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|  | Challenge ID | OTM:045 |
| 1 | Title | Identifying soft ground for seismic vehicles |
| 2 | Theme ID | ON 1.2: Seismic Planning - Identification of adverse terrain for trafficability |
| 3 | Originator of Challenge | Onshore: OTM |
| 4 | Challenge Reviewer / initiator  | PEMEX, Statoil, Exxon, Tullow, Petronas |
|  | General description | Overview of Challenge |
| 5 | What is the nature of the challenge? (What is not adequately addressed at present?) | We need to identify soft ground to avoid seismic vehicles getting stuck |
| 6 | Thematic information requirements | 1. Obtain detailed topographic information, 2. Obtain detailed terrain characterisation, |
| 7 | Nature of the challenge - What effect does this challenge have on operations? | Soft ground not only reduces the accuracy of our seismic output, but also delays operations by slowing the vehicles. |
| 8 | What do you currently do to address this challenge?/ How is this challenge conventionally addressed? | Online imagery, ground survey teams |
| 9 | What kind of solution do you envisage could address this challenge? | As well as information relating to terrain characterisation, analysing topographical data can also be useful since soft ground normally occurs in surface depressions. |
| 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]](#footnote-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 | Operational cost reduction |
| 17 | Technology Urgency(How quickly does the user need the solution) | Immediately (0-2 years) |
|  | Information requirements |  |
| 18 | Update frequency | Specific stage in lifecycle |
| 19 | Data Currently used  |  |
| 20 | Spatial resolution |  |
| 21 | Thematic accuracy |  |
| 22 | Example formats |  |
| 23 | Timeliness | Reference data - timeliness not important |
| 24 | Geographic Extent | district area |
| 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* [↑](#footnote-ref-1)