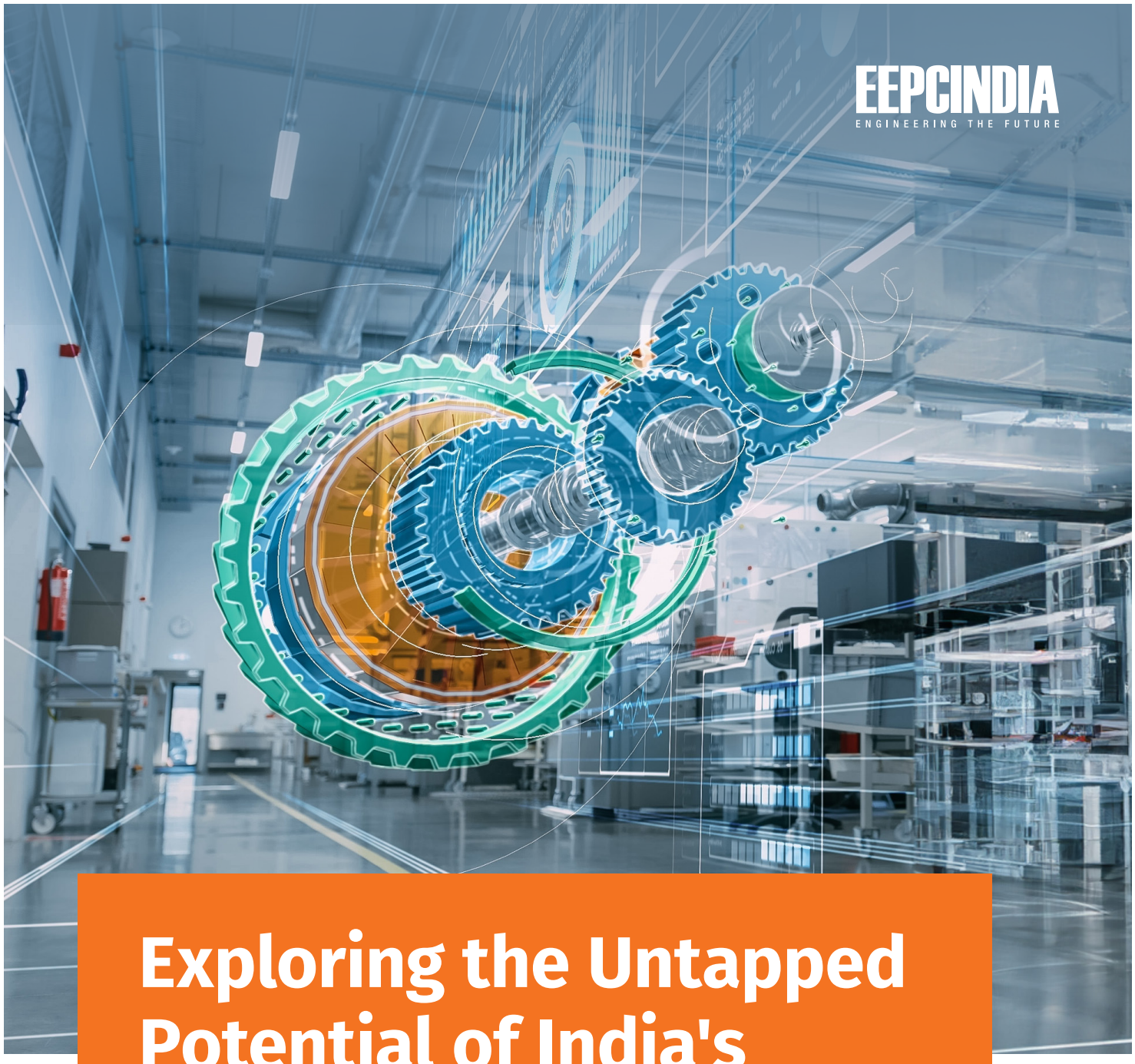

Exploring the Untapped Potential of India's Engineering Exports

WEBSITE

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EEPCINDIA
ENGINEERING THE FUTURE

About EEPC India

EEPC India, or the Engineering Export Promotion Council of India, serves as the bridge connecting India's engineering industry to global markets. This premier trade organization empowers Indian engineering enterprises to navigate international trade complexities and fostering their growth and competitiveness globally.

Through targeted market research, skill enhancement programmes, and capacity-building workshops, EEPC India equips domestic engineering firms with the necessary tools to understand international demand trends, refine their product offerings, and meet stringent quality standards. Additionally, the council's strategic collaborations and participation in global trade exhibitions enable Indian exporters to showcase their innovations to a broader audience, fostering valuable partnerships and opening doors to new markets. This multifaceted approach helped Indian engineering exports achieve a remarkable transformation – from US$ 10 million in 1955 to US$ 107.04 billion in April 2022 - March 2023.

About this publication

This strategy paper looks into the various aspects of the Indian engineering industry that impact India's export capability and makes some observations and recommendations that may help the industry achieve export targets.

Exploring the Untapped Potential of India's Engineering Exports

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Executive Summary

Message from the Chairman, EEPC India

India stands at the threshold of significant opportunities and challenges in the realm of international trade. The Government of India has set a momentous target of achieving US$ 1 trillion in merchandise exports by 2030, with the engineering sector entrusted with an ambitious export goal of US$ 300 billion. To realize this vision, it is imperative that our engineering exports expand at an accelerated pace.

At EEPC India we believe that this target can be achieved by following a two pronged strategy of trade creation and trade diversification. Trade creation will require the country to invest in innovation of products higher in terms of quality, volume and sustainability. As we are all aware, many developed countries are now bringing stringent environmental and labour standards – latest example being the Carbon Border Management Tax (CBAM) introduced by the EU. In wake of such stringent standards, it is imperative for Indian industries to upgrade their product quality. This will not only keep them competitive in the global market but also act as a deterrent to dumping of lower quality products in India.

Simultaneously we need to also focus on trade diversification – looking beyond our traditional export partners and expanding our presence in more non-traditional markets such as Latin America, Africa, Oceania, etc. Both trade creation and trade diversification together would be instrumental for India to increase its share in global trade and take advantage of the China+1 strategy that has been popular since the COVID pandemic.

In this background, it gives me immense pleasure to present this strategy paper, meticulously crafted as a roadmap to attain the ambitious export target through both trade creation and trade diversification. This comprehensive paper delves into various aspects that currently impact India's engineering exports, while offering a set of strategic recommendations designed to empower the industry in achieving the formidable export target.

I am optimistic that this strategy paper will serve as a valuable resource for all those involved in India's engineering industry.

May this strategy paper inspire creativity, drive innovation, and pave the way for a prosperous future for our engineering exports.

Arun K Garodia

Arun K Garodia

Message from the Executive Director, EEPC India

The engineering sector has been entrusted with a momentous and ambitious goal by the Government of India – to elevate its exports to US$ 300 billion by the end of 2030. This ambitious target demands a significant expansion of the industry's contribution to India's total merchandise exports, from the existing 25 percent to an impressive 30 percent. Moreover, achieving this milestone would also propel India's share in the global engineering exports arena, currently standing at less than 2 percent, to new heights.

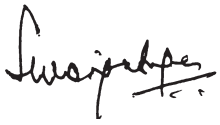
The current world trade scenario presents several challenges, dampened by a number of factors that have cast a shadow of uncertainty. According to the latest UNCTAD report, while global trade in goods and services rebounded in the first three months of the year 2023, the future outlook remains bleak owing to factors including the Ukraine-Russia conflict and the global financial vulnerabilities. These complex geopolitical and economic circumstances necessitate a proactive and resilient approach on India's part to navigate through these adversities and achieve its export target successfully.

It becomes imperative to craft a robust and adaptive strategy that can withstand the headwinds of the global trade landscape. India must adopt a multifaceted approach that fosters diversification of export markets, enhances value-addition in products and services, and encourages technological innovation. By exploring new markets and forging strategic alliances, the nation can mitigate the impact of disruptions in traditional trading partners and explore untapped opportunities in emerging economies.

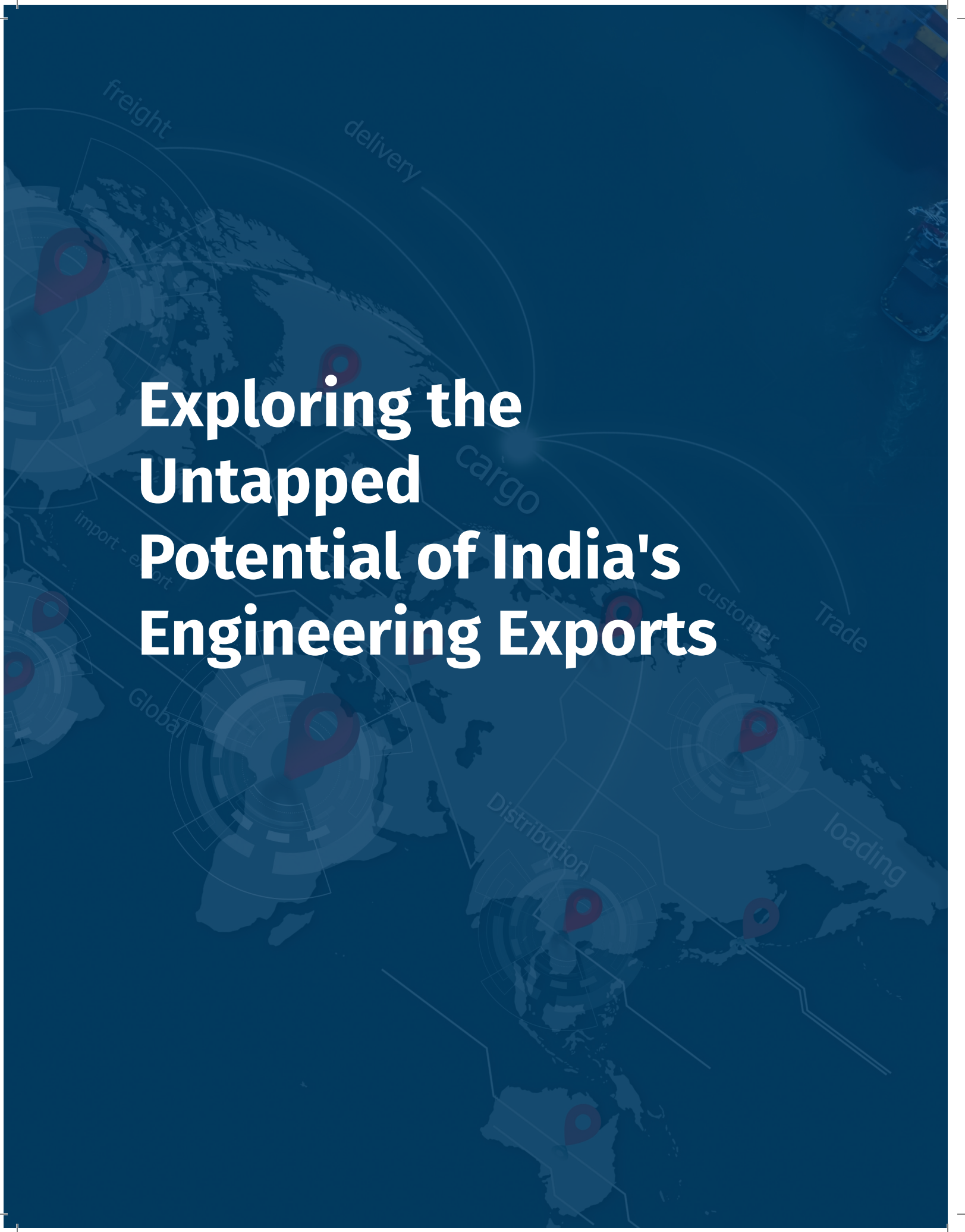
It is noteworthy to mention that in our previous strategy paper titled "Strategy Paper for the Growth of Indian Engineering Exports (2014-19)," EEPC India had outlined a projected range of US$ 86 to 125 billion for India's engineering exports by the year 2019. We are delighted to announce that this vision has materialized, albeit with some delays attributed to global economic uncertainties and the unforeseen impact of the COVID pandemic.

With the successful realization of our past projections, we are now filled with optimism that the strategic initiatives outlined in this current paper will set the course for Indian engineering exports to soar to new heights in the near future.

Our sincere appreciation goes to all who have contributed to this endeavour and we are confident that its implementation will steer the engineering industry towards a prosperous and promising future.



Suranjan Gupta



Exploring the Untapped Potential of India's Engineering Exports

Executive Summary

THE Indian engineering sector holds immense strategic importance for the country's growth, as it is closely intertwined with the manufacturing and infrastructure sectors of the economy. In essence, the expansion of the engineering sector acts as a catalyst for the growth of core sectors in the Indian economy.

This sector's remarkable growth can be attributed to a combination of factors, including the increasing demand for infrastructure development, the rise of manufacturing activities, and the growth of the services sector.

Size and scope

The engineering sector stands as the largest industrial sector in India, accounting for 27% of the total factories in the industrial sector. Additionally, it represents an impressive 63% of overall foreign collaborations in the country.

Contribution to GDP

With its significant contributions, the engineering sector contributes 3% to India's GDP, emphasizing its vital role in the nation's overall economy.

Export earnings

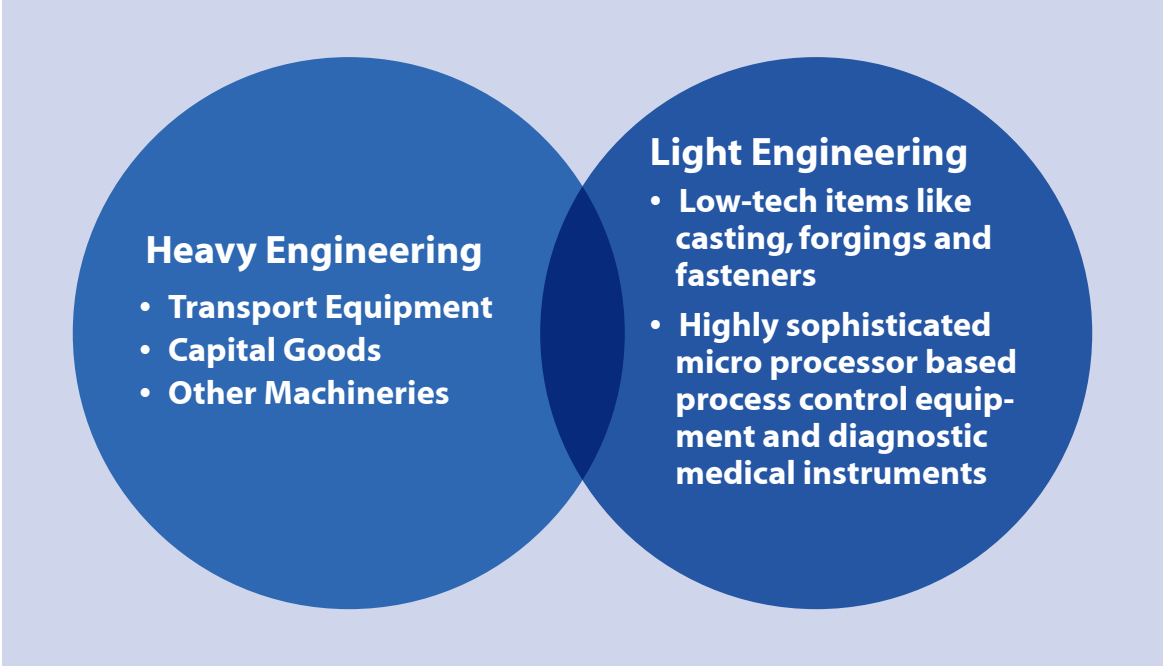
The engineering sector plays a pivotal role in India's export market, responsible for 25% of the country's total exports, making it the largest foreign exchange earner. Notably, within the sector, the MSME sector accounts for 35-40% of the total exports.

Heavy engineering dominance

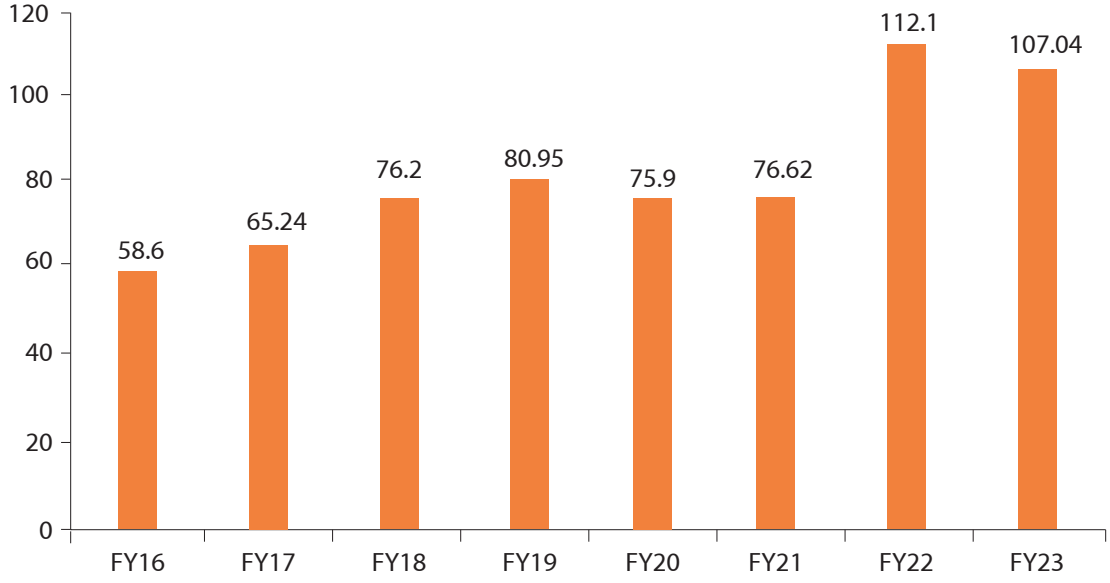
The Indian engineering sector can be categorized into two main segments - Heavy Engineering and Light Engineering. Heavy Engineering dominates the sector, accounting for almost 80% of the overall output.

According to trade data obtained from DGCI&S, engineering exports from India experienced a Compound Annual Growth Rate (CAGR) of 11.34% between FY16-22. In FY22, the value of India's engineering goods exports reached an impressive US$ 111.63 billion, representing a significant year-on-year growth of 45.51%.

Classification of India's engineering sector



Export of engineering goods from India (US$ Billion)



Source: DGCI&S

Furthermore, there is a positive outlook for the growth of engineering exports from India in the coming years, with expectations that it will reach US$ 350 billion by 2030.

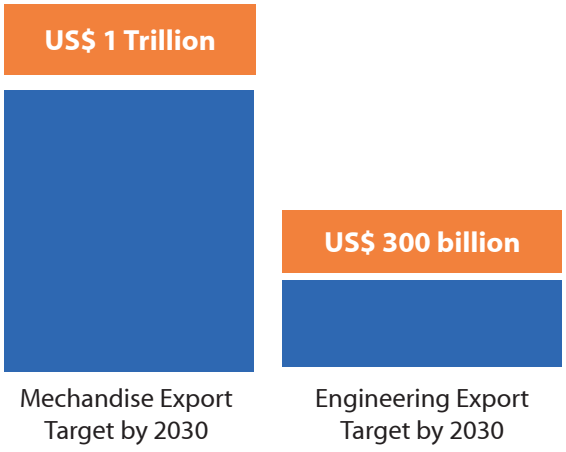
However, the latest trade figures indicate a decline of 4.57% in engineering exports for FY23 compared to FY22. The total value of exports during this period dropped from US$ 112.1 billion in FY22 to US$ 107.04 billion in FY23.

Several major engineering products, including Iron and Steel, Products of Iron and Steel, Non-ferrous metals like Aluminium, Nickel, Lead, Tin, and other products, Industrial Boilers, Machinery for Dairy, Electrical Machinery and Equipment, Motor Vehicles/ Cars, Two & Three-wheelers, Bicycle parts, Auto Tyres, and Hand tools, witnessed a decline in exports during March 2023 as compared to March 2022.

On a regional basis, FY23 witnessed growth in North America, WANA, ASEAN, Latin America, and Oceania. However, there was a significant decline in North East Asia, South Asia, and CIS. The data for the last month of the fiscal year indicated a dwindling global demand, as March 2023 witnessed negative export growth in almost all regions, including North America and ASEAN. Latin America, Oceania, and other European regions (including the UK) were the only three regions that recorded export growth.

Export target

Against this background, the Government of India has set an aspirational target of US$ 1 trillion in merchandise exports by 2030. Additionally, the government aims to increase its export share in global trade from 2.1% to 3% by 2027 and 10% by 2047, promoting a hundred Indian brands as global champions to achieve the target. Consequently, engineering exports have been given a target of US$ 300 billion for 2030.

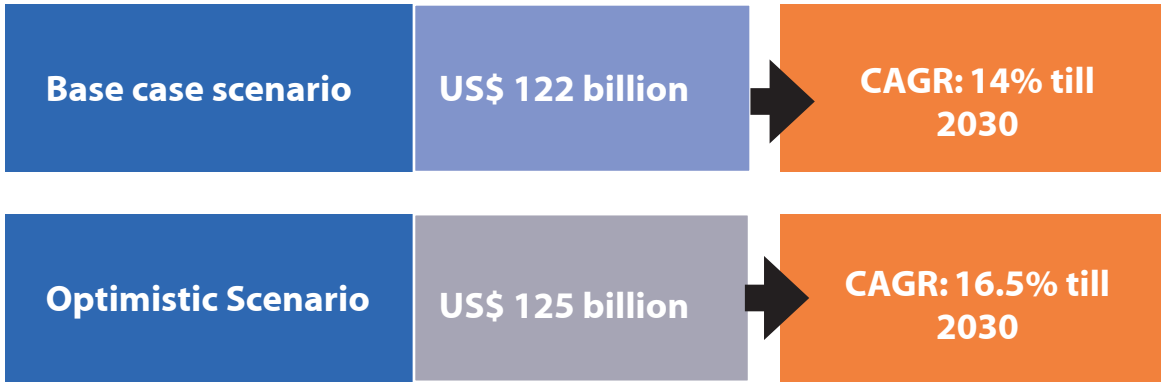


Target 2023-24

In order to achieve the target, Indian engineering exports need to increase at a CAGR of approximately 16.5 percent from FY 2022-23. Growing at this rate, engineering export is projected to reach around US$ 125 billion by 2023-24.

However, given the current global economic trends impacted by the Ukraine-Russia conflict, debt crisis across many global economies, depreciating currencies and a financial crisis in the US, a global demand slump is expected. Hence a conservative estimate or a base case scenario is also proposed whereby the exports may grow at around 14 percent. At this rate, engineering export is expected to reach approximately US$ 122 billion by 2023-24.

Engineering export target 2023-24



Major markets for engineering exports

Before preparing a comprehensive strategy to promote exports, it is crucial to gain a deep understanding of the major markets for engineering products. Through careful analysis, we have identified 40 key countries that collectively account for over 87% of engineering exports. Among these countries, the United States stands out as the largest export destination for engineering products, followed closely by the United Arab Emirates and Germany. Interestingly, eight European countries feature prominently in the list, indicating the potential for further growth and market penetration in this region. Strengthening our presence in Europe should be a priority, and one effective approach would involve the implementation of a Free Trade Agreement (FTA) with European countries, as it would undoubtedly facilitate and expedite our expansion efforts.

The next significant region for engineering exports is South East Asia, with five countries from this region making the list. In addition to our existing ASEAN FTA with India, we have also established bilateral FTAs with select South East Asian nations. However, to fully capitalize on the potential of these markets, it is imperative to foster increased business-to-business interaction and collaboration with these countries.

Within South Asia, Sri Lanka, Bangladesh, and Nepal have emerged as important destinations for engineering exports, emphasizing the need for more substantial engagement in this region. To maximize opportunities, it is essential to forge stronger ties and explore avenues for increased trade and cooperation in South Asia.

Emerging destinations for engineering exports include Africa and Latin America. With the right focus, these countries have the potential to become significant export markets for India. Currently, India's FTA engagement with these nations is limited. Therefore, it becomes imperative to strengthen our existing FTA engagements and pursue new FTAs to level the playing field, as some of our competitors already enjoy a competitive edge through their FTAs with these countries.

In summary, the 40 major export destinations for engineering products are as follows

Table 1: Forty major export destinations for Indian engineering products

Top countries based on engineering exports	2022-23	Target export for 2023-24 (in US$ billion)
USA	18.68	21.64
UAE	4.96	5.75
Germany	3.95	4.57
Italy	3.93	4.56
Singapore	3.67	4.25
Mexico	3.48	4.03
UK	3.13	3.62
Saudi Arabia	3.08	3.57
Turkey	2.85	3.30
China	2.63	3.05
Netherland	2.59	3.01
Indonesia	2.59	3.00
Bangladesh	2.54	2.94
South Africa	2.48	2.88
Nepal	2.31	2.67
France	2.20	2.55
South Korea	2.19	2.54
Thailand	2.11	2.45
Brazil	1.93	2.24
Malaysia	1.85	2.14
Belgium	1.84	2.13
Vietnam	1.83	2.12
Japan	1.67	1.93
Spain	1.39	1.61
Australia	1.38	1.60
Canada	1.37	1.59
Nigeria	1.15	1.33
Egypt	1.00	1.16
Poland	0.97	1.12
Sri Lanka	0.85	0.98
Colombia	0.83	0.96
Oman	0.82	0.95
Philippines	0.80	0.92
Kenya	0.79	0.91
Taiwan	0.74	0.85
Russia	0.73	0.85
Tanzania	0.70	0.81
Chile	0.63	0.73
Qatar	0.52	0.60
Peru	0.46	0.53
Export Target for 40 countries (total)		**108.45**

The engineering sector plays a pivotal role in India's export market, responsible for 25% of the country's total exports, making it the largest foreign exchange earner. Notably, within the sector, the MSME sector accounts for 35-40% of the total exports.

Major engineering products

To achieve the ambitious export targets, it is crucial to adopt a focused approach and identify the products that require special attention within the vast engineering sector. Engineering encompasses a wide range of tariff lines, spanning from chapter 72 to Chapter 96. Through thorough analysis, we have identified several key subsectors that collectively contribute to 75 percent of India's total engineering exports.

Furthermore, we have delved deeper into each subsector and pinpointed focus products at the 6-digit HS Code level, with a few notable exceptions mentioned at the 4-digit HS Code level. These focus products have been carefully selected based on their potential for growth and market demand. Table below presents an overview of the potential subsectors and the corresponding list of focus products under each category.

The aforementioned table highlights the sectors that make up 75 percent of India's total engineering exports. Notably, the potential product lines identified within these sectors contribute to over 40 percent of India's engineering exports. Therefore, it is evident that placing a greater focus on these products is crucial for India's efforts to enhance exports in the future.

Exploring non-traditional markets

The engineering export sector in India has traditionally relied heavily on established markets. Exporters often prioritize factors like geographic proximity, trade complementarity, trade environment, and banking and financial conditions when selecting export partners. Consequently, the United States, as the largest global consumer, remains the preferred destination for many countries, including India, closely followed by the European Union.

In the case of India's engineering sector, North

Major engineering products	
Potential sectors	**Potential products**
Steel pipes and tubes	730630, 730511, 730441, 730640, 730799
Steel castings and forgings	848180, 732599, 848190, 848310,732619, 830241,732591, 730721
Fastener	731819, 731816, 731700
Aluminium and its products	760110, 760120
Copper and its products	740311, 741999, 740313, 740321, 854411, 740400
Electrical machinery	850423, 850431, 850490, 8536, 8537, 8538, 854460
Agricultural machinery	871690, 870810, 843290, 843280, 870130, 843390, 870120, 843210,
Textile machinery	8445, 8448, 8451, 8450,
Food Processing Machinery	847989, 847990, 841989, 847920
Machine tools	846630, 846721, 846610, 846599, 846693, 846799, 846719, 846729, 845710, 846711, 846694, 845811, 846299
Pumps and valves	840999, 848180, 848190, 841391, 840991, 841370
Hand tools, cutting tools, etc.	820411, 820900, 820719, 820559, 821220, 820713, 820310, 820770, 820740, 820890
Automobile	870322, 870321, 870323, 870410
Two and Three Wheelers	871120, 871130
Auto component	870899, 870850, 870840, 870600, 870894, 870880, 870829, 870892, 851220, 870870, 870810
IC Engines	840890, 840999, 841490, 840991
Bicycle and its parts	848180, 841490, 848190
Medical devices	901890, 901839, 903180, 902610, 903300, 903190, 902620, 902110

America and the EU account for approximately 39% of total exports, as illustrated in the figure below. This concentration of exports toward developed countries in America, Europe, and Asia highlights a lack of diversification in export destinations, posing a significant risk. Any disruptions or turbulence in these traditional markets could have a profound impact on India's export capabilities.

To thrive in today's competitive landscape, it is imperative to pursue trade diversification. By expanding into non-traditional markets, the risk associated with economic uncertainties can be spread out, reducing dependence on a few markets. In this study, a comprehensive list of non-traditional markets has been identified, along with focus products for each market. Table (*below*) provides an overview of these non-traditional markets and their associated focus products.

Technology intensity of global exports

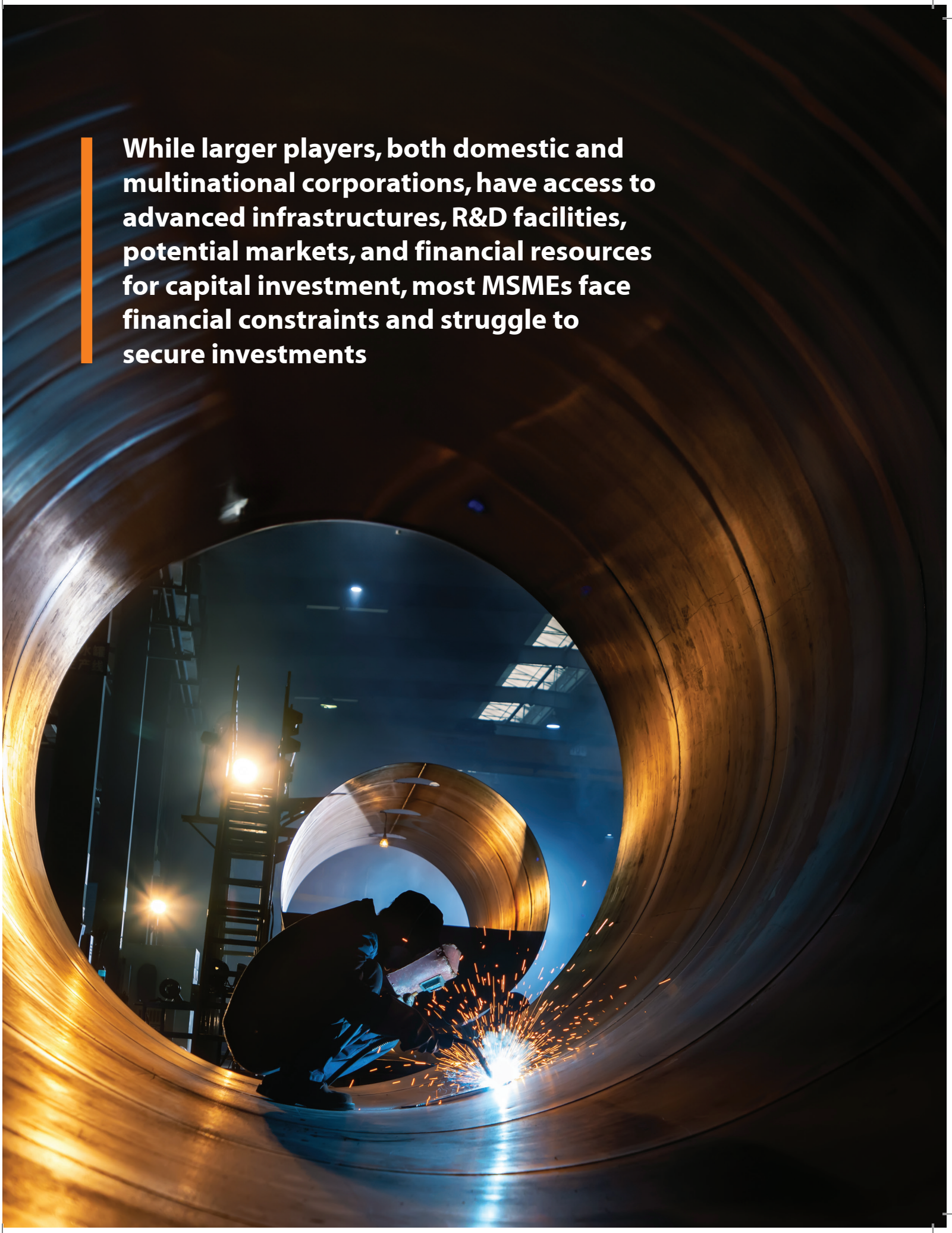
The global export trends in technology intensity indicate that both high-technology and low-technology products experienced similar growth around 4 to 4.5 percent before the pandemic. However, since the pandemic, there has been increased demand in low-technology and medium-to-low-technology segments, with significant growth observed in the metal and metal products sector.

Non-traditional markets and focus products for engineering exports

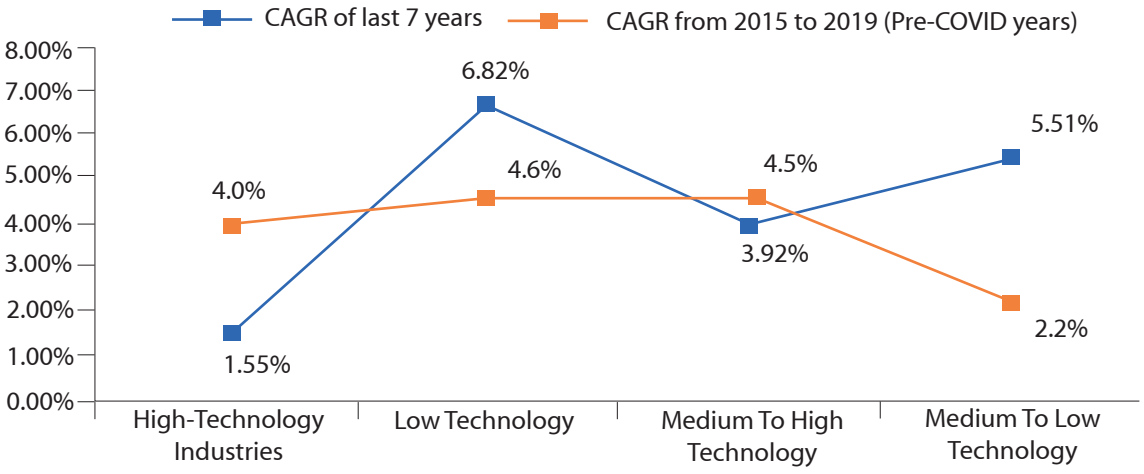
Potential sectors	Potential products
Russia	• Heavy and light motor vehicle • Autoparts: electricals and others • Renewable energy equipment • Other industrial machinery • Electrical machinery
Ukraine	• Heavy and light motor vehicle • Electrical machinery • Agricultural machinery • Renewable energy equipment • Other industrial machinery
Kazakhstan	• Electrical machinery • Renewable energy equipment • Iron & steel • Other industrial machinery • Heavy and light motor vehicle
Belarus	• Iron & steel • Electrical machinery • Heavy and light motor vehicle • Renewable energy equipment • Other industrial machinery
Uzbekistan	• Iron & steel • Electrical machinery • Heavy and light motor vehicle • Renewable energy equipment • Other industrial machinery • Iron & steel • Autoparts: electricals and others • Construction and earthmoving machinery • Electrical machinery • Heavy industries: industrial machinery for paper, cement, chemicals, and textiles
Poland	• Heavy and light motor vehicle • Electrical machinery • Iron & steel • Autoparts: electricals and others • Renewable energy equipment

(contd): Non-traditional markets and focus products for engineering exports	
Potential sectors	**Potential products**
Hungary	• Electrical machinery • Autoparts: electricals and others • Heavy and light motor vehicle • Industrial combustion engines • Renewable energy equipment
Czech Republic	• Autoparts: electricals and others • Electrical machinery • Iron & steel • Renewable energy equipment • Heavy and light motor vehicle
Slovakia	• Autoparts: electricals and others • Electrical machinery • Heavy and light motor vehicle • Industrial combustion engines • Renewable energy equipment
Romania	• Electrical machinery • Autoparts: electricals and others • Heavy and light motor vehicle • Iron & steel • Renewable energy equipment
Argentina	• Heavy and light motor vehicle • Electrical machinery • Autoparts: electricals and others • Other industrial machinery • Renewable energy equipment
Chile	• Heavy and light motor vehicle • Construction and earthmoving machinery • Electrical machinery • Iron & steel • Other industrial machinery
Peru	• Heavy and light motor vehicle • Iron & steel • Construction and earthmoving machinery • Electrical machinery • Other industrial machinery
Ecuador	• Heavy and light motor vehicle • Iron & steel • Other industrial machinery • Electrical machinery • Construction and earthmoving machinery
North Africa	• Heavy and light motor vehicle • Electrical machinery • Iron & steel • Other industrial machinery • Renewable energy equipment
East Africa	• Iron & steel • Heavy and light motor vehicle • Electrical machinery • Railways related products and equipment ship building and air crafts • Construction and earthmoving machinery
West Africa	• Railways related products and equipment ship building and air crafts • Heavy and light motor vehicle • Construction and earthmoving machinery • Iron & steel • Electrical machinery
South Africa	• Other non-ferrous metals and manufactures (other than aluminium) • Railways related products and equipment ship building and air crafts • Heavy and light motor vehicle • Construction and earthmoving machinery • Electrical machinery

While larger players, both domestic and multinational corporations, have access to advanced infrastructures, R&D facilities, potential markets, and financial resources for capital investment, most MSMEs face financial constraints and struggle to secure investments

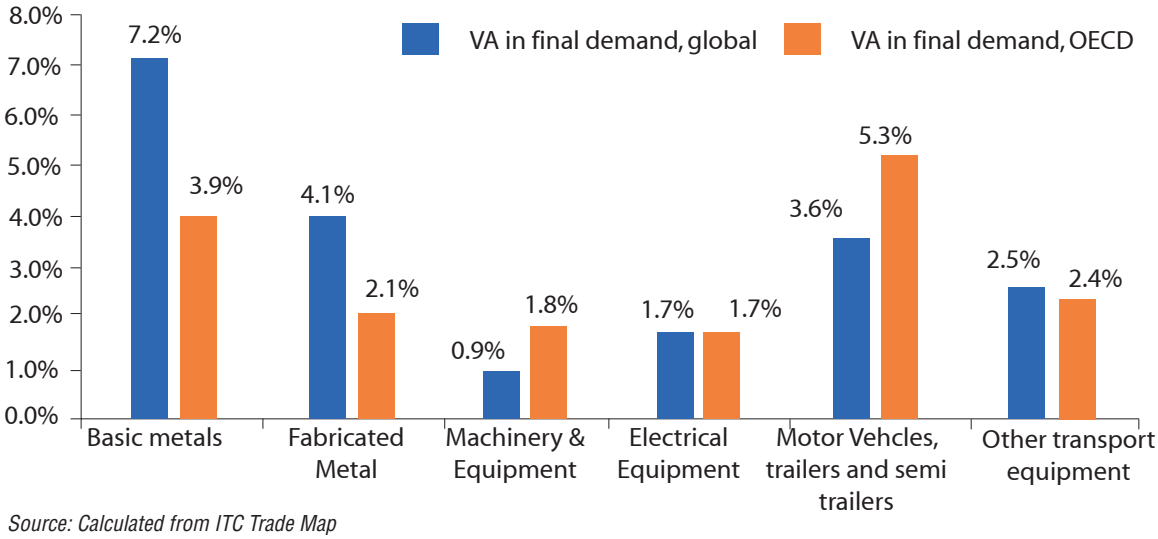


Trend in India's exports for different technology intensities



Source: Calculated from ITC Trade Map

Value addition in final demand



Source: Calculated from ITC Trade Map

In terms of value-added products, value addition in final demand has been prominent in the basic metals and fabricated metals sector, as well as in the automobile and auto component sectors. This value addition has occurred globally, with developing countries and members of global value chains, such as China, dominating the demand for metal and metal products. Developed countries, particularly OECD countries, have seen significant value addition in heavy industries like automobiles).

India has substantial capacity in sectors such as iron and steel, electrical machinery, and auto components, and has been involved in various value chains. However, India's participation has mostly been limited to lower levels of the value chain, resulting in low value addition in Indian products. Increasing value addition will be crucial for India's progress in the coming years. The Indian government's Production Linked Incentive (PLI) scheme has covered sectors like automobiles, advanced chemistry cell battery storage, renewable energy, and specialty steel, but further incentives are needed to encourage the development of value-added products for export markets, especially after recent disruptions.

Recommendations

- Implement an aggressive "SME Assistance Programme" to support research and innovation in the MSME sector.

- Establish R&D and Innovation hubs with performance-linked funding.
- Foster government-to-government (G2G) or government-to-corporate collaborations to encourage synergy and partnerships in research and development.
- Align manufacturing processes with global leading practices, such as lean manufacturing, re-engineering, and a focus on automation and digitization.

Market access issues

Market access issues faced by Indian manufacturers in international markets include:

- Imposition of safeguard measures, quantitative restrictions, and countervailing duties.
- Stringent technical requirements or Technical Barriers to Trade.
- Preferences given to local companies, creating barriers for Indian exporters.

Examples of market access issues in specific markets:

Market Access Issues faced in the EU:

- Implementation of Carbon Border Adjustment Mechanism (CBAM) to impose emission taxes on imports, affecting exports of iron, steel, and Aluminium from India.
- TRQ Quotas causing harm to EU users and increasing costs of EU-manufactured goods.

Market Access Issues faced in North East Asian markets (South Korea and Japan):

- Preference for sourcing from domestic suppliers and strict private standards by Korean Chaebols.
- Stricter standards and technology requirements equivalent to EU standards, challenging for Indian exporters.
- Imposition of severe anti-dumping duties by South Korea.

Key challenges faced by Indian manufacturers in critical markets:

- Low awareness among manufacturers, especially MSMEs, regarding international standards.
- Disconnect between local and global standards, requiring additional investment for new product development.
- Additional cost implications for conformity assessment, such as CE marking for the European market.
- Low acceptability of Indian Standards (IS) in most countries, despite harmonization with international standards.

Recommendations

- Enhance awareness regarding standards and conformity assessment.
- Harmonize all relevant standards with ISO and IEC.
- Align Indian standards with private standards from professional bodies.
- Ensure mandatory enforcement of relevant standards.
- Explore Mutual Recognition Agreements (MRAs) with key geographies.
- Extend funding assistance for MSMEs to support compliance with regulatory requirements.

India's FTA engagements

This section discusses India's engagement in free trade agreements (FTAs) over the past few decades. The number of FTAs worldwide has significantly increased, and India has actively participated in this trend. India's FTA engagements began in 1975 with the signing of the Asia Pacific Trade Agreement (APTA) and have since expanded to include various bilateral and regional agreements).

As of May 2022, India is a part of 12 FTAs and four PTAs (preferential trade agreements). Some notable FTAs include the South Asian Free Trade Area (SAFTA), India-Korea CECA, India-Japan CEPA, India-ASEAN CECA, and India-Australia Economic Cooperation and Trade Agreement.

In recent years, India has adopted a more open and aggressive stance on FTAs. The government's strategy focuses on engaging with peaceful nations with whom India does not have significant trade deficits and that have a major demand for Indian exports.

Two significant FTAs signed by India are the Comprehensive Economic Partnership Agreement (CEPA) with the UAE and the Economic Cooperation and Trade Agreement (ECTA) with Australia. The CEPA with the UAE, operationalized in May 2022, is expected to boost India's engineering exports to the UAE to US$ 9.2 billion in the next five years. It is also seen as a gateway for India to expand businesses in the Gulf region, Central Asia, and parts of Africa.

The ECTA with Australia, signed in April 2022, is expected to lead to approximately 10% growth in engineering exports to Australia in the first two

India's FTA engagement		
Name of the Agreement	**Type of the Agreements**	**Member countries**
Asia Pacific Trade Agreement (APTA)	PTA	Bangladesh, China, India, South Korea and Sri Lanka
South Asian Free Trade Area (SAFTA)	FTA	SAARC countries
India-Korea CECA	FTA	India and South Korea
India-Japan CEPA	FTA	India and Japan
India-ASEAN CECA	FTA	India and ASEAN countries
India-Malaysia CECA	FTA	India and Malaysia
India-Singapore CECA	FTA	India and Singapore
India-Sri Lanka FTA	FTA	India and Sri Lanka
India-Chile PTA	PTA	India and Chile
India-MERCOSUR PTA	PTA	India and Mercosur countries
India-UAE CEPA	FTA	India and UAE
India-Australia Economic Cooperation and Trade Agreement	FTA	India and Australia
Source: ADB		

years and 15% thereafter. The agreement provides duty-free access for a wide range of Indian exports to Australia and includes provisions for tariff elimination or reduction.

Recommendations to improve FTA utilization and trade agreement alignment

It is very important for companies dealing in international trade to be aware of the trade agreements, products, countries, rules of origin, certifying agency etc., so as to bring down the cost of international trade and make the business more profitable. Recommendations to increase the utilisation and align the trade agreements more towards the need of Indian businesses are given below

• *Re-negotiating FTAs: addressing the unequal exchanges*

From the analysis of India's existing FTAs, it is evident that in many instances India has been at a disadvantage resulting in widening trade deficit. Now as the government re-negotiates major trade agreements it is important to address the inequalities affecting India's gains. While average tariff has come down in most cases, it is the TBT or technical barriers to trade that create major hassles for Indian exporters especially in more developed countries. Hence India needs to identify those regulations and standards that may hamper their scope in the existing FTA partners and come to a mutual solution either in the form of harmonisation or signing mutual recognition agreements. Special care should also be taken to address issues related to inverted duty structure.

• *Expanding Free Trade Agreements*

India's free trade agreements (FTAs) have predominantly been with Asian countries. However, in recent times, India has taken significant steps towards expanding its trade relations by initiating negotiations with countries such as Canada, the United Kingdom, and the European Union. Additionally, India has successfully signed FTAs with the United Arab Emirates and Australia. It is crucial for India to further explore opportunities in untapped markets, particularly in Latin American and African countries. Many of India's competitors have already established FTAs with these nations, giving them a competitive advantage over Indian exporters. By actively pursuing FTAs with Latin American and African countries, India can level the playing field, ensure fair market access, and enhance exports.

• *TBT provisions in new agreements*

As India signs new trade agreements mostly with its developed partners, it is important to keep provisions based on WTO TBT agreements. In the current situations, TBTs pay a much vital role in restricting trade compared to tariff barriers. Hence special provisions on standards and regulations should be kept to provide wider market access to Indian exports.

• *Provisions for Emergency Action Plan*

It is also noticed that while the older FTAs were negotiated in the anticipation that India will have major gains from trade, there has been a detrimental impact on the domestic industry which could not be reversed. Therefore, a study by EXIM Bank suggested that the future trade agreements must provide for a transitional tariff-based emergency plan which is temporary in nature and can be used to protect the interest of the domestic industry in the face of external import surge.

• *Creating greater awareness of preferential duty benefits under various FTAs*

Generating awareness of the benefits of FTA utilisation among the industry is of prime importance as that can lead to a greater FTA utilisation. Increased awareness about the products covered under various FTA processes is important to claim the preferential duty benefits. The industry should also have a fare understanding of the rules of origin.

• *Capture FTA Utilisation data*

There should be a mechanism to compute India's existing FTA Utilisation. At present while utilisation data of import is available with the government there is no mechanism to track export utilisation data as it is not recorded anywhere.

The new Foreign Trade Policy and industry perspective

The new Foreign Trade Policy (FTP 2023) introduced by the Government of India aims to promote exports, enhance competitiveness, simplify procedures, reduce costs, and promote sustainable development. Unlike the previous policies, the FTP 2023 does not have a fixed end date. Instead, it will be continuously updated as required, making it more dynamic and receptive to global and domestic economic changes. It is based on four pillars: Incentive to Remission of taxes, Export Promotion through Collaboration, Ease of Doing Business, and Emerging Areas.

Some key features of the FTP include:

Amnesty Scheme: This scheme addresses default on Export Obligations, allowing exporters to settle their default in export obligations through a one-time settlement.

Ease of Doing Business: The government focuses on streamlining processes and enhancing digital infrastructure to ensure faster processing of important documents. The FTP aims to reduce processing times for various permissions, such as advance authorization issuance and EPCG issuance.

District Export Hub Initiative: This initiative decentralizes the promotion of exports, making states and districts active stakeholders. The government identifies district-wise products and services and promotes them through the District Export Action Plan.

E-Commerce Export Initiative: The FTP extends benefits to e-commerce exports, streamlines export facilitation through IT systems, and raises the value limit for exports through courier service.

Rupee Trade: The "internationalization" of the Indian Rupee allows it to be used for import/export transactions and other current and capital account transactions. The FTP allows the realization of FTP benefits in Rupee terms in special Vostro accounts.

Other Important Areas: The FTP revises export performance thresholds for exporters as Status Holder, streamlines the SCOMET license procedure, promotes manufacturing in India by incentivizing green technologies, and extends the Self-Ratification Scheme to reduce compliance burden.

Changes from Previous Versions: The new FTP shifts from an incentive-based approach to a remission-based approach due to WTO challenges. The Merchandise Export Incentive Scheme (MEIS) was replaced by the Remission of Duties and Taxes on Exported Products (RoDTEP) scheme, which aims to reimburse all taxes incurred during manufacturing and exporting.

Concerns: Concerns raised by the industry include lower rebate rates compared to MEIS and reduced benefits for sectors with low tax incidence. Primary iron and steel have also been excluded from the scheme, posing challenges for exporters.

Overall, the FTP 2023 focuses on promoting exports, simplifying procedures, and enhancing the ease of doing business in order to boost India's trade and economic growth.

Shipping and logistics

Shipping serves as the lifeblood of the global economy, serving as the backbone of international trade. It is indispensable to acknowledge that without shipping, the transportation of goods across continents, the bulk movement of raw materials, and the import/export of affordable food and manufactured products would simply be unfeasible. Simultaneously, any disruptions or issues within the shipping industry have significant adverse repercussions on global trade. In the case of India, shipping plays an instrumental role in its foreign trade, facilitating the efficient handling and transportation of cargo by the logistics industry. This proficiency has empowered Indian exporters to gain a competitive advantage in international markets, particularly in sectors where India possesses strengths.

However, it is crucial to acknowledge that the shipping industry and its associated affairs also face certain shortcomings, which have had a notable impact on India's trade, especially in the aftermath of the COVID-19 pandemic.

Absence of shipping lines

India's lack of a domestic shipping line poses significant challenges to its aspirations of achieving global recognition as both a manufacturer and an exporter. Therefore, the development of a shipping line becomes a matter of utmost importance for the country.

The benefits of establishing a shipping line in India are manifold:

Reduced Trade Costs: One of the primary advantages would be a noticeable reduction in trade costs. This reduction can contribute to making Indian goods more competitive in the global market, thus bolstering India's export potential.

Decreased Dependence on Foreign Shipping Lines: By having its own shipping line, India can significantly reduce its reliance on foreign carriers. This increased self-sufficiency in logistics will enhance the reliability and efficiency of the export process, ensuring smoother transactions for Indian exporters.

Strengthening the manufacturing sector: The development of a shipping line would provide a substantial boost to the manufacturing sector. Manufacturers in India would no longer have to rely on external carriers, leading to greater control and flexibility in transporting their products. This increased reliability would attract more investment and foster the growth of domestic manufacturing, aligning with India's ambition to become a global manufacturing hub.

Foreign exchange earnings: Another significant advantage of a shipping line is its potential to transport goods for other countries, thereby generating foreign exchange earnings for India. By offering reliable and cost-effective shipping services to international customers, India can tap into new revenue streams while expanding its influence in the global maritime industry.

Lack of regulation

The Indian shipping sector suffers from a lack of effective regulation, impeding the full potential of shipping companies. Insufficient infrastructure, cumbersome procedures, inadequate port capacity, and a lack of streamlined clearance systems are major constraints. Foreign liners dominate the market, creating an unfair oligopoly that burdens Indian exporters with high freight charges and unfavourable exchange rates. Addressing these issues through proper regulation is crucial for a competitive and efficient shipping industry in India.

Other problems faced by Indian shipping

Poor connectivity: Indian ports suffer from inadequate connectivity with their hinterland, leading to inefficiencies in the transportation of goods. Limited transportation options and inadequate infrastructure connecting ports to major industrial and manufacturing centres hinder the seamless flow of cargo.

Inadequate planning and congestion: Many Indian ports lack proper planning and suffer from a lack of essential facilities, resulting in congestion. Insufficient berthing space, outdated equipment, and inadequate storage facilities contribute to delays and operational inefficiencies.

Cargo container pressure: The demand for cargo containers often exceeds the available supply, putting immense pressure on the shipping industry. Insufficient container availability can lead to delays, increased costs, and logistical challenges for exporters and importers.

Aging coastal fleet: The coastal fleet in India is rapidly aging, with approximately 52% of the tonnage

The Government of India has set an aspirational target of US$ 1 trillion in merchandise exports by 2030. Additionally, the government aims to increase its export share in global trade from 2.1% to 3% by 2027 and 10% by 2047, promoting a hundred Indian brands as global champions to achieve the target

due for development or replacement. Outdated vessels pose operational challenges and hinder the industry's ability to meet evolving market demands efficiently.

Imbalance in coastal traffic: There is an imbalance in the movement of coastal traffic, with uneven availability of traffic in both directions. This creates challenges in optimizing vessel utilization and efficient resource allocation.

What can the Government of India do?

The Government of India has played a pro-active role in many spheres of economy to make it competitive. Further, the Department of Commerce has laid down impressive export targets for 2030 and also laying special emphasis on improving logistical networks in the country as one of the effective measures to achieve the target. Here are some key measures to consider:

- **Addressing high freight costs:** It is essential for the government to examine the high freight costs faced by Indian exporters compared to their competitors, such as China. A regulatory framework should be established that encourages profit-making while discouraging rent-seeking or profiteering practices by stakeholders involved in external trade.

- **Establishing an independent shipping regulator:** Following the example of countries like the USA, India should consider creating an Independent Shipping Regulator of India under the Ministry of Shipping. This regulator would have statutory obligations aimed at enhancing the seafaring external trade of the country.

- **Fact-finding team:** To gain a comprehensive understanding of the issues impacting the shipping industry, the government should form a Fact-Finding Team comprising representatives from major exporters and bodies like EEPC India. This team can conduct thorough research and analysis of the challenges and make recommendations for improvement.

- **Collaborative approach:** The government should foster collaboration between industry stakeholders, exporters, trade bodies, and the Directorate General of Merchant Shipping in Mumbai. By promoting open dialogue and knowledge sharing, the government can gather valuable insights and perspectives to guide its policy and regulatory decisions.

Problems in logistics to CIS Region due to war: For CIS countries, Indian goods move from the Suez Canal and the Black Sea. Now, shipments to these nations have been affected as no shipping line is willing to take cargoes to Russia and surrounding nations as there is no movement of ships through the Black Sea. In addition, Banks are also not willing to accept the shipping documents for exports that have already arrived at the Russian ports.

Possible way out by exporting through the China route: Indian exporters have sought resumption of exports to the CIS countries through China. The proposed route, that has been left non-operational for over a year include India to Qingdao by ship and from there on to CIS by railways.

Developing Northern Sea shipping route

India and Russia of late are looking to expand the use of the Northern Sea shipping route, including building of processing facilities as a favourable trade route to boost bilateral merchandise trade. Northern Sea Route, which runs along Russia's northern coastline and passes through the Arctic Ocean, is the shortest shipping route between East Asia and Europe. According to a report, officials of both the nations are seriously considering reliable and safe transportation of goods through the Northern Sea route using Indian and Russian ports. Russian government said that the cost of delivering a container from Vladivostok to India is one-third to the cost of shipping a container from Moscow. Russia has invested heavily in infrastructure development in this route in order to shape it up as a major shipping lane.

Freight rate volatility

Volatility in freight rate is another major issue in relation to shipping and the problem is chronic in nature. This remains a major issue with a much one-sided larger historical legacy adversely impacting Indian exporters, especially engineering exporters, given the nature of their goods.

Supply of shipping containers

Here is another important aspect of export and import related to shipping. There was huge shortage in supply of shipping grade containers during the pandemic year resulting in exorbitantly high freight rate charged by the shipping companies and

causing severe disruption of India's export import supply chain in turn.

At the height of the container shortage problem, in September 2021, the Department of Commerce along with the Ministry of Shipping, the All-India Association of Shippers and Exporters organizations like EEPC India and others tried to resolve the acute problems. These included, among others:

- Freeing some of the containers stuck at the customs

- Coordinating the exporters requirements of containers during the quarter with the shipping liners

- Encouraging Indian companies to manufacture containers.

Supply shortage diluted

While these steps resulted in some improvement in availability of containers, the first half of year 2022 was all about tight capacity and exceptionally high container rates. Towards the latter half of the year, slowing demand due to economic slowdown in major developed regions reduced the demand for containers. The prices started to plummet as a consequence and a downtrend was observed.

Initiative by the Government of India

The government of India in 2022 has taken up a unique plan of manufacturing shipping grade containers in India that includes giving Production Link Incentives (PLI) to indigenous firms. It is an attempt to break Chinese monopoly in this segment. An inter-ministerial panel set up on the directions of the Prime Minister's Office has recommended a slew of measures, including giving PLIs to indigenous firms to manufacture containers.

Short- and medium-term goals to increase exports

To increase exports in the short and medium term, the Strategy Paper has identified 14 key issues faced by engineering exporters across four pillars - Product & Market, Capability, Government infrastructure and processes, and Branding & Market access. While larger players, both domestic and multinational corporations, have access to advanced infrastructures, R&D facilities, potential markets, and financial resources for capital investment, most MSMEs face financial constraints and struggle to secure investments. The following section elaborates on some of the key challenges faced by exporters:

Products and markets

To succeed in exports, it is crucial to target the right market with the appropriate product mix. Key challenges identified in this area include:

1. Limited understanding of potential markets and their requirements, such as standards, technical regulations, and non-tariff barriers.

2. Lack of access to a comprehensive database of potential customers.

3. Limited awareness of Free Trade Agreement (FTA) rules related to 'Rules of Origin,' 'Country of Origin,' required documentation, and procedures to avail preferential tariff.

Capability

MSME players face various challenges related to their capabilities, including:

1. Outdated facilities, utilization of old and refurbished machines, lack of automation, leading to productivity loss, product quality issues, and high energy costs.

2. Limited availability of funds for facility upgrades and research and development.

3. Limited availability of skilled and productive resources, as most MSMEs rely on migrant labour.

4. Non-availability of affordable testing facilities in close proximity to industrial clusters.

5. Limited awareness of international and local standards and technical regulations.

Government infrastructure and processes

The availability of government infrastructure, ease of doing business, and simplified documentation processes play crucial roles in facilitating trade. Key challenges identified by exporters include:

1. Bottlenecks in inland logistics, port congestion, and non-availability of cargo leading to longer lead times for delivery.

2. High costs associated with inland freight and shipping liners.

3. Procedural complexities and demanding documentation requirements related to customs clearance, closure of 'Advanced License,' and GST refund

4. High production input costs, such as steel and power.

Branding and market access

Dedicated efforts in branding and marketing are essential for success in specific product categories and markets. Many exporters have expressed concerns regarding these aspects:

1. Limited knowledge and understanding of specific markets and their requirements. Indian products are not well recognized in certain markets.

2. Insufficient government support and promotion of specific products in specific countries, lacking adequate hand-holding efforts.

By addressing these challenges and implementing appropriate strategies, the Indian engineering sector can enhance its export capabilities and further contribute to the growth and development of the country's economy.

Recommendations for EEPC India

The report has identified crucial areas where EEPC India should focus its efforts to promote and enhance engineering exports from India, thereby helping the sector achieve its desired targets. The key areas where EEPC can concentrate its promotional activities are as follows:

A. Trade policy advocacy: Advocate for favourable trade policies and regulations that support the growth of the engineering export sector. Collaborate with government agencies and industry stakeholders to address trade barriers and create a conducive environment for exporters.

B. Market diversification: Encourage exporters to explore new markets and expand their presence beyond traditional markets. Promote trade with emerging economies and regions with high demand for engineering products.

C. Branding and promotion: Implement targeted branding and promotional campaigns to enhance the visibility and reputation of Indian engineering products in international markets. Participate in global trade shows, exhibitions, and industry events to showcase the capabilities and quality of Indian engineering exports.

D. Skill development: Focus on skill development programs to enhance the capabilities of the workforce in the engineering sector. Offer training and capacity-building initiatives to improve the technical and managerial skills of exporters, enabling them to meet international quality standards and customer requirements.

E. Market intelligence: Provide comprehensive market intelligence and research reports to exporters, enabling them to make informed decisions regarding product development, market trends, and potential opportunities. Facilitate access to reliable market information and data.

F. Technology adoption: Promote the adoption of advanced technologies and Industry 4.0 initiatives among engineering exporters. Provide support and resources to help MSMEs upgrade their manufacturing processes and enhance their competitiveness in the global market.

By focusing on these key areas, EEPC India can effectively promote engineering exports, support exporters, and contribute to the growth and competitiveness of the sector in the global market.

A. Trade policy advocacy

Maintain close ties with the Government and take active participation in policy making pertaining to promotion of export. Some of the areas where policy making can be influenced are:

- Ensure availability of the raw materials at affordable prices.
- Ensure adequate benefits under the RoDTEP scheme.
- Schemes for funding and incentives for research

and innovation for MSMEs.
• Adoption of digital technologies and Industry 4.0 in engineering / manufacturing industry
• Trade agreement with potential countries.
• De-bottlenecking of port infrastructure and inland logistics.
• Taking up the issue of green protectionism introduced by EU as EU is a major export destination for engineering products.
• Streamlining GST related issues faced by the exporting community.

In most of the above areas, role of EEPC is likely to be limited to facilitation only, but that may encourage close cooperation between the government, the industry, and the academia.

B. Market diversification

Based on the available data, it is evident that the engineering export sector heavily relies on conventional markets. India's engineering sector heavily depends on North America and the EU, which collectively contribute to around 39% of the total exports. This heavy reliance on a limited number of export destinations poses a significant risk. Any disruptions or fluctuations in these traditional markets can have far-reaching consequences for India's exporting capabilities.

To ensure sustainable growth in today's fiercely competitive landscape, it becomes imperative to diversify trade. By exploring new markets and expanding the export base, the risks associated with economic uncertainties can be effectively mitigated. Trade diversification not only helps in reducing reliance on a handful of markets but also enables the distribution of risks across a broader range of countries and regions. As highlighted in earlier sections, a comprehensive list of potential countries and regions has been provided, emphasizing the importance of exploring new avenues for trade expansion.

C. Branding and promotion

• EEPC should organize focused engineering exhibitions and trade promotion activities in target markets, ensuring a product-market fit for maximum benefits.
• Optimize trade show participation by selecting the right events, maintaining a proper mix of focused and non-focused categories.
• Ensure that the right products are exhibited in the right markets during promotional events.
• Strive to maximize resources and effectively showcase engineering products to the relevant audience.
• Prioritize target markets and tailor promotional activities accordingly.
• Continuously evaluate and refine trade promotion strategies to enhance effectiveness.
• Foster collaborations and partnerships with local industry associations and trade organizations.
• Leverage digital platforms and technology to reach a wider audience and facilitate virtual trade promotion activities.
• Provide comprehensive support and assistance to exporters participating in trade shows, ensuring a seamless experience.
• Stay updated on emerging markets and industry trends to identify opportunities for trade promotion.

D. Skill development

One of the significant obstacles to export growth for MSMEs is a lack of awareness regarding various aspects of exporting, such as customer requirements, target markets, and export schemes. EEPC can play a crucial role in building awareness among Indian engineering MSMEs. The following are some focus areas for enhancing awareness:
• Enhance awareness of preferential duty benefits available under various Free Trade Agreements (FTAs) for importers. This initiative will help increase the utilization of FTAs by the country.

• Spread awareness about the different policies in place. Conduct training sessions to educate MSMEs about export benefits and schemes introduced by the government.

• Design and develop a comprehensive trade repository for exporters and overseas buyers. This repository will provide all necessary information required by exporters targeting specific countries.

• Create awareness among MSMEs about emerging digital technologies and Industry 4.0 initiatives. Organize seminars and conferences in collaboration with industry associations in multiple locations.

• Conduct awareness programs on global standards, technical regulations, and quality requirements set by overseas customers, countries, or regions.

By focusing on these areas, the EEPC can help bridge the awareness gap and empower MSMEs in the engineering sector to make informed decisions and leverage export opportunities effectively.

E. Market intelligence

One of the key responsibilities of EEPC should be to provide extensive market intelligence and research reports to exporters, empowering them to make well-informed decisions regarding product development, market trends, and potential opportunities.

While EEPC India already shares valuable information such as periodic trade analysis, metal price updates, and info-bulletins, it should prioritize the publication of digital periodic content to ensure members are consistently updated on the latest trade practices and market information. With the widespread use of smartphones, tablets, and other gadgets, digital content dissemination can effectively reach and engage a larger audience.

Additionally, EEPC India should proactively conduct various studies and assessments pertaining to engineering exports, leveraging its access to a large pool of exporters (its members) and seeking their inputs. Some areas where EEPC can initiate studies and assessments include:

Cluster-wide study: Conduct an in-depth study of engineering clusters to assess the infrastructure and financial assistance requirements. This study should also address the need for technology modernization and upgrades within these clusters.

Research and Innovation Prioritization: Prioritize research and innovation areas within the engineering and manufacturing sector. Identify and focus on key areas that have the potential to drive growth, efficiency, and competitiveness in the industry.

Skillset assessment: Conduct a comprehensive study to assess the skillsets required by MSMEs in light of new and emerging technologies. This assessment will help identify the skill gaps and facilitate targeted skill development initiatives for the exporting community.

The outcomes of these studies and assessments will provide valuable insights and inputs that EEPC India can leverage in discussions with the government to seek resolutions and support. These initiatives will be immensely beneficial for the exporting community, empowering them with relevant data and information to enhance their competitiveness and seize opportunities in the global market.

F. Technology adoptions

- **Strengthen Tech Training**: Organize targeted training programs, seminars, and awareness campaigns on emerging technologies like IoT, AI, 3D printing, and blockchain for MSMEs. Equip members with necessary knowledge and skills for tech adoption.

- **Foster Collaboration**: Collaborate with industry experts, tech institutes, and research organizations. Facilitate knowledge sharing, provide access to cutting-edge technologies, and offer expert guidance to keep members on par with global counterparts.

- **Facilitate Cross-border E-commerce**: Help member exporters participate in cross-border e-commerce. Conduct training programs on e-commerce best practices, digital marketing, and international online marketplaces. Assist in forming partnerships with e-commerce platforms for increased visibility and export opportunities.

- **Establish Tech Forums**: Create industry-specific tech forums for members to share knowledge, experiences, and best practices. Organize discussions, workshops, and networking events to encourage collaboration and idea exchange among peers.

EEPCINDIA
ENGINEERING THE FUTURE

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