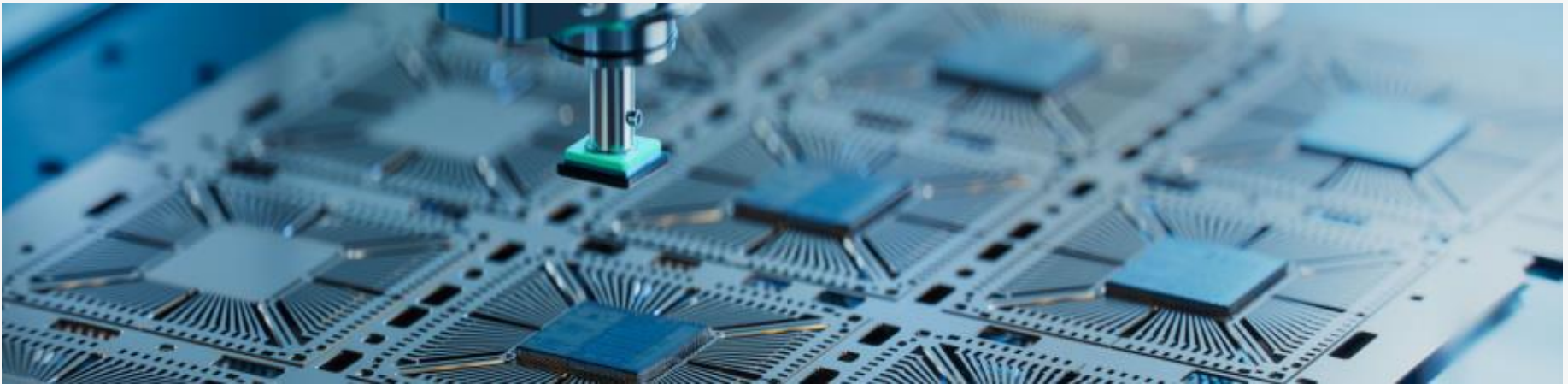


Special Report

India's EMS Sector in Full Momentum



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Executive Summary

01

India EMS wave – India to outpace the global market

- Electronic Manufacturing Service (EMS) includes designing and manufacturing of electronics hardware for IT, telecom, defense, medical, consumer and other industries.
- Over CY21-26E, global EMS market is expected to grow at a CAGR of 5.4%, whereas the USA, China and Europe to expand at 6.1%, 4.3% and 3.2% respectively.
- Long growth runway ahead for India, to advance from 2.3% of global EMS market in CY21, to 7.0% by CY26E. India is expected to expand the fastest at 32.0% CAGR over CY21-26E.

02

India upping its ante to be the next EMS hub

- India has low per capita consumption compared to global average. However, adoption of electronics goods has increased in recent years.
- Supply chain challenges and increasing cost structures in China resulted in companies looking at alternate manufacturing location for their sourcing needs.
- High import bill from electronics made local manufacturing the focus for the government to build long term electronics ecosystem in India.
- Post announcements of government initiatives from 2020, electronics exports grew 57% over FY21-23, resulting in a sharp drop in import/export ratio.
- Global contract manufacturing giants planning to more than double their operations in India over the coming years.

03

Stocks to play the EMS wave

- **Kaynes** – Service offering expansion to drive 43.2% revenue CAGR over FY23-26E.
- **Syrma SGS** – High margin products to drive 39.5% revenue CAGR over FY23-26E.
- **Avalon** – Complex products and exports to drive 20.6% revenue CAGR over FY23-26E.
- **Dixon** – Ramping up of new customers and foray into new products to drive 36.3% revenue CAGR over FY23-26E.

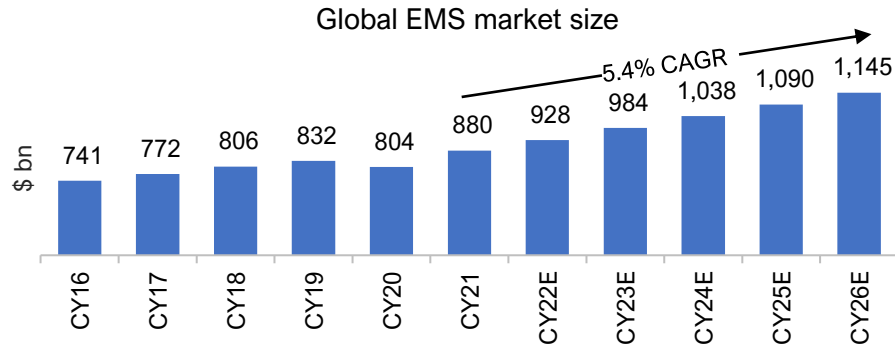
04

Things to watch-out for in the sector

- Execution of PLI scheme by the Government of India.
- Slowdown in demand in few of the end-user industries.
- Fierce competition from other cost competitive nations such as Vietnam, Indonesia and Philippines.
- Currently companies are focusing only on PCB assembly, which is a low margin business. Execution strategy to expand the service offerings is a key to look out for.

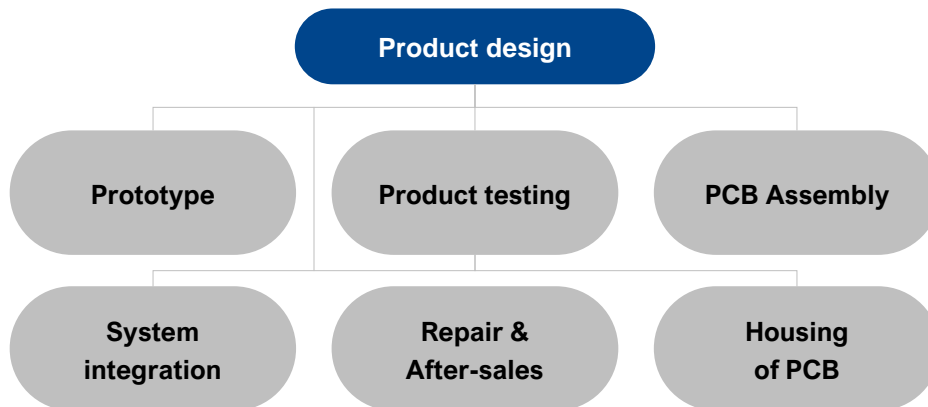
Globally EMS manufacturing poised to outperform in-house manufacturing

Global EMS market to outpace in-house manufacturing, expanding at 5.4% CAGR, versus 4.6% CAGR for in-house manufacturing, over CY21-26E ...



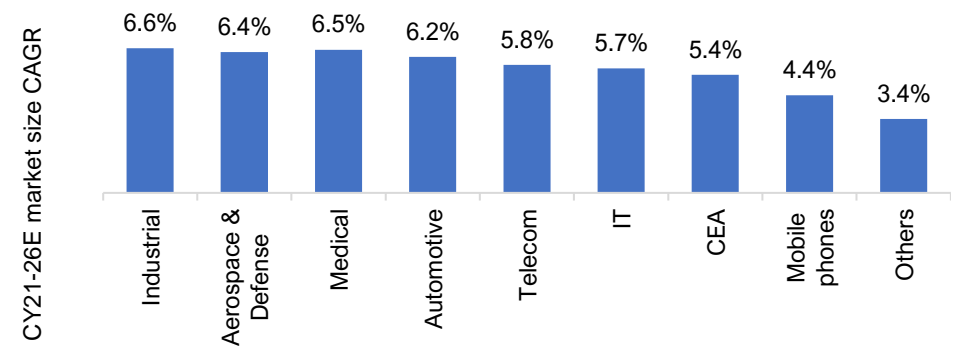
Source: Avalon Technologies RHP

Technological advancements and increased dependency from OEMs made companies expand their service offerings and focus beyond manufacturing



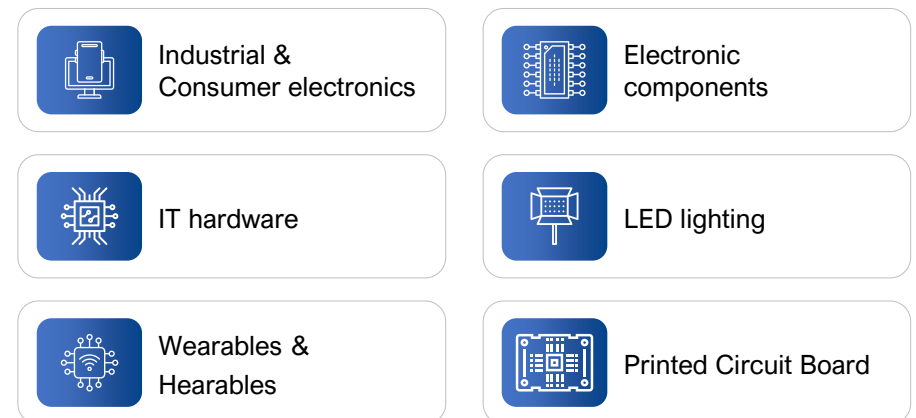
Source: Syrma Technologies RHP

...with the highest growth, being driven by Industrials, followed by Medical and Aerospace & Defense industries



Source: Avalon Technologies RHP. Note: CEA includes consumer electronics and appliances

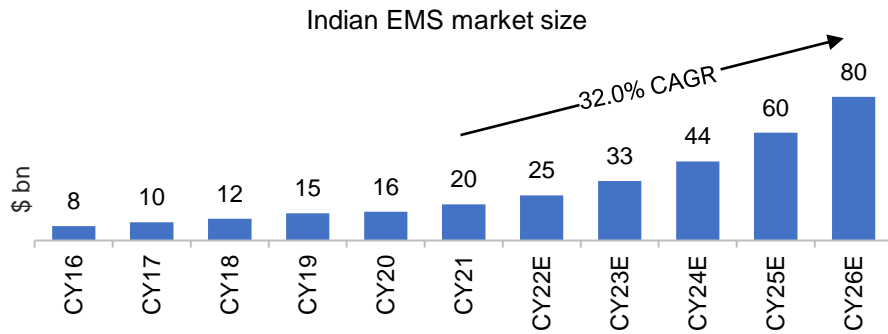
Increase in demand for digitisation across industries increased the addressable market for the EMS companies



Source: Syrma Technologies RHP

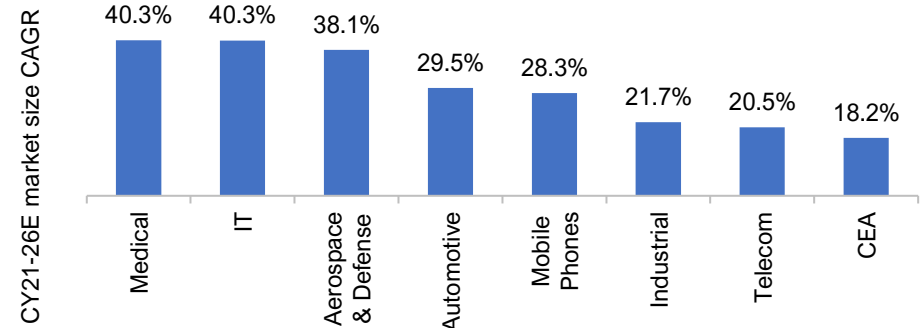
Long growth runway for India to be the next EMS hub

Indian EMS market accounts for 16% of electronics market, and could increase to 28%, with a steady CAGR of 32.0% over CY21-26E



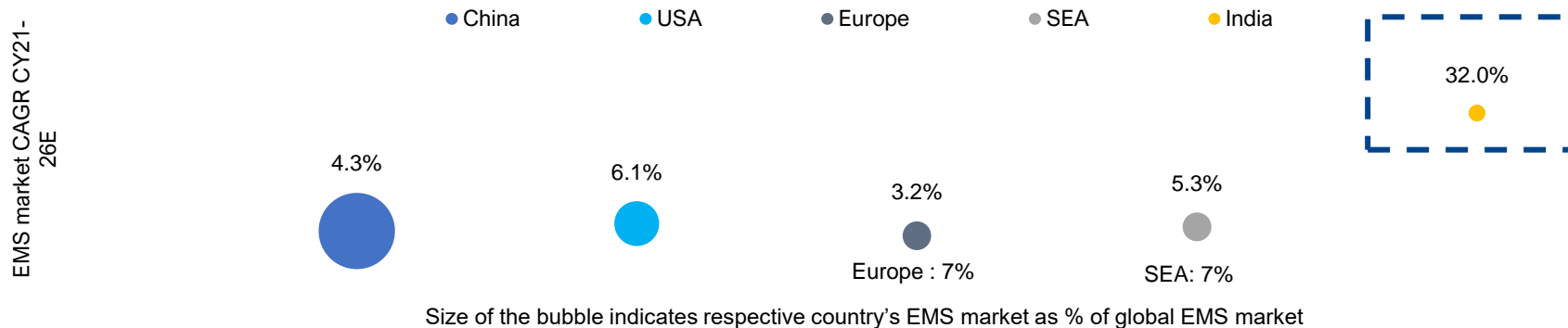
Source: Cyient DLM RHP

Medical, IT, Aerospace & Defense verticals are the key end-user industries driving the growth



Source: Cyient DLM RHP, Avalon Technologies RHP. Note: CEA includes consumer electronics and appliances. CY21-25E CAGR for Mobile phones, CEA and IT

Long growth runway ahead for India, from 2.3% of global EMS market to 7.0% by CY26E. India is expected to advance the fastest (32% CAGR) on i) cost competitiveness, ii) China +1 strategy, iii) government initiatives, iv) import substitution and v) increased demand from OEMs



Source: Avalon Technologies RHP

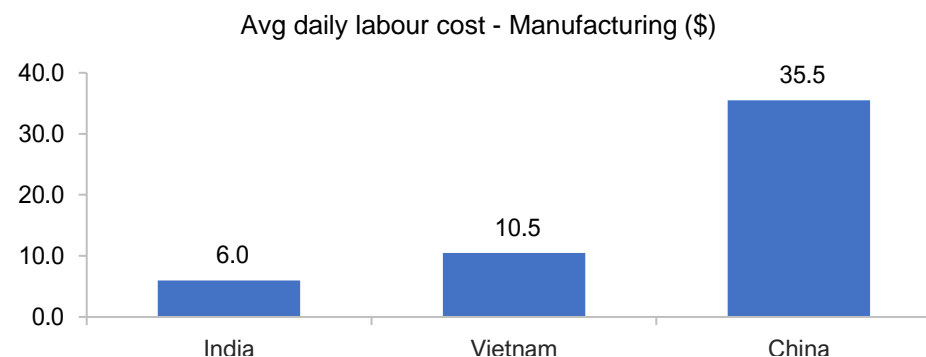
India upping its ante in EMS space

Favourable domestic demand, digitised economy and robust government initiatives are key drivers for gearing up India to be the next EMS hub



Source: Cyient DLM RHP

India benefits from availability of skilled and cost-effective labour, as Vietnam and China undergo issue of skilled labour shortage and elevated labour cost



Source: Avalon Technologies RHP. Note: Data as on 2021

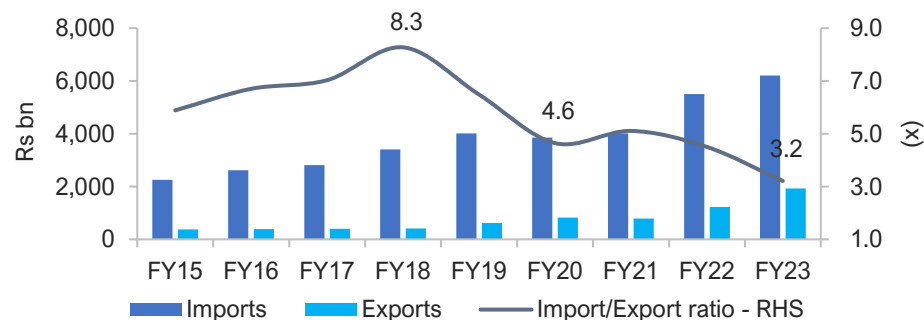
Growth drivers benefitting India on its journey in the EMS space

- Digitisation of economy, rising disposable incomes, emerging work from home culture, expansion of organised retails and better logistics are key enablers for growing domestic demand. Further, rising demand for electronics in multiple sectors is expected to boost EMS growth.
- High domestic volumes, consumption and higher outsourcing volumes influence domestic electronics manufacturers to buy components locally. Tier-2 companies increasingly focus on product localization; however, extensive financial costs involved in setting up manufacturing influence them to leverage EMS services.
- Electronic imports accounted for INR 6,200bn (\$75 bn) in FY23, which is ~53% of the total electronics market in India. High import dependence makes a strong case for localisation initiatives.
- China dominates the global EMS industry with a commanding 46% share in FY21. Due to rising labour costs, tariff issues and supply chain concentration, electronics manufacturers are strategically shifting operations away from China, opting for countries such as Vietnam, India and the Philippines.
- Various initiatives, such as Modified Electronics Manufacturing Clusters (EMC 2.0), Production Linked Incentive (PLI), Merchandise Exports from India Scheme (MEIS) and Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors

Source: Syrma Technologies RHP

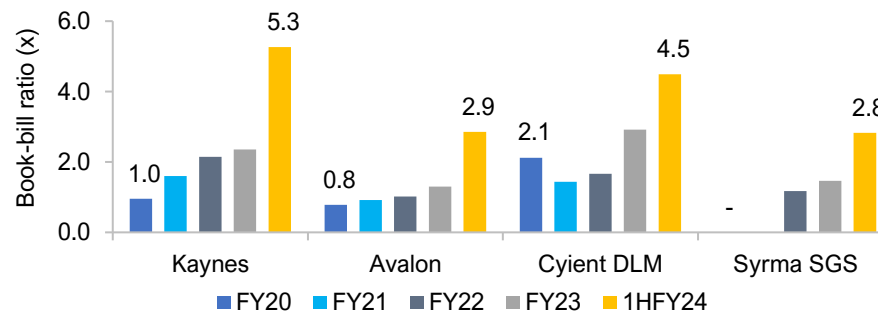
EMS wave already kick-started for India

Post announcements of government initiatives from 2020, exports grew 57% over FY21-23, resulting in a sharp drop in import/export ratio



Source: PIB, Kaynes Technologies RHP, Statista. Note: Import and Export data solely for electronic finished good and components

The boom in Indian EMS space is evident from the increasing trend of book-bill ratio for Indian EMS companies



Source: Avalon Technologies RHP. Note: Data as on 2021

Increasing cost structure of Chinese electronics manufacturing and changing geopolitical situations made global OEM's move their manufacturing base outside of China. India is benefitting due to its cost effectiveness and robust government initiatives. Global contract manufacturing giants planning to expand their India operations

Company name	Country of Origin	Quarterly revenue run-rate - \$ bn	Details
Foxconn	Taiwan	5,218	<ul style="list-style-type: none"> To invest \$1.7bn to expand operations in India Plans to double India operations by 2024
Pegatron	Taiwan	1,123	<ul style="list-style-type: none"> Commenced operations for assembling iPhone in India in Sept-22 In talks to open second facility for Apple, near to Tamil Nadu Pegatron accounts for 10% of Apple's iPhone production in India In next 4-5 years, Apple has plans to ramp-up production in India, by five-fold, to USD40bn
Jabil	USA	35	<ul style="list-style-type: none"> Commenced manufacturing AirPods in India Partnering with Ericsson, for 5G network deployment in India
Sanmina Corp	USA	8.9	<ul style="list-style-type: none"> JV with Reliance Industries, to focus on 5G networks, medical and healthcare systems, aerospace & defense Plans to establish manufacturing technology centre, that will serve as incubation for the product development and hardware start-up ecosystem Keen to set-up PCB manufacturing facility in Orissa

Source: Media articles

Key players within the EMS space

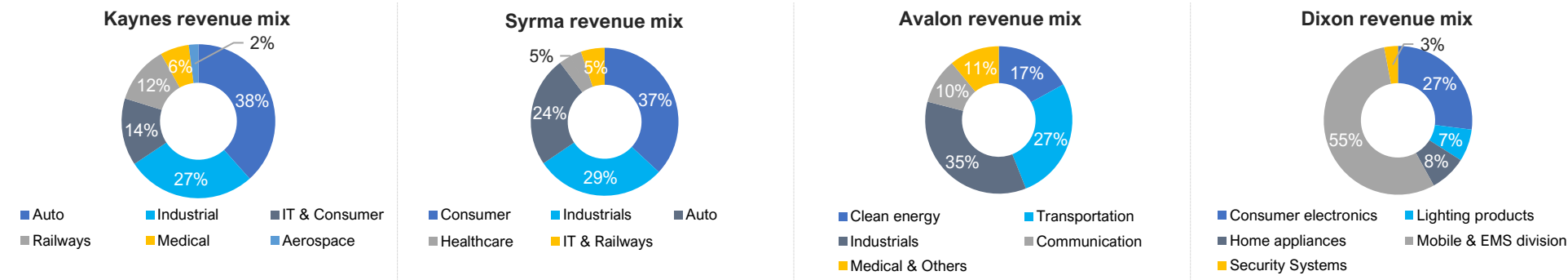
Global players dominate the IT Hardware and telecom space, whereas Indian players have a strong hold in CEA, Industrial, Automotive and Medical space

	Mobile Phones	CEA	Automotive	Industrial	Telecom	Aerospace & Defense	IT Hardware	Medical	Railway
Global players									
Foxconn	✓	✓	✗	✓	✓	✗	✓	✗	✗
Pegatron	✓	✓	✗	✗	✓	✗	✓	✗	✗
Jabil	✗	✓	✓	✗	✓	✓	✓	✓	✗
Wistron	✓	✗	✗	✗	✓	✗	✓	✗	✗
Flex	✗	✓	✓	✓	✓	✗	✓	✓	✗
Domestic players									
Kaynes	✗	✓	✓	✓	✓	✓	✓	✓	✓
Avalon	✗	✗	✓	✓	✓	✓	✗	✓	✓
Syrma	✗	✓	✓	✓	✓	✗	✗	✓	✗
Amber	✗	✓	✗	✗	✗	✗	✗	✗	✓
Dixon	✓	✓	✗	✗	✗	✗	✗	✓	✗
Elin Electronics	✗	✓	✗	✗	✗	✗	✗	✗	✗
Bharat FIH	✓	✓	✓	✗	✓	✓	✓	✗	✗
Cyient DLM	✗	✗	✗	✓	✗	✓	✗	✓	✗

Source: Company

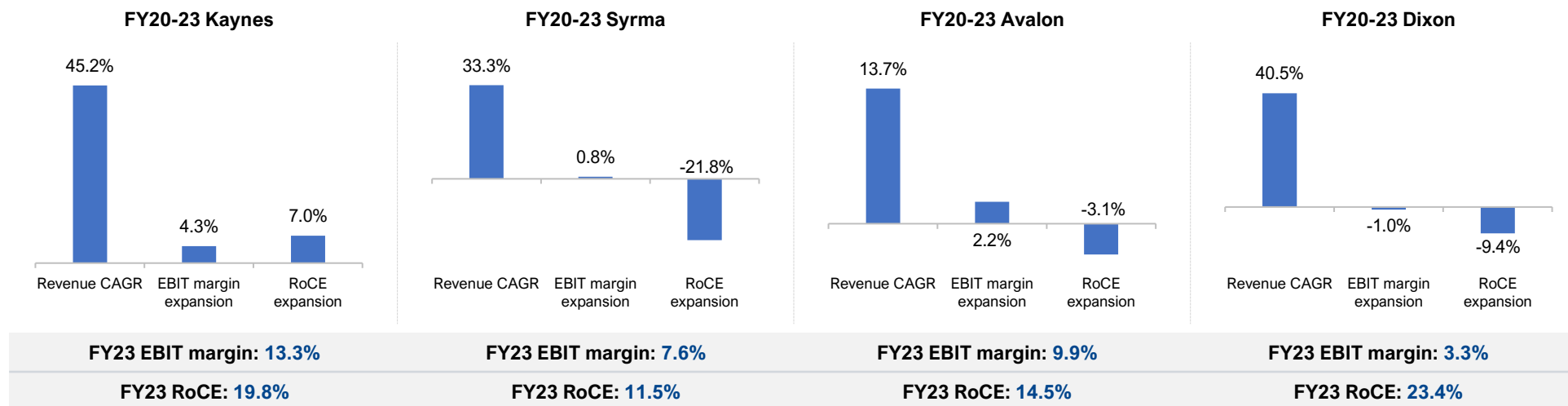
Indian EMS companies' revenue and margin profile

Consumer electronics, Industrials and Automotive are the focus areas for Indian EMS companies, whereas Medical and Aerospace at a nascent stage in terms of demand



Source: Company

Consumer electronics, Industrials and Automotive are the focus areas for Indian EMS companies, whereas Medical and Aerospace at a nascent stage in terms of demand



Source: Syrma Technologies RHP

Indian EMS companies' revenue and margin profile

Indian companies gearing up to ride on the Indian electronic manufacturing wave

Company name	Key catalyst
Kaynes Technology	<ul style="list-style-type: none"> Margin expansion in near term, at the back of increased revenue share (34%-40%) of box build assembly, which is a high margin business On the path to become end-to-end solution provider, by expanding service offerings to PCB manufacturing and assembly and testing of outsourced semiconductors (OSAT). Benefits from presence of eminent global players as customers and having longstanding relationships (7-12 years).
Syrma SGS	<ul style="list-style-type: none"> Focuses on high margin/low volume products. Leverage in-house manufacturing to expand service to more end-user industries. Benefits from high customer base (270+), with high retention and low customer concentration risk.
Avalon Technologies	<ul style="list-style-type: none"> Moving towards more complex box build business, which can aid in driving margins higher. Enjoys high gross margins due to skewness towards exports and complex products in its portfolio.
Dixon Technologies	<ul style="list-style-type: none"> To grasp new avenues of growth, company is expanding its product portfolio, by foraying into new categories like refrigerator, IT hardware. Dixon has ben able to add new customers on consistent basis. Ramping up of these customers will boost the overall growth.

Company name	Key risks
Kaynes Technology	<ul style="list-style-type: none"> Slower than expected execution on capex, thereby impacting growth Slower or margin dilutive growth in newer segments RoCE dilutive capital allocation towards OSAT and bare board PCB manufacturing over the medium term
Syrma SGS	<ul style="list-style-type: none"> Drag on overall earnings growth due to slower than expected growth in high margin industrial business Inability to cater to high margin contracts under designs, ODM, build box Value dilutive acquisitions at higher valuations, which would impact RoCE
Avalon Technologies	<ul style="list-style-type: none"> Elevated employee costs could continue to put pressure on operating margins Prolonged slowdown in the US can hamper overall growth Least order visibility amongst the peers
Dixon Technologies	<ul style="list-style-type: none"> Significant delay in export pick-up could impact volumes leading to slow revenue growth Competition from B2C-focused PLI scheme approved vendors for volumes

Source: Company

Peer Comp – Indian EMS players trade at premium. However, valuations are justified given higher expected revenue growth, and return profile

Company	Mcap (\$ mn)	FY23-26E revenue CAGR	P/E			EV/EBITDA			EV/Sales			LTM EBITDA margin	LTM ROE
			FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E		
Domestic players													
Dixon Technologies	4,297	36.3%	87.1	60.1	46.3	48.6	35.4	28.3	2.0	1.4	1.2	4.4%	24.1%
Kaynes Technology	1,655	43.2%	80.5	56.5	40.5	52.7	37.1	27.1	7.9	5.6	4.1	14.5%	16.4%
Syrma SGS	1,296	39.5%	71.2	48.3	35.2	46.4	30.2	22.3	3.7	2.7	2.0	7.7%	8.8%
Avalon Technologies	401	20.6%	48.5	32.6	24.1	30.5	21.2	16.6	3.1	2.5	2.0	12.4%	16.8%
Amber Enterprises	1,249	17.7%	51.3	34.6	25.5	21.0	16.8	13.9	1.5	1.2	1.0	7.3%	8.4%
PG Electroplast	699	22.7%	42.8	30.0	22.5	25.1	20.0	18.8	2.1	1.7	1.4	9.4%	15.7%
Cyient DLM	610	39.7%	75.7	40.0	27.0	44.7	28.4	20.1	4.5	3.1	2.35	9.6%	7.2%
Data Patterns	1,359	32.3%	62.1	46.3	34.1	47.2	34.8	25.3	18.3	13.7	10.2	38.2%	16.5%
Mean	1,446	31.5%	64.9	43.5	31.9	39.5	28.0	21.5	5.4	4.0	3.0	12.9%	14.2%
Median	1,272	34.3%	66.6	43.1	30.5	45.6	29.3	21.2	3.4	2.6	2.0	9.5%	16.0%
Global peers													
Jabil Inc	14,895	0.5%	12.9	11.0	9.9	6.4	6.0	5.7	0.5	0.5	0.5	7.3%	30.8%
Wistron Corp	8,597	5.0%	22.4	14.4	11.3	9.9	7.3	6.1	0.4	0.3	0.3	4.4%	12.3%
Pegatron Corp	6,859	1.5%	13.9	12.3	11.5	9.0	6.6	6.1	0.2	0.2	0.2	2.6%	8.6%
Flex Ltd	11,008	1.1%	9.9	8.6	7.5	5.7	5.2	4.9	0.4	0.4	0.4	6.0%	15.6%
Sanmina Corp	2,802	-0.1%	8.9	7.5	NA	4.7	4.2	NA	0.3	0.3	NA	6.5%	15.5%
Hon Hai Precision	44,443	0.8%	10.6	9.2	8.1	5.2	4.7	4.2	0.2	0.2	0.2	3.9%	8.8%
Mean	14,767	1.5%	13.1	10.5	9.7	6.8	5.7	5.4	0.4	0.3	0.3	5.1%	15.3%
Median	9,803	1.0%	11.8	10.1	9.9	6.1	5.6	5.7	0.4	0.3	0.3	5.2%	13.9%

Source: Eikon; as of 8th Dec 2023



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