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Research

Make in India

Progressing Towards
an Interdependent, yet
'Self-reliant Nation'

आत्मनिर्भर भारत

September 2023

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DMS Code: 22595.2



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Contact

For any help or assistance please email us on conciierge@nishithdesai.com or visit us at www.nishithdesai.com.

Acknowledgements

Dr. Milind Antani

milind.antani@nishithdesai.com

Darren Punnen

darren.punnen@nishithdesai.com

Tanya Kukade

tanya.kukade@nishithdesai.com

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List of Abbreviations

| Abbreviation | Full Form |
|-------------------|---------------------------------------------------------|
| DPIIT | Department for Promotion of Industry and Internal Trade |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| GVA | Gross Value Added |
| NITI Aayog | National Institution for Transforming India |
| ODOP | One-District-One-Product Initiative |
| DGFT | Directorate General of Foreign Trade |
| UT | Union Territory |
| NSWS | National Single Window System |
| PLIs | Production Linked Incentive Schemes |
| RBI | Reserve Bank of India |
| MCA | Ministry of Corporate Affairs |
| RoC | Registrar of Companies |

Executive Summary

India has risen exponentially since the industrial revolution to take the first steps towards becoming a major economy. The government stepped in to set certain goals of making India the manufacturing hub of the world through the support of various programs and initiatives. An important initiative in this regard is the Make in India initiative. Over the past few decades India has also witnessed widespread globalization and industrialization and manufacturing has surfaced as an important sector in supporting the growth of the Indian economy. Through the interplay of globalization and manufacturing numerous sectors have benefitted and continue to do so with the creation of new jobs, increase in output from production, experiencing greater focus on research and development and receiving higher incentives to manufacture goods and services domestically.

The aim of the Make in India initiative is to reduce reliance on imported goods and to increase export of high-quality goods to make a place for the local goods in the global markets. To encourage this shift in approach towards domestic manufacturing, the government has introduced numerous schemes and initiatives including Production Linked Incentive Schemes, Skill India Mission, Start-up India Mission, various local programmes, which are playing an important role in the adoption of the Make in India initiative throughout the country.

While progress has been made in the implementation of the initiative, the government faces and is likely to face certain challenges including lack of skilled workforce, lack of funding, slow pace of production, etc. There is a need for identifying these challenges to find a way forward for the expansion and growth initiative i.e. the Make in India initiative to pave the way for India to enter into global competitive markets.

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India has risen as one of the world’s fastest growing economies and the Government of India continues to introduce policies and initiatives which support this growth in the eyes of the world. The past decade has experienced a progressive approach of the government towards the commerce industry in the country. In an effort to increase the role and scale of the manufacturing in India to promote the country’s ability as well as to make the country self-sufficient, the Make in India initiative was introduced in 2014.

Manufacturing is believed to be the backbone of the economy and is the key to the development of a nation.¹ The manufacturing sector in India has experienced different phases of regulations and development in the past decades along with facing numerous challenges in implementing its development strategies such as poverty, unemployment, lack of skilled workforce, etc.² Prior to 2014, the government had introduced numerous policies in support of the manufacturing sector as well as the regulation of other industries including the First and Second Five Year Plans, Competition Act, 2002, Foreign Contribution (Regulation) Act, 2010, National Manufacturing Policy, Export-Import Policies, to name a few, although the manufacturing sector grew at a minimal pace.

To realize the importance of the manufacturing sector in our country and to increase productivity amongst the various sectors in the country, the Prime Minister of India, Mr. Narendra Modi launched the Make in India initiative on September 25, 2014. Make in India is a collaborative initiative to realize the objective of making India the manufacturing hub of the world. To enable the growth of the Indian economy through the medium of the manufacturing sector, certain reforms in the product market, land market as well as the role of the government were deemed necessary. Reforms can help in improving the competition and productivity growth of the economy which would in turn improve employment, demand for goods and services as well as investments. The initiative stands strong to attract foreign investment in various key sectors recognised for development and seeks to eliminate red-tapism and promote public-private partnerships, deregulation of sectors as well as fostering innovation and enhancing skill development within the country.

An interesting slogan coined by the Prime Minister as the essence of the Make in India initiative is ‘Zero Defect Zero Effect’ to manage the various processes, technology as well as materials in a way that India can produce products with no defects and no adverse environment and ecological effects.³

To initiate the implementation and adoption of the initiative, the government out together a strategic roadmap and identified certain key strategies to guide the stakeholders. The key strategies highlighted by the government include — *to instil confidence in India’s capabilities amongst potential partners, business community and citizens; provide a framework for a vast amount of technical information on the 25 industry sectors; to reach out to audience locally and globally and keep them informed about the opportunities and reforms.*

1 Ritika Gauba, Nandita, Ravi Dhingra, Make in India- An Initiative to Change the Economic Landscape of the Country, 2018, Amity Journal of Economics, 1(2), (88-104), <https://amity.edu/UserFiles/admaa/79382Paper%206.pdf>.

2 Anshuman Tripathy, Sudha Dastrala, Make in India: So Far and Going Ahead, 2023, Working Paper No. 674, <https://deliverypdf.ssrn.com/delivery.php?ID=617022022121091084087025013066095028016053089047061003065024084088085101029009066066100029017023042116110127097114091118117086012054046028049086084065124105086116101062069008103116064109106116117111094064102092064121107006007087024096106086087127022003&EXT=pdf&INDEX=TRUE>.

3 Veenu Kumar, Seema, Make in India: Impact on Manufacturing Sector, IJCRT, Vol. 8, Issue 3, March 2020, <https://ijcrt.org/papers/IJCRT2003263.pdf>.

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While the Make in India initiative is a collaborative effort of various stakeholders, the Department for Promotion of Industry and Internal Trade (“**DPIIT**”) for the manufacturing sectors and the Department of Commerce for the services sectors coordinate activities under the Ministry of Commerce and Industry in India and are the anchors of the initiative and is responsible for the development of the industries in the country.

A. Objectives of Make in India Initiative⁴

Make in India initiative was launched with three major objectives:

- To boost the growth of the manufacturing sector from 12% to 14% per annum
- To create 100 million jobs by 2022
- To ensure contribution of the manufacturing sector to the GDP is increased to 25% by 2025⁵
- To increase the global competitiveness of the Indian manufacturing sector.
- To promote export-led growth of the economy.

B. Pillars of Make in India Initiative

The Make in India initiative is based on four pillars, recognized by the Government of India to boost the entrepreneurship in the country in all sectors.⁶

4 This initiative aims to raise the contribution of the manufacturing sector to 25% of the Gross Domestic Product (GDP) by the year 2025 from its current 16%.

5 Available at: https://www.pmindia.gov.in/en/major_initiatives/make-in-india/.

6 Major Initiatives, Make in India, Available at: https://www.pmindia.gov.in/en/major_initiatives/make-in-india/.



The pillars of the initiative recognized by the Government of India are:

New Processes

Make in India initiative recognises ‘ease of doing business’ as the most important factor in promoting entrepreneurship in the country. Through the introduction of new processes within each sector of development to simplify processes, the initiative seeks to deregulate and de-license the industry thereby reducing paperwork and enabling faster development processes in the business.

New Infrastructure

The initiative recognizes that the availability of modern infrastructure is an important requirement for the growth of any industry. Through the initiative the government intends to develop industrial corridors and smart cities as well as facilitate infrastructure development based on state-of-the-art technology to ease business development within the country. This will also help the government in attracting foreign manufacturers to set up base within the country. In addition to the development of new infrastructure with high-speed communication and integrated logistics the government also seeks to upgrade the existing infrastructure in the country in the industrial clusters.

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Development and enhancement of the infrastructure for research and development fields within each sector would boost the pace of the life-cycle of the business and would ensure faster registration systems and generation of output. Through the initiative, the government also seeks to identify the required skills within each industry to develop the skill set of the industry thereby enabling greater development of the workforce in the country.

The government has also upgraded the Intellectual Property framework by encouraging registration and quick recognition of developed rights to enable greater focus on research and development in various sectors in the country.

New Sectors

The initiative had identified 25 sectors in the manufacturing, services as well as infrastructure activities to focus on development through the initiative. The key sectors for development have been enlisted and elaborated further in the later part of this paper. To enable development in each of the recognised sectors, the government has opened up 100% Foreign Direct Investment (“FDI”) routes in a major move in many sectors to attract investment.

New Mindset

The government seeks to change the narrative on regulation, where the industry considers the government to be the sole regulator to the government acting as a partner with the industry in the economic development of the industry thereby, taking up the role of a facilitator as against the current assumed role of a regulator. The new mindset approach will foster greater dialogue between the stakeholders and is expected to build trust amongst the industry players and the government.

The government encouraged the principle of ‘*Minimum Government, Maximum Governance*’ to change the assumed role of the government from being a mere regulator to becoming a partner in developmental activities with the stakeholders.

C. Make in India 2.0 (2018)

Make in India initiative launched in 2014 paved the way for strategic development and changes within numerous industries in the country. Industries saw a shift in business development approaches, although the domestic value addition levels stayed low and reliance on import of components for various industries continued to remain high.⁷

Considering these circumstances, the government announced the second version of the Make in India initiative in 2018 with increased focus on localizing the supply chain, in 27 key sub-sectors in the manufacturing and services sectors. Previously the Make in India initiative focused on 25 key sub-sectors for implementation of the objectives of the initiative. Make in India 2.0 is a mere attempt to streamline the objectives of the initiative and to implement the policies introduced in a sound and efficient manner in each sector to ensure advancements in the development of the industries within such sectors.

⁷ Supra at 2

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D. Sectors in Focus⁸

The 27 key sub-sectors identified within the manufacturing and services sector in the country are:⁹

| Manufacturing Sector (Under DPIIT) | Services Sector (Under Department of Commerce) |
|--------------------------------------------|--------------------------------------------------------------------|
| Aerospace and Defence | Information Technology and Information Technology Enabled Services |
| Automotive and Auto Components | Tourism and Hospitality Services |
| Pharmaceuticals and Medical Devices | Medical Value Travel |
| Biotechnology | Transport and Logistics Services |
| Textile and Apparels | Accounting and Finance Services |
| Chemicals and Petrochemicals | Audio Visual Services |
| Capital Goods | Legal Services |
| Electronic System Design and Manufacturing | Communication Services |
| Leather and Footwear | Construction and Related Engineering Services |
| Food Processing | Financial Services |
| Gems and Jewellery | Education Services |
| Shipping | |
| Railways | |
| Construction | |
| New and Renewable Energy | |

E. Impact on Manufacturing Sector

The initiative has created a major impact on the manufacturing sector in India in terms of the increase in the market size as well as growing investment in the country. With tech giants setting up manufacturing plants in India to catering to the specific needs of the India markets, there has been an impact of the scheme both domestically as well as internationally. This has helped in support the incline of the Gross Domestic Product (“GDP”) of the country in the recent years.¹⁰

8 List of 27 sectors under focus released by Press Bureau of India vide Press Release dated March 24, 2021, <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1707197>.

9 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1806624#:~:text='Make%20in%20India'%20is%20an,manufacturing%2C%20design%2C%20and%20innovation.>

10 Priyanka Yadav, Make in India: An Initiative for Development, IME Journal, Vol. 12, No.1-12, 22-27, <https://bpsajournals.com/admin/upload/dynamic2/3.BPAS-IME-09-2019-P22-27.pdf>.

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The objective of Make in India 2.0 to increase the domestically added value to the goods in India has taken shape and the Gross Value Added (“GVA”)¹¹ from the manufacturing sector in India has grown at a rate of 4.5% in the March 2023¹² quarter as against 3.7% in the first quarter of 2023.¹³ Additionally, the year 2021-22 recorded the highest FDI flow in India of around \$83.6 billion from 101 countries.¹⁴

Some of the major investments that have flown into India include:

- Foxconn (Apple’s major iPhone assembler) has proposed to setup a 8800 crore supplementary manufacturing plant in Bangalore, Karnataka which has to potential of creating 14000 jobs.¹⁵
- Introduction of the Goods and Services Tax (“GST”) in 2017 to streamline the taxation regime has helped in cascading the effects of tax easing the taxation system for businesses in India.
- Tesla has leases office space in Pune for its first office in India, thereby indicating a potential EV plant to be setup in the country.¹⁶
- In 2019, one plus launched its smart TV in the Indian market.
- Commissioning of India’s first indigenous Aircraft Carrier, INS Vikrant, in September 2022, at Cochin Shipyard Limited (CSL).¹⁷ Every part of INS Vikrant has its own merits and it is a symbol of indigenous potential, indigenous resources and indigenous skills. The steel installed in its airbase is also indigenous, developed by DRDO scientists and produced by Indian companies.
- The growth of Indian Toy industry has been remarkable in less than 2 years despite Covid-19 pandemic. The import of toys in financial year 2021-22 have reduced by 70% to USD 110 million (Rs. 877.8 crore). There has also been a distinct improvement in quality of toys in domestic market. Simultaneously, the efforts of the industry have led to an export of USD 326 million (Rs. 2601.5 crore) of toys in financial year 2021–22.¹⁸
- The Indian Medical Tourism market was estimated to be worth 6 Billion USD in 2020 and is expected to grow to 13 Billion USD by 2026 given the increased focus on setting up of medical devices parks in India.¹⁹

11 Gross Value Added (GVA) is an economic productivity metric which measures the contribution of a corporate subsidiary, company or municipality to an economy, producer, sector or region. GVA is important because it is used to adjust the GDP in the country which is a key indicator of the state of a nation’s total economy.

12 India economic data: Gross Value Added growth in Manufacturing sector rises to 4.5%, 5.5% in agriculture, Firstpost, May 31, 2023, <https://www.firstpost.com/india-economic-data-gross-value-added-growth-in-manufacturing-sector-rises-to-4-5-5-5-in-agriculture-12673832.html#:~:text=the%20previous%20year,-,The%20GVA%20is%20a%20productivity%20metric%20that%20measures%20the%20contribution,0.6%20percent%20a%20year%20ago.>

13 Press Release by the Ministry of Finance dated January 31, 2023, Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1894918>.

14 Press Release by the Ministry of Commerce and Industry dated September 24, 2022, Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1861929#:~:text=FDI%20inflows%20in%20India%20stood,57%20sectors%20in%20the%20country.>

15 Anvesha Mitra, Foxconn to setup new 8800 crore iPhone manufacturing plant in Karnataka, Livemint, July 17, 2023), <https://www.livemint.com/news/india/foxconn-to-set-up-new-rs-8-800-crore-iphone-manufacturing-plant-in-karnataka-heres-what-we-know-so-far-11689592460385.html#:~:text=Apple's%20major%20iPhone%20assembler%20Foxconn,Karnataka%20and%20creating%2014%2C000%20jobs.&text=Foxconn%20is%20mulling%20plans%20to,in%20turn%20provide%2014%2C000%20jobs.>

16 Satish Nandgaonkar, Tesla inks 5-year office deal in Pune as part of plans for EV plant in India, Hindustan Times, August 02, 2023, <https://www.hindustantimes.com/business/elon-musk-tesla-inks-5-year-office-deal-in-panchshil-business-park-pune-as-part-of-plans-for-ev-plant-in-india-101690996383936.html>.

17 Prime Minister Shri Narendra Modi commissions India’s first indigenous aircraft carrier INS Vikrant in Kochi, Press Information Bureau, September 02, 2022, available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1856230>.

18 Make in India’ completes 8 years, annual FDI doubles to USD 83 billion, Press Information Bureau, September 2, 2022, available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1861929#:~:text=The%20year%202021%2D22%20recorded,FDI%20in%20the%20current%20FY.>

19 Working towards a healthier India, IBEF, accessible at, <https://www.investindia.gov.in/sector/healthcare>.

Introduction

Make in India initiative has provided a jumping board for the various industries to increase business and undertake development at a faster pace in India and this paper seeks to knit together the policy framework adopted by the government and the introduction of various initiatives and complementary schemes to support and encourage innovation and development domestically in the country. Through this research paper, the various challenges faced in the implementation of the Make in India initiative will also be identified and discussed.

Further, this paper throws light on certain key sectors and the initiatives taken under Make in India for the development of such sectors through policies and continuous partnerships between the government and various stakeholders.

Implementation Framework

To encourage domestic manufacturing and to ensure the reduction in import of goods and services from other countries, the government has also placed emphasis on the mechanism for public procurement of goods and services in the country by various stakeholders. The public procurement mechanism applies to all entities seeking to procure goods and services from sellers within the country prior to procurement of the goods from international parties.

The Constitution of India, 1950 under Article 166 empowers the Governor of the State to undertake all executive actions in his name and put in place rules orders and other instruments for the convenient transaction of business of the Government of the State and allocation of such business among the Ministers. The Governors of the states exercise this power to lay down rules for the public procurement of goods and services by the government departments and any bodies constituted under the government. The procurement rules ensure fairness and transparency in the procurement process and provide an equal opportunity to all sellers to take part in the bidding and selling process.

A. Implementing Agencies

The agencies responsible for the overall implementation of the Make in India initiative are the DPIIT for the manufacturing sectors and the Department of Commerce for the services sector under The Ministry of Commerce and Industry in India.

B. Procurement of Goods and Services

The framework for procurement of goods and services at the central as well as the state level is discussed below.

I. General Financial Rules, 2017¹

At the central level, public procurements are governed by the General Financial Rules, 2017 (“**GFR**”) which has force of law in India. The GFR has been issued by the Department of Expenditure under the Ministry of Finance and applies to all central government ministries, departments, attached and subordinate bodies, central public service enterprises, and autonomous bodies that receive substantial funding from the Central Government (“**Central Procuring Entities**”).

It is a compilation of rules and orders issued by the government that are to be treated as executive instructions to be observed by all governmental departments, organizations and specified bodies while dealing with matters involving public finances, including public procurement.

GFR lays down the general rules and fundamental principles that are applicable to the procurement process and empowers the procuring departments to lay down detailed instructions for procurement in conformity with the general rules. The overarching principle that has been laid down is that all procuring authorities

¹ Available at: https://doe.gov.in/sites/default/files/GFR2017_0.pdf.

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shall have the responsibility to ensure efficiency, economy, and transparency in matters relating to public procurement and for fair and equitable treatment of suppliers and promotion of competition in public procurement.

GFR also lays down a Code of Integrity,² which requires the procuring entities to act in a fair and transparent manner and prohibits them from colluding, bid rigging or in a way that impairs the procurement process. It also prohibits the bidder from improper use of information provided by the procuring authority to gain an unfair advantage and requires the procuring authority to disclose any conflict of interest it may have in the process. The GFR is the general framework applicable to the procurement process in India and caters to the general aspects applicable to central procurement of goods and services.

At the State level, the norms for procurement would differ from state to state. Some state governments (such as Tamil Nadu, Karnataka, Rajasthan, Punjab, Mizoram and Assam) have implemented specific laws that govern public procurement by government departments within that state.

State level procurement laws are typically applicable to the respective State level ministries, departments, attached and subordinate bodies, public sector undertakings and autonomous bodies substantially funded by the respective State government (“**State Procuring Entities**”).

As with Central Procuring Entities, State level procuring entities may also have supplementary guidelines on public procurement to suit their specialized requirements, which would be binding on any public procurements that they undertake.

II. Manual for Procurement of Goods, 2022

The Manual for Procurement of Goods (“**Procurement Manual**”) was initially introduced in 2017 along with the GFR, although it has been revised and updated in June 2022³ and serves as a standard reference document for officials involved in public procurement across all Ministries/Departments/Central Public Sector Enterprises, etc.

It was prepared by the Department of Expenditure with the aim of improving transparency in decision making in public procurement and reducing the scope of subjectivity. It conforms to the GFR and subsumes the instructions and guidelines that were issued by the Central Vigilance Commission.⁴

In addition to the Manual for Procurement of Goods, the Department of Expenditure also issued the Manual for Procurement of Consultancy & Other Services and the Manual for Procurement of Works.

The Procurement Manual empowers individual Ministries and Departments to issue supplementary guidelines on public procurement to suit their local/specialized needs. The issuing authority is required to abide by these guidelines for public procurement. For example, the Indian Council of Medical Research Guidelines for Procurement of Goods and Services,⁵ the Employees’ State Insurance Corporation Manual on Purchase Procedure and Execution of Contracts,⁶ etc.

2 General Financial Rules, 2017, Rule 175.

3 Available at: <https://doe.gov.in/sites/default/files/Manual%20for%20Procurement%20of%20Goods%20%28Updated%20June%2C%202022%29.pdf>.

4 CVC Circular dated July 1, 2022: https://www.cvc.gov.in/sites/default/files/ppnotice22_0.pdf.

5 Available at: <https://main.icmr.nic.in/sites/default/files/guidelines/Guidelines.pdf>.

6 Available at: <https://www.esic.gov.in/CIRCULARS/ManualPP.pdf>.

III. Public Procurement (Preference to Make in India) Order, 2017

To promote local industry by providing them preference in public procurement of Goods, Works and Services, the Public Procurement (Preference to Make in India) Order 2017 (“**Make in India Order**”) was issued by the Department of Industrial Policy and Promotion of the Ministry of Commerce and Industry pursuant to Rule 153 (iii) of the GFR, as an enabling provision. The Make in India Order makes it mandatory for procuring entities to give preference the local suppliers while purchasing with an aim to promote manufacturing and production of goods and services in India and to enhance income and employment.

It further aims at encouraging domestic manufacturer’s participation in public procurement activities over entities merely importing to trade or assemble items. The Make in India Order is applicable to all Ministries/ Departments/attached or subordinate Offices/ autonomous bodies controlled by the Government of India and also includes Government companies as defined in the Companies Act.

In September 2020,⁷ the Make in India Order classified suppliers into Class-I local suppliers, Class-II local suppliers and Non-Local suppliers based on the minimum local content in the goods.⁸

As per the Make in India Order, for goods where there is sufficient local capacity and local competition, only Class-I local suppliers shall be eligible for bid, irrespective of the purchase value. For tenders where the estimated value is less than Rs. 200 crores where there is not sufficient local capacity and local competition, Class-II local suppliers shall also be eligible. Further, global tender enquiries shall only be permitted with approval of the competent authority in order to monitor the import of goods from other countries.

7 Available at: <https://dpiit.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf>.

8 The local content is the amount of value added in India and computed based on the total value of the item procured (excluding domestic indirect taxes) minus the value of imported content in the item (including customs duties) as a proportion of the total value, in percent.

Policy Reforms & Complementary Schemes

A. Policy Reforms

I. NITI Aayog as Policymaker (2015)

The government established a planning commission in 1950 for central level planning for development.¹ Subsequently, in 2015, the government formed the National Institution for Transforming India (“NITI Aayog”) to focus on a cooperative federalism planning approach different from the previously followed central planning approach.

The dynamic NITI Aayog body was established to cater to the rapidly growing market economy by introduction and designing of strategic policies, providing technical knowledge and innovation support to the stakeholders as well as the industry, fostering cooperative federalism, providing a platform for dispute resolution within the sectors and departments and providing a platform to the industry stakeholders to scrutinize policies prior to adoption, encourage technology upgradation, monitor and evaluate investments, etc.

The NITI Aayog plays a key role in developing long term plans and policies for the Government of India with an active involvement of the state governments. Make in India initiative was launched in 2015 with a plethora of objectives needing the backing of a strong policy support system. NITI Aayog provided the initial policy support for the initiative and continued the support to recognize further key sectors for development and growth leading to Make in India 2.0, 2018 onwards.

The formation of the NITI Aayog is seen as a positive step in preventing policy fatigue amongst the policy-makers and has enabled dynamic support to the growth of industries within various sectors in the country.

II. Aatmanirbhar Bharat Abhiyan Mission (2020)

As the name suggests, the Aatmanirbhar Bharat Abhiyan Mission was introduced in 2020 at the peak of the corona pandemic having affected the market leading to stagnation in the demand and supply in various sectors. Given the increased uncertainty, inventory costs, reduced wages and other factors, the Indian market experienced a downfall in the levels of consumption and spending activities thereby creating potential risk for the various sectors and their manufacturing activities.² The shortages in raw material, lack of remote working infrastructure, migration of labor amongst other factors hampered the pace of development in India specifically in the banking and finance sectors, automobile manufacturing sectors and the food industry in light of the corona pandemic.

To address the shocks experienced by the Indian market in terms of the supply and demand, the government launched the Aatmanirbhar Bharat Abhiyan Mission with main focus on economy, infrastructure, systems, demography and demand.³

1 Press Release dated August 16, 2017, <https://pib.gov.in/newsite/printrelease.aspx?relid=170000>.

2 Supra at 2.

3 Information available at: <https://aatmanirbharbharat.mygov.in/>.

It was observed that the Indian manufacturing sector had become dormant during the financial year 2019-20 and relied heavily on imports from other countries including China. The self-reliance initiative emphasised on the need to become ‘Local for Global’ and ‘Vocal for Local’ to encourage manufacturing locally.

The key objectives of the mission are:⁴



The key measures of the Aatmanirbhar Bharat Abhiyan Mission include government reforms, measures for business development, measures for various sectors including agriculture, energy, housing, social sector, etc. These measures assist the government to implement the objectives of the Make in India initiative by addressing the necessity for deregulation, liberalization of regulatory regime, financial support as well as improving the ease of doing business in India.

Some of the major reforms brought about by the government under the Aatmanirbhar Bharat mission include the enactment of labour codes, production linked incentives, increase in FDI limits in various sectors including defence manufacturing, etc.

4 Self-reliant India (Atmanirbhar Bharat Abhiyaan), IBEF, <https://www.ibef.org/government-schemes/self-reliant-india-aatm-nirbhar-bharat-abhiyan>.

III. Foreign Direct Investments (FDI) Reforms

FDI, i.e. the cross-border investment, is an important aspect for the development of any industry to fuel the research and manufacturing activities in the sectors and to initiate international economic integration. Flow of FDI amongst nations promotes international trade and long-standing ties for the transfer of technology and innovation.

Make in India initiative highlighted the importance of FDI reforms in the country and to remove restrictive policies on foreign investments within the country to encourage investors in various sectors. Realizing the potential for inflow of FDI, the government opened up various sectors for foreign investments to drive the economic growth of the country.

The government increased the sectoral caps for allowing FDI in various sectors and enabled FDI to flow in through the automatic route in the Defence sector (74%), Banking sector (74%), Railways (100%), Pharmaceuticals (100%), Telecommunication sector (100%), Petroleum and Natural Gas (100%), etc.

This initiative and FDI reforms undertaken by the government have been a major impact in the value of FDI flowing into the various sectors in India and has played a major role in better implementation of the Make in India initiative.

B. Complementary Schemes & Initiatives

I. Production Linked Incentives (“PLI”)

Having discussed the applicable frameworks and the progress made with Make in India 2.0 it becomes important to take cognizance of the unique requirements of each sector to accelerate growth in order to ensure that each sector is contributing to the best of its abilities to the growth of the economy. Each sector requires a custom approach given the differences in its functioning, performance as well as the output.

To achieve the inclusive growth of the economy, the government introduced the PLI scheme which contains a set of incentive schemes aimed at specific sectors keeping in view the differences in each sector. The special sectors to which the PLI schemes apply are also referred to as the ‘Sunrise Sectors’ and are believed to enforce the multiplier effect.⁵

PLI schemes were launched under the Aatmanirbhar Bharat Abhiyan mission in 2020 to achieve holistic development and growth of the industries in the country. PLI schemes are targeted at the Sunrise Sectors, the goods of which the government sees as necessary for the society in terms of consumption as well as employment generation. PLI schemes provide incentives to companies to encourage domestic manufacturing to provide the consumers with fair market prices of goods and services.

⁵ The multiplier effect is an economic term which refers to the proportional amount of increase or decrease in final income that results from an injection or withdrawal of capital. Multiplier effects measure the impact that a change in an economic activity will have on the total economic output of an activity.

The key aspects of PLI schemes are:

- a. To improve industrial infrastructure through creation of large-scale facilities
- b. To increase exports
- c. To reduce dependency on imports
- d. Improve employment opportunities in the country⁶

PLI schemes provide fiscal subsidies to domestic manufacturers in line with the requirements of the global supply chains in order to promote exports and reduce imports in the country. This in turn also leads to higher tax collection within the country and increase in employment opportunities. The incentives can be based on the scale of value additions, investments, sales, etc.

The initial PLI schemes were introduced for the Mobile and allied Component Manufacturing, Electrical Component Manufacturing and Medical Devices in India. Subsequently the government recognized 10 more Sunrise Sectors in 2020 under the PLI scheme.

Applicants of the PLI Scheme are offered incentives based on the value additions made to a product or incremental sales.

The incentive under the PLI Scheme is calculated as follows:

$$\text{Incentive} = (A/B) \times (B \text{ or } C \text{ or } D, \text{ whichever is lowest}) \times (\text{PLI rate as applicable})/100$$

A = Incremental Sales in current year (Year for which PLI is claimed)

B = Weighted average sales price of the applicant in current year

C = Weighted average sales price in base year

D = Weighted average sales price in current year

Incentive amount nearing Rs. 2900 crore have been disbursed in financial year 2022–23 under PLI schemes for eight sectors including Large-Scale Electronics Manufacturing (LSEM), IT Hardware, Bulk Drugs, Medical Devices, Pharmaceuticals, Telecom & Networking Products, Food Processing and Drones & Drone Components.⁷ The incentives are directly allocated from the Union Budget and vary for each sector based on the challenges faced by the sector.

6 Bhavesh Thakkar, Production-linked incentive scheme – A key step towards self-reliant India, May 10, 2021, https://www.ey.com/en_in/tax/india-tax-insights/production-linked-incentive-scheme-a-key-step-towards-self-reliant-india.

7 Press Release by the Ministry of Commerce and Industry dated June 13, 2023, <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1932051#:~:text=Incentive%20amount%20of%20around%20Rs,Processing%20and%20Drones%20%26%20Drone%20Components>.

II. National Single Window System (NSWS)⁸

The portal for National Single Window System (“NSWS”) initiative was soft-launched to all stakeholders and the public on September 22, 2021 for improving the ease of doing business in India. The NSWS is a digital platform to guide business owners in identifying and applying for approvals according to the requirements of their business.⁹ It was launched by the Union Ministry for Commerce & Industry, Textiles, Consumer Affairs & Public Distribution.

The NSWS initiative has been developed towards the advancement of the ‘Ease of Doing Business’ and ‘Ease of Living’ fundamentals introduced by the current regime. The portal for NSWS has been designed to act as the ‘one-stop shop’ for investors, for approvals and clearances, i.e., it shall act as the single interface between businesses and the Government at a national level. Through the use of this portal, the government intends to enable ‘End-to-End’ facilitation for businesses seeking clearances.

One of the primary purposes of this initiative is to bring transparency, accountability & responsiveness in the ecosystem by also allowing all information to be available on a single dashboard. The portal also contains an Applicant Dashboard that will allow business owners to apply, track & respond to queries.

The NSWS is envisioned to address information asymmetry, duplication of information submitted across platforms and authorities and inefficient tracking of approvals and registration faced by investors. In order to ensure a smooth implementation of the initiative, each ministry undertook an extensive review and validation exercise to ensure all relevant approvals and registrations were covered in the scope of the NSWS. Invest India undertook the design of overall technology architecture suitable for a system scalable across Ministries & States. Invest India evaluated and selected technology implementation partners, for the effective development of the system.¹⁰

Furthermore, there are four additional noteworthy features instituted on the NSWS portal, namely;¹¹

a. Know Your Approval (KYA)

The KYA service acts as an intelligent information wizard, which generates a list of all required approvals required by any business to commence operations. It begins by asking the investor a series of questions regarding their planned business activities, through a simple and user-friendly questionnaire interface and accordingly generates the list of approvals required to be filed by the investor/business.

The interface of the questionnaire automatically sorts through a list of hundreds of approval forms across departments and ministries. This service was launched on July 21, 2021, with over 500 approvals across 32 Central Departments and over 2000 approvals across 14 states.

b. Common Registration & State Registration Form

The Common Registration Form acts as a single point of submission of information and documents across States and Ministries, with a unified information capturing system.

On the other hand, the State registration form performs the same function as the Common Registration form but is limited to the State Single Window System.

8 National Single Window System, <https://www.nsws.gov.in/about-us>.

9 National Single Window System, <https://www.nsws.gov.in/about-us>.

10 National Single Window System facilitates over 44000 approvals since launch; over 28 thousand applications under process, Press Information Bureau, December 01, 2022; available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1880251>.

11 National Single Window System for Investors and Businesses Launched by Shri Piyush Goyal, Press Information Bureau, September 22, 2021; available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1756966>.

c. Documentary Repository

Enables one-time document submissions by investors, and therefore, stores the uploaded information and forms in the portal, to allow ease of application for multiple approvals, and eliminates the need for multiple portals.

d. E-Communication module

Enables online responses to queries and clarification requests related to applications by Ministries and States.

III. Prime Minister’s Gatishakti Programme

The Prime Minister of India unveiled the Pradhan Mantri Gatishakti programme on October 13, 2021. The primary objective of this programme is to break inter-ministerial silos and integrate infrastructure project planning in the country. It has been developed with the intent to streamline infrastructure project implementation across the country and improve inter-ministerial coordination for the better development of these projects. The Gatishakti National Master Plan aims to create a multi-modal network with comprehensive support for planning, financing, innovation, and technology. All existing as well as planned initiatives of the various Ministries and Departments will be accessible through one centralized portal. It is supported by seven infrastructure engines.¹²

The national master plan is anticipated to lay the groundwork for the following 25 years and give the development plans of the twenty-first century, the power of speed, ensuring their timely completion. The Gatishakti programme will incorporate the infrastructure schemes of various Ministries and State Governments like Bharatmala, Sagarmala, inland waterways, dry/land ports, UDAN etc. Economic Zones like textile clusters, pharmaceutical clusters, defence corridors, electronic parks, industrial corridors, fishing clusters, agricultural zones will be covered to improve connectivity & make Indian businesses more competitive. It will also leverage technology extensively including spatial planning tools with ISRO imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics) to streamline development objectives and technology.¹³

The Gatishakti scheme is primarily developed based on the following six pillars;¹⁴

- a. **Comprehensiveness:** One centralized portal for all existing and planned initiatives of various Departments and Ministries
- b. **Prioritization:** Allowing different Departments to prioritize their projects through cross-sectoral interactions
- c. **Optimization:** Help in identification of critical gaps in planning of infrastructural projects and suggest optimum route for reduction of time and cost.
- d. **Synchronization:** Enable synchronization of projects across Departments and Ministries

¹² Roads, Railways, Airports, Ports, Mass transport, Waterways, Logistics Infrastructure are the seven engines mentioned in the scheme; One year of PM GatiShakti – National Master Plan, Press Information Bureau, October 13, 2022, available at: <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2022/oct/doc20221013117201.pdf>.

¹³ One year of PM GatiShakti – National Master Plan, Press Information Bureau, October 13, 2022, available at: <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2022/oct/doc20221013117201.pdf>.

¹⁴ Prime Minister to launch PM GatiShakti on October 13, Press Information Bureau, October 12, 2021, available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1763307>.

Policy Reforms & Complementary Schemes

- e. Analytical: Provision and collection of all relevant data in one place to enable analysis of development and efficient planning
- f. Dynamic: All Ministries and Departments are able to visualize, review and monitor progress for all cross-sectoral projects.

The institutional framework for rolling out, implementing, monitoring and supporting mechanism is designed to have a three-tier system:

- a. Empowered Group of Secretaries (EGoS)¹⁵
- b. Network Planning Group (NPG)
- c. Technical Support Unit (TSU)

The Indian government has announced that 101 port and shipping projects will be developed under the Gatishakti programme, with an estimated cost of Rs 60,872 crore. According to the shipping and waterways minister Sarbananda Sonowal, 13 projects worth Rs 4,423 crore have already been completed as of March 14, 2023.¹⁶

IV. One-District-One-Product (ODOP) Initiative and the Districts as Export Hub Initiative

The DPIIT, a major stakeholder, and the Minister of State for Commerce and Industry have operationally merged the One-District-One-Project (“ODOP”) initiative with the Directorate General of Foreign Trade’s (“DGFT”) ‘Districts as Export Hub (“DEH”)’ initiative.¹⁷

As a transformative step toward realizing a district’s true potential, fostering economic growth, creating jobs, and encouraging rural entrepreneurship, the Central Government launched the ODOP initiative in all States and Union Territories (“UTs”) of the nation.

The initiative aims to select, brand, and promote at least One Product from each district of the country for enabling holistic socio-economic growth across all regions.¹⁸ The ODOP initiative has identified a total of 1102 products from 761 districts across the country.¹⁹ This initiative will help us in achieving the goal of Aatmanirbhar Bharat.

The ODOP Initiative aims to promote balanced regional development in the nation’s districts, facilitating comprehensive socio-economic growth throughout all regions. By locating goods with export potential in each district, the goal of the government is to convert each district into a manufacturing and export hub.

15 One year of PM Gatishakti – National Master Plan, Press Information Bureau, October 13, 2022, available at: <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2022/oct/doc20221013117201.pdf>.

16 Govt identified 101 projects worth Rs. 60, 872 cr under PM Gati Shakti plan: Sonowal, Livemint, March 14, 2023, <https://www.livemint.com/news/india/govt-identified-101-projects-worth-rs-60-872-cr-under-pm-gati-shakti-plan-sonowal-11678797328643.html>.

17 One District One Product (ODOP) Initiative operationally merged with ‘Districts as Export Hub (DEH)’ initiative, Press Information Bureau, December 07, 2022; available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1881486>.

18 Ibid.

19 One District One Product (ODOP) Initiative, India.gov.in, December 2022, available at: <https://www.india.gov.in/spotlight/one-district-one-product-odop#:~:text=The%20initiative%20aims%20to%20select,socioeconomic%20growth%20across%20all%20regions.>

Some achievements of the ODOP Initiative are as follows;²⁰

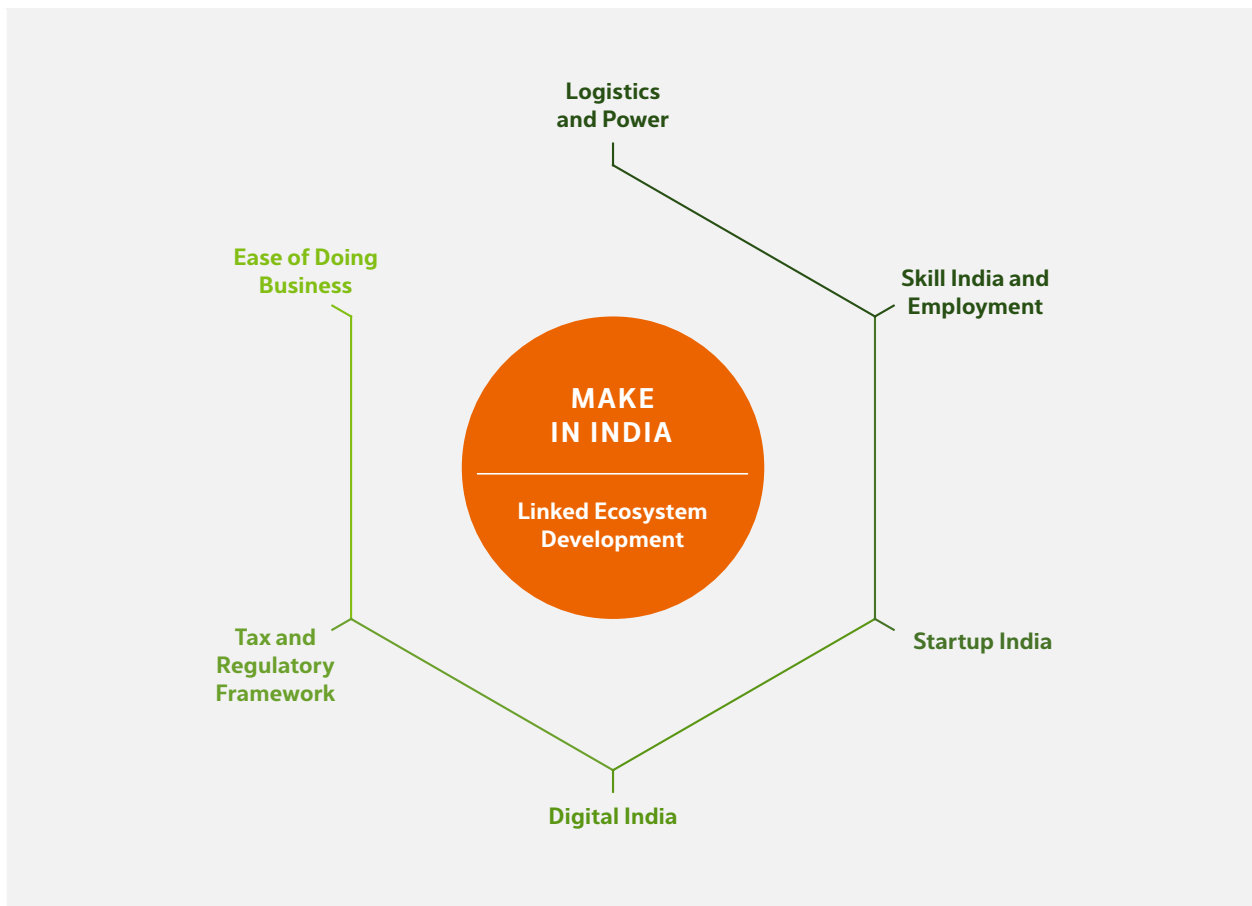
- On August 29, 2022, the Government e-Marketplace (“**GeM**”) launched the ODOP GeM Bazaar with more than 200 product categories developed on the platform to encourage sales and procurement of ODOP products throughout the nation.
- The One District One Product (ODOP) initiative has been chosen to receive the prestigious Prime Minister’s Award for Excellence in Public Administration in the ODOP category.
- Under Districts as Export Hub (DEH):
 - i. State Export Promotion Committee (SEPC) and District Export Promotion Committee (DEPC) has been constituted in all the 36, States/UTs.
 - ii. Products/services with export potential have been identified in 734 districts across the country (Including Agricultural & Toy clusters and GI products in these districts);
 - iii. State Export Strategy has been prepared in 28 States/UTs;
 - iv. Under DEH, State Nodal officers are nominated in 34 States/UTs;
 - v. Draft District Action Plan has been prepared for 570 districts;
 - vi. A web portal to monitor the progress of District Export Action Plan in all the Districts has been developed by the DGFT.

20 One District One Product (ODOP) Initiative operationally merged with ‘Districts as Export Hub (DEH)’ initiative, Press Information Bureau, Dec 07, 2022; available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1881486>.

Development of Linked Eco-Systems

The development process envisaged under the Make in India initiative has led to the creation and development of numerous ecosystems. An ecosystem is said to have formed when a network of stakeholders come together to meet shared objectives and in recent times, this practice has been enabled by technology. Given the focus on the manufacturing sector, numerous players along the business cycle, including manufacturers, suppliers, distributors, etc. can be considered to form an ecosystem wherein the stakeholders work together to meet objectives of increased production and sales targets.

To ensure the parallel development of supporting ecosystems in the manufacturing sector and to ensure maximum efficiency in output from the sector, collaboration from the linked stakeholders is expected by various Ministries. The following linked ecosystems have been recognized for development of various sectors under the Make in India initiative:



A. Skill India Mission

Skill India mission was launched in 2015 and would fall within the research and development ecosystem linked to the Make in India initiative. The mission aims to implement a comprehensive skill development training programme to support the objective of making the country self-reliant. The key ministries and departments for the implementation of the Skill India Mission are the Ministry of Skill Development and Entrepreneurship (MSDE), National Skill Development Corporation (NSDC) and the Sector Skills Councils (SSC).

This mission has the potential to improve the development of the country by bridging the gap between the industry demands and the skill set of individuals to foster a skilled workforce to prevent shortage of skilled personnel in the near future. The government through the Skill India mission aimed to train more than 40 crore individuals through apprenticeship training, technical intern training programmes as well as online skill development programmes.¹

The government has also launched several schemes for the implementation of the Skill India mission which include the Pradhan Mantri Kaushal Vikas Yojana (skill based learning programme), Jan Shikshan Sansthan (vocational training to underprivileged population), Pradhan Mantri YUVA Yojana (entrepreneurship education), Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP for improvement in quality, strengthening of institutions and inclusion of weaker sections in skill training), etc.

B. Startup India Initiative

The startup India initiative was launched in 2016 to boost entrepreneurship, economic growth and employment across India. The focus areas of the initiative are — simplification and handholding, funding support and incentives and industry and academia partnership and incubation.² Startup India has put together an action plan containing 19 points for action which include:

- Self-certification Compliance
- Single Point of Contact via Startup India Hub
- Simplifying Processes with Mobile App and Portal (for registration, filing compliances & obtaining information)
- Legal Support, Fast Tracking & 80% reduction in patent registration fee
- Relaxed Norms of Public Procurement
- Easier & Faster Exit
- Funding Support via a Fund of Funds corpus of INR 10,000 crore
- Credit Guarantee Funding
- Tax Exemption on Capital gains
- 3-Year Income Tax Exemption

1 Available at: <https://www.ibef.org/government-schemes/skill-india>.

2 Available at: <https://www.ibef.org/economy/startup-india>.

Development of Linked Eco-Systems

- Tax Exemption on Investments above Fair Market Value (FMV)
- Annual Startup Fests (national & international)
- Launch of World-class Innovation Hubs under Atal Innovation Mission (AIM)
- Set up of country-wide Incubator Network
- Innovation Centres to augment Incubation and R&D
- Research Parks to propel innovation
- Promote Entrepreneurship in Biotechnology
- Innovation Focused Programs for Students
- Annual Incubator Grand Challenge³

The key ministries and departments for the implementation of the Startup India initiative are the Ministry of Labour and Employment, Ministry of Environment, Forest and Climate Change, Department of Promotion of Industry and Internal Trade, Ministry of Corporate Affairs, NITI Aayog, Department of Revenue, Department of Biotechnology, etc. Startup India is an umbrella initiative which caters to the whole sector of encouraging startup development. Different ministries and departments depending on the nature and focus of the startup are involved in each process of such development.

The impact of this initiative can be observed where the government has recognized more than 50000 startups creating approximately 5.5 lakh jobs as of 2021. As of 2023, DPIIT has recognized over 99000 startups in India.⁴

C. Digital India

Over a period of time, internet has transformed communication, business, education and governments. India faced digital poverty, illiteracy, digital divide and lack of internet access in some areas which also hampered the access of remote villages to banking and other internet related facilities. It is predicted that the rural population will comprise of approximately 63% of the total market in India by 2025 and majority of the current rural population is yet to adopt digital mode of payments and transactions.⁵ One of the toughest and most distinctive penetrations of internet is into the healthcare sector in the recent years.

The aim of the Digital India initiative is to make India a digitally empowered society as well as a knowledge economy. The main focus areas of the initiative are — digital infrastructure for every citizen, governance and services on demand and digital empowerment of citizens. The key ministries and departments in the Digital India initiative include the Ministry of Electronics and Information Technology, Ministry of Rural Development, Monitoring Committee on Digital India, etc.

Some key achievements under this initiative include the introduction of the Broadband highway which seeks to enable connectivity in rural areas via optical fibre cable, enabling enhanced mobile connectivity, Public Internet Access, E-governance, E-Kranti to deliver government services digitally, etc.

³ Available at: <https://www.startupindia.gov.in/>.

⁴ Ibid.

⁵ Rohit Kumar, Why Bridging the Digital Gap in Rural India is Extremely Important, February 14, 2021, <https://inc42.com/resources/why-bridging-the-digital-gap-in-rural-india-is-extremely-important/>.

D. Infrastructure Development

Infrastructure is an important pillar for development of any sector under the Make in India objective of ‘New Infrastructure’. The government seeks to drive growth by enabling industrial as well as urban infrastructure development in India. Infrastructure initiatives include initiatives on power, building of roadways, bridges, dams, tunnels, etc. Numerous industrial corridors have been built as well as proposed since 2011 which connect various nodal cities enabling greater connectivity for ease of doing business.

In order to enable smoother development of the infrastructure in the country including roadways, railways, highways, the government has also standardized processes for bidding and tolling tax while also encouraging FDIs in the industrial corridor development sector. A recent uproar has also been experienced in the Electric Vehicles (“EV”) segment in the country with greater reliance being placed on hybrid vehicle manufacturing and slight shift from reliance on the depleting energy resources. This initiative has been undertaken under the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) scheme. FAME has been implemented in two phases with each phase focusing on a progressive induction of reliable, affordable and efficient electric and hybrid vehicles.

E. Taxation Regime

The taxation regime in India was spread across states and industries with different taxation schemes being applied in each state and at each entry and exit point for goods in the country. The government introduced the Goods and Services Tax (“GST”) in 2017 to ease and streamline the taxation regime and called it the ‘one nation, one tax’ regime. The GST regime was adopted to improve tax compliances, improve governance as well as to improve the supply chain efficiency to boost growth of the Indian economy.

This has also enabled greater consistency in filing tax returns and ensuring uniformity across states on tax compliances. The achievement of the taxation reform has led to the highest revenue mobilization in 2022–23 and has encouraged economic growth in the country.

The government has also focused on introducing various export schemes to bring in foreign exchange in line with the Aatmanirbhar and Make in India initiatives to attain self-sufficiency and ensure greater reach of local products.

F. Harmonisation of Labor Laws

The Ministry of Labor and Employment has introduced several initiatives for ease of doing business in India wherein 29 central labor laws have been simplified and harmonised into four labor codes which has helped in bringing transparency and accountability in labor law enforcement in India. The Shram Suvidha Portal was launched to cater to the objectives of harmonisation of the labor laws.

Development of Linked Eco-Systems

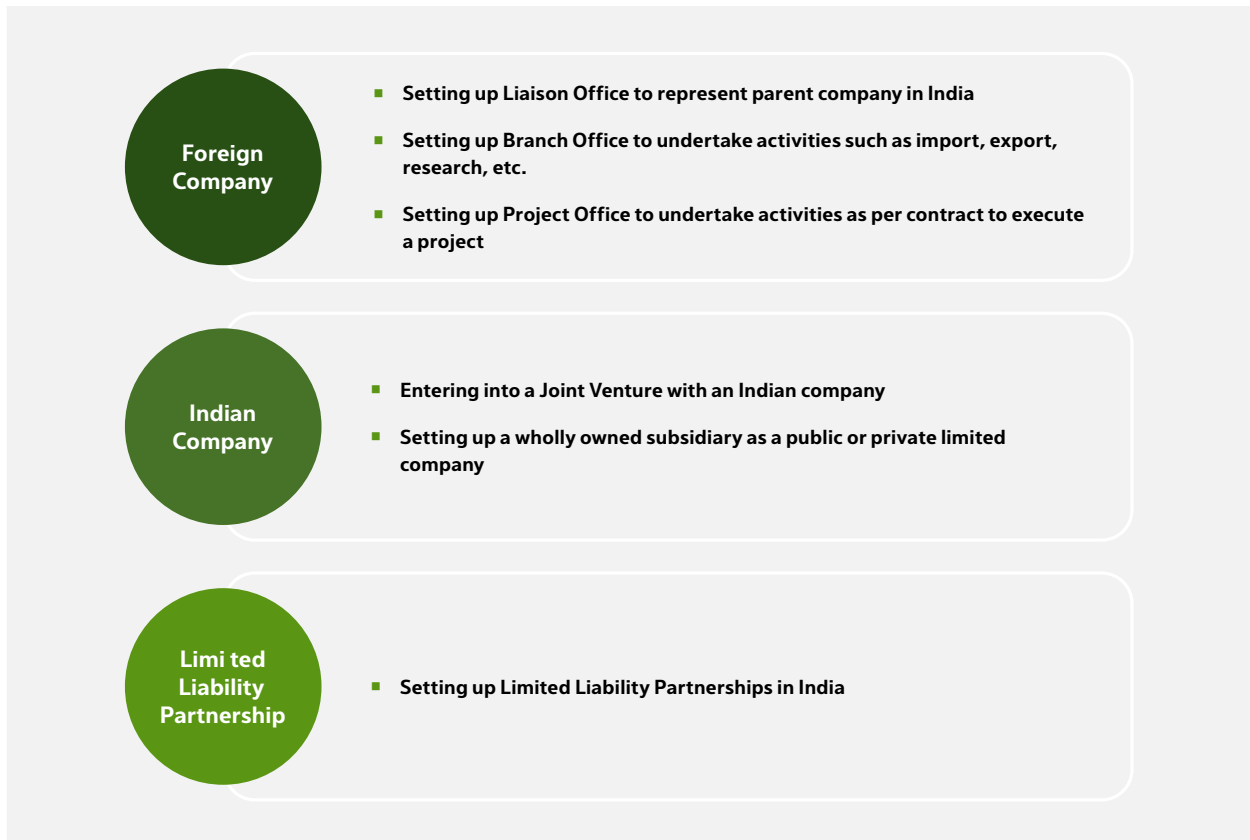
Other initiatives under the objective to harmonise labor laws includes the simplifying the registers to be maintained by establishments under the central labor laws, enabling self-certification regimes for compliances for start-ups removing the inspection taking place in the first year of establishment of the start-up.

Numerous policies have been adopted to ease the compliances under the labor laws including the introduction of the Code on Wages, 2019 which introduces a uniform definition of wages thereby reducing confusion, Code on Occupational Safety, 2020 which seeks to regulate health and safety conditions of workers in all mines and establishments, Code on Social Security, 2020, etc.

Setting up Businesses in India

Make in India encourages foreign companies to enter Indian markets by setting up businesses in India to avail the benefits of the Make in India initiative and to meet global product demands.¹

Any foreign investor can commence business in India as:



Foreign companies can incorporate companies in India in compliance with requisite sectoral approvals and documentation such as Reserve Bank of India (“**RBI**”) Guidelines regarding establishment of Liaison Office, Branch Office or Project Office in India. Foreign companies to take the requisite permissions for acquisition and permission to use land for setting up businesses in India if the need arises from the respective authorities which include State Industrial Development Corporation/ Infrastructure Corporation/ Small Scale Industrial Development Corporation/ Local Authorities, etc. The government has integrated the Industrial Information System (“**IIS**”) portal as part of the Digital India initiative to provide real-time updates on land availability and allocations to help investors in making informed decisions.²

¹ Available at: <https://www.makeinindia.com/index.php/investor-desk>.

² Integrated Information System, accessible at: <https://iis.ncog.gov.in/parks/login1>.

Setting up Businesses in India

To setup business as an Indian company, the foreign company is required to follow certain mandatory steps, which include:

- Checking availability of name for registering trademark of the company name
- Registering the name of the proposed company on the Ministry of Corporate Affairs (“MCA”) website through the SPICe+ form.³
- Obtaining a Digital Signature Certificate for a minimum of one director of the proposed company
- Form INC 32 (SPICe+) to be duly filled and submitted to Registrar of Companies (“RoC”) for incorporation of the company
- Filing of electronic Memorandum of Association and Articles of Association on the MCA website in compliance with the provisions of the Companies Act, 2013 and any other applicable law.
- Filing of any other applicable forms and requirements assisted with the fee payment to be made by the company to the RoC.
- Undertaking applicable clearances which include, but are not limited to, the Pollution Board, Environment and Forest Clearances, Labour laws, Fire Safety Approvals, Shops and Establishment Act registration, etc.

Upon submission of the relevant documents and fee payment, the Central Registration Centre scrutinizes the application and provide the Certificate of Incorporation to the company. Upon incorporation, the company is required to pay the applicable taxes levied by the Central and State Governments. The process for prediction of applicable tax has become easier with the various policy reforms brought about by the Government and the automation of the tax collection processes.

Benefit for the Foreign Companies

By setting up businesses in India, foreign companies can cater to the high demand for their products in the domestic as well as global markets and also assist in the inflow of investments in the country accompanied by a parallel increase in the potential employment opportunities in the country. In this manner, not only will the foreign companies be able to take advantage of the Make in India initiative but will also assist India in furthering its objectives under the initiative.

To take the advantage of the Make in India initiative and the various policies and schemes introduced under the initiative, the foreign companies can manufacture products and provide services in India with a focus on increasing the local content to qualify for tender related activities for public procurement in the country.

India provides a vast pool for investment in light of the Make in India initiatives and provides an attractive place for setting up businesses by foreign companies given the incentives associated with the domestic manufacturing activities.

³ SPICe+ is an integrated Web form offering 10 services by 3 Central Govt Ministries & Departments. (Ministry of Corporate Affairs, Ministry of Labour & Department of Revenue in the Ministry of Finance) and One State Government (Maharashtra), thereby saving as many procedures as possible, time and cost for Starting a Business in India.

Challenges to Make in India Initiative

The implementation of the Make in India initiative is undertaken in a step wise manner through the development of a strategic roadmap as discussed in the first part of this paper. The development of the strategic roadmap is an ongoing activity and must adapt to the dynamic changes in the industry and development agenda of the country. India has achieved laudable goals in terms of attracting foreign investors into various sectors within the country in addition to encouraging foreign multinational companies to setup their manufacturing plants in India. Although, the progress towards a self-sufficient India may face numerous obstacles in its implementation and the government will have to resolve such obstacles before it can hope to achieve its dream of making India a global manufacturing hub.

While every sector may face specific challenges given their unique modes of functioning and focus areas. Certain challenges that may be faced by the government commonly in all sectors in implementing and progressing with the Make in India initiative are discussed below.

A. Changing the Mindset of Consumers and Industry Players

The primary challenge which may be faced by the government in implementing its goal of making India self-sufficient is the existing mindset of distrust in the quality of goods manufactured domestically and heavy reliance of the consumers on foreign manufactured goods and services. There is a need for shifting the mindset of the consumers in order to encourage greater acceptance of Make in India products.

Further, there is also a need for encouraging industry players to invest in research and development activities domestically to gear the product development cycle in the direction of meeting Make in India objectives to make India the global manufacturing hub.

The change in the vision of the various stakeholders will play a major role in driving India towards global competitiveness coupled with supportive government policies and reforms in various sectors.

B. Proper Planning and Implementation of PLI Schemes

PLI schemes form an important aspect of encouraging development and incentivizing domestic manufacturing of goods and services. Although, PLI schemes have been used as a one-time relationship between the government and various stakeholders for development and infrastructure projects. There is a need for proper planning and implementation of the PLI schemes which include more conditions for the holistic development of the manufacturing ecosystem and do not act as mere temporary investment opportunities for foreign investors. There is also a lack of an integrated platform for the tracking of PLI Schemes across all sectors in the country and this hampers awareness amongst producers thereby preventing them from utilizing the PLI Schemes effectively.

Additionally, the mechanism for the PLI schemes must be implemented in a dynamic manner to avoid delays in payments and approvals for projects to ensure a fast pace of development in the country.

C. Slow Development of Infrastructure

Development of infrastructure for the industries varies with its specialized needs and poor availability of power and finance can hamper the pace of development. Reforms in the power sector by including various types of energy for infrastructure development as well as ensuring funding for the sector to enable further research in efficient use of energy resources can help fuel infrastructure plans in the country.

D. Potential Lack of Policy Focus

The Make in India initiative has brought within its ambit 27 sectors with each sector having its unique requirements and goals for production. With the central ministries catering to the policy regime for the development of the sectors and ensuring enhanced production, there is a potential for loss of policy focus on the unique needs of each sector which will be realized only upon intensive implementation of the Make in India initiative.

E. Heavy Reliance on FDI and Global Markets

The Make in India initiative focuses heavily on increasing the flow of FDI into India and to place Indian products in the global markets to ensure competitiveness in terms of quality of domestically manufactured goods as well as to make a mark for Indian goods in international markets. The heavy reliance of the Make in India initiative as well as the various sector specific policy initiatives on FDI may hamper the projected development of the sector if such FDI goals are not met. Any ripples in the global market may hamper the demand for domestically manufactured goods in the global markets.

Additionally, the inflow of international investors may hamper the growth of the small-scale entrepreneurs within India who are unable to compete with the international players.

F. Agriculture Based Economy

India has primarily been an agro-based economy and has more than 50% of its land as cultivable land. While in the initial years this land was utilized to its maximum to generate produce, the increasing focus on the secondary sector poses a threat to the hinderance on such cultivable lands. The shift in focus from cultivation to manufacturing and production may hamper agriculture in a negative manner if both sectors are not amply monitored and regulated.

G. Research and Development Platforms for Specific Sectors

Make in India initiative seeks to encourage research and development in each sector to support the product development cycle in each phase of development. Although, research and development objectives are unique in each sector and can vary at each level of the development of a product. While the government has placed its focus on encouraging research and development in the recognized sectors, there may be a lack of sufficient platforms within these sectors to implement research and development activities.

H. Resolving Disputes

Disputes which may arise amongst the stakeholders implementing the objectives of the Make in India initiative may halt development goals and hamper progress. Slow and complex court proceedings can prove to be time consuming and may also require complex filing requirements. Resolving disputes which arise in the sectors meant for a wholesome development of the economy may become complicated and thus, hamper the objectives set by the industry to achieve certain goals under the Make in India initiative.

I. Environmental Law Concerns

In the race for achieving the objectives of Make in India and to make India the manufacturing hub of the world, there is potential threat to the environment and natural resources. The cumbersome processes and multi-level clearances required for compliance with environmental laws can be time consuming and ineffective. The environmental compliance system must be closely monitored and made online and simple for easier implementation of the law and to monitor growth in harmony with the environment.¹

1 Supra at 2.

Key Sectors and Make in India Initiative

A. Pharmaceutical and Medical Devices Sector

The Indian pharmaceutical and medical devices sector is associated with the discovery, development, production, and marketing of pharmaceutical drugs and medical devices. The pharmaceutical and medical devices sectors have shown tremendous growth over the years and have gained importance in the global market. The government is committed to promote the Indian Pharma-MedTech sector across the global markets to ensure availability, accessibility and affordability of drugs and medical devices in both domestic as well as global markets.

Pharmaceutical and medical devices companies are governed by a number of laws and regulations that control the marketing, testing, safety, efficacy, and patenting of drugs and medical devices in the country. Our detailed analysis of the sectors can be accessed.^{1,2} Numerous policy measures have been undertaken in this sector to encourage research and development as well as innovation to India to be promoted as a leader in drug discovery and innovative medical devices through its entrepreneurial strategies.

India is famed as the 4th largest Asian medical devices market. The Indian pharmaceutical industry in India is the 3rd largest in the world in terms of volume and 14th largest in terms of value. The pharmaceutical sector encompasses nearly 1.32% of India’s GDP, while the Indian medical device market share in the global market is estimated to be 1.65%, with a net-worth of nearly USD 11 billion, with a share of 1.5% in the global market device market.³ India is often referred to as the “Pharmacy of the world”⁴ due to its preferability around the globe in addition to being the largest supplier of generic medicines. It manufactures about 60,000 different generic brands across 60 therapeutic categories and accounts for 20% of the global supply of generics. Furthermore, about 60% of the global vaccine production comes from India.⁵

The Indian pharmaceutical sector has made commendable progress in recent years. In 2021-22, the sector’s total exports reached INR 1,74,955 crore which ultimately resulted in a trade surplus of INR 1,14,895 crore, as the total import valuation stood at only INR 60,060 crore. Compared to April 2022, in just one year, exports of drugs and pharmaceutical products displayed a growth of 10.45%.⁶ Further, the sector also announced the development of India’s first indigenously developed vaccine, “CERVAVAC”, innovated for the prevention of cervical cancer.⁷ Alongside that, under the Aatmanirbhar Bharat programme, the pharmaceutical sector of India developed iNCOVACC,⁸ the world’s first intranasal COVID19 vaccine.

1 Available at: https://nishithdesai.com/fileadmin/user_upload/pdfs/Research_Papers/The-Indian-Pharmaceutical-Industry.pdf.

2 https://nishithdesai.com/fileadmin/user_upload/pdfs/Research_Papers/Medical-Device-Industry.pdf.

3 Pharmaceuticals, Make in India Initiative, available at: <https://www.makeinindia.com/sector/pharmaceuticals>.

4 India recognized as Pharmacy of the World: FM, Money Control, Dec 24, 2022, available at: <https://www.moneycontrol.com/news/india/india-recognised-as-pharmacy-of-the-world-fm-9759651.html>.

5 India’s vaccine manufacturing prowess, InvestIndia, Aug 25, 2022, available at: <https://www.investindia.gov.in/team-india-blogs/indias-vaccine-manufacturing-prowess#:~:text=India%20now%20supplies%20~60%25%20of,of%20India's%20pharmaceuticals'%20export%20portfolio>.

6 Pharmaceuticals, Make in India Initiative, available at: <https://www.makeinindia.com/sector/pharmaceuticals>.

7 Pharmaceuticals, Make in India Initiative, available at: <https://www.makeinindia.com/sector/pharmaceuticals>.

8 iNCOVACC, Bharat Biotech, <https://www.bharatbiotech.com/intranasal-vaccine.html>.

Key Sectors and Make in India Initiative

There are a plethora of factors and initiatives supporting the growth in the pharmaceutical and medical devices sector, some of which are as follows;⁹

- The National Health Authority (“NHA”) announced the release of a redesigned Ayushman Bharat Health Account (ABHA) mobile application as part of its flagship program, Ayushman Bharat Digital Mission (ABDM). Citizens can access their health records remotely with the user interface inbuilt in the system.
- More than 40 Lakh beneficiaries now have easy access to healthcare services given the launch of the “MyCGHS” mobile app and revamped CGHS website.
- Under the Sustainable Access to Markets and Resources for Innovative Delivery of Healthcare (SAMRIDH) initiative, the Atal Innovation Mission (AIM), NITI Aayog, and USAID have partnered to increase vulnerable populations’ access to affordable and high-quality healthcare in tier-2 and tier-3 cities, rural areas, and tribal areas.
- To organize vaccination resources and facilitate equitable access to safe and effective COVID-19 vaccines, the BRICS Vaccine R&D Center was established.
- For Greenfield pharmaceuticals projects, FDI through automatic route has been permitted up to 100%. For projects involving brownfield pharmaceuticals, FDI is permitted up to 74% automatically and government approval is required for FDI beyond 74%.
- Between April 2000 and March 2023, the Drugs and Pharmaceuticals industry received a total of USD 21.46 billion in FDI equity inflows. This accounts for almost 3% of total FDI received across all sectors.
- Between April 2000 and March 2023, FDI equity inflows into the medical and surgical appliance sector totaled USD 2.80 billion.

Production Linked Incentive Scheme for Pharmaceuticals

The growth of the pharmaceutical sector can also be accredited to the Production Linked Incentive schemes introduced for this sector. There are two subsidiary schemes under the PLI Scheme directed towards the development of specifically the Pharmaceutical Sector;¹⁰

- PLI Scheme for Key Starting Materials (KSMs)/Drug Intermediaries (Dis) and Active Pharmaceutical Ingredients (APIs)
- PLI Scheme for Pharmaceuticals

Collectively, these two schemes boast a financial outlay of INR 21,490 cr, for the manufacture and development of pharmaceuticals and related medical devices. For the purpose of these schemes, these products are divided into three categories; Category 1 (Biopharmaceuticals, Complex generic drugs, Patented drugs or drugs nearing patent expiry, Cell based or gene therapy products, Orphan drugs, Special empty capsules, Complex excipients, Phyto-pharmaceuticals), Category 2 (Active Pharma Ingredients, Key Starting Materials, Drug Intermediaries) and Category 3 (Repurposed Drugs, Auto-immune drugs, Anti-cancer drugs, Anti diabetic drugs, Anti Infective drugs, Cardiovascular drugs, Psychotropic drugs, Anti-Retroviral drugs).¹¹

9 Pharmaceuticals, Make in India Initiative, available at: <https://www.makeinindia.com/sector/pharmaceuticals>.

10 Pharmaceuticals, Make in India Initiative, available at: <https://www.makeinindia.com/sector/pharmaceuticals>.

11 Ibid.

Production Linked Incentive Scheme for Medical Devices Manufacturing

The government has identified the medical devices sector as a top priority sector for the Make in India program having experienced its potential during the pandemic that struck the entire country and the huge demand created for exports. The Aatmanirbhar Bharat Mission is providing an impetus to India’s vision of becoming a global manufacturing hub for medical devices. Numerous sector specific initiatives have been introduced such as the Promotion of Medical Devices Parks Scheme to develop manufacturing clusters in India.

The Production Linked Incentive Scheme for Promoting Domestic Manufacturing of Medical Devices proposes a financial incentive to boost domestic manufacturing and attracting large investments in the medical devices segment.¹²

Public Procurement of Medical Devices in India

In February 2021, the Department of Pharmaceuticals (“DoP”), the nodal body for implementing provisions of the Make in India Order for medical devices, issued revised ‘Guidelines for Implementing the Provisions of the Make in India Order related to the Procurement of Goods and Services in Medical Devices’.¹³

It defined Class-I local suppliers as those where the local content is equal to or more than 50%, Class-II local suppliers as those where the local content is between 26% and 50%, and non-local supplier as those whose local content is less than or equal to 25%.

The local content is to be self-certified at the time of bidding and would need to be supported by a certificate from the statutory auditor or cost auditor of the company (in case of companies) or a practicing cost accountant or chartered accountant (in case of suppliers other than the company) if the procurement value is in excess of Rs. 10 crores.

The DoP notified a list of medical devices for which only Class-I local suppliers who would be eligible to bid irrespective of purchase value, along with an indicative list of Class-I local suppliers.¹⁴ The list was further revised in March 2021¹⁵ The DoP has also notified a list of 364 medical devices for which no local manufacturer is available, and therefore global tender enquiries may be floated.¹⁶

12 Available at: <https://www.investindia.gov.in/schemes-for-medical-devices-manufacturing#:~:text=The%20Production%20Linked%20Incentive%20Scheme%20aims%20to%20enhance%20India's%20manufacturing,value%20goods%20in%20the%20sectors.>

13 Available at <https://pharmaceuticals.gov.in/sites/default/files/Revised%20Guidelines%20dated%2016.02.2021%20for%20implementing%20the%20provisions%20of%20revised%20Public%20Procurement%20Order%20dated%2016.09.2020%2C%20related%20to%20procurement%20of%20Goods%20and%20Services%20in%20Medical%20Devices%20.pdf>.

14 Available at: <https://pharmaceuticals.gov.in/sites/default/files/Order%20dated%2016.02.2021%20regarding%20items%20having%20sufficient%20local%20capacity%20and%20local%20competition%20as%20per%20Para%203%28a%29%20of%20revised%20Public%20Procurement%20%28Preference%20to%20Make%20in%20India%29%20Order%20dated%2016.09.2020.pdf>.

15 Available at: <https://pharmaceuticals.gov.in/sites/default/files/Order%20dated%2025.03.2021%20regarding%20items%20having%20sufficient%20local%20capacity%20and%20local%20competition%20as%20per%20Para%203%28a%29%20of%20revised%20Public%20Procurement%20%28Preference%20to%20Make%20in%20India%29%20Order%20dated%2016.09.2020.pdf>.

16 Available at: <https://www.doe.gov.in/sites/default/files/Relaxation%20for%20procurement%20of%20certain%20items%20through%20Global%20Tender%20Enquiry.pdf>.

Relaxation for Medical Devices from Global Tender Restriction

In 2020, the GFR was amended to permit issue of global tenders for only INR 200 crores and above for procurement of products which are not domestically available. Based on industry representations to the Ministry of Health and Family Welfare, on January 6, 2022, an Office Memorandum was issued by the Department of Expenditure, Ministry of Finance to exempt 128 medical devices from such restriction.

Subsequently on June 21, 2022, a second Office Memorandum was issued to broaden the list of exempted medical devices to now include 371 medical devices.

Sector Specific Policy Initiatives

In addition to the PLI schemes, the Government of India and the Department of Pharmaceuticals has introduced a plethora of schemes for the development of specialty hospitals, medical devices parks, enhancing sector-growth through medical tourism, provisions for telemedicine services, etc. The following section discusses how these schemes have affected growth in the sector of pharmaceuticals and medical devices.

i. Promotion of Medical Devices Park Scheme¹⁷

- The primary objective of this scheme is the construction of infrastructure facilities of the highest caliber in an effort to position the Indian medical device sector as a global leader.
- Easy access to infrastructure and standard testing facilities.
- By providing facilities for increased competition, the cost of producing medical devices will be significantly reduced, improving their availability and affordability to the domestic market

ii. Establishment of AYUSH Super Speciality Hospitals for Medical Tourism¹⁸

- The government has created the Champion Services Sector Scheme for Medical Value Travel to promote medical tourism especially in the area of Traditional System of Medicine.
- In order to promote the export of medical value travel services, including services provided to foreign consumers in India, the scheme seeks to incentivize private investors to invest in the AYUSH sector through the establishment of world-class, cutting-edge super specialty hospitals/day care centers of the systems recognized under the Indian Medicine Central Council (IMCC) Act, 1970 or Homeopathic Central Council (HCC) Act, 1973. The scheme accomplishes this by offering an interest subsidy.

iii. Scheme for Strengthening of the Pharmaceutical Industry¹⁹

The Scheme for Strengthening of the Pharmaceutical Industry recognizes the existing schemes for the development of pharmaceutical industries which include the Assistance to Pharmaceutical Industry for Common Facilities (APICF), Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS) and the Pharmaceutical Promotion and Development Scheme (PPDS).

17 Promotion of Medical Devices Parks Scheme, Schemes, Department of Pharmaceuticals, Government of India; Pharmaceuticals, Make in India Initiative, available at: <https://www.makeinindia.com/sector/pharmaceuticals>.

18 Establishment of AYUSH Super Speciality Hospitals/Day Care Centres for Medical Tourism, Schemes, Department of Pharmaceuticals, Government of India; Pharmaceuticals, Make in India Initiative, available at: <https://www.makeinindia.com/sector/pharmaceuticals>.

19 Scheme for Strengthening of Pharmaceuticals Industry (SPI), Schemes, Department of Pharmaceuticals, Government of India

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- The scheme seeks to strengthen the existing infrastructure facilities to make India a global leader in the pharmaceutical sector by providing financial assistance to pharma clusters for the creation of common facilities to improve the quality and ensure the growth of the cluster.
- By offering interest subsidies or capital subsidies on their capital loans, SMEs and MSMEs can modernize their production facilities to comply with local, national, and international regulatory standards.
- Undertaking studies, creating databases, and bringing together industry leaders, academics, and policymakers to exchange knowledge and experience, about the pharmaceutical and medical devices industries.
- The scheme will cost 500 crore INR in total over the course of five years, from 2021–2022 to 2025–2026. The program consists of three sub-components: Pharmaceutical & Medical Devices Promotion and Development Scheme (PMPDS), Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS), and Assistance to Pharmaceuticals Industry for Common Facilities (API-CF).

iv. Umbrella Scheme for Development of Pharmaceutical Industry

- The Department of Pharmaceuticals has prepared an Umbrella Scheme namely ‘Scheme for Development of Pharma industry’.
- The said Umbrella Scheme comprises of the following sub-schemes:
 - i. Assistance to Bulk Drug Industry for Common Facilitation Centres
 - ii. Assistance to Medical Device Industry for Common Facilitation Centres
 - iii. Assistance to Pharmaceutical Industry (CDP-PS)
 - iv. Pharmaceutical Promotion and Development Scheme (PPDS)
 - v. Pharmaceutical Technology Upgradation Assistance Scheme (PTUAS)

v. Pharmaceuticals Promotion Development Scheme (PPDS)

The Department of Pharmaceuticals has listed the following as its goals, that it hopes to accomplish through the PPDS scheme.

- Conduct educational programs, activities, and training sessions on topics and issues related to the expansion of the pharmaceutical industry.
- Organize meetings, conventions, exhibitions, pharmacy week, summits, and other events both domestically and internationally.
- Conduct industry reports and research studies, etc.
- Invest in publications, pharmacopoeias, magazines, directories, software for creating information data banks, e-learning modules, and other materials.
- Awards should be given to achievers in the pharmaceutical industry.

vi. National Policy on Research and Development and Innovation in the Pharma-Med Tech Sector

The Department of Pharmaceuticals under the Ministry of Chemicals and Fertilizers has notified the National Policy on Research and Development and Innovation in the Pharma-Med Tech Sector (“National Policy”) on August 16, 2023. The National Policy aims to encourage research and development in pharmaceuticals as well to create an ecosystem for innovation in the sector to promote the country as a leader in drug discovery and innovative medical devices.

To make India independent, the National Policy outlines certain specific objectives, which include:

- Enabling drug discovery, development and innovation in medical devices by streamlining regulatory processes.
- Incentivizing investments by the private sector in research activities.
- Increasing collaboration between the Industry and Academia.
- Enable greater coordination among existing policies and programs of various departments to focus on requirement specific research in each sector.

An innovator firm in India has to navigate through multiple agencies including the licensing authority i.e. the DCGI in order to undertake research in biologics or medical devices. The National Policy proposes that certain measures are required to create a regulatory bias in favour of innovation and research in the current focus sector. The measures include process optimization to reduce overlapping and establishing timelines for approvals, creation of a single digital portal to offer a single interface between Innovator and Regulator to align with Ease of doing Business goals, build the regulatory capacity of the government to cater to the advances in the science and technology field and to review the existing legislation impacting research and development to identify challenge areas and device sound solutions.

For the purposes of the implementation and review of the National Policy, a High-Level Task Force is proposed to be instituted under the Department of Pharmaceuticals.

vii. Scheme for Promotion of Research and Innovation in Pharma MedTech Sector (PRIP), 2023

The Department of Pharmaceuticals has notified the PRIP Scheme on August 16, 2023²⁰ with an aim to encourage research and innovation in the pharmaceutical and MedTech Sector. The PRIP Scheme also seeks to benefit the animal health sector and thus aligning with its vision of ‘One Health’.

- The PRIP Scheme seeks to transform the Indian pharmaceutical sector from being a cost-based sector to an innovation-based sector through research and innovation.
- The PRIP Scheme promotes industry-academia linkages for research and development in priority areas identified under the scheme.
- The first component of the PRIP Scheme proposes the setting up of seven Centres of Excellence at National Institute of Pharmaceutical Education and Research (NIPERs) to conduct high-end research in pharmaceuticals and to assist in the development of research infrastructure in the country.

20 Accessible at: <https://egazette.gov.in/WriteReadData/2023/248170.pdf>.

Key Sectors and Make in India Initiative

- The second component of the PRIP Scheme encourages investment by the industry into collaborative research and development by providing financial incentives in six priority areas. The scheme also provides for a benefit sharing provision amongst the pharmaceutical companies undertaking research in collaboration with government institutions of national repute.
- The priority areas identified under the scheme are complex generics (products with a complex active ingredients, complex formulations, novel route of delivery, complex or novel dosage form and innovative drug-device combination products), biosimilars (including stem cell therapy, gene therapy, biomarkers), medical devices (based on artificial intelligence and machine learning, for stem cell therapy, medical devices with telemedicine facilities, medical diagnostics and screening devices), orphan drugs and drug development for antimicrobial resistance.
- The NIPR Scheme will help in launching of commercially viable products in the Pharmaceutical and MedTech sector.

viii. Ayushman Bharat Digital Mission (ABDM)²¹

- With a budget of INR 1,600 crore for five years, the Prime Minister has approved the national roll-out of the Central Sector Scheme, Ayushman Bharat Digital Mission, of the Ministry of Health and Family Welfare.
- This scheme enables citizens to link their digital health records to their ABHA (Ayushman Bharat Health Account) numbers. As a result, it will be possible to create longitudinal health records for patients across different healthcare organizations, which will assist healthcare professionals in determining their clinical judgment.
- With a successful demonstration of the technology platform created by the NHA, the ABDM pilot has been completed in the six Union Territories of Ladakh, Chandigarh, Dadra & Nagar Haveli and Daman & Diu, Puducherry, Andaman and Nicobar Islands, and Lakshadweep.
- A digital sandbox was established during the pilot, where more than 774 partner solutions are currently being integrated. As of today, the ABDM has resulted in the creation of over 200,000 health facility registries, over 144,000 health professional registries, and over 332 million unique patient IDs (ABHA IDs).

ix. Mantri Bhartiya Jan Aushadhi Kendras²²

- Under this scheme, by the end of March 2025, the government hopes to have 10,500 PMBJKs in its employ. The PMBJP’s product line includes 240 surgical instruments and 1451 prescription drugs.
- Pharmaceuticals & Medical Devices Bureau of India (PMBI) has set a target to increase the number of PMBJKs to 10,000 by March 2024 after completing the target of opening 8,300 PMBJKs for the FY 2021–22 before the end of September 2021.
- A total of 8689 PMBJKs have been established as of February 28, 2022, and they serve every district in the nation.

21 Ayushman Bharat Digital Mission, available at: <https://www.india.gov.in/spotlight/ayushman-bharat-digital-mission-abdm>.

22 Mantri Bhartiya Jan Aushadhi Kendras (PMBJKs), Schemes, Department of Pharmaceuticals, Government of India, available at: <http://janaushadhi.gov.in/pmji.aspx>.

Other than the large number of initiatives and schemes taken up and introduced by the Government and the Department of Pharmaceuticals, the Make in India initiative, lists numerous investment opportunities for further advancement of the Pharmaceutical Sector. For example, in order to further boost the pharmaceutical industry, a Bulk Drug Pharma Park has been proposed in Solan, Himachal Pradesh. An amount of INR 200 crore has been sanctioned for the Bulk Drug Pharma Park and a Satellite extension centre of National Institute of Pharmaceutical Education and Research (NIPER).

Therefore, it is evident that not only has the pharmaceuticals sector made bounds and leaps of progress, from a financial as well as innovative perspective, but it is also clear that it does not intend to stop here.

Advantages to the Pharmaceutical and Medical Devices Sector

The Make in India initiative has numerous advantages for the Pharmaceutical and Medical Devices Sector which include:

- Introduction and adoption of various schemes and incentives to support the growth of the industry.
- Development of skilled labor force to cater to the requirements of the industry complementary to the weightage given to the Skill India initiative.
- Boost in the manufacturing of pharmaceuticals and medical devices domestically.
- Increased inflow of investments in the sector in addition to setting up of international manufacturing plants in the country to cater to global demands.
- Increase in manufacturing of good quality pharmaceutical products in line with international standards for export purposes.

B. Automobile and Automobile Components Sector

The Automobile industry essentially comprises of a wide range of companies or establishments which are invoked in the development, design, manufacturing, selling, marketing, and modification of motor vehicles. The industry encompasses two kinds of product which are the principal and secondary products. Principal products are generally light trucks and passenger automobiles, which also include vans and sport utility vehicles. Whereas the secondary products are generally the commercial vehicles such as delivery trucks, transport trucks, etc. which are also termed as semis. Furthermore, it is pertinent to note that India is projected to be the world's third-largest automotive market in terms of volume by the year 2026.²³ This particular industry would play a pivotal role in enhancing the macroeconomic growth and technological development,²⁴ as this industry provides employment (direct and indirect) to over 19 million people²⁵ and significantly contributes to the GDP by 7%.²⁶

23 Statistics available at: <https://www.investindia.gov.in/sector/automobile>.

24 Available at: Ministry of Heavy Industries, <https://heavyindustries.gov.in>.

25 Statistics obtained from: static.pib.gov.in/WriteReadData/specificdocs/documents/2023/feb/doc2023217160601.pdf.

26 Available at: CII Automobiles, <https://www.cii.in/sectors.aspx?enc=prvePUj2bdMtgTmvPwwisYH+5EnGjyGXO9hLEcVTuNspZMG2krVmNXVq1Qz72doM>.

While the automobile component industry in India is comprised of organized and the unorganized sector. Wherein, the organized sector is primarily engaged in manufacturing of high-value precision instruments referring to the Original Equipment Manufacturers (OEMs). Whereas the unorganized sector caters to the after-market services. In India, engine parts, body and chassis, mechanical and electrical equipment are some of the sub-sectors of this industry. One of the most notable reasons to invest in this sector is the ever-increasing development in infrastructure with dynamic purchase power and a stable government framework.

Therefore, Automobile and the Automobile component sector would play an indispensable role in boosting the economy of India and hence is a vital sector under the Make in India scheme launched in the year 2014. In order to facilitate the effective initiative, the government has also implemented several schemes which include new labour laws, investment in startups, devising trade policies, and infrastructure development. Furthermore, it is expected by the government that the automobile sector would attract 8-10 billion US Dollars through foreign and local investments by the year 2023, wherein, India could be established as a leader in shared mobility by the year 2030.

Hence, investments in this particular industry would yield potential economic, infrastructural, and technological outcomes.

Production-Linked Incentive (PLI) Scheme in the Automobile and Auto Components Sectors

The Production Linked Incentive (PLI) Scheme is a key initiative for promoting economic development and supporting domestic production in a variety of industries. The PLI Scheme was created to offer significant incentives to businesses that increase their production capacity. The Union Cabinet has introduced the PLI Scheme in the Automobile and Auto Components sectors in order to efficiently enhance India’s manufacturing capabilities and exports under the ambit of Aatmanirbhar Bharat. The same has been notified in the Gazette of India on September 23, 2021.

The PLI Scheme for the Auto Sector potentially aims to eliminate the financial hurdles that the industry faces in order to manufacture the Advanced Automotive Technology products in India. The incentive structure will encourage the industry to initiate new investments in the domestic global supply chain for Advanced Automotive Technology products. During the launch of the PLI Scheme, it was then estimated that over a period of five years, it would optimistically lead to Rs. 42,500 crore fresh investments, with over Rs 2.3 lakh of incremental production, and would also envisage to create over 7.5 lakh of additional employment opportunities.²⁷ This particular scheme is comprised of two components, the Champion OEM Incentive Scheme and Component Champion Incentive Scheme.

Furthermore, according to a Press Release from the Ministry of Heavy Industries²⁸ while the target estimate of investment of the PLI Scheme for Automobile and Auto Component was Rs 42,500 Cr, the scheme was effective in managing to attract a proposed investment of Rs 74,850 Cr. Therefore, the PLI Scheme launched has been significantly efficient while considering the number of applicants from not only India, but from all over the globe. The noteworthy response received from countries like USA, UK, Japan, France, etc. has fostered India’s progress as a world-class manufacturing destination under the aegis of a self-reliant India.

²⁷ Statistics available at: pib.gov.in/PressReleaseSelfFramePage.aspx?PRID=1757651.

²⁸ Press release available at: Ministry of Heavy Industries (PRESS RELEASE ENGLISH 15 03 2022), <https://heavyindustries.gov.in/writereaddata/UploadFile/PRESS%20RELEASE%20ENGLISH%2015%2003%202022.pdf>.

Research & Development Incentives for Industry and Private Sponsored Research

The government has been keen to promote and foster R&D and innovation-driven competitiveness across the manufacturing sector in order to enhance the domestic value addition and consolidate the depth in technology. Department of Scientific and Industrial Research (DSIR) is the nodal department which was essentially responsible for in-house R&D units to seek recognition. The government has announced several fiscal incentives envisaging to promote the R&D industry. And such incentives are provided in the form of tax rebate and customs, excise duty waiver, etc. The DSIR is the suggested authority in order to claim tax benefits under the Income Tax Act of 1961 on the expenditure incurred to R&D centres.²⁹ Owing to which, under the Income Tax Act, 1961, under Section 35(2AA) a weighted tax deduction is provided. Moreover, a significant weighted deduction of 200% is also granted to assess for any amount which is paid to a national laboratory, university, or IIT, but this would only be applicable if such research is utilized for scientific research which is within the scope of any program that the prescribing authority has approved.³⁰

Sector Specific Policy Initiatives

I. Automotive Mission Plan 2016–26

The Automotive Mission Plan 2016–26 (AMP 2026) charts the course of the Indian automotive ecosystem’s development, outlining the definite rules and policies that will administer research, design, technology, testing, manufacturing, import/export, sale, use, repair, and recycling of automotive vehicles, parts, and services. Furthermore, the Automobile Industry of India is significantly expected to be the third largest in the world after China and the USA respectively, which would be optimistically contributing around 12% to the GDP. It has also been observed that under the Make in India initiative launched by the Government, the Automobile industry is considered to be one of the most pivotal sector in enhancing the economy, fostering technological and infrastructural development.³¹

II. National Automotive Testing and R&D Infrastructure Project (NATRIP)

This project was established with an intent to facilitate the industry to recognize, comprehend, and implement the global performance standards. For which, a total cost of US\$ 573 million was sanctioned by the government. This project seeks to integrate India’s exceptional resources in information technology and electronic sector with the automotive engineering sectors. The aspect of providing low-cost and affordable manufacturing and product development solutions stands to be one of the key focal points of the project. NATRIP Implementation Society has been established for effective implementation of the project by the Ministry of Heavy Industries.³²

29 Referred from: <http://www.dsir.nic.in/index.php/industrial-rd-promotion-programme-irdpp>.

30 Available at: <https://incometaxindia.gov.in/Rules/Income-Tax%20Rules/103120000000007105.htm>.

31 Available at: <https://heavyindustries.gov.in/writereaddata/Content/AMP%202016-26%20Final%20Approved%20Draft.pdf>.

32 Available at: Indian Automobile Industry, https://www.sesai.eu/wp-content/uploads/2018/12/Automotive-Sector-Report_-Final.pdf.

III. National Electric Mobility Mission Plan 2020 (NEMMP)

This is one of the most notable and prominent initiatives which has been implemented by the government which has the capability to enable transformational shift in the paradigm under the automotive industry of the nation. Through government-industry cooperation and collaboration, the NEMMP project aims to promote consistent, reasonably priced, capable xEVs (hybrid and electric vehicles) that comply with consumer performance and price expectations. NEMMP 2020 also seeks to foster and improve indigenous manufacturing capabilities as well as the required infrastructure, consumer awareness, and technology.³³

IV. Guidelines for Charging Infrastructure for EVs

The Guidelines for charging Infrastructure for EVs (Revised Guidelines) have been revised to accelerate the country's transition to e-mobility. The objective is to boost the adoption of electric vehicles in India by establishing and ensuring a charging infrastructure and eco-system that is safe, reliable, accessible, and cost-effective. The Revised Guidelines also envisage to create employment opportunities for small entrepreneurs.³⁴ These guidelines simultaneously seek to promote the creation and establishment of EV Charging Infrastructure and also to advance preparedness of Electrical Distribution System in order to adopt the same. It also enlists a provision where Electric Vehicle owners can now use their current electrical connections to charge their vehicles at home or work.³⁵

V. National Programme on Advanced Chemistry Cell Battery Storage

This particular scheme is introduced under the Ministry of Heavy Industries & Public Enterprises. It intends to provide enterprises with incentives on incremental sales on goods manufactured in indigenous units. While inviting foreign enterprises to set up operations in India, it also seeks to incentivize local companies to establish new manufacturing units or expand already existing ones. Additionally, the PLI Scheme has been approved for industries like those in the automobile sector, pharmaceutical sector, IT hardware sector (including laptops, mobile phones, and telecom equipment), white goods, chemical cells, textiles, etc. This scheme is striving to set up 50 GW Hour Manufacturing capacity for ACC batteries which attracted massive investments of Rs 45,000 Cr. Therefore, this scheme would enable creation for battery storage in India and also efficiently reduce Green House Gas emissions.³⁶

VI. National Automobile Scrapage Policy

The Policy aims to establish and implement a system for progressively substituting older, unsafe, and polluting automobiles with safer, more fuel-efficient ones. The Policy will increase sales of automobiles, generate employment opportunities, reduce the cost of imports, increase GST revenue, and assist in resolving the semiconductor chip shortages on a global scale. The policy will be a crucial link to enabling the nation to develop a circular economy (from waste to wealth).³⁷

33 Available at: Indian Automobile Industry, https://www.sesei.eu/wp-content/uploads/2018/12/Automotive-Sector-Report_-Final.pdf, Para 9.5, Page 22, and NEMMP 2020, <https://heavyindustries.gov.in/writereaddata/Content/NEMMP2020.pdf>.

34 Available at: https://powermin.gov.in/sites/default/files/Final_Consolidated_EVCI_Guidelines_January_2022_with_ANNEXURES.pdf.

35 Available at: pib.gov.in/PressReleaseframePage.aspx?PRID=1790136.

36 Available at: <https://www.makeinindia.com/sector/automobiles#>.

37 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1776786>.

VII. Fame India Scheme

The Faster Adoption and Manufacturing of Electric and Hybrid Vehicles in India (FAME India) is administered under the Department of Heavy Industry. The National Electric Mobility Mission Plan includes FAME India. FAME's primary objective is to promote electric automobiles by offering incentives and subsidies. Two-wheelers, three-wheelers, electric and hybrid automobiles, as well as electric buses, are all eligible for the scheme's subsidy benefits. The primary and pivotal focal points of this scheme were establishment of effective charging infrastructure, implementation of pilot projects, creating demand, and foster technology development. The aspect of creating demand is proposed by supporting 7000 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2 Wheelers.

This scheme would be implemented and executed in two phases, FAME India Scheme-I and FAME India Scheme-II. The government had allotted 895 crores to cover the operations of Phase I. Here, nearly 2.8 lakh electric vehicles were supported with an amount of ₹ 359 crores.³⁸

VIII. FAME India Scheme Phase II

It has been proposed that the Fame India Scheme II would be executed over a three-year period with a budget of INR 10,000 crore in order to expedite the adoption of electric mobility and the development of electric and hybrid technology and enhance the nation's eco-system. Department of Heavy Industries will be the nodal agency and will be responsible to review the scheme. The total fund requirement for this scheme is USD 1.44 Bn over three years from 2019–20 to 2021–22. With the active involvement of both public sector units and private entities, the government will invest in the installation of charging stations. Additionally, it has been proposed that every electric bus is provided with one slow-charging unit and every ten electric buses receive one fast-charging station. Additionally, FAME 2 will promote the integration of charging infrastructure and renewable energy sources. The scheme emphasizes on promoting electric vehicles in public transportation and seeks to encourage EV adoption through market creation and demand aggregation.³⁹ Total number of electric vehicles sold under the Phase-II are 8,72,920.⁴⁰

C. Renewables Sector

The renewables sector, often referred to as the renewable energy industry, represents a pivotal domain at the intersection of sustainability, innovation, and environmental responsibility. This industry revolves around harnessing and utilizing natural resources, such as sunlight, wind, water, and biomass, to generate clean and sustainable sources of energy. The renewables sector plays a crucial role in addressing energy security, combating climate change, and transitioning towards an eco-friendlier and resilient energy landscape. Some key components in this sector are Solar Energy, Wind Energy, Hydropower, Bioenergy, and Geothermal energy, amongst others.

The renewables sector in India holds a pivotal role in the country's journey towards sustainable and clean energy solutions. As India grapples with energy security, environmental concerns, and economic growth, the renewables sector emerges as a critical force shaping the nation's energy landscape. India has already

38 Available at: Press Information Bureau, <https://pib.gov.in/PressReleasePage.aspx?PRID=1577880>.

39 Referred from: Ministry of Heavy Industries, <https://heavyindustries.gov.in/writereaddata/fame/famedepository/2-notification.pdf>.

40 Additional Statistics available at: Ministry of Heavy Industries, DIDM Dash Board, <http://fame2.heavyindustries.gov.in/dashboard.aspx>.

Key Sectors and Make in India Initiative

exceeded their targets for installation of renewable power of 174 GW, and currently stands 4th globally in Renewable Energy Installed Capacity (including Large Hydro), 4th in Wind Power capacity & 4th in Solar Power capacity, and 3rd largest market in the world for new solar photovoltaics (PV) capacity.⁴¹ The renewables sector in India, from a “Make in India” perspective, embodies the country’s ambitious pursuit of sustainable energy solutions while fostering domestic manufacturing, innovation, and economic growth. With a strong commitment to reducing carbon emissions, ensuring energy security, and promoting local industry, India’s renewables sector has become a significant player on the global stage.

India’s commitment to the Make in India initiative extends to the renewables sector, aiming to not only accelerate the adoption of clean energy solutions but also to develop a robust domestic manufacturing ecosystem. By producing renewable energy equipment and components within the country, India seeks to reduce dependence on imports and create a self-reliant energy infrastructure.

Production Linked Incentive Scheme for High-Efficiency Solar PV Modules

With the aim to promote manufacturing of high efficiency solar PV modules in India and thus reduce import dependence in the area of Renewable Energy,⁴² has been divided into two tranches. Tranche-I with an outlay of INR 4500 crore (USD 550mn)⁴³ and Tranche-II with an increased outlay of INR 19,500 crore (USD 2.37 bn).⁴⁴ Herewith the objective is to bring cutting-edge technology to India for manufacturing high efficiency modules, including all technologies. Although the scheme primarily incentivises only high yielding technologies. With sustainability practices at the forefront, this scheme will seek to source local material in solar manufacturing, thereby generating employment and technological self-sufficiency. Thus, acting in line with the Aatmanirbhar Bharat policy. The government has allocated a total capacity of 39,600 MW of domestic Solar PV module manufacturing capacity to 11 companies, with a total outlay of INR 14,007 Crores under the Production Linked Incentive Scheme’s Tranche-II, with the manufacturing capacity being operational within the next three years, 2024, 2025 and 2026 respectively.⁴⁵

Mission Innovation CleanTech Exchange

This programme is an attempt by the World Governments to align and progress with the goals of the Paris Climate Change Agreement and do it in a way which is a scalable way to achieve net zero carbon emission goals. This is a global initiative to give impetus to action and investments in research and development and to make clean energy affordable, attractive, and accessible to everyone within the next decade. This initiative was launched in 2015 alongside the Paris Agreement, and generated a total funding of INR 1,32,032 crore (USD 18 billion) from member countries, viz., Australia, Austria, Brazil, Canada, Chile, China, Denmark, the European Union, Finland, France, Germany, India, Italy, Japan, Mexico, Morocco, the Netherlands, Norway, the Republic of Korea, Saudi Arabia, Sweden, United Arab Emirates, United Kingdom and United States.

41 Available at: <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1885147>.

42 Available at: <https://www.nsws.gov.in/portal/scheme/pli-scheme>.

43 Scheme Available at: <https://www.nsws.gov.in/s3fs/2022-09/Production%20Linked%20Incentive%20Scheme%20National%20Programme%20on%20High%20Efficiency%20Solar%20PV.pdf>.

44 Scheme available at: https://mnre.gov.in/img/documents/uploads/file_f-1664601098820.pdf.

45 Available at: <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1911380>.

The second phase of the initiative was launched virtually at the Innovating to Net Zero Summit hosted by Chile in 2021. The 2050 target of limiting global warming levels to <2° C, compared with the pre-industrial levels, requires massive work in energy innovation within this decade. Reduction of emissions is required to achieve the national and global climate targets depending on technologies that exist today but are still in the stages of demonstration or prototyping. These emerging technologies are yet to be sufficiently effective or affordable for large-scale deployment efforts. Mission Innovation 2.0 was launched to harness the potential of these emerging technologies, specifically the ones on clean hydrogen, advanced battery storage, and zero emission fuels.⁴⁶

India is a very active member of this initiative and has taken leads in several of their projects. India’s investments make up almost 10% of the total investments in this initiative, with a target spending of INR 967 crore (USD 145 mn), which they doubled in 2019–2020.⁴⁷

Procurement of Power from Grid Connected Wind Power Projects — Guidelines

On July 26, 2023, in succession of the previously issued 2017 Guidelines, the Ministry of Power (MoP) introduced the Guidelines for Tariff Based Competitive Bidding Process for Procurement Power from Grid Connected Wind Power Projects (2023 Guidelines) under Section 63 of the Electricity Act, 2003 with the following objectives:⁴⁸

- i. Facilitating renewable capacity addition and fulfilment of Renewable Purchase Obligation (RPO) requirement of distribution licenses.
- ii. Providing a transparent, fair, standardized procurement framework based on open competitive bidding with appropriate risk-sharing between various stakeholders to enable procurement of power at competitive prices in consumer interest, improve bankability of projects and ensure reasonable returns to the investors.
- iii. Providing a framework for the inter-State or intra-State, long-term, sale-purchase of power as a further measure to de-risk the sector.

It is to be noted that the Guidelines, yet to be notified, are applicable for procurement of electricity by the procurers from grid-connected Wind Power Projects (WPP) having a bid capacity of 10 MW and above for projects connected to intra-State transmission system; and bid capacity of 50 MW and above for projects connected to inter-State transmission system. Upon notification, the erstwhile 2017 Guidelines and amendment thereto, shall not be applicable for bids issued subsequent to issuance of these Guidelines. The endeavor through the 2023 Guidelines is to provide a binding legal document which has the force of law and is adopted by State agencies as well, even for Intra-State bidding.

46 Available at: <http://mission-innovation.net/2023/07/21/pressreleasemi8/>.

47 Available at: <http://mission-innovation.net/our-members/india/>.

48 Guidelines Available at: https://mnre.gov.in/img/documents/uploads/file_f-1690950828189.pdf.

The Green Term Ahead Market (G-TAM) and Green Day Ahead Market (GDAM)

The Green-Term Ahead Market (G-TAM) is a new market segment for trading in renewable energy following the CERC approval. The new market segment features contracts such as Green-Intraday, Green-Day-ahead Contingency (DAC), Green-Daily and Green-Weekly. The matching mechanism is continuous/spot trading for Green-Intraday, Green-DAC and Green-Daily contracts whereas double sided open auction process to be implemented for Green-Weekly.

G-TAM comprises of contracts for trade in electricity generation from renewable energy sources. Total volume traded in G-TAM since August 2020 – January, 2023 is 8509.49 Mn Units.⁴⁹

Green Day Ahead Market (GDAM) is available for allowing exclusive trade in Renewable Energy since October, 2021. The participants submit their bids in two parts, i.e., quantity and price they would be willing to buy or sell in GDAM based on their eligibility criteria. Market Clearing or Price Discovery takes place in a sequential manner i.e. first GDAM is cleared followed by Day Ahead Market (DAM).

Term-Ahead-Market (TAM) provides a range of products allowing participants to buy/sell electricity on a term basis for a duration of up to 11 days ahead. The operations are carried out in accordance with the Procedures for Scheduling of Bilateral Transactions issued by the Central Transmission Utility (PGCIL), under CERC (Open Access in inter-State Transmission) Regulations, 2008, as amended from time to time and the Bye-Laws, Rules and Business Rules of the Exchange.⁵⁰

National Hydrogen Mission for Meeting Climate Targets (Green Hydrogen/ Green Ammonia Policy)

This mission is the right step forward in achieving India’s goals of becoming energy independent by 2047 and achieving Net Zero emissions by 2070.⁵¹ Green hydrogen is the perfect alternative for enabling India’s Energy transition and increasing renewable energy across all economic spheres.⁵² The objective is to make India the leading producer and supplier of Green Hydrogen globally. They wish to develop the local manufacturing capabilities and rely less on imported fossil fuels and feedstock, and instead attract investments and business opportunities for the sector, thereby inevitably creating employment. The policy incentivised Green hydrogen/ Ammonia manufacturing by easing procurement of licenses, waiving inter-state transmission charges for 25 years (for those with commissioned projects before June 30, 2025).⁵³

Their targets for 2030 are as follows:

- i. Development of green hydrogen production capacity of at least 5 MMT (Million Metric Tonne) per annum with an associated renewable energy capacity addition of about 125 GW in the country,
- ii. Over Rs. Eight lakh crore in total investments, Creation of over Six lakh jobs
- iii. Cumulative reduction in fossil fuel imports over Rs. One lakh crore
- iv. Abatement of nearly 50 MMT of annual greenhouse gas emissions

49 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1897770>.

50 Available at: <https://www.ixindia.com/G-TAM-Overview>.

51 Mission available at: https://mnre.gov.in/img/documents/uploads/file_f-1673581748609.pdf.

52 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1799067>.

53 Available at: <https://www.india.gov.in/spotlight/national-green-hydrogen-mission>.

Sector Specific Policy Initiatives

i. National Bioenergy Programme for FY 2021–22 to 2025–26 (Phase-I)

The Ministry notified this programme in 2022 for a period of 5 years and with an approved budget of INR 858 crore for Phase-I. The National Bioenergy Programme will comprise of the following sub-schemes:⁵⁴

- Waste to Energy Programme (Programme on Energy from Urban, Industrial and Agricultural Wastes/ Residues) to support setting up of large Biogas, Bio-CNG and Power plants (excluding MSW to Power projects).
- Biomass Programme (Scheme to Support Manufacturing of Briquettes & Pellets and Promotion of Biomass (non-bagasse) based cogeneration in Industries) to support setting up of pellets and briquettes for use in power generation and non-biogas based power generation projects.
- Biogas Programme to support setting up of family and medium size Biogas in rural areas.

ii. Rooftop Solar Programmes

Roof Top Solar Programme Phase-II was launched for accelerated deployment of solar roof top systems with a target of 40 GW installed capacity by the year 2021–22. The scheme provides for financial incentive for installation of 4 GW of solar roof top projects in residential sectors and there is a provision to incentivise the distribution companies for incremental achievement over the previous year. For residential sector, the use of domestically manufactured solar cells and modules have been mandated. This scheme is expected to act as catalyst for adding solar cell and module manufacturing capacity in India. So far, a cumulative 4.4 GW solar roof top projects have been set up in the country.

iii. Renewable Energy Research and Technology Development Programme

This programme is launched for the promotion of indigenous technology development for wide-spread deployment of new and renewable energy, including ocean energy, in an efficient and cost-effective manner across India.⁵⁵ The Committee reviewed the overall R&D programme, funding mechanism and identified the present thrust areas with the ultimate aim of increasing share of renewables in the energy mix in the country.⁵⁶

iv. National Wind-Solar Hybrid Policy (2018)

This policy was launched with an objective to provide a framework for promotion of large grid connected wind-solar PV hybrid system for efficient and optimal utilization of wind and solar resources, land and transmission infrastructure. The policy aims to encourage new technologies, methods and wayouts involving combined operation of wind and solar PV plants. The Policy seeks to promote new hybrid projects as well as hybridisation of existing wind/solar projects.⁵⁷

It has been provided in a hybrid project, subject to the condition that, rated power capacity of one resource be at least 25% of the rated power capacity of other resources for it to be recognised as a hybrid project.

54 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1874209>.

55 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1897775>.

56 Available at: <https://mnre.gov.in/research-and-development/wind>.

57 Available at: https://mnre.gov.in/img/documents/uploads/file_f-1597797108502.pdf.

The Policy provides for the integration of both energy sources i.e. wind and solar at alternating current (AC) as well as direct current (DC) level. It seeks to promote new hybrid projects as well as hybridisation of existing wind and solar projects. The Policy will be implemented on a tariff-based transparent bidding process for which government entities may invite bids. The policy permits the use of battery storage in hybrid projects for optimising output and reducing variability. It mandates the regulatory authorities to formulate necessary standards and regulations for wind-solar hybrid systems.

v. Development of Solar Parks and Ultra Mega Solar Power Projects Scheme

To facilitate large scale grid connected solar power projects, a scheme for Development of Solar Parks and Ultra Mega Solar Power Projects is under implementation with a target capacity of 40 GW capacity by March 2022. Solar parks provide solar power developers with a plug and play model, by facilitating necessary infrastructure like land, power evacuation facilities, road connectivity, water facility, etc. along with all statutory clearances. So far, 40 solar parks have been sanctioned with a cumulative capacity of 26.3 GW in 15 states. Solar power projects of an aggregate capacity of around 8 GW have already been commissioned in these parks.⁵⁸

vi. Programme on Energy from Urban, Industrial and Agricultural Waste/Residues Scheme

The objective of the programme is to support the setting up of Waste to Energy projects for generation of Biogas/ BioCNG/ Power/ producer or syngas from urban, industrial and agricultural wastes/residues, within a period of five years from FY 2021–22 upto FY 2025–26⁵⁹. Central Financial Assistance (CFA) for projects of different categories is given in the form of capital subsidy to the promoters and in the form of Grants-in-Aid for other activities, as given below:⁶⁰

- a. Biogas generation: INR 1 crore per 12000 cum/day (Max. INR 10 crore/ project)
- b. BioCNG generation (including setting of biogas plant): INR 4 crore per 4800Kg/day (Max. INR 10 crore /project)
- c. Power generation based on Biogas (including setting of Biogas plant): INR 3 crore per MW (Max. INR 10 crore/ project)
- d. Biomass Gasifier:
 - INR 2,500 per kW with dual fuel engines for electrical application
 - INR 15,000 per kW with 100% gas engines for electrical application
 - INR 2 lakh per 300 kW for thermal applications.

58 Available at: <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1685046>.

59 Available at: https://mnre.gov.in/img/documents/uploads/file_f-1597797108502.pdf.

60 Scheme available at: <https://mnre.gov.in/waste-to-energy/schemes>.

vii. Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

The Ministry of Power launched this scheme with the following components:

- To separate agriculture and non-agriculture feeders to facilitate DISCOMs in the judicious rostering of supply to agricultural & non-agricultural consumers in rural areas.
- Strengthening and Augmentation of Sub Transmission & Distribution infrastructure in rural areas and metering at Distribution Transformers, Feeder and consumers end in rural areas.
- The erstwhile rural electrification scheme was subsumed in DDUGJY as a separate rural electrification component and the approved outlay of the erstwhile scheme has been carried forward to the DDUGJY.

viii.**Energy Storage Systems**

Policy on Energy Storage system is being drafted to promote the creation of storage systems on a large scale across the country. The policy aims at the creation of technology-agnostic storage system across the value chain of the electricity sector viz. at generation, transmission, and distribution levels. Energy Storage Systems will benefit Generating Companies, Distribution Companies of the States, Grid Operators, and other players in the electricity value chain. This will facilitate Peak shifting, Peak Shaving, Ramp up/ Ramp down, and Frequency Control in the system and enhance the utilization of the Transmission System. ESS is considered essential for a smooth energy transition from coal-based to renewable sources and to a cleaner environment.⁶¹

ix. Green Open Access Rules 2022

The Green Open Access Rules have been notified to further accelerate the ambitious renewable energy programmes, with the end goal of ensuring access to affordable, reliable, sustainable green energy for all.⁶² The Green Open access is allowed to any consumer and the limit of Open Access Transaction has been reduced from 1 MW to 100 kW for green energy, to enable small consumers to purchase renewable power through open access. The Rules require the approval to be granted in 15 days through a national portal or else it will be deemed to have been approved subject to fulfilment of technical requirements. Banking of surplus green energy with the distribution licensee is mandated. Consumers will also be given the green certificates if they consume green power. Cross subsidy surcharge and additional surcharge shall not be applicable if green energy is utilized for production of green hydrogen and green ammonia.

x. Central Public Sector Undertaking (CPSU) Scheme

The Central Public Sector Undertaking (CPSU) Scheme Phase – II aims to set up 12 GW grid-connected Solar Photovoltaic (PV) Power projects. The eligible organizations are Government Producers (PSUs/ Govt. Organs.) which are under administrative control or have 50% shareholding of Central/State government. Nayveli Lignite Corporation Limited (NLCIL) has installed around 1421 MW of Renewable energy and in process of installing 4610 MW under MNRE and CPSU scheme leading to a total of 6031 MW of Renewable Energy by 2030. The expansion of the Renewable Energy of 4610 MW additionally, will be undertaken with an estimated cost of Rs. 23403 crore over a period of eight years.⁶³

61 Available at: <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1793039>.

62 Available at: <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1831832>.

63 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1909978>.

D. Information Technology, Business Process Management and Electronic Systems Sector

The IT & BPM (Information Technology and Business Process Management) industry refers to a broad sector that encompasses various technology-related services and solutions aimed at supporting and enhancing business operations, communication, and connectivity. This industry involves the utilization of technology to streamline processes, improve efficiency, deliver innovative solutions, and facilitate seamless communication. It spans across several key components, including Information Technology (IT), Business Process Management (BPM), and Telecommunications.

On the other hand, the Electronic Systems industry in India encompasses the design, manufacturing, and deployment of various electronic components, devices, and systems. This industry plays a crucial role in powering sectors such as telecommunications, consumer electronics, industrial automation, defense and aerospace, healthcare equipment, and more. It involves creating hardware and software solutions that enable the functioning of modern electronic devices and systems. The electronics systems industry in India is dynamic, with the potential to contribute significantly to economic growth, technological advancement, and job creation. As the country continues to embrace digital transformation and innovation, the electronics industry will play a pivotal role in shaping India's future.⁶⁴

The Make in India initiative was launched by the government in September 2014 with the aim of transforming India into a global manufacturing hub and several key industries, including IT & BPM and Electronics Systems, were included in the Make in India initiative. Inclusion of these industries in the Make in India initiative aligns with the broader goal of promoting economic growth, job creation, technological advancement, and reducing import dependency. By encouraging investments and domestic production in these sectors, the initiative aims to make India a competitive player on the global manufacturing stage.

Production Linked Incentive Schemes for Large Scale Electronics Manufacturing

The Production Linked Incentive (PLI) Scheme stands as a pivotal initiative in fostering economic growth and encouraging domestic manufacturing across various sectors. Designed to provide substantial incentives to companies that enhance their production capabilities, the PLI Scheme aims to not only bolster self-reliance and job creation but also elevate the overall competitiveness of industries on both regional and global scales. By linking incentives to actual production and performance, this scheme serves as a catalyst for technological advancement, innovation, and sustainable development. The Scheme was notified on April 01, 2020. PLI Scheme extends an incentive of 6% to 4% on incremental sales (over base year) of goods under target segments that are manufactured in India to eligible companies, for a period of five years subsequent to the base year (FY 2019–20). Incentives are applicable under the scheme from August 01, 2020.⁶⁵

After the success of the First Round of PLI Scheme in attracting investments in mobile phone and electronic components manufacturing, Second Round of the PLI Scheme for Large Scale Electronics Manufacturing was launched on March 11, 2021 for incentivizing Electronic Components. Under the Second Round, incentives of 5% to 3% have been extended on incremental sales (over base year i.e., FY 2019-20) of goods manufactured in India and covered under the target segment, to eligible companies, for a period of four years.

64 Statics available at: <https://www.ibef.org/industry/information-technology-india>.

65 Scheme available at: <https://www.meity.gov.in/esdm/pli>.

Production Linked Incentive Scheme for IT Hardware

The PLI Scheme for IT hardware was notified on March 03, 2021 which extends an incentive of 4% to 2% / 1% on net incremental sales (over base year i.e., FY 2019–20) of goods under target segments that are manufactured in India to eligible companies, for a period of four years (FY 2021–22 to FY 2024–25). The target IT hardware segments under the Scheme include Laptops, Tablets, All-in-One Personal Computers (PCs) and Servers. Incentives are applicable under the Scheme from April 01, 2021 and 14 companies have been approved under the PLI Scheme for IT Hardware.⁶⁶

Over the tenure of Scheme, the 14 approved companies under the Scheme are expected to lead to total production of about INR 1,60,000 crore. Out of the total production of INR 1,60,000 crore in the next four years, more than 37% is expected to be contributed by exports of the order of INR 60,000 crore. The Scheme is expected to bring an additional investment in electronics manufacturing to the tune of INR 2,500 crore.⁶⁷

The PLI Scheme 2.0 aimed at the IT Hardware sector is anticipated to expand and strengthen domestic manufacturing by promoting the production of parts and sub-components within the country. This initiative also permits a longer timeframe for building a local supply chain. The scheme offers greater choices and flexibility to applicants, and its benefits are linked to achieving higher sales and making increased investments, thereby encouraging growth. Moreover, the PLI Scheme 2.0 for IT Hardware extends its incentives to semiconductor design, IC manufacturing, and packaging as well.⁶⁸

Design Linked Incentive (DLI) Scheme — Indian Semiconductor Mission

The Design Linked Incentive (DLI) Scheme aims to offer financial incentives as well as design infrastructure support across various stages of development and deployment of semiconductor design(s) for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design(s) over a period of five years.⁶⁹ The Scheme was brought in to offset the disabilities in the domestic industry for semiconductor design and to move up in the value-chain. They aimed to strengthen and boost the Indian semiconductor design ecosystem.⁷⁰ The innovators are reimbursed via the “Deployment Linked Incentive” to about 6% to 4% of net sales over 5 years subject to a ceiling of ₹30 Crore incentive per application.⁷¹

Manufacturing value added is almost 17.3% of GVA in FY15, which currently is 17.7% in financial year 2022–23.⁷²

66 Scheme available at: <https://www.meity.gov.in/esdm/pli-20-it-hardware>.

67 Available at: <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1884069>.

68 Available at: <https://www.meity.gov.in/esdm/production-linked-incentive-scheme-pli-20-it-hardware>.

69 Available at: <https://chips-dli.gov.in/DLI/HomePage>.

70 Available at: <https://ism.gov.in/scheme-dli>.

71 Scheme available at: https://d2p5j06zeteli7.cloudfront.net/Cms/2022/May/05/1651757254_notification_dli.pdf.

72 Article available at: <https://www.fortuneindia.com/opinion/its-time-to-measure-the-impact-of-pli-dli-schemes/113139>.

International Patent Protection in Electronic & Information Technology

To encourage filing of international patents, a scheme to Support International Patent Protection in Electronics & IT (SIP-EIT) has been commissioned. The Scheme provides financial support to Small and Medium Enterprises (SMEs) and tech start-ups by supporting international patent protection in electronics and IT.⁷³

Reimbursement is limited to a total of around USD 21,650 (INR 15 Lakhs) per invention or 50% of the total expenses incurred in filing and processing of patent application up to Grant, whichever is lesser.⁷⁴

Sector Specific Policy Initiatives.

a. Prime Minister’s Wi-Fi Access Network Interface (PM-WANI)

In order to encourage the tech entrepreneurs to develop and deploy Wi-Fi tech solutions triggering Make in India, the Union Cabinet approved setting up of the Public Wi-Fi Networks by Public Data Office Aggregators (PDOAs) to provide public Wi-Fi service through Public Data Offices (PDOs).⁷⁵ This framework took forward the goal of National Digital Communications Policy, 2018 (NDCP) of creating a robust digital communications infrastructure.⁷⁶ The PM-WANI framework provides Broadband through Public Wi-Fi Hotspot providers. It consists of elements such as Public Data Office (PDO), Public Data Office Aggregator (PDOA), App Provider and Central Registry.⁷⁷

b. Software Technology parks of India (STP) Scheme

Software Technology Parks of India (STPI), an autonomous society under Ministry of Electronics and Information Technology is implementing Software Technology parks of India (STP) Scheme. 100% export-oriented Scheme for the development and export of computer software, including export of professional services using communication links or physical media. The export by STPI registered IT/ITeS Units is increasing on an annual basis and is stands at USD 80.3 Billion in the FY 2021–22.⁷⁸

c. Telecom Technology Development Fund Scheme

Universal Service Obligation Fund (USOF) launched the Telecom Technology Development Fund scheme with the aim to fund R&D in rural-specific communication technology applications and form synergies among academia, start-ups, research institutes, and the industry to build and develop the telecom ecosystem. Additionally, the Scheme aimed to promote technology ownership and indigenous manufacturing, create a culture of technology co-innovation, reduce imports, boost export opportunities and creation of Intellectual Property. This scheme also wishes to create the ecosystem for research, design, prototyping, use cases, pilots, and proof of concept testing, among others. The scheme involves grants to Indian entities to encourage and induct indigenous technologies tailor-made to meet domestic needs.⁷⁹

73 Available at: <https://www.meity.gov.in/content/support-international-patent-protection-electronics-information-technology>.

74 Available at: <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1884069>.

75 Details available at: <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1700431>.

76 Available at: <https://pmwani.gov.in/wani>.

77 Scheme available at: <https://dot.gov.in/sites/default/files/2>.

78 Scheme available at: <https://stpi.in/en/stp-scheme>.

79 Available at: <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1864133>.

d. National Policy on Software Products (2019)

This policy aims to develop India as the global software product hub, driven by innovation, improved commercialization, sustainable Intellectual property (IP), promoting technology start-ups and specialized skill sets, for development of the sector. The objective of the policy is to create a robust Indian Software Product development ecosystem.⁸⁰ Some programmes that are being implemented under this scheme are:⁸¹

- Next Generation Incubation Scheme (NGIS) has been approved to support software product ecosystem and to address a significant portion of National Policy on Software Product (NPSP 2019). It is envisaged to create a vibrant software product ecosystem to complement the robust IT Industry for continued growth, new employment and enhance competitiveness.
- Innovation Challenge for Development of Indian Video Conferencing Solution, to promote Indian software products, is also one of the programmes.
- Indian Software Product Registry (ISPR) has been created to analyse numbers/statistics/database of Indian Software Product Companies (ISPC) and to bring all software products at one single platform.
- The Start-up Accelerator Programme of MeitY for Product Innovation, Development and Growth (SAMRIDH) programme has been launched to support existing and upcoming Accelerators to select and accelerate potential product-based start-ups to scale. The program focuses on accelerating start-ups by providing customer connect, investor connect, and international immersion. The programme is being implemented by MeitY Startup Hub (MSH). Under the scheme, 22 Accelerators are being supported at present for supporting 175 startups.

e. National Policy on Electronics, 2019

With a vision to position India as a hub for Electronics System Design and Manufacturing (ESDM), this policy replaces the National Policy on Electronics 2012.⁸² The scheme encourages and drives the capabilities in the Country for developing core components, including chipsets and by creating an enabling environment for the industry to compete globally. It targets to promote domestic manufacturing and export in the entire value chain of ESDM and achieve a turnover of USD 400 Bn by 2025.

The Policy creates an ecosystem for global competition in the ESDM sector. It furthers provisions for incentive and support for manufacturing of core electronic components, and special incentives for mega high-tech projects, like semiconductor facilities, display fabrications etc. Additionally, it promotes R&D and innovation in different sub-sectors, namely, 5G, Internet of Things (IoT)/ Sensors, Artificial Intelligence (AI), Machine Learning, Virtual Reality (VR), Drones, Robotics, Additive Manufacturing, Photonics, Nano-based devices, etc. For Intellectual Property protection, it has provisions for creation of a Sovereign Patent Fund (SPF).⁸³

The Policy will enable flow of investment and technology, leading to higher value addition in the domestically manufactured electronic products, increased electronics hardware manufacturing in the country and their export, while generating substantial employment opportunities.

80 Available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1897273>.

81 Schemes available at: <https://www.meity.gov.in/national-policy-software-products-npsp-%E2%80%93-2019>.

82 Scheme available at: https://www.meity.gov.in/writereaddata/files/Notification_NPE2019_dated25.02.2019.pdf.

83 Available at: <https://www.meity.gov.in/esdm/policies>.

f. Electronics Development Fund (EDF)

Electronics Development Fund (EDF) has been set up as a ‘Fund of Funds’ to participate in professionally managed ‘Daughter Funds’ which in turn will provide risk capital to startups and companies developing new technologies in the area of electronics and Information Technology (IT). This fund is expected to foster R&D and innovation in these technology sectors.⁸⁴

g. Electronics Manufacturing Clusters (EMC)

This Scheme will secure the link between domestic and international markets by strengthening supply chain responsiveness, consolidation of suppliers, decreased time-to-market, lower logistics costs, etc. The EMC 2.0 Scheme provides financial assistance for setting up of both EMC projects and Common Facility Centres (CFCs) across the country.⁸⁵ The Scheme is open for receipt of application up to March 31, 2024 (after extension). Further, disbursement of funds is available up to March 2028, to the approved projects. There are two prominent projects under this scheme, Greenfield EMC and Brownfield EMC.

- Greenfield EMC is an undeveloped/underdeveloped geographical area, preferably contiguous where the focus is on development of basic infrastructure, amenities and other common facilities for the ESDM units.⁸⁶ It holds the objective to create basic development infrastructure along with common facilities and amenities for domestic as well as global electronics manufacturing units to set up their manufacturing operations in such cluster so as to develop electronics manufacturing ecosystem in the country and attract investments. For projects in Greenfield Electronics Manufacturing Clusters, assistance is provided to the extent of 50% of the project cost subject to a ceiling of INR 50 crore for every 100 acres of land.
- Brownfield EMC is a geographical area where a significant number of existing ESDM Units are located and the focus is on upgrading infrastructure and providing common facilities for the ESDM units.⁸⁷ Here the objective is to reduce the lead time of production, production cost (including transportation and logistics cost), increase export and revenue generation etc. For Brownfield EMCs, 75% of the cost of infrastructure is provided, subject to a ceiling of INR 50 crore.

h. Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS)⁸⁸

SPECS has been notified to strengthen the value chain for electronics manufacturing in India with the target segment comprising of downstream value chain products such as electronic components, semiconductor/display fabrication units, ATMP units, specialized sub-assemblies and capital goods for manufacture of aforesaid goods. Under the scheme, 25% incentives will be provided on capital expenditure (on a reimbursement basis) in new units and expansion/modernization/diversification of existing units. The scheme will be open for applications for a period of 3 years from the date of notification. All investments made within 5 years from the date of acknowledgement will be eligible for receiving incentives under SPECS which has an outlay of about USD 440 million.⁸⁹

84 Available at: <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1884069>.

85 Available at: <https://www.meity.gov.in/esdm/emc2.0>.

86 Available at: <https://www.meity.gov.in/content/greenfield-electronic-manufacturing-clusters>.

87 Available at: <https://www.meity.gov.in/content/common-facility-centres-brownfield-electronic-manufacturing-clusters>.

88 Available at: <https://www.makeinindia.com/sector/electronic-systems>.

89 Press release available at: <https://pib.gov.in/PressReleaseIframePage>.

i. Scheme for setting up of Display Fabs in India

Scheme for attracting large investments for manufacturing TFT LCD or AMOLED based display panels in the country to strengthen the electronics manufacturing ecosystem. Scheme extends fiscal support of up to 50% of Project Cost subject to a ceiling of INR 12,000 crore per Fab,⁹⁰ on the basis of almost equivalent costs for setting up of Display Fabs in India. What this scheme aims to achieve is a country-wide set-up of display fabrication facilities that help bring about a healthy manufacturing ecosystem in India and making India a promising investment market.⁹¹

j. Scheme for setting up of Semiconductor Fabs in India

This scheme provides fiscal support for setting up semiconductor wafer fabrication facilities in the country, which is aimed at attracting large investments.⁹² Fiscal support of 50% of the Project Cost is available for setting up of silicon-based semiconductor fabs across all technology nodes.

k. Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India

It provides a fiscal support of 50% of the Capital Expenditure to the eligible applicants for setting up of Compound Semiconductors / Silicon Photonics (SiPh) / Sensors (including MEMS) Fab / Discrete Semiconductor Fabs and Semiconductor ATMP / OSAT facilities in India.⁹³ It aims to strengthen the electronics manufacturing ecosystem and help establish a trusted electronics value chain in the areas of application of the fabrication and packaging technologies, thereby attracting investments.⁹⁴

90 Details available at: <https://www.meity.gov.in/esdm/Semiconductors-and-Display-Fab-Ecosystem>.

91 Available at: <https://ism.gov.in/display-fabs.html>.

92 Scheme details available: <https://ism.gov.in/semiconductor-fabs.html>.

93 Details available: <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1884069>, official website: <https://ism.gov.in/compound-semiconductors-silicon-photonics-sensors-fab-discrete-semiconductors-fab-and-semiconductor-atmposat-facilities.html>.

94 Available at: <https://ism.gov.in/compound-semiconductors-silicon-photonics-sensors-fab-discrete-semiconductors-fab-and-semiconductor-atmposat-facilities.html>.

Conclusion & Way Forward

India has taken huge strides in its goal of achieving self-reliance with the Make in India initiative since 2014 with the active involvement of the government as a facilitator for the industry to progress. To achieve an inclusive and sustainable growth of the economy, the government has introduced numerous reforms and initiatives encouraging the industries and its various stakeholders to ensure increase in productivity of the sector and thereby progressing towards global leadership. Make in India has encouraged foreign investors to set up manufacturing base in the country and continues to attract FDI in the country.

The government's initiative to place India as the global hub for manufacturing in the eyes of the world, numerous PLI schemes have been introduced for various sectors to incentivize production and provide benefits to the industry leading to a support being created for the rise of the GDP of the nation. Given the efforts of the government, the manufacturing sector has emerged as one of the fastest growing sectors in India. While keeping in view the goal of the government to encourage development with 'zero defect zero effect' the environment has also been protected while ensuring the quality of the Indian products in increased to compete in the global markets.

To achieve the goal of sustainable and inclusive growth, it is important to trace the challenges faced by each sector and introduce counteractive forces to address the challenges and support the economic ecosystems created.

- *Coordination between the central and state governments in implementing the goals of Make in India initiative:* The government must ensure that coordination is maintained between the facilitator and the stakeholders in various industries and must undertake to understand the differences and strengths in each sector. Given the potential for loss of policy focus on the unique needs of each sector, increased coordination between the central and state governments in the policy arena will enable enhanced implementation of policies in each sector.
- *Integrated platform for PLI Schemes:* To enable enhanced awareness amongst the industry players and various stakeholders, it is important for the government to introduce an integrated platform to avoid information asymmetry as well as to track all incentives offered through the various PLI Schemes in each state can assist the growth of the various sectors under the Make in India initiative.
- *Ecosystem oriented approach:* The various sectors recognized under the Make in India initiative lead to the creation of a linked ecosystem as discussed in this paper. To ensure the survival of the various ecosystems, and to cater to the complexities of each sector, the government must undertake an ecosystem-oriented approach. Wherein the government must recognize the unique demands and requirements of each sector in implementing the initiatives through an inclusive growth of each part of the ecosystem such as the workforce, cooperation with the facilitator, coordination with stakeholders, etc. This will also help in establishing stronger ecosystems and will encourage stronger inter-organizational relationships. Additionally, the government through its Skill India Mission has already undertaken to educate and train the workforce in various sectors and must continue to encourage differentiated skill building amongst the citizens to facilitate growth of the industries and cater to the market needs while also assisting in generating employment.
- *Improving the research and development setup:* To enhance the pace of implementation of various schemes and initiatives targeted at improving the research and development infrastructure in the country to boost the manufacturing competitiveness, there is a need for integrating the research and development setup under each sector. With the goal of making India a global manufacturing hub, there is also a need for making India a research and development hub.

Conclusion & Way Forward

- *Resolving disputes efficiently:* Given the hurdle created by disputes arising amongst various stakeholders in achieving the goals of development for each sector, there is a need for simplifying e-filing procedures and to encourage alternative dispute resolution mechanisms in resolution of disputes arising in various sectors. The government may undertake to establish special tribunals for commercial cases and simplification of existing policies to support growth of various sectors under the Make in India initiative.
- There is a need to shift the reliance on energy sources for electricity to renewable energy sources in order to reduce costs and improve the manufacturing sector’s productivity and profit margins.

The Make in India initiative is an ambitious positive step taken by the government to boost the Indian economy by supporting the domestic industries while also pushing Indian goods to reach global markets. Make in India initiative also encourages global market players to setup manufacturing hubs in India to meet global demands for products. The roadblocks created by restrictive business regulations and the lack in preparedness of the workforce require commitment from the government through various programs and initiatives to progress towards a self-reliant nation.

The Make in India initiative is sure to push the nation towards more success.

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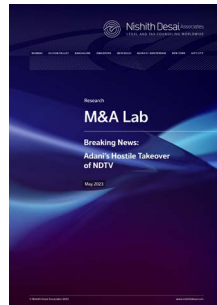
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Nishith Desai Associates
LEGAL AND TAX COUNSELING WORLDWIDE

MUMBAI

93 B, Mittal Court, Nariman Point
Mumbai 400 021, India

Tel +91 22 6669 5000

SILICON VALLEY

220 S California Ave., Suite 201
Palo Alto, California 94306, USA

Tel +1 650 325 7100

BENGALURU

Prestige Loka, G01, 7/1 Brunton Rd
Bengaluru 560 025, India

Tel +91 80 6693 5000

SINGAPORE

Level 24, CapitaGreen
138 Market St
Singapore 048 946

Tel +65 6550 9855

MUMBAI BKC

3, North Avenue, Maker Maxity
Bandra-Kurla Complex
Mumbai 400 051, India

Tel +91 22 6159 5000

NEW DELHI

13-H, Hansalaya Building, 15
Barakhamba Road, Connaught Place
New Delhi 110 001, India

Tel +91 11 4906 5000

MUNICH / AMSTERDAM

Maximilianstraße 13
80539 Munich, Germany

Tel +49 89 203 006 268

NEW YORK

1185 6th Avenue, Suite 326
New York, NY 10036, USA

Tel +1 212 464 7050

GIFT CITY

408, 4th Floor, Pragya Towers
GIFT City, Gandhinagar
Gujarat 382 355, India

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