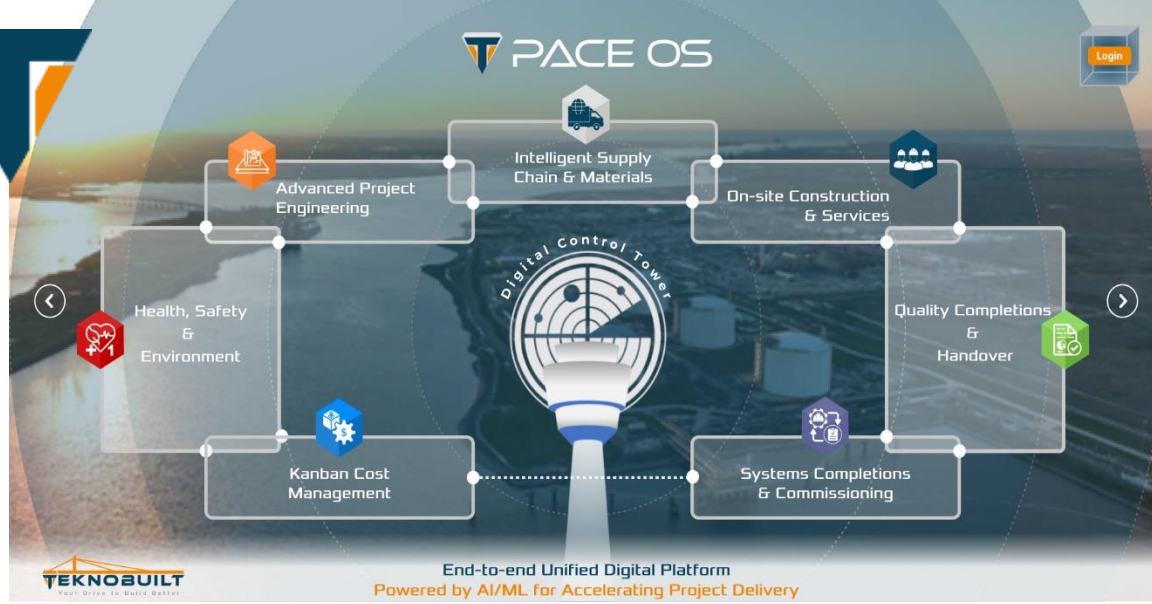


CASE STUDY:

END TO END DIGITAL TRANSFORMATION IN A MEGA OIL AND



Background:

In 2020, SHELL & Nigeria Liquefied Natural Gas (NLNG) initiated the Bonny Island expansion project, marking a pivotal increase in global natural gas supply. This significant investment aims to bolster Nigeria's LNG production capacity and has entrusted the Engineering, Procurement, and Construction (EPC) Contract to the SCD JV Consortium, a collaboration of Saipem, Chiyoda, and Daewoo affiliates.

Challenges:

- Suboptimal interdepartmental synergy due to large scale of project.
- Disparate technologies, software, and systems used by different partners.
- Complexities in coordination for teams across multiple continents and time zones.
- Limited visibility of knock-on impact of changes in workflows to connected stakeholders



Client feedback

"10% reduction of man hour, easy coordination of teams located all over the world and integration of 15 tools operating in silos has been particularly appreciated. It allowed deep insight, granular visibility, and constant consistency of data, with no switching costs and less resistance from people is adopting the new processes, making the journey to improvement easy and smooth".

Nicola Pino
Project Manager
Saipem, Milano, Italy



Solution:

PACE OS, Single Unified Solution

Teknobuilt's revolutionary digital block-based unified platform and solutions are driving enhanced predictability, helping expedite critical workflows, and establishing effective project execution control. The platform has seamlessly aligned engineering, procurement, fabrication, construction sequencing for digital blocks. Various standard and legacy systems data has been made online to bring real time visibility to all stakeholders. The coordination and collaboration between various remote teams are now seamless through the right context provided by the digital connectivity and Digital Control Tower is providing actionable analytics

Subject Matter Expert Consulting:

Industry recognized SMEs examined existing processes and provided a practical and digital-first execution philosophy embedding advance work packaging (AWP) and lean methodology, innovative digital construction blocks were tailored taking into account the organizational readiness. Continuous improvement journey was provided through regular check-ins and workshops.

Digital Transformer Team

The entire onboarding, training and hand-on support was provided by dedicated Productivity Engineers who became an extension of the client's project team. Through fast response and managing high level of reliability of inter departmental coordination, they ensured each stakeholder is deriving the value from collaboration and help achieve a successful implementation.

PACE OS 4.0

PACE OS is an easy to use, fast-to-deploy, and flexible SAAS-based platform. It uniquely brought the digital fusion of Advanced Work Packaging (AWP) and LEAN which let the project run with higher operational efficiencies with fewer overheads, reduced rework, and interruptions, with agile teams enabled to get things done right first time.

- Streamlined the project by bringing manufacturing style operational discipline with an end-to-end automated digital assembly line.
- Helped manage thousands of documents, activities & fast-moving occurrences by capturing them into digital blocks of construction making the scope of work more manageable, in turn de-risking the project.
- Provided automatic notifications system, instantaneous action tracker, and digital approvals to expedite logistics instead of chasing people and information.
- Provided customized AI/ML powered dashboards for real-time visibility of critical project parameters enabling stakeholders to take proactive informed decisions.
- Digitally connected the 15 existing siloed softwares, enabling the team to get latest updated data for seamless project progress.

Results:

Improved Collaboration

The unified platform provides clients with a common workspace to share information, documents, and updates. This improves communication, reduces error, and ensures everyone is on the same page.

Efficient Resource Allocation

Project managers are able to allocate resources more effectively due to the real-time visibility of the 3M's (Manpower, Material, and Machinery) preventing delays and cost overruns.

Enhanced Project Control

The platform simplifies progress tracking, risk identification, and suggests corrective measures, contributing to the project's successful completion on time and within budget.

Key Benefits:

- **20% enhanced productivity** achieved by reduction of man-hours for engineering, compilation, and approvals by streamlining activities and automation of scoping and monitoring workflow.
- **Slashed delays from 3-4 months to 1-3 weeks** through better alignment, faster sequencing and accountability with full visibility and connectivity of people & systems
- **Achieved comprehensive visibility** into quantities, materials, and work packages, facilitating rapid assessment of change impacts.
- **1400 hours saved** by reusing data from other work areas.
- **10000+ design deliverables** being converted into just **1400 engineering work packages** resulting in easy scope management.
- **Reduction in wastage and overheads by 15%-25%**
- **Achieved up to 100% schedule predictability** in a multi-billion-dollar project.

Value

delivered:



Customer feedback

"DECN can complete the mega projects in a successful way and lead plant industries by modernized change from inside caused by Advanced Work Packaging application with continuous support from Teknobuilt"

Tae Sang Cho

Project Director

Daewoo E&C



Click to connect with a Teknobuilt productivity expert to learn how world leading projects are achieving remarkable transformation

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