



Module Solution
GMODIS.com

TECHNOLOGY TO ACHIEVE NET ZERO

On the Road to Net Zero:

**SMARTER,
FASTER,
GREENER
ENGINEERING**



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About Our Company

We aim to become a key actor in the modular construction industry and lead South Korea's transformation into the most advanced and innovative country in the modularization field. Our expertise and know-how cover all aspects of modularization from design to onsite integration.

We assist our clients in defining the strategy that best fits their project needs, offering unique and extensive engineering experience to mitigate construction risks & costs, optimize project management & competitiveness and maximize cost efficiency without compromising quality.

We believe that dedication, reliability and sustainability are the key to success. GMODIS and its employees strive to be better, and we continue to build a win-win situation for us, our employees, our partners and our clients by providing innovative, high-quality, efficient, safe and ecofriendly solutions.

Our Vision

GMODIS's Core Values are "Safety", "Win-Win", "Ethics" and "Creativity". "Safety" means that utmost priority is given to respect for people, and position holders should take the lead in encouraging routine safe behavior with a focus on actions. "Win-Win" means to practice having consideration for and sharing with others, pursue mutual prosperity, and continuously grow by creating social values. "Ethics" means to seek ethical behavior based on the mutual trust between members of society and abide by the principle of reward and punishment. "Creativity" means to take the lead in solving problems by cooperating openly with an open mind.



*I always dreamed to work **WITH** our team members effectively and horizontally. Which enable us to establish friendly environmental and economic solution for various clients. This is key for future of the GMODIS.*



John Jung
CEO, GMODIS

Create a robust industrial ecosystem by creating symbiotic values to ensure a win-win relation with business partners. As a member of society, we actively participate in addressing social issues beyond economic profit and foster a happy and fulfilling workplace by creating a corporate culture of trust and creativity.

Our Team & Expertise

GMODIS is an innovative company with unique expertise and know-how in the modular construction industry.

Our team is our main asset. Our team's extensive experience, client and partner network and ability to work in challenging and complex situations enables us to adapt quickly to changing environments in the global arena, while always maintaining the highest level of quality, efficiency and safety.

Our Expertise and know-how allow us to develop optimized modular solutions from design to onsite integration.



Digital
Solutions



Project
Management



Design &
Engineering



Fabrication Yard
Assessment &
Procurement



Transportation
& Installation
Management



Why Modularization?

Modularization is a process in which a facility is constructed off-site, under controlled plant conditions, using the same materials and standards as conventional built facilities but in about half the time.

Facilities are produced in modules that when put together on site, reflect design intent and specifications of the most sophisticated site-build facility without compromising the reliability, quality, and safety of the works.



Reduction of Construction Periods and Quality Improvement

As the modular construction method enables construct of a building by assembling structures in a shorter period of time and mobilizing a smaller workforce compared to other methods, it remarkably reduces manufacture and construction periods. Besides, the method ensures construction quality remains consistent as it protects against effects of external environmental factors.



Safe Working Environments and Accident Reduction

Since most of the work is carried out in the factory and field work is minimized, workers are provided safe working environment without high-risk work and the risk of accidents for workers is reduced.



Improvement of Time & Cost Predictability

The well-established manufacturing and assembling process enables accurate prediction of project schedules and related costs. Consequently, it guarantees actual cost and time certainty as planned.



Reduction of Construction Waste and Material Waste

Unlike conventional methods that leave behind large quantities of material waste due to the inability to reflect customized site conditions, the modular construction method is an eco-friendly construction method that dramatically reduces material waste and construction waste by accurately reflecting the size of each site in advance through factory manufacturing.



Our Services

Design & Engineering

- Sea Transportation
- In-land Transportation
- Lifting Design
- 2D Engineering
- 3D modeling
- Reinforcing steel optimization
- Dimension control
- Modular engineering supervision

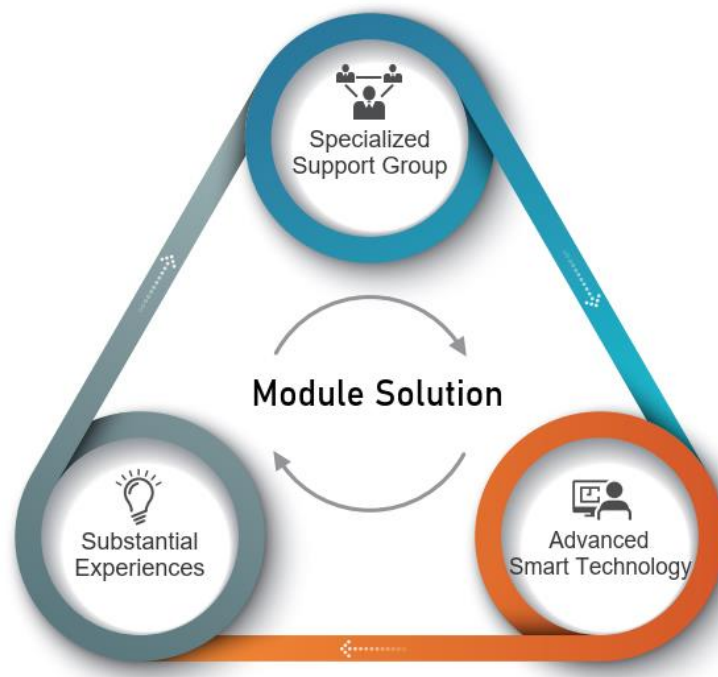
Transportation & Installation

- Transportation & logistics study
- Optimized marine transportation analysis
- 3D transportation simulation
- 3D lifting simulation
- Weight & CoG analysis
- Installation analysis

Fabrication Yard Assessment & Procurement

- Selection and evaluation (production capacity, HSE performance...)
- Onsite supervision
- Auditing
- Customized training
- Procurement management

Technology Licensing & Consulting



Why Us?

Our Guiding Principles

Honesty, integrity, efficiency, teamwork, professional pride, safety and social responsibility are our core values. These values stimulate professional pride and passion within our team and provides and define our commitment to provide our clients with safe and effective solutions even under the most challenging conditions.

Our Comparative Advantages

Together with our core values, our comparative advantages determine our capability to provide our clients with high-quality services and smarter, faster and greener engineering solutions.

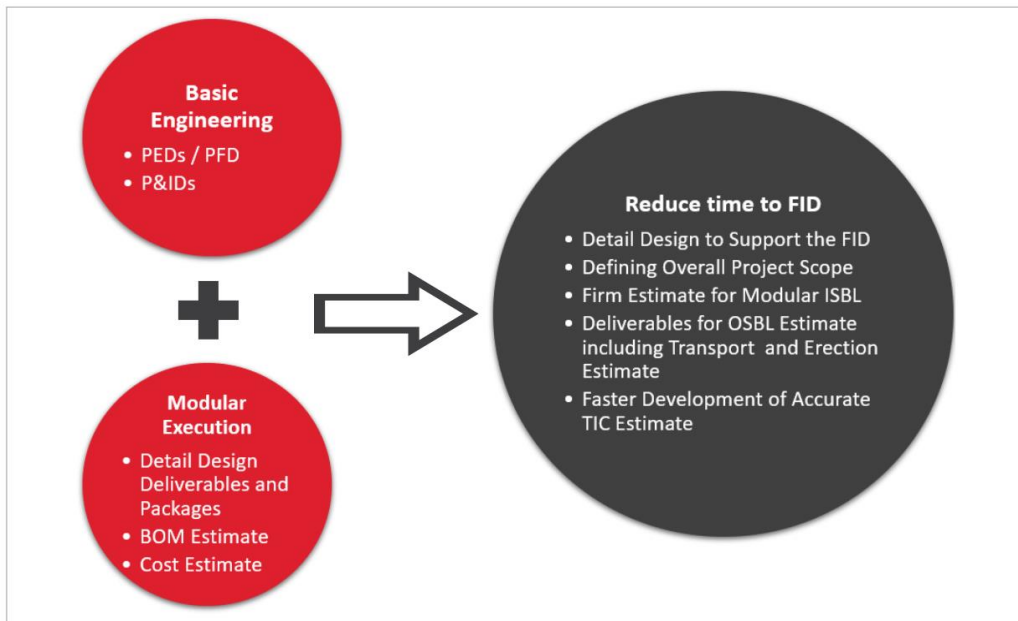
- Professional & experienced team
- Unique know-how & expertise
- Proven state-of-art technology & innovation
- Proven and successful track record
- Strict business compliance with international standards and regulations
- Solid risk management and protocols
- Extensive partnership network
- Sustainable solutions

Sustainability & Green Solutions

TRANSFORMATE™

GMODIS has created TRANSFORMATE, a unique ready-made module solution that is ideally optimized to meet our clients' needs and expectations, in collaboration with our global partners who have developed innovative and pioneering carbon capture, bio-fuel and green hydrogen technologies.

TRANSFORMATE mitigates construction risks, avoids cost and schedule overruns and significantly reduces carbon footprint of buildings, facilities and plants.



Green & Sustainable Solutions

BASF : OSAE blue

Carbon Capture Solvent

JGC : EUP

Waste To Zero, Hydrogen

TOPSOE

2nd Generation Bio-Fuel

VTT

Carbon neutral Solutions, Sustainable Products and materials & Digital Technologies

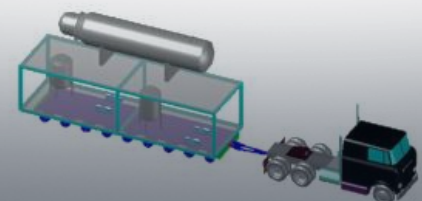
Each Module can be delivered to the site by low bed truck.

Module#3A

Module#3B

Module#3C

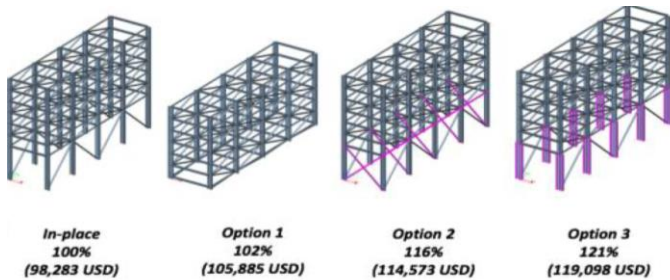
<Module#3>



Our Technology & Innovation

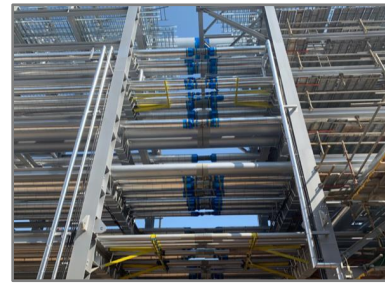
❑ No- Reinforcement

- Conventional Module requires 20% reinforcement
- Executed 2 projects **without Reinforcement**



❑ Single Weld Hook Up

- Needs to install all pipes within **3mm** to directly weld
- More 50no. Pipes installed



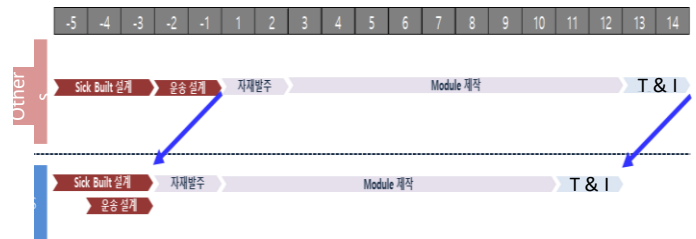
❑ Accurate Weight Control

- Typically **weigh** the module prior to sail
- Module Solution manages CoG with various methods, **no-weighing** is required



❑ Schedule Management

- Normally, module engineering follows after stick built design
- GMODIS advanced software can run **simultaneously**



Our Patents

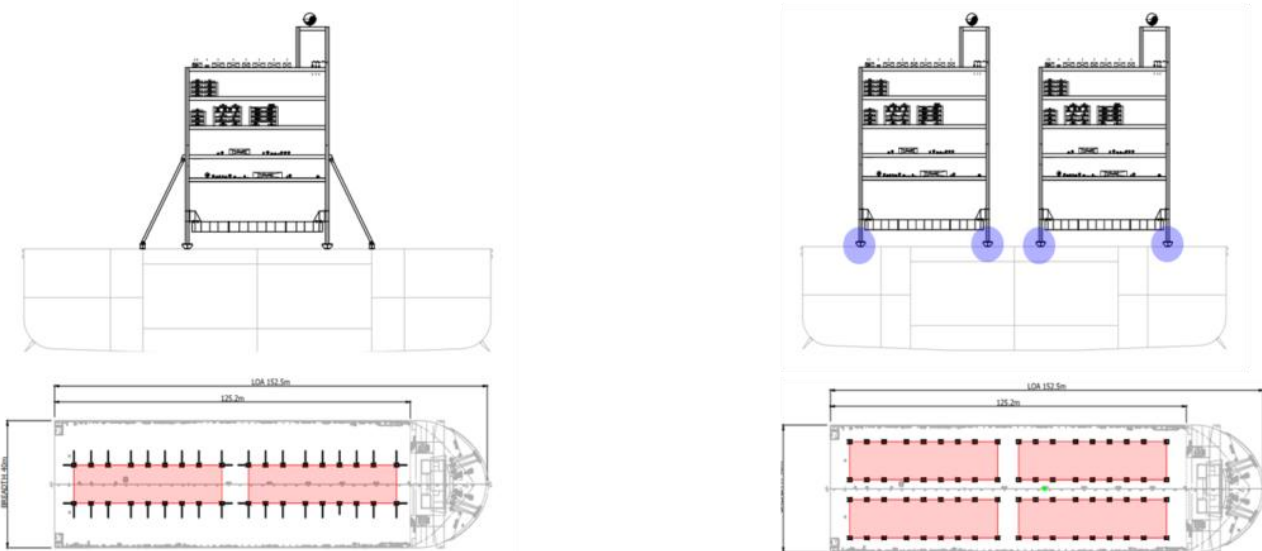
Our engineers and researchers are committed to find the best, most original solutions to our clients' problems, paving the way for new and better products.

We have a vibrant culture of innovation that facilitates and promotes patenting, publishing and contributing to active in-market experimentation and discovery.

Special Grillage

Typically, diagonal sea-fastening is required to control deflection during sea transportation. however, it takes too many space which does not allow take more modules on the barge.

Gmodis's Special Grillage, allow to transport modules without sea-fastenings safety, and super fast.



We have developed a unique software that can automatically convert STADD 3D structural modeling to SACS very fast, maintaining the original integrity.

Our Partners



First-Tier Fabricators

Our partnerships with global fabricators allows us to up-to-date technical and commercial data.

We are continuously monitoring our partners' fabrication capabilities, prices, engineering capability, HSE performance and resource mobilization plans.

First-Tier Licensors

We offer sustainable engineering solutions in collaboration with global licensors such as BASF, TOPSOE, VTT, VALMEY and JGC.

Our Team Project References

Execution Projects

Middle East

Ruwais Expansion Project : PAB 7EA / PAR 180

Bahrain LNG import Terminal : Single Mega offshore Module : 7200ton

South Korea

GS Caltex : No3 Heavy Oil Upgrade Project; PAR 32EA

Mixed FEED Cracker Project : PAR 25EA

Ball Tank 6EA, Heater 3EA

LG Chemical : Y2C Project; PAS 19EA, Jetty PAR 18EA .

Ball Tank 5EA

Vietnam

Nghi Son Refinery Project : Jetty PAR 32EA



Case Study: Project Execution Summary

Mixed FEED Cracker Project

Background

Mixed FEED Cracker project was planned with PAR modules from FEED stage. To successfully execute this modular project, GMODIS was assigned to develop the entire modularization phase from FEED to Installation.

Challenge

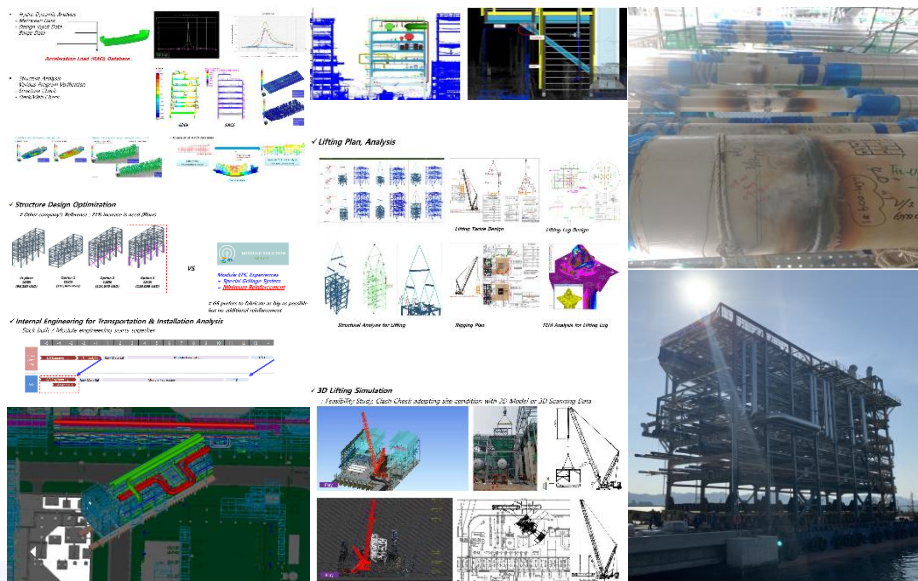
- Maximize module size
- Minimize structural reinforcement to secure cost competitiveness versus stick built
- Meet short delivery schedule

Solution

- Modularization skills with various experience
- Transportation analysis skills based on Joint Development Project with DNV
- Laser Scanning Technology
- Weight control procedure
- 3D based simulation (3D Model, Point Cloud)

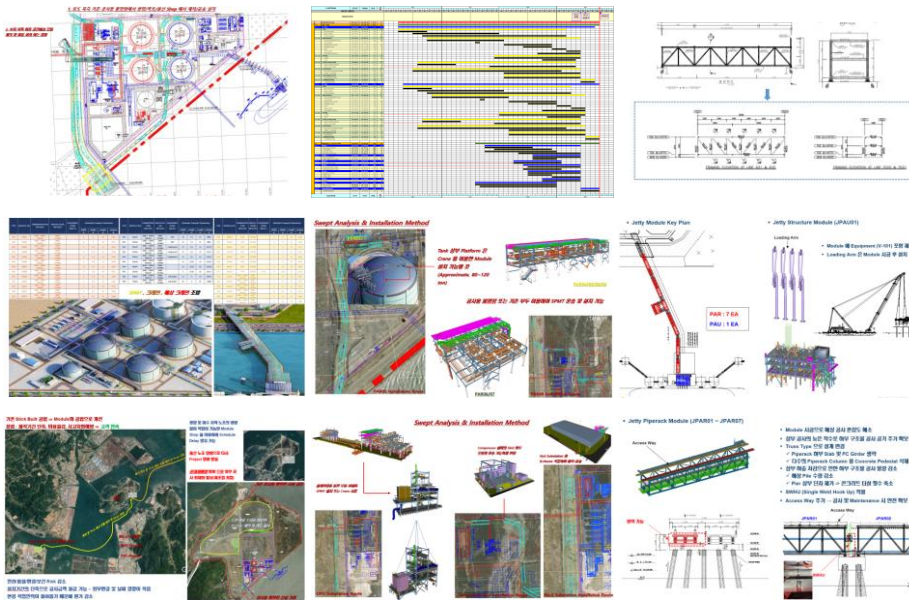
Result

- Zero reinforcement for structural steel
- Optimized module size considering site condition (road slope, berth, etc.)
- Fast-track for module fabrication with early engagement
- Minimize weighing of module
- Minimize site preparation for transportation
- No obstacle & argument during transportation & installation
- Successful single weld hook-up

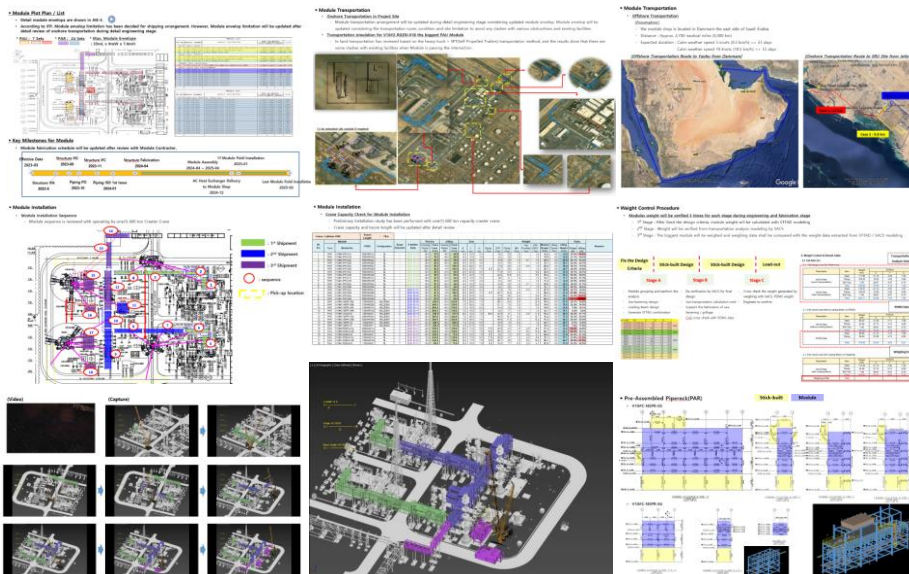


Case Study

LNG Terminal Project



SRU Project





TECHNOLOGY TO SUCCESSFULLY
ACHIEVE 'NET ZERO'

**Do you want more information
about GMODIS?**

sales@gmodis.com



<https://www.youtube.com/@modulesolutionGmodis>

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