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Alkali Manufacturers Association of India

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Department of Chemicals & Petrochemicals
Ministry of Chemicals & Fertilizers
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CONFERENCE ON
**ALKALI INDUSTRY-
TRENDS,
DEVELOPMENTS
& OUTLOOK**

20-21 March 2025 (Thursday & Friday)

Taj Skyline
Ahmedabad, Gujarat



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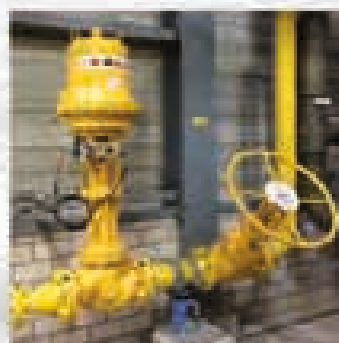


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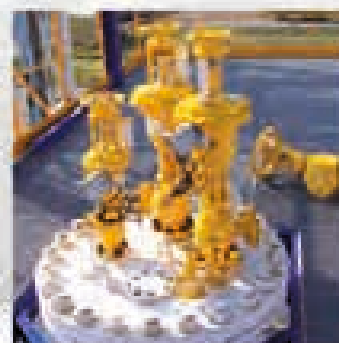
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Chlorine Liquefaction



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Horizon Polymer Engineering Pvt. Ltd.
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Taluka Kalol, District Gandhinagar
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Conference & Exhibition on Alkali Industry - Trends, Developments and Outlook

20th & 21st March 2025 (Thursday & Friday)

Taj Skyline, Ahmedabad, Gujarat

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Government of India

Conference on
Alkali Industry - Trends, Developments and Outlook
20-21 March 2025 (Thursday & Friday), Taj Skyline, Ahmedabad, Gujarat

CONFERENCE PROGRAMME

DAY 1 | 20 MARCH 2025

8:00 AM – 9:00 AM
9:00 AM – 9:30 AM

Registration & Refreshments
Inaugural Session

- Lamp Lighting
- Welcome Address by **Mr. Ajay Virmani, President, AMAI**

9:30 AM – 11:00 AM

Session I **Global and Indian Industry Market Outlook – Insights from International Market Experts**

Session Chair **Mr. Ajay Virmani, President, AMAI and MD, Lords Chloro Alkali Ltd.**

Opening Remarks

- Caustic Soda Market Outlook – Regional Updates by **Mr. Bernard Law**, Chlor-Alkali Expert, **Argus Media**, Singapore
- An Overview on Soda Ash Market by **Mr. Hasan Copur**, Associate Director – Soda Ash, **Chemical Market Analytics**, By OPIS, A Dow Jones Company, London, UK
- Dynamics of Middle East, SEA, Chinese and Indian PVC Markets by **Mr. Aswin Kondapally**, Market Specialist, **ICIS**, Mumbai, India
- **Q & A, summing up and concluding remarks**

11:00 AM – 11:40 AM

Tea/Coffee Break

11.40 AM – 1:20 PM

Session II **Status and Growth Prospects of Consumer Industry in India**

Session Chair **Mr. Aditya A. Shriram, Vice President AMAI, and Dy. MD, DCM Shriram Ltd.**

Opening Remarks

- Solar Energy Industry Complementing Robust Soda Ash Demand Growth – **Mr. Ajay Shah**, Professional Director, **Vishakha Glass Pvt. Ltd.**
- CPVC Market Outlook by **Mr. Binay Agrawal**, Business Director – IMEA Region, TempRite CPVC, **Lubrizol Advanced Materials India Pvt. Ltd.**
- O-PVC Technology and Market Trends by **Mr. Roshan U. Hamza**, Marketing Manager, **Chemfab Alkalies Ltd.**, OPVC Pipes Div.
- Lithium Mining and Caustic Soda Demand - **Mr Kapil Malhotra**, Global Business Unit Head-Fluoropolymers, **Gujarat Fluorochemicals Ltd.**
- **Q & A, summing up and concluding remarks**

1.20 PM – 2.15 PM

Lunch

CONFERENCE PROGRAMME Contd.

2:15 PM - 4:15 PM

Session III

Emerging Technology Developments

Session Chair **Mr. Kapil Malhotra, Past President, AMAI and Global Business Unit Head – Fluoropolymers, Gujarat Fluorochemicals Ltd.**

Opening Remarks

- thyssenkrupp nucera – Technology developments and offerings by **Mr. Ryo Azegami**, Head of Engineering, **thyssenkrupp nucera, Japan** & **Mr. M. R. Swaminathan** – Deputy General Manager, **thyssenkrupp nucera, India**
- Advancements in Electrolysers and Membranes by **Mr. Izuru Karimata**, Researcher of Electrolysis Systems for Chlor-alkali Process, **AKC, Japan**
- "CMAM"- A New Modular approach for electrode coating improvement by **Dr. Robert Scannell**, Managing Director, De Nora Deutschland GmbH and Regional Chief Officer **De Nora EMEA & India** and President **De Nora Italy**
- Innovative solutions from Teflon™ coatings to improve the performance of Heat Exchangers (Plate and shell & Tube) in Chlor- alkali Industry. by **Mr Rajendra Khanolkar**, Sales Manager – South Asia, **The Chemours India Pvt. Ltd.**
- Q & A, summing up and concluding remarks**

4:15 PM - 4:35 PM

Special Presentation on ChemIndia by **Shri Ganga Kumar, DDG (S&M), DCPC, GoI**

4:35 PM - 5:15 PM

Honoring Event Partners followed by Tea/Coffee

(End of The Day-1 of Conference)

7:30 PM onwards

Musical Evening & Dinner

DAY 2 | 21 MARCH 2025

9.00 AM – 10.45 AM

Session IV

Processes and Raw Materials – Challenges and Developments

Session Chair **Mr. Jayantibhai M. Patel, Past President, AMAI & CMD, Meghmani Group**

Opening Remarks

- Impact of Global Warming on Salt Productivity in India and Availability for Alkali Industry by **Mr. Bharat Raval**, President, **Indian Salt Manufacturers Association**
- Scaling up Renewable Power & Energy Storage Solutions by **Mr. Dheeraj Ahuja**, Business Head, **ReNew Power Ltd.**
- Enhancing Electrolyser Performance and optimising chlorine gas drying in chlor-alkali production by **Mr. B. K. Rai**, Head Marketing (India), **JOC Technical Engineering Co.,Ltd.**
- Innovative Micro Membrane Technology for Primary Brine Treatment by **Mr. Sauvik Dutta**, Sales & Mktg. Director, **DrM Filter Technology Pvt. Ltd.**
- Q & A, summing up and concluding remarks**

10:45 AM – 11:15 AM

Tea/Coffee Break

11:15 AM – 2:15 PM

Session V

Safety, ESG & Sustainability for Alkali Industry

Session Chair **Mr. Rajesh Kamat, Head (Sales & Marketing), Tata Chemicals Ltd.**

Opening Remarks

- Upcoming Environmental Regulatory Landscape in India by **Dr. Chirag Bhimani**, **Environment, Sustainability & Climate Professional**
- Environmental Regulations in the Chlor-Alkali Industry: Insights from World Chlorine Council by **Ms. LeaAnne Forest**, **Chemical Products & Technology, American Chemistry Council, USA**
- Psychological Safety – The 15th Element of Process Safety Wheel, **Mr. Shaik A. Khadar Vali**, Vice President – Safety & Occupational Health, **Aditya Birla Group**, **CFI Global Chemicals** and **Mr. Mandar Phadke**, Global Head – HSE, **Ericson, USA (remote)**
- ESG Concept and Compliance in Alkali industry by **Mr. Sonal Verma**, Partner & Global Leader (Market & Strategy), **Dhir & Dhir Associates**
- Q & A, summing up and concluding remarks**

2.15 PM

Vote of Thanks

2.20 PM – 3.00 PM

Lunch and End of The Conference

*Note: The Concurrent Exhibition will be held at the Conference Venue on both days.
Exhibition will close at 3.00 PM on Day 2 (21st March 2025)*

निवेदिता शुक्ला वर्मा
NIVEDITA SHUKLA VERMA



सचिव
भारत सरकार
रसायन और उर्वरक मंत्रालय
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Secretary
Government of India
Ministry of Chemicals & Fertilizers
Department of Chemicals & Petrochemicals



18th March 2025

MESSAGE

I extend my heartfelt congratulations to Alkali Manufacturers Association of India for organising this 'Conference on Alkali Industry – Trends, Development and Outlook' on 20th – 21st March, 2025 in Ahmedabad. The conference sets the stage for insightful discussions and collaborations that promise to shape the future of Alkali industry.

India has established itself as global economic leader being the 5th largest economy in the World and poised to become third largest in next few years. The Chemical & Petrochemical Industry which is presently valued at around USD 200 billion is expected to touch the USD 1 trillion Mark by 2040 and this Industry will play a very vital role in achieving the target of 'Viksit Bharat by 2047'.

The Indian chemical industry has emerged as a pivotal force in shaping India's sustainable trajectory. It is the fourth largest in Asia and the seventh largest globally, contributing 9.8% of our manufacturing GVA and close to 7% of India's merchandise exports, sustaining the livelihoods of more than 3 million individuals. The sector is thus playing a key role as a robust, enduring, and resilient growth catalyst for the country's economic progress.

India is among the leading producers of Alkalis and is poised for steady growth, driven by increasing domestic demand and export potential. I find that this conference has been curated with the most appropriate topics which will be of great help to the industry members. The conference will analyze the present status and future pathways of the Alkali industry, besides looking at the interconnections with upstream and downstream industry sectors.

I compliment AMAI for this event and I do hope that the inputs from the event will be of assistance towards chartering further growth in the sector.


18.3.2025
(Nivedita Shukla Verma)

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1	Aditya Birla Group, CFI Global Chemicals
2	AGC Asia Pacific (India) Pvt. Ltd.
3	AGC Inc.
4	AGC Vinythai Company Limited (AGC Group), Thailand
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6	American Chemistry Council, USA
7	Anticorrosion India Pvt. Ltd.
8	Aquatech Systems Asia Pvt. Ltd.
9	Arali
10	Argus India Price Reporting Services LLP
11	Argus Media, Singapore
12	Asahi Kasei Corporation (India & Japan)
13	Asia Crystal Commodity LLP
14	Astral Ltd.
15	Atul Ltd.
16	Bell-O-Seal Valves Private Limited
17	Bertrams Chemical Plants Ltd.
18	Bleach Chem Group
19	Bodal Chemicals Limited
20	Chandan Salt Works Pvt. Ltd.
21	Chemfab Alkalis Ltd.
22	Chemical Industry Digest
23	Chemical Process Piping Pvt. Ltd.
24	Chemical Weekly
25	Chemplast Cuddalore Vinyls Limited
26	Chemplast Sanmar Ltd.
27	Chougale Salt Works Pvt. Ltd.
28	CMA, London
29	DCM Shriram Ltd.
30	DCW Ltd.
31	De Nora EMEA & India / De Nora Italy
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We won't mince words. There are benefits from coming to the #1 address for Caustic Soda-Chlorine. And then some!

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Our experts from Japan and India will read a paper on
Technology Developments and Offerings
during the Emerging Technology Developments Session
at the Conference



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48	Greenko Group
49	Gujarat Alkalies and Chemicals Limited
50	Gujarat Fluorochemicals Ltd.
51	Hiranyavarnaam Chemicals & Alkalies Pte Ltd., Singapore
52	Hitech Applicator
53	HM Flow Controls Private Limited
54	HRS Process Systems Ltd.
55	ICIS
56	Indian Chemical News
57	INEOS Electrochemical Solutions, United Kingdom
58	INEOS Technologies Ltd.
59	ISGEC Heavy Engineering Ltd.
60	Jaydeep Group
61	JOC Technical Engineering Co. Ltd.
62	Kaveri Napthol LLP
63	KLINGER Industrial Products India Pvt. Ltd.
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81	Nuberg Engineering Limited
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83	Orient Paper Mills - Caustic Soda Unit
84	Phoenix Engineers
85	Primo Chemicals Limited
86	Priserive Infrastructure Private Limited
87	Protech Consultants Pvt. Ltd.
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89	Rays Power Experts Ltd.
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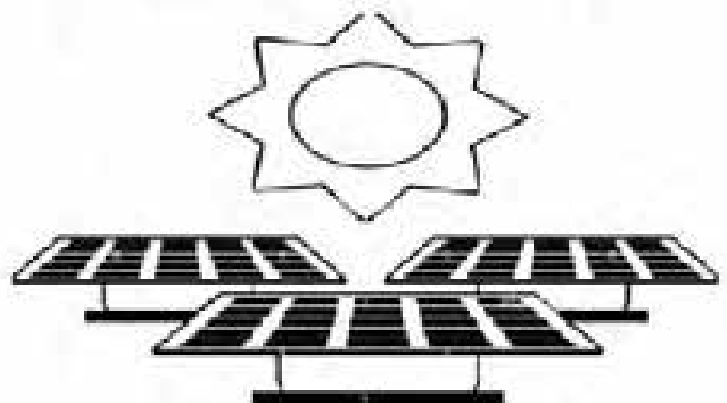
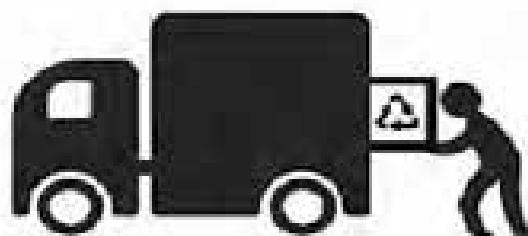
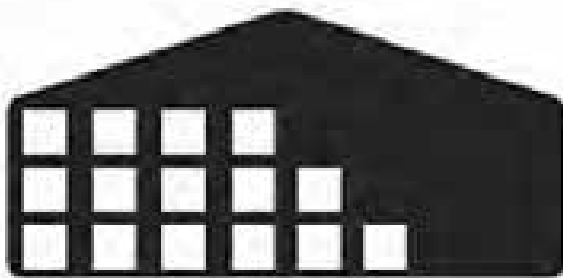
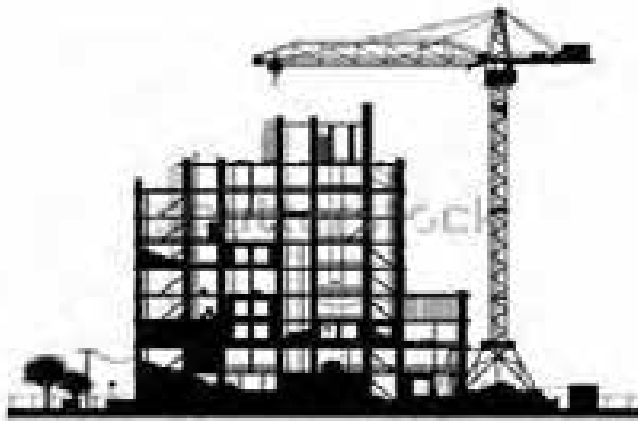
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109	The Chemours India Pvt. Ltd.
110	The Indian Salt Manufacturers Association
111	The Travancore-Cochin Chemicals Ltd.
112	thyssenkrupp nucera (Germany & Japan)
113	thyssenkrupp nucera India Private Limited
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Smt. Avantika Singh Aulakh, IAS

Secretary to the Hon'ble Chief Minister of Gujarat &
Managing Director, Gujarat Alkalies & Chemicals Limited

Mrs Avantika Singh Aulakh is an IAS officer of the 2003 batch, currently serving as Secretary to the Hon Chief Minister of Gujarat since Sept, 2021

Her educational qualifications, include, B.E. (Instrumentation & Control Engg.) from Netaji Subhas Institute of Technology Delhi and Masters in Public Administration from Harvard University's John F. Kennedy School of Government. She brings a unique blend of technical expertise and public policy acumen to her role.

Throughout her two-decade long career in Civil Services, she has held various crucial administrative positions in the Government of Gujarat. She has served as District Collector in multiple districts including Ahmedabad, Vadodara, Bharuch, and Anand. She has been accorded the Best District Collector award for Vadodara district (2015-16) and Bharuch district (2012-13) by the State Government. She has also served as District Development Officer in Anand, Gandhinagar districts and as Deputy Secretary, Energy and Petrochemicals Deptt and Director of Petroleum in the State Government.

She received the National Award for Best Electoral Practices in 2012 and 2017 from the Election Commission of India. As Collector Ahmedabad, she also received the National Level Beti Bachao Beti Padhao Scheme award from Government of India in 2018.

Her diverse experience includes serving as Vice Chairman & CEO of Gujarat Maritime Board, CEO of Gujarat Infrastructure Development Board, MD of Gujarat Rail Infrastructure Development Corporation Limited and Director of Technical Education, reflecting her versatility in handling both infrastructure development and educational initiatives. She has enhanced her expertise through numerous specialized training programs in fiscal policy, public-private partnerships, and project management.

She serves as a Director at Gujarat Metro Rail Corporation (GMRC) Limited and has held directorial positions on the boards of several prominent companies, including Gujarat Pipavav Port Limited, GSPC LNG Limited and Dholera International Airport Company Limited.



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SPECIAL GUEST



Shri Ganga Kumar,
Dy. Director General (S&M)
Department of Chemicals & Petrochemicals
Ministry of Chemicals & Fertilizers Government of India

Shri Ganga Kumar is a career bureaucrat, social & cultural activist presently posted as Dy. Director General (Joint Secretary Equivalent) in Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilisers, Govt of India. Earlier he has handled several important programmes of Govt of India and State Govt of Bihar such as Director; Deputy Secretary, Gol; Deputy Director (NRHM), Govt of India; Managing Director, Bihar State Film Development corporation MD, Food & Civil Supplies Corporation MD, Bihar State Building Construction Corporation Limited Patna; Special Secretary, Building Construction Department and Additional Chief Executive Officer, Bihar Foundation.

Shri Ganga Kumar possess M. Phil. From Delhi University. He secured Gold Medal in Post Graduation in economics from Delhi University. He was visiting faculty in several universities and educational institutions.

A prolific writer, Shri Ganga Kumar has many books to his credit, particularly on culture and rural upliftment programmes in Bihar. He is a philanthropist and is associated with many social and cultural organisations.

In his present role as DDG (S&M) in the Department of Chemicals & Petrochemicals, his most notable initiative is development of ChemIndia web portal. Launched in February 2024, Chem-India portal aims to achieve a comprehensive understanding of the sector, by enabling collection, compilation and analysis of data about the production, imports and exports of various products by Chemical industrial units. This initiative will enable users, researchers, academicians and policy makers to get access to reliable data to facilitate informed decision-making. This will also enable complete mapping of the chemical industry in the country.



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The top half of the image shows a large industrial facility, likely a sodium hydroxide production plant. In the background, there are large metal structures and pipes. In the foreground, a complex system of yellow rollers and metal frames is visible, with long, continuous sheets of material (likely electrolyser components) being processed. The INEOS logo is overlaid on the left side of this image.

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DAY 1 - 20.03.2025 (Thursday)

Inaugural Session:	9:00 AM	-	9:30 AM
Session I:	9:30 AM	-	11:00 AM
Tea/ Coffee Break:	11:00 AM	-	11:40 AM
Session II:	11:40 AM	-	1:20 PM
Lunch:	1:20 PM	-	2.15 PM
Session III:	2:15 PM	-	4:15 PM

Special Address by Shri Ganga Kumar, DDG (S&M)
4:15 PM - 4:35 PM

Honoring our Event Partners Followed by Tea/Coffee
4:35 PM - 5:15 PM

Musical Evening and Dinner
7:30 PM onwards



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SESSION - I

SESSION CHAIR



Mr. Ajay Virmani
President, AMAI
and MD, Lords Chloro Alkali Ltd.

SPEAKERS



Mr. Bernard Law
Chlor-Alkali Expert
Argus Media, Singapore



Mr. Hasan Copur
Associate Director - Soda Ash,
Chemical Market Analytics CMA, London, UK



Mr. Aswin Kondapally
Market Specialist - India
ICIS, Mumbai



AMAI



SESSION I: Global and Indian Industry Market Outlook Insights from International Market Experts

SESSION CHAIR

Mr. Ajay Virmani
President, AMAI
and MD, Lords Chloro Alkali Ltd.



Mr. Virmani, a chartered accountant by qualification, and a veteran of the industry has had long innings of two decades in the textiles sector before moving to chlor-alkali industry. Before taking over as President last year, Mr. Virmani served the industry as Vice President of AMAI and has consistently worked for the optimum growth of the industry through meaningful dialogue with the Government and organization of insightful industry sessions. .

SPEAKERS & SYNOPSIS

Mr. Bernard Law
Chlor-Alkali Expert
Argus Media, Singapore



Mr. Bernard Law is editor responsible for chlor-alkali market in Asia. He joined Argus Media in early 2017 as one of the key members of the start-up team for Argus's newly established Chlor-Alkali Vinyl Service.

Bernard has more than 25 years of experience in the chemical industry in Asia, holding various responsibilities in market and competitive analysis, benchmarking, sales, marketing and business development. He generated benchmarking pricing and assessments, including those of Northeast Asia, Southeast Asia, caustic to alumina index. He has also spent more than thirteen years of commercial experience for specialty and commodity chemical, covering the Asia Pacific region. He also contributed to single client consulting projects and training.

Caustic Soda Market Outlook Regional Updates

Chlor-alkali industry has entered into a long market for the period 2025-2029. High netback for caustic soda and PVC in 2021-2022 drove the capacity growth. Projected robust demand for alumina and battery material upstream drives the demand growth for caustic soda, especially in Asia. Asian chlor-alkali has become center of action for chlor-alkali industry for the next few years and caustic soda has become a stronger molecule in the chlor-alkali-vinyl value chain.



AMAI



Mr. Hasan Copur
Associate Director - Soda Ash,
Chemical Market Analytics
CMA, London, UK



Mr. Hasan Copur has expertise in the global Soda Ash Market Advisory Service. With over 15 years in commercial roles, Hasan has acquired international chemical industry experience while holding various sales and business management roles. He engages in diverse sectors using inorganic chemicals as raw materials and helped develop a portfolio of global clients.

He has provided soda ash market coverage for each region of the world, offering insight and intelligence across the soda ash value chain.

Hassan spent over ten years with Sisecam, a global glass and soda ash manufacturer, managing international sales activities for their chemicals group in its multiple locations. He spent four years in China, leading the regional business. Prior to joining in 2021, he spent 3 years working in trading in the UK, overseeing a range of basic chemicals and metals in the international markets.

An Overview on Soda Ash Market

The soda ash market remains unpredictable. Over the course of 2024, mainland China shifted from being an importer to a net exporter, depressing prices and leaving 2025's outlook uncertain. Globally, solar glass demand is rising in India and Southeast Asia, but high inventories of glass and PV panels limit short-term growth. Meanwhile, container glass demand is weak while sluggish construction is putting pressure on flat glass markets, with U.S. trade policies adding further uncertainty. On the supply side, China's new capacity contrasts with delayed U.S. expansions and the UK's last synthetic soda ash plant closure, shaping a complex production landscape.

The presentation provides an analysis of the global soda ash market, covering key trends that are shaping the industry with regards to supply, demand, capacities, pricing, and a future outlook.

Mr. Aswin Kondapally
Market Specialist - India
ICIS, Mumbai



Currently, Mr. Aswin Kondapally leads the petrochemical pricing and news coverage for India/South Asia at ICIS for PVC, PE and PP. Previously, he spent ten years at TransGraph Consulting, advising clients with P&L responsibilities over \$500 million on cost analysis, risk management, and financial hedging. He also traded global futures markets as a derivatives analyst.

Aswin is a seasoned market analyst with over a decade of expertise in market research, forecasting, and business analysis and also specializes in macroeconomic trends, commodity markets, and financial derivatives, focusing on petrochemicals.



AMAI



Asia and Middle East PVC markets: Decoding the future of an oversupplied vinyl market

The global PVC market is undergoing significant transformations, driven by evolving capacity expansions, shifting trade flows, and broader economic trends that have a bearing on demand and consumption dynamics. The rise of China as a dominant exporter, the impact of anti-dumping duties (ADDs) in India, and fluctuating profitability have all contributed to a changing market landscape.

The presentation will cover:

- **Price trends and key drivers** Analysis of PVC price movements across major regions, including India, China, Southeast Asia, the Middle East, and the USA, along with key influencing factors.
- **Global capacity expansions and trade flow shifts** Overview of new PVC production capacities in China, the USA, and other key markets, along with an assessment of how these changes are shaping global supply and demand.
- **China's role in the global market** Examination of China's production growth, export surge, primary shipment destinations, and its impact on global pricing.
- **Regional market trends beyond China** Analysis of supply and trade dynamics from other major Asian producers such as Thailand, Taiwan, Indonesia, Japan, and South Korea.
- **PVC margin analysis** Review of profitability trends in the PVC sector, including a comparison with caustic soda margins and how this affects production decisions.
- **Industry restructuring and ADD impact** Insights into potential market consolidation, capacity rationalization, and the influence of ADDs on India's PVC imports and supplier preferences.
- **Future demand growth and market outlook** Forecasting global PVC consumption trends, linking demand to regional economic growth, and assessing long-term trade dynamics.



SESSION - II

SESSION CHAIR



Mr. Aditya A. Shriram
Vice President AMAI,
and Dy. MD, DCM Shriram Ltd.

SPEAKERS



Mr. Ajay Shah
Professional Director
Vishakha Glass Pvt. Ltd.



Mr. Binay Agrawal
Business Director – IMEA Region, TempRite CPVC
Lubrizol Advanced Materials India Pvt. Ltd.



Mr. Roshan U. Hamza
Marketing Manager
Chemfab Alkalies Ltd., OPVC Pipes Division



Mr. Kapil Malhotra
Global Business Unit Head-Fluoropolymers
Gujarat Fluorochemicals Ltd.



AMAI



SESSION II: Status and Growth Prospects of Consumer Industry in India

SESSION CHAIR

Mr. Aditya A. Shriram
Vice President AMAI,
and Dy. MD, DCM Shriram Ltd.



Mr. Aditya is the Dy. Managing Director of DCM Shriram Ltd a US\$ 1.4 Billion USD diversified group with an entrepreneurial journey of over 130 years.

Aditya has worked in various businesses within the group including Chemicals, Shriram Farm Solutions and Cement and has functional expertise in areas of Strategy, Operations, and Business development. Heading the Chemicals vertical, he has led an investment of more than INR 3500 Cr and has guided the business into new growth areas. Under his vision and leadership, Chemicals has become an important vertical and one of the key growth engines, within the group.

He is a member of the national committee on Chemicals & Petrochemicals at the Confederation of Indian Industry (CII). He is also an Executive Council member of the Indian Chemical Council (ICC). Further, he is involved in CII's Northern Regional Council; Centre of Excellence for Innovation, Entrepreneurship and Start-ups and, Family Business Network (CII-FBN). Aditya is also an active member of the Delhi chapter of Entrepreneurs' Organisation (EO).

Aditya has a degree in Industrial Engineering from the prestigious Cornell University and an MBA from the London Business School.

SPEAKERS & SYNOPSIS

Mr. Ajay Shah
Professional Director
Vishakha Glass Pvt. Ltd.



Mr. Ajay Shah has over 43 years of experience in the chemical and petrochemical industry in varied business and functions.

Ajay spent his initial 20 odd years with NOCIL in various areas, including a deputation to Shell Chemicals in the Netherlands for 3 years, followed by about 23 years with RIL handling various portfolios, culminating as the President of the Polymer sector with responsibilities of polymers, cracker and elastomers.

Ajay has recently taken up an assignment with the Vishakha group as a Professional Director, with focus on their renewables business.

Ajay is a B.Tech in Chemical Engineering from IIT Kanpur followed by Masters in Financial Management from Jamnalal Bajaj Institute of Management Studies, Mumbai.



AMAI



Solar Energy Industry Complementing Robust Soda Ash Demand Growth

The rapid development of the solar industry is driving a significant surge in the utilization of soda ash, which is a critical raw material used to make photovoltaic (PV) glass. Solar panels incorporating glass-glass technology, with tempered glass being used instead of traditional plastic backsheets, are gaining popularity by virtue of being more durable, efficient, and environmentally friendly. These new-age solar modules require approximately 20% more glass than traditional glass-back sheet modules, thus driving the use of soda ash further.

As countries worldwide focus on boosting their energy infrastructures and reducing carbon emissions, solar power generation using photovoltaic is on the rise. With net-zero goals and government initiatives favoring green power, installed capacity of solar photovoltaic devices is showing major growth.

India's current solar glass production is ~2000 tonnes per day, which is enough for 15-16 GW of module production. Yet, India's overall module production capacity is more than 38 GW, indicating a huge supply deficit. As India targets 300 GW of solar capacity by 2030, solar glass production needs to increase seven to eight times its current capacity to cater to future demand. Government initiatives such as 'Make in India,' solar panel tariffs, and production-linked incentives are encouraging local manufacturing and reducing import dependence.

With the renewable energy capacity in India exceeding 200 GW and solar power accounting for more than 100 GW, the increasing demand for solar modules will have a direct bearing on soda ash consumption. Hence, the solar energy boom will keep fueling the expansion of the soda ash market.

Mr. Binay Agrawal
Business Director IMEA Region, TempRite CPVC
Lubrizol Advanced Materials India Pvt. Ltd.



Mr. Binay Agrawal has over 17 years experience in leading P&L, Strategy, Business Development and M&A roles. He has led teams, implemented turnaround strategies for double digit growth at companies. Binay is Winner of prestigious Luminary award at Lubrizol in 2024 and CEO award at Lubrizol in 2020.

Prior to Lubrizol, Binay has held key positions at Tata Strategic Management Group, Polycab and CGI.

Binay holds an MBA degree from IIM Ahmedabad and a Mechanical engineering degree from NIT Rourkela.



AMAI



CPVC Market Outlook

The Indian CPVC market has experienced rapid growth in last two decades, driven by urbanization, replacement of metal, and increasing awareness of water quality and safety. The entire ecosystem of Pipe processors, CPVC manufacturer, Installers, Regulator (BIS) - worked together to make CPVC preferred material for Hot & Cold water plumbing application in India. Today, India is the largest consumer and producer of CPVC in the world, this is a unique achievement as India accounts for 50-60% of Global CPVC market whereas India's share of global market is less than 10% in other polymers. However, the industry faces key challenges related to raw material fluctuation, influx of poor-quality material, global over-capacity and dependence on one application. Sustaining India's top position will require us to focus on 1 Diversification into new applications 2 Focus on Quality and Innovation 3 Local for Local and 4 becoming part of global value chain.

Mr. Roshan U. Hamza
Marketing Manager
Chemfab Alkalys Ltd.,
OPVC Pipes Division



Mr. Roshan Hamza joined Chemfab Alkalys Limited as a Management Trainee and is working now as a Marketing Manager in OPVC Pipes division. He has more than 6 years of experience in OPVC Pipes sector.
Roshan is a B. Tech and MBA

OPVC Pipes Technology and Market Trends

The presentation will cover

Introduction to PVC-O Pipes, its advantages, market trends in High Pressure Piping segment, industrial applications. The presentation will also cover case studies.

Mr. Kapil Malhotra
Global Business Unit Head-Fluoropolymers
Gujarat Fluorochemicals Ltd.



Mr. Kapil Malhotra has more than 37 years of rich experience in business development and new application development. In his various assignments, he has proven his expertise in business development initiatives and formulation of sales and marketing strategies. He has constructed brand visibility and awareness in the market through various promotional events.



AMAI



Kapil is a proactive leader and planner with proficiency in strategic planning, market plan execution, account management and pre-sales efforts, as well as, skills in P&L management, competitor analysis and market analysis.

Kapil has been working at GFL for more than 18 years and is heading the fluoropolymer business of high-performance fluoropolymers (PTFE, FEP, PFA, PVDF), FKM, chlor-alkali and chloromethane produced at the Integrated Fluoropolymer and Fluorochemical Complex at Dahej, Gujarat. He has been associated with this greenfield project right from the conceptual stage to the final commissioning of the plant at Dahej, Gujarat. He has also been a prominent part of the top management team to successfully place the above products in more than 50 countries globally.

Moreover, Kapil Malhotra is proactively leading the Sustainable Development Goals (SDG) in GFL and also integrating the organisation through IT, CRM, and digitalisation efforts.

Kapil is former President of Alkali Manufacturers Association of India. He is Vice-chairman of the Indian Chemical Council-Northern Region and Vice-chairman in Chemical and Petrochemical Chapter of: ASSOCHAM

Kapil has a BE (HonsONS) in Chemicals from Birla Institute of Technology and Science, Pilani and an MBA (Marketing & Finance) from the Faculty of Management Studies, Delhi. He has attended some distinguished training programmes and also received certification of "Train the Trainer Programme" for imparting skills training

Lithium Mining and Caustic Soda Demand

1. Introduction and overview of Lithium Mining
2. Use of Caustic Soda in Lithium Mining
 - a. Lithium Hydroxide Production
 - b. Ore Processing
 - c. Brine Purification
 - d. By-product Treatment
3. Factors impacting Lithium Mining and Caustic Soda Demand
4. Factors driving demand





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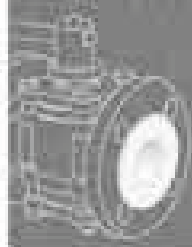


APPLICATOR

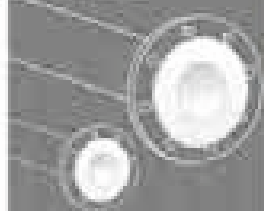
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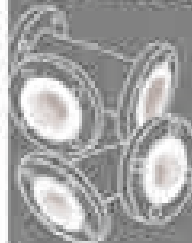
LINED VALVES



LINED PIPES



LINED FITTINGS



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HI-TECH APPLICATOR, PTFE LINED VALVES & FITTINGS ARE REGISTERED TRADE MARKS OF OTHER APPLICATORS

SESSION - III

SESSION CHAIR



Mr. Kapil Malhotra
Global Business Unit Head-Fluoropolymers
Gujarat Fluorochemicals Ltd.

SPEAKERS



Mr. Ryo Azegami
Director - Engineering
thyssenkrupp nucera, Japan



Dr. Robert Scannell
Managing Director, De Nora Deutschland GmbH
and Regional Chief Officer, De Nora EMEA & India
and President De Nora Italy



Mr. M.R. Swaminathan
Dy General Manager
thyssenkrupp nucera India
Private Limited



Mr. Izuru Karimata
Researcher of Electrolysis Systems
for Chlor-alkali Process
AKC, Japan



Mr. Rajendra Khanolkar
Sales Manager - South Asia
The Chemours India Pvt. Ltd.



AMAI



SESSION III: Emerging Technology Developments

SESSION CHAIR

Mr Kapil Malhotra
Global Business Unit Head-Fluoropolymers
Gujarat Fluorochemicals Ltd.



Mr. Kapil Malhotra has more than 37 years of rich experience in business development and new application development. In his various assignments, he has proven his expertise in business development initiatives and formulation of sales and marketing strategies. He has constructed brand visibility and awareness in the market through various promotional events.

Kapil is a proactive leader and planner with proficiency in strategic planning, market plan execution, account management and pre-sales efforts, as well as, skills in P&L management, competitor analysis and market analysis.

Kapil has been working at GFL for more than 18 years and is heading the fluoropolymer business of high-performance fluoropolymers (PTFE, FEP, PFA, PVDF), FKM, chlor-alkali and chloromethane produced at the Integrated Fluoropolymer and Fluorochemical Complex at Dahej, Gujarat. He has been associated with this greenfield project right from the conceptual stage to the final commissioning of the plant at Dahej, Gujarat. He has also been a prominent part of the top management team to successfully place the above products in more than 50 countries globally.

Moreover, Kapil Malhotra is proactively leading the Sustainable Development Goals (SDG) in GFL and also integrating the organisation through IT, CRM, and digitalisation efforts.

Kapil is former President of Alkali Manufacturers Association of India. He is Vice-chairman of the Indian Chemical Council-Northern Region and Vice-chairman in Chemical and Petrochemical Chapter ASSOCHAM

Kapil has a BE (H) in Chemicals from Birla Institute of Technology and Science, Pilani and an MBA (Marketing & Finance) from the Faculty of Management Studies, Delhi. He has attended some distinguished training programmes and also received certification of "Train the Trainer Programme" for imparting skills training



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SPEAKERS & SYNOPSIS

Mr. Ryo Azegami
Director - Engineering
thyssenkrupp nucera, Japan



Mr. Ryo Azegami is presently Member of the Board and Director Engineering at thyssenkrupp nucera Japan, a position he has held since 2019. Prior to that he served in a variety of leadership roles in JGC Corporation Japan, in the fields of Gas, Ethylene, Aromatics, EO/EG, MMA, Silicone Monomer, etc.

In the course of his professional experience, spanning over 30 years, Azegami has successfully led and completed EPC projects in Asian and Middle East countries with multi-national workforces mainly at overseas subsidiary companies. In addition to EPC projects, he has managed projects involving services such as FEED package preparation, consultation, etc.

Azegami has a Master's Degree in Organic Chemistry, having graduated from the University of Electro Communications in March 1994. He also holds a Professional Engineer Certificate in Industrial Engineering. A C-Suite member with excellent facilitation and team development skills and a strong commitment to delivering business solutions, Azegami is a first-class Project Management professional in EP/EPC projects.

Mr. M.R. Swaminathan
Dy General Manager
thyssenkrupp nucera India Private Limited



Mr. M.R. Swaminathan is responsible for the process design of chlor-alkali plants with special regard to decarbonisation and effluent-handling systems.

Swaminathan started his career as a process engineer in 2000 and worked since then in several positions in the caustic soda and Chloromethanes manufacturing process at DCW and Chemplast Sanmar Ltd. He joined thyssenkrupp Uhde India in 2011 as Executive Engineer Process Design.

thyssenkrupp nucera - Technology developments and offerings

The paper provides an overview of the 360 plant lifecycle services offerings from thyssenkrupp nucera and the Sulphate Removal Unit (SRU) with the goal of reducing emission & operating costs, and improvement in plant performance.

The thyssenkrupp nucera Evaluator System is designed to enhance asset protection and operational efficiency for customers. The system provides safeguards against electrical hazards, thereby ensuring the highest safety standards for both personnel and equipment. The paper will also cover solutions for handling impurities in brine and improvement/solutions in product quality and improvement in the Brine treatment system.

The paper will also cover the evolution of the BiTAC series electrolyzers followed by the features of e-BiTACv7 offering the benefits of low power consumption, durability, and reliability.



Mr. Izuru Karimata
Researcher of Electrolysis Systems
for Chlor-alkali Process
AKC, Japan



Mr. Izuru Karimata joined Asahi Kasei Corporation in 2020 and was assigned to the analysis department, where he was engaged in tasks related to the chemical state analysis of electrodes and X-ray diffraction analysis of ion-exchange membranes. Subsequently, he became a member of the Electrolysis System Group in 2023 and have been involved in the development of new product, Membrode. He is responsible for the development of the anode Membrode, focusing on scale-up and catalyst composition studies.

Karimata received his Ph.D. in Science (chemistry) from Kobe University, Japan .

Advancements in Electrolysers and Membranes

Since 1975, Asahi Kasei Corporation has introduced innovative technologies in the chlor-alkali industry. The presentation explains the history of Asahi Kasei's innovations and new technological developments. It highlights the evolution of technologies such as double layered membrane, zero-gap, -technology, and -technology. Additionally, it details the concept and evaluation results of the new Membrode TM technology, which has the potential to significantly reduce the time for electrode re-coating / replacement and is currently being evaluated at multiple customer plants.

Dr. Robert Scannell
Managing Director, De Nora Deutschland GmbH
and Regional Chief Officer, De Nora EMEA & India
and President De Nora Italy



Dr. Robert Scannell is a highly motivated executive with over 32 years Industrial Experience in the core businesses of the De Nora Group. He was previously the head of Global Technical Services within De Nora and held the position of Head of Research & Development within Heraeus Elektrochemie GmbH and a research position within Siemens in Erlangen Germany.

Dr. Scannell is a Ph. D holder in Electrochemistry.

"CMAM"- A New Modular approach for electrode coating improvement

From the original Henri Beer's invention in 1965 and first application in Chlorine industry in 1970, DSA® coatings became the worldwide acknowledged benchmark and traditional component for IEM electrolyzer. De Nora has more than 55 years of expertise in the field of Mixed metal oxide (MMO) coating that for robustness, high activity, reliability make anode and cathode coatings an almost "perfect" piece. Thanks to continuous development in De Nora R&D center aiming to maximize the



value proposition to the customer a new generation of IEM anode and cathode coatings family with modular performance depending on customer needs is approaching and the newer products developed under this approach will be presented. The driver is to achieve even more improved features, "CMAM" - a new modular approach for coating improvement; leveraging deep know-how (fundamental & applied) and experience (R&D & field) to answer to the demanding requirement of modern IEM CA market

Mr. Rajendra Khanolkar
Sales Manager - South Asia
The Chemours India Pvt. Ltd.



Mr. Rajendra Khanolkar has 32 years of experience in R&D, Technical service, and sales and marketing department. He is currently handling Fluoropolymer business (Teflon™ nonstick coating, Krytox™ PFPE Lubricant, Viton™ elastomers) for South Asia market.

Khanolkar has wide experience in handling of fluoropolymer coatings designed for equipment exposed to severe corrosive and high-temperature atmospheres.

Innovative solutions from Teflon™ coatings to improve the performance of Heat Exchangers (Plate and shell & Tube) in Chlor-alkali Industry

After the commercialization of Teflon™ PTFE in the 1940s, new opportunities for fluoropolymers were soon developed. This led to the need for a fluoropolymer that would retain the unique and desirable properties of PTFE but also could be processed by normal thermoplastic conversion methods.

In 1960, Teflon™ FEP was developed, however, it became evident that a melt processable fluoropolymer was needed with higher strength and stiffness than those of PTFE and FEP resins. In 1970, Tefzel™ ETFE fluoropolymer, a modified copolymer of ethylene and tetrafluoroethylene, was developed. In 1972, Teflon™ PFA was developed, a fluoropolymer with excellent melt processability and properties rivalling those of PTFE. Teflon™ PFA offers high-temperature strength and stiffness and excellent stress-crack resistance. It also has the resistance to virtually all chemicals, low coefficient of friction, and excellent dielectric properties. Today, its main use is as lining for corrosion protection in the chemical processing industry handling corrosive chemicals.

Considering the limitation of fluoropolymer lining in complex shaped equipments like heat exchanger, storage vessels, paddle pusher further modification in fluoropolymers is done and various types of coatings grades like filled grade High Build coatings, conductive/nonconductive coating grades are developed. The main purpose of these coatings is to improve operational excellence, safety with minimal maintenance of the equipments.

The presentation covers details on these newly developed offerings and its benefits to Chlor-alkali industry.



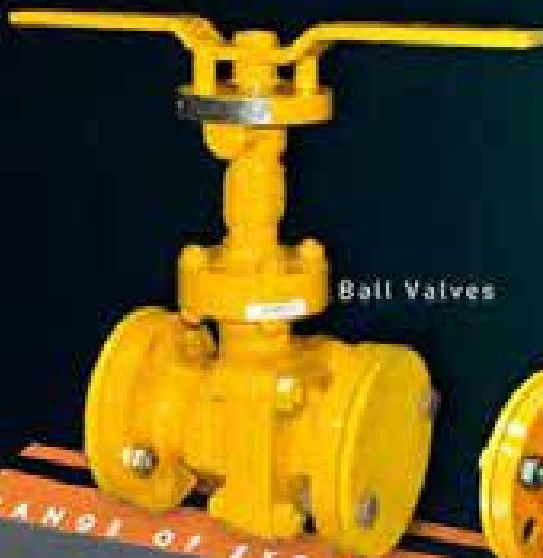


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DAY 2 - 21.03.2025 (Friday)

Session IV: 09:00 AM – 10:45 AM

Tea/ Coffee Break: 10:45 AM – 11:15 AM

Session V: 11:15 AM – 2:15 PM

Vote of Thanks: 02:15 PM

Lunch and End of The Conference:
2:20 PM - 3:00 PM



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SESSION - IV

SESSION CHAIR



Mr. Jayantibhai M. Patel
Past President, AMAI &
CMD, Meghmani Group

SPEAKERS



Mr. Bharat C. Raval
President
The Indian Salt Manufacturers' Association



Mr. Dheeraj Ahuja
Vice President
ReNew Power Ltd.



Mr. B.K. Rai
Head Marketing (India)
JOC Technical Engineering Co. Ltd.



Mr. Sauvik Dutta
Sales & Mktg. Director
DrM Filter Technology Pvt. Ltd.



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SESSION IV: Processes and Raw Materials - Challenges and Developments

Session Chair

Mr. Jayantibhai M. Patel
Past President, AMAI &
CMD, Meghmani Group



Mr. Jayantibhai Patel is a Chemical Engineer from the well-known Maharaja Sayajirao University of Baroda. He has more than 45 years experience in Chemical Business. He is the Chairman emeritus of Ahmedabad-based Meghmani Organics Limited & Epigral Limited, flagship Company of the Meghmani Group which has forayed into diverse from Agrochemicals to Pigments to Dyes & Intermediates to Chlor-Alkali and its Derivatives. The Group have 27 state-of-the-art manufacturing plants in multiple locations. Under his dynamic leadership, the group has reached a turnover of Rs. 5,000 crores with a direct manpower strength of more than 4,000. The product reach has extended to over 75 countries.

Mr. Patel has remained a part of important VIBRANT GUJARAT business delegation for promoting investment and business in India. Mr Patel was President of Alkali Manufacturers Association of India (AMAI).

Mr. Jayantibhai Patel is active in social organisations and has earned a name for his philanthropic initiatives.

He has received many recognitions, including:

1. I.C.C. D. M. TRIVEDI LIFETIME ACHIEVEMENT AWARD & I.C.C. LIFETIME ACHIEVEMENT AWARD
2. LIFE TIME ACHIEVEMENT AWARD BY GDMA (Gujarat Dyestuff Manufacturing Association) Apex Body of Color Chemical Industries of Gujarat.
3. Lala Shriram National Award for Leadership in Chemical Industry

SPEAKERS & SYNOPSIS

Mr. Bharat C. Raval
President
The Indian Salt Manufacturers' Association



Mr. Bharat C. Raval started his career as a Salt Inspector of Government of India. Thereafter, he served for five years in NDDDB in Co-Operative Field at the Little Rann of Kutch and worked for poor Agarias and their socio-economic development. He then switched over from Co-Operative Sector to Industrial Sector & worked with GHCL, Birla VXL, DCW and Nirma's Soda Ash & Mega Salt Project and Flagship Company of 'AWANTHA' Group namely Solaris Chemtech Limited formerly BILT



AMAI



having Salt unit (Since 1972) at Jamnagar District, producing 2.25 lac tons salt per annum. During this period, he got an exposure through various Technical Trips on behalf of Organizations to Holland (M/s. AKZO Noble Eng. Bv), Brazil, France, Australia and Mexico for Modern Salt Technology.

Recently, he superannuated from Grasim Industries Limited Chemical Division a flagship company of "Aditya Birla Group" as Vice President Salt vertical.

Bharat is also playing a vital role in India's oldest & Prominent Salt Association - The Indian Salt Manufacturers' Association (ISMA), as a Hon. Secretary since 2003-04 as well as Hon. Secretary of The Kutch Saurashtra Salt Manufacturers' Association (KSSMA) since 2001-02. He is now President of both associations.

Bharat has represented Indian Salt Industry as President at various National & International forum including World Salt Symposium 2018, Salt Lake City, Utah, USA, and Roskill's Salt Conferences at Dubai & Hong Kong.

Bharat is contributing to the salt industry as Committee Member of Expert Group of FTT & Mission Mode Projects - CSIR, Government of India

Bharat has also designed a 30 & 100 TPH Salt Up gradation Plant - Washery at Halar Salt Works & Chemicals Limited in 2006/ Unit: GIL-Singach at Jamnagar and recently in 2023, 150 TPH, 4 Stage Salt Washery commissioned at Grasim also.

"Indian Salt Industry Trends & Role of ISMA" and "Impact of Global Warming on Salt Productivity"

At present India is 3rd largest salt producer in the world having production of 34 million tons and out of which 34% salt is being consumed by chlor-alkali industry as basic raw material. During last 2 decade, the quality of salt production has improved a lot through mechanical washing system. 1st mechanical salt washery established in 1991 by one of export-oriented unit and thereafter salt manufacturers initiated and gave priority to produce high grade salt, as on date the quality parameters of Indian salt is equivalent to Australian salt.

Due to impact of global warming, growth rate of salt production has been difficult to achieve at par with chlor-alkali's growth rate i.e. 8% even after allotment of new lease land by government. Increase in salt production/yield is not at satisfactory level compare to salt yield US, China & Australia which is found 100 plus tons per acre and we are still at 50 to 65 tons per acre max. Hence, there is a huge scope to increase productivity by adopting modern scientific operating methods to produce salt. It's time to take appropriate action towards modification to adopt latest technology to increase yield when on account of Global Warming most of the weather parameters affected.



Mr. Dheeraj Ahuja
Vice President
ReNew Power Ltd.



Mr. Dhiraj Ahuja has over 20 years of experience in the power sector, having worked in the areas of power generation, power trading, commercial and regulatory. He has been with ReNew for past six years and has made a significant contribution in increasing ReNew's presence in the C&I segment and helped the C&I portfolio grow from 320 MW to 2.5 GW in capacity. He has previously worked with organisations like JSW Energy, Reliance Infrastructure, CRISIL and NTPC.

Dhiraj holds a bachelor's degree in Mechanical Engineering and is an MBA

Scaling up Renewable Power & Energy Storage Solutions

As India advances towards energy security and sustainability, industries especially energy-intensive sectors like the chemical sector must embrace renewable power to ensure long-term competitiveness and cater to market demand of sustainable products. This presentation explores the opportunities, challenges, and strategies for adoption and scaling up of renewable energy in industrial operations.

The presentation will cover the domestic shift towards renewables, driven by ambitious government policies, falling costs of solar and wind energy, strengthening of domestic supply chain and growing corporate sustainability commitments. The discussion will highlight how Indian industries are integrating renewable energy through captive solar and wind projects, open-access power purchase agreements (PPAs), and hybrid energy models to reduce dependence on grid electricity and thermal CPPs.

It is necessary to analyse primary objective, assessing energy needs, analysing the regulatory landscape, identifying suitable renewable sources, choosing the right business model, forming right partnerships for development and operation of the RE project, etc.

Given most RE solutions tend to have variability in generation due to their inherent nature, the paper will cover how incorporating battery-based energy storage solutions can play an important role in stabilizing renewable supply and reduce dependability on energy banking provided by the Discoms as well as additional savings in certain cases.

The paper would also briefly cover on the RE policies of Gujarat, especially the wind-solar hybrid policy- its key features, its benefits and the challenges it poses for the industry in its adoption.



Mr. B.K. Rai
Head Marketing (India)
JOC Technical Engineering Co. Ltd.



Mr. Rai has rich experience of power plant, textile industry, reverse osmosis, caustic soda, project execution of brown field and green field. He is well-versed in Project management, cost control, planning and scheduling of projects and has earned a name for project delivery on time.

Rai's experience in execution of several projects since last more than 30 years includes steel plants, power projects, textile projects, reverse osmosis projects, Chlor-Alkali projects along with value added projects, Chloromethanes, and ECH, etc. His association with caustic soda projects has been since 1995 starting from Veraval Gujarat to 500TPD caustic soda green field project at Vilayat .

Rai has a Bachelor in Civil engineering and MBA from U21 Global Singapore

Innovative Technology for Enhancing performance of Electrolyzer and Chlorine Gas Drying in Chlor Alkali Production

With long term Research & Development, JOC developed a series of technologies and methods to upgrade equipment and reduce Capex/Opex through renovation in the following areas.

1. Renovate AKCC type Electrolyzer to increase effective area from 2.7m² to 3.3m² by minor modification of existing Electrolyzer. The advantages are with higher capacity at same current density, lower power consumption at same capacity, and higher utilization rate of ion membrane.
2. Upgrade of chlorine gas drying process from existing 2-3 towers to one tower, so as to reduce Capex and Opex.

Mr. Sauvik Dutta
Sales & Mktg. Director
DrM Filter Technology Pvt. Ltd.



DrM, Dr. Mueller AG, Switzerland, established its 100% subsidiary, DrM Filter Technology Pvt Ltd, in India in 2012. The company specializes in solid-liquid separation solutions, serving industries such as Chlor-Alkali, chemicals, pharmaceuticals, and wastewater treatment.

Sauvik has been an integral part of DrM for over 13 years, contributing significantly to the company's growth and market presence. Starting his journey as a Sales Engineer, he played a crucial role in executing Chlor-Alkali projects across India. Over the years, his expertise and leadership have propelled him to head the Sales and



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Marketing division for DrM in India and neighboring regions, including the Middle East and Africa. Additionally, he extends his support to DrM's teams in Southeast Asia and Australia.

With extensive experience in technical sales and strategic market expansion, Sauvik has been instrumental in driving business development, client relationships, and application engineering. His deep understanding of solid-liquid separation technologies has helped DrM strengthen its foothold in the industry. Under his leadership, the company continues to innovate and deliver high-performance filtration solutions to diverse industrial sectors.

Innovative Micro Membrane Technology for Salt Removal in Primary Brine Treatment

DrM has dedicated years of research and development to refining the separation of divalent salts such as calcium carbonate (CaCO_3), magnesium hydroxide (Mg(OH)_2), and barium sulfate (BaSO_4) from brine without the use of alpha cellulose. This development is particularly relevant for Indian solar salt-based caustic soda manufacturing. By collaborating with manufacturers and analyzing real-time brine samples, extensive trials were conducted to optimize the process. The findings demonstrated that traditional clarifiers, anthracite filters, and brine polishing filters could be replaced with a single, compact system. The new technology effectively filters feed streams with solid contents ranging from 0.1% to 10%, achieving filtrate clarity of less than 0.15 NTU. Additionally, a dry discharge of solid cake was successfully implemented.

Key Advantages:

- Reduced footprint: The need for multiple filtration units is eliminated.
- No coagulants or filter aids required: Reducing chemical dependency and operational complexity.
- Simplified operation: The system replaces three separate filtration stages, making the process more efficient.
- Improved reliability: Traditional clarifiers are prone to operational issues and require frequent maintenance.
- Reduced process equipment: Fewer rotating parts such as pumps are needed, minimizing maintenance costs.
- Dry solid discharge: Eliminates the need for rotary vacuum drum filters, further streamlining processing and reducing costs.

By implementing this advanced filtration method, the brine treatment process becomes more cost-effective, operationally efficient, and environmentally sustainable. The innovation significantly improves filtration performance while simplifying plant operations for caustic soda manufacturers.





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Auto-backwash candle type filter with dry cake discharge
feature for primary brine treatment

SESSION - IV

SESSION CHAIR



Mr. Rajesh Kamat
VP and Head, Sales & Marketing
Tata Chemicals Ltd.

SPEAKERS



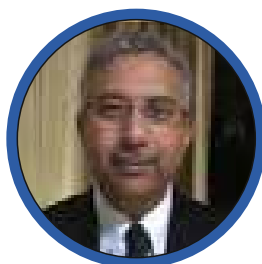
Dr. Chirag Bhimani
Environment,
Sustainability & Climate Professional



Ms. LeaAnne Forest
Chemical Products & Technology
American Chemistry Council, USA



Mr. Shaik A. Khadar Vali
Vice President
Safety & Occupational Health
Aditya Birla Group, CFI Global Chemicals



Mr. Mandar Phadke
Global Head – HSE
Ericsson, USA



Mr. Sonal Verma
Partner & Global Leader
(Market & Strategy)
Dhir & Dhir Associates



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SESSION V: Safety, ESG & Sustainability for Alkali Industry

SESSION CHAIR

Mr. Rajesh Kamat
VP and Head, Sales & Marketing
Tata Chemicals Ltd.



Rajesh manages a product portfolio which includes bulk commodity and specialty products with footprint across India, APAC and Africa. He started his career as a strategy consultant at Tata Strategic Management Group and has worked with several Tata group companies for strategy planning and M&A. He has also worked with reputed consulting firms and helped several clients in strategy, operations and supply chain areas. He is a member of various Industry bodies/associations like AMAI, IBP, PFNDAl, etc.

Rajesh is a Chemical Engineer from UDCT (now ICT) and has also done his MBA from IIM, Ahmedabad

SPEAKERS & SYNOPSIS

Dr. Chirag Bhimani
Environment, Sustainability & Climate Professional



Dr. Chirag Bhimani is a well-known environmental expert. He has first hand experience in industry and also served in various levels in Gujarat Pollution Control Board before foraying into professional consultancy on environment, sustainability and climate issues. He is CEO of Rupam Eco Green Textile Park Association and is associated with various organisations in an advisory capacity. He has contributed to various projects and studies as member of committees constituted by government and international bodies.

Dr. Chirag's interests include climate change and mitigation, carbon markets and pricing, contamination sites remediation, sustainable development solutions, among others.

Dr. Chirag holds a Ph. D. in Sustainability and Climate Change Mitigation, conferred by University of Berkeley, USA. He qualified his M. Tech. in Environmental Engineering after graduating in civil engineering. He is also a well-known trainer and conducts regular workshops on climate issues.

Dr. Chirag has many publications to his credit. He has also written many books, including "Navigating Sustainable Seas A comprehensive Guide Carbon Markets and Trading". These are available on Amazon.

Upcoming Environmental Regulatory Landscape in India

(Special Focus: Alkali Industry, Energy Regulations, and Environmental Norms)

The presentation will cover:



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Overview of upcoming regulatory trends in India, with emphasis on alkali industry and associated sectors.

Environmental regulations and sustainability, India's global commitments on climate mitigation measures

Current environmental regulatory framework in India: Environment Protection Act, 1986; Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016; Water and Air Pollution Acts.

Overview of Alkali Industry Compliance Requirements: Current emission and effluent standards, Upcoming Regulatory Changes and Trends, Energy Efficiency and Renewable Energy Mandates, solid waste management, Technological Upgradation: High cost of adopting Best Available Technologies (BAT), Retrofitting older plants to meet revised norms.

Sustainability as a business driver: Resource conservation and innovations in resource recovery/ recycling

Ms. LeaAnne Forest
Chemical Products & Technology
American Chemistry Council, USA



LeaAnne Forest is an experienced professional at the American Chemistry Council (ACC) within the Chemical Products & Technology Division, where she focuses on advancing the interests of the chlor-alkali industry. Since joining ACC in 2017, she has been instrumental in managing the Chlorine Panel, overseeing critical regulatory and advocacy initiatives that directly impact the production and use of chlorine and its derivatives. Her expertise in navigating evolving TSCA (Toxic Substances Control Act) regulations and other legislative challenges has made her a key advocate for the industry.

LeaAnne's work on chlorinated organics has positioned her at the forefront of regulatory and scientific discussions, where she collaborates with stakeholders to address complex issues such as risk evaluation and management. She also plays a pivotal role in fostering collaboration across regulatory bodies and industry partners to advance the safe and effective use of chlor-alkali products.

In addition to her work with the Chlorine Panel, LeaAnne actively contributes to global industry efforts through her involvement with the World Chlorine Council. In this role, she engages with international stakeholders, promoting alignment on regulatory issues, sustainability initiatives, and best practices within the global chlorine sector.

LeaAnne also leads stakeholder engagement efforts for the North American Flame Retardant Alliance and supports the Ethylene Oxide Panel, applying her expertise in regulatory strategy and member management. Her experience in global policy and regulatory frameworks enables her to guide industries through intricate challenges, always emphasizing collaboration and innovation to meet the evolving needs of the chemical sector.



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Environmental Regulations in the Chlor-Alkali Industry: Insights from the World Chlorine Council

This presentation will explore the evolving landscape of environmental regulations impacting the chlor-alkali industry. Drawing on insights from the World Chlorine Council, the session will provide a comprehensive overview of regulatory trends across key regions, including Europe, North America, Latin America, and Asia.

The presentation will also highlight the World Chlorine Council's role in promoting global collaboration, sharing best practices, and supporting industry stakeholders in addressing regulatory challenges. Participants will leave with a deeper understanding of how the chlor-alkali industry can adapt to regulatory changes.

Mr. Shaik A. Khadar Vali
Vice President Safety & Occupational Health
Aditya Birla Group, CFI Global Chemicals



Kadhar Vali drives safety excellence across multiple sites, ensuring regulatory compliance, risk mitigation, and a strong safety culture. Previously, at Dow Chemicals and Dr. Reddy's, he led various global and regional-level EHS roles, including EHS strategy, crisis management, and sustainability initiatives. His tenure in leading firms further strengthened his expertise in EHS cultural transformation journeys.

A seasoned EHS (Environment, Health & Safety) leader with over 28 years of experience, Khadar Vali has worked across leading global organizations in the chemical, pharmaceutical, and manufacturing industries.

Recognized for transforming EHS performance, he has received several prestigious awards, including the Dow Excellence Award, Chairman's Excellence Award at Dr. Reddy's, and Government recognitions. He has also represented the Indian Chemical Industry at the OPCW workshop in Seoul, Korea and has been a speaker at various national and international forums, including the recent Chlor-Alkali Summit in Malaysia.

Khadar Vali has an MBA in Business Analytics from BITS Pilani, a Master's in Environmental Chemistry, and multiple national and international Safety & Industrial Hygiene certifications, he brings expertise in process safety, regulatory compliance, risk management, and sustainability.

His passion lies in embedding psychological safety as a core element of Process Safety Management, ensuring that organizations foster an environment where employees feel empowered to speak up, leading to a resilient, safe, and high-performing workplace.



Mr. Mandar Phadke
Global Head HSE
Ericsson, USA



Mr. Mandar Phadke drives global safety and well-being initiatives. A transformational leader, he integrates process discipline with a people-centric safety culture, bridging business strategy with HSE excellence.

Mandar led a \$540M greenfield project at Owens Corning, making it the best unit worldwide. Later, as HSE Head for International Businesses, he managed global operations. At Castrol (2006), he drove a 30% reduction in incidents and 90% in spills. He held senior HSE leadership roles at Baker Hughes, GE Power, and Topsoe, achieving significant safety improvements. At BP (2011), he managed HSE & Operational Risk for the \$10.4B Whiting Refinery Modernization, overseeing 73M manhours with zero spills and minimal process incidents. Later, as Director, HSE & Operational Risks for BP Upstream, he supported \$12B+ global projects.

A Civil & Environmental Engineer from VJTI, Mumbai, Mandar began his career with NOCIL (a Shell Chemicals JV) in 1988, working across Operations, Engineering, and HSE. He was fortunate to work at Shell HQ (Netherlands) and Shell Megaprojects (France, 1992-1996), where he learned Process Safety fundamentals.

Psychological Safety The 15th Element of Process Safety Management

Process safety in the chemical industry, particularly in Chlor-Alkali operations, demands a strong safety culture due to the high-risk nature of handling hazardous chemicals like chlorine (Cl₂), sodium hydroxide (NaOH), hydrogen (H₂) and downstream products. While traditional Process Safety Management (PSM) frameworks cover 14 key elements, there is a growing recognition of psychological safety as the 15th critical element.

Psychological safety ensures that employees feel comfortable reporting near-misses, challenging unsafe practices, and admitting mistakes without fear of retaliation. A lack of psychological safety has contributed to past industrial incidents, where operator concerns were ignored, leading to catastrophic failures. By integrating psychological safety into process safety frameworks, organizations can enhance early detection of anomalies, improve emergency response coordination, and reduce human-error-related incidents.

The presentation explores real-world case studies, such as chlorine leaks and hydrogen explosions, where the absence of psychological safety exacerbated process failures. It delves into leadership's role in adopting a "speak-up culture," practical steps to measure and improve psychological safety, and strategies for overcoming implementation challenges.

With increasing regulatory focus on human factors in process safety, the Chlor-Alkali industry must embrace psychological safety as a core component of its safety culture. This session will provide actionable insights for leaders to drive this change, ensuring safer, more resilient operations.

Key Takeaways:

- Psychological safety is crucial for preventing process incidents.
- Leaders must create an environment where employees feel safe to speak up.
- The Chlor-Alkali industry should integrate psychological safety into PSM frameworks for sustainable safety improvements.



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Mr. Sonal Verma
Partner & Global Leader (Market & Strategy)
Dhir & Dhir Associates



Sonal is a celebrated corporate lawyer having over 18 years of experience with focus on Environmental, Social, and Governance (ESG) matters, as well as Statutory and Regulatory Frameworks. His extensive expertise has seen him execute complex projects in compliance & regulatory domain across 61 jurisdictions, showcasing his unparalleled ability to navigate and influence global legal landscapes.

In recognition of his outstanding contributions to the legal field, he was honoured in Forbes India's Top 100 Lawyers of 2023. His influence and leadership were further acknowledged by the UK Asia Business Council, which named him one of the Top 100 Inspirational Leaders in 2022. Demonstrating his thought leadership in the area of artificial intelligence and its societal impact, Sonal authored "AI for Good: India and Beyond," a book that quickly became an Amazon bestseller. He has authored 5 books till date the first when he was only of 20 Years of age.

Sonal's commitment to excellence in leading the ESG practice at Dhir & Dhir Associates have brought recognition & awards for the firm from respected institutions like Business World , Indian Business Law Journal, Mondaq . His expertise is further sought after on the international stage, where he serves on the Expert Panel of UNESCO's Inclusive Policy Hub. Domestically, he contributes to shaping policy and regulatory frameworks as a member of the National Legal & Regulatory Committee of the EU Chambers of Commerce.

Sonal leads lots of youth Initiatives of the firm like the Spotify Podcast series ESG Decibels . The Planet People Program and the ESG Research Lab are great hits with the student community. Sonal is also a TEDx speaker, having delivered a talk at TEDxRGNUL6.0, TEDxLPU Countdown event, showcasing his expertise and insights on critical issues, including Environmental, Social, and Governance (ESG) matters.

Sonal is deeply involved in academia. He is a valued member of the Board of Studies for NMIMS Law College and the NMIMS MBA (Law) course, where he helps to guide and inspire the next generation of legal professionals.

ESG & Alkali Industry

- What does ESG mean for Alkali Industry? Material issues which are risks and opportunities for the alkali industry?
- Is waste acid stewardship need of the hour?
- Innovation would play a key role in Green Chemistry
- Why ESG is become important for investors?
- Is using renewable energy in our operations Capex intensive? Can green hydrogen / green ammonia be a possible source of energy for the industry?
- DEI is essential for having scalable operations? HDD in our supply chain is important for our global customers - what are we doing?
- Are SDGs important for Alkali Industry? How to align?
- Are we serious on Governance as tool to manage risks both from our internal and external stakeholders? Should we align to NGRBC (National Guidelines for Responsible Business Conduct) 2019?



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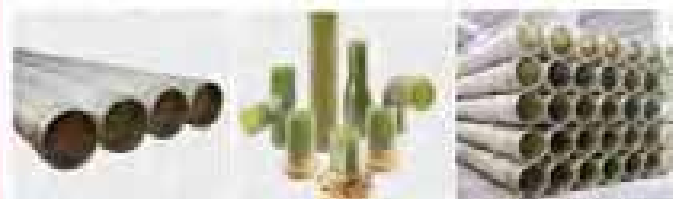
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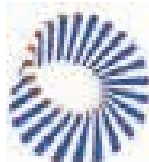
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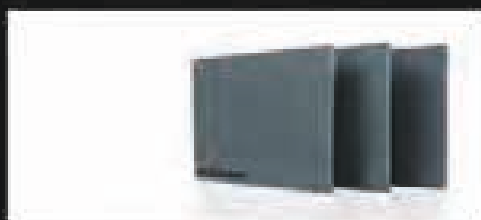


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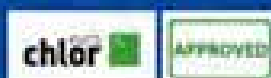
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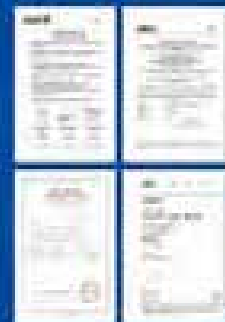


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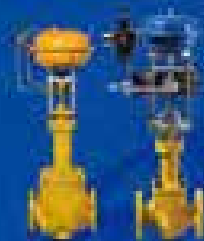


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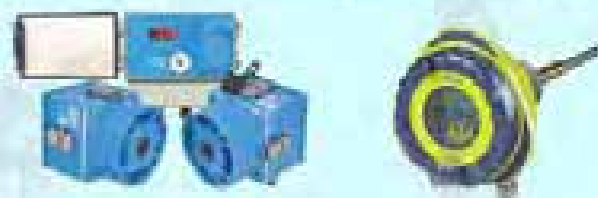
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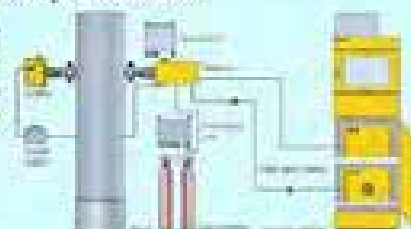
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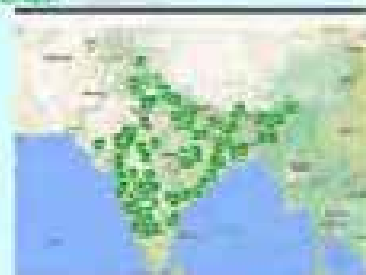
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OUR STRENGTHS

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60+ Satisfied Clients
across the Globe

Experienced Engineering Team
Over 900+ years of Experience

Deep Domain Expertise
Subject Matter Experts (SMEs)

Robust Pipeline
of Global Projects

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Chemicals

Fertilizers

Oil & Gas

Renewable
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Activity
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Digital
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