Hatfield-1101: Identify areas with soft sediments to avoid strong attenuation

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Challenge

Challenge ID:	HCP-1101	Originator:	Onshore: Hatfield
Title:	**Identify areas with soft sediments to avoid strong attenuation.**		
Theme:	ON 1.1: Seismic Planning - Areas of poor coupling		
Consortium Lead:	RPS Group	Interviewed Company:	RPS Group
Geography:	ON.REG.00 - Generic onshore		

Challenge Description	
What is not possible / not adequately addressed at present?	
Poor attenuation may be experienced in areas of loose grained sand formations like dunes or the historic path of a river that's changed course.	
What effect does this challenge have on operations?	
Poor data quality is experienced in areas where the source strength is easily dissipated.	
Thematic information requirements:	Land cover Terrain information Topographic information Water Quantity Ortho base images
What do you currently do to address this challenge? How is this challenge conventionally addressed?	
Current and historical topographic maps or satellite imagery to identify potential areas of change/hazard. SRTM and Google Earth on global basis for early planning. Conduct seismic work over winter on frozen ground (reduced attenuation). Use prior knowledge. Areas identified as potentially prone to poor seismic response are monitored during acquistion (reactive system).	
What kind of solutions do you envisage could address this challenge?	
A more scientific approach to correlate land classification against seismic quality.	
What is your view on the capability of technology to meet this need? Are you currently using EO tech? If not, why not?	
Would consider improved data sources, e.g. elevation data resolution.	

Challenge Classification			
Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	1	Climate class:	Generic climate
Exploration:	3	Topographic class:	Not specific
Development:	2	Seasonal variations:	Any season
Production:	1	Impact area:	Data Quality
Decommissioning:	1	Technology urgency:	3 - Immediately (0-2 years)

Challenge Information Requirements	
Update frequency:	Snapshot
Data currently used:	Satellite imagery, Google Earth, SRTM
Spatial resolution:	Regional

Thematic accuracy:	Not specific
Required formats:	Not Specific
Timeliness (Vintage):	Reference data
Geographic extents:	Regional
Existing standards:	None

Relevant products

Content by label

There is no content with the specified labels