



PROJECT COLLABORATION TOOLKIT (PCT)

TOTAL CONCENTRIC GAS LIFT (CGL) FLOWLINE CASE STUDY



THIS CASE STUDY HIGHLIGHTS THE VALUE OF COLLABORATIVE WORKING BETWEEN A MAJOR OPERATING COMPANY (TOTAL) AND A WELL ESTABLISHED ENGINEERING SERVICES CONTRACTOR (WOOD.) ON A SMALL, BUT IMPORTANT BROWNFIELD PROJECT.

THE PRINCIPLES OF THE PROJECT COLLABORATION TOOLKIT (PCT) HELPED TO ENHANCE COLLABORATIVE BEHAVIOURS, PROMOTE EFFECTIVE COMMUNICATION, IMPROVE INTERFACE COORDINATION, AND DELIVER A COMMON UNDERSTANDING AND ALIGNMENT TO THE PROJECT GOALS.

In 2017 Total planned the rigless implementation of a concentric gas lift completion for well N02 for its Alwyn platform. The topside modifications to provide a production flowline, gas lift flowline, and depressurisation route were to be managed under the company's modification procedure. Total worked with its well established engineering services contractor, Wood with which it already had a long working history of successfully delivering brownfield modifications.

As a rigless implementation, the timeline for the N02 well gas lift completion was very short, which made it very challenging for delivery of the topside modifications within the time available. The scope of work identified many areas where re-use of existing materials from installed, but now redundant, flowlines could be utilised. This approach was identified to offer the opportunity to not only reduce project cost but also benefit the project schedule through the elimination of a number of in-line installed equipment and material items that would otherwise represent procurement long-lead times. However, this strategy required close interaction between the project team and Total operations and maintenance functions to destruct the items, update drawings, and release the components for use on the project. Moving away from traditional EPC delivery methodology added complexity and required more interfaces to be managed, with many departments and functions from within both Total and Wood working together to ensure planning and alignment of the resources required to deliver the modifications on time. The Project Collaboration Toolkit (PCT) was adopted as a method to ensure a collaborative approach and common understanding and alignment to the project goals.



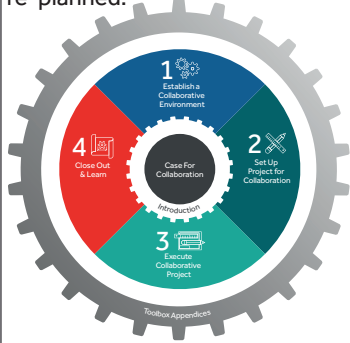
PROJECT TENETS

Work together with trust

Align our views of what project success means

Deliver the right work at the right time

KEY PROJECT COLLABORATION SUCCESS FACTORS

PCT PHASE 1	PCT PHASE 2	PCT PHASE 3	PCT PHASE 4
ESTABLISH ENVIRONMENT	SET UP	EXECUTE	CLOSE OUT
<p>PCT 1.1 - Collaboration Champion appointed not directly linked to the project.</p> <p>PCT 1.4, 1.5 & 1.6 - Behavioural Charter developed between all parties and signed up to.</p> <p>PCT 1.6 & 1.7 - Existing contract in place, fully supportive of a collaborative strategy.</p>	<p>PCT 2.1 & 2.2 - Project team selected and on-boarded with the scope and the need for close collaboration. Daily calls set up for close collaboration between client and contractor.</p> <p>PCT 2.3 - Existing open plan office and central mission control board helped to create a collaborative environment focused on delivery.</p> <p>PCT 2.4 & 2.5 - Project scope of work was reviewed and commented on by the contractor to ensure input and alignment of goals.</p>	<p>PCT 3.1, 3.3 & 3.4 - No duplication of project controls, and a single team approach for SHE Management, Quality Assurance & Control. A lean approach with no unnecessary reports, administrative effort, or duplication between client and contractor, only work that brings value to project delivery.</p>	<p>PCT 4.1-4.5 - Due to changing priorities in the drilling and workover sequence, the project was rescheduled and implementation beyond engineering phase needs to be re-planned.</p> 

KEY CHALLENGES:

The following concerns were identified and overcome through the application of the PCT principles;

PHASE 1

The existing relationship between client and contractor was already collaborative and successful, but the tight timeline and added complexity of re-using existing plant and materials required extremely close communication and open dialogue. The ECITB Project Collaboration Toolkit provided a framework to take a fresh look at the relationship and how it could be strengthened to overcome the particular challenges of the project.

PHASE 2 & 3

The project really focused on taking a lean approach, avoiding duplication of effort, having only the necessary reports, formal meetings and administrative effort. The daily calls were a huge success in progressing issues as they arose and kept communication and understanding between the client and contractor offices completely aligned.

TOTAL ESP UK



N2 CONCENTRIC GAS LIFT FLOWLINE PROJECT BEHAVIOURAL CHARTER

NNS – Setting the standard for the profitable management of mature oil and gas fields

- Knowing our costs and being accountable for sustainably reducing them
- Constantly identifying and making performance and safety improvements

This project charter, taking into account the above NNS asset charter statements, is a collective commitment to work effectively, efficiently and co-operatively.

This charter will be applied by every individual working on the N2 Concentric Gas Lift Flowline Project, in order to promote a collaborative approach to project delivery.

Our Vision

To promote the collaborative behaviours that will improve safe, competitive and technically acceptable project delivery within the agreed budget and timescale, not just for this project and for TEPUK, but also to promote collaborative behaviours that will improve project delivery for the wider UK Oil & Gas industry.

In pursuit of this, we will:

1. **Work together with trust** to solve issues and to reduce cost, seeking to deliver the project in the minimal time possible.
2. **Align our views** of what project success means and work together towards that success.
3. **Deliver** the right work at the right time in an open and communicative environment, being held accountable for the tasks assigned.
4. **Challenge the norm** if there are opportunities to simplify, reduce cost, accelerate delivery, or strengthen trust and co-operation.
5. **Commit to continuous improvement** as individuals, within the project team, and within the industry, communicating freely to share ideas and knowledge.

It is the strength of the individual members of this project working together that will make the project a success.

PROJECT COLLABORATION TOOLKIT (PCT)

PHASE 1	PHASE 2	PHASE 3	PHASE 4
ESTABLISH A COLLABORATIVE ENVIRONMENT	SET UP PROJECT FOR COLLABORATION	EXECUTE COLLABORATIVE PROJECT	CLOSE OUT AND LEARN
Client Collaboration Champion 1.1	Project Team Selection Process 2.1	Collaborative Schedule and Cost Control Processes 3.1	Evaluate Project Lessons Learned 4.1
Collaborative Capability Self-Assessment 1.2	Common Project Delivery Objectives 2.2	Stakeholder Risk & Reward - KPI Measurement 3.2	Collaborative Lessons Learned Conference 4.2
Stakeholder Management Conference 1.3	Collaborative Project Team Environment 2.3	Single Team Quality Monitoring & Assurance 3.3	Close Out Collaborative (Risk & Reward) Project Agreements 4.3
Foundations for Stakeholder Trust 1.4	Documented and Agreed Project Scope 2.4	Single Team HSE Management 3.4	Review, Agree & Record Project Outcomes 4.4
Project Behavioural Charter 1.5	Scope Management and Change Management Protocol 2.5		Establish Basis for Future Project Collaborations 4.5
Partner Selection Process 1.6	Processes for Managing Risk and Uncertainty 2.6		
Contracting Principles 1.7	Engagement of Functional Stakeholders 2.7		
	Project Processes, Standards and Specifications 2.8		
Phase 1 Gate Review & Phase Learning 1.8	Phase 2 Gate Review & Phase Learning 2.9	Phase 3 Gate Review & Phase Learning 3.5	

DIAGRAM REFERENCE: Total N02 CGL Flowline Project - Self-Assessment Tracker

OUTCOMES:

The ECITB Project Collaboration Toolkit provided a framework to test and strengthen already established and collaborative relationships.

The project achieved closer communication, common understanding of the project goals, working every issue together (no matter how small) and a lean approach. This helped to deliver the basic and detailed engineering phase ahead of time, positioning the project for a successful implementation phase.

Due to changing priorities in the drilling and workover programmes, the implementation phase of the N02 CGL Flowline Project was delayed beyond the timescale of the ECITB case study programme. However the collaborative relationships, built on the toolkit principles, continue on other flowline projects.

CONCLUSIONS:

Application of the ECITB Project Collaboration Toolkit to the basic engineering and detail design phases of the Total N02 CGL Flowline Project has demonstrated that applying a collaborative strategy to small / medium sized project scopes can deliver similarly enhanced project delivery performance to that which major ECITB PCT pilot project scopes have experienced and reported. The learning from this pilot project, concerning the efficient delivery of flowline scopes, should be of interest to each and every UKCS offshore operator.

