

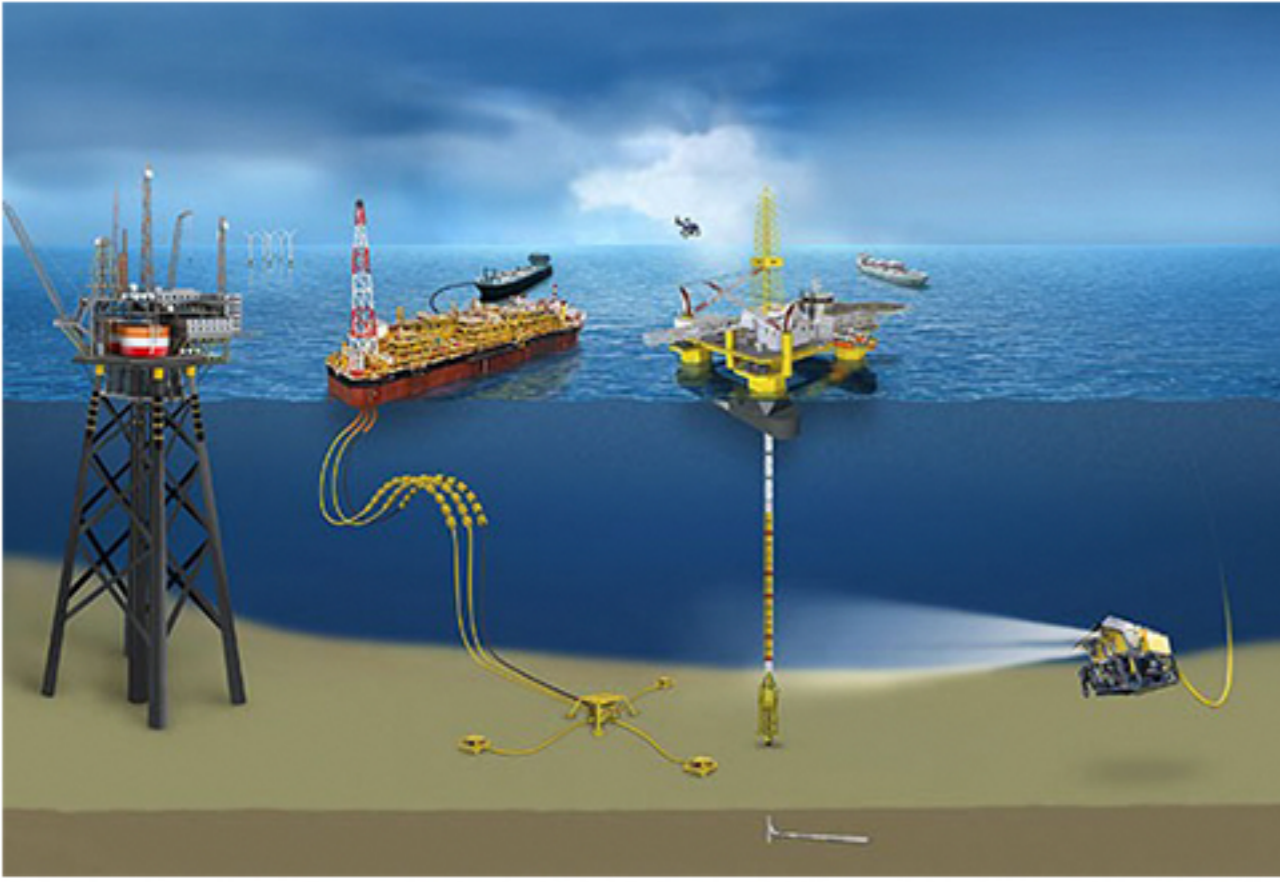
SEPADUTM SPECIALTY



Engineering Services for Offshore Projects



Engineering Consultancy Services for Offshore Facilities



Field Development Studies



FPSO Topsides



Wellhead Platforms(WHP)



FLNG Facilities



Central Processing Platforms(CPP)



Offshore Wind

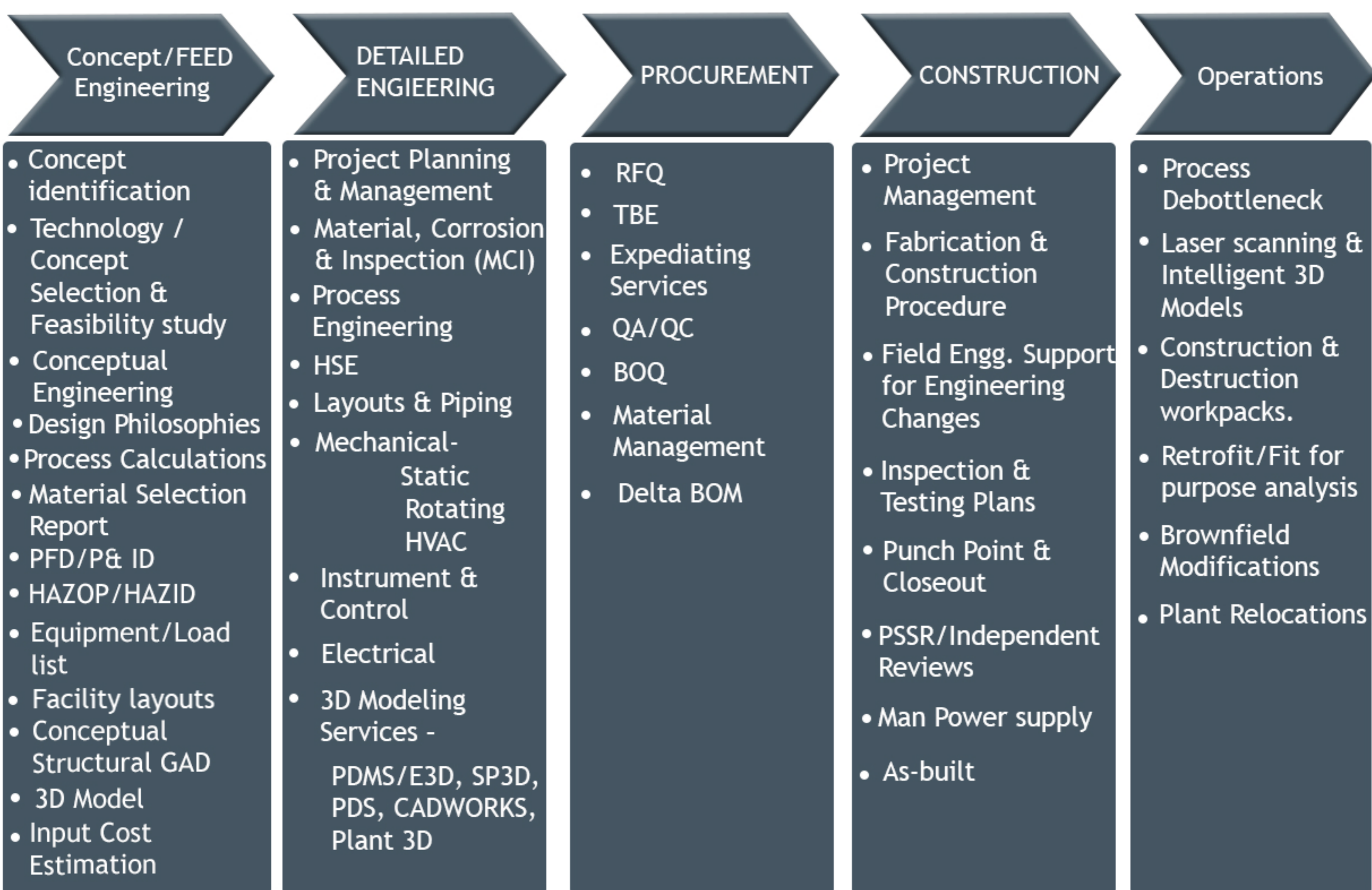
- Conceptual / FEED
- Detailed Engineering
- Procurement Support

Services for following offshore facilities

- Field Development Studies
- Wellheads(WHP)
- Central Processing Platform(CPP)
- FPSO Topsides, FLNG, GTW, GTL

- Project Management Services
- Laser Scanning & Brownfield Engineering
- Asset integrity management services

- Wind Power Plant
- Barge Mounted Power Plant, Gas processing Package,
- CO2 Capture, FGD/SCR-Sox-Nox Control



Project Management

- Project Planning & Control
- Construction Management Support

- Cost Estimation & Optimisation

Engineering-Process & Safety

- Concept Selection & Conceptual Engineering.
- Steady State & Dynamic Process Simulation
- PFD, UFD, Mass & Heat Balance
- Equipment & Relief System Sizing
- PID'S, PDS , Load List, Equipment List
- HAZOP, HAZID, QRA, Fire & Explosion
- Dispersion, Fume & Flare radiation studies
- Fire Water Demand & Surge analysis study

Software & Tools: SP PID, ASPEN HYSYS, HTRI, FLARENET, FLARESIM, PIPESIM, PIPENET, AFT Software, CFD

Engineering- Instrumentation & Control

- Instrument Design Basis
- Specification & Datasheets
- Logic diagrams & Loop diagrams
- Control system design & specification
- Wiring drawings, Instrument Hook-ups

Softwares & Tools- Instrucalc & SP-Instrumentation

Engineering -Mechanical

- Design & Datasheets for Static Equipment
- Skids & Rotating Packages
- HVAC Load Calculations
- Duct fabrication drawings
- RFQ/TBE-Static, Rotating & HVAC
- Fabrication Drawings MTO
- Field Engineering Support

Software - PV Elite, Compress, E-Tank.

Engineering-Piping

- Plot Plans
- Conceptual Equipment layouts,
- Piping Material Specifications & datasheets
- Study Piping GAD
- Pipe stress Reports
- 3D Models- SP 3D/PDMS/CADWORKS
- Deliverable
Material take off
Piping GAD
Isometrics-System/Spool Isometrics
support Detail Drawings
- Piping Fabrication & Field Engineering
- As-built Engineering

Software - SP 3D, PDS, PDMS, CADWORKS, AUTOCAD Plant 3D, CEASAR 2, SPOOLGEN

Engineering- Electrical

- Electrical Equipment Datasheets
- Single line Diagrams (SLD)
- Power system simulation-ETAP/EDSA Load, Fault, Transient stability, ARC Flash analysis cable Scheduling, Tray Sizing, & Transformer sizing.
- Wiring diagram & Cable Tray Layouts
- Lighting Layouts
- 3D Modeling- Cable tray & Electrical Equipment

Software - SP 3D, PDMS, SP Electrical & ETAP

Engineering-Architecture /Civil & Structural

- Conceptual Structural GAD Drawings
- Foundation Design & GAD
- Structural Analysis for RCC & Steel
- Dynamic Structural Analysis
- Detail Fabrication & Installation drawings
- MTO

Software - SP 3D, PDMS, TEKLA, BOCAD, REVIT, STADPRO, SACS

3D Modeling & Integrated Engineering Services- AVEVA Engineering (E3D, PDMS, PID)

AVEVA Engineering

AVEVA Electrical & Instrumentation

AVEVA Diagrams

AVEVA E3D

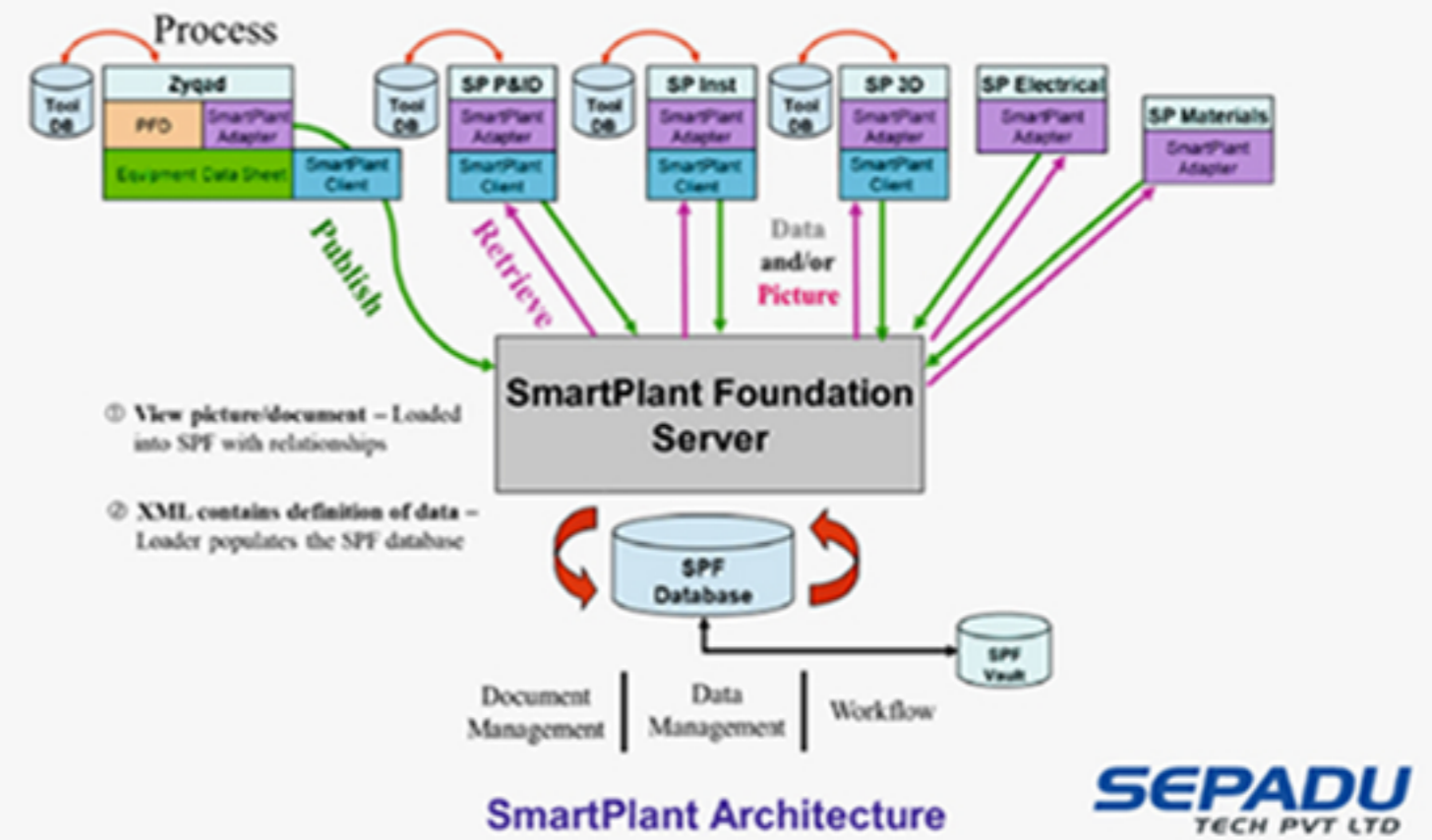
AVEVA Bocad

Integrated Engineering & Design

Sharing same technology architecture

- Concurrent, multi-discipline, multi-user, multi-site working environment
- The schematics data is managed together with the 3D and Engineering data **in the same project environment**
- Single definition of Status/Maturity
- Users can easily access reference data from other applications and vice versa
- Existing system administration skills can be used for all applications
- Open Configuration/Customisation
- Standards driven data governance (CFRHS, ISO15926, customer standards)

HEXAGON PPM (SPF, SP3D, SP PID SP Materials, SP Instrumentation)



Autodesk Inc. Plant Design AEC Collection

INFRAWORKS

AUTOCAD CIVIL 3D

AUTOCAD

REVIT

NAVISWORKS MANAGE

AUTOCAD mobile app

AUTOCAD RASTER DESIGN

RENDERING IN A360

VEHICLE TRACKING

3DS MAX

AUTOCAD MAP 3D

AUTOCAD ELECTRICAL

AUTOCAD ARCHITECTURE

AUTOCAD MEP

FORMIT PRO

AUTOCAD PLANT 3D

INSIGHT

STRUCTURAL ANALYSIS FOR REVIT

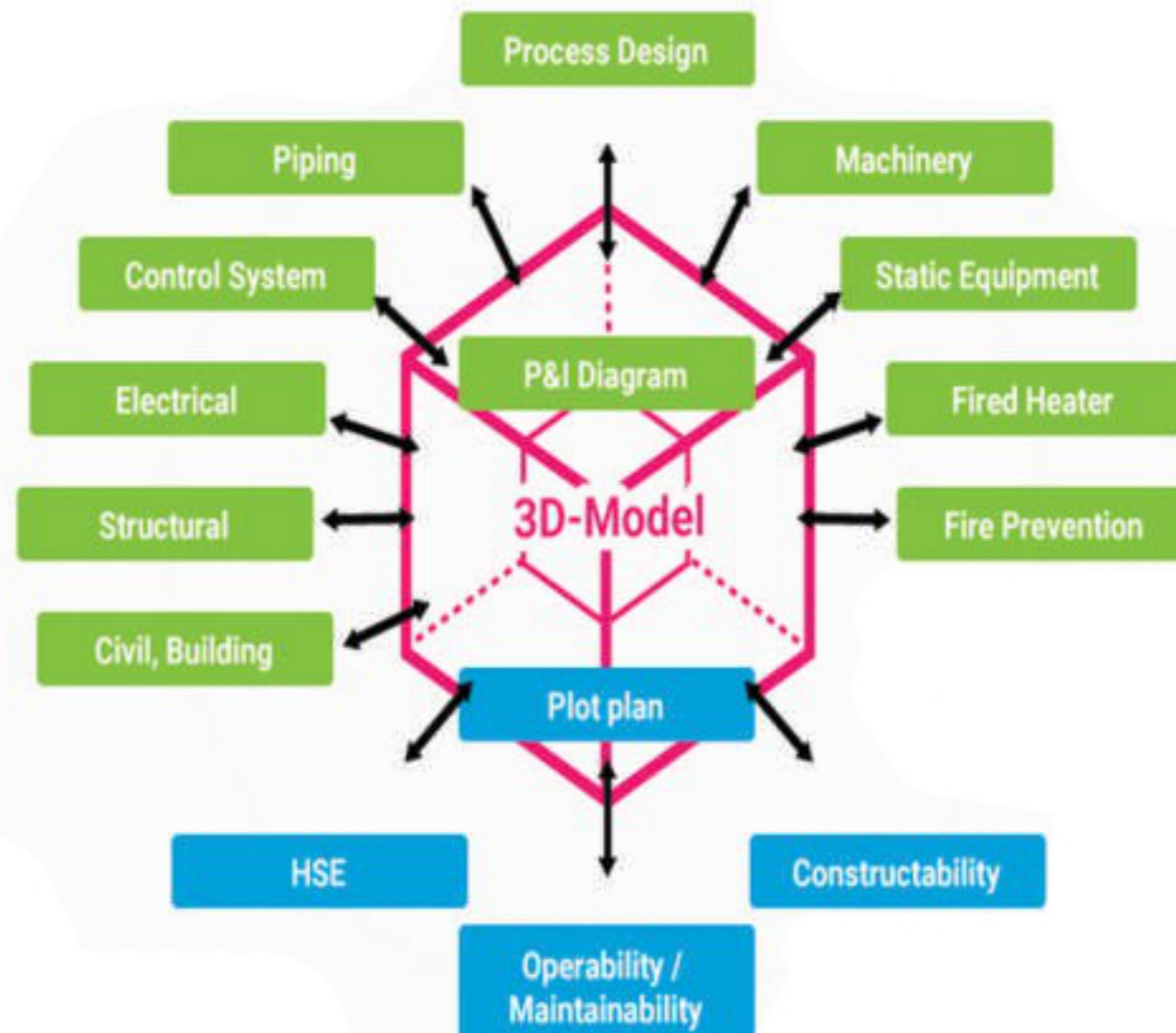
CLOUD STORAGE

Bentley Systems Advanced Infra structure Offshore & Plant Design Software

BENTLEY'S PROJECT PLAYBOOKS

BENTLEY'S COMMON PLATFORM: MICROSTATION | PROJECTWISE | ASSETWISE

Bentley



We can buy/lease any software to meet Project Requirement

PROJECT: FEED for confidential Iranian oil field development project

Project: Wellhead & Flare Platform
EPC: Confidential
OWNER: Confidential

Process

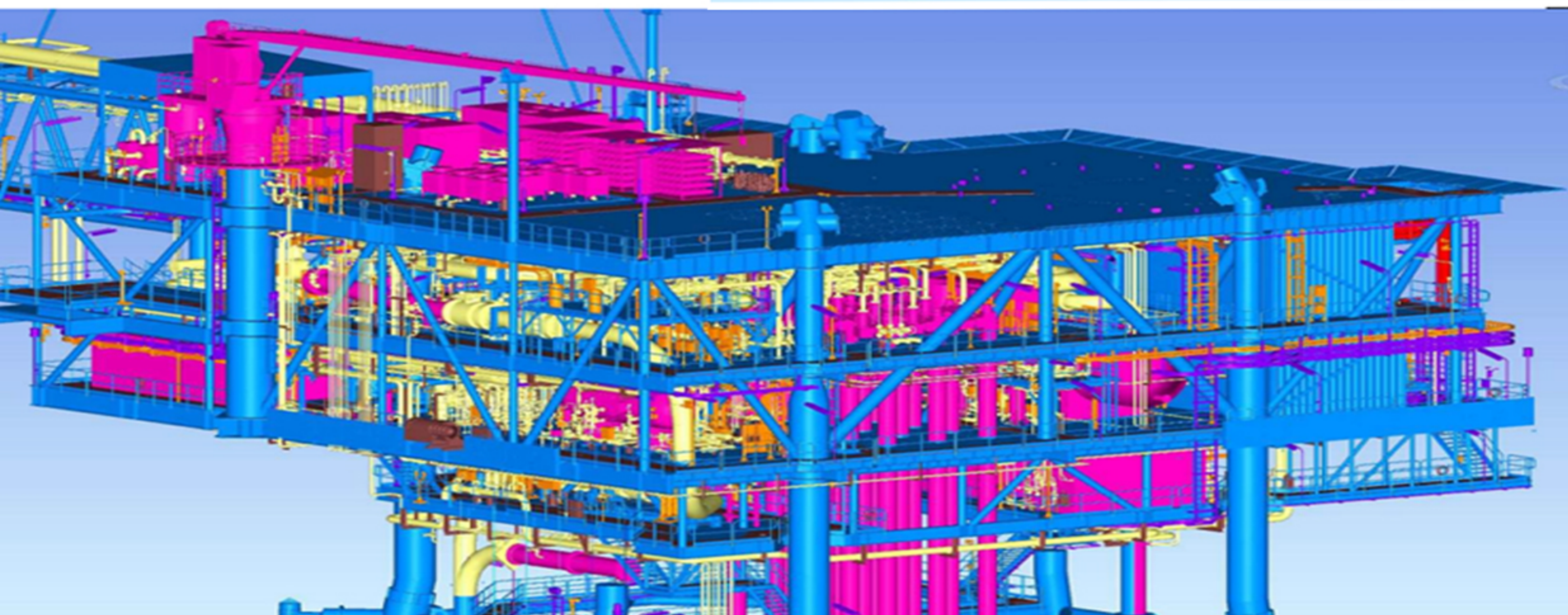
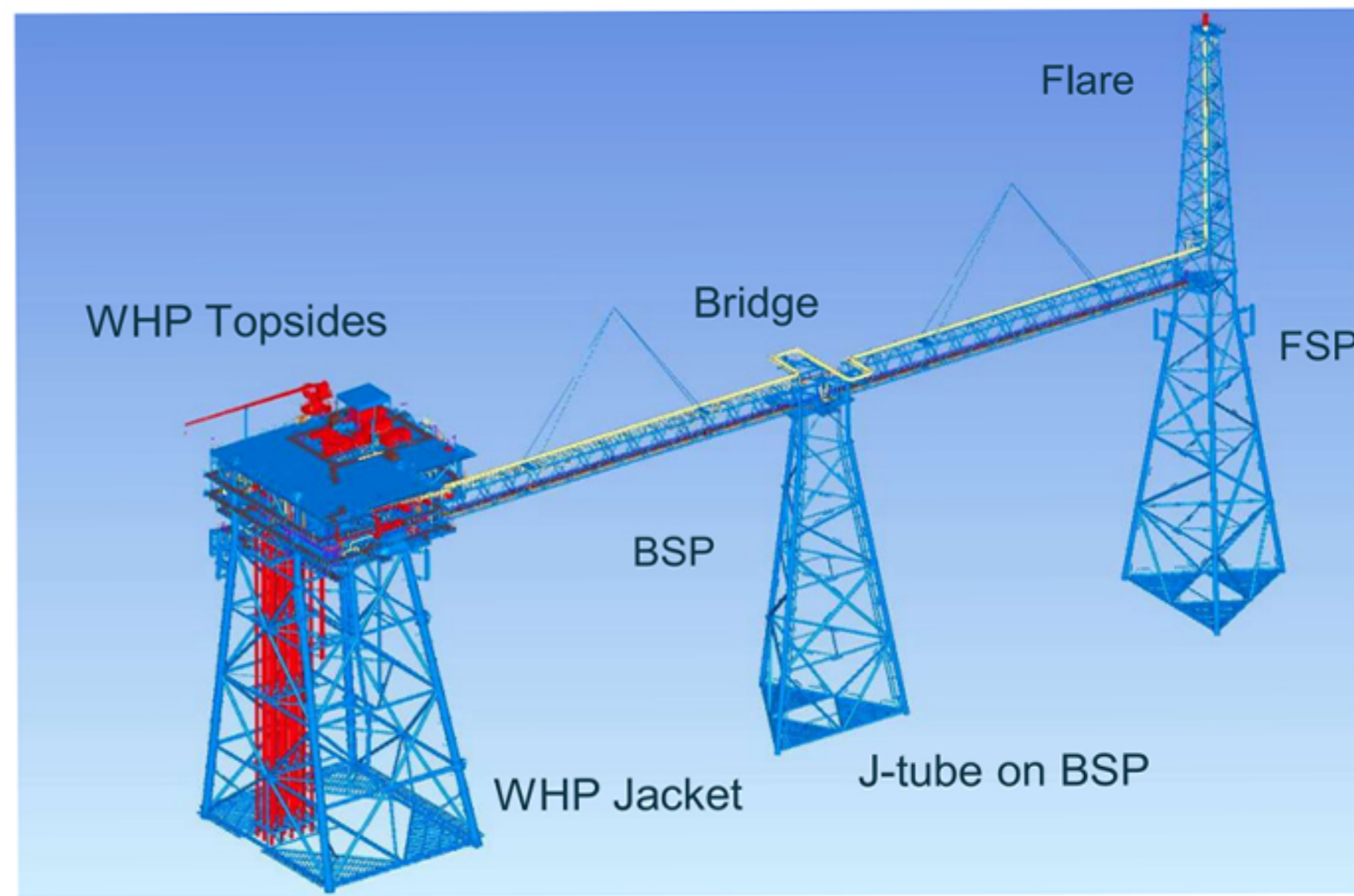
- Field Development Studies
- P & ID
- Material selection(NORSOK M-001)
- Flow assurance studies

3D Model & Piping -Jacket & topside

- Piping Specs
- Piping layout Studies
- 3D Model - Jacket & Topsides
- Pipe Stress analysis

Structural Engineering

- Jacket & Topside
- Structural detail Drawing
- GAD- Elevations & Plans
- Structural detail Drawings
- MTO

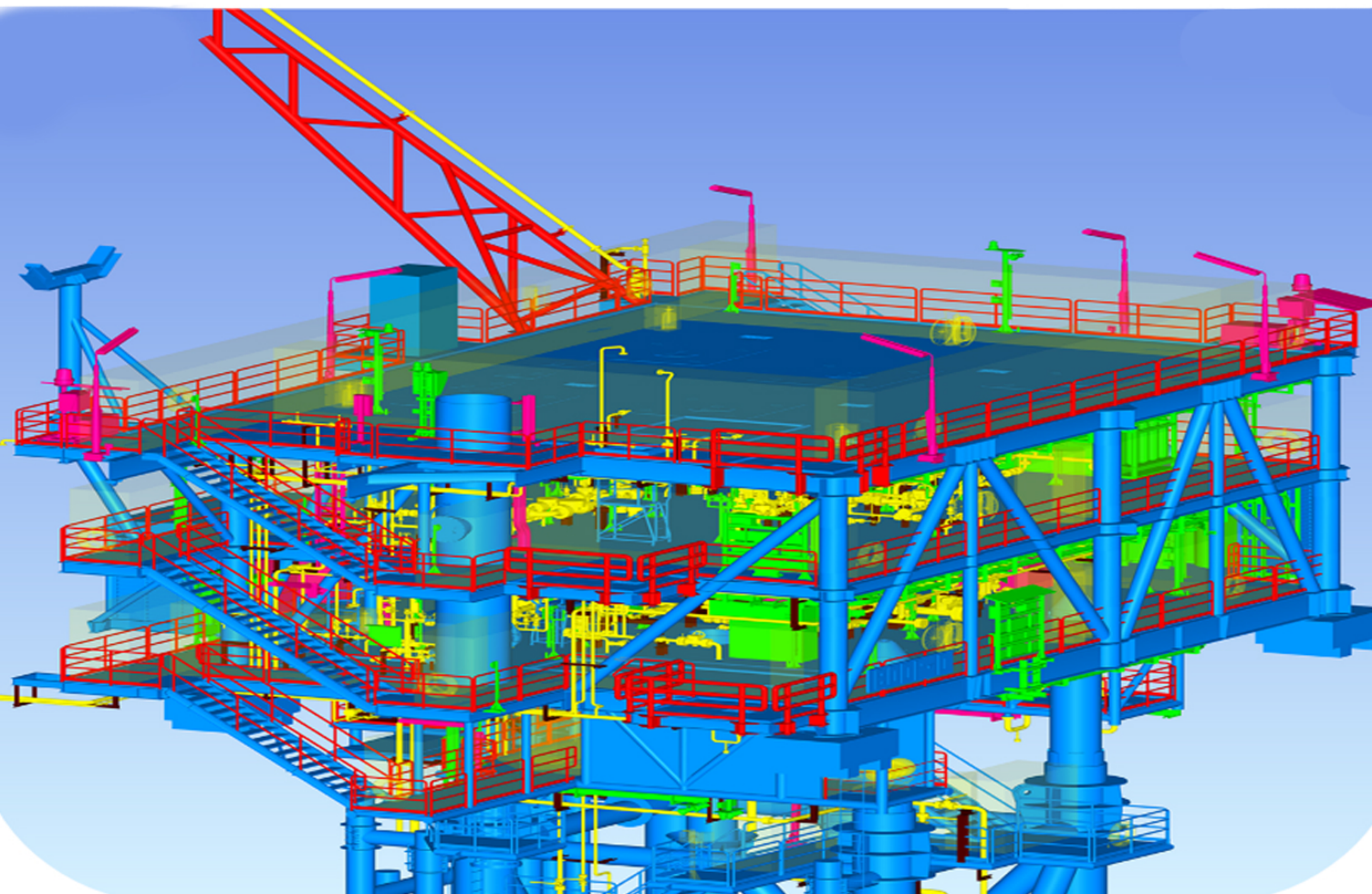


WHP Topsides

PROJECT: Bokor WHP- (BODP-D/F/E 3 Platforms)
EPC: Brooke Dockyard/Sepadu Tech Malaysia
OWNER: PCSB(Carigali)

Detailed Engineering for BODP-D/F/E Wellhead Platform

- PDMS Modeling
- Pipe Stress Analysis
- Pipe support Detailed drawings using MDS
- Piping Isometrics with MTO
- Spool Drawings
- Support Detail Drawings
- Surge analysis for Firewater Piping
- Structural design and analysis after surge analysis



PROJECT: Bokor CPP Modules

Packages-

1. Chemical Storage & Dosing,
2. Water Treatment

EPC: MMHE/KYS Energy

Man Hours - 8000

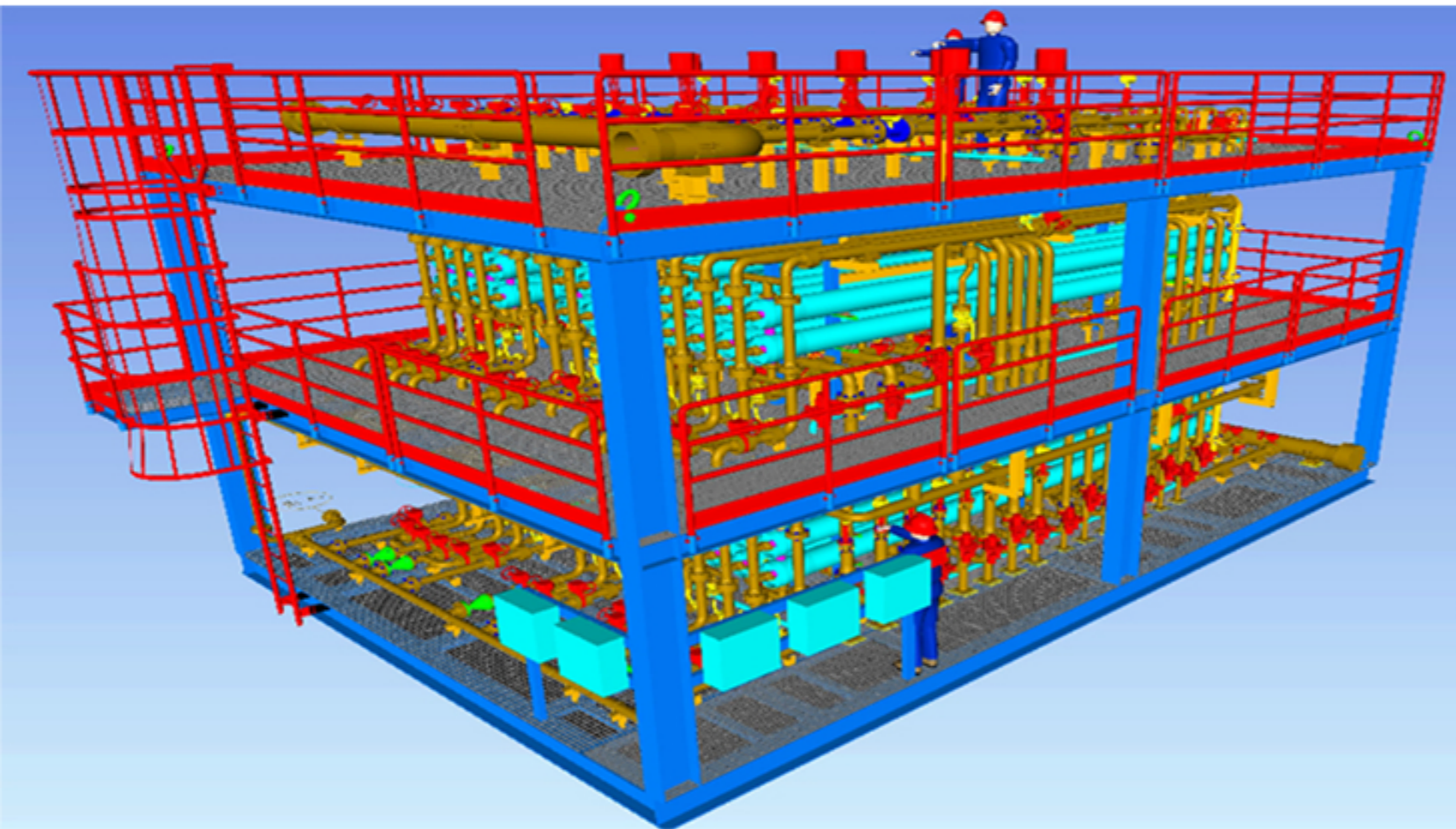
Detailed Engineering

- Sea water Treatment & Injection Skids
- Process Engineering-PDMS, P & ID, Flow/Surge analysis.
- Stress analysis of Piping system
- Conceptual Structural GA & analysis

3. Sea water Injection System

WNER: PCSB(Carigali)

- PDMS modelling- all discipline
- Piping Isometrics with BOM
- Pipe support detail drawings
- Fabrication drawings for skids



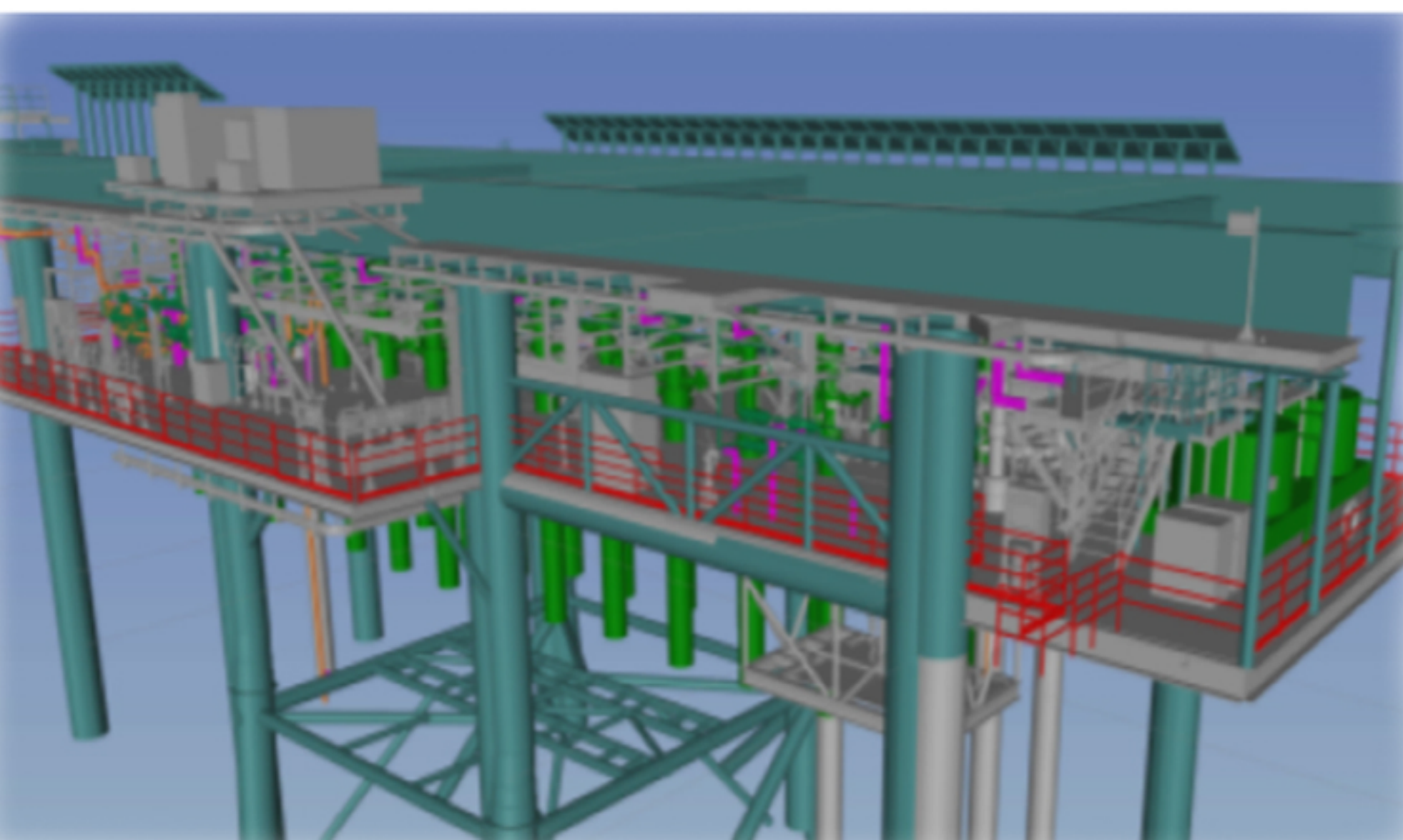
PROJECT: Semarang EOR (Brownfield Engg)

Contractor: Petra Resources Sdn. Bhd

OWNER: Petronas upstream(Carigali)
Semarang EOR

- P & ID- Destruct & Construction
- Process Simulation using HYSIS.
- Upgradation of PDMS model for SUPG-B & SMDP-B Process platform
- Stress analysis of Piping system modification scope.

- All system to include drag load due blast load case scenario for process,
- GRE Fire water, Drain System
- Preparation of Isometrics. Spool ISO & Work Pack for



Client - Harris Pye Dubai

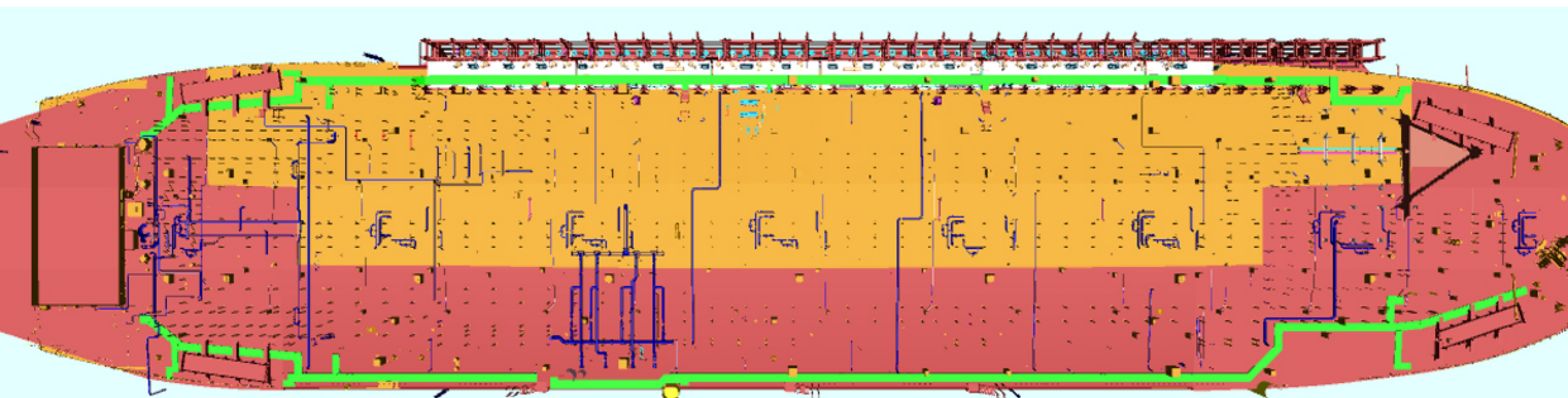
Man Hours - 8500+

Scope Of Work

- Input Laser Scan Models
- Equipment & Piping updating
- Feasibility checking
- Destruction work packs

New scope work packs- GA/ISO/SUPPORT DETAILS

Cidade demangaratiba MV24 FPSO	Sea Water Inatke & Water Treatment area- Piping Modification
Cidade demangaratiba MV26 FPSO	Piping Modification SRU train
PILBARAMARU FPSO	Addition Scrubber system, Sea water supply system
Claade de Marica	Modification of Piping in water injection Module
Gloucester- HPM18091	Process Compressor air Piping system Modification
Gloucester- HPM18346	Hydraulic system
LNGC TAITAR NO-1/2/3	Sea water Intake system Ballast & De-ballast System Blige system



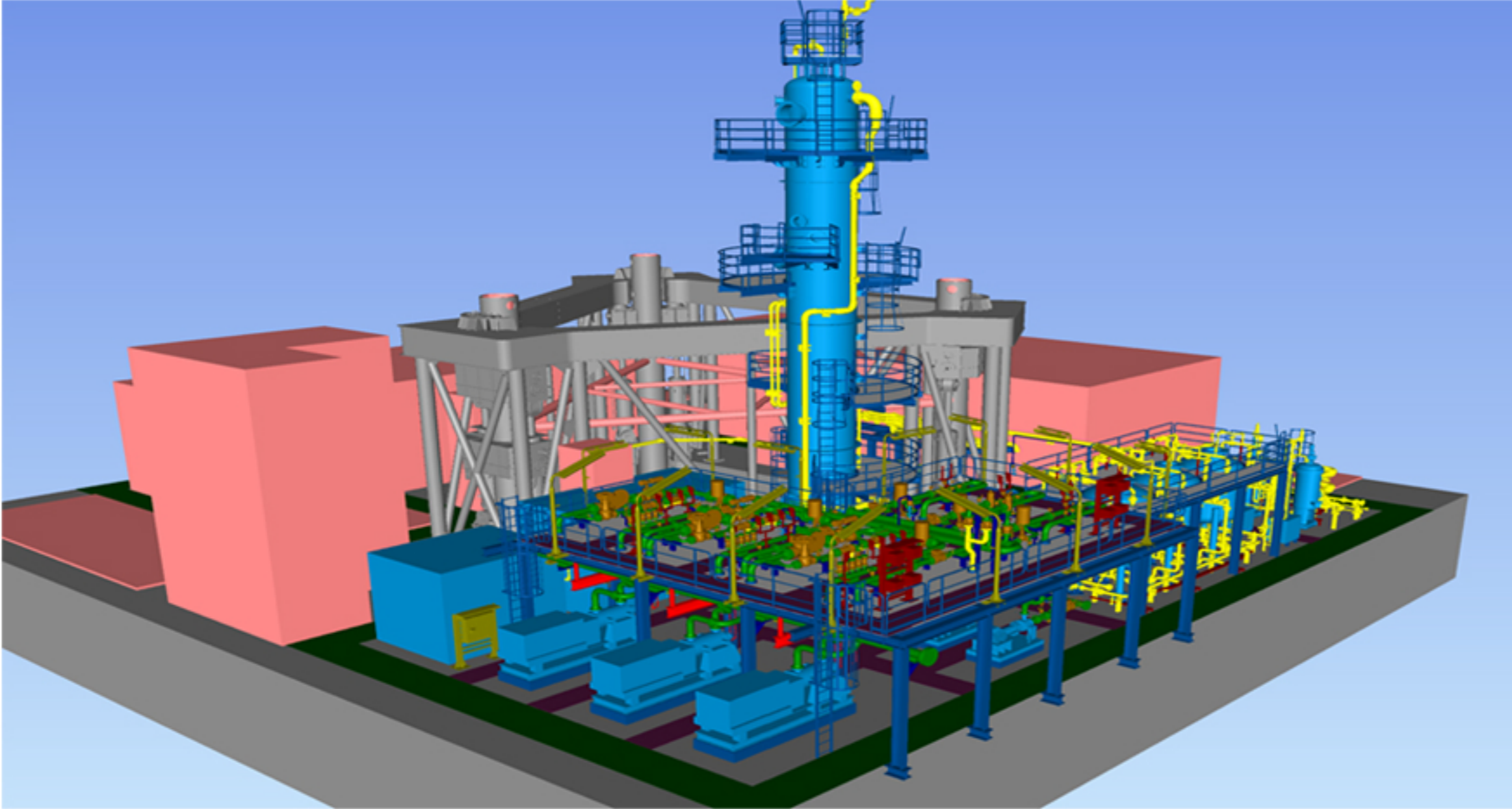
PROJECT: MOPU WATER

Taxi Project

EPC: CALM OCEANS/Vessel Tech Engineering

Detailed Engineering

- Sea water Treatment & Injection Skids
- Stress analysis of Piping System
- Piping Isometrics with BOM
- Pipe Support detail drawings
- Fabrication drawings for De-oxy tower



PROJECT: OKOWK FPSO -Sea water Injection Module

EPC: World Carrier Coporation/HBA offshore

PC- Technomax Process System FZC

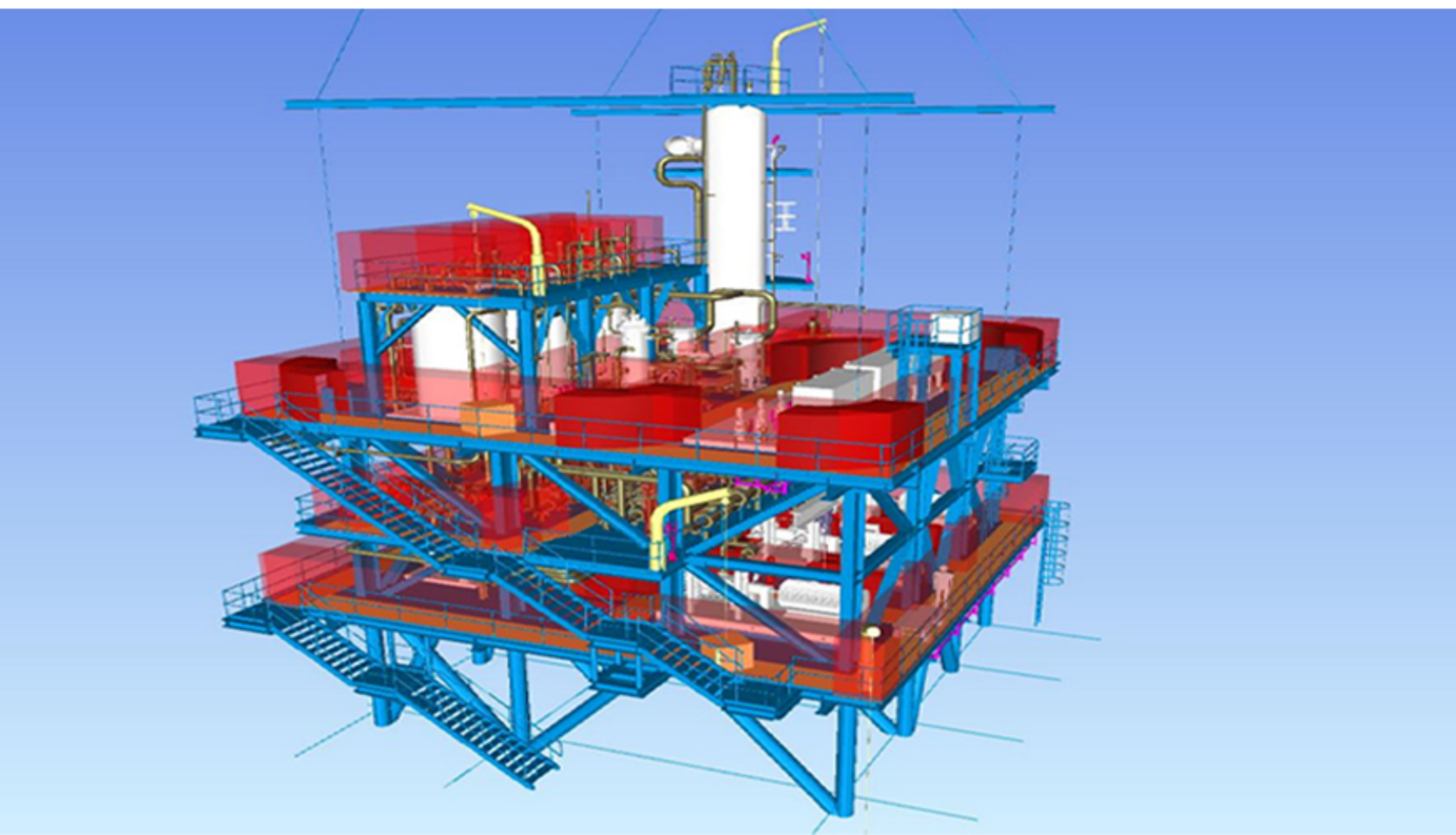
OWNER: Oriental OKOWK/ADDAX Petroleum

Detailed Engineering for Sea water Injection Module

Piping Engineering

Piping Stress analysis

- Load Cases -Sustained, Thermal, Operating
- Ship Motions, Hogg/Sag -Displacements, Transit
- Blast analysis

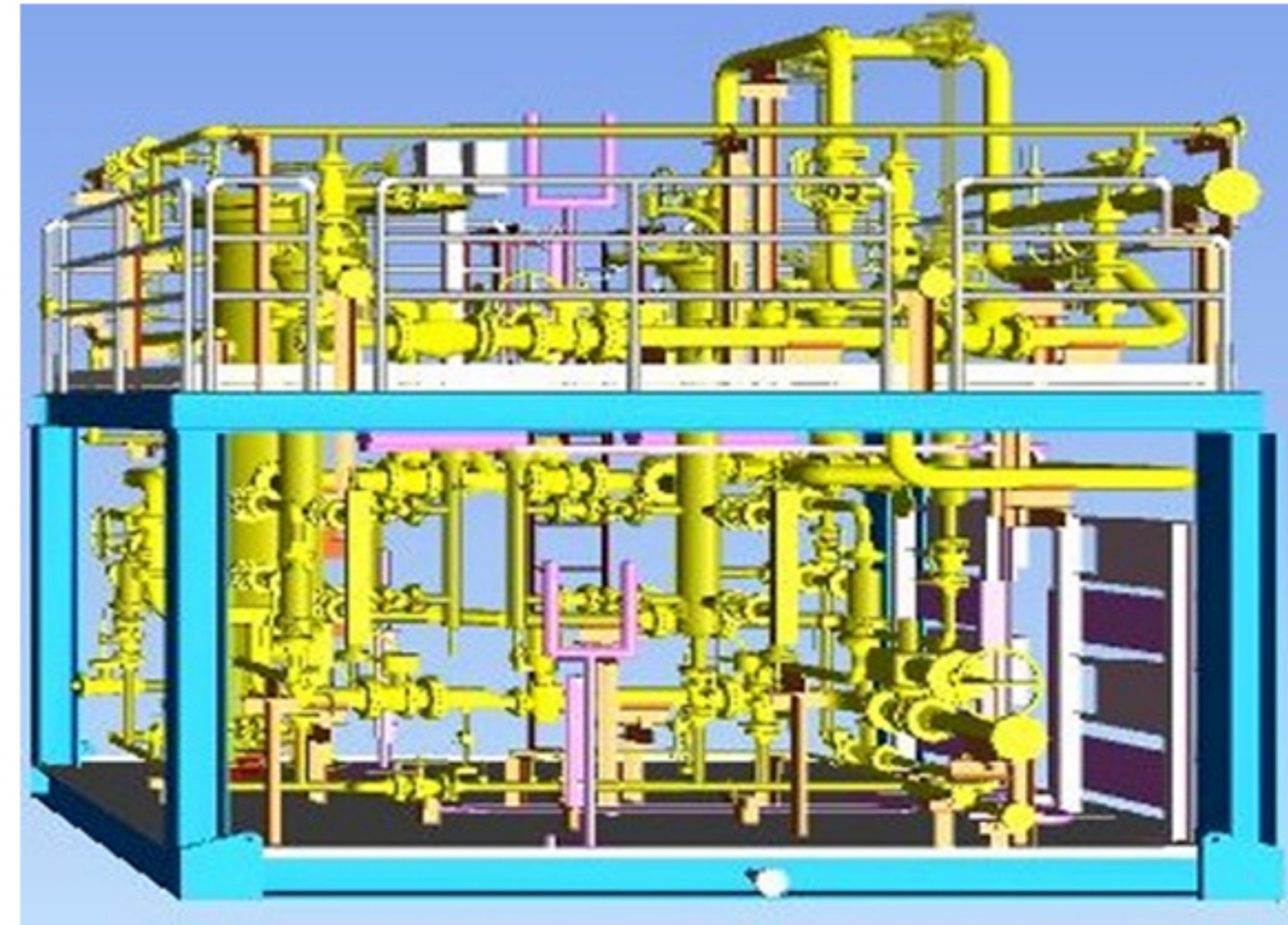
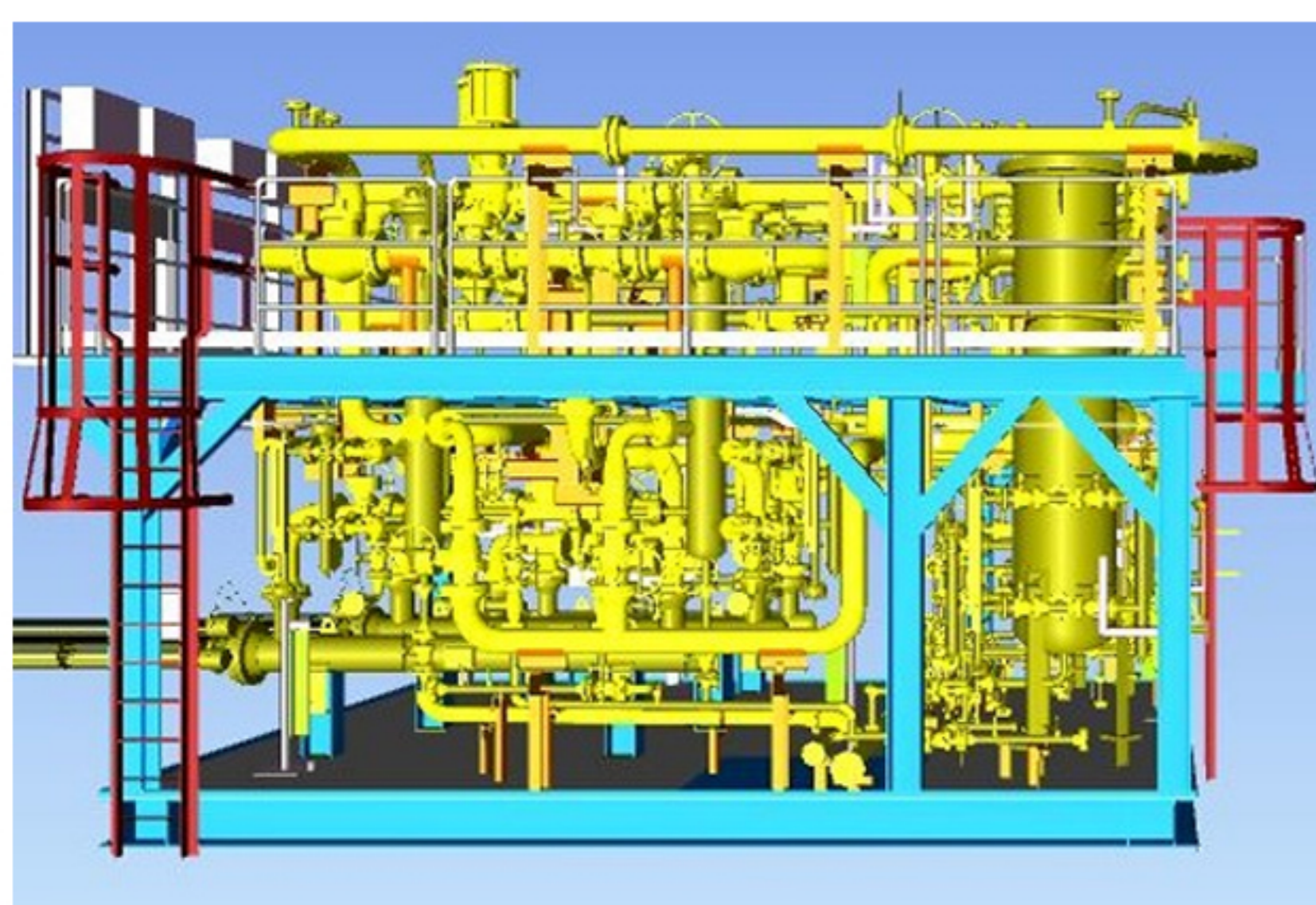


Project: Detailed Engineering of Primary and Secondary fuel gas Skids

Client: ISS Process Malaysia

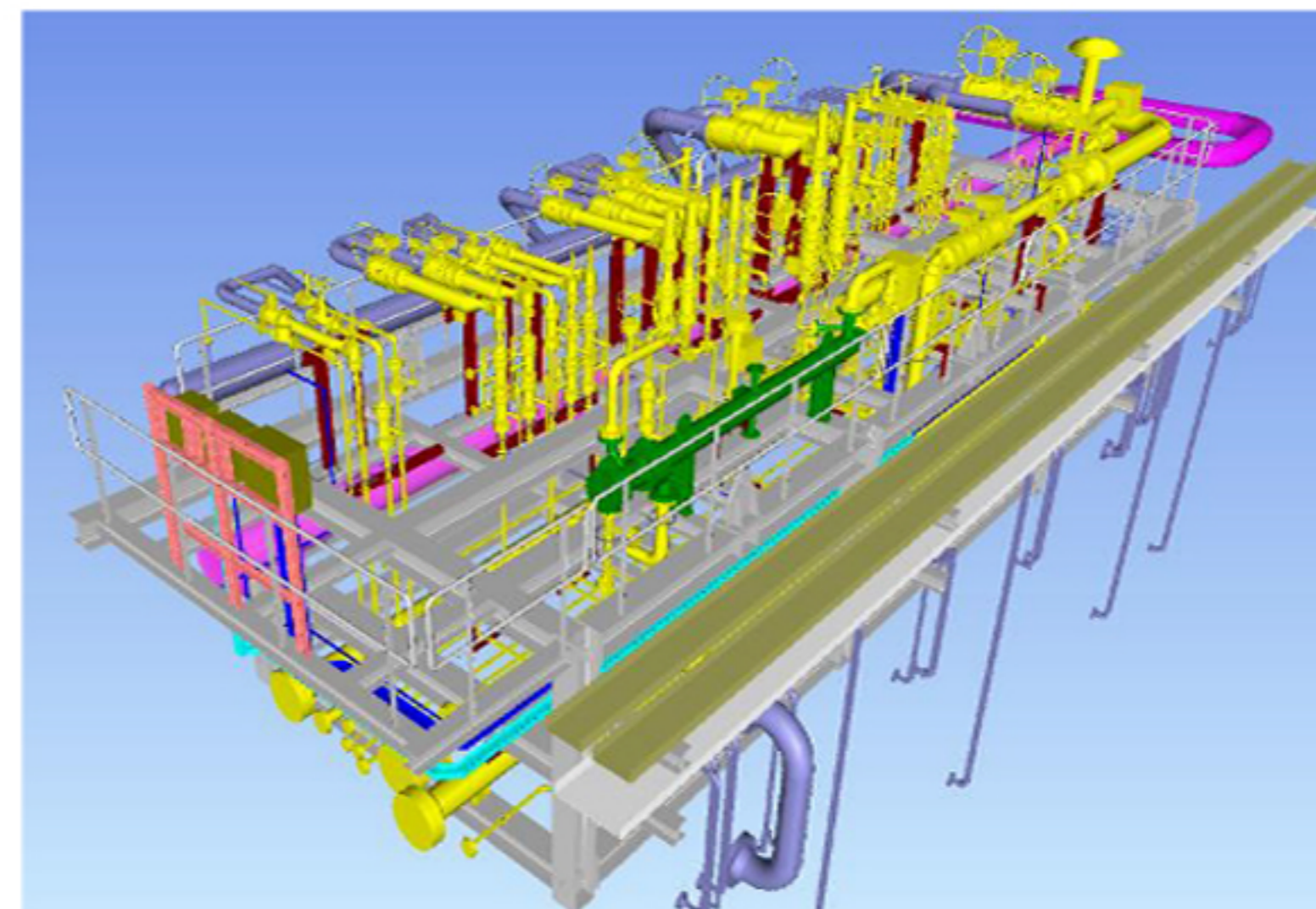
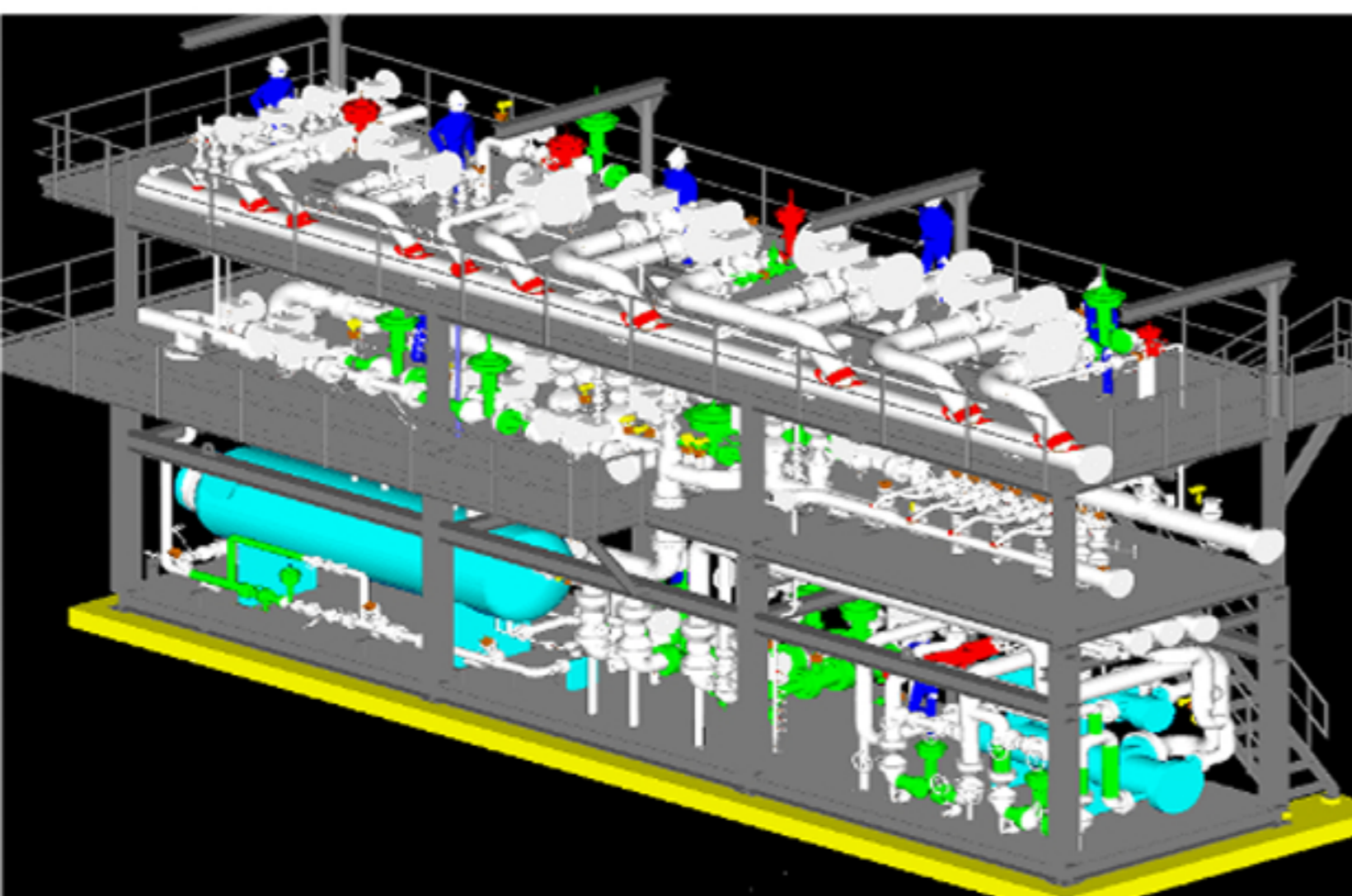
Owner-NGC India

OScope: PDMS modeling, Detailed Engineering including, Process, Piping, Equipment, Pipe support & structural skid Engineering, Weight control. Skids - 5 (3 PFGS+2 SFGS)



Engineering Manpower Deputation to Praj industries- Process, Layout & Piping, 3D Modeling services for various Projects.

BOKOR Project- Sepadu tech/HS Compression
Basic & Proposal Engineering for TEG skids, Methanol Injection skid, chemical injections kid, Vapor recovery, Fuel gas and Manhour - 1600





Oil and Gas Upstream

- Wellheads & Gathering lines
- Crude Handling facilities
- Produced water Treatment
- Gas handling & compression

Mid Stream

- Pipelines
- Oil Terminals
- Gas Terminal
- LNG Storage & Regasification

Downstream

- Refinery
- Petrochemicals
- Utilities
- Offsite facilities
- Pipelines



Water & Waste water Treatment

- Sea Water Desalination
- Raw Water treatment
- Demineralized Water
- Condensate Polishing
- Produced Water Treatment
- Zero liquid Discharge
- Pumping Station & Pipeline
- Cooling water System
- Effluent Treatment
- Sewerage Treatment
- Domestic/Municipal water Treatment



Power

- Thermal Power Plant
- Combined Cycle Power Plant
- Co-Generation
- Power barge
- Boilers
- HRSG
- BOP
- Heaters
- Flue Gas Desulphurization

Chemical & Allied Process Industries



- Organic & Aromatics
- Inorganic Chemicals
- Industrial gases
- Caustic Soda
- Soda ash
- Chloro-Alkalies
- Phosphoric acid
- Organic chemicals
- Pharma
- Food
- Ethanol



Offshore Projects

- Field Development Studies, Topsides/ Modules of Wellheads(WHP) Central Processing Platforms(CPP), FPSO, FLNG



New Energy & Clean Environment

- Solar Power/Green Hydrogen/Green Methanol /Green Ammonia Plant
- CO2 Capture, FGD/SCR- SOx NOX Control, Dust, Ash & Fume Handling Systems



Product & Systems

- Non-Metallics- Piping, Equipment, Duct & Stack, Structural Profiles, Liners.
- Metallic- Equipment, Boilers, Fired Heaters, Thermal Oxidiser, Reformers, Incinerator, Scrubbers, Bag filters, ESP, SCR, FGD, Ducting, Stack.



Sepadu Tech Academy for professional skill development is established to bridge the gap between academic knowledge and industry requirements. Our courses are job-oriented, professional skill development programs based on the Oil and Gas, Chemical, Power, Marine, Water and Waste water Treatment, New Energy, and Carbon Capture industries. Course completed candidates get the opportunity to work with design consultancy, EPC contractor, Equipment Manufacturer (OEM) and owner operators of above mentioned industry segments .

List of Courses

- Plant Layout & Piping Engineering
- Process & Process Safety
- Mechanical Static Equipment
- Architectural, Civil & Structural Engineering
- Instrumentation & Control Engineering
- Electrical Engineering

Advanced Courses

- Offshore Field Development Study & Facilities Layouts
- Offshore Structural Engineering
- Offshore Process & Safety.
- E3D Administration
- SP3d Administration
- Mechanical Product Design (CAD/FEA)

Typical Course duration is 3 months extended up to 6 months to acquire skill sets. Courses includes class room session, Case study Workshops, assignments and real time project exposure. Coaching faculties are from industry. Courses conducted on regular and weekend batches. Regular batches are suggested for fresh graduates and weekend batches for working professionals.





Manpower

Process Team=8+
 Regular Employee - 65+
 Contract staff-10+ In/Out depending need
 Senior Consultants=12+




Software & Tools

HYSYS, PIPENET	SP-3D
AUTOCAD	CEASAR-2
SP-PID,	STADPRO
PDMS/E3D	SP-Instrumentation



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