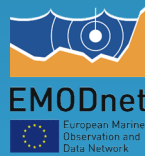


# Atlantic Checkpoint Status

Jacques Populus and team



Steering Committee, Mallorca, 21-23 March 2018

## 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

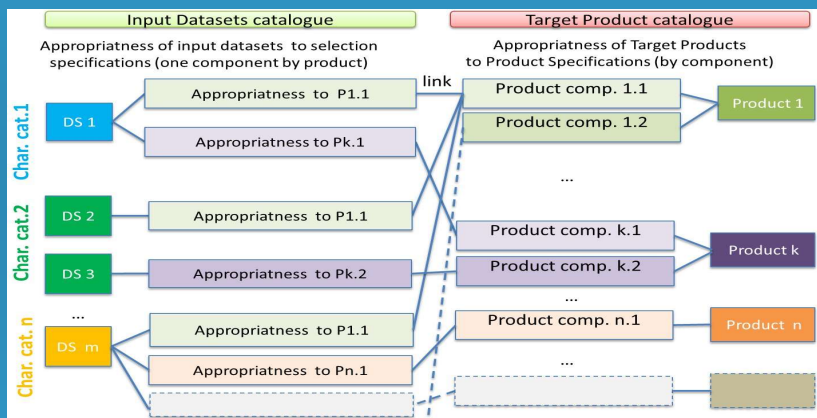
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## Current actions towards DAR2 and Web tools

- 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

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## 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)

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## Metrics for data sets appropriateness

ISO Quality element	Metric name	Definition	Unit
<b>Completeness</b>	Horizontal coverage	Surface area covered	km <sup>2</sup>
	Vertical coverage	Vertical depth covered	m
	Temporal coverage	Time span covered	day
	Number of occurrences	Object type	-
<b>Coherence</b>	Number of characteristics	Number of characteristics used	-
<b>Accuracy</b>	Horizontal resolution	Mean horizontal interval	m
	Vertical resolution	Mean vertical interval	m
	Temporal resolution	Time lag	day
	Thematic accuracy	Percentage	%
<b>Vintage</b>	Temporal validity	Data freshness (time since last update)	day

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# Oil leak challenge

## Component 3 of product 1: Appropriateness

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All changes saved  
ATLANTIC\_CH03\_Product\_1 / Oil Platform Leak Bullet...

**Component**

Name\* ATLANTIC\_CH03\_Product\_1\_3

Description\* Component description 3

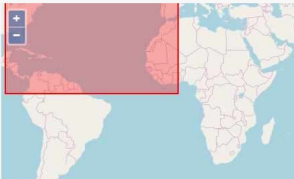
Lineage\* Air|Wind speed and direction|Wind velocity (10m along y-axis) in the atmosphere by model prediction **Mandatory**

Recommended values

**Geographic bounding box \***

Geonames Choose a region

WGS84(EPSSG:4326)



Bathymetry and Elevation | Sea-floor depth (below mean sea level) (bathymetric depth) in the water body by derivation from GEBCO\_08 30 arc-second global grid | GEBCO | General Bathymetry Chart of the Oceans (UPSTREAMDATA)

Wind speed and direction | Wind velocity (10m along y-axis) in the atmosphere by model prediction | National Centers for Environmental Prediction, Central Operations | Global Forecast System (UPSTREAMDATA)

Habitat characterisation | Predicted broad-scale EUNIS Habitats | EMODnet Secretariat | Predicted broad-scale EUNIS habitats - Atlantic area (UPSTREAMDATA)

Horizontal velocity of the water column (currents) | Eastward current velocity in the water body | Copernicus Marine Environment Monitoring Service | Global Ocean 1/12° Physics Analysis and Forecast updated Daily (UPSTREAMDATA)

# Oil leak challenge

## Component 3 of product 1: Appropriateness

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

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

# Oil leak challenge

## Component 3 of product 1: Appropriateness

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

UD AP.3.1	Horizontal resolution	<input type="text" value="13000"/>	meters	-1200	<div style="background-color: red; width: 20px; height: 10px; display: inline-block;"></div> -100	1000 meters	13000 meters
	Horizontal resolution (Descriptive result)	<input type="text"/>					1/8°
UD AP.3.2	Vertical resolution	<input type="text"/>	meters	NaN	NaN		
	Vertical resolution (Descriptive result)	<input type="text"/>					
UD AP.3.3	Temporal resolution	<input type="text" value="0.125"/>	days	NaN	NaN		0.125 days
	Temporal resolution (Descriptive result)	<input type="text"/>					
UD AP.3.4	Thematic accuracy	<input type="text" value="100"/>	%	100	<div style="background-color: green; width: 20px; height: 10px; display: inline-block;"></div> 100	100 %	100 %
	Thematic accuracy (Descriptive result)	<input type="text"/>					compatible with OSCAR drift model
UD AP.4.1	Temporal validity	<input type="text" value="1"/>	days	0	<div style="background-color: green; width: 20px; height: 10px; display: inline-block;"></div> 0	1 days	1 days
	Temporal validity (Descriptive result)	<input type="text"/>					
UD AP.5.1	Usability	<input type="text" value="Good"/>		NaN	NaN		Excellent
	Usability (Descriptive result)	<input type="text"/>					

# 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.

# Oil leak challenge

Component 3 of product 2 not covered because data not available

All changes saved  
ATLANTIC\_CH03\_Product\_2 / Oil Platform Leak Bullet ...

Name\* ATLANTIC\_CH03\_Product\_2\_3

Description\* Environmental Sensitivity Index

Lineage\* Biota - Biology|Habitat extent|Environmental Sensitivity Index|Other|Delayed **Mandatory**

Recommended values


[Link to one or more upstream data](#)

**Geographic bounding box \***

Geonames Choose a region [Draw region](#)

WGS84(EPSG:4326)

60



**Component is covered?**  
Component is not covered because existing data not available

Title: Component is not covered because existing data not available

Abstract: French ESI data was not available at the time of production of the product (it is now available on the Géoportail). For other EU Atlantic countries, no digital ESI mapping exists. Ireland has a paper ESI Atlas.

[Compute or update quality errors](#)

# Oil leak challenge

Component 3 of product 2 not covered because data not available

Availability issue: Policy

All changes saved  
Habitat extent (Environmental Sensitivity Index) | ...

Characteristics Data sources Overview Spatial coverage Time coverage **Availability** Metadata information Appropriateness

**Visibility of dataset**

**Easily found\***

Visibility: [Search via reference catalog \(e.g. MyOcean, GEOS Geoportail...\)](#)

**EU catalogue service\***

Service extent: [The datasets are provided through an EDispace catalogue service \(ODC\)](#)  
Search...

**Accessibility of dataset**

**Visibility of data policy\***

Policy visibility: [There is no information at all on data policy adopted by data providers](#)

**Data delivery mechanisms\***

Data delivery mechanisms: [Online discovery and downloading services](#)

Data policy\*

Restricted  
 Accessible under moratorium  
 Unrestricted  
 Not or not well documented

Pricing\*: [Not or not well documented](#)

**Readiness \***

# 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
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# Indicators

## Indicators of “Usability”

- Per component
- Per product
- Per characteristic



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## Graphical outputs

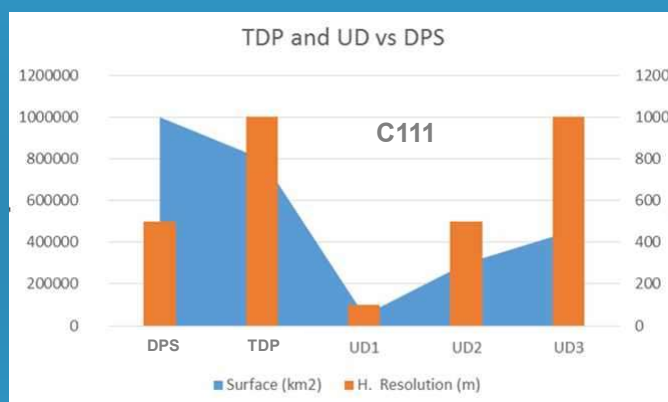
Per characteristic across components



Horizontal resolution for a characteristic contributing to N components

## Graphical outputs

Across UD



Horizontal resolution and corresponding coverage across UD



## Metadata issues

- P02s sometimes not adapted
- Vertical resolution unclear to many (2,5D/3D)
- Temporal validity sometimes overlooked
- Coverage: can be km<sup>2</sup>, 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

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## 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 for this.

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## 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