



FUGRO SUBSEA CABLES: ENVIRONMENTAL

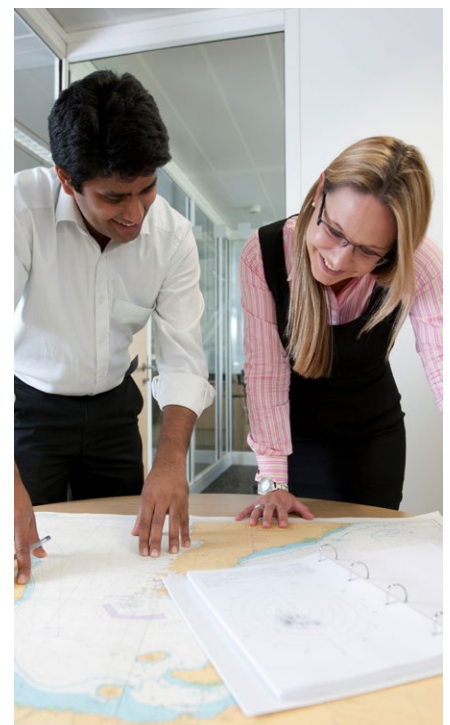
The projected growth of both offshore renewables and telecommunications, along with greater regional and international cooperation in power transmission, has increased the need for both subsea power and telecommunication cables.

The early planning of cable installation involves not only the engineering aspects of cable routing and installation, but also the significant environmental considerations required to reduce delays and minimise project costs.

Fugro has an established team of marine environmental consultants and technical specialists who work closely with cable engineering specialists at each stage of the project.

Fugro's marine environmental consultancy services include:

- Marine consenting, policy and legislation support
- Feasibility and desktop studies
- Environmental constraints studies
- Environmental Impact Assessments (EIA) and appraisals
- Environmental Management Plans
- Geophysical and ecological survey recommendations
- Regulatory and non-statutory stakeholder consultation
- Risk mapping and GIS



Providing regulator and stakeholder consultation support and advice.



FEASIBILITY AND DESKTOP STUDIES

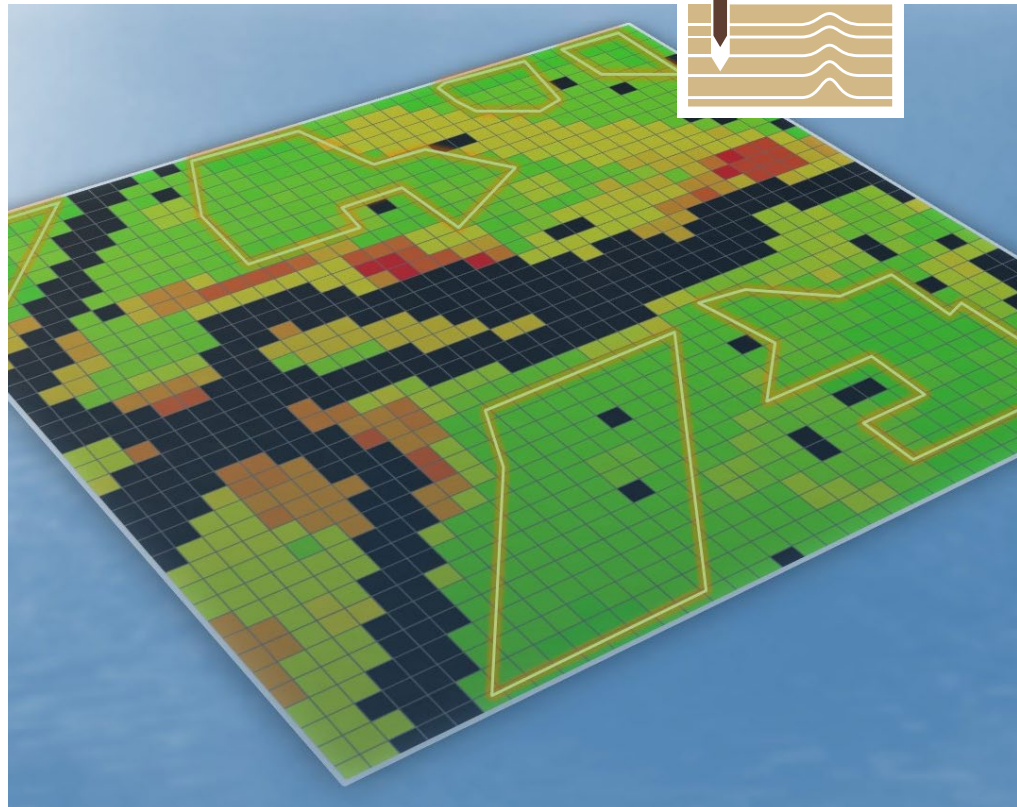
It is important to assess and understand potential constraints that may impact on subsea cable projects. Fugro has an extensive track record in identifying, mapping, assessing and presenting environmental, spatial and temporal constraints.

Typical constraints studied by Fugro include:

- Protected areas / nature conservation designations
- Benthic ecology
- Biosecurity and marine growth
- Fish ecology
- Marine mammals
- Birds
- Maritime archaeology
- Metocean conditions
- Geological conditions
- Landfall characteristics
- Socio-economics
- Fishing activity
- Military practice and exercise areas
- Shipping and navigation
- Unexploded ordnance (UXO)

STAKEHOLDER ENGAGEMENT

The public perception and legislation involving environmental issues are dynamic and constantly evolving. Fugro works closely with clients, regulators and other stakeholders to ensure that our advice and services are always up-to-date, avoiding unnecessary project delays during the permitting and appraisal process.



Constraints mapping and GIS support (hard constraints are in black, and areas with less constraints i.e. areas with less consent risk, are in green).

LICENSING AND ENVIRONMENTAL REPORTING

Cable installation projects require that environmental conditions be managed and discharged correctly in order to meet appropriate environmental licensing requirements.

Fugro's marine environmental consultancy team has expert knowledge and experience in environmental licence management, including preparing and managing marine licence applications and environmental survey requirements.



Environmental survey, drop down camera image.

Fugro's licensing and environmental reporting services include:

- Route feasibility studies
- Assessment of pre-lay activities to inform regulatory consenting decisions and licence applications
- Preparation of Environmental Statement / Environmental Appraisal and associated technical reports
- Habitat Regulations Assessment
- Licence management and environmental advisory services
- Regulatory and non-statutory stakeholder consultation
- GIS and data management



Deployment of The Dual Van Veen Grab.