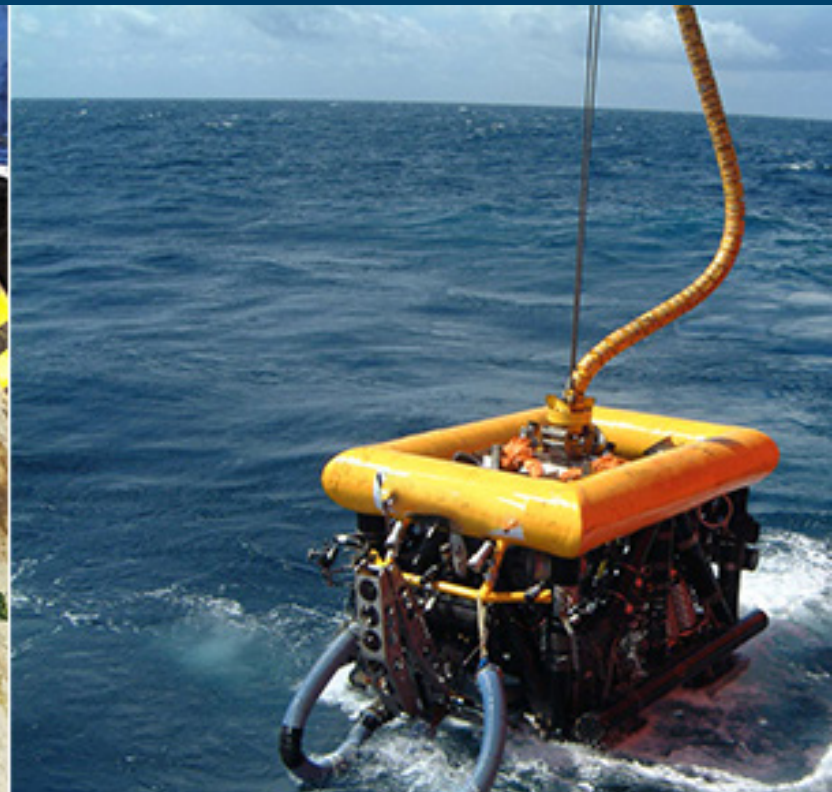
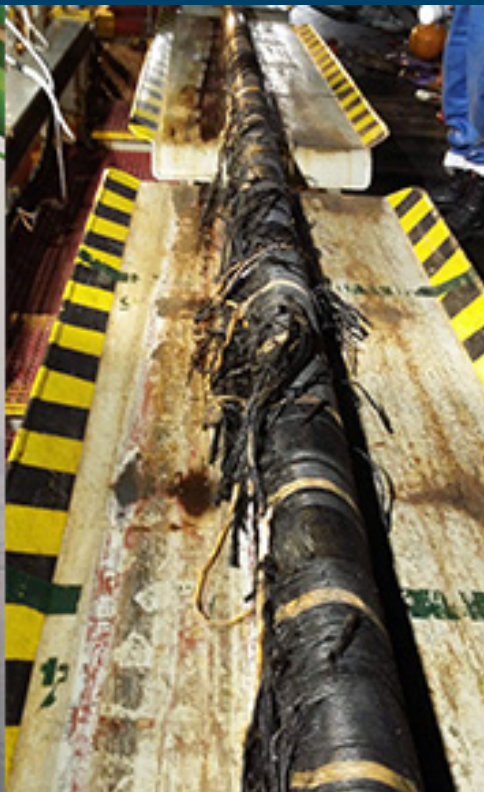


Cable Track Record 2019



CATHIE



Project	Client	Start	End	Location	Country
Burial Assessment Study of discrete locations along two cable routes including plough modelling.	Confidential	November 2019	December 2019	Southern North Sea	United Kingdom
Cable Burial Risk Assessment.	Global Marine System Ltd	November 2019		Pentland Firth East Cable Replacement	United Kingdom
Geological Desktop Study (DTS), routing and CBRA for several spanish cable crossings.	Confidential	October 2019		Spain and islands	Spain
Ploughing performance support for simultaneous lay and burial 5m below non-mobile seabed.	Tideway BV	August 2019	September 2019	HKN - HKWa	Netherlands
Burial Assessment Study.	Confidential	August 2019	September 2019	Belgian Continental Shelf	Belgium
Cable Burial Risk Assessment for NNG export cables	Prysmian	June 2019	July 2019	NNG	United Kingdom
Cable Burial Risk Assessment of NNG IAC	DEME Offshore	June 2019	July 2019	NNG	United Kingdom
Geoscience support for the development of a new wind farm on the East coast of the UK including desktop study, site walkover surveys at cable landfall, preliminary offshore routing and cable corridor design, cable landfall feasibility study.	Confidential	June 2019		East coast UK wind farm	United Kingdom
Plough Optimisation.	Soil Machine Dynamics	May 2019	July 2019	Fecamp	United Kingdom
Cable inspection services.	Confidential	June 2019	June 2019	Shetland	United Kingdom
Burial Assessment, including an analysis of the optimum configuration of the jetting nozzles of the Otter trencher.	Osbit	June 2019		Silver Run Transmission Project	USA
Burial depth requirements for Seagreen Phase 1 array cables in advance of potential Cable Burial Risk Assessment works in the future.	Geosea	May 2019	May 2019	Seagreen	United Kingdom

Project	Client	Start	End	Location	Country
50 kg drag anchor penetration estimation.	Confidential	May 2019			Netherlands
Cable Thermal Design - detailed modelling of thermal properties of the soil surrounding a buried cable.	Equinor	May 2019		Dogger Bank	United Kingdom
Burial assessment for the export cables of the Hollandse Kust Noord (HKN) and West Alpha (HKWa) wind farm.	Prysmian	April 2019		Hollandse Kust Noord and West Alpha	Netherlands
Cable burial risk assessment for export and array cables of a UK East Coast wind farm.	Confidential	April 2019	May 2019	Southern North Sea	United Kingdom
An installation contractor has had difficulty reaching the required depth-of-lowering for a North Sea Interconnector project.	Confidential	April 2019	April 2019	North Sea	Belgium
Burial Assessment Study to cover ~70km of export cables (+ ~60km of optional routes) for Empire Wind.	Confidential	March 2019	April 2019	Empire Wind NY	USA
Cable Route Engineering.	Assodivers Underwater Contractors	March 2019	March 2019	Yeu Noirmoutier	Spain
Yme Detailed Burial Assessment.	Global Marine System Ltd	March 2019	April 2019	CAUK GMSL Yme Cable System	Norway
Jetting Trencher Configuration.	Confidential	February 2019		English Channel	United Kingdom
CBRA of Offshore Wind Farm Export Cables.	Confidential	February 2019	April 2019	Baltic Sea	Germany
Burial Assessment Review and Jetting Trencher Configuration.	Confidential	February 2019			United Kingdom and France
Cable Integrity Risk Assessment for the Array cables to ascertain the current level of risk from shipping, fishing and sediment mobility (taking into account multiple bathymetric surveys).	Innogy	January 2019	February 2019	Galloper Offshore Wind Farm	United Kingdom
Preliminary and detailed cable route engineering.	Confidential	December 2018	February 2019	North Sea	Belgium

Project	Client	Start	End	Location	Country
Cable Route Engineering.	Confidential	November 2018	January 2019	North Sea	Denmark
High level Cable Protection Study.	Xodus Ltd	November 2018	December 2018	Pentland Firth Replacement Distribution Cable	United Kingdom
Tender level burial assessment for the EA3 export cable.	Tideway BV	November 2018	November 2018	EA3	United Kingdom
Cable Burial risk assessment & Burial Assessment.	Jan De Nul	November 2018	December 2018	Formosa OWF	Taiwan
Burial assessment, trencher tool selection and trencher configuration design for Norther OWF export cable.	Confidential	October 2018	November 2018		Belgium
Preliminary burial assessment for 35km long cable route section. Burial requirement is 5m. Planned equipment: Large jet sledge or ejector system from barge.	Alcatel Submarine Networks	October 2018	October 2018	HKA cable	Hong Kong
Preliminary burial assessment and route engineering.	Tideway BV	September 2018	October 2018	Dogger Bank - Creyke Beck OWF	United Kingdom
Injector and rock trencher assessment for inter connector burial in Bahrain.	Prysmian	September 2018		Sitra-Hidd Interconnectors Bahrain	Bahrain
CBRA, routing and micro routing for infield and export cables.	Innogy	August 2018		Sofia OWF	United Kingdom
Cable Integrity Risk Assessment of the two subsea export cables that transmit power generated from the Thanet Offshore Wind Farm.	Xodus Ltd	August 2018		Thanet OWF	United Kingdom
Trenching assessment and trenching optimisation.	Soil Machine Dynamics	July 2018	August 2019	Hainan II	China
Cable Inspection between Shapinsay to Stronsay, Orkney.	Xodus Ltd	July 2018	July 2018	Shapinsay - Stronsay	United Kingdom

Project	Client	Start	End	Location	Country
Cable Integrity Risk Assessment for a subsea power cable on the US West Coast.	Confidential	June 2018	July 2018	US West Coast	USA
Cable Integrity Risk Assessment for a US West Coast Interconnector.	Confidential	June 2018	July 2018	Confidential	USA
CBRA and Burial Assessment Study (BAS) for the West Biscay Interconnector.	INELFE S.A.S	June 2018	August 2018	West Biscay ITC	France
Macro routing to avoid outcropping rock and minimising freespans for a Greece - Crete Interconnector.	Assodivers Underwater Contractors	May 2018	June 2018	Greece Interconnector	Greece
CBRA and burial performance prediction for infield and export burial cables with additional HDD consultancy support for the Moray East OWF.	Energias de Portugal Renovaveis	April 2018		Moray East	United Kingdom
Expert Witness role to review the design of rock berm crossings for a UK OWF.	Confidential	May 2018	June 2018	Confidential	United Kingdom
Cable Integrity Risk Assessment including assessment of existing survey data and reporting of key priorities for remediation program.	Xodus Ltd	May 2018	June 2018	Greater Gabbard	United Kingdom
Orkney Interconnector CBRA.	Xodus Ltd	April 2018	June 2018	SSE Orkney	United Kingdom
CBRA and review of HDD design for the No. 3 transmission Line between Jeju island and the Korean mainland.	Dohwa Engineering Ltd.	May 2018	Ongoing	KEPCO No. 3 Transmission Line	South Korea
Preliminary routing support, Detailed CBRA – including provision of shipping related information, and Burial Assessment Study for the Kincardine OWF.	SIEM Offshore	March 2018	April 2018	Kincardine OWF	United Kingdom
Plough Sinkage Calculations for the Nordstream pipeline.	Deep Ocean	March 2018	March 2018	Nordstream	Denmark
High level CBRA for the CWA II export cables.	50Hertz Transmission	March 2018	June 2018	CWA II	Germany
Burial Assessment study for the Borssele 01 & 02 OWF array cables.	SIEM Offshore	February 2018	March 2018	Borssele 01 & 02 OWF	Netherlands
Bathymetric comparison exercise between three separate survey datasets for the Cobra Cable.	Prysmian	February 2018	March 2018	CobraCable Nearshore NL-GER	Netherlands

Project	Client	Start	End	Location	Country
Burial Assessment Study report for the Johan Sverdup Offshore Power Cables Phase II.	NKT HVC BV	February 2018	March 2018	Johan Sverdup Offshore Power Cables Phase II	Norway
Pre-sweep volume assessment for the Hollandse Kust (Zuid) cables by comparing bathymetric datasets against a Non-Mobile Reference Level.	Nexans Norway	January 2018	February 2018	Hollandse Kust Zuid	Netherlands
Burial Assessment Study for the Danish Krieger Flak and Vesterhav OWFs.	SIEM Offshore	January 2018	February 2018	Danish Offshore Windfarms	Denmark
Performance assessment of a mass flow excavation tool for pipeline rectification in Durban.	Tideway BV	January 2018	April 2018	Durban	South Africa
Review of client's Burial Assessment Study for the Viking Interconnector project.	NKT HVC BV	November 2017	February 2018	Viking Interconnector	United Kingdom
CBRAs for array cables on Kriegers Flak and array/export cables on Vesterhav (Nord and Sud).	Vattenfall	February 2017	Ongoing	Kriegers Flak and Vesterhav Offshore Wind Farms	Denmark
High level assessment of plough suitability for trenching the CWA II export cable in glacial till (1.5m to 3m depth of cover).	Tideway BV	October 2017	October 2017	CWA II	Germany
Calculations for the estimated progress rate and burial for a 1200kW trencher in the soil conditions at the Johan Sverdup site. An independent review of soil conditions was also performed.	Alcatel Lucent	October 2017	October 2017	Johan Sverdrup	Norway
Cable Burial Risk Assessment (CBRA) for the Hornsea 2 OWF (HOW02) array cables in accordance with the Carbon Trust Guidelines.	Orsted	September 2017	October 2017	Hornsea II OWF Array Cables	United Kingdom
Macro and micro routing support for the St. Nazaire OWF array Cables.	Assodivers Underwater Contractors	August 2017	September 2017	St Nazaire Array Cables	France
CBRA and Cable Protection Analysis Report – covering the whole NorthConnect route survey corridor from Longhaven Bay, UK to Simadalen, Norway.	NorthConnect K5	July 2017	June 2018	United Kingdom-Norway	Norway, United Kingdom

Project	Client	Start	End	Location	Country
Routing and CBRA for the IFA2 interconnector project.	Prysmian	June 2017	Ongoing	IFA2	United Kingdom
Retrospective CBRA on Walney I OWF export cable.	Blue Transmission	May 2017	June 2017	Walney I Export Cable	United Kingdom
Burial Assessment Study for the shallow water section of the Cobra export cable.	Prysmian	May 2017	June 2017	Cobra Export Cable	Denmark
Pre-tender burial assessment for 2 x 8km routes, 2 trenchers, Dockyard Reach portion of the Johor Straits in Singapore.	Global Marine System Ltd	May 2017	June 2017	SPPG Power Cables	Singapore
Review of a BA report for the re-burial of sections of the Princess Amalia OWF export cable route.	Eneco	May 2017	May 2017	Princess Amalia OWF	Belgium
Completion of a Cable Burial Risk Assessment for the BKR02 Array and Interlink cables in accordance with the Carbon Trust guidelines.	Orsted	April 2017	June 2017	Borkum Riffgrund II	Germany
Retrospective CBRA in the Baltic Sea.	Confidential	March 2017	July 2017	Offshore Germany	Germany
Review and update of initial risk assessment carried out by the end client for 470km of cable, confirming the probability of failures over the cable lifetime with the proposed method of protection/burial. The evaluation of the probability of failure according to surface lay and fully protected scenario's were established. Revaluated the jetting areas, developed conceptual design for two new swords, and reviewed the breakdown of the route for a suitable jetting configuration.	Prysmian	February 2017	May 2017	North Sea Link	United Kingdom
Preliminary burial assessment for three cable routes in the Philippines.	Confidential	February 2017	February 2017		Philippines
Bearing capacity assessment for trenching tool operating in very low strength clay.	Deep Ocean	January 2017	January 2017	Walney	United Kingdom
Detailed CBRA to define and refine burial requirements on the Aberdeen Offshore Wind Farm.	VBMS	January 2017		Aberdeen Offshore Wind Farm	United Kingdom
Provision of burial assessment and assistance for the development of operations procedures for a newly acquired jet trenching system for the telecoms cable installation industry.	Omega Subsea UK	January 2017		Flexjet 1	India

Project	Client	Start	End	Location	Country
Burial assessment study for the infield cables of a wind farm offshore Belgium. The scope of work consisted of : - Review topography and calculate pitch and roll of the trencher and potential free spans along the cable routes. - Review and describe in detail the expected soil conditions along the infield cable routes. - Assess the expected progress rate and the achievable burial depth for two different trenchers along the infield cables.	Confidential	December 2016	January 2017	Offshore Belgium	Belgium
Development and supply of a plough performance model.	Alcatel Lucent	December 2016	January 2017	Arctic	USA
Survey consultancy and supervision for an expert cable geotechnical survey connecting floating wind farm to shore.	Confidential	November 2016	December 2016	Offshore Atlantic Ocean	
Conceptual CBRA and definition of likely range of required burial depths for infield cables on a UK Round site.	Confidential	November 2016	November 2016	UK Round 3 Wind Farm	United Kingdom
Assessment of impact to subsea cables due to boulders displaced by mechanical backfilling operations.	Confidential	November 2016			United Kingdom
Detailed CBRA for Triton Knoll Offshore Wind Farm export and array cables.	Triton Knoll Offshore Wind Farm Ltd.	October 2016		Triton Knoll Offshore Wind Farm	United Kingdom
Western Isles Cable Burial Risk Assessment (CBRA).	Xodus Ltd	September 2016	December 2016	Western Isles	United Kingdom
Trenching assessment and trenching tool modelling to investigate feasibility and achievable progress rates of mounting a cutting wheel on an existing trenching system for the inter array-cables of an Offshore Wind Farm with challenging soil conditions.	Confidential	September 2016	October 2016	Baltic Sea	Denmark
Technical advisor to due diligence process for a potential wind farm investment. Primary focus on infield cable asset integrity.	Confidential	August 2016	September 2016	UK Round 2 Wind Farm	United Kingdom

Project	Client	Start	End	Location	Country
Review of trenching procedures for a HVDC cable project, examining in particular the applicability of high pressure and low pressure jetting, with either backwash or educator tools in operation.	Confidential	August 2016	August 2016		United Kingdom
Investigation of proposed HP and LP jetting system to provide recommendations for optimising the nozzle configurations of both jetting systems, to be used for specific very soft clay sections of an interconnector route.	Confidential	June 2016			United Kingdom
In order to evaluate a new, novel design, a conceptual review of the proposed jetting system was performed, and benchmarking of the expected performance with other typical trenchers on the market. In addition, a route map to getting to a final design stage using physical scale modelling and numerical modelling was developed.	Confidential	June 2016	June 2016		United Kingdom
Burial assessment for Burbo Bank Extension project.	Modular Underwater Systems Limited	June 2016	June 2016	Burbo Bank Extension	United Kingdom
Survey consultancy and supervision for cable route surveys.	Xodus Ltd	May 2016	November 2016	SSE Western Isles	United Kingdom
Third party review of burial assessment for DoIWin3 Offshore Grid Connection HVDC installation.	TenneT	May 2016	June 2016	DoIWin 3	Germany
CBRA for Offshore wind farm in the Southern North Sea.	Confidential	May 2016	June 2016	North Sea	Belgium
CBRA for the marine cable connection between the Ceres wind farm site and Adelaide.	Senvion	April 2016		Ceres	Australia
Third party review of burial assessment for Nordsee One offshore wind farm.	TenneT	April 2016	April 2016	Nordsee One	Germany
Detailed burial assessment examining the use of multiple trenching tools for a UK offshore wind farm.	Confidential	April 2016	April 2016	North Sea	United Kingdom
Development of an excel based trencher performance model for an SMD plough to be used to trench the Hornsea offshore wind farm export cable.	Jan De Nul	February 2016	February 2016	Hornsea	United Kingdom

Project	Client	Start	End	Location	Country
Assessment of sediment mobility for the inter-array cables of a Round 3 wind farm offshore UK. Definition of a reference seabed level(e.g. that is non-mobile) as well as an estimation for pre-sweeping volumes for each of the cable routes.	Confidential	February 2016	February 2016	Offshore United Kingdom	United Kingdom
Cable burial risk assessment and definition of cable protection requirements for an export cable on a floating offshore wind project, including river crossing study, design and management of the geotechnical survey for the submarine cable and river crossing and assist the client during tender selection of the geotechnical survey contractor.	Confidential	February 2016		Offshore Atlantic Ocean	
Feasibility study relating to cable burial and protection along a river in Schœlcher area(Fort-de-France, Martinique). A geotechnical survey problem was also defined with regards to the available soil data and site conditions.	Réseau de transport d'électricité de France	February 2016	February 2016	Martinique	France
Preliminary burial assessment and trencher performance prediction for inter array cables on a German Offshore wind farm.	Confidential	February 2016	February 2016	Offshore Germany	Germany
Development of a Burial Tool Performance Assessment for an offshore wind farm. The scope of work of the study included a burial assessment along the export cable and inter array cable routes and an assessment of the suitability of the nominated trenchers.	Confidential	January 2016	January 2016	Offshore Belgium	Belgium
Technical support and tender evaluation for the installation of two submarine cables at east side of the island of Martinique.	Réseau de transport d'électricité de France	January 2016		Martinique	France
Detailed burial assessment of infield cables on UK offshore wind farm.	Confidential	December 2015		United Kingdom	United Kingdom
Part of owner's engineer team dealing with all seabed aspects of planning, design and installation of export cabling.	Confidential	December 2015		English Channel	United Kingdom
CBRA for Danish offshore wind farm.	Confidential	December 2015		Denmark	Denmark
Conceptual burial assessment for UK Round 3 offshore wind farm.	Confidential	December 2015		United Kingdom	United Kingdom

Project	Client	Start	End	Location	Country
Burial Assessment for a UK Round 3 offshore wind farm.	Confidential	December 2015		North Sea	United Kingdom
Assessment and comparison of the performance of 3 cable ploughs.	DeepOcean	December 2015	December 2015		United Kingdom
Metocean and sediment mobility desk studies to support the consolidation of the local power network in Martinique.	Confidential	November 2015			France
Conceptual burial assessment for UK offshore wind farm.	Confidential	October 2015		United Kingdom	United Kingdom
Burial assessment and CBRA training for a cable installation contractor.	CT Offshore	October 2015	October 2015	Denmark	Denmark
Development of trenching tool reference sheets for cable installation contractor.	Confidential	October 2015	November 2015	United Kingdom	United Kingdom
Preliminary burial assessment for infield cables on a UK Round 3 offshore wind farm.	Confidential	October 2015		United Kingdom	United Kingdom
Post lay burial assessment for a section of export cable approximately 600m in length where a cable repair has been undertaken.	Confidential	October 2015		Irish Sea	United Kingdom
Burial and sediment mobility assessment for cable installation on a round 3 UK wind farm.	Confidential	September 2015		Southern North Sea	United Kingdom
Third party review and enhancement of CBRA for the Race Bank project.	DONG Energy	August 2015	August 2015	Race Bank	United Kingdom
CBRA methodology and development support to major offshore wind developer.	DONG Energy	August 2015	September 2015	United Kingdom	United Kingdom
Preliminary burial assessment for infield cables on a UK offshore wind farm.	Confidential	June 2015		United Kingdom	United Kingdom
Trencher performance prediction.	Confidential	June 2015		Netherlands	Netherlands
Third party review of burial assessment in chalk.	Confidential	June 2015	June 2015	United Kingdom	United Kingdom
Routing review and full service survey consultancy (geophysical and geotechnical) for two submarine HVDC power cables.	Confidential	June 2015		Martinique	France
Geotechnical design, settlement analysis and installation analysis for an Umbilical Termination Assembly (UTA) U-shaped mudmats, located offshore Canada.	Confidential	June 2015		Canada	Canada

Project	Client	Start	End	Location	Country
Preliminary burial assessment to lower an existing telecoms cable to facilitate an export cable crossing.	Confidential	April 2015	April 2015	Baltic Sea	Germany
Preliminary burial assessment for infield cables on a German offshore wind farm on a cable-by-cable basis.	Confidential	March 2015	April 2015	Baltic Sea	Germany
CBRA for an offshore wind demonstration site.	Confidential	March 2015		North Sea	United Kingdom
Management of GIS data for and HVDC interconnector project.	Confidential	February 2015			Denmark
Route engineering for the export cables on the Race Bank offshore wind farm.	Jan De Nul	January 2015	July 2015	Race Bank	United Kingdom
Development of a jet trenching and mechanical chain cutting model for a trencher. The model covers jet trenching in sand and clay and mechanical cutting in sand, clay and rock.	Jan De Nul	January 2015			Belgium
Preliminary burial assessment for a UK offshore wind farm.	Confidential	January 2015		United Kingdom	United Kingdom
Preliminary burial assessment for a UK offshore wind farm.	Confidential	January 2015		United Kingdom	United Kingdom
Preliminary burial assessment for a UK offshore wind farm.	Confidential	January 2015		United Kingdom	United Kingdom
Preliminary burial assessment for a UK offshore wind farm.	Confidential	December 2014	December 2014	United Kingdom	United Kingdom
Review of existing technical documents (surveys and studies) to determine risks to a submarine cable project, benchmarking against other similar projects. Data gap analysis was also performed alongside provision of recommendations for future work.	Confidential	November 2014	December 2014	Chile	Chile
Secondment to an offshore developer to act as foundation/geotechnical engineer for an offshore demonstrator site.	Confidential	November 2014		United Kingdom	United Kingdom
A review of constraints within an export cable route corridor and proposed separation and routing strategy for 8,10 and 12 cables. A review of mobile sediment and potential volumes of dredging to be conducted to mitigate this.	Confidential	October 2014	November 2014	United Kingdom	United Kingdom

Project	Client	Start	End	Location	Country
Preliminary burial assessment for a German offshore wind farm.	Confidential	August 2014	October 2014	Germany	Germany
Preliminary burial assessment for the inch Cape offshore wind farm.	REEF Subsea	August 2014	August 2014	Inch Cape	United Kingdom
Preliminary burial assessment for a UK offshore wind farm.	CT Offshore	August 2014	August 2014	Burbo Bank Extension	United Kingdom
Export cable route selection, offshore survey, burial risk assessment and burial assessment.	Energias de Portugal Renovaveis	June 2014	August 2014	Viana do Castelo	Portugal
Routing, burial risk assessment and burial assessment for cables crossing a river, Southwest Ireland.	Confidential	June 2014			Ireland
Burial assessment for infield and export cables on Danish offshore wind farm.	Confidential	May 2014		Denmark	Denmark
CBRA and Burial Assessment for UK Round 3 offshore wind farm.	Confidential	May 2014			United Kingdom
Burial assessment for the Nordsee Ost offshore wind farm.	Visser & Smit Marine contracting	May 2014		Nordsee Ost	Germany
Burial assessment for the North Sea telecommunications cable project.	Confidential	April 2014	May 2014		Norway
Burial risk assessment and burial assessment for a Dutch offshore wind farm.	Confidential	March 2014	April 2014		Netherlands
Burial assessment of cable ends on UK offshore wind farm.	Confidential	March 2014	April 2014		United Kingdom
Burial assessment for an export cable on a UK offshore wind farm.	Confidential	March 2014	March 2014	North Sea	United Kingdom
Engineering for scoping of trenching trials in French sector offshore wind.	Confidential	February 2014		Offshore France	France
Burial assessment for two German offshore wind farms.	Confidential	January 2014	February 2014		Germany
CBRA for infield and export cables on the Burbo offshore wind farm.	DONG Energy	December 2013	April 2014	Burbo Bank Extension	United Kingdom
CBRA for infield and export cables on the Walney offshore wind farm.	DONG Energy	December 2013	May 2014	Walney Extension	United Kingdom
Preliminary burial assessment for the inter array cables on the Gwynt y Mor Offshore wind farm.	CT Offshore	November 2013	November 2013	Gwynt y Mor	United Kingdom

Project	Client	Start	End	Location	Country
Research and development project as lead authors of a program shift in the appropriate assessment of risk to subsea cables. Resulted in the Carbon Trust Burial Risk Assessment methodology.	Xodus Ltd	November 2013			United Kingdom
CBRA for infield cables on the Borkum Riffgrund Offshore wind farm.	CT Offshore	November 2013	December 2013	Borkum Riffgrund I	United Kingdom
Long term survey consultancy and supervision for in-service interconnector assets.	Confidential	November 2013	December 2013		United Kingdom
Desk study, review of the available data, completion of a hazard assessment and to provide preliminary recommendations for the implementation of a HVDC cable river crossing. Two locations were being investigated.	Confidential	November 2013	December 2013		Nigeria
Burial assessment and cable routing requirement study on a French offshore wind farm. Includes appraisal of recent survey data, updating of soil province models and selection of appropriate burial tools.	Confidential	October 2013		Bay of Biscay	France
Preliminary burial assessment for the inter array cables on the Gode Wind II offshore wind farm.	CT Offshore	September 2013	October 2013	Gode Wind II	Germany
Feasibility study for installation of an electric cable on a route characterised by very challenging soils. Electrical conductivity of expected soils were also predicted.	Confidential	August 2013	September 2013		France
Provision of geoscience consultancy services for landing area for a significant power cable between Norway and the UK including specification for ground investigation and feasibility study for horizontal directional drilling. Coastal erosion assessment to define the need of coastal defences at landing point.	Intertek	August 2013	April 2014	North Sea Network HDD	United Kingdom
Preliminary burial assessment for the inter array cables on the Galloper offshore wind farm.	REEF Subsea	August 2013	August 2013	Galloper Wind Farm	United Kingdom
Burial assessment of the proposed Normandy 3 route for an electrical interconnector cable between the coasts of Jersey and France. Report reviewed the likelihood of achieving the required burial depth with the proposed plough in the seabed conditions identified from the geophysical and geotechnical surveys. Indicative anticipated plough towing forces and progress rates were also provided.	Prysmian	July 2013		Normandy 3 Cable	France

Project	Client	Start	End	Location	Country
<p>Burial assessment study for the infield cables of a wind farm offshore Belgium. The scope of work consisted of :</p> <ul style="list-style-type: none"> - Review topography and calculate pitch and roll of the trencher and potential free spans along the cable routes. - Review and describe in detail the expected soil conditions along the infield cable routes. - Assess the expected progress rate and the achievable burial depth for two different trenchers along the infield cables. 	Confidential	July 2013	April 2014	Offshore Belgium	Belgium
Holistic industry-wide review of trenching systems suitable for the inter array cables on the Wikinger offshore wind farm. Lay and burial methodologies were reviewed, in addition to the trencher types. Particular site risks were assessed in relation to industry capabilities and an overall risk profile for the site was developed.	Iberdrola Renovables Offshore Deutschland	July 2013	September 2013	Wikinger	Germany
Burial risk assessment, burial assessment, on bottom stability assessment and rock berm design for the Gwynt y Mor offshore wind farm.	RWE	June 2013	June 2014	Gwynt y Mor	United Kingdom
Geotechnical survey design(scope and specification) for infield cables on the Westermost Rough offshore wind farm.	Technip Offshore Wind Ltd	May 2013	July 2013	Westermost Rough	United Kingdom
Geotechnical review and burial assessment for a German offshore wind farm.	Confidential	April 2013	June 2013	North Sea	Germany
Burial risk assessment, cable routing and assessment of spud can natural backfill for the Borkum West II offshore wind farm.	Technip Offshore Wind Ltd	March 2013	March 2013	Borkum West II	Germany
Burial assessment, burial risk assessment and route position listings for an offshore wind farm.	Confidential	February 2013	June 2013		United Kingdom
Preliminary burial assessment for the infield cables on the Borkum Riffgrund offshore wind farm.	Beatrice Offshore Wind Ltd	January 2013		Beatrice Offshore Wind Farm	United Kingdom

Project	Client	Start	End	Location	Country
Provision of Burial Risk Assessment for the NEMO HVDC Interconnector cable linking the UK with Belgium to aid tendering by contractors for the cable installation work scope. The approximate length of the cable is 120km. This assessment outlined the required cable burial depth along the route to mitigate the risk from hazards to the cable and where required, suggested alternative protection methods. The study considered all natural and anthropogenic hazards both primary and secondary.	National Grid	November 2013	May 2013	NEMO Interconnector	Belgium
Desk study and data review of the Race Bank offshore wind farm in order to assess the suitability of trenching tools and capabilities.	REEF Subsea	November 2012	December 2012	Race Bank	United Kingdom
Burial assessment and assessment of jet trenching tools for the installation of the inter array and export cables of a UK offshore wind farm.	Confidential	October 2012	November 2012	North Sea	United Kingdom
Review of as-installed data with reference to the performance predictions provided in burial assessment. Where target burial depths have not been achieved, causes are established, the residual risk to the cables and the possible measures that are required to remediate the risk.	Technip Offshore Wind Ltd	September 2012	May 2012	Gunfleet Sands 3	United Kingdom
Preliminary burial assessment for the inter array cables of the Kentish Flats offshore wind farm.	Confidential	August 2012	September 2012	UK	United Kingdom
Route engineering and route position listing spreadsheets and cable alignment charting, 2D/3D modelling of seabed data and delivery of training seminars for the Westermost Rough offshore wind farm.	Technip Offshore Wind Ltd	August 2012	June 2014	Westermost Rough	United Kingdom
Framework for cable burial protection strategy and to provide target burial depths for the Gunfleet Sands 3 demonstration project.	DONG Energy	August 2012	September 2012	Gunfleet Sands 3	United Kingdom
Desk based study and seabed conditions review on the approach to the Thanet offshore wind farm.	Visser & Smit Marine contracting	February 2012	February 2012	Teesside	United Kingdom
Provision of survey consultancy and supervision for the geophysical survey for the NorGer Electrical Interconnector project.	Statnett AS	January 2012	January 2012	Norway Germany Electrical Interconnector	Germany

Project	Client	Start	End	Location	Country
Provision of survey consultancy and supervision during the final aspects of the route survey campaign for the 711 km HVDC cable between Norway and UK.	Statnett AS	January 2012	January 2012	UK Norway Interconnector	United Kingdom
Development of preliminary marine HVDC route from Puerto Montt to Yelcho Sur and HVAC crossing in Southern Chilean Fjords as part of the Southern Power Project.	Intertek	January 2012	January 2012	Southern Power Project Electrical Cable	Chile
Development of preliminary 711 km HVDC interconnector route from Norway to UK. Engagement comprised survey consultancy and supervision and survey design.	Intertek	January 2012	January 2012	UK Norway interconnector	United Kingdom
Preliminary burial assessment for the export and inter-array cables of the Tees-side offshore wind farm.	Confidential	January 2012	January 2012	North Sea	United Kingdom
Project specific training for subsea cable burial on the WODS offshore wind farm array cables.	CT Offshore	December 2011	January 2012	West of Duddon Sands	United Kingdom
Burial assessments of infield cables on the Baltic II offshore wind farm for both wheel cutter and jet trenching methodologies.	Visser & Smit Marine Contracting	July 2011	October 2011	Baltic II	Germany
Burial assessment of inter-array and collector cables on the Lincs offshore wind farm.	Technip Offshore Wind Ltd	July 2011	July 2012	Lincs	United Kingdom
Desk based study and seabed conditions review for the inter-array cables of the Riffgat Array offshore wind farm.	Technip Offshore Wind Ltd	July 2011	August 2011	Riffgat Array	Germany
Burial assessment of export cables on the Riffgat offshore wind farm.	Technip Offshore Wind Ltd	June 2011	July 2011	Riffgat	Germany
Burial assessment for two proposed export cables routes for a UK offshore wind farm.	Confidential	May 2011	May 2011		United Kingdom

Project	Client	Start	End	Location	Country
Plough uplift assessment for burial of cables on the Lincs offshore wind farm.	Technip Offshore Wind Ltd	May 2011	June 2011	Lincs	UK
Burial assessment of the power and communication cables for a German offshore wind farm.	Confidential	April 2011	May 2011		Germany
Preliminary burial assessment for the export cables of a UK offshore wind farm.	Confidential	April 2011	May 2011	West Coast UK	UK
Preliminary burial risk assessment and burial assessment for the inter-array cables in the Gwynt y Mor offshore wind farm.	Technip Offshore Wind Ltd	April 2011	June 2011	Gwynt y Mor	UK
Burial assessment of inter-array cables on the HoHe See offshore wind farm.	Technip Offshore Wind Ltd	April 2011	May 2011	Hohe See	Germany
Comparison of 4 jet trenching systems and derivations of their anticipated performance for the burials of HDVC cables. The assessment was then applied to an export cable route.	Confidential	March 2011	April 2011		Germany
Review of burial predictions for jetting burial on the Thanet offshore wind farm.	Subocean	November 2010	December 2010	Thanet	UK
Cable routing, RPLs and charting for the installation of inter-array cabling on the Sherringham Shoal offshore wind farm.	Visser & Smit Marine Contracting	August 2010	April 2012	Sherringham Shoal	UK
Preliminary burial assessment for the Eldepasco offshore wind farm.	Subocean	July 2010	September 2010	Eldepasco	Belgium
Burial risk assessment, back analysis, cable routing, cable burial assessment, and cable recovery for the export cables for Greater Gabbard offshore wind farm.	Subocean	June 2010	December 2010	Greater Gabbard	UK
Cable installation engineering and burial assessment for the Piamphol Brehat tidal array.	Subocean	June 2010	July 2010	Paimpal Brehat	France
Cable routing assessments for the BIMEP wave energy demonstration site.	Subocean	June 2010	June 2010	Bimep	Spain

Project	Client	Start	End	Location	Country
Seabed conditions review, burial assessment, trenching engineering and burial assessments for the infield cables of the Sherringham Shoal offshore wind farm.	Visser & Smit Marine Contracting	June 2010	November 2010	Sherringham Shoal	UK
Preliminary burial assessment for the export cable of the Kriegers Flak Offshore wind farm.	Subocean	May 2010	May 2010	Kriegers Flak	Germany
Burial assessment focusing on the maximum attainable burial for the inter-array cables on the Thanet offshore wind farm using a jet burial tool.	Thanet Offshore Wind Farm Ltd	May 2010	June 2010	Thanet	UK
Provision of in excess of 20 burial assessments for jet trenching in addition to conceptual design of jetting swords for cutting stiff clays, and jetter performance modelling.	Modular Underwater Systems Limited	February 2009	December 2013		UK
Review of the geotechnical and geophysical data relevant at each turbine location and an estimate of the expected burial performance of a jetting burial system on the Rhyl Flats offshore Wind farm.	Oceanteam	February 2008	November 2008	Rhyl Flats offshore Wind farm	UK
Expert review of jet trenching performance for jet sled and tracked ROV jetting tool for power cable burial (1.5-3 m depth) on Egmond and Zee wind farm as part of contract dispute and claims.	Oceanteam	April 2007	April 2008	Egmond aan Zee	Netherlands



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