

CRITICAL CHAIN PROJECT MANAGEMENT CASE STUDY

SEPTEMBER 2013

“Pinnacle consultants are highly effective and professional. Even our seasoned managers learned new methods and approaches to solving problems.”

—Delivery Manager, FMC Technologies

Critical Engineering Group Simplifies Project Management, Completes 89 Days of Work in 60

CHALLENGE

Meet precious project windows or risk millions of dollars in penalties

As the Computer and Data Management (CDM) arm of FMC, a leading provider of oil and gas industry field technology, the CDM's team of 400 engineers was responsible for more than 40 projects at any given time, each an indispensable part of a larger obligation to deliver a complete oil field platform for a project, Knarr, in the North Sea's Norwegian waters.

Given the complexities of oil platform design, no two projects were alike and required, therefore, extensive custom designs and components. Despite the complexities, however, every element had to be in place to meet previously scheduled installation timeframes; failure to meet the window could postpone installation by years—and cost FMC upwards of a \$1 million/day in contract penalties. Current project management processes could not keep pace with the workload, leading to delays, resource commitment conflicts and destructive tensions among managers competing for their project priority.

SOLUTION

Implement a streamlined Critical Chain Project Management (CCPM) Process

To reduce time-wasting multi-tasking and eliminate resource conflicts, Pinnacle Strategies led the CDM team in a Critical Chain Project Management Process that allowed engineers to concentrate their efforts on one task at a time, while giving managers precise control over the entire project workflow. Implementation involved:

PROBABILISTIC PROJECT SCHEDULING that set a delivery date based on the highest probability of completion, while allowing for variation in execution.

PLACEMENT AND USE OF BUFFERS instead of allowing “safety guesstimates” on task completion times, CDM based estimates on net task durations, then created a collective time buffer that could be distributed to any resource or task as needed.

CONSTRAINT IDENTIFICATION progress can only be as fast as the slowest task in the sequence, the “bottleneck.” Identifying the bottleneck enables CDM to forecast reliable completion dates and direct resources to the bottlenecks where they were most needed.

CLIENT OVERVIEW

REGION

Norway

INDUSTRY

Oil & Gas Equipment

CUSTOMER PROFILE

FMC Technologies is a leading global provider of technology solutions for the energy industry. It employs 16,100 people and operates 27 production facilities in 16 countries.

BUSINESS SITUATION

Multiple, complex projects made management almost impossible, risking deadline failures—and potential penalties.

SOLUTION

Pinnacle Strategies helped the CDM team implement a Critical Chain Project Management process that focused priorities and reduced completion times.

RESULTS AND BENEFITS

COMPLETED **89**
DAYS OF WORK IN **60**

SIGNIFICANTLY REDUCED SCHEDULE RISK

INCREASED **FOCUS** AND **ATTENTION**
ON PRIORITY TASKS THAT CONTRIBUTED
TO OVERALL PROJECT GOALS

CREATED ABILITY TO RUN RAPID,
DYNAMIC AND TIME-SAVING “WHAT-IF”
ANALYSES

DEMONSTRATED ABILITY TO PINPOINT
AND RESOLVE BOTTLENECKS FOR
ENTIRE DEPARTMENT