Hatfield-3201: Assessment of infrastructure placement and effects to the surrounding environment

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Challenge

Challenge ID:	HCP-3201	Originator:	Onshore: Hatfield
Title:	**Assessment of infrastructure placement and effects to the surrounding environment.**		
Theme:	ON 3.2: Subsidence monitoring - Infrastructure monitoring		
Consortium Lead:	C-CORE	Interviewed Company:	C-CORE
Geography:	ON.REG.00 - Generic onshore		

Challenge Description	
What is not possible / not adequately addressed at present?	
Assess/monitor terrain stability for roads, well pads, pipeline routes, etc.	
What effect does this challenge have on operations?	
Would reduce risk of infrastructure failure or cost of mobilization / demob if there is a need to relocate infrastructure in the future.	
Thematic information requirements:	Surface motion (horizontal and vertical) Terrain information
What do you currently do to address this challenge? How is this challenge conventionally addressed?	
Geotechnical engineering based on surficial geology knowledge, borehole sampling.	
What kind of solutions do you envisage could address this challenge?	
Ground movement, surficial sediment maps, climate change models.	
What is your view on the capability of technology to meet this need? Are you currently using EO tech? If not, why not?	
Data integration and modelling could be difficult. Robust models are needed.	

Challenge Classification			
Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	2	Climate class:	Polar
Exploration:	2	Topographic class:	Not specific
Development:	4	Seasonal variations:	Any season
Production:	4	Impact area:	Cost reduction
Decommissioning:	0	Technology urgency:	2 - Short term (2-5 years)

Challenge Information Requirements	
Update frequency:	Quarterly
Data currently used:	LiDAR Air photos High resolution imagery
Spatial resolution:	Basin

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

Relevant products

Content by label

There is no content with the specified labels