OTM-068: Water quality monitoring

Water quality monitoring

Challenge

	Challenge ID	OTM:068				
1	Title	Water quality monitoring				
2	Theme ID	ON 4.2: Environmental monitoring - Continuous monitoring of changes throughout the lifecycle				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	Shell, Eni, Sasol, Chevron				
	General description	Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	Monitoring the impact of our operations on water quality (sediment loadings, algae blooms, oil slicks, etc.) is a significant task.				
6	Thematic information requirements	6. Identify inland water bodies and determine water quality,				
7	Nature of the challenge - What effect does this challenge have on operations?	Being able to do this remotely would provide significant operational cost benefit and ensure that we were always looking. We would be even less likely to miss things.				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?					
9	What kind of solution do you envisage could address this challenge?	Due to the specific spectral fingerprint of water, its properties can be clearly identified with EO data. Parameters that can be provided from satellites and indicate the water quality status are sea surface temperature, transparency or turbidity, and oce				
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]	0	0	0	3	3
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	Environment, operational cost reduction				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
	Information requirements					
18	Update frequency	Daily				
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy					
22	Example formats					
23	Timeliness	Within a day				
24	Geographic Extent	asset/reservoir 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