



# Ethylene Middle East Technology Conference

17th & 18th October 2016  
Gulf Hotel, Kingdom of Bahrain

## POST EVENT REPORT

# Sustaining Ethylene Competitiveness through Solution Sharing

### PRINCIPAL



### PLATINUM



### GOLD



### SILVER





*His Excellency Shaikh Mohamed bin Khalifa Al Khalifa, Minister of Oil, Kingdom of Bahrain, and the Patron of EMET, cuts the ribbon to inaugurate the exhibition*

## EMET 2016 Highlights

The 2nd Ethylene Middle East Conference and Exhibition was held under the patronage of His Excellency Shaikh Mohamed bin Khalifa Al Khalifa, Minister of Oil, Kingdom of Bahrain, and welcomed 562 participants over the event period. The event received very positive feedback from participants, including delegates, exhibitors and speakers.

EMET was executed under the leadership of Ziad Al-Labban, CEO, Sadara Chemical Company; the Advisory Committee Chairman - Mohammed Al-Zahrani, President, SADAF (Saudi Petrochemical Company) and the Technical Committee Chairman - Hamdan Q. Al Shammary, General Manager-Technical, TASNEE.

The theme of EMET 2016 was “Sustaining Ethylene Competitiveness through Solution Sharing”, with a focus on raising the bar, as well as the capabilities, in this crucial niche of the oil & gas industry.

Held at the Gulf Hotel in the Kingdom of Bahrain, the two days saw keynote addresses by internationally acclaimed business leaders and eminent technology experts, best-in-class master-classes, as well as panel discussions and technical sessions.



*Greg Yeo, Chief Engineer at ExxonMobil, talks about Process Safety in Ethylene Plants*



*Delegates listen intently to presentations – EMET 2016 was focused on solution-sharing keeping the attention of the audience*

## 19 Major Producers from 10 countries and 4 continents

Borouge	United Arab Emirates
Chevron Phillips Chemicals	USA
Dow Chemical Company	USA
Equate	Kuwait
ExxonMobil Chemical	USA
Lyondell - Basell	Netherlands
ORPIC	Oman
Petkim Petrochemical Holding Inc	Turkey
Petro Rabigh	Saudi Arabia
QAPCO	Qatar
Q-Chem	Qatar
SABIC	Saudi Arabia
Sadara Chemical Company	Saudi Arabia
S-Chem - Saudi Chevron Phillips	Saudi Arabia
Shell	Netherlands
Sidpec - Sidi Kerir Petrochemicals	Egypt
Sinopec	China
Sipchem	Saudi Arabia
TASNEE	Saudi Arabia

**562**  
Qualified  
Participants

**152**  
Companies

**25**  
Countries

### The Leading Technology Providers for Ethylene Production:

- Technip
- The Linde Group
- KBR
- CB&I
- CCC
- Mitsubishi Elliott Group
- AspenTech
- Schneider Electric
- Ingenero

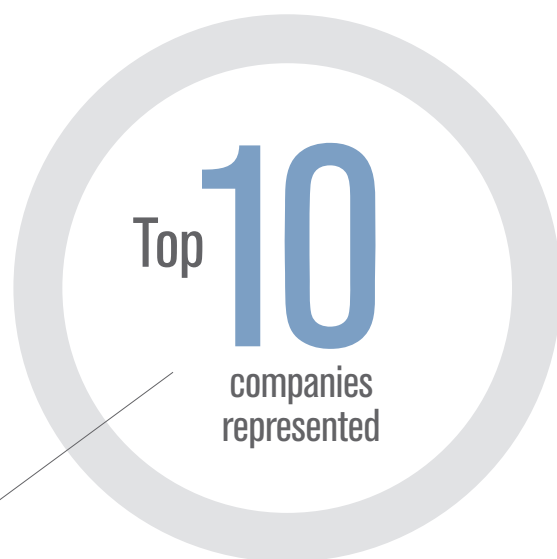
**435**

Delegates with Engineering  
and/or Technical Background  
(77% of the Qualified  
Participants)

**92**

C-Level Executives  
including  
40 Presidents  
& CEOs

1. SABIC Group	98 participants
2. Sadara Chemical Co.	27 participants
3. Aspen Technology	25 participants
4. Saudi Aramco	21 participants
5. TASNEE	16 participants
6. Technip	15 participants
7. Kubota	15 participants
8. Schneider Electric	12 participants
9. QAPCO	11 participants
10. Saudi Chevron Phillips	10 participants



Saudi Arabia	263
Bahrain	105
UAE	44
Qatar	24
USA	24
Germany	16
UK	16
Japan	12
France	10
Netherlands	8

GCC	78.8%
Europe	11.7%
Asia	4.6%
North America	4.3%
Other	0.9%



# Thank you, Committee Members

## Advisory Committee

### Conference Chairman



**Ziad Al-Labban**  
CEO  
Sadara Chemical Company

### Chairman



**Mohammed Al-Zahrani**  
President  
SADAF  
(Saudi Petrochemical Company)

### Committee Members



**Aman A. Ahmad**  
Director, Business Development,  
KBR Technology



**Alan Cepla**  
General Manager and  
Managing Director,  
UOP Chemicals



**Charles Swartz**  
President,  
Dow Saudi Arabia



**Dr. Heinz Zimmermann**  
Vice President, Business  
Development, Linde



**Dr. Pierce Riemer**  
Director General,  
World Petroleum Council



**Dr. Tobias Scheele**  
Senior Vice President,  
Software, Schneider Electric



**Ibrahim Al Zaabi**  
Vice President, Olefins  
and Utilities, Borouge



**Jean-Paul Laugier**  
Vice President, Ethylene  
Product Line, Technip



**Jim Brigman**  
Managing Director,  
Ingenero Inc.



**June Wispelwey**  
Executive Director,  
AIChE



**Luc Chantepy**  
Vice President, Regional Sales  
MENA, AspenTech



**Mohammad Ibrahim**  
General Manager, Intermediates  
& Utilities, Sipchem



**Mushabeb Z Al-Qahtani**  
General Manager,  
Manufacturing Competence  
Center, SABIC



**Ra'afat Sindi**  
Regional Executive, MENA  
Downstream Technology  
Solutions, GE Oil & Gas



**Saad Al-Ayedh**  
Vice President,  
Manufacturing, TASNEE



**Saleh Al-Halki**  
Executive Director,  
Business Support Directorate,  
QAPCO



**Said M. Bajodah**  
Executive President,  
SCP & JCP, S-Chem



**Suleyman Ozmen**  
Vice President,  
Downstream Licensing,  
Shell Global Solutions

# Technical Committee

## Chairman



**Hamdan Q. Al Shammary**  
General Manager, Technical, TASNEE  
(National Industrialization Company)

## Committee Members



**Ahmed Al Mehrezi**  
Ethylene Unit Manager,  
Borouge



**Curtis Kelly**  
Director, Technical Sales Consulting,  
Design, Simulation & Optimization Global,  
Schneider Electric



**Dr. Pratap Nair**  
President & CEO,  
Ingenero Inc.



**Dr. Muhammad Muhammadieh**  
Managing Director,  
Linde Arabian Contracting Co. Ltd.



**Fayez Al-Anazi**  
General Manager,  
Manufacturing,  
SCP & JCP S-Chem



**Greg Yeo**  
Chief Engineer,  
ExxonMobil Chemical



**James Armour**  
Director, Engineered Sales  
EMA, FS-Elliott Co., LLC



**Khalid Al-Hamid**  
Director, Engineering,  
Sadara Chemical Company



**Khalid Nasser Al-Muraikhi**  
Head of Engineering,  
QAPCO



**Luc Geerts**  
Sr. Consulting Solutions Director,  
Schneider Electric



**Mohammed Al-Sahhar**  
Manager, Process Engineering  
Department, Petro Rabigh



**Pascal Coenen**  
Licensing Technical Manager,  
Shell Global Solutions



**Saifuddin Sheikh**  
Business Consulting Director,  
MENA, AspenTech



**Salim Nasser Al-Duhami**  
Process Chief Engineer, SABIC



**Satyam Mishra**  
Global Marketing Manager,  
Ethylene and Natural Gas  
Adsorbents, UOP



**V. Ramesh**  
Lead Process Engineer  
Major Project Dept., QAPCO

# Conference Program

## 16th October 2016

08:00 – 08:30 Workshop Registration

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08:30 – 17:30 **Master Class: Process Safety in Ethylene Plants**

Al Murjan

This workshop will be presented in two parts:

**Part 1:** An introduction to CCPS' Risk Based Process Safety (RBPS) approach, including the four pillars and twenty elements that define the structure for the RBPS approach. In addition, the workshop will include ethylene-specific process safety examples and case studies. This workshop will serve as an excellent starting point for the exploration of the steps and procedures involved in providing a safe operating environment.

**Instructor:** *Ian Sergio, Staff Consultant, Center for Chemical Process Safety (CCPS)*

**Part 2:** Technical presentations by ethylene subject matter experts on three process safety hazards of critical importance to ethylene producers. Each presentation will present:

- The technical and engineering principles associated with the process hazard
- Examples and ethylene plant case studies
- Tools and practices used to manage the hazard

**Moderator:** *Gregory Yeo, Chief Engineer, ExxonMobil Chemical*

**Autorefrigeration:** *Ralph King, Stress Engineering, retired from Lyondell-Basell*

**NOx Gums & Salts:** *Dr. Dane Grenoble, Consultant, retired from ExxonMobil Chemical*

**Exothermic Reactors:** *Pascal Coenen, Licensing Technical Manager, Shell Global Solutions*

18:30 – 20:00 Welcome Reception

Typhoon Bar, Gulf Hotel

## 17th October 2016

07:00 onwards Registration

Sponsored by  Sadara

08:30 – 09:00 Exhibition Inauguration

Exhibition Hall

*H.E. Shaikh Mohamed bin Khalifa Al Khalifa, Minister of Oil, Kingdom of Bahrain*

09:10 – 09:30 Conference Opening

Dana 1

*H.E. Shaikh Mohamed bin Khalifa Al Khalifa, Minister of Oil, Kingdom of Bahrain*

*Ziad Al-Labban, CEO, Sadara Chemical Company & EMET 2016 Conference Chairman*

09:30 – 11:00 **Keynote Session - The Changing Competitive Landscape for Ethylene Production in the GCC**

Dana 1

**Moderator:** *Ziad Al-Labban, CEO, Sadara Chemical Company*

**The Challenges and Opportunities facing the GCC Ethylene Market**

*Niyazi Demir, GM - Business Strategy, Chemicals SBU, SABIC*

**Being Lean in Ethylene – Operational Excellence in Chemical Production**

*Antonio Pietri, President & CEO, AspenTech*

**Olefins in a low crude environment: What is happening with Ethylene?**

*Hetain Mistry, Managing Analyst - Petrochemicals, Platts*

Sponsored by  SABIC

11:00 – 11:30 Coffee Break

Sponsored by  Borouge

## 17th October 2016 (cont'd...)

Stream A, Stream B & Panel Discussions sponsored by



11:30 – 13:00	Stream A	Dana 1	Stream B	Dana 3
<b>Moderators:</b>	<b>Critical Equipment Reliability and Integrity</b> <i>James Armour, Director Engineered Sales EMA, FS-Elliott Co., LLC</i> <i>Saifuddin Sheikh, Business Consulting Director - MENA, AspenTech</i>		<b>Energy Conservation and Sustainability</b> <i>Dr. Muhammad Muhammadieh, Managing Director, Linde Arabian Contracting</i> <i>V. Ramesh, Lead Process Engineer - Major Project Department, QAPCO</i>	
	<b>Extending Cracked Gas Compressor Run Cycle and Improve Efficiency by Antifoulant Dosing in SADAF Ethylene Plant</b> <i>Vijay Pawar, Process Engineer, Saudi Petrochemical Company (SADAF)</i>		<b>Revamping Refractories Lining of Old Ethylene Cracking Furnaces: An Opportunity for Improved Efficiency and Sustainability</b> <i>Manabendra Maity, Principal Engineer, SABIC</i>	
	<b>Preventing the Tripping of Ethylene Critical Motors during a Power Dip</b> <i>Abdulrahman Quqandi, Engineer, Jubail United Petrochemical Company</i>		<b>Energy Real Time Optimization and Monitoring in Olefins Units</b> <i>Joan S. Sanromá, Sales Director - Europe &amp; Middle East, Sotica Visual MESA</i>	
	<b>Mercury Removal in Ethylene Plants: Overview and Case Study</b> <i>Wim Reel, Senior Marketing Manager, UOP</i>		<b>Energy Management Initiatives by TASNEE for Ethylene Cracker Plant</b> <i>Abdulaziz R. Al-Ghamdi, Engineer, TASNEE</i>	
<b>13:00 – 14:00</b>	<b>Lunch</b>			
<b>14:00 – 15:00</b>	<b>Panel Discussion - Flexible Technologies for a Competitive Advantage</b> <b>Moderator:</b> <i>Mohammed Al-Zahrani, President, SADAF (Saudi Petrochemical Company)</i> <i>Dr. Tobias Scheele, Senior Vice President - Software, Schneider Electric</i> <i>Jean-Paul Laugier, Vice President - Ethylene Product Line, Technip</i> <i>Rik Klavers, Vice President - Petrochemicals, KBR Technology</i>			<b>Dana 1</b>
<b>15:00 – 16:30</b>	<b>Stream A</b>	<b>Dana 1</b>	<b>Stream B</b>	<b>Dana 3</b>
	<b>Feed and Production Optimization</b> <i>Fayez Al-Anazi, General Manager - Manufacturing, SCP &amp; JCP S-Chem</i> <i>Curtis Kelly, Director - Technical Sales Consulting, Schneider Electric</i>		<b>Furnace Performance Improvement</b> <i>Salim Nasser Al-Duhami, Process Chief Engineer, SABIC</i> <i>Khalid Al-Hamid, Director - Engineering, Sadara Chemical Company</i>	
	<b>Model Based Optimization of Ethylene Plants: A Best Practice</b> <i>Walter Jacobs, Senior Specialist, Supply Chain Planning Optimization, SABIC</i>		<b>Furnace Revamp or Replacement - A Case Study</b> <i>Saleh Al-Halki, Executive Director, Business Support Directorate, QAPCO</i>	
	<b>Plant-wide Implementation of APC in QAPCO Ethylene Plant</b> <i>Abdul Samad Nalband, Lead APC Engineer, QAPCO</i>		<b>Furnace Performance and Run Length Improvement through Multi-Model Techniques</b> <i>Dr. Pratap Nair, President &amp; CEO, Ingenero Inc.</i>	



## 17th October 2016 (cont'd...)

### 'Expecting the Unexpected' Using Rigorous Process Modeling

*Faisal Baksh, Process Engineer,  
Sadara Chemical Company*

### Furnace Run Length Improvement

*Sivaprasad Ayyappan Asari,  
Process Engineer,  
PetroRabigh*

19:30 - 21:00 Gala Dinner

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## 18th October 2016

08:00 onwards Registration

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08:30 – 10:00 Keynote Session - Importance of Operational Excellence  
in Middle East Chemicals

**Moderator:** *Suleyman Ozmen, Vice President - Downstream Licensing, Shell Global Solutions*

### Sustaining Ethylene Competitiveness through Solution Sharing

*Ibrahim Al-Zaabi, Vice President - Olefins and Utilities, Borouge*

### Value of Operational Excellence – A DOW Perspective

*Robert Brandt, Global Director - Manufacturing & Engineering, The Dow Chemical Company*

### Solomon's World-wide Olefins Study; What makes a High Performing Plant?

*Kevin W. McQuillan, Sr. Consultant, Solomon Associates*

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10:00 – 10:30 Coffee Break

Sponsored by 

Stream A & Stream B sponsored by



10:30 – 12:00

Stream A

Dana 1

Stream B

Dana 3

### Maintenance Planning & Execution - Best Practices

**Moderators:** *Hamdan Q. Al Shammary,  
General Manager – Technical, TASNEE*  
*Luc Geerts, Sr. Consulting Solutions Director,  
Schneider Electric*

### CGC Dryer Water Flooding Method

*Vijay Kumar, Senior Process Engineer,  
Al-Jubail Petrochemical Company (KEMYA)*

### Optimizing Ethylene Plant Maintenance Cost and Turnaround Time through Effective Use of Model-Based Estimating Integrated with Resource Loading and Scheduling

*Ron Beck, Director - Industry Marketing,  
AspenTech*

### Process Safety

*Dr. Pratap Nair, President & CEO,  
Ingenero Inc.*  
*Greg Yeo, Chief Engineer, ExxonMobil*

### “Popcorn” Polymer in Steam Crackers

*Pascal Coenen, Licensing Technical Manager,  
Shell Global Solutions International*  
*Dr. Jessica Hancock, Global Marketing  
Manager, Nalco Champion*

### Process Simulation – A Better Approach to Investigate the Tube Rupture Relief through CW Side of Ethylene Exchanger

*Muhammad Ilyas, Senior Process Engineer,  
Sadara Chemical Company*

## 18th October 2016 (cont'd...)

### Robotic Ethylene Fired Heater Convection Bank Cleaning

*Stephen Sale, Technical Sales Manager,  
Tube Tech International & Hugues Chasselin,  
Senior VP - Technical Service & Projects, Manior*

### Furnaces Firebox Fuel Gas Flooding Detection and Mitigation

*Radhi Al-Aqeeli, Process Engineer, Al-Jubail  
Petrochemical Company (KEMYA)*

12: 00 – 13:30 Lunch

Special Session & Panel Discussion sponsored by



### 13:30 – 14:30 Special Session - Furnace Tube Technology

Dana 1

**Moderator:** *Fuad Mosa, GM - Global Technology Management, Chemical SBU, SABIC*

#### Application of Modern Steam Cracking Furnace Technologies

*Johan van der Eijk, Process Department Manager, Technip Stone & Webster*

#### Next Generation Cracking Tube "Aftalloy" having Uniform Aluminum Oxide Film for Improvement of Cracking Furnace Efficiency and Performance

*Kenji Otsubo, Chief Engineer, Kubota Corporation*

#### Improving Ethylene Output

*Pedro Imizcoz, Customer Support Manager - R&D Services, Schmidt + Clemens Group*

#### Kanthal APMT™ - The Benefits of Using Furnace Coil Technology with Alumina as Protective Layer

*Dr. Thomas Blomfeldt, Senior Engineer, Sandvik Materials Technology*

### 14:30 – 15:30 Panel Discussion - Key Challenges and Issues facing the World Ethylene Market

Dana 1

**Moderator:** *June Wispelwey, Executive Director, AIChE*

*Fuad Mosa, GM - Global Technology Management, Chemical SBU, SABIC*

*Gregory Yeo, Chief Engineer, ExxonMobil Chemical*

*Dr. Heinz Zimmermann, Vice President, Business Development, Linde*

### 15:30 – 16:00 Closing Ceremony - Key Take-Aways from EMET 2016

*Ziad Al-Labban, CEO, Sadara Chemical Company  
& EMET 2016 Conference Chairman*

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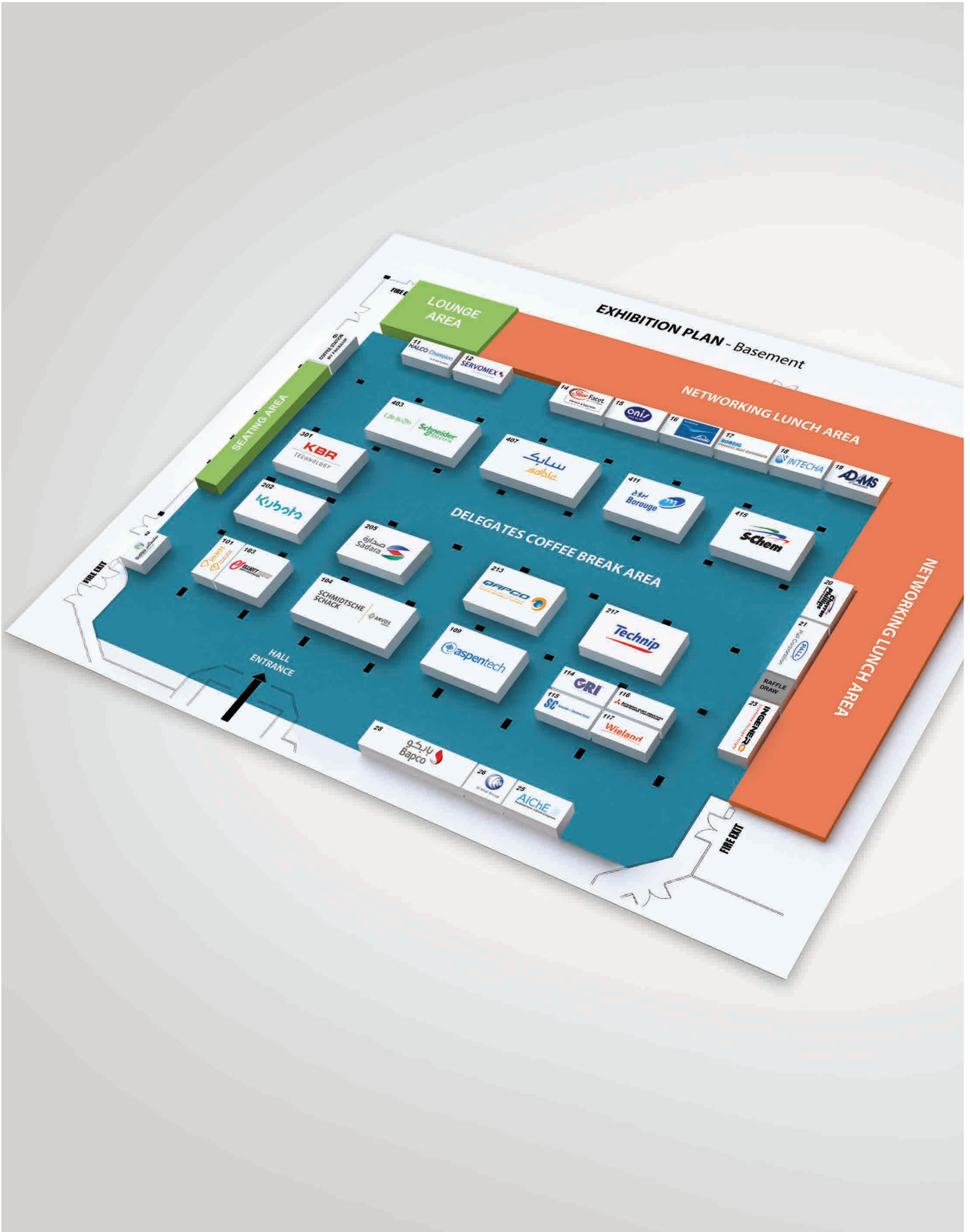
16:00 Raffle Draw

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# Exhibition Plan



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