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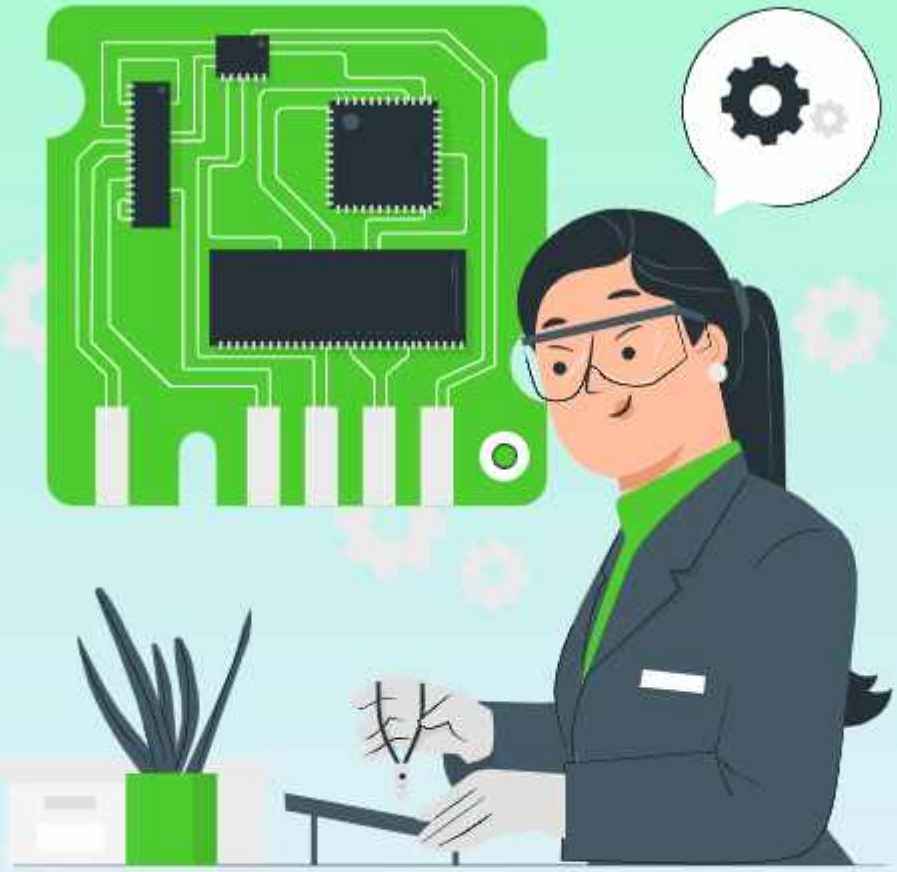

ELECTRONICS SECTOR

Introduction

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- The Electronics System Design & Manufacturing (ESDM) industry includes electronic hardware products and components relating to information technology (IT), office automation, telecom, consumer electronics, aviation, aerospace, defence, solar photovoltaic, nano electronics and medical electronics. The industry also includes design-related activities such as product designing, chip designing, Very Large-Scale Integration (VLSI), board designing and embedded systems.
- India's digital base is the second largest in the world and is growing at the second-fastest rate among the 17 leading economies.
- The Digital India Program has been transforming the Country into a digitally empowered society and knowledge economy since its launch in July 2015.
- India is the third biggest start-up hub in the world. In 2019 alone, 1300 new tech start-ups were added.

STATISTICS

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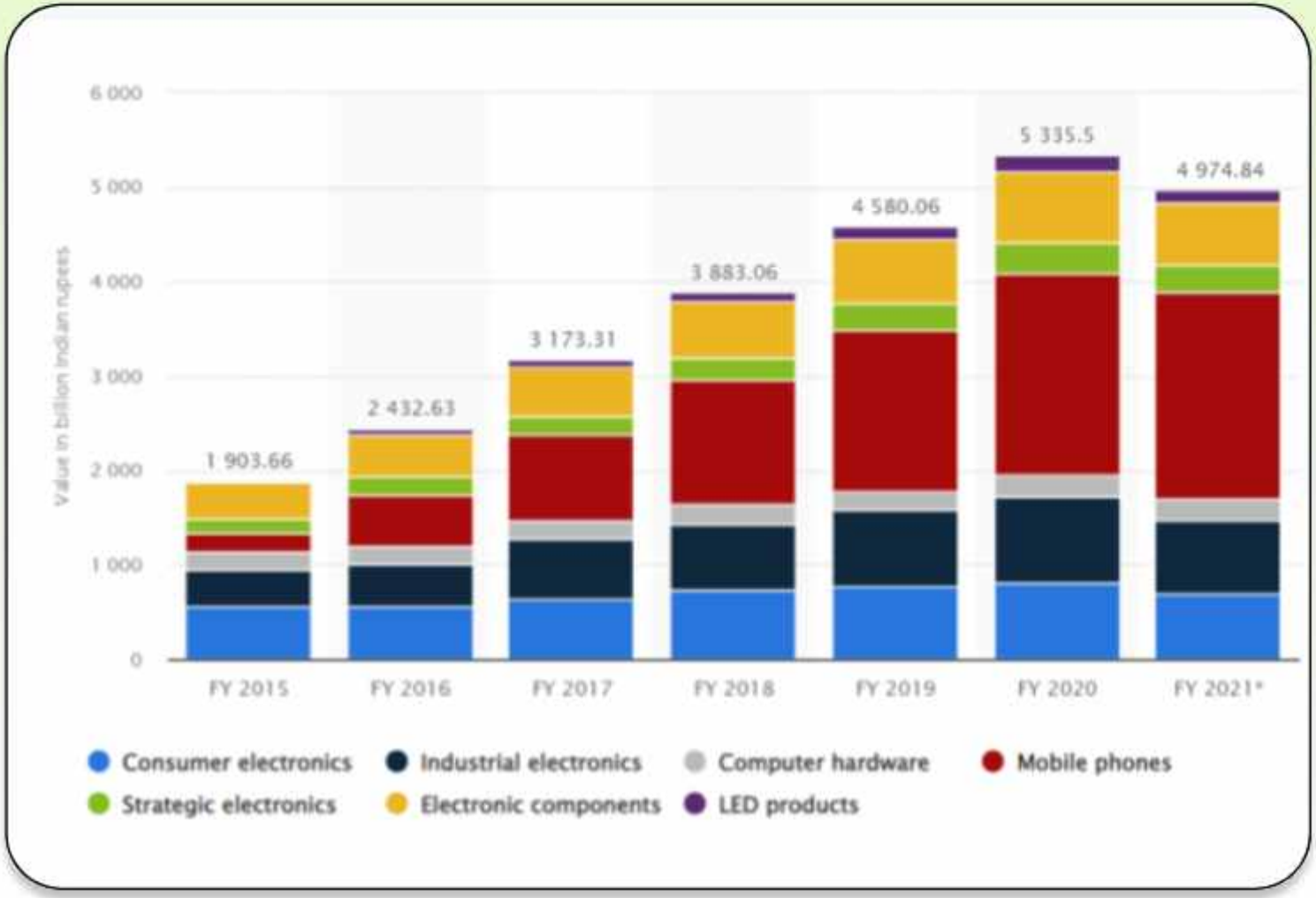
The export volume of finished steel from India at the end of 2020 was around 10 million metric tons. This volume increased from 2019 with around 8.2 million metric tons. In 2018, India was a net importer of total finished steel, but since 2019, it turned out to be a net exporter.



INDIAN MARKET

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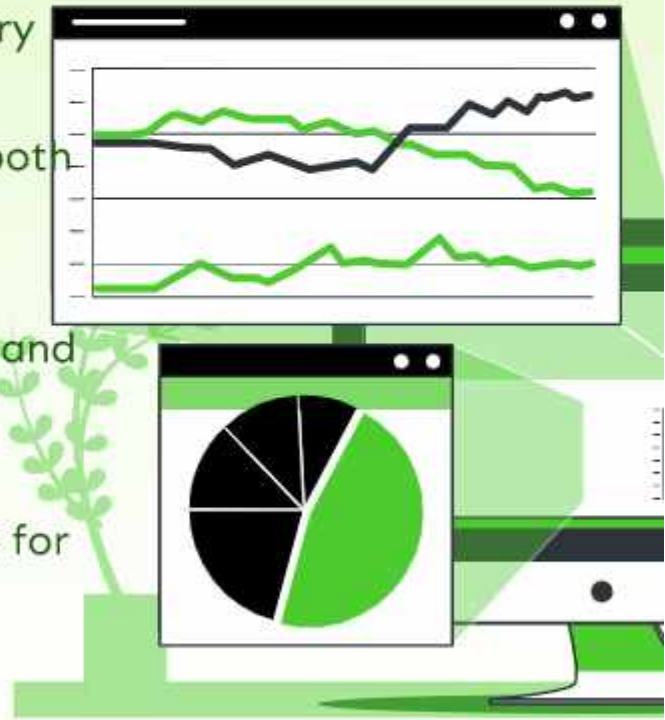
- Indian electronics industry dates back to early 1960s . electronics was one industry initially restricted to the development and maintenance of fundamental communication systems including radio broadcasting telephonic and telegraphic communication and augmentation of defence capabilities. until 1984 the electronics industry was primarily government owned and then in 1980s witnessed rapid growth of the electronic industry due to sweeping economic changes resulting in the liberalization and globalization of economy . by 1990 in the country private investments both foreign and domestic Were encouraged
- There is a significant demand for High end electronics in the Indian subcontinent .Indian electronic industry today's stands at US $25 billion and is ranked 26th in the world in the terms of sales and 29th in the world in terms of production it is growing over 25% CAGR and is expected to be worth US $400 billion by 2025 the electronics industry in India accounts for 2.5% of the GDP and employs over 13 million people both directly and indirectly jobs
- export of Indian electronics
- currently India exports about US $6 billion worth of electronics annually
- currently our exports amount to 13% of domestic production rich is hovering around US $45 billion



KEY PLAYERS

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- Jabil circuit India Pvt Ltd
- Dixon Technologies(India) Pvt Ltd
- SFO Technologies Pvt Ltd
- Elin Electronics Ltd
- Rangsons Electronics Pvt Ltd
- PG Group
- Kaynes Technology India Pvt Ltd
- Centum Electronic Ltd

BUSINESS OPPORTUNITY

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- Mobile phone manufacturing
- Semi-conductor wafer fabrication manufacturing
- Light Emitting Diode (LED) manufacturing
- Wearable devices manufacturing
- Solar cells and modules manufacturing
- LED and Liquid Crystal Display (LCD) manufacturing
- Research, innovation and skill development support in emerging
- technology areas such as Augmented Reality (AR), Virtual Reality (VR), drones, robotics, additive manufacturing, etc
- Medical electronic devices manufacturing
- Research and development of automotive electronics and power electronics for mobility

GROWTH

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- While the electronics sector is divided between consumer electronics, electric utilities, and general electronics, it's consumer electronics that drive most of the sector's growth.
- Because of the development of new technology, consumer electronics has evolved and intersects with multiple industries and sectors, including software, app development, robotics, artificial intelligence, and personalized health care.
- Within the consumer electronics sector, companies that focus on emerging technology are driving significant growth and include manufacturers of smartwatches, smart home products, and smart speakers.

- National Steel Policy in 2017, which envisions the growth trajectory of the Indian steel industry till 2030–31. The broad contours of the policy are as follows: • Steel-making capacity is expected to reach 300 million tonnes per annum by 2030–31. • Crude steel production is expected to reach 255 million tonnes by 2030–31, at 85% capacity utilisation. • Production of finished steel to reach 230 million tonnes, assuming a yield loss of 10% for conversion of crude steel to finished steel – that is, a conversion ratio of 90%. • With 24 million tonnes of net exports, consumption is expected to reach 206 million tonnes by 2030–31. • As a result, per capita steel consumption is anticipated to rise to 160 kg.
- An additional investment of INR 10 lakh crore is envisaged.8 While the National Steel Policy, 2017, is a vision document of the Indian government, it nevertheless emphasises the growth potential of the Indian steel industry.
- As per data from the Joint Plant Committee, at the end of 2018– 19, India produced 110.9 million tonnes of crude steel.9 In order to reach 255 million tonnes of crude steel production by 2030–31, production needs to grow at a CAGR of about 7.2%.10 This is easily achievable given that in 2018–19, crude steel production grew by 7.6%. Therefore, the growth potential that the government has charted out in the National Steel Policy, 2017, is in sync with the industry's growth trajectory. Naturally, the next question that arises is where the demand that can sustain the production levels envisaged in the policy will come from. This requires a sectoral approach

How to start Business

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Before starting to venture into the market regarding establishing an electronic store, there must be a plan. A roadmap for your electronic business will cover every idea of how to set the store.

The whole process might seem overwhelming, but a business plan software can be of great use. You can systematically devise the accuracy and consistency of your plan that in turn, will improve the value of the electronic store.

A great business plan software will actually develop your electronic business from the throwaway requirements to internal strategic resources. The electronics industry is rising, and this has been established in a survey report. It states that the Global Consumer Electronics Manufacturing industry has been increased at 1.9% in the last five years, including a 3.8% increase in 2019 alone.

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Licenses

- The investment required to start electronics manufacturing business depends of the type of product you are planning to manufacture. The minimum investment required is around 50 lakhs
- The minimum startup costs for an electronics business: $7,877
- The maximum startup costs for an electronics business: $69,947
- The average startup costs for an electronics business: $38,987
- License required for an electronics manufacturing company is listed above
- Safety Production License (Three System Certification):
- 1. Quality
- 2. Environment
- 3. Occupational Safety
- 4. Health Management System Certification
- Overall, the business license, tax registration certificate, and organization code certificate are necessary for an electronics manufacturer or manufacturing company.

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GOVERNMENT SCHEMES

To promote overall growth and open job opportunities, projected to be more than 28 million by attracting investments worth $100 billion, the Indian central government has sought to reduce the country's electronics import bill from 65% in 2014–15 to 50% in 2016 and gradually to a net-zero electronics trade by 2020India has pursued a two-pronged strategy of import substitution and export encouragement, through the Make in India campaign coupled with the Digital India campaign, along with the Startup India and the Skill India campaigns. The government has fostered an environment conducive to foreign direct investment (FDI) inflow in a number of ways, as outlined in the National Electronics Policy and the National Telecom Policy.

Increased liberalisation of Foreign Direct Investment (FDI): 100% FDI through an automatic route.

Relaxation of tariffs.

Establishment of Electronic Hardware Technology Parks (EHTPs) and Special Economic Zones (SEZs).

Implementation of Preferential Market Access (PMA).

Imposing basic customs duties on certain items falling outside the framework of the IT free trade agreement.

PLI scheme

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In order to position India as a global hub for Electronics System Design and Manufacturing (ESDM) and push further the vision of the National Policy on Electronics (NPE) 2019, three schemes namely the Production Linked Incentive Scheme (PLI), Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS) and Modified Electronics Manufacturing Clusters Scheme (EMC 2.0) were notified in April 2020. A fourth scheme, namely the Production Linked Incentive Scheme (PLI) for IT Hardware was notified in March 2021.

Electronics manufacturing in India has grown rapidly with a CAGR of around 23% during the last 5 years, with domestic production of electronics hardware touching $76 bn in 2019-20. The electronics manufacturing industry currently provides employment for over 2 million people in India. To further facilitate large-scale manufacturing, development of a supply chain ecosystem, and building of new manufacturing clusters in the country, each electronic manufacturing scheme has been carefully constructed to incentivize the electronics manufacturing industry.

The Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing proposes a financial incentive to boost domestic manufacturing and attract large investments in the electronics value chain including mobile phones, electronic components and ATMP units. Production Linked Incentives of up to INR 40,951 crores will be awarded over a period of 5 years.

The Production Linked Incentive Scheme for IT Hardware proposes a financial incentive to boost domestic manufacturing and attract large investments in the value chain. The scheme seeks to incentivise companies to utilise the existing installed capacity to fulfil the increasing domestic demand. Product Linked Incentives of upto INR 7,300 crore will be awarded over a period of 4 years.

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Colleges

- This is the list of colleges and university where the courses related electronics sector are available.
- Massachusetts Institute of Technology (MIT)
- Stanford University
- University of California, Berkeley (UC Berkeley)
- University of Cambridge
- ETH Zurich
- University of Oxford
- University of California, Los Angeles (UCLA)
- Imperial College London.
- Mount Carmel College, [MCC] Bangalore
- Anugrah Narayan College, Patna
- Sri Ramakrishna College of Arts and Science, [SR-CAS] Coimbatore
- Indore Professional Studies Academy, [IPSA] Indore
- Apex International College, [AIC] Amritsar
- University of Delhi [DU], New Delhi.

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ASSOCIATIONS

- India Electronics and Semiconductor Association (IESA)
- India Cellular and Electronics Association (ICEA)
- Electronics System Design & Manufacturing Industry in India
- Consumer Electronics & Appliances Manufacturers Association (CEAMA)
- Electronic Industries Association of India (ELCINA)
- ELECTRONICS CITY INDUSTRIES ASSOCIATION(ELCIA)
- Indian Electrical and Electronics Manufacturers Association (IEEMA)