

OTM-046: Identifying variations in trafficability for seismic vehicle

Identifying variations in trafficability for seismic vehicle

Challenge

Challenge ID	OTM:046				
1 Title	Identifying variations in trafficability for seismic vehicles				
2 Theme ID	ON 1.2: Seismic Planning - Identification of adverse terrain for trafficability				
3 Originator of Challenge	Onshore: OTM				
4 Challenge Reviewer / initiator	PEMEX, Statoil, PetroSA, Exxon, Tullow, Petronas				
General description		Overview of Challenge			
5 What is the nature of the challenge? (What is not adequately addressed at present?)	<p>We need to identify variable surfaces which will lead to a number of vibroseis trucks moving at different rates.</p> <p>If this is likely to happen due to localised areas of relatively harder mobility, then the resources can be re-allocated appropriately in the plan, ensuring the survey is completed as efficiently as possible.</p>				
6 Thematic information requirements	1. Obtain detailed topographic information, 2. Obtain detailed terrain characterisation, 4. Obtain detailed land-use information,				
7 Nature of the challenge - What effect does this challenge have on operations?	Unforeseen changes in terrain, which may or may not be seasonal (e.g. floodland, dense vegetation/ bush), can stimulate last minute changes in survey plans. Whilst this is manageable, it is not ideal (cost, time increases) and early foresight would help				
8 What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Online imagery, ground survey teams				
9 What kind of solution do you envisage could address this challenge?	Layered EO imagery with details of prevailing ground conditions				
10 What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	The right products could offer a highly valuable solution				
Challenge classification					
11 Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
Score from impact quantification [1]	2	3	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	Operational cost reduction				
17 Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
Information requirements					
18 Update frequency	Not important				
19 Data Currently used					
20 Spatial resolution					
21 Thematic accuracy					
22 Example formats					
23 Timeliness	Within a week				
24 Geographic Extent	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

- [Product Sheet: Elevation](#)
- [Product Sheet: Geomorphology map](#)
- [Product Sheet: Lithology and surficial geology mapping](#)
- [Product Sheet: Seismic Logistics](#)
- [Product Sheet: Slope](#)
- [Product Sheet: Soft Ground](#)
- [Product Sheet: Terrain Roughness](#)