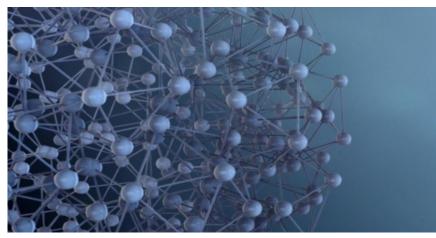
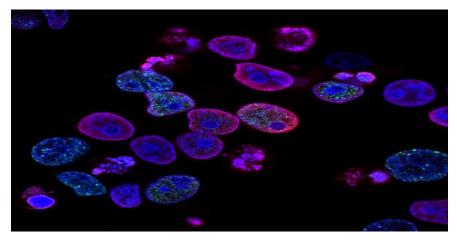
BI-MONTHLY SECTOR UPDATE

Chemicals

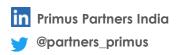


Nanotechnology & Nanomaterials



India Bio economy on a growth path

Production Linked Incentives



1

Our Take

- Nanotechnology & Nanomaterials
- India Bio economy at a growth path
- Production Linked incentives for pharma and Key Starting Materials

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Dashboard

- PMI
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- India crude basket
- Chemical Stock Price Indices

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News and Announcements

- Applications cleared under PLI scheme for drug intermediates
- PLI approved for Food processing industry
- Govt. committed to
 decarbonizing economy
- Host of leading chemical companies post great Q4 2021 results



1 Our Take

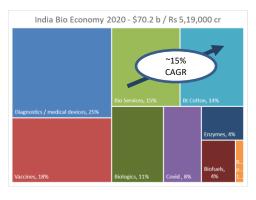


Nanotechnology brings novel properties to matter and varied uses in materials, computers, energy, machines, environmental remediation, medicine etc. Nanotechnology is still nascent and we will see a lot of innovations in the coming decades.

Nanotechnology & Nanomaterials

Nanotechnology deals with structure of matter on scale of few nanometres. 1 nanometre is 1/1000,000 of millimetre. A single strand of hair could be 80,000 nanometres. Nanotechnology, it is quite interdisciplinary and requires use of chemistry, surface physics, material science, biotechnology, computational science etc. It is already revolutionizing water purification methods; more efficient solar panels; stronger and lighter weight wind turbines; fabrics that can better resist staining; electronics that are faster, smaller and more portable; batteries that can store larger amount of energy etc. Nanotechnology is not without hazards and should be used responsibly across the value chain.

Iffco Nano Urea is one great example. One 500ml bottle is equivalent to 45kg urea bag. It will reduce the requirement of conventional fertilizer by 50 per cent, increase crop production by 15-30 per cent and also improve soil health. After adequate testing and putting safeguards, the commercial use of nano urea was allowed in November 2020 and about 12,000 farmers have used it with positive feedback.



India Bio-economy on path

The Indian Bio-economy crossed Rs 5 lac crore mark in 2020. The growth has been phenomenal at 5 year CAGR of over 14.5% and 1 year growth of over 12%. Covid actually helped segments in BioPharma, while other segments faced challenges.

The Indian bio-economy has over 5,000 companies (750 core + 4250 start-ups). The industry requires a large number of qualified people, and India has a competitive advantage. This is a great area where a lot of technological innovations are taking place.

This is one area that should be nurtured by both Industry and Government as it is already of decent size and growth opportunities are immense.

Source: India Bioechonomy Report March 2021 by $\ensuremath{\mathsf{BIRAC}}$ / $\ensuremath{\mathsf{ABLE}}$

Production Linked Incentives

13 PLI schemes worth Rs. 1.97 lac crore have been announced

- 3 started from Apr 2020
- 6 have been notified
- 4 are at draft stage

The schemes have got great response from the industry and typically have been 'oversubscribed' shortly after notification

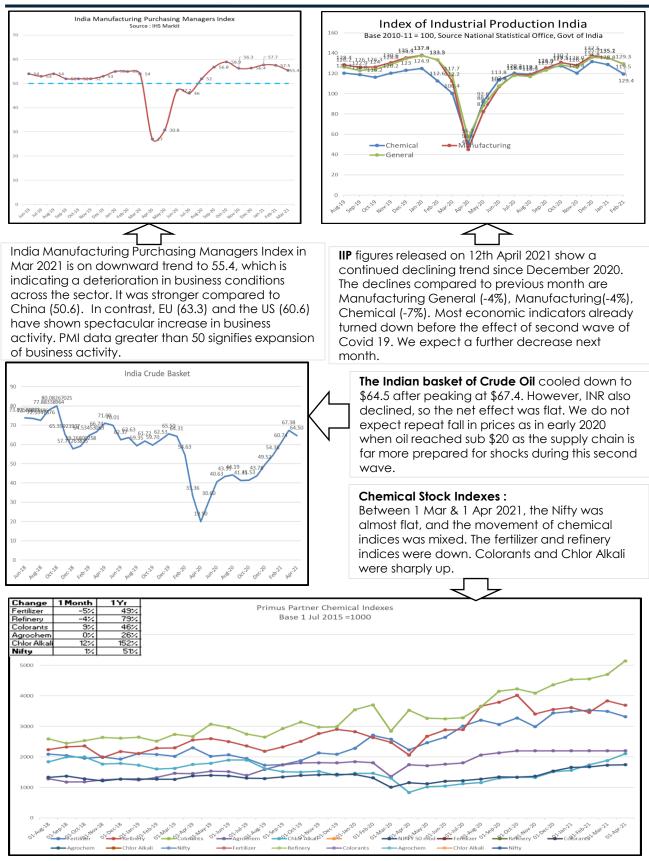
Production Linked Incentives

PLI incentivise results, and increases competitiveness, and are WTO compliant. They have become the Government's key tool to promote industry over the last year. PLI on key starting materials, drug intermediates and Active Pharmaceutical Ingredients received great response last year with 215 applications out of which 16 were selected. Looking at the success, the Government invited second round of applications in April 2021 where up to 25 companies can be selected. This is bigger than the first scheme with Rs 15,000cr outlay.

The PLI under force include mobile manufacturing, pharma and medical devices. Approved PLI schemes include electronics, pharma, telecom, food, solar PV, & white goods. PLI schemes at draft stage are for batteries, automobiles, textiles and specialty steel sectors. The schemes are typically run for five years by project management agencies attached to the corresponding ministry. There are eligibility criteria as well as performance criteria to be met for disbursal. These schemes are new and a lot of administrative rough edges are being addressed.



2 Dashboard April 2021





Policy News

Union Minister of Chemicals & Fertilizers urges pharma, medical device companies to begin production at the earliest

April 20, 2021 The Union Minister of Chemicals & Fertilizers Sadanand Gowda urged the selected applicants under PLI scheme for pharma and medical devices to start the production at the earliest. <u>Read more</u>

16 applications cleared under PLI scheme for drug intermediates and APIs

April 13, 2021

Ministry of Chemical and Fertilizers accorded approvals to 16 applicants under PLI scheme for promotion of domestic manufacturing of Key Starting Materials, Drug Intermediates and Active Pharma Ingredients

<u>Read more</u>

Cabinet approves Rs 10,900 crore PLI scheme for Food Processing industry Apr 01, 2021

The cabinet cleared PLI scheme for processed food manufacturing with an aim to generate Rs 33,500 cr of investment and 2.5 lac new jobs. <u>Read More</u>

Government to regulate biostimulant industry May 8, 2021

The Government will announce guidelines to regulate the Rs 1,500cr biostimulant market that promise farmer higher yields, quality and other benefits.

Read More

India committed to decarbonizing its economy

April 22, 2021

The Union Petroleum & Natural Gas Minister Mr. Dharmendra Pradhan said though the India's priorities are different from the developed world, it is fully committed to decarbonizing its economy. <u>'. Read more</u>

Petroleum Ministry to augment Hydrogen supply chain infrastructure

Apr 15, 2021

The Union Petroleum & Natural Gas Minister Mr. Dharmendra Pradhan said that pilot projects on blue and green hydrogen and H-CNG are ongoing and plan to scale them up in the coming months across the major cities. <u>Read more...</u>

Industry News

US \$2 trillion infrastructure plan could increase demand for construction, road & water chemicals April 01, 2021

President Biden unveiled more than US\$ 2 trillion infrastructure and economic recovery package. It puts over \$620 billion on transportation infrastructure and \$300 billion on improving drinking water. This would have a positive impact on sale of construction, road and water chemicals Read more

Leading chemical cos post a strong Q4 FY 21 May 2021

A host of leading chemical companies showed very good results in Q4 FY 21 : SRF PAT up 96%, Deepak Nitrite PAT up 68%, DCM Shriram net up 15%, Hikal profit up 108%, Atul net profit up 23.9%, PI Industries PAT up 73.8%, Finotex chemical net profit up 211%. This does bring cheer to chemical sector.

OIL acquires majority shares in Numaligarh Refinery April 14, 2021

Oil India Limited now has 80.16% stake in the Mumaligarh Refinery. A consortium of OIL, EIL & Assam Govt bought the entire 61.5% stake of Bharat Petroleum Corporation Limited in NRL. OIL is the country's second largest public sector hydrocarbon exploration and production corporation and acquisition of majority shares in NRS has been a strategic business decision. <u>Read more</u>

Chemical Fertilizer consumption increases by 16% in last six years

April 15, 2021

The data released by government on consumption of chemical fertilizer shows it has increased by 16% from 510 lac metric ton in 2015-16 to 590 lac metric ton in 2020-21. Urea was the most consumed fertilizer with over 330 lac metric ton consumed in 2020-21. Read more

Chinese Government clears merger of SinoChem and ChemChina

April 15, 2021

Chinese regulators have approved the merger of two of the country's major state-run chemical groups Sinochem and Chemchina. Together their revenues will be over \$150 billion.

Read more



About Primus Partners

Primus Partners has been set up to partner with clients in 'navigating' India, by experts with decades of experience in doing so for large global firms. Set up on the principle of 'Idea Realization', it brings to bear 'experience in action'.

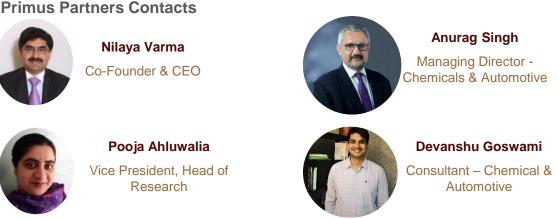
'Idea Realization'— a unique approach to examine futuristic ideas required for the growth of an organization or a sector or geography, from the perspective of assured on ground implementability.

India is and will continue to be a complex opportunity. Private and Public sector need trusted advisory partners in order to tap into this opportunity. Primus Partners is your go-to trusted Advisory for both public and private sector organizations involved intricately with nation building, and the creation and growth of robust corporations as engines of progress.

Our core strength comes from our founding partners, who are goal-oriented, with extensive hands-on experience and subject-matter expertise, which is well recognized in the industry. Our core founders form a diverse cohort of leaders from both genders with experience across industries (Public Sector, Healthcare, Transport, Education, etc), and with varied specialization (engineers, lawyers, tax professionals, management, etc).

Primus Partners brings experience of working in more than 30 countries with private and public sector, including working with Government of India, building and leading large consulting teams at the leadership level, and creating one of the largest public sector consulting practice in India. They also represent 200 person years of experience in leading global and Indian consulting firms and the public sector.

The founding team is supported by a distinguished advisory board that includes experts with leadership experience across government, large corporate and notable civil society organizations.



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