

Pipeline Transportation & Installation Support

HGIS holds an extensive track record in supporting the offshore construction and installation sector. We have been supporting main construction companies for the Pan Malaysia Transportation & Installation of Offshore Facilities since 2010.

HGIS is a service provider that truly understands the nature and processes of offshore construction and installation offering the best solutions for the installation of:

- Rigid Pipelines
- Flexible Flowline and Umbilical
- Spoolpiece / Jumper and Tie-In Operations
- Subsea Structure such as PLEMS or PLETS
- Subsea Power or Fiber Optic Cables
- Subsea Rock Installation
- Trenching and Dredging Operations

FEATURES

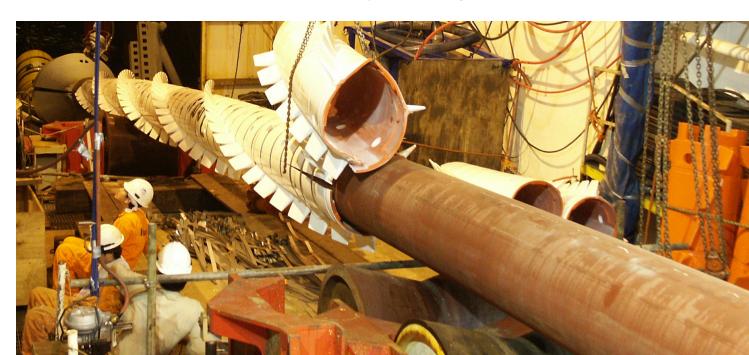
- √ Expertise in Inertial Navigation System (INS) results in potential time and equipment savings leading to a reduction in overall costs.
- √ Integration of high accuracy tools to provide real-time positioning and navigation and overcoming any drop-outs.
- √ HGIS BMS & TMS X-BOX proven design and survey grade instrumentation with high accuracy, reliability and update rate.
- √ Latest Sonardyne 6G Technology with improved accuracy in precise acoustic range and high-speed data telemetry.
- √ Acquire accurate reports on the final absolute position to monitor and detect any lateral displacement. (horizontal alignment).
- √ Identify and assess the status of freespans, uplifts, trenching works and self-burial along the product route (vertical alignment).
- √ Report accurate positions of any external damage, debris/seabed features in close proximity to the product.
- √ Receive your data and reporting with OGP Seabed Survey Data Model (SSDM) compliance formatting.

HEADQUARTERS

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ROUTE CLEARANCE SURVEY FOR PRE-FEED OR FEED STAGE

BENEFITS



Plan it Early Early stage requirements for pre-engineering survey.



Identify the **Features** Perform Geophysical and Geotechnical

samplings.



Know Your Route Determine the suitability of the selected routes.



Identify Hazards Acquire accurate data and identify potential hazards to determine the best pipeline route.

PRE-LAY OR POST-LAY SURVEY (OFFSHORE/ NEARSHORE)

BENEFITS



Bathymetry Map Acquisition

Acquire accurate water depth bathymetry map showing the topography of the seabed within the survey corridor.



Mapping Of Anchoring Corridors

Ensure that the anchoring corridors are clearly mapped for seabed obstructions that may impede the installation process.



Lateral Variations Identification

Check and identify lateral variations of the shallow and intermediate lithostratigraphy based on acoustic characteristics.



Crossing Points Identification

Identify crossing points of existing pipelines, submarine cables and any other item close proximity to the design route.



Final Confirmation

Post-lay survey of the flowline, umbilical, pipeline and record of position and condition of the structure laid.



Mean Seabed **Topography** Acquisition

Pre and Post Trench/Dredge Survey acquiring seabed topography and mean seabed level around the proposed dredging/trenching location.

PIPE LAY POSITIONING & NAVIGATION SUPPORT

BENEFITS



Control During Lay

Provide position and heading control during lay to maintain the predicted Touchdown Point (TDP).



Horizontal Offset

Monitor the horizontal offset on any associated fixed point on the vessel to the line's TDP (layback).



Final As-Installed

Acquire final as-installed position fixes relative to the design data at pertinent locations.



Monitor **Cross-Course**

Monitoring of the cross-course distance from the ROV pipeline/flexible TDP to the design route centerline.



Mattress/Sleeper **Positioning**

Provide underwater acoustic positioning of mattress/sleeper support where an existing pipeline or cable is crossed.



Measure with Acoustic

Provide Underwater Acoustic Positioning and LBL subsea metrology for any subsea structure installation such as PLEM, PLET or Spool Piece.

OTHER RELATED SERVICES

- Provision of Onshore Engineering and Topographical Survey.
- Provision Survey Support for Trenching and Dredging Operations.
- · Provision of Post Pipeline/Cable Burial Survey.
- Provision of Survey Support for Rock Installation Operations.
- Provision of Positioning Support for ROV Inspections / Installations.
- Decommissioning and Abandonment Survey Support.