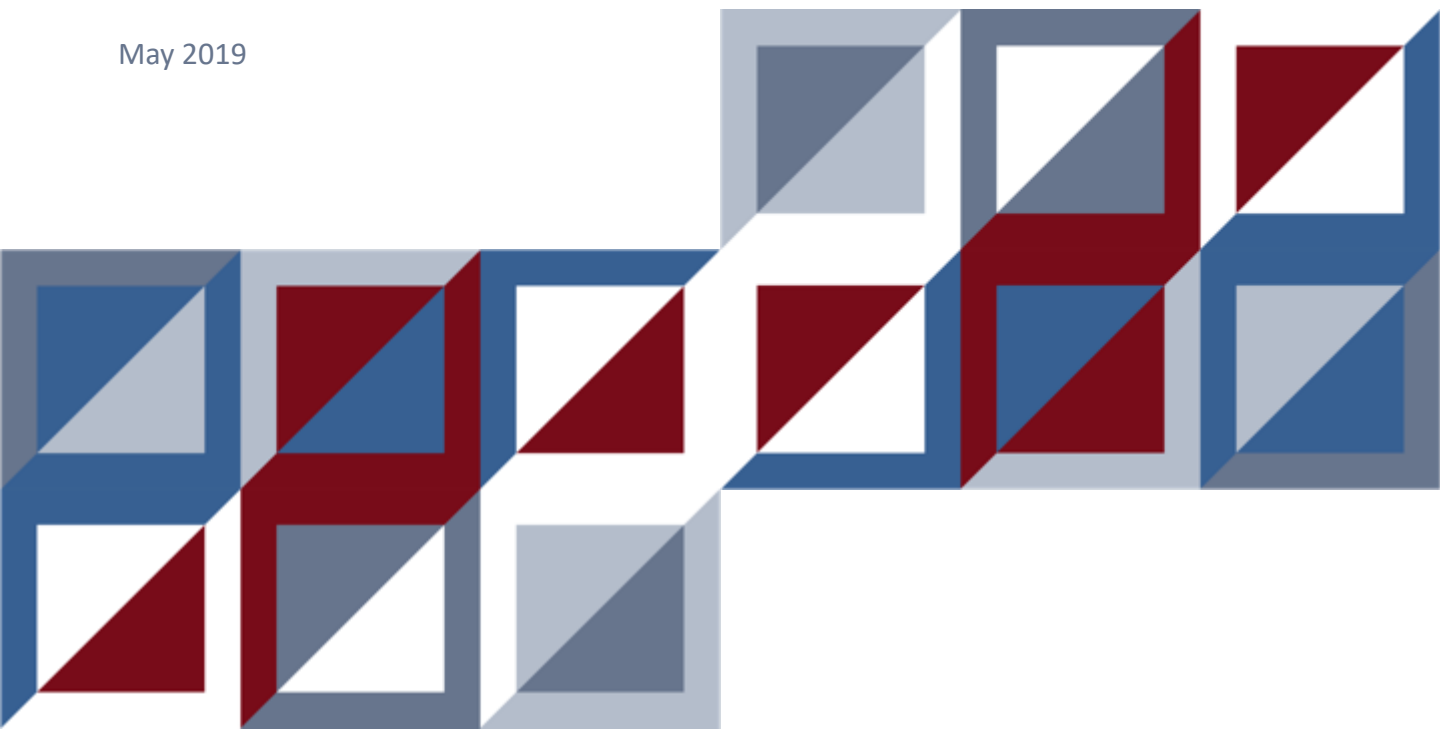




Process Optimization For  
Realizing Cost Savings:  
Insights From an Oil Rig  
Manufacturing Company

May 2019





# About Kelmic

**Kelmic Consulting helps organizations capture opportunities and dramatically improve their operations.**

Helping our clients improve their operations since 2002

We partner with our clients to drive bottom-line impact by addressing and dramatically improving efficiencies in People, Processes, and Property. Our exceptional people draw upon more than 100 years of combined experience to bring you the right perspectives and expertise to help you tackle complex challenges and realize your strategic ambitions.



# Background

## About the Client

- Oil and Gas Rig manufacturing Division of a Leading North American Drilling Contractor
- Operating across Australia, North America and Middle East
- Building over \$250 million custom and semi-custom rigs annually
- Combination of internal and out-sourced construction
- Construction facilities in Canada and US

***“There was a lack of proper planning. Budgets were incorrect and were not being adhered to. There were no project schedules to track progress.”***

This rig building division of a North American leading oil field services business was experiencing high costs of rework, delays in delivery and budget overruns with their rig construction.

Alignment on business goals and objectives was not present between business units. The strategies of the differing sales teams were not aligned with that of the Engineering, Construction or Procurement groups. There was a lack of clarity between groups and the vision was not communicated in a consistent manner.

Roles and responsibilities throughout the build process were not clearly defined. Promises were being made to customers that were not properly documented that resulted in late stage changes to engineering specifications and high internal cost overruns. Customer satisfaction was negatively impacted.

There was a lack of proper planning. Budgets were incorrect and were not being adhered to. There were no project schedules to track progress.

Sales had no ability to forecast workflow. Critical items and components were not identified beforehand leading to long lead times with loss of some contracts due to resulting delivery schedules. Additional training was needed to improve the contracts process to be more concise.

Contractual agreements were not being reviewed by all necessary parties before being signed, resulting in the delivery of completed rigs that differed from those originally sold to the customer.

A heavy reliance on legacy vendors led to a lack of written specifications and drawings and difficulty in obtaining comparative pricing.

Limited resources available for bids and proposals put a strain on other activities. Costs were not captured or documented for previously built rigs, so every tender was different leading to excessive duplication of work.

Reporting was not completed in an accurate or timely manner and a lack of integration of systems led to data failing to adequately assist in managing costs of each project. Projects constantly tracked on schedule until near or after completion when added costs drove expenditure well over budget.

Change orders were poorly managed and non-compliance rework was not captured or documented so similar errors were repeated over and over.

# Implemented Solution

An action team was assembled to identify issues within EPC that were causing rework, cost overruns and delivery delays.

The team focused on the front end of the overall process, starting with initial contact with the customer through to the point where a contract was signed.

An alignment workshop was held to engage all the stakeholders on issues within the rig construction process.

It was agreed that all business units could follow the same operational path. Teams were created to consolidate the front-end process. Once consolidated, the roles and responsibilities were clarified and communicated to each position involved in the process.

A communication protocol was established to eliminate cost overruns caused by the lack of expertise in the contract discussion.

The sales teams were provided with a checklist of rig options to cover various options and design criteria when holding conversations with customers.

Shop drawings for common rigs were created and stored to be used on future builds.

***“An alignment workshop was held to engage all the stakeholders on issues within the rig construction process.”***





# Key Results Achieved

- 10% reduction in change orders
- Alignment between customers, business units and construction group
- A consolidated process for sales, engineering and construction, one process
- Roles and responsibilities were clarified
- A communication protocol to ensure contracts generated accurately
- Checklist of rig options for sales team
- Shop drawings & project schedules developed

**10%**

Reduction

In change orders

**2x**

Improvement

In process & documentation

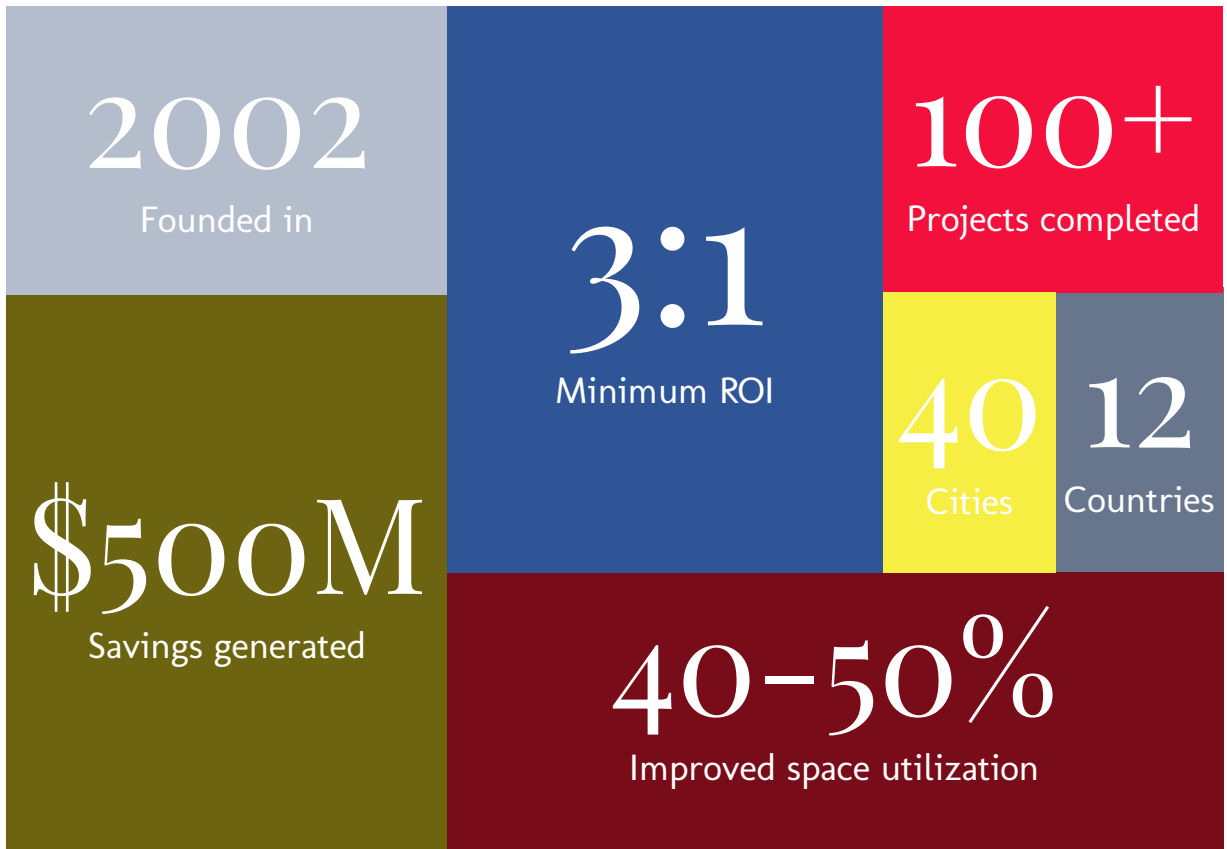
**5%**

Reduction

In costs



# Kelmic at a Glance





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