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# MARC Insights Electronic Manufacturing Services (EMS)

March 2024



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## MARC's Key Takeaway

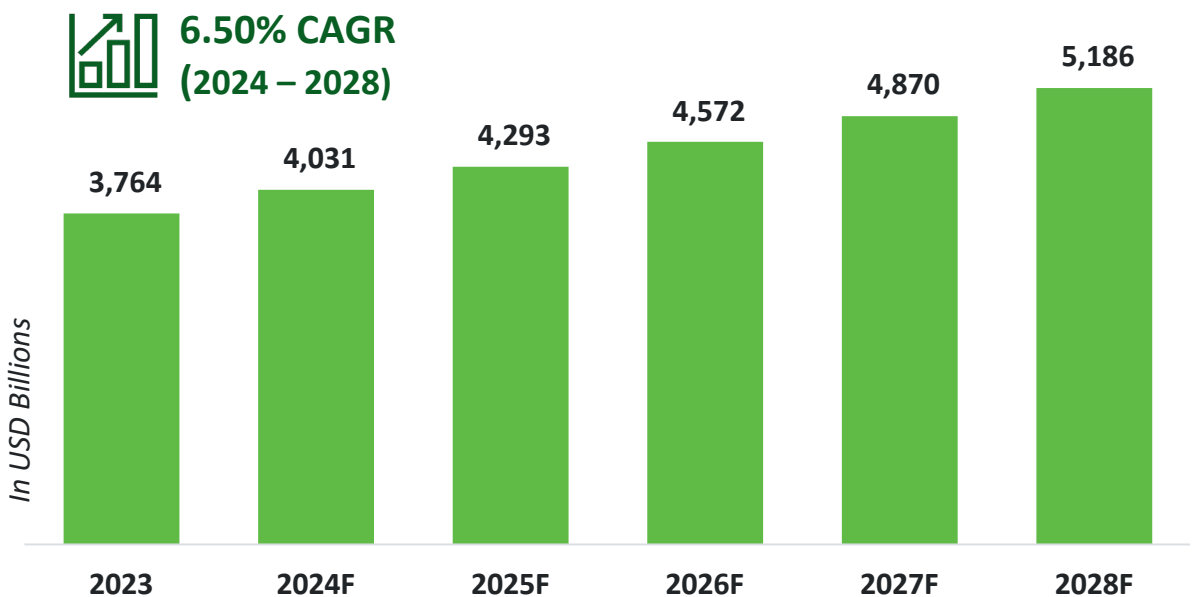
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# Global Electronics & EMS Industry

# Global Electrical & Electronics Industry






The Global electrical and electronics market was valued at USD 3,764 billion in 2023 and is expected to reach USD 4,031 billion in 2024 at a CAGR of 7.10%. It will continue to grow at **CAGR of 6.50%** and is expected to reach USD 5,186 billion in 2028.

## Global Electrical & Electronics Market Size



Source: *The Business Research Company*

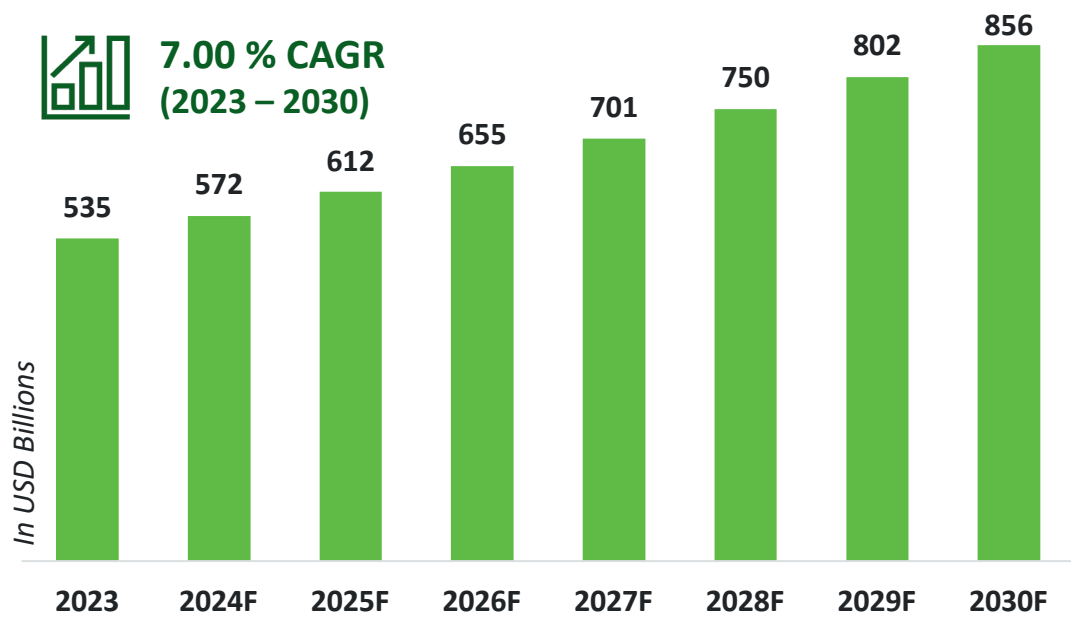
## Major Trends in the forecast period

-  Internet of Things (IoT) integration
-  Edge Computing
-  Robotics & Automation
-  Artificial Intelligence
-  Smart manufacturing

# Global EMS Industry

The Global Electronics Manufacturing Services market is expected to reach USD 856 billion in 2030 at a **CAGR of 7%**.

## Global EMS Market Size



## Products produced by the Global EMS Industry

Printed Circuit Board (PCB)

Electronic Components

Consumer Electronics

Industrial and Medical Equipment

## Services provided by the Global EMS Industry

PCB Assembly

Component Sourcing and Procurement

Design for Manufacturing

Prototyping

Box Build Assembly

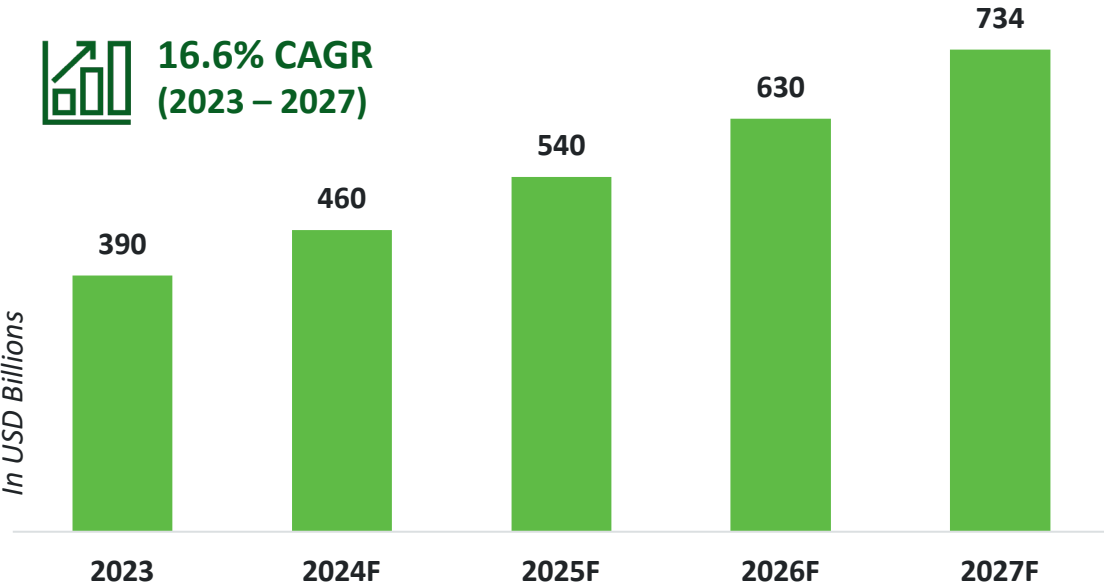
Testing and Quality Assurance

Source: *Fortune Business Insights* & MARC Analysis

# Indian Electronics Industry

# Indian Electronics Industry

## Indian Electronics Market Size



The Electronics market is expected to reach USD 734 billion by 2027 at a **CAGR of 16.6%**.

The Electronics sector of India contributed around **3.4%** in 2023 of the country's Gross Domestic Product (GDP).

Source: IBEF & MARC Analysis

## Major Trends

Energy Efficiency

Internet of things (IoT)

Use of Industrial Robots


Shift from B2B to B2B2C

Use of ERP systems


Leveraging supply chain

# Indian Electronics Industry – Domestic Production


## Domestic Production Segment Growth Drivers




**Mobile Phones:** Declining prices and increased mobile penetration in rural India.



**Consumer Electronics:** Changing lifestyle and higher spending capacity that includes televisions, washing machines, refrigerators, cameras.

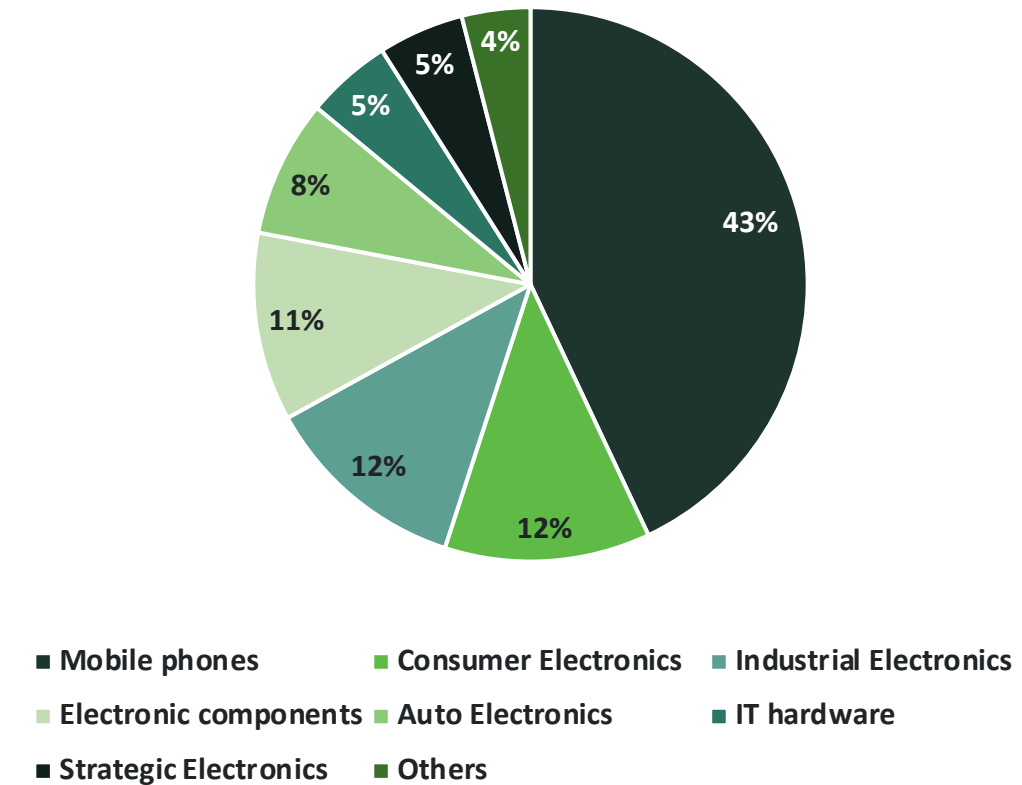


**Industrial Electronics:** Smart manufacturing will Increase the use of electronic components, driving overall process efficiency.



**Auto Electronics:** Connected, autonomous and electric vehicles driven by environmental sustainability and digitalization resulting in higher usage of electronics components.

## Domestic Production Segmentation - 2023



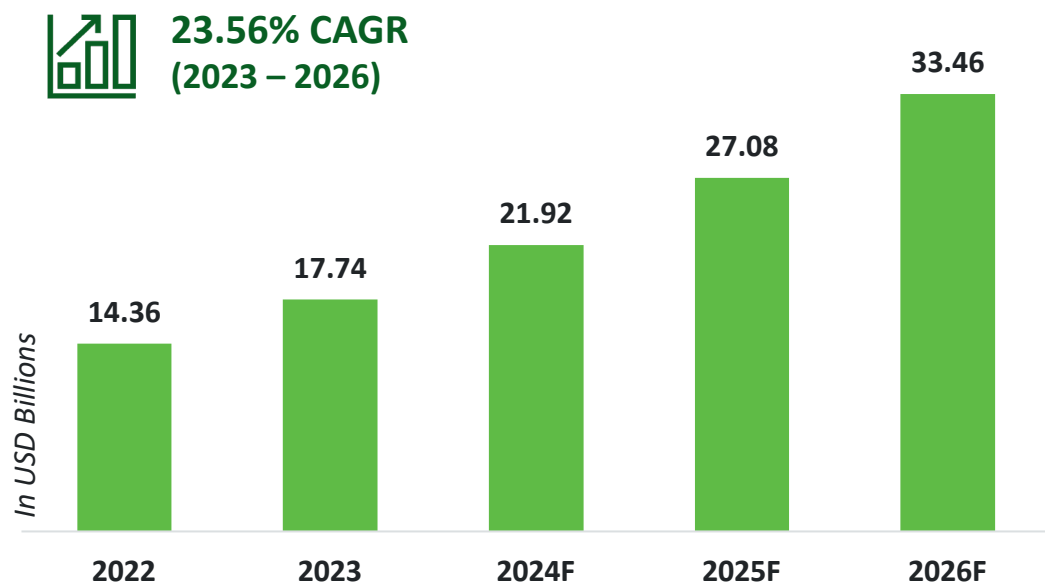
Source: *EY Report, Invest India*



# Indian Electronics Industry – Exports

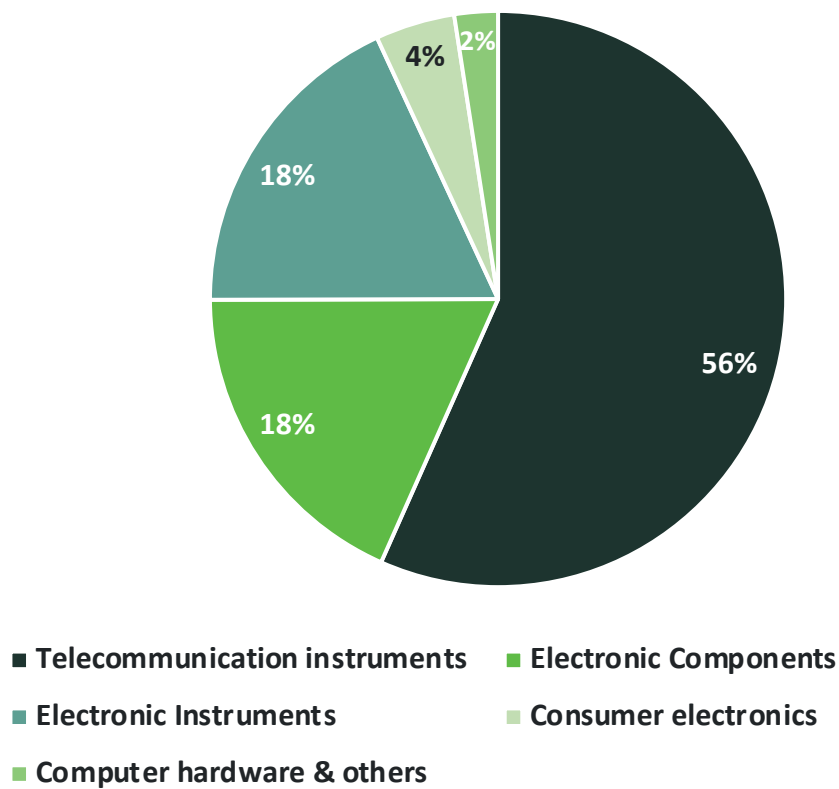
## Market Size Electronics Exports

As of 2023, Electronic exports were recorded at USD 17.74 Billion as compared to USD 14.36 Billion during 2022, with CAGR of **23.56%**. Electronics export is expected to reach USD 33.46 Billion by 2026.



Source: [Invest India](#)

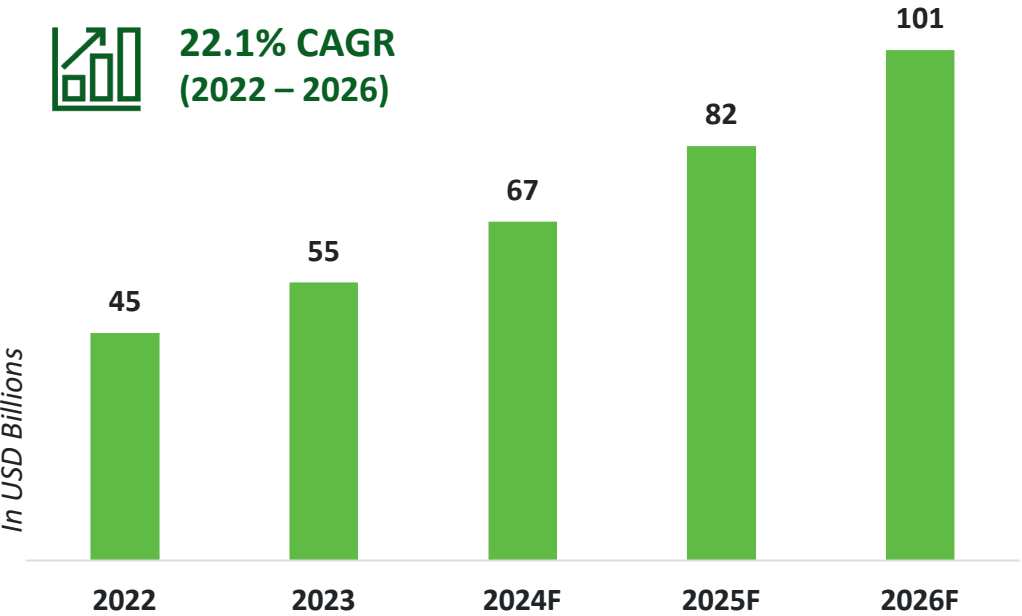
## Electronics Exports Segmentation - 2023



# Indian EMS Industry

# Indian EMS Industry

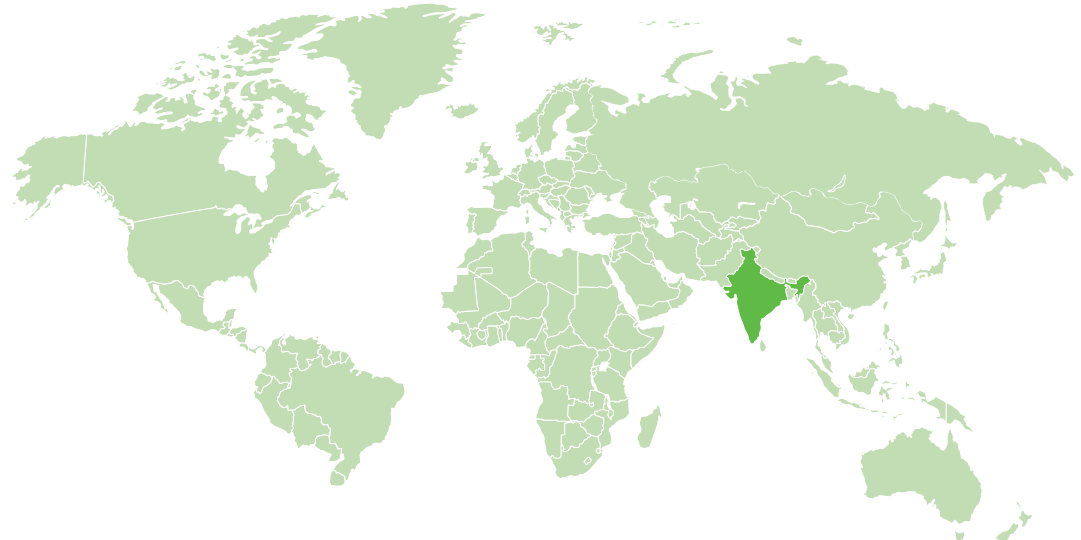
## Indian EMS Market Size



The Indian Electronics Manufacturing Services (EMS) market is expected to grow at a **CAGR of 22.1%** to reach US 101 billion by 2026.

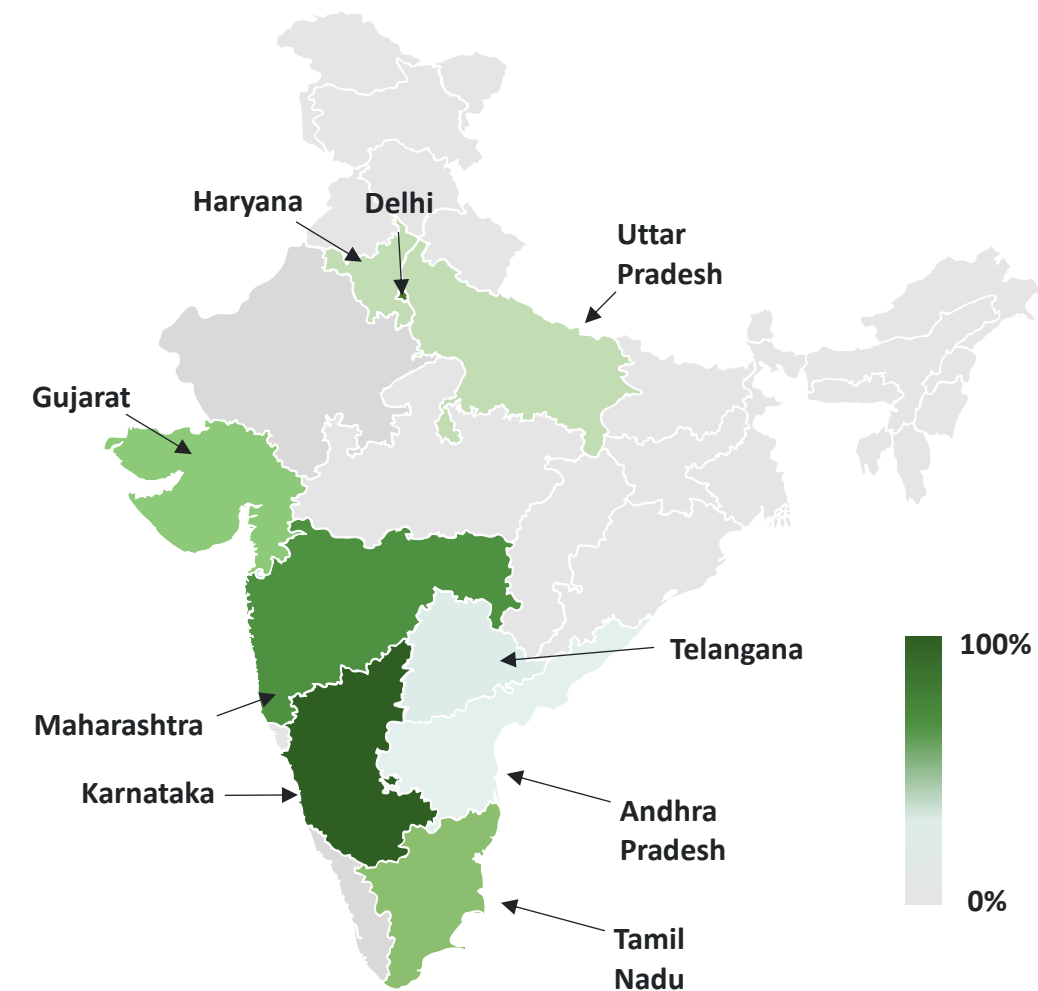
Source: [Bharat FIH](#)

## Indian EMS Market Share



| Year              | 2023            |       | 2026 (F)        |       |
|-------------------|-----------------|-------|-----------------|-------|
|                   | Value in USD Bn | (%)   | Value in USD Bn | (%)   |
| India             | 55              | 10.3% | 101             | 15.4% |
| Rest of the World | 535             | 89.7% | 655             | 84.6% |

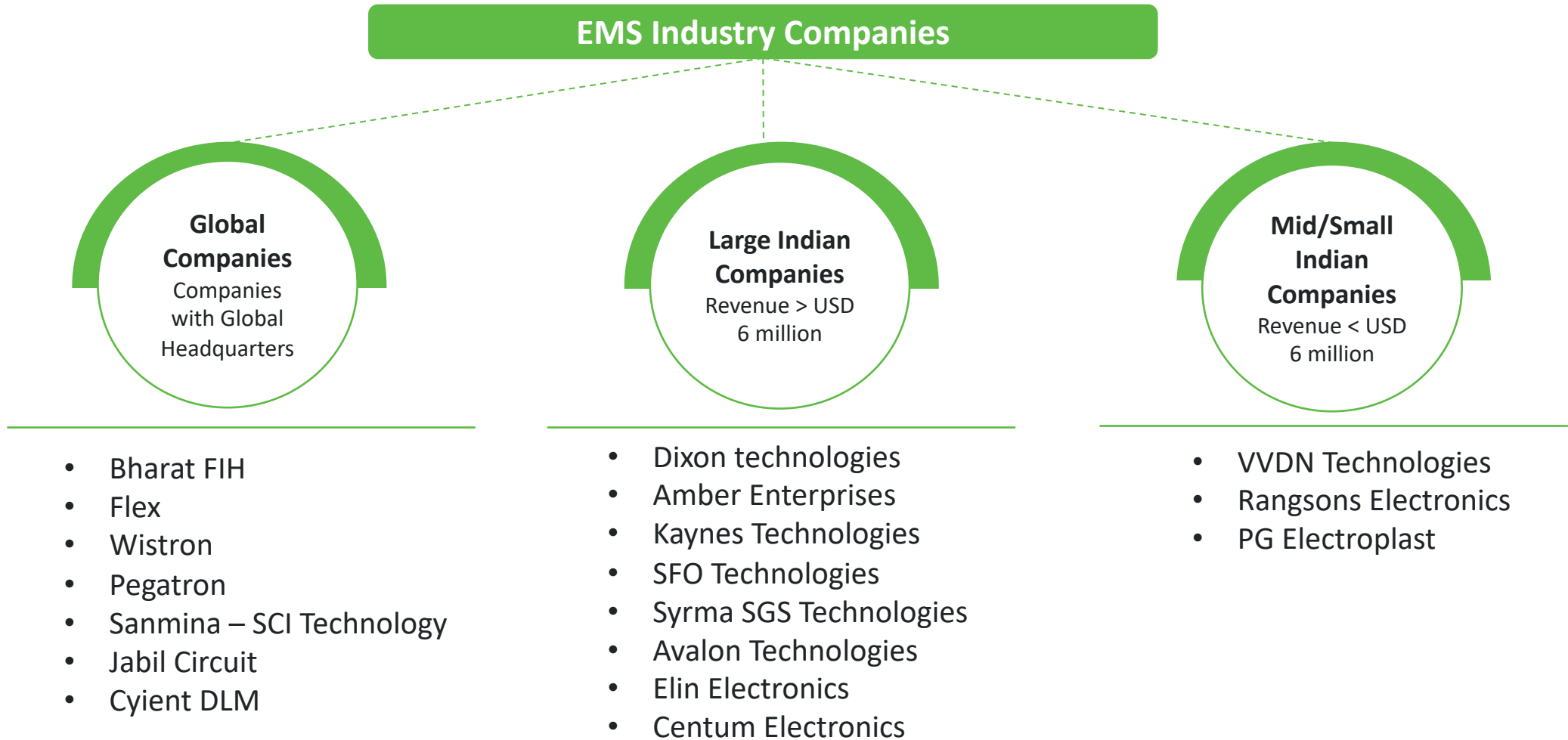
# Geographical Presence of Indian EMS Companies



| State          | Percentage Breakdown Of EMS Companies (2022) |
|----------------|--|
| Karnataka      | 22%  |
| Maharashtra    | 15%  |
| Delhi          | 15%  |
| Tamil Nadu     | 11%  |
| Gujarat        | 8%   |
| Uttar Pradesh  | 7%   |
| Haryana        | 5%   |
| Telangana      | 5%   |
| Andhra Pradesh | 3%   |
| Others         | 9%   |

Source: [Bharat FIH](#)

# Top Players in the Indian EMS Market



Source: Bharat FIH

# Macroeconomic Overview of the EMS Sector

## PEST Analysis

### Political

- Transparency in the government process and ever improving ease of doing business in India.
- Government policies are formulated to encourage the growth of domestic production.

### Economic

- Indian GDP growth rate is at 6.5% and is expected to grow at 7% in FY24 which creates ample production opportunities.
- Emergence of Special Economic Zones (SEZs).

### Social

- Customer-centric approach.
- Addressing the end-users' needs.
- Creation of employment opportunities.
- Usage of ESGs employing social and ethical values

### Technological

- The boom in research and development.
- Improved creativity in technologically advanced methods.



### Growth Drivers

- Large consumer base.
- Skill development initiatives.
- India Identified as 3<sup>rd</sup> largest startup ecosystem.
- Robust research and development.
- "Make in India" and "digital India".
- 5G & use of Internet of things (IoT).



### Challenges

- Global Competition.
- Increasing labor costs.
- Shrinking operating margins.
- Issues with traceability and compliance.
- Disposal of e-waste.
- Difficulties in sourcing investment.

Source: Bharat FIH

# Indian Government's Initiatives

# Indian Government's Initiatives



## Production Linked Incentive Scheme (PLI)

PLI offers incentive to boost domestic manufacturing and attract investments.

### Incentives:

- 4-6% on incremental sales of the goods manufactured in India.
- Incentives up to US\$ 5 billion will be awarded over a period of five years



## Scheme for Promotion of Manufacturing of Electronic Components & Semiconductors (SPECs)

Aims to counteract challenges in the domestic manufacturing of electronic components.

### Incentives:

- 25% on capital expenditure pertaining to plant, machinery, equipment, associated utilities, and technology.
- Includes R&D on a reimbursement basis; up to US\$ 500 million over a period of eight years.



## Modified Electronics Manufacturing Clusters Scheme (EMC 2.0)

Addresses disabilities, by providing support to create infrastructure.

### Incentives:

- 50% of project costs, subject to a ceiling of US\$ 10 million for every 100 acres of land.

Source: IBEF  
Report



## **Notable Investment Activities**

# Notable Investments in Indian EMS Companies

| Year | Company                        | Place      | Investment value   | Purpose   |
|------|--------------------------------|------------|--------------------|---|
| 2021 | Tata Electronics Pvt Ltd       | Tamil Nadu | USD 790 million    | Construct a phone component manufacturing facility.   |
| 2021 | Jabil Electronics Pvt Ltd      | Pune       | USD 275 million    | Venture into smartphones, home appliances and mobile parts.   |
| 2021 | Dixon Technologies Public Ltd  | India      | USD 80 million     | Build a new capacity to serve domestic and global markets.  |
| 2022 | Sanmina Corporation Public Ltd | India      | USD 200 million    | Create a Joint Venture with Reliance Strategic Business Ventures Limited, a subsidiary of Reliance Industries |
| 2023 | Foxconn Public Ltd             | Bangalore  | USD 96,000 million | Build a mobile manufacturing plant.   |

Source: Bharat FIH, Times of India Article

# Mergers & Acquisitions in EMS Industry

## PE firm I Squared Capital & Gram Power - 2023

Global private equity firm I Squared Capital invested **USD 100 million** in smart metering firm Gram Power (India) Pvt. Ltd, picking **a controlling stake** in the Jaipur-based firm.

## Reliance subsidiary - RSBVL & Sanmina - 2022

RSBVL will hold **50.1% stake** in the joint venture entity with Sanmina owning the remaining 49.9%. RSBVL will achieve this ownership primarily through an investment of up to **USD 200 million** in new shares in Sanmina's existing Indian entity.

## Reliance Retail & Addverb - 2022

Reliance Retail has invested **USD 132 million** in the company and will hold around **54% stake** in the robotics start-up. The strategic partnership with Reliance Retail will help Addverb Technologies leverage 5G, battery technology through new energy initiatives.

## Tech Mahindra & Thirdware - 2022

Tech Mahindra announced that it will be acquiring **100% stake** in Mumbai-based Thirdware Solutions in an all-cash deal for a total consideration of up to **USD 42 million** including earnouts.

Source: [Live Mint](#), [The Economic Times](#), [Business Standard](#), [The Economic Times](#)

# MARC's Key Takeaways

# MARC's Key Takeaways

## Major Trends in the EMS Sector

Energy  
Efficiency

Internet of  
things

Industrial  
Robots

B2B to B2B2C

ERP Systems

Leverage  
Supply Chains

## Potential Future Challenges

Global  
Competition

Labor Costs

Traceability  
issues

Operating  
margins

Compliance  
issues

E-waste

## India's EMS Sector : An attractive Investment Opportunity

India is a major player in the global electronics manufacturing industry. The country is rapidly becoming an electronics manufacturing hub, with the sector expected to rise from USD 45 billion in 2022 to **USD 101 billion** by 2026.

Electronics is India's fastest-growing export sector, with smartphones being the top export item where India surpassed a **remarkable USD 10 billion** worth smartphone exports in FY 2022-2023.

Key initiatives driving India's push towards electronics manufacturing is the Production-Linked Incentive (PLI) scheme, The country's large-scale electronic manufacturing (LSEM) sector received the **maximum allocation of USD 5 billion** under this scheme.

Source: MARC Analysis & [Invest India](#)



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# Contact



+91-9359628675



[contact@marcglocal.com](mailto:contact@marcglocal.com)



[www.marcglocal.com](http://www.marcglocal.com)



2<sup>nd</sup> floor, CMM bldg. Rua de Ourem,  
Panaji Goa 403001