

On-shore Project - OTM

Project team

The OTM consortium has now completed this element of the EO4OG workpack. We would like to thank all that contributed to and worked on the project. We hope to have the opportunity to work with you all again soon.

Project Team Members

The team combines expertise in the O&G sector together with specific EO expertise. Led by O&G technology experts, OTM Consulting Ltd, the team includes EO expertise from Geoville, TRE and WesternGeco.

OTM Consulting Ltd

OTM Consulting is a leading firm of independent technology management consultants, specialising in the evaluation, commercialisation and implementation of technologies for the upstream oil and gas sector. We enable companies in the Oil & Gas sector to extract maximum value from their investments in R&D and technology. This value proposition is founded on a unique combination of areas where OTM has particular expertise, all of which focus on Oil & Gas technologies:

- Identifying technology opportunities and threats for businesses
- Deciding which technologies to invest in, and how best to do that
- Applying technologies better and faster
- Engaging with technology practitioners

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Geoville

GeoVille is an internationally operating group specialised in consultancy services and products related to remote sensing, geo-information and geographic information systems. The company has sound experience in handling and working with EO data and derived land use/ land cover information as well as the analysis of this data for monitoring, spatial planning and environmental issues. GeoVille Information Systems core expertise is on the production and processing of EO derived data products as well as adding the geo-information dimension (e.g. integration of land cover data with in-situ or infrastructure information to provide for valuation).

Contact - Maria Lemper: lemper@geoville.com

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WesternGeco

WesternGeco, a Schlumberger company is the world's leading geophysical services company, providing comprehensive worldwide reservoir imaging, monitoring, and development services. WesternGeco's geophysical data acquisition crews and GeoSolutions centres are spread across the globe and offer their clients the industry's most extensive multi-client data library. Their services and products supply their clients with increasingly accurate measurements and images of subsurface geology and rock properties.

Contact - Andrew Cutts: acutts@slb.com

Website: www.slb.com/services/westerngeco.aspx

TRE

Tele-Rilevamento Europa S.r.l has completed over 200 InSAR projects, ranging from measuring ground movement over entire countries to identifying individual building movement for forensic investigations. This knowledge and experience supports every new project undertaken. TRE's founders were the inventors of the PSInSAR™ technique (back in 1999), the icebreaker of the so-called Persistent Scatterer Interferometry. TRE's tradition of innovation has made it possible to develop SqueeSAR™ (2009) and still continues today, with new algorithms and solutions. The number of scientific publications in international journals where TRE staff are co-authors is much higher than what can be claimed by any other competitor worldwide. The president and the CEO of the company have been recently awarded the "2012 eni Award" for the potential impact of their research efforts on the oil and gas sector.

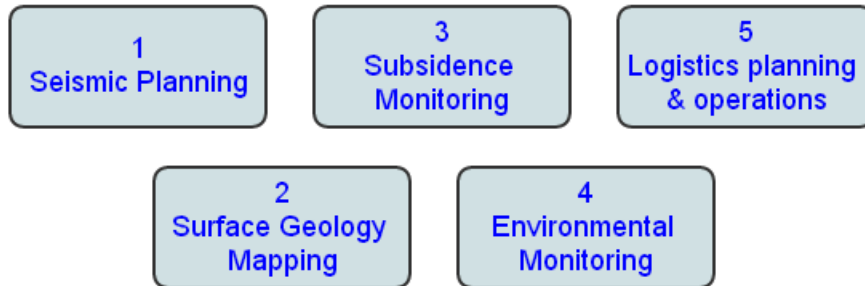
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Challenges

The OTM assessment of information needs is organised into 5 areas; [seismic planning](#), [surface geology mapping](#), [subsidence monitoring](#), [environmental monitoring](#) and [logistics, planning & operations](#). To access the list in each category, click on the links.

The challenges have also been organised into "[challenge trees](#)". To access each challenge tree click on the box in the image below. To see the full challenge tree, open [the pdf file](#). All challenges are available in a single numerical list on the [OTM Challenges page](#).



Seismic Planning

Content by label

There is no content with the specified labels

Surface Geology Mapping

- OTM-025: Early identification of potential hydrocarbon basins
- OTM-054: Understanding the near-surface for anticipating seismic signal absorption properties
- OTM-023: Enabling survey to understand structural properties of the sub-surface for infrastructure planning
- OTM-042: Identifying seasonal terrain changes e.g. for access
- OTM-055: Obtaining detailed terrain mapping for DEM construction
- OTM-059: Understanding outcrop mineralogy
- OTM-051: Identification of fault lines
- OTM-026: Identifying potential hydrocarbon seepage
- OTM-052: Identify the cause of geological movement
- Surface geological mapping: Gulf of Suez, Egypt

Subsidence Monitoring

- OTM-011: Surface infrastructure movement relative to sub-surface
- OTM-001: Identifying effect of fault reactivation
- OTM-008: Determine historical ground movement for infrastructure planning
- OTM-010: Monitoring ground movement along pipelines
- OTM-007: Identify communication between producing zones
- OTM-006: Technical verification relation to injection of fracking fluids
- OTM-009: Determine historical ground movement for pipeline routing
- OTM-004: Regulatory verification relating to injection of fracking fluids
- OTM-020: Tracking groundwater tables
- OTM-003: Subsidence from reservoir draw-down
- OTM-002: Tracking fluid migration in the subsurface

Environmental Monitoring

- OTM-030: Ecosystem valuation of potential site
- OTM-032: Detecting ecosystem damages
- OTM-062: Monitoring revegetation
- OTM-017: Identification of seasonal environment changes e.g. migration patterns
- OTM-065: Floodplain mapping
- OTM-021: Air quality (emissions) monitoring
- OTM-068: Water quality monitoring
- OTM-036: Geohazard exposure analysis
- OTM-029: Prelicensing site selection
- OTM-067: Change detection of coastline migration
- OTM-022: Detecting hydrocarbon leaks
- OTM-031: Creating an ecosystem inventory prior to exploration
- OTM-028: Land use mapping to detect the social impact of O&G developments

- [OTM-033: Mapping of environmental degradation \(change\)](#)
- [OTM-015: Geological and terrain base maps for development of environmental baseline](#)

Logistics, planning & operations

- [OTM-073: Identifying sources of building resources](#)
- [OTM-049: Identifying unregulated overhead power cables](#)
- [OTM-040: Security of pipelines](#)
- [OTM-064: Avoiding aerial mapping restrictions](#)
- [OTM-060: Forecasting landslide locations](#)
- [OTM-014: Forecasting sand dune migration](#)
- [OTM-070: Understanding security situations](#)
- [OTM-071: Planning around protected sites](#)
- [OTM-075: Creating basemaps in politically challenging regions](#)
- [OTM-078: Remote supervision of operations](#)
- [OTM-041: Vegetation encroachment on O&G asset](#)
- [OTM-074: Estimating ground bearing capacity](#)
- [OTM-079: Identification of archaeological or burial sites](#)
- [OTM-076: Understanding activity beneath the tree canopy](#)
- [OTM-077: Validating co-ordinates of old wells](#)

Meetings

Participants to discussions

Meeting	Date	Location	Agenda	Notes	Comments/Documents
Workshop	KO +10 months	London	TBC		
Progress meeting 1	6 June 2014	London (Gatwick)	TBC		KO+3 progress meeting
Kick-off	7th March 2014	Frascati			

Documents

This is the area to show published documents for review or for use. Documents in preparation by the team should be kept on the project team page.

Review process

Please see the documents in the table below for a summary of the Task 1 findings.

To add comments specific to a challenge (referenced by it's ID code OTM:0XX), please access the challenge pro-forma via the '**Challenges**' tab and add comments to the base of the page.

Thank you for contributing to the study.

Task 1 Deliverables - for industry review

Document	Source	Date	Description
Consolidating Report	OTM	7 July 2014	Summary of Task 1 findings
Appendix A - Challenge trees	OTM	8 July 2014	Organogram display of O&G challenges identified during Task 1
Appendix B - Country profiles	OTM	7 July 2014	Overview of countries included within OTM study
Challenge spreadsheet	OTM	8 July 2014	More detailed description of challenges listed in challenge trees

Progress reports

Document	Source	Date	Description
Kick-off Presentation	OTM	7th March 2014	Outline of the project and planning
KO+1 progress report	OTM	7th April 2014	Progress at KO+1
KO+2 progress report	OTM	7th May 2014	Progress at KO+2

KO+3 progress report	OTM	7th June 2014	Progress at KO+3
Challenge trees	OTM	10th July 2014	Structures challenges