

OTM-067: Change detection of coastline migration

Change detection of coastline migration

Challenge

	Challenge ID	OTM:067				
1	Title	Change detection of coastline migration				
2	Theme ID	ON 4.1: Environmental monitoring - Baseline historic mapping of environment and ecosystems				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	PetroSA, Statoil, Shell, Eni				
General description		Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	As a consequence of sedimentation and erosion, the integrity of our assets close to or on the coastline can be threatened. We need to position or protect our assets appropriately to ensure they remain operational for the entirety of their design life (and probably beyond). Although our operations may impact these coastal processes, using historical mapping to identify the previous rate and type of change is really important.				
6	Thematic information requirements	1. Obtain detailed topographic information, 3. Obtain detailed vegetation information, 4. Obtain detailed land-use information,				
7	Nature of the challenge - What effect does this challenge have on operations?	Being aware of this information allows us to site assets correctly which, in the long term, reduces our costs and impact on the environment, as well as removing a task for our staff that they would otherwise have had to performed (e.g. remedial works to s				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Out of date or insufficiently detailed basemaps are used.				
9	What kind of solution do you envisage could address this challenge?	Very high to medium resolution EO data to monitor changes of rivers and lakes as well as coast lines.				
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	EO could be a useful complimentary technology.				
Challenge classification						
11	Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
	Score from impact quantification [1]	1	0	3	0	0
12	Climate classification	NOT CLIMATE SPECIFIC				
13	Geographic context/restrictions	Generic onshore (Unspecified)				
14	Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15	Seasonal variations	Any season				
16	Impact Area	Health and safety, strategic decision maker, Operational cost reduction, environment				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
Information requirements						
18	Update frequency	Annually				
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy					
22	Example formats					
23	Timeliness	Within a month				
24	Geographic Extent	asset footprint				
25	Existing standards					

[1] Impact quantification scores: 4 – Critical/ enabling; 3 – Significant/ competitive advantage; 2 – Important but non-essential; 1 – Nice to have; 0 – No impact, need satisfied with existing technology

Relevant products

Content by label

There is no content with the specified labels