

OTM-031: Creating an ecosystem inventory prior to exploration

Creating an ecosystem inventory prior to exploration

Challenge

	Challenge ID	OTM:031				
1	Title	Creating an ecosystem inventory prior to exploration				
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	PEMEX, Statoil, Eni, Sasol, Exxon, Tullow, Petronas, Chevron				
General description		Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	Continuous, unbiased and consistent environmental data is difficult to obtain in some areas. We are required to develop an ecosystem inventory as part of our baseline environmental assessment to allow us to track and quantify any changes during our operations. - high to very high resolution land cover (habitats)				
6	Thematic information requirements	3. Obtain detailed vegetation information, 4. Obtain detailed land-use information, 6. Identify inland water bodies and determine water quality, 10. Fauna and presence and patterns,				
7	Nature of the challenge - What effect does this challenge have on operations?	Obtaining baseline information over a large area is time consuming and expensive. We must ground survey parts of the area, but this can lead to bias or unrepresentative results because there is a tendency to target the most important or 'environmentally				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	A number of continuous monitoring sites are established where remote monitoring devices are deployed and samples are recorded at regular intervals. Information can be interpreted and inferred from these results, but they only record localised changes and				
9	What kind of solution do you envisage could address this challenge?	High to very high resolution land cover products based on EO data				
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]	3	4	0	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	Environmental				
17	Technology Urgency	Immediately (0-2 years)				
	(How quickly does the user need the solution)					
Information requirements						
18	Update frequency	depending on sensor and application				
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy	80-90%				
22	Example formats	Standardized geo-spatial formats (e.g. shapefile, geotiff or KML)				
23	Timeliness	Reference data - timeliness not important				
24	Geographic Extent					
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

Content by label

There is no content with the specified labels