



الإتحاد العربي للأسمدة  
Arab Fertilizers Association



AFA WORKSHOP 2017



# FERTILIZER ECONOMICS FUTURE CHALLENGES

LE MERIDIEN HOTEL-CITY CENTER, BAHRAIN  
26-27 April, 2017 Manama, BAHRAIN

# AFA IS DELIGHTED

to organize a workshop on Fertilizer Economics & Future Challenges in cooperation and full sponsorship by Gulf Petrochemical Industries Co. (GPIC), during the period April 26-27 ,2017 - Manama, Bahrain

## Introduction

The Fertilizer Industry workshop will put a spotlight on specific issues related to the fertilizer industry, reviewing technology, market and profitability also competitiveness and many strategic issues

## The objectives of the Workshop program

Will be concentrating on major items related to markets, business and economics of the fertilizer industry. The summary contents of the course include the following :



Macroeconomic environment  
Industry overview and key trends



Feedstocks  
& price-related issues



Economics, cost of production  
& competitiveness



The technology  
of the industry



Future challenges  
for the fertilizer industry



**FERTILIZER  
& ECONOMICS**  
FUTURE CHALLENGES 2017

### Workshop Language:

Presentations & Materials will be delivered in English, Arabic translation will be available.

# // THE WORKSHOP PROGRAM IS IDEAL FOR //

Personnel working in different areas of the fertilizer industry, such as business, management, sales and marketing, technology, strategic planning and supply chain.

In addition, personnel from non-technical areas can also benefit from this training, especially if they have a need to comprehend multiple aspects of the business, including competitiveness, costs, sales, strategy and market intelligence.

## Program :

### Day 1 : Wednesday 26 April, 2017

08:00 – 09:00	Registration
09:00 – 09:15	Official Opening : Welcoming and Introduction
09:15 – 10:30	Session 1
10:30 – 11:00	Networking Coffee /Tea
11:00 – 12:30	Session 2
12:30 – 13:30	Lunch Break
13:30 – 15:00	Session 3
15:00 – 15:30	Networking Coffee /Tea
15:30 – 17:00	Session 4 and Closing of Day 1

### Day 2: Thursday 27 April, 2017

08:00 – 09:00	Registration
09:00 – 10:30	Session 1
10:30 – 11:00	Networking Coffee /Tea
11:00 – 12:30	Session 2
12:30 – 13:30	Lunch Break
13:30 – 15:00	Session 3
15:00 – 15:30	Networking Coffee /Tea
15:30 – 16:30	Session 4
16:30– 17:00	Workshop Conclusion & Closing





## MARKET OVERVIEW

Macroeconomic Environment

- Growth measurements and GDP
- Understanding growth differences between regions and countries
- Demographics and food production
- The role of fertilizers in addressing food security
- Future prospects



## The Business Cycle

- Why the fertilizer industry is cyclical
- Timing of the business cycle
- Demand sensitivity to downturns : Which segments are more vulnerable
- Opportunities and threats along the cycle
- Impact of recent developments in the fertilizer industry



## Major Trends

- Megatrends defining the industry over the next 20 years: Globalization, Demographics, technology, climate change..
- Impact in key regions
- Underlying market drivers
- Strategic implications for the Middle East



## MAKING FERTILIZERS

- Costs to make fertilizers
- Natural gas and the gas plant



## FEEDSTOCKS

The energy context

- Split of major energy uses
- Gas , oil and coal : Who has the reserves
- Oil prices: How the energy world has changed
- Potential new feedstock locations
- Gas prices in relation to crude oil
- The interface between energy and chemicals
- Sources of P and K and S



## FEEDSTOCK PRICES

Understanding price relationships between different feedstock's and their historical relationships :

- Crude oil, naphtha and premium gasoline
- Methane, Natural gas liquids (NGLs) and liquefied petroleum gas (LPG)
- Why naphtha prices tend to be global and gas prices tend to be regional
- Sulphur , Phosphate Rock/Acids and Potash



## FERTILIZER MARKET OUTLOOK

Fertilizer markets

- Changes in capacity
- Closures , consolidation and projects
- Future market drivers
- Supply and demand forecasts
- PK and NPK Fertilizer overview



## Policies and regulation on fertilizer demand

- Consumption in China and India
- Tax and subsidy policies
- Effect on future consumption and trade flows



## Cost of production

- Cost build-up
- How to calculate cost of production (COP)
- Variable and fixed cost component
- Understanding by-product credits
- Difference between feedstock's and regions

Exercise: Ammonia Economics Case Study





## SOURCES OF FERTILIZERS

Synthesis Gas (Syngas)

- Different routes to synthesis gas
- Many potential sources and uses
- Ammonia and fertilizers (urea, ammonium nitrate and ammonium phosphates)
- Main technologies and licensors
- Latest technology developments
- Environmental developments in the ammonia/ urea industry



## INDUSTRY COMPETITIVENESS

- Industry landscape (Porter's five forces)
- Largest competitors
- Cost competitiveness of the Middle East & global procedures



## MARKET STRATEGIES

Strategic consideration for AFA Members

- Discussion on the strategic landscape
- Discussion of possible changes for industry players
- Discussion of different strategies
- Market opportunities and risks
- Strategic trends in the chemical industry: Integration, Low cost versus differentiation, shift between commodities & specialties
- Are chemicals from renewables attractive

### -Exercise:

Applying strategic frameworks to the fertilizer industry

### -Discussion:

Different strategies for success: Upstream driven, Advantaged feedstocks, Regional strength, R&D driven



## FERTILIZER INDUSTRY KEY TRENDS

- Impact of oil prices on fertilizers
- Fertilizer markets oversupply
- Flattening of the cost curve
- Impact of shale gas
- New capacity centers



## OTHER SUBJECTS

Demand fundamentals

- Fertilizer demand fundamentals
- Bridging the different nutrients
- Relationship with agricultural markets
- Different growth in specific regions
- Markets for specialty fertilizers, how they can add value
- Industrial demand for fertilizers (eg, ammonia and urea)



## PRICE FORECASTING

Understanding sources

- Price forecast sources
- Spot versus contract prices
- Incoterms and price adjustments
- Understanding price setting mechanisms



## BUILDING PRICE FORECASTS

Description of Nexant's price forecasting methodology Including:

- Oil price scenarios
- Linking supply/demand models and cost models
- Operating rates and industry profitability



Closing discussion

Review of main topics

Conclusion of the course

Workshop Trainers will be from Nexant

Nexant's core services include:

- Strategy and business planning
- National and Regional Masterplanning
- Lenders' Independent market, technical and environmental consultant for project finance
- Merger & Acquisition support: industry commercial and technical advisor
- Market evaluations (including addressable market appraisal)
- Project planning and screening studies
- Feasibility studies and Technology Evaluations
- Process, Business and Cluster Benchmarking
- Expert witness and litigation support

## NEXANT TRAINING EXPERIENCE

NEXANT has built a strong Training capability over the years, exemplified by the highly acclaimed Global Petrochemical Industry Course: Understanding the complex interactions between Technology, Economics and Markets. This course has helped train thousands industry professionals for several decades and it is widely recognized as the original and most comprehensive training course in the chemical industry. Today, NEXANT offers a variety of

NEXANT's public courses are offered regularly in several cities around the world. Attendees on these courses originate from a variety of commercial backgrounds, ranging from chemical engineers and plant managers to finance professionals. The courses are suitable for a wide-range of experience levels, from those just entering the petrochemical industry to professionals with many years' experience looking to refresh their knowledge. NEXANT's

Delivers approximately 50 training courses every year in different parts around the world, both public and in-house. Selected examples follow:

- 20 Public Courses in different locations including London, Houston, Shanghai, Singapore, Amsterdam, Bangkok and Bahrain.
- Over 30 In-house courses delivered to chemical and petrochemical companies as well as integrated oil/petrochemical producers.

## Trainers :

**Arvind Aggarwal** - is a Principal in Nexant and has prepared and presented at many conferences and training seminars . Arvind Aggarwal is a chemical engineer from Cambridge University and he has over 35 years experiences in providing consulting services to the refining, fertilizers and petrochemical industries globally. He has presented at many independent colleges on the outlook and structure of the fertilizer and petrochemicals industries. He has presented bespoke training trainings tailored to meet companies needs. His wealth of industry knowledge has come from closely working with the leading petrochemical companies in most regions of the world.



**Thomas Heinrich** – is a Consultant with Nexant’s advisory services in Bahrain. Prior to obtaining a Master’s degree in Economics (Dipl. VWL) from the University of Cologne he studied and lived in China, Singapore, Venezuela and USA. During his studies he completed work assignments with Chevron, ThyssenKrupp Mannex and the Emirates National Oil Company. The fertilizer industry is a main topic of expertise for Thomas. He has prepared many feasibility and market studies for new N, P and K and specialty fertilizer projects and has provided due diligence support during M&A transactions. Thomas is a member of Nexant’s C1 Chemicals and Fertilizers team and has published extensively on fertilizer market developments (including for AFA). Thomas has been part of Nexant’s Strategic Business Analysis (SBA) program for ammonia and urea and is the author of the recently published SBA Ammonium Nitrates Supplement report.



**Dr Dimitrios Dimitriou** - is a Senior Consultant in the Energy and Chemicals practice in London. He is established as one of the company’s key experts for the Ammonia and Urea Industries. He has been a keynote speaker at various international fertilizer conferences (AFA, IFA and GPCA) and authored a number of papers in prominent fertilizer professional publications, including the AFA journal and Nitrogen International. In the past, he has been the Program Manager of Nexant’s Strategic Business Analysis program for the ammonia and urea industries. Prior to joining Nexant he has developed extensive experience as a Senior Technology Specialist and Lead Consultant for a number of chemical and fertilizer projects across the world for a leading technology Licensor, He has a PhD. from Imperial college London and an MBA from Manchester Business School.



## REGISTRATION



First Name

Last Name

Job Title

Company Name

E-mail

Country

Tel.

Fax

## Registration Fees

Registration Fees per delegate

**USD 1,500**

## ACCOMMODATION

Main Venue

**Le Meridien Hotel- City Center, Bahrain**

- Single/ Double occupancy (**Le Meridien Hotel**)  
inclusive of all charges including daily buffet breakfast  
**(177 USD / 203 USD)**

Reservation department: Macedon Dsilva

Tel: 0097317171111

E-mail: Macedon.dsilva@starwoodhotels.com

E-mail: Reservation.bahrain@starwoodhotels.com

Banquet department: Kirsty Graham

Tel: 0097317171000

E-mail: kirsty.graham@starwoodhotels.com

Workshop Ballroom :

Royal & Tycoon , 2nd Floor Westin Hotel- City Center Bahrain

Based on the US \$ rate is US\$ 2.65 per one Bahraini Dinar

- Single Room  
 Double Room

# REGISTRATION FORM

AFA WORKSHOP

## FERTILIZER ECONOMICS

AND FUTURE CHALLENGES 2017

Manama, Bahrain

Le Meridian Hotel - City Center

25-27 April 2017

Simply complete this form and return it to AFA Conference Service by either:

afa@arabfertilizer.org +202-23054466

For more info, please contact

+202-23054467 www.arabfertilizer.org

## PAYMENT DETAILS



- Cheque

To the order of Arab Fertilizer Association (AFA)  
**(Pls. include registrant's name attached with cheque)**

- Bank transfer

To AFA Account: Arab Fertilizer Association  
(CIB) Commercial International Bank  
A/C No:100009870533

Swift code: CIBEGCX-020- Nasr city branch -Cairo- Egypt

**Bank transfer should include:**

Name of the company; Name(s) of the delegate(s)  
(Any transfer charges must be paid by the transferor)

- Cash

