# Hatfield-4307: Coastal elevation data for tsunami risk analysis

Coastal elevation data for tsunami risk analysis

## Challenge

| Challenge ID: | HCP-4307 | Originator: | Onshore: Hatfield |
|---|---|---|---|
| **Title:** | **Coastal elevation data for tsunami risk analysis.** | | |
| Theme: | ON 4.3: Environmental monitoring - Natural Hazard Risk Analysis | | |
| Consortium Lead: | Hatfield | Interviewed Company: | Hatfield |
| Geography: | ON.REG.05 - Indonesia, Malaysia, Brunei | | |
| **Challenge Description** | | | |
| What is not possible / not adequately addressed at present? | | | |
| Potentially hazardous tsunami zones, evacuation routes , and safe havens need to be mapped and identified for crew safety. | | | |
| What effect does this challenge have on operations? | | | |
| Important safety issue for crews operating in coastal / tsunami-prone areas to manage and mitigate HSE risks. | | | |
| Thematic information requirements: | Land use Topographic information | | |
| What do you currently do to address this challenge? How is this challenge conventionally addressed? | | | |
| Government tsunami risk mapping is used, if available. If not, points of high ground are identified as safe havens. | | | |
| What kind of solutions do you envisage could address this challenge? | | | |
| Regional tsunami risk maps. | | | |
| What is your view on the capability of technology to meet this need? Are you currently using EO tech? If not, why not? | | | |
| Currently feasible to model tsunamis with high-resolution elevation (onshore and offshore) models but there is a lack of capability using EO technology for early detection/warning. | | | |
| **Challenge Classification** | | | |
| Impact on Lifecycle (0=none, 4=high): | | Climate / Topography / Urgency: | |
| Pre-license: | 0 | Climate class: | Generic climate |
| Exploration: | 4 | Topographic class: | Coastal |
| Development: | 4 | Seasonal variations: | Any season |
| Production: | 4 | Impact area: | Health and Safety |
| Decommissioning: | 0 | Technology urgency: | 3 - Immediately (0-2 years) |
| **Challenge Information Requirements** | | | |
| Update frequency: | Snapshot | | |
| Data currently used: | LiDAR, optical imagery, aerial imagery, elevation models | | |
| Spatial resolution: | Regional | | |
| Thematic accuracy: | < 1m | | |
| 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