

> Digitalizing Brownfield Projects and Plant Modifications with MODS Connect <



> Scope, plan, execute, quality assure and certify brownfield projects and plant modifications for safe, efficient construction such as pipework and module tie-in installations at any scale, onshore and off <

> Brownfield Projects and Plant Modifications



> Proven Productivity-Enhancing Benefits

- > Increase transparency.
- > Reduce time spent providing key project data to clients by 50 percent.
- > Align interests and fosters trust between and among stakeholders (i.e. contractors, owners, etc.).
- > Reduce administrative time and ensure accuracy and control of essential workflows.
- > Prioritize value engineering (i.e. standardization and repeatability).
- > Improve procurement and supply-chain management.
- > Transform onsite execution (i.e. management systems, technical systems and mindsets).
- > Deliver a high volume of wide-ranging brownfield modifications on schedule and within budget.
- > Shorten the closeout schedule.
- > Eliminate a 7-to-14-day turnaround time for paper work packs to reach management.
- > Upskill the workforce.

> Return on Investment

Digitalizing key workflows, such as creation and execution of work packages and handovers via completions, with our cloud-based MODS Connect increases readiness of preparation, enabling proactive planning and fidelity to both schedules and budget.

MODS Connect provides a centralized database and visualization platform to remotely manage works so that projects flow in a transparent, accountable, predictable and streamlined manner, avoiding unplanned shutdowns, rework and other lost-time processes.



> Brownfield Projects and Plant Modifications

> Intelligent Industrial Software Solutions for Superior Brownfield Project Outcomes

The use of digital cloud-based software MODS Connect addresses your brownfield project challenges, increasing time-on tools and improving your project's ROI.

> MODS Connect: A software solution that's as flexible as it is comprehensive

INTELLIGENCE

MODS Connect puts intelligence behind every phase of asset lifecycle management.

Integrates with other systems.

Real-time data to inform better decision-making.

Modules help streamline complex processes, maximizing resource utilization and efficiency.

POSITIVE IMPACT

MODS Connect gives users confidence that their assets have a positive impact where it matters.

Reduces costs by, for example, reducing time spent searching for data by ~50% and eliminating a 7-14 waiting period for paper work packs offshore.

Helps businesses achieve ESG targets through paperless, decarbonized processes.

Improves safety through transparent, streamlined workflows to minimize risk and increase the awareness of teams.

Reduces embodied carbon in materials and assets.

An integrated, modular solution, we recommend the following MODS Connect software package for your brownfield projects and plant modifications such as tie-ins, prioritizing safety, readiness and agility, allowing your projects to stay on time and on-or-under budget:



> MODS Connect WorkPack is a digital work pack solution that links all essential project details including engineering, manning, materials, inventory, fabrication, installation, HSE and scheduling into a single, accountable, visible and real-time system that facilitates everything from planning to signoff <



> MODS Connect Completions delivers projects from contractor to client with all inspection, testing and commissioning information attached to a 3D-model database for accountable and cost-effective handovers <

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> MODS Connect WorkPack Benefits

- > Reduces downtime.
- > Eliminates non-value-added activities, such as transporting hard-copy files to remote field locations.
- > Enhances worker safety.
- > Streamlines schedules through automated features.
- > Improves planning thanks to real-time and archival information at the ready.
- > Automates quality checks ensure compliance and enforcement of standard operating procedures (SOPs).
- > Faster, improved communication at all levels: from internally with tradespeople and externally with clients.
- > Enables agile working with handheld compatibility.

> MODS Connect WorkPack Features

- > Comprehensive work pack planning and execution covering all project phases.
- > Field or project development planning.
- > Engineering activities coordination.
- > Detailed work scopes and drawings.
- > BOMs and soft allocation.
- > Construction and crew requirements.
- > Cost, Time and Resources (CTR) estimating.
- > Tag list creation.
- > Easy review, control and updates.
- > Revision control and signature issuance.
- > Clone work packs and/or job cards.
- > Cloud-based working.

- > Online/offline mobile execution.
- > Automatic revision archive.
- > Permit and work pack readiness trackers.
- > 4D visualization.
- > Multiple project access.
- > Accurate, comprehensive, accessible project information (archival and real-time progress).
- > Instantaneous information sharing between departments.
- > Electronic signoffs for immediate commencement of works.
- > Project terminology screen for regional/industry differences.



> MODS Connect Completions Benefits

- > Full visibility, traceability and accountability
- > Improved productivity by up to 70%
- > Cloud-based system using hand-held devices
- > Real-time/live reporting eliminates time-lags
- > Large reduction in administrative burdens
- > Structured accountability for user rights
- > Automated system population
- > Removes inefficient system interfaces
- > No delays in ITR signoffs or handover
- > 100% paper-free execution if desired

> MODS Connect Completions Features

- > Data import via Excel template with data validation
- > Remotely accessed tag database
- > Customizable milestones
- > Corporate suite of ITRs and handover certificates
- > Project set-up copy tool
- > Project terminology screen for regional/industry differences
- > Tags and punch management batch approvals/updates
- > Mechanical completion
- > Replication and digitalization of customer ITRs
- > Auto-allocated ITR forms with auditable history

- > Static/dynamic commissioning
- > O&M and turnaround management
- > Digital forms, certificates & approvals
- > Digital handover certification dossiers
- > Mobile online/offline capability
- > Punchlist management
- > Mobile punch item entry, with images
- > Real-time status reporting
- > Multiple project access
- > User role restrictions

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> Handover milestones and transfer of responsibility

MODS Connect can be used as a digital Completions Management System (CMS) for seamless handovers for anything from capital projects to turnarounds to decommissioning, addressing the two phases that make up the transfer of responsibility from the contractor back to the owner-operator.

> Complete Phase

Ensures that the project is delivered to specification and is quality assured.

> Handover Phase

Ensures that the asset is fit for purpose and ready to be brought online, energized or decommissioned.

MODS Connect as a CMS certifies each of these two milestones, ensuring that the owner-operator inherits a plug-and-play facility without unnecessary headaches, hassle or downtime. Effective handovers result in safe, dependable, maintainable and operable deliverables that are fit for purpose.

A global sharing environment fed from a single commissioning and Completions Management System (CMS), MODS Connect Completions enables a visible and dependable handover with all inspection, testing and commissioning information attached to a 3D-model database.

When used with other modules, digital handovers with MODS Connect provide the total picture in one tidy package for accountable, transparent, timely and budget-friendly handovers.

> Handover milestones and transfer of responsibility



> Technical integrity



> Project schedules and handover goals

> MODS Connect digital handover benefits

- > Full traceability and accountability
- > Improved productivity with up to 70% greater efficiencies
- > Cloud-based system using handheld devices
- > Real-time / live reporting removes time lags of paper-based signoffs
- > Reduced administrative burdens
- > Structured accountability for user rights
- > Automated system population, with efficient system interfaces
- > No delays in ITR signoffs and handovers
- > Offers 100% paper-free execution if desired

> Digital completion certifications

Efficient project management relies on accurate and up-to-date information. Completion certifications provide a clear picture of the project's progress, allowing for better planning and resource allocation.

> Archival data

Digital handovers with MODS Connect store historical data, allowing for comprehensive analysis and reporting. This data is handed over in full, from contractor to client in a tidy database that can be invaluable for future projects, helping companies learn from past experiences and improve their project execution.



> Budget - especially production labour costs, time and efficiency



> Communication, stakeholder transparency and visibility

> **Case Studies:** Digitalizing Brownfield Projects and Plant Modifications with MODS Connect WorkPack and MODS Connect Completions <



> Brownfield Projects and Plant Modifications

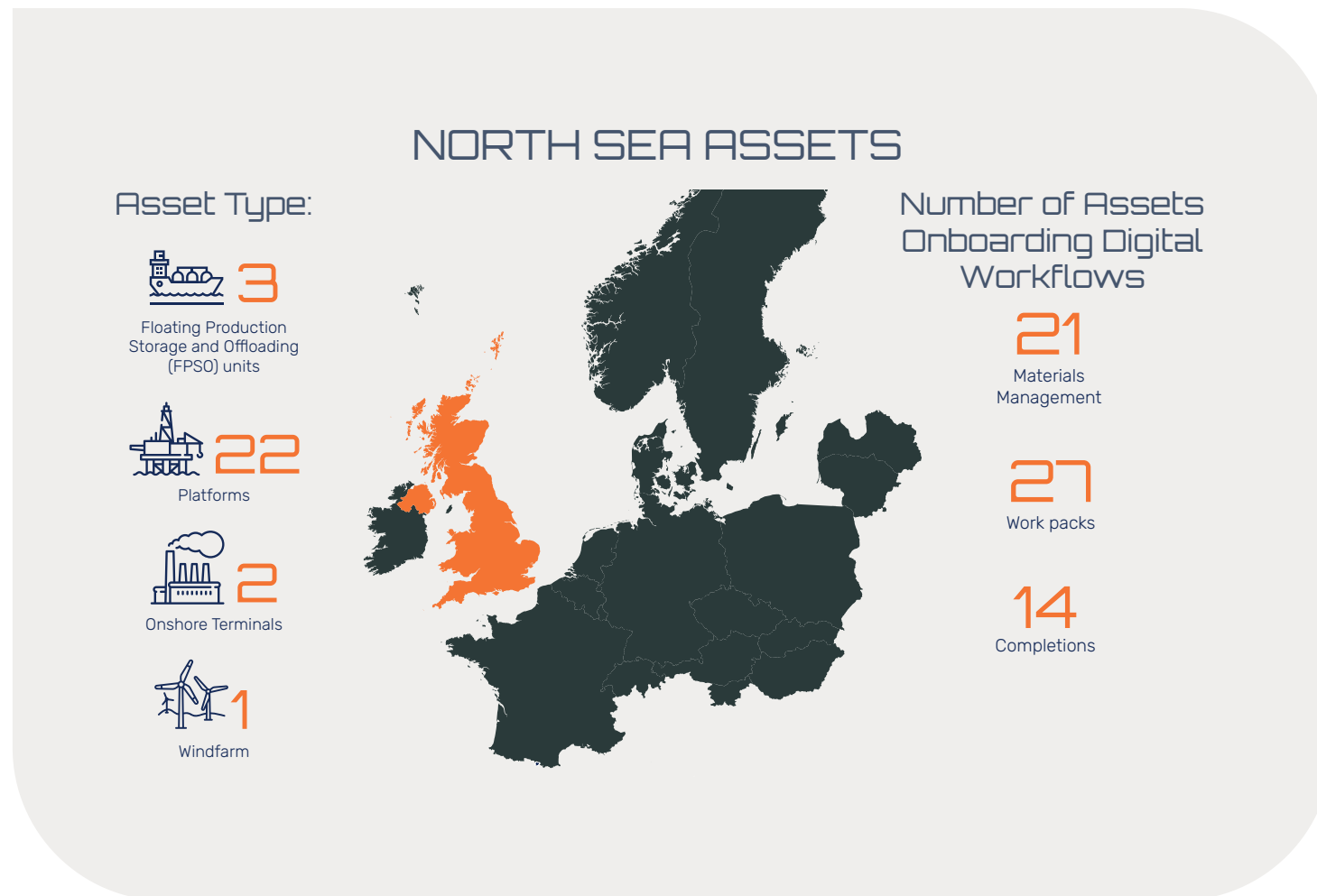


> Digitalize construction, completions and materials workflows across UKCS brownfield assets for enhanced productivity and ROI with MODS Connect

- > Supported North Sea operations in all sectors for over 5-plus years, completing digital work packages and digital completions documentation for around 50 contacts for projects spanning approximately 20 external clients
- > Successfully onboarded **MODS Connect WorkPack**, **MODS Connect Materials** and **MODS Connect Completions**.

> Impact:

- > 50% time reduction in finding project data.
- > Eliminated work pack transit time (7-14 days).
- > Increased onsite safety.
- > Reduced embodied carbon in materials from fewer movements.
- > Shortened closeout schedules.



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> Project Examples:

Ithaca Captain Offshore Platform Modification Enhanced Oil Recovery (EOR) Project (MODS Connect WorkPack & MODS Connect Completions), 3-year support for significant platform upgrade, now in the final stages of commissioning

Neptune Cygnus Field

2024 TAR Campaign successfully completed using MODS Connect WorkPack & Completions

ENI Hewett Decommissioning Project

3 year support for multiple platform abandonment ongoing, with MODS Connect Completions

> MODS Connect WorkPack <

53 Work packs executed	1,172 Job cards executed	54,000 Man-hours expended
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> MODS Connect Completions <

3,282 Tags	3,857 ITR check sheets completed (MC & SH)	160 sub-system handovers
33 Category A punches	104 Category B punches	51 Category C punches
	45 System Handovers	



962 Mechanically complete ITRs	80 MC handovers	1,165 System handover ITRs	57 SH handovers
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All Handover Dossiers were electronically compiled and signed off.



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> Digitalizing Turnarounds for Chevron Australia's Gorgon Facility 15.6 MT LNG plant

Challenge:

High cost and low efficiency of TARs on a complex 15.6 million tonne LNG plant.

Solution:

A staged digital transformation with MODS Connect WorkPack and MODS Connect Completions.

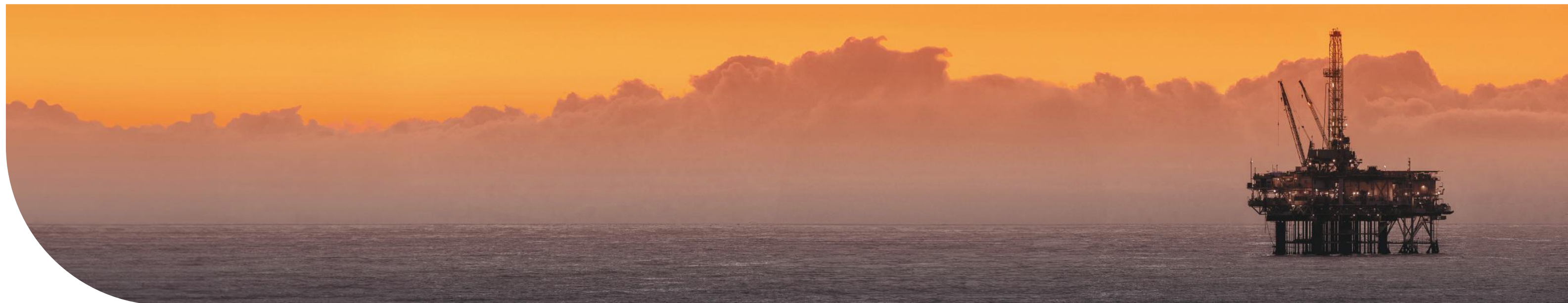
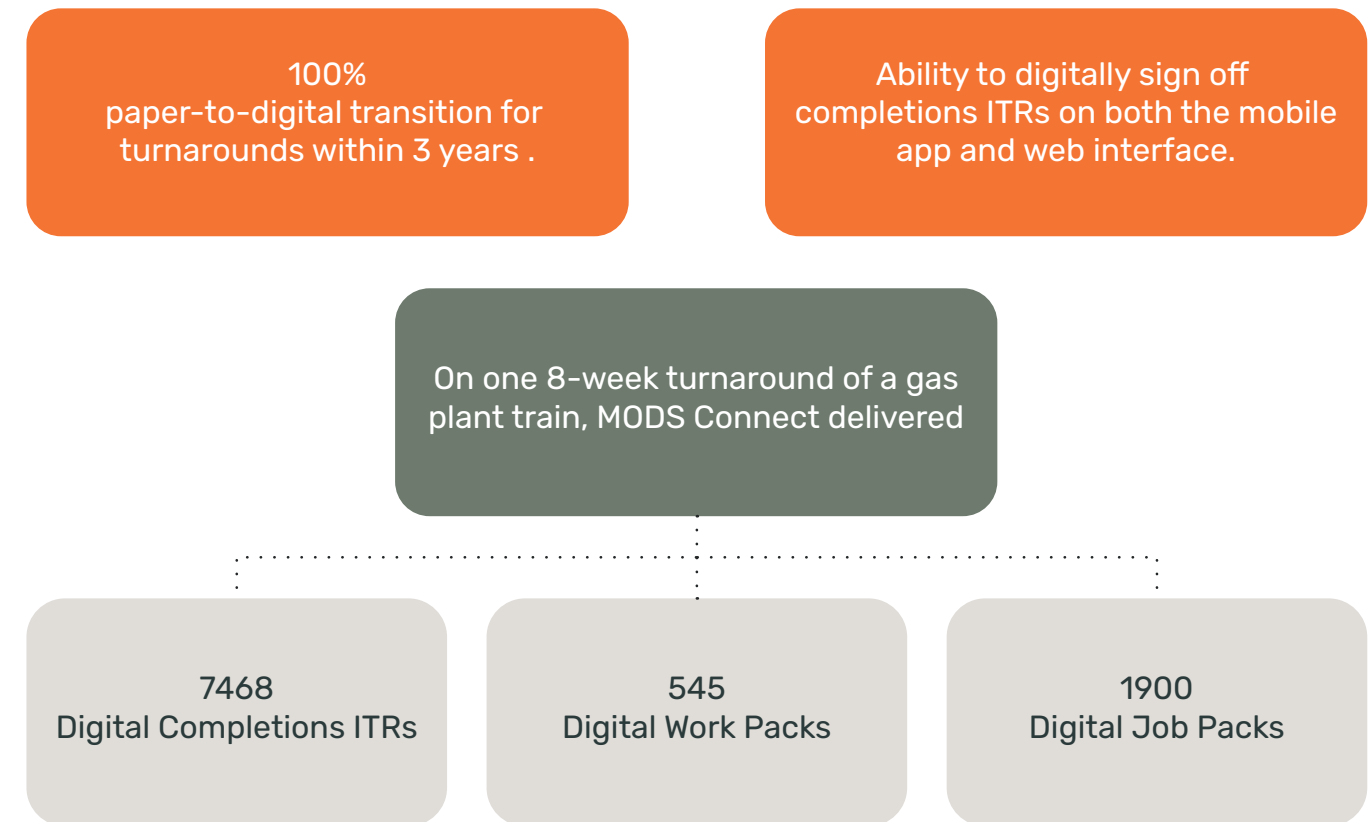
Impact:

- > 100% paper-to-digital TARs achieved in 3 years.
- > 50% reduction of onsite staff during TARs.
- > Instantaneous job pack.
- > Digital ITR and completions signoffs.
- > Remote TAR planning and real-time monitoring.

"The clarity, visibility and speed [of digitalization with MODS Connect] been revolutionary".

AGC project engineer, Chevron Australia

> Digital completions management on a large-scale LNG plant



> Brownfield Projects and Plant Modifications

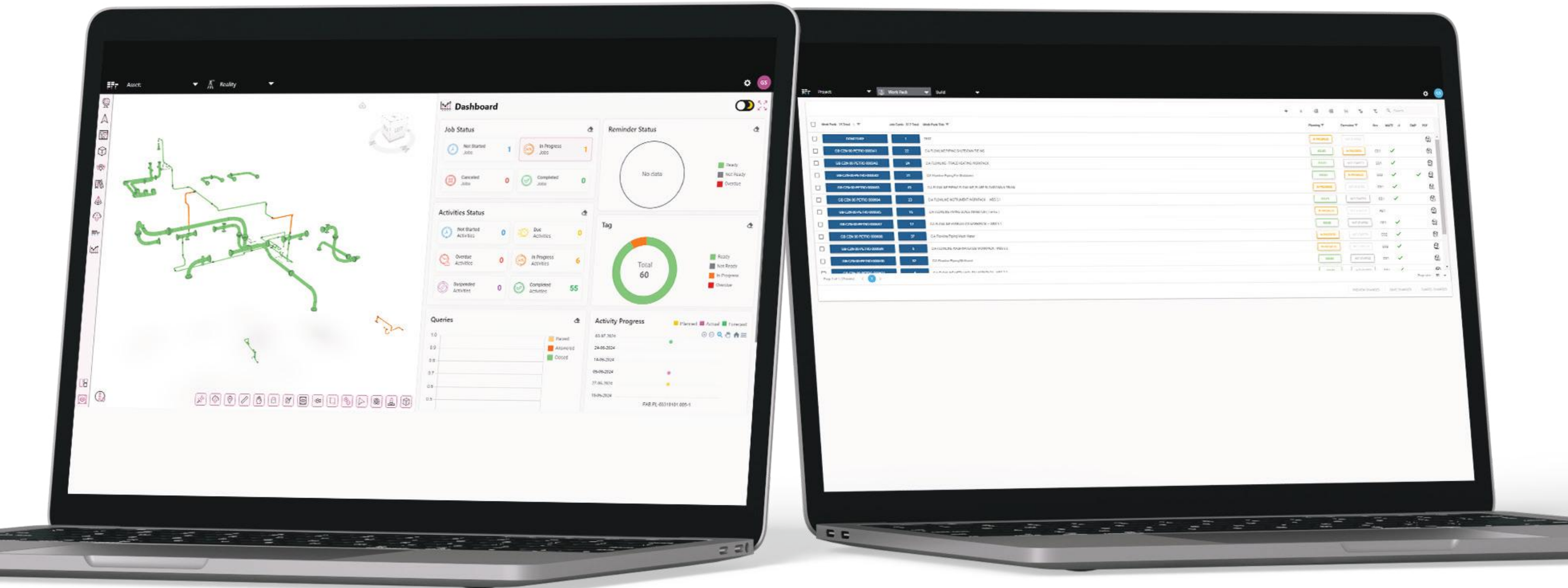


> Digitalizing Total Culzean's Wellhead Platform Upgrade with MOOS Connect WorkPack and MOOS Connect Materials.

Drilling of a new production infill well (project ongoing).

- > Pre-TAR, TAR and Non-TAR scopes.
- > Piping shutdown tie-ins.

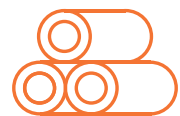
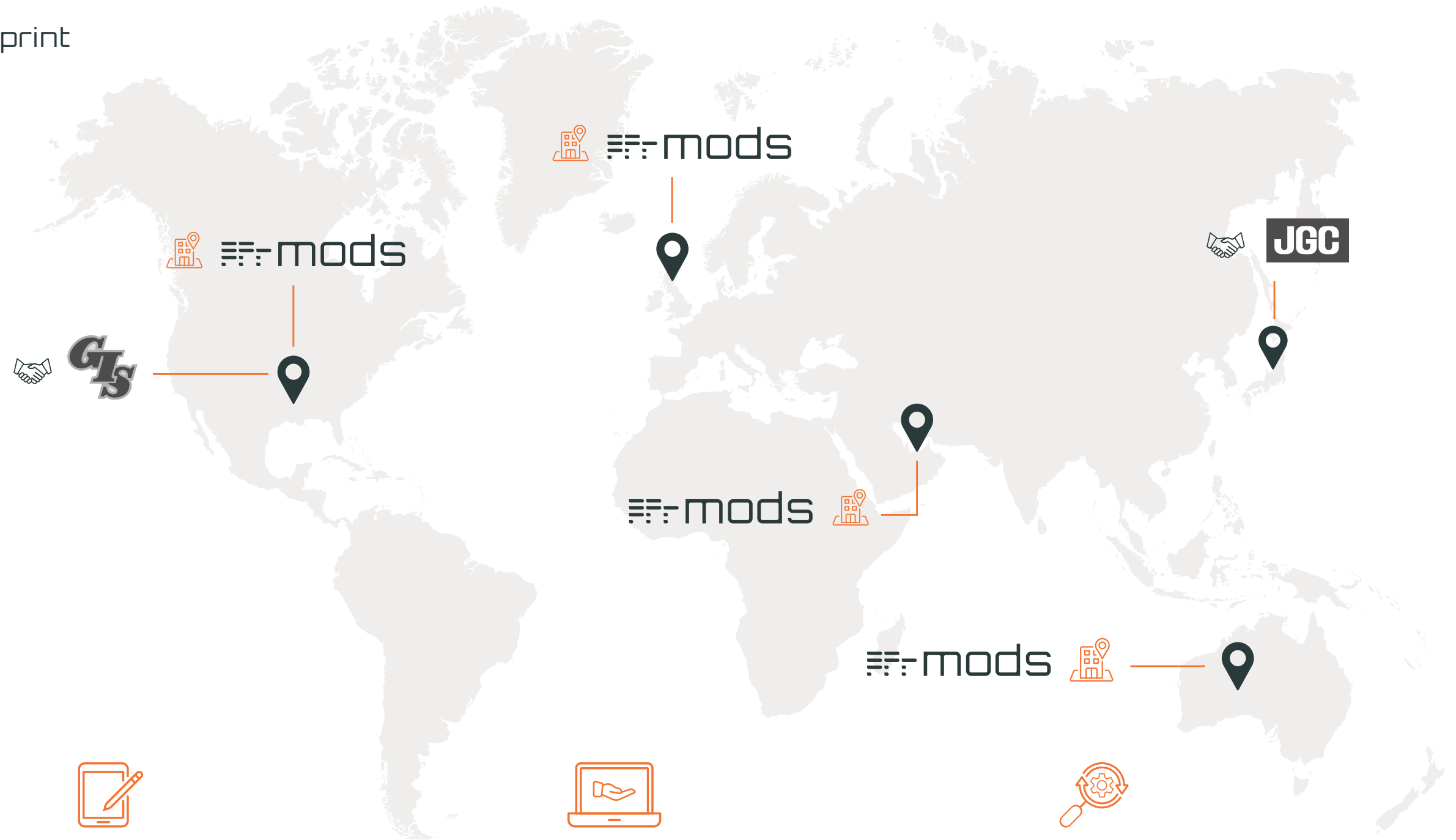
14 Work packs executed (up to 50 job cards per pack) for Piping, Structural, and E&I scope including new flowlines & supports.



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> MODS Global Digital Footprint



Over 9 million materials shipped for construction and maintenance projects in the Gulf of Mexico alone, making real-time and archival traceability of materials digitally accessible to all stakeholders anywhere and at any time.



10,000+ Digital work packs issued on assets worldwide, with each digital dossier replacing a paper-based work pack that can take 7-14 days to reach remote project sites.



2,500+ Digital handovers completed over on assets throughout the Gulf of Mexico, the UK and the Asia-Pacific region, navigating SIMOPS safely and efficiently in a variety of contexts.



55,000+ Inspection test records verified to ensure safe, compliant and efficient completions processes for projects around the world.



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> Over 20 years of project experience both Upstream and Downstream



- > Valhall Project
- > Clair Ridge
- > ETAP
- > Mungo
- > Andrew Area Development



- > Chevron - Tahiti
- > Chevron - Neptune
- > Hess - Tubular Bells
- > Hess - Stampede
- > Hess - Ballplate
- > Enbridge - Venice
- > Thunder Hose Water Injection
- > Mad Dog Rig Replacement
- > Cat C EPC Gulf of Mexico (5+yrs)
- > Atlantis
- > Nakika
- > Argos
- > Perdidio
- > Enchilada
- > Ursa
- > Stones
- > Appomattox
- > Perdidio
- > Enchilada
- > Ursa
- > Stones
- > Appomattox



- > Central Gas Plant Bahrain (Banagas)
- > HMD Upside North Algeria (Sonatrach)
- > HMDS & HRM3 Project Algeria (Sonatrach)
- > Blue Sky Project Cillacap (Pertamina)
- > New Mercury Project (Malaysia)
- > LNGC Project China (Shell)
- > Project Harmony (Thailand)
- > Teichung Phase 3 (Malaysia)
- > Zuluf Project (Saudi Aramco)
- > South Ghawar Project Saudi Arabia (Saudi Aramco)
- > AGC Vinithai Project (Thailand)



- > PTTEP Satellite Platforms



- > Ithaca Energy - FPF1
- > Ithaca Energy - Alba North
- > Ithaca Energy - Alba FSU
- > Ithaca Energy - Captain



TOTAL

- > Culzean



- > Gorgon Turnarounds
- > Wheatstone

