 days
	Temporal Coverage (Descriptive result)	forecast				forecast	forecast
UD.AP.1.4	Number of items	1	Integer	0	0		1
	Number of items (Descriptive result)						
UD.AP.2.1	Number of Characteristics		Integer	NaN	NaN	1	1
	Number of Characteristics (Descriptive result)						

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Oil leak challenge

Component 3 of product 1: Appropriateness

Wind speed and direction | Wind velocity (10m alon ...

UD.AP.3.1	Horizontal resolution	13000	meters	-1200	-100	1000 meters	13000 meters
	Horizontal resolution (Descriptive result)						1/8°
UD.AP.3.2	Vertical resolution		meters	NaN	NaN		
	Vertical resolution (Descriptive result)						
UD.AP.3.3	Temporal resolution	0.125	days	NaN	NaN		0.125 days
	Temporal resolution (Descriptive result)						
UD.AP.3.4	Thematic accuracy	100	%	100	100	100 %	100 %
	Thematic accuracy (Descriptive result)					compatible with OSCAR drift model	
UD.AP.4.1	Temporal validity	1	days	0	0	1 days	1 days
	Temporal validity (Descriptive result)						
UD.AP.5.1	Usability	Good		NaN	NaN		Excellent
	Usability (Descriptive result)						

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Oil leak challenge score

Oil leak Challenge products scores

Product	Satisfaction label	Meaning
ATLANTIC_CH03_Product_1	Very Good	The product meets more than 70% of the objectives specified by the challenge
ATLANTIC_CH03_Product_2	Limited	The product fails in most aspects to meet the objectives but meet some.

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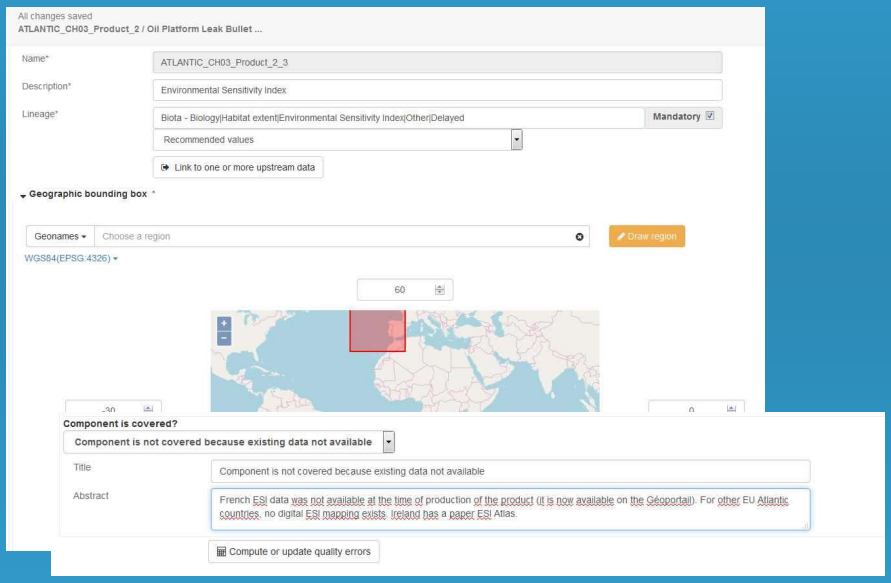
Oil leak challenge

Component 3 of product 2 not covered because data not available



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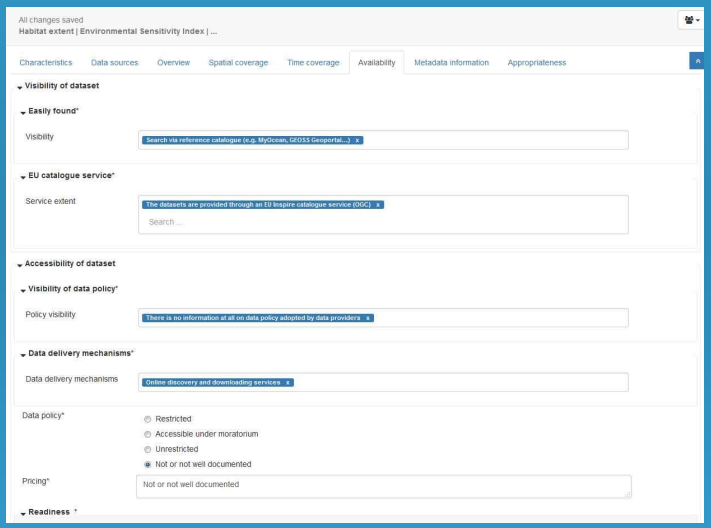
Oil leak challenge

Component 3 of product 2 not covered because data not available
Availability issue: Policy



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Indicators

Indicators of “Usability”

- Per component
- Per product
- Per characteristic

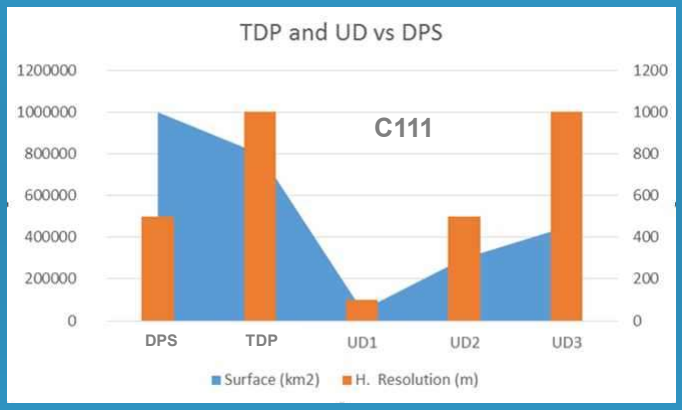
Graphical outputs

Per characteristic across components

Horizontal resolution for a characteristic contributing to N components

Graphical outputs

Across UDs



Horizontal resolution and corresponding coverage across UDs

Metadata issues

- P02s sometimes not adapted
- Vertical resolution unclear to many (2,5D/3D)
- Temporal validity sometimes overlooked
- Coverage: can be km², or km of coastline or spatial objects (rivers, sea-level gauges, regions, Member States), but also “items” that report completeness (e.g. species, % of informed metadata)
- Some confusions between “not existing” and “not available”
- Data set identifiers should be unique across users, an issue DOI would overcome

Conclusions

- ISO offers a stable INSPIRE-compatible framework and being applied in many data centres, inc. USA. It makes it easier to replicate the use of the tools, e.g. with Atlantos. We only use a “user-oriented” part of ISO
- Checkpoint organisation, services, robustness of tools and revisit frequency remain to be discussed/improved
- Ranking “urgency” for data collection/assembly remain to be done. EOOS’s list of EOVs (Essential Ocean Variables) provides a good basis foe this.

Main conclusions of follow-on report

- Checkpoints are here to stay
  - Challenges thematic outline
  - Geographic relevance
  - About the ISO assessment methodology
  - Variables in scope
  - The checkpoint tools
  - Update frequency and governance
  - About sustainability and skills needed
- Quality control of thematic lots and EU projects data
  - Quality control mechanism within thematic lots
  - Current use of the assessment tools
  - Potential use of checkpoint tools outside EMODnet