2 Our value creation process

External environment

We have been closely monitoring the evolving landscapes of the industries in which we operate: Carbon, Advanced Materials and Cement. Our proactive approach involves identifying key trends, crafting strategic responses to gain a competitive edge and effectively manage risks.



Shifting global demand in the carbon industry

The global carbon industry is experiencing changes in demand, influenced by factors such as environmental regulations, industry transitions and emerging technologies. Carbon products are used in various sectors, including aluminium, steel and automotive industries, and shifts in demand from these sectors can impact the carbon industry.



Key trends influencing the carbon industry

Environmental regulations

Increasing environmental regulations related to emissions and pollution control are significant drivers for the carbon industry. Compliance with strict environmental standards necessitates technological advancements and investments in cleaner production methods.

Raw material price volatility

The carbon industry relies on raw materials such as green petroleum coke (GPC) and coal tar. The volatility in the prices of these raw materials, often influenced by market dynamics, trade policies and geopolitical factors, poses a challenge to the industry's cost structure.

Sustainability and carbon footprint

Growing global concerns about climate change and sustainability have led to a focus on reducing the carbon footprint. The carbon industry faces pressure to develop environmentally friendly products and processes.

Market competition

Global competition in the carbon industry is intense. Companies are continually striving to improve efficiency and product quality to maintain a competitive edge.

Our response

With the recent positive regulatory developments in India, we believe that RAIN is well-positioned to optimally utilise its environmentally bestin-class Carbon segment's sites in India and the USA to drive cost efficiencies, while raising the industry bar into sustainable CPC production. We prioritise cost efficiency and operational excellence in our Carbon segment. We are constantly refining our processes to stay competitive, particularly in the aluminium sector. Additionally, our clean energy investments showcase our focus on integrating sustainability in our business operations.

Consistent innovation is driving growth in advanced materials

Technological advancements and product innovation are significant trends in the Advanced Materials segment. New materials with unique properties are continuously being developed, opening opportunities for applications across various sectors, such as aerospace, electronics and construction. Industries such as automotive and aerospace are emphasising lightweight materials to enhance fuel efficiency and reduce emissions. Advanced Materials, including composites and alloys, play a critical role in achieving weight reducing goals.

Key trends influencing the advanced materials industry

Sustainability and recycling

Sustainability concerns are driving a shift toward eco-friendly materials and increased recycling efforts. The industry must adapt to regulations and market demands related to recycling and circular economy principles.

Technological integration

Integrating advanced materials with technology, such as using smart materials and composites in electronics and infrastructure is a key driver. This integration requires expertise in material science and technological applications.

Our response

We are committed to developing eco-friendly products with a minimised environmental footprint to align with industry trends. For instance, we are actively working on cleaner raw materials for the Lithium-ion battery industry, demonstrating our focus on sustainability and innovation.

0

ĸ

Growing cement industry in India

The Indian cement industry is undergoing significant expansion driven by several key trends. These trends include rapid urbanisation, environmental concerns, technological advancements, the use of alternative materials, market competition, government initiatives, rural and affordable housing schemes, export opportunities, supply chain management and economic fluctuations.

Key trends influencing the cement industry

Urbanisation and infrastructure boom

India is experiencing rapid urbanisation, driven by population growth and increasing urban migration. The government's focus on infrastructure development, including smart cities, highways and affordable housing, is boosting cement demand.

Environmental regulations and sustainability

India has stringent environmental regulations, and sustainability concerns are growing.

Thus, cement companies must adapt to these regulations and embrace eco-friendly practices, including the use of alternative materials, to minimise their environmental footprint.

Government initiatives

Initiatives, including the Affordable Housing Scheme and Housing for All, aimed at promoting rural and affordable housing, will significantly boost cement demand in India. Focusing on this segment of the market can be advantageous for cement players.

Our response

We focus on ensuring consistent and timely distribution through effective logistics partnerships. We also enhance operational efficiency by analysing energy consumption and optimising our fuel mix while maximising capacity utilisation to seize market opportunities. We source over 40% of our energy from renewables (including selfgenerated solar and waste heat recovery). Furthermore, we are implementing water conservation and waste management initiatives to reduce environmental impact.

 (\leftarrow)

49th Annual Report 2023 **25**