

DOWNSTREAM



**KBC**

A Yokogawa Company

## Hydrocarbon Supply Chain Optimisation

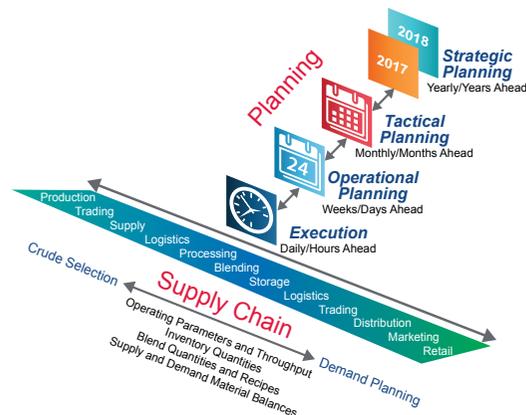
Realise maximum return  
through supply chain improvement.

**SUPERIOR RESULTS. SUSTAINED.**

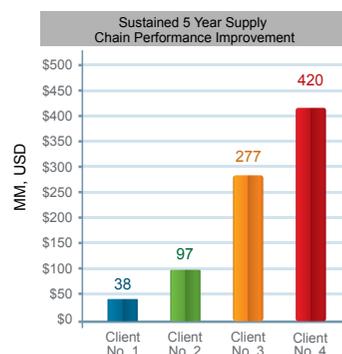
# The CHALLENGE

“Modelling, managing and monitoring the hydrocarbon supply chain is a core differentiator among those that achieve maximum return on capital employed.”

- Feedstock (crude) cost is the biggest expense (88-93%) for a refinery and has the most significant impact on refinery margin.
- Optimising the hydrocarbon supply chain is critical to maximising return through revenue and margin improvement and cost optimisation.
- Not being able to quickly and confidently respond to operational upsets and identify potential margin improvement opportunities is a constant drain on margin and revenue.
- Lack of supply chain performance visibility allows for unchecked margin and revenue “give away” and unnecessary cost.

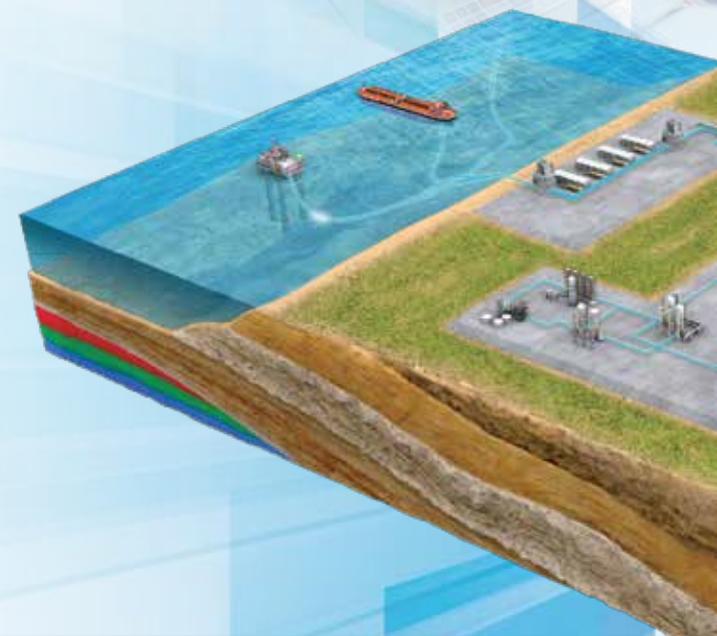


Optimising the hydrocarbon supply chain involves a wide array of touch points and considerations from feed acquisition, transportation, processing, to final product distribution as well as a second dimensional element of time that has to be considered in the different levels of planning through execution.



KBC has helped clients around the world improve and sustain their hydrocarbon supply chain performance from \$38 to \$420 MM USD over 5 years

KBC's technology, our broad range of international experience, the tools designed and tested across the hydrocarbon processing industry, as well as our Accelerated Capability Transfer to sustain improved performance are the foundation of the SCOPE (Supply Chain Optimisation & Performance) Excellence programme.



Enabled through highly skilled professionals and

**Petro-SIM™**

For Process Modelling  
The process simulation platform for driving excellence in facility performance and organisational productivity in hydrocarbon industries. At the core of Petro-SIM's technology, rigorous simulation models generate trusted results in an intelligent, user-friendly environment for upstream, midstream, or downstream refinery or petrochemical processes.

**SIM Reactor Suite™**

The Industry Standard in Kinetic Reactor Simulation  
Kinetic reactor models provide a rigorous, non-linear simulation of the reaction and key separation sections of a process unit. Their integration into Petro-SIM enables scalable modelling from unit level to facility wide simulation.

**SUMMIT™**

Smart Unified Monitoring Management Information Toolkit  
SUMMIT downstream metrics are essential for evaluating performance and driving improvement through the use of defined targets and key performance indicators on a technology platform which also quantifies your "lost opportunity".



**90%** of the world's leading O&G companies have used KBC as their Trusted Advisor.



## The SOLUTION

A disciplined approach that considers the entire hydrocarbon supply chain is required. The KBC SCOPE program is derived from a wide range of knowledge and expertise, designed and tested across the hydrocarbon processing industry.

**SCOPE**  
Supply Chain Optimisation and Performance Excellence



SCOPE includes:

**Benchmarking:** Where are you vs. international best practices to determine your potential to improve.

**Strategy:** Develop an actionable strategy that delivers your competitive advantage.

**Forecast:** Support superior, informed decision making through a robust forecast centred around your business with global and regional operational insights.

**Plan:** More reliable and accurate market responsive plans to achieve higher margins using a technology based work process.

**Execute:** Develop your people to convert the plan to reality and increase your probability of sustained success.

**Respond:** Increase staff capabilities to respond to operational upsets and identify opportunities to improve margins.

**Monitor:** Monitor key parameters to ensure the sustained performance of your Hydrocarbon Supply Chain.

**Improve:** Manage your Supply Chain through sustainable excellence from a foundation of capability and the continuous improvement of your process, technology and people.

KBC's proprietary leading IP and technology.

### OpXAP

OpX Applied Best Practice Database

Comprehensive description of processes and systems covering the various levels of the Performance Management System. Detailed practices covering all critical OpX activities. Exhaustive assessment criteria used to benchmark and identify gaps as a first step to organisation improvements.

### ACT

Accelerated Capability Transfer

Activities designed and developed based on leading blended learning concepts and practices. A methodology which encourages self discovery and reaching the individual's potential and promotes taking ownership in real-world situations. Support and mentoring also provided.

### KBC Consultants

Drawing on Decades of Industry Knowledge

Our experienced consultants provide technical and organisational solutions in areas such as leadership and management, production optimisation, asset integrity, production information and control, HSE and human performance improvement.

# Your **PARTNER FOR SUCCESS**

KBC is a global technology provider and consultancy focused on the hydrocarbon processing industry. With over 35 years' experience in upstream, midstream, downstream, and petrochemicals, we are ready to serve you anywhere and anytime you need help with meeting your business challenges.

## THINK LIKE AN OPERATOR APPROACH

Our experience shows that sustainable improvement is only possible if accompanied by a change in behaviours in day-to-day operations. KBC's track record is second to none in achieving long term results.

KBC uses the most effective combination of business analysis, technical and operational expertise, workforce capability and applied simulation technology to meet your objectives. Building on profit improvement, we have helped clients to achieve and then sustain improvements in business performance since 1979.

Finding the right, fit-for-purpose solution for our clients is our area of expertise and we back up our solutions with methodical diagnostics, the deep industry knowledge of our consultants and leading technologies. Many of these solutions require no investment so can be implemented to deliver returns quickly.

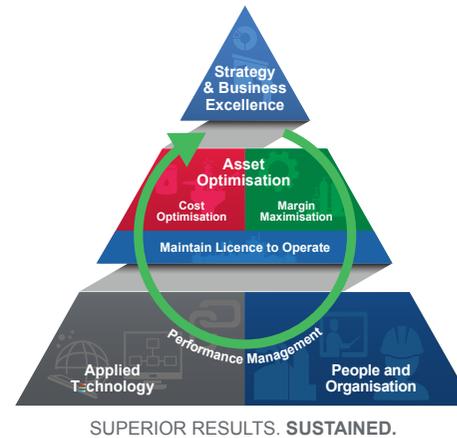
## KBC IS FOCUSED ON SAFETY

At KBC, we believe that there is no task so important or so urgent either in our business, or our customers' businesses, that it overrides the need to work safely.



## DELIVERY APPROACH

The KBC approach across all elements of the business ensures alignment and maximises synergies.



Our approach lays out a clear direction with defined processes and measured outcomes.

## DELIVERY FRAMEWORK

As part of the KBC Delivery Framework, key strategic, organisational and technology elements are embedded in our Project Management Office (PMO). Every project is planned in appropriate phases to ensure proper definition of the issue, discover the business background and develop detailed solutions that deliver the desired results, as well as ensuring that they can be sustained in the long term.



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