

# 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

Contact - Mark Butcher: [mark.butcher@otmconsulting.com](mailto:mark.butcher@otmconsulting.com)

Website: [www.otmconsulting.com](http://www.otmconsulting.com)

### 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](mailto:lemper@geoville.com)

Website: [www.geoville.com](http://www.geoville.com)

### 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](mailto:acutts@slb.com)

Website: [www.slb.com/services/westerngeco.aspx](http://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.

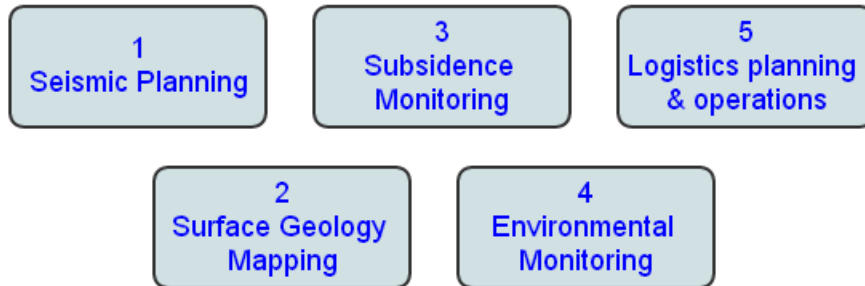
Contact - Alastair Belson: [alastair.belson@treuropa.com](mailto:alastair.belson@treuropa.com);

Website: [www.treuropa.com](http://www.treuropa.com)

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

## Subsidence Monitoring

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

## Environmental Monitoring

- [OTM-029](#): Prelicensing site selection

- OTM-032: Detecting ecosystem damages
- OTM-034: Monitoring hydrocarbon leaks
- OTM-067: Change detection of coastline migration
- OTM-062: Monitoring revegetation
- OTM-065: Floodplain mapping
- OTM-021: Air quality (emissions) monitoring
- OTM-022: Detecting hydrocarbon leaks
- OTM-036: Geohazard exposure analysis
- OTM-028: Land use mapping to detect the social impact of O&G developments
- OTM-030: Ecosystem valuation of potential site
- OTM-031: Creating an ecosystem inventory prior to exploration
- OTM-019: Reconnaissance survey for EIA
- OTM-015: Geological and terrain base maps for development of environmental baseline
- OTM-017: Identification of seasonal environment changes e.g. migration patterns

## Logistics, planning & operations

- OTM-077: Validating co-ordinates of old wells
- OTM-075: Creating basemaps in politically challenging regions
- OTM-076: Understanding activity beneath the tree canopy
- OTM-056: Locating repeater stations for communications infrastructure
- OTM-049: Identifying unregulated overhead power cables
- OTM-066: Tracking volumes of oil stored
- OTM-024: Urban encroachment on O&G assets
- OTM-078: Remote supervision of operations
- OTM-057: Firemapping
- OTM-038: Planning secondary surveys
- OTM-040: Security of pipelines
- OTM-041: Vegetation encroachment on O&G asset
- OTM-050: Identifying near surface infrastructure
- OTM-069: Change detection for competitor intelligence
- OTM-037: Identification of road or track for logistics planning

## 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 its 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
<a href="#">Consolidating Report</a>	OTM	7 July 2014	Summary of Task 1 findings
<a href="#">Appendix A - Challenge trees</a>	OTM	8 July 2014	Organogram display of O&G challenges identified during Task 1
<a href="#">Appendix B - Country profiles</a>	OTM	7 July 2014	Overview of countries included within OTM study
<a href="#">Challenge spreadsheet</a>	OTM	8 July 2014	More detailed description of challenges listed in challenge trees

#### Progress reports

Document	Source	Date	Description
<a href="#">Kick-off Presentation</a>	OTM	7th March 2014	Outline of the project and planning
<a href="#">KO+1 progress report</a>	OTM	7th April 2014	Progress at KO+1
<a href="#">KO+2 progress report</a>	OTM	7th May 2014	Progress at KO+2
<a href="#">KO+3 progress report</a>	OTM	7th June 2014	Progress at KO+3
<a href="#">Challenge trees</a>	OTM	10th July 2014	Structures challenges