

# Hatfield-5104: Baseline elevation data for project planning and design

## Baseline elevation data for project planning and design

### Challenge

Challenge ID:	HCP-5104	Originator:	Onshore: Hatfield
Title:	Baseline elevation data for project planning and design.		
Theme:	ON 5.1: Logistics planning and operations - Baseline mapping of terrain and infrastructure		
Consortium Lead:	Arup	Interviewed Company:	Arup
Geography:	ON.REG.00 - Generic onshore		
Challenge Description			
What is not possible / not adequately addressed at present?			
Provision of accurate elevation data for linear route planning and earthworks calculations and design, pipeline flow modelling and leak dispersion modelling - to help define prime alignment and quantification of pumping stations and block valves, and design of other oil and gas infrastructure (airstrips, CPF, LNG).			
What effect does this challenge have on operations?			
Reduce planning costs by determining optimal or most favourable pipeline route alignment and reducing earthworks based on accurate elevation models and data.			
Thematic information requirements:	Topographic information Terrain information Distribution and status of infrastructure		
What do you currently do to address this challenge?			
How is this challenge conventionally addressed?			
Aerial surveys and bespoke commissioning of satellite stereo-surveys.			
What kind of solutions do you envisage could address this challenge?			
High resolution optical images and DEM			
What is your view on the capability of technology to meet this need?			
Are you currently using EO tech? If not, why not?			
Mature technology with lots of choice of sensors			
Challenge Classification			
Impact on Lifecycle (0=none, 4=high):		Climate / Topography / Urgency:	
Pre-license:	1	Climate class:	Generic climate
Exploration:	3	Topographic class:	Not specific
Development:	3	Seasonal variations:	Any season
Production:	1	Impact area:	Cost reduction
Decommissioning:	2	Technology urgency:	3 - Immediately (0-2 years)
Challenge Information Requirements			
Update frequency:	Snapshot		
Data currently used:	Landsat, ASTER, GoogleEarth, RapidEye, aerial photography		
Spatial resolution:	License		
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