

# An Introduction to PETROCHEMICALS

A comprehensive 2-day course covering the entire Petrochemical value chain. Relevant for those new to Petrochemical Industry or for those from other industries seeking a greater understanding of key commercial and economic issues.

## Your Expert Trainers

**John Keeley**  
CEO, International eChem  
30 years' experience with Shell Chemicals

**Bob Townsend**  
Senior VP, International eChem  
30 years' experience with Shell Chemicals

Past delegate's feedback about John's and Bob's training

*"I would like to thank you for the terrific workshop. I felt that all participants gained a lot of knowledge and are inspired to use it in the future to improve their business"*

*"Thanks a lot again for an absolutely great workshop! Extremely informative and yet entertaining. Very rare combination"*

Visit us for more information at:

[www.internationaleChem.com](http://www.internationaleChem.com)

## Course Description

This is an intensive comprehensive and interactive 2 day course which will address the key products and value chains of the global petrochemical industry, their production routes, their applications and major issues impacting their supply and demand. The course focuses on the business, economic and commercial aspects. The course will also examine specific topics such as trade flows, key players and pricing mechanisms. The aim of the trainers is to maximise the interaction between trainers and participants in an informal atmosphere to make the learning process both informative and enjoyable.

## Course Objectives

To enable delegates to acquire a good understanding of the global petrochemical industry and to enable them to communicate effectively with their business partners in the industry and to leverage value from it.

The delegates will acquire knowledge of:

- \* The key products and their value chains
- \* The complexities of supply and demand
- \* The key players and their strategies
- \* The key drivers and issues affecting the industry in 2014 and beyond.
- \* An understanding of the overall industry structure both upstream and downstream and the context in which it operates

## Who Should Attend

- \* Those new to the petrochemical industry seeking an overview and understanding of the key issues
- \* Business managers, marketing and sales managers, product and assistant product managers, strategic/planning managers at all levels in the Petrochemical Industry who wish to place their own role into the context of the global industry
- \* Business managers, marketing and sales managers, product and assistant product managers, strategic/planning managers at all levels in the oil and energy industry who wish to understand the business of a major consumer
- \* Business managers, marketing and sales managers, product and assistant product managers, strategic/planning managers and procurement Managers from the many diverse industries for whom the petrochemical's industry is a major supplier or customer
- \* Analysts, traders and CFOs from the financial sector who wish to understand the sector from an investment perspective
- \* Technical/engineering managers from petrochemical plants looking to gain a better business and commercial insight to complement their technical knowledge
- Government officials with a role in Industrial Development

Past delegate's feedback about the course

"Thank you very much indeed for such an informative workshop."

"This knowledge is invaluable to me."

"I now have much more insight into the key drivers of our business, and how we can leverage them!" "Thank you very much for organizing this workshop, which really helped me in my understanding of the chemicals industry."

# AN INTRODUCTION TO PETROCHEMICALS

## A TYPICAL TWO DAY COURSE CONTENT THE COURSE CAN BE ADAPTED TO SINGLE OR THREE DAY FORMATS

### *Session 1*

#### **INTRODUCTIONS**

- Upstream and Downstream Definition
- The Key Petrochemicals and the journey down their value chains

### *Session 2*

#### **UPSTREAM OF PETROCHEMICALS – ENERGY ISSUES**

- Review of Hydrocarbon Resources ( e.g. coal , gas & oil)
- Crude oil overview: Quality, Reserves and Consumption
- Some Demand Issues: transport, technology & renewables

### *Session 3*

#### **UPSTREAM OF PETROCHEMICALS – THE OIL REFINERY**

- Why do we need refineries?
- What is refining and what are its processes?
- What is the role of each different refinery?
- Refinery products, supply and demand issues.
- Refinery margins and product pricing mechanisms.

### *Session 4*

#### **KEY SOURCE OF PETROCHEMICALS – THE STEAM CRACKER**

- The steam cracker and its products.
- Feedstock options for the steam cracker.
- Production costs.

### *Session 5*

#### **THE OIL REFINERY AND OTHER SOURCES OF PETROCHEMICALS**

- Refinery FCC Propylene
- Refinery reformer as source for aromatics.
- “On Purpose” production routes.
- Coal to Olefins and Methanol to Olefins

### *Session 6*

#### **THE ADVANTAGE OF GAS**

- What is natural gas?
- Middle East exploitation of gas for petrochemicals
- US exploitation of shale gas for petrochemicals
- Shale gas in the rest of the world

### *Session 7*

#### **THE KEY BUILDING BLOCKS**

- Olefins: Ethylene, Propylene and Butadiene.
- Aromatics: Benzene, Toluene and Xylene.
  - What are they?
  - Supply and demand issues.
- Uses and derivatives

### *Session 8*

#### **DOWNSTREAM: OVERVIEW OF MAJOR DERIVATIVES**

- Key issues impacting on future demand.
- Polyolefins
- Ethylene Glycol
- Polyurethanes, Cumene – phenol and acetone.
- Para-xylene, PTA and PET.
- Styrenics

### *Session 9*

#### **PRICING MECHANISMS IN PETROCHEMICALS MARKETING AND TRADING**

- What is the function of a price mechanism?
- Description of the various mechanisms
- Why is liquidity important?
- Co-and by products complicate cost and price determination.
- Other issues impacting on price

### *Session 10*

#### **THE KEY PLAYERS**

- The major chemical companies and their origins.
- Profile of some major global petrochemical companies.
- Critical success factors.

### *Session 11*

#### **INTERNATIONAL PETROCHEMICAL TRADE FLOWS**

- International trade for some key products.
- Focus on the trade flows relevant to each delegate’s own country and region

### *Session 12*

#### **MARKETING CASE STUDY**

This is a game where delegates will use the knowledge acquired to role play a commercial situation

## About your Expert Trainers



**John Keeley**  
CEO, International eChem  
30 years' experience with Shell Chemicals

John Keeley, as a CEO of International eChem, has focused for several years on developing practical commercial training programmes for those within, and associated with, the chemical industry. He heads a small experienced team of training consultants, who work with individual client companies to customise programmes to meet their specific needs. These client workshops have global coverage involving clients in the USA, Asia and Europe. His aim is to give participants, the opportunity to leverage more value from the chemical industry in their own region particularly in this more difficult economic period.

Previously, John spent more than 30 years with Shell Chemicals in the UK, the Netherlands and Germany. He held senior management positions in the base chemicals, polyurethane and solvents businesses as well as heading up a chemicals international trading team which had global coverage. In the latter part of his career he became the General Manager responsible for Shell's European aromatics business. This gave him considerable commercial and international experience of product and general business management within the chemical industry.



**Bob Townsend**  
Senior VP, International eChem  
30 years' experience with Shell Chemicals

Bob worked for Shell Chemicals for more than thirty years. In this time he progressed through a range of petrochemical product management roles including detergents, chemical solvents and ethylene glycols. Bob moved then to more senior roles being first Global Trading Manager for Base Chemicals, (Lower Olefins, Aromatics and Styrenics) and finally Lower Olefins Business Manager for Europe, (ethylene, propylene and butadiene). These roles were based in London. During his time with Shell Chemicals he also spent 6 years in the Middle East as Regional Sales Manager based first in Teheran and then Beirut. There followed an assignment of 3 years based in Seoul, Korea as Investment and Marketing Manager for petrochemicals. Whilst based in Korea he had many opportunities to do business throughout the Asian region.

### Past delegate's feedback about the trainers

*"I particularly liked the way in which John kept asking us questions so that we really remembered certain points"*

*"Bob's presentation on the Middle East was very helpful to understanding the strengths of the region as a source of petrochemical feedstock."*

*"By the end of the session, it is obvious that John and Bob know an enormous amount, and have an exceptional ability to communicate this knowledge."*

A STEAM CRACKER  
KEY TO THE PETROCHEMICAL INDUSTRY



Contact us at:

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