

OTM-023: Enabling survey to understand structural properties of the sub-surface for infrastructure planning

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Challenge

	Challenge ID	OTM:023				
1	Title	Enabling survey to understand structural properties of the sub-surface for infrastructure planning				
2	Theme ID	ON 2.5: Surface Geology Mapping - Engineering geological evaluation				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	BP, PEMEX, Sasol				
	General description	Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	Knowledge about the surface might well help with planning infrastructure and facilitate seismic surveys which give detailed information relating to the sub-surface etc... The identification of the structural properties of the sub-surface e. g. likely bearing capacity, distance to bedrock, is necessary in order to plan the siting of infrastructure required for O&G development. This includes welfare facilities, compounds, rigs, pipelines etc. 11. Determine lithology, mineralogy and structural properties of the near surface, An early indication of where the most suitable locations are sited for development would save operational time for a survey and site investigation crews and also allow more effective decision making earlier in the planning process. To achieve this, we ne Base maps (which are often inaccurate), together with on-the-ground surveys.				
6	Thematic information requirements					
7	Nature of the challenge - What effect does this challenge have on operations?					
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?					
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?					
	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	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 month				
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

Content by label

There is no content with the specified labels