MES uses its wide experience from Greenfield and Brownfield projects from Onshore and Offshore installations to offer clients support within the following studies:

**Escape, Evacuation and Rescue Analysis (EERA)**

EERA is a technique to evaluate the performance of the emergency response facilities and procedures. It is most effectively undertaken in conjunction with a QRA, and consists of a structured review of the performance of the escape, evacuation and rescue facilities and procedures in representative scenarios. The EER strategy is determined case by case based on performance standards.

**Emergency Systems Survivability Analysis (ESSA)**

MES uses the following approach to carryout ESSA:
- From Bowtie assessment, emergency systems are identified
- Survivability duration of emergency systems is determined against performance standards criteria
- Location of Emergency Systems
- Assessment of Vulnerability of Emergency Systems
- Assessment of Redundancy

**TR Specification preparation**

This involves:
- Advise on the testing requirements to achieve a positive internal pressure for the specified TR endurance time;
- TR HVAC fire dampers reliability and availability; and
- Developing TR HVAC performance standards.

**Temporary Refuge Impairment Studies (TRI)**

TRI is a determination of the survivability of the TR in terms of its ability to protect the occupants for a specific time period in such a way that they will remain unimpaired until such a time that they determine a need to evacuate the installation or recover following a hazardous event. The risk assessment (particularly the consequence modelling) is best used to define the necessary time for which TRI would be required in the relevant accident scenarios and the levels of explosion overpressure, thermal radiation, smoke, toxic gas etc. to which it would be exposed. This identifies the key protective systems required for the TR and thus enables the appropriate performance standards to be set and evaluated against compliance criteria.

**Preparation of Performance Standards**

This involves:
- Verification and Examination Scheme for the Safety Critical Elements (SCEs) of the installation.

**Dropped Object Risk Assessments**

MES has undertaken various Dropped objects risk assessments on subsea installations and on the platform deck for various clients in the Offshore industry.

**Recent Safety Support Experience**

- Agip KCO – Kashagan EP EWRP ESSA Study
- Atkins/Saipem (Petrobras) – FLNG EERA Study
- Granherne (Hess) – South Arne Phase III Eastern and Northern WHPs ESSA Study.
- Shell Bonga FPSO – upgrade project ESSA and EERA Study.
- Technip/Atkins (Shell) – Generic FLNG Concept EERA Study.
- Agip KCO – Onshore Processing Facility – Field Temporary Refuge assessment from Fire/Blast and Toxic Gas Ingress.
- Agip KCO – Eskene West Rail Project – Determination of Temporary Refuge requirements on Rail Loading facility and marshalling yard.
- Petrofac (Tullow) – Schooner and Ketch TR Impairment Studies.
- ENI Hewett Deborah A & B Platforms – Dropped Object Studies
- Granherne (HESS) – South Arne Phase III Development Dropped Object Study for Eastern WHP.