

OTM-009: Determine historical ground movement for pipeline routing

Determine historical ground movement for pipeline routing

Challenge

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|----|--|---|------|------|-------|--------|
| | Challenge ID | OTM:009 | | | | |
| 1 | Title | Determine historical ground movement for pipeline routing | | | | |
| 2 | Theme ID | ON 3.2: Subsidence monitoring - Infrastructure monitoring | | | | |
| 3 | Originator of Challenge | Onshore: OTM | | | | |
| 4 | Challenge Reviewer / initiator | BP, Statoil, Petronas | | | | |
| | General description | Overview of Challenge | | | | |
| 5 | What is the nature of the challenge? (What is not adequately addressed at present?) | Pipeline route planning needs to accommodate ground subsidence / movement considerations. Two phases: historical and ongoing. Historical movement can infer future movement patterns. Identifying these can enable alternative routes or mitigation measures can be put in place. | | | | |
| 6 | Thematic information requirements | 1. Obtain detailed topographic information, 13. Monitor ground movement, | | | | |
| 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? | Historic ground movement data could indicate potential future trends. This could be imagery based. | | | | |
| 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 | 1 | 1 | 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 | Infrastructure planning | | | | |
| 17 | Technology Urgency (How quickly does the user need the solution) | Immediately (0-2 years) | | | | |
| | Information requirements | | | | | |
| 18 | Update frequency | One off historic | | | | |
| 19 | Data Currently used | | | | | |
| 20 | Spatial resolution | | | | | |
| 21 | Thematic accuracy | | | | | |
| 22 | Example formats | GIS Shape file | | | | |
| 23 | Timeliness | Reference data - timeliness not important | | | | |
| 24 | Geographic Extent | Development area only | | | | |
| 25 | Existing standards | No industry standards. TRE have their own internal INSAR 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

