The central government introduced the production-linked incentive (PLI) scheme in March 2020 to make India a competitive player in global markets and boost domestic manufacturing & exports. The PLI scheme aims to give companies incentives on incremental sales of products manufactured in domestic units. The scheme invites foreign companies to set up units in India; however, it also aims to encourage local companies to set up or expand existing manufacturing units, generate more employment and reduce the country's reliance on imports.
Key objectives of the PLI scheme were announced in March 2020:
• Protect identified product areas
• Introduce non-tariff measures that make imports more expensive
• Acknowledge relevance of exports in the overall growth strategy, with renewed focus on the domestic market
• Promote domestic manufacturing by offering production incentives and encouraging capital investments
• Attract core knowledge competency and cutting-edge technologies
• Create economies of scale and ensure efficiencies
• Promote job generation and employment
• Construct district-level export hubs
• Reduce compliance burden
• Improve ease of doing business
• Cut down logistics costs
• Boost domestic manufacturing output by Rs. 3,763,150 (US$ 520 billion) in five years

The scheme was originally designed for FY2019–20 for a few select industries such as mobiles phones and allied equipment manufacturing, pharmaceutical ingredients and medical devices. This was implemented by the Ministry of Electronics and Information Technology (MEITY) and the Department of Pharmaceuticals with a financial outlay of Rs. 51,311 crore (US$ 7,089 million) to be used over a five-year period. In FY2020, the scheme benefitted ~150 manufacturing units, generating incremental sales of Rs. 46,400 crore (US$ 6,187 million) and showcased significant potential for additional employment over the next eight years.

As a result, the scheme has been expanded to accommodate an additional 10 ‘sunrise’ sectors to boost the economy and India’s self-reliance. This initiative was announced
by the Union Finance Minister, Nirmala Sitharaman, during the Atmanirbhar Bharat 3.0 Stimulus Package for FY20–21, with an estimated allocation of Rs. 145,980 crore (US$ 20,169 million) spread across five years. The sectors covered under the new scheme are as follows:

<table>
<thead>
<tr>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Advance Chemistry Cell (ACC) Battery</td>
</tr>
<tr>
<td>2. Electronic and Technology Products</td>
</tr>
<tr>
<td>3. Automobiles and Auto Components</td>
</tr>
<tr>
<td>4. Pharmaceutical Drugs</td>
</tr>
<tr>
<td>5. Telecom and Networking Products</td>
</tr>
<tr>
<td>6. Textile Products (Man-made Fibres and Technical Fibres)</td>
</tr>
<tr>
<td>7. Food Products</td>
</tr>
<tr>
<td>8. High-efficiency Solar PV Modules</td>
</tr>
<tr>
<td>9. White Goods (ACs and LEDs)</td>
</tr>
<tr>
<td>10. Specialty Steel Products</td>
</tr>
</tbody>
</table>

The PLI scheme is designed to be implemented by specified industries and departments for each sector with the twin objective of enhancing India’s manufacturing capabilities and goods export.
Advance Chemistry Cell (ACC) Battery

ACC battery manufacturing represents one of the largest economic opportunities in the 21st century for several global growth sectors such as consumer electronics, electric vehicles and renewable energy. The PLI scheme for ACC battery is likely to incentivise large domestic and international players in establishing a competitive battery set-up in the country. The scheme’s battery policy aims to make manufacturers globally competitive, boost exports, achieve economies of scale and build cutting-edge products.

The government is making significant efforts to promote use of electric vehicles (EVs), which has faced headwinds earlier due to high battery costs and lack of support infrastructure. Manufacturing companies in India generally import batteries, which account for ~50% of an EV’s cost. Under the PLI scheme, local manufacturing facilities are being encouraged to reduce production costs and stimulate healthy competition. Apart from promoting EVs, there has been a significant push for regular power supply from renewable energy, which require ACC batteries with large energy storage capacities.

The total financial outlay for the ACC sector is Rs. 18,100 crore (US$ 2,501 million). This sector will be managed under the NITI Aayog and the Department of Heavy Industries. The scheme proposes the relevant state government, central government and manufacturer to form a tripartite agreement. Herein, the state government will be responsible for extending support to the manufacturer in the form of providing land for the facility as well as assisting in procuring permits and licenses. NITI Aayog will help float draft bid papers for setting up ACC units and the central government would take charge of disbursing funds through state ministries.

As per a statement released by the Union Cabinet, the scheme is expected to lead production and exports worth Rs. 326,000 crore (US$ 45,048 million) and Rs. 245,000 crore (US$ 33,855 million), respectively, in the next four years. Also, it is likely to bring additional investments of Rs. 2,700 crore (US$ 373 million), earn direct and indirect revenue of Rs. 15,760 crore (US$ 2,178 million) and create 180,000 jobs in four years. Additionally, the government's push for data localisation, Internet of Things market and projects such as Smart City and Digital India are expected to increase the demand for electronic products.

Electronic and Technology Products

The PLI scheme will boost production of electronic products in India. The approved product lines for this sector include semiconductor fabs, display fabs, laptops, digital notebooks, servers, IoT devices and computer hardware components. The scheme proposes production-linked incentives to boost domestic manufacturing and attract large investments across the value chain of IT hardware products. The scheme will provide 1-4% incentives to eligible companies on net incremental sales of goods manufactured. This sector will be managed under the Ministry of Electronics and Information Technology (MEITY). The total budget allocated to the electronics sector is Rs. 5,000 crore (US$ 691 million).
The first round of applications for the scheme attracted global majors such as Apple’s contract manufacturers Foxconn, Wistrom and Pegatron; Samsung; and local players such as Lava, Optiemus and Dixon – committing >Rs. 11,000 crore (US$ 1,520 million).

Automobiles and Auto Components

The Department of Heavy Industries and Public Enterprises, along with the Ministry of Commerce, will oversee the PLI scheme for this sector. They are planning to offer standard operating procedures based on the Incremental increase in export revenue from the base year instead of just total revenue from goods shipped in a given year. Besides, the ministries are also planning to shift the base year to FY19 from FY20 for calculating incentives. The total amount of financial incentives allocated to the automotive sector is Rs. 57,042 crore (US$ 7,882 million).

The PLI scheme is expected to garner an ambitious >Rs. 100,000 crore (US$ 13,819 million) over a five-year period and generate another 5,884,000 jobs. The automotive industry is a major economic contributor in India. The PLI scheme is likely to make this industry more competitive and enhance globalisation of the Indian automotive sector.

Pharmaceutical Drugs

The scheme for pharmaceuticals is expected to promote manufacturing of high-value products in the country and increase value addition in exports. The scheme for this sector will be managed by the Department of Pharmaceuticals. The total volume of financial incentives allocated to the sector is Rs. 15,000 crore (US$ 2,073 million). Currently, India exports pharmaceutical products to 200 countries worldwide but imports high-value patented drugs for domestic consumption. The scheme aims to make the Indian industry globally competitive and reduce import bills on pharmaceuticals.

The scheme has outlined the following three categories of product lines for this sector:
Category 1: Biopharmaceuticals, complex generic drugs, patented drugs or drugs nearing patent expiry, cell-based or gene therapy products, orphan drugs, special empty capsules and complex excipients
Category 2: Active pharma ingredients (APIs), key starting materials (KSMs) and drug intermediaries (Dis)
Category 3: Repurposed, auto-immune, anti-cancer, anti-diabetic, anti-infective, cardiovascular, psychotropic and anti-retroviral drugs; in-vitro diagnostic devices (IVDs); and phytopharmaceuticals

Telecom and Networking Products

PLI scheme for the telecom sector is aimed at offsetting imports of telecom equipment and reinforcing the ‘Make in India’ campaign for telecom products in the domestic market. Currently, India annually imports telecom and network equipment worth Rs. 50,000 crore (US$ 6,909 million). To address this concern, the Union Cabinet has approved a maximum financial outlay of Rs. 12,195 crore (US$ 1,685 million) towards production-linked incentives for domestic and international manufacturers.
The incentive structure ranges from 4% to 7% for different product categories and years of cumulative incremental sales of manufactured goods. The approved product lines for this sector include core transmission equipment, 4G and 5G infrastructure, next-generation radio access networks, wireless access equipment, customer premises equipment, IoT access devices, enterprise equipment and switches & routers.

Telecom equipment forms a critical and strategic element of building a secured telecom infrastructure and India aspires to become a major original equipment manufacturer of telecom and networking products. The PLI scheme is expected to attract large investments from global players and help domestic companies tap emerging opportunities and become large players in the export market.

This sector will be managed under the Department of Telecom. The scheme is expected to bring investments worth Rs. 3,000 crore (US$ 415 million) this sector, incremental production worth Rs. 244,200 crore (US$ 33,745 million), goods exports worth Rs. 1,95,360 crore (US$ 26,996 million), tax revenue worth Rs. 17,000 and additional direct & indirect employment of 40,000 personnel in the next five years.

**Textile Products (Man-made Fibres and Technical Fibres)**

The PLI scheme for the textile sector envisages the highest financial benefits for companies entering the textile space. Eligible companies can gain up to 11% of monetary incentives for boosting production and employment in this space—this is the highest among all 10 sectors. As per the criteria, new entrants would be required to invest at least Rs. 500 crore (US$ 70 million) to be eligible for the scheme. The incentive rate for existing companies in the sector is capped at 9% of incremental production in the first year for companies with a turnover between Rs. 100 crore and Rs. 500 crore (US$ 14-70 million). This incentive would be gradually tapered to 5% over five years. Companies with turnover of >Rs. 500 crore (US$ 70 million) would be eligible for a 7% incentive, which would be reduced to 3% over five years. The maximum amount of financial incentives approved by the Union Cabinet for this sector is Rs. 10,683 crore (US$ 1,476 million). The scheme aims to create 50-60 globally competitive champion companies in these two textile segments – man-made fibres and technical fibres.
Airbags, sutures, sanitary napkins and bandages could be among the 10 products in technical textiles to get a manufacturing boost under the scheme, along with another 40 items of man-made fibres (MMF) such as track suits, coats and children’s garments.

The Indian textile industry is one of the largest in the world, holding ~5% – worth Rs. 673 crore (US$ 93 million) – of the global exports in textiles & apparel. But, India’s share in the MMF segment is low in contrast to the global demand and consumption, which is valued at Rs. 79,600 crore (US$ 11,000 million). The PLI scheme will attract huge investments in the sector to fuel domestic manufacturing, especially in the MMF segment and technical textiles. The scheme for this sector will be implemented by the Ministry of Textiles.

**Food Products**

The PLI scheme for the food processing sector will be implemented by the Ministry of Food Processing Industries, with the aim of enhancing manufacturing capability, increasing food product exports and introducing food-processing facilities in semi-rural and rural regions in the country. Under this scheme, the government envisages offering support to 2 lakh beneficiaries to upgrade their businesses, with the objective of integrating micro-food processing enterprises into the mainstream industry. The total amount of financial incentives earmarked for this sector is worth Rs. 10,900 crore (US$ 1,506 million). Specific product lines with high-growth potential and capabilities to generate medium to large-scale employment have been identified for providing support through PLI schemes. The products include ready-to-eat goods, ready-to-cook products, marine products, fruits & vegetables, honey, desi ghee, mozzarella cheese, organic eggs and poultry meat. Growth of the processed foods industry will ensure better prices for farmers and reduce high levels of wastage.

**High-efficiency Solar PV Modules**

The Government of India is looking at investing Rs. 4,500 crore (US$ 622 million) in manufacturing solar PV modules under the PLI scheme. PLI for the solar sector will be managed by the Ministry of New and Renewable Energy (MNRE). This scheme will encourage domestic and global companies to build large-scale solar capacity in India through vertically integrated manufacturing facilities, thereby helping India become a part of the global value chain for solar PV manufacturing.

The scheme for the solar sector is expected to attract a direct investment of Rs. 14,000 crore (US$ 1,935 million) from global solar manufacturers. The scheme, which is targeting 100 GW
of solar PV manufacturing capacity in the next two years, will also increase the demand for locally produced materials such as ethylene vinyl acetate (EVA) sheets, solar glass, back sheet and junction boxes amounting to Rs. 17,500 crore (US$ 2,418 million). This will help in augmentation and development of the solar PV manufacturing ecosystem.

By Q4 2022-23, 10,000 MW capacity of solar manufacturing plants (from manufacturing wafer ingots to high-efficiency modules) will be set up under the scheme. Due to in-built incentive for higher-efficiency module and local value addition, the expectation is that more investments in R&D will be made by successful manufacturers to achieve greater efficiency. This will also incentivise them to source their input material locally for larger PLI benefits.

The scheme is also expected to create direct employment for ~3,000 people in solar panel manufacturing as well as indirect employment for 120,000 in ancillary & allied industrial activities, packaging, logistics and other services. The increased capacity of 10,000 MW, high-efficiency solar PV module capacities will lead to import substitution, thereby increasing savings in foreign exchange of about Rs. 17,500 crore (US$ 2,418 million) per year. Large imports of solar PV panels also pose risks in supply-chain resilience and have strategic security challenges considering the electronic (hackable) nature of the value chain. There is commitment towards investments in renewable energy infrastructure and a PLI scheme for solar PV modules is a step in that direction.

**White Goods (ACs and LEDs)**

The PLI scheme for air conditioners and LED lights, worth Rs. 6,238 crore (US$ 862 million), will be launched officially on April 1, 2020, by the Department for Promotion of Industry and Internal Trade (DPIIT). The scheme will focus on boosting manufacturing for the domestic and global markets, and improving the quality and scale of production in the country. With this scheme, 1,000 companies are being monitored globally; these companies either have presence in India or are likely to enter soon. Support will be extended to such companies via the investment promotion division of the commerce & industry ministry, Invest India and project development cells of various relevant ministries.

In the next five years, production worth Rs. 17,000 crore (US$ 2,349 million) is likely to be achieved under the scheme. This will also expand exports by Rs. 64,400 crore (US$ 8,899 million) and create more than 100,000 jobs. The scheme is aimed to generate revenue worth Rs. 11,300 crore (US$ 1,562 million) through direct tax and Rs. 38,000 crore (US$ 5,251 million) through goods & services tax. An incentive of 4-6% will also be provided to eligible companies on incremental sales over the base year FY19-20 for goods manufactured in India and covered under the target segments.
The scheme is likely to aid in fulfilling three objectives in the air conditioner industry. First, to increase manufacturing capacity in India. At present, many components are imported. Therefore, this will boost India’s self-reliance beyond assembling units to manufacturing air conditioner units. Second, value addition in air conditioners is low (currently, at 25%), as the material components used in manufacturing (such as aluminium, copper, PCB, compressors and motors) are not produced locally. Hence, the aim is to increase value addition from 25% to 75% in the next five years and reverse integrate the value chain. Lastly, the objective is to make India competitive on the world stage in terms of quality and cost.

Specialty Steel Products

Steel is a strategically important industry and India is the world's second-largest steel producer. It is a net exporter of finished steel and has potential to become a leader in certain grades of steel. A PLI scheme in specialty steel will help in enhancing manufacturing capabilities for value-added steel, leading to an increase in total exports.

This sector will be managed under the Ministry of Steel. The total budget allocated to the automotive sector is Rs. 6,322 crore (US$ 874 million). Inclusion of the sector under the PLI scheme will stimulate investments, ramp up production, generate employment and facilitate technology upgrades. Apart from this, the scheme will encourage local manufacturing of the import-dependent, cold-rolled grain-oriented (CRGO) steel grade used by the electrical sector. Of the total amount of Rs. 6,322 crore (US$ 874 million), Rs. 568 crore (US$ 78.5 million) will be provided to steel producers to expand or diversify production of the CRGO steel grade.

This will make India self-reliant in manufacturing speciality steel products, improve availability of ‘specialty steel’ and subsequently, meet the domestic demand. This is because, in the deregulated and open market scenario, the market forces of demand and supply determine the prices of steel. Moreover, they also depend on the prices of raw materials as well as trends in global steel trade. With the inclusion, continuous supply and availability of steel will be guaranteed in the domestic market.

The steel ministry has proposed a three-incentive slab of 3%, 6% and 9%. The PLI per company will be subject to a ceiling of Rs. 200 crore (US$ 27.6 million). The 3% incentive is proposed for steel types that are largely used in the construction, power and agriculture sectors. These include colour-coated steel, aluminium-zinc-coated steel and heat-treated HR steel. The 6% incentive is proposed for tin mill-coated metal products and electro-galvanised steel. As domestic manufacturing increases, this category has significant export potential for the country. The 9% incentive will be aimed at domestic manufacturing of steel grades that are imported at present. These steel grades are imported for various industrial as well as oil and gas applications. Head-hardened and asymmetrical rails will also be included in this category.
Impact Assessment

The PLI scheme is likely to boost India's manufacturing output by Rs. 3,770,000 crore (US$ 520 billion) in five years, according to a press release issued by the Prime Minister Narendra Modi. The scheme has been conceived in a manner that incentives are payable by the government only after the investment is done, employment has been generated and production & sales targets have been achieved. In addition, the scheme offers higher incentives for the MSME sector, which is likely to encourage domestic manufacturing and develop stronger supply chains across the country.

The scheme has been introduced to revive growth in India's manufacturing sector, which has been sluggish in the recent years. National Accounts Statistics indicates that manufacturing accounted for only 15.1% of India’s gross value added (GVA) in FY2019-20 versus 17.4% in FY2011-12. The contraction in share was recorded, despite strong growth in private consumption in the country. This inertia in India's manufacturing sector has translated into high import dependence and a large trade deficit.

India recorded a trade deficit in 5 out of the 10 PLI sectors – ACC battery manufacturing, electronics, medical devices, solar PV manufacturing and white goods. The trade deficit for these five sectors amounted to ~Rs. 296,000 crore (US$ 40.9 billion) in 2019-20, accounting for more than one-fourth of the overall merchandise trade deficit and 56.8% of the non-oil merchandise trade deficit of India. Investment incentives could help reduce imports in these sectors by building domestic manufacturing capacities, which would also cater to exports of these goods. As per India Exim Bank estimates (through this two-pronged approach), the trade deficit can be neutralised effectively.

In the remaining five sectors where India enjoys an overall trade surplus, PLI schemes will help manufacturers move up the value chain and lead to higher value-added exports from the country. Besides, economies of scale would also fetch new customers and markets, thereby improving export volumes.

The analysis of India's imports by end use (capital, intermediate and consumer) indicates that ~79% imports in FY2019 comprised intermediate goods. India's manufacturing sector depends significantly on imported intermediates, which can be reduced by localisation of manufacturing activities through the PLI scheme.
Overall, the 10 sectors identified for this scheme showcase significant untapped potential from a balance of trade perspective. According to India Exim Bank Research, in FY2019-20, cumulative exports from 10 PLI sectors stood at Rs. 521,000 (US$ 71.9 billion) with the potential of augmenting India's exports by Rs. 398,000 crore (US$ 55 billion)