OTM-043: Anticipating areas of high seismic impedance

Anticipating areas of high seismic impedance

Challenge

	Challenge ID	OTM:043
1	Title	Anticipating areas of high seismic impedance
2	Theme ID	ON 1.1: Seismic Planning - Areas of poor coupling
3	Originator of Challenge	Onshore: OTM
4	Challenge Reviewer / initiator	
	General description	Overview of Challenge
5	What is the nature of the challenge? (What is not adequately addressed at present?)	Areas of soft ground can absorb the seismic signal and consequently distort the output data. These areas need to be identified and considered when planning seismic lines, to ensure data quality is maintained.
6	Thematic information requirements	2. Obtain detailed terrain characterisation, 4. Obtain detailed land-use information, 11. Determine lithology, mineralogy and structural properties of the near surface,
7	Nature of the challenge - What effect does this challenge have on operations?	Quality of output can be reduced if the sources coincides with soft surface conditions. This can ultimately lead to reservoir understanding being hampered, and thus a reduction in potential production.
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Data algorithms can be used to correct data
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	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	Data quality, operational cost reduction				
17	Technology Urgency	Immediately (0-2 years)				
	(How quickly does the user need the solution)					
	Information requirements					
18	Update frequency					
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy					
22	Example formats					
23	Timeliness	Reference data - timeliness not important				
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