AEM ENERSOL
Advanced Engineering & Management for Energy Solutions

AEM ENERGY SOLUTIONS

Company Profile



AT A GLANCE

2015



Company Establishment

2016 - 2019



Awarded Contract :

- Provision of Subsurface Technical Consultancy for PETRONAS Carigali Brunei Ltd (Kelidang Cluster Digital Blueprint)
- Provision of Top Down Modelling Study for PETRONAS Carigali Sdn. Bhd.

2020 -



Awarded Contract :

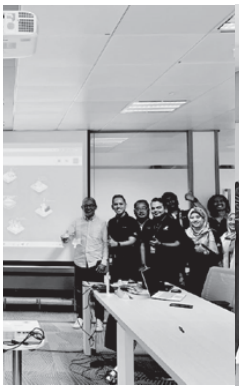
- Provision of Technical Data Services for PETRONAS Group
- Provision of Drilling Online Integrated Dashboard (DROID) System Enhancement & Support Maintenance for PETRONAS Digital Sdn. Bhd

Since 2016, **>100 projects in Technical Data Services (Surface & Subsurface), Wells Engineering & Web-based Application** have been executed.

2021

- Provision of Top Down Modelling Study for Sea Hibiscus Sdn. Bhd.
- Registered Member of The Open Group

2022 - 2024





Awarded Contract :

- Wells Digital Solutions for Enquest

Contract Extension :

- Provision of Technical Data Services for PETRONAS Group
- Provision of Drilling Online Integrated Dashboard (DROID) System Enhancement & Support Maintenance for PETRONAS Digital Sdn. Bhd.

2025



Awarded Contract :

- Panel Appointment for Digital Solution Delivery Professional Services for PETRONAS Group of Companies (Global Delivery Center 2.0)
- PETRONAS UpstreamTechnology Pathway Partnership
- Global Market Penetration Partnership with Industry Leaders
- ISO 27001: 2022 Certification (Upgrade Version)

DIGITAL TRANSFORMATION SERVICES



Technical Data Service

Transforming Data into Valuable Information

We excel in transforming unstructured data into structured, valuable information for both surface and subsurface operational datasets. Our approach ensures that raw data is converted into meaningful insights, driving better decision-making and operational efficiency.

Value Creation :

- Enable unstructured data enablement.
- Unlock data potential
- Enable data driven, ML/AI implementation
- Adopting industry global standard (Open Subsurface Data Universe (OSDU), etc.)



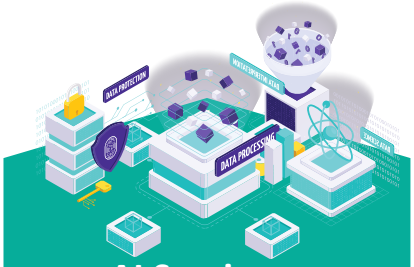
Digital Services

Enabling seamless digital transformation for Upstream

We provide expert consultancy, tailored solutions development, and seamless integration services, ensuring comprehensive digital transformation with efficient, user-friendly, and industry-compliant results, supported by continuous optimization and support.

Value Creation :

- Empower business process automation
- Integrating complex business solutions
- Optimize critical business insights
- Accelerate data to value creation



AI Services

Enabling Enterprise AI and LLM Powered Intelligence

We provide enterprise AI solutions, Large Language Model (LLM) integration, and Generative AI capabilities to help organizations enhance knowledge accessibility, accelerate intelligent decision making, and enable scalable AI driven transformation across business operations.

Value Creation :

- Enable enterprise AI driven solutions
- Implement LLM and Generative AI capabilities
- Transform enterprise knowledge into intelligent
- Accelerate operational efficiency through AI driven

GROUP OF COMPANIES HIGHLIGHTED TRACK RECORD

1) System & Software Solutions

- Digital Services Panel with PETRONAS Carigali Sdn. Bhd.
- Digital Services Panel with PETRONAS Group of Companies under Global Delivery Centre
- Digital Services Panel with EnQuest
- Digital Services Panel with Halliburton Energy Services (Malaysia) Sdn. Bhd.
- Digital Services Panel with Malaysia Petroleum Management (MPM)
- Kementerian Kemajuan Desa & Wilayah (KKDW) - Web based Development for Programme Coordination

2) Data Solutions

- Provision of Technical Data Services for PETRONAS Group of Companies (2024 - 2027)
- Umbrella Contract for Provision of Technical Data Services for PETRONAS Group (2021-2024)
- Ownership Transfer (OT) Exxon - PETRONAS (Database Migration & Analysis)
- Strategic Initiatives JV between PETRONAS and ENI - Database & System Migration

3) Corporate Finance Advisory

- IPO for Main Market – Swift Haulage Berhad, listed in 2021
- IPO for ACE Market – Infoline Tec Group Berhad, listed in 2022
- Cross-border Transaction – acquisition of telco company by a Singaporean telco providers
- Corporate Finance Adviser of a private equity fund - NAFAS
- Arranger for Islamic Term Financing Facility (automotive company) - RM150 million

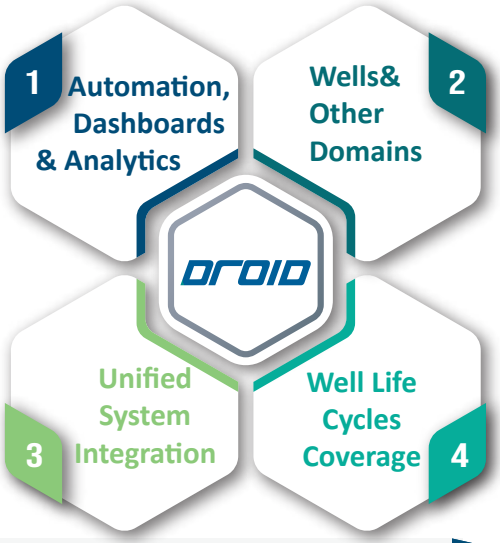
4) Event & Exhibition

- Unit Penyelarasan Perlaksanaan JPM (ICU JPM) - Karnival Kesenian Islam dan Malam Mahabbah Madani
- Kementerian Kemajuan Desa & Wilayah (KKDW) - Hari Keluarga KKDW
- Kementerian Sains, Teknologi dan Inovasi (MOSTI) - Program Madani Rakyat Kelantan
- MET Malaysia - Symposium Biokeselamatan
- Decathlon - Grand Opening Gurney Paragon, 1 Utama & few other locations
- Media & Advertising - Setahun YAB Perdana Menteri, Datuk Seri Anwar Ibrahim Daripada Perspektif Media Antarabangsa
- Media & Advertising - ASEAN 2025 Media Coverage

HIGHLIGHTED PROJECT

Web-based Engineering Application Development for PETRONAS

Drilling Online Integrated Dashboard (DROID): Since 2018, AEM Enersol in collaboration with PETRONAS Wells team developed DROID application to digitally transformed PETRONAS Wells ways of working. There was a need to create a centralized platform capable of alleviating well management pain points, which included data management complexities, untapped data silos, fragmented cross-functional business processes, as well as the need for integrated reporting and a more efficient approval mechanism.



Key Features

1 Automation, Dashboards & Analytics

- Machine Learning for Prediction - Wells Analytics (JV AFE Cost)
- Automated Data Extraction and Mapping – JV Autoloader Module
- Automated Approval Process – Rig Planning Module
- Automated Reporting based on latest Dataset – Daily Drilling Management Highlight (DDMH), Daily Management Summary (DMS) & Well Performance Module
- DROID Mobile Apps – DROID +
- Generative AI & Prescriptive Analysis – GenAI

The User

- More than 1,000 Users across PETRONAS Wells department.
- **Cross Department Users:**
  Master Integrated Scheduler (MIS) team
  UP & EVP Dashboard team

2 Wells & Other Domains

The Content

3 Unified System Integration

- 9 Main Elements consisting of 26 Workflow :
- Various Well data sources connection & modelling
- Integrated workflows and autonomous business processes
- Data Management
- Data Analytics

9 Main Elements

Wells HSE | Wells Technology Simulator | Daily Operation Summary | AccuWell | Well Schematic Generator | Rig & Resource Scheduling | Wells Analytics | Wells Performance | Well Intervention & Integrity

CDBS & App

Integration with PETRONAS (CDBS & Application)

- PGPS (Production)
- EDM OpenWells (wellSCAPE)
- PI data
- MOC
- Digital Well Program (DWP)
- Well Cost Software
- SKILLS (Drilling Technology Catalogue)

4 Well Life Cycles Coverage