

OTM-016: Identification of seasonal obstructions to logistics activity

Identification of seasonal obstructions to logistics activity

Challenge

Challenge ID	OTM:016				
1 Title	Identification of seasonal obstructions to logistics activity				
2 Theme ID	ON 5.3: Logistics planning and operations - Facility siting, pipeline routing and roads development				
3 Originator of Challenge	Onshore: OTM				
4 Challenge Reviewer / initiator	Statoil, PetroSA, Eni, Exxon				
General description		Overview of Challenge			
5 What is the nature of the challenge? (What is not adequately addressed at present?)	In many climates and geographies there can be significant seasonal differences in the landscape. This may consist of the presence (or not) of large water bodies, vegetation and associated habitat, changes in terrain character, etc.).				
6 Thematic information requirements	4. Obtain detailed land-use information, 5. Identify location and condition of transport infrastructure, 8. Identify the presence of UXO, 12. Identify the presence of sub-surface or covered infrastructure,				
7 Nature of the challenge - What effect does this challenge have on operations?	Not being aware of how the landscape changes with each season can have a significant impact on our operations, For example, we can find ourselves isolated or unable to access large areas for surveying or seismic acquisition because of the presence of wat				
8 What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Seasonal mapping if it exists. Otherwise we undertake ground-surveys looking at both the local environment, and speaking to local communities.				
9 What kind of solution do you envisage could address this challenge?	Very high to medium resolution EO data to monitor land cover and water bodies and their changes.				
10 What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	Resolution depends on covered area and size of analysis objective. EO could be a useful complimentary technology				
Challenge classification					
11 Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
Score from impact quantification [1]	2	2	3	1	1
12 Climate classification	NOT CLIMATE SPECIFIC				
13 Geographic context/restrictions	Generic onshore (Unspecified)				
14 Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15 Seasonal variations	Wet season focus				
16 Impact Area	Operational cost reduction				
17 Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
Information requirements					
18 Update frequency	As close to real-time as possible				
19 Data Currently used	Conventional mapping and data from ground surveys				
20 Spatial resolution	Conventional mapping and data from ground surveys				
21 Thematic accuracy					
22 Example formats					
23 Timeliness	Within a day				
24 Geographic Extent	District area				
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 product

- [Product Sheet: Permafrost zone stability](#)
- [Product Sheet: Reservoir Optimization](#)
- [Product Sheet: Water body extent](#)
- [Product Sheet: Wet areas](#)