OTM-008: Determine historical ground movement for infrastructure planning

Determine historical ground movement for infrastructure planning

Challenge

	Challenge ID	OTM:008
1	Title	Determine historical ground movement for infrastructure planning
2	Theme ID	ON 3.2: Subsidence monitoring - Infrastructure monitoring
3	Originator of Challenge	Onshore: OTM
4	Challenge Reviewer / initiator	BP, Statoil, PetroSA, Petronas
	General description	Overview of Challenge
5	What is the nature of the challenge? (What is not adequately addressed at present?)	Use of historic ground movement data can influence infrastructure planning, through identification of ground movement trends, etc. It is important to know to what extent and in which direction the is ground moving, before any building /extraction occurs.
6	Thematic information requirements	1. Obtain detailed topographic information, movement, 13. Monitor ground
7	Nature of the challenge - What effect does this challenge have on operations?	Influencing infrastructure planning
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Optical imagery is used
9	What kind of solution do you envisage could address this challenge?	Historical SAR data acquired over areas where infrastructure is planned can be analysed to produce historical ground movement maps. Areas of subsidence / uplift can be identified and avoid when in the planning phase.
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	EO could be a useful complimentary technology
	Challenge classification	
11	Lifecycle stage	Pre license Exp. Dev. Prod. Decom.
	Score from impact quantification [1]	3 3 3 0 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	Infrastructure planning
17	Technology Urgency	Immediately (0-2 years)
	(How quickly does the user need the solution)	
	Information requirements	
18	Update frequency	One off historic
19		
	Data Currently used	
20	Data Currently used Spatial resolution	
20 21	Data Currently used Spatial resolution Thematic accuracy	
20 21 22	Data Currently used Spatial resolution Thematic accuracy Example formats	GIS Shape file
20 21 22 23	Data Currently used Spatial resolution Thematic accuracy Example formats Timeliness	GIS Shape file Within six months
20 21 22 23 24	Data Currently used Spatial resolution Thematic accuracy Example formats Timeliness Geographic Extent	GIS Shape file Within six months Development area only

[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 themes

Content by label

There is no content with the specified labels