ELCINA, with research support from Feedback Advisory, conducted an in depth study of the Electronic Manufacturing Services (EMS) sector which consists of two sub-segments viz. PCB Assembly ie. mounting components on bare PCB’s and Box-Build services involving assembly of finished equipment and their aggregates.

Globally, EMS sector was valued at US$ 832 Bn in 2019 and estimated to grow to US$ 1055 Bn by 2025. ELCINA predicts that the Indian EMS industry will gallop from US$ 23.5 Bn in 2019 to US$ 152 Bn by 2025. This effectively means that it has the potential to grow from <3% of the global industry to about 14% within 5 years.

The global EMS industry has grown very quickly during last 15-20 years as it has expanded the scope of its activities for the Electronic Systems Design & Manufacturing (ESDM) sector. From a small share of 10-15% in the ESDM industry, EMS now straddles in excess of 40-45% of its value. In addition to PCBA and pure assembly services, EMS has now expanded to include research & development, supply chain management, global distribution, logistics, customer support and even warranty repairs. There has been a complete transformation of the role of EMS in the ESDM industry globally.

Secretary Ministry of Electronics & IT, Government of India, Mr Ajay Sawhney, while releasing the Report, reinforced the need to manufacture PCB assemblies within the country and reduce import dependence. He said that there was plenty of opportunity for utilising the existing Schemes of NPE 2019 and additional Schemes which were being promoted for other sectors, such as medical electronics, defence and aerospace which had created huge demand for electronics. Mr Sawhney mentioned that there was a huge opportunity in products such as Servers, Laptops, Tablets etc and encouraged industry to take up these high value and large volume products. He also informed that government was keen to support expansion of the components eco-system in the country and certain follow up schemes were in the works to enable participation by more domestic companies including the Medium and Small enterprises.

Mr Sanjiv Narayan, Chairman of the ELCINA EMS Task Force & Founder Director SGS Tekniks Manufacturing, thanked the Secretary, Jt Secretary Mr Saurabh Gaur and all the Task Force members for their support and underlined the importance of support to EMS sector for expanding its outreach into export markets, which were largely controlled by China and Vietnam. The extent of this opportunity was brought out by the fact that China exported US$ 685 Bn of electronics to the world. India had set a target of US$ 100 Bn exports of mobiles alone by 2025 which was possible with the support of the PLI Scheme. This would mean that India would serve 25% of the global mobile market which was estimated to be valued at US$ 415 Bn in 2025. Similar support of 4-5% was required for non-mobile EMS exports which would enable India to make a mark in the world market.

Indian EMS industry has a vast spectrum of players ranging from Global MNC’s, Large Indian EMS players and a very large number of MSME Players. It is estimated that there are almost 700 EMS players in the India including 100 global companies and 600 domestic. A substantial share of production is done by 6 large global MNC Firms while among the balance 90 + MNCs, few are large
while most are of medium size. Among the remaining approximately 600 domestic companies, there are 15 large ones, 60-65 medium size companies and the balance 500 are small/micro in size.

Most Indian firms are in pureplay EMS services and only a handful of firms offer the complete Design Engineering Services & Manufacturing (ODM) to OEMs’.

Printed Circuit Board Assemblies are at the core of every electronic device. And constitute anywhere from 40-50% of the BOM of the device. To develop India as an electronics manufacturing hub, it is crucial that we expand the manufacturing ecosystem for EMS and PCBA’s in India.

**Key Findings of EMS Task Force Report on Market & Industry Analysis of EMS Sector of ESDM Industry**

- Currently EMS Industry (Contract Manufacturing Services) are valued 832 Bn $ and are projected to grow 1055 Bn by 2025.
- Current estimate of EMS Industry in India is USD 23.5 Bn only which is <3% of global mfg. EMS Industry has an estimated 700 Firms with about 600 Indian and 100 Multinational Companies.
- *China exported US$ 685 Bn of electronics to the world during 2019-20. There is huge export potential for India EMS sector and govt has set a target of US$ 100 Bn exports of mobiles alone by 2025. This is driven by the PLI Scheme and targets about 25% of the global mobile market valued at US$ 415 Bn.*
- *In Non-Mobile segment, China exported electronics worth USD 50Bn to India friendly countries. Government support of 5% will empower Indian EMS sector to capture 30-40% of this, which is USD 15-20 Bn.*
- Domestic electronics manufacturing is estimated at USD 75 Bn of which 39 Bn constitutes EMS value. This is divided into 23.5 Bn domestic Mfg. and USD 15.5 Bn PCBS/Sub-Assembly imports.
- Further USD 53.5 Bn is finished Electronic Goods imports of which USD 17 Bn is EMS value. Thus total EMS opportunity loss is US$ 32.5 Bn (15.5 +17).
- We estimate that EMS production can grow realistically from USD 23.5 Bn today to USD 152 Bn by 2025 at CAGR of 45%. This will meet 75% of the countries EMS requirement of US$ 203 Bn by 2025 against a total estimated market of 400 Bn.
- The Industry is broadly categorized into HVLM (High Volume Low Mix) which are the large global MNCs and few large Indian Firms and the other category is HMLV (High Mix Low Volume) largely constituted by the Indian EMS Companies catering to lower volume industrial/professional sector products.
- HVLM & HMLV have very different characteristics with respect to volume, risk, automation, supply chain, costs etc.

For Favour of Publication
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29th Dec 2020
Relevant Pics & Graphs

Mr. Ajay Sawhney, Sec.-MeitY launching the report

EMS Growth Potential in India

Indian EMS Market Size: FY 2019-20

ETF undertook a first of its kind exercise of estimating the Indian EMS market size through both the Supply and Demand side of the EMS business.

USD 75 B
Overall Electronics Production in India in FY 2019-20

Source: ELCINA/Meity estimates

USD 64 B *
Electronics Products manufactured in India

* Excludes Components Production

USD 33 B
EMS Industry Value for DOM Builds for goods made in India

USD 6 B
EMS Industry Value for PCBA ONLY for goods made in India

USD 39 B
EMS Industry Value for goods made in India

Direct loss for Indian EMS Firms

USD 53.5 B
Overall Electronic Imports in India in FY 2019-20

Source: DGOS Import statistics

USD 25 B **
Finished Electronic Products Imported in India

** Excludes Components, Solar and Storage Import

USD 17 B
EMS Industry value of Imported Goods

Indirect loss for Indian EMS firms

USD 32.5 B
Overall Loss for Indian EMS Firms

Indian Electronic Products market’s requirement of EMS Activity is USD 56 B out of which, we are able to address only USD 23.5 B currently, need to target USD 15.5 B of imports of PCBA & Sub assemblies first and then focus on reducing imports of Finished Electronic Products.