IGNITO

INDIA'S ESDM QUARTERLY DIGEST

April-June 2023

ICEA announces a task force to enable a quantum leap in electronics trade between India & USA from $7.5 bn to $100 bn within this decade

Micron's $825 mn investment for an ATMP Plant

Smartphones become the 4th largest commodity exported in April-May 2023

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Inspire.Enable.Lead

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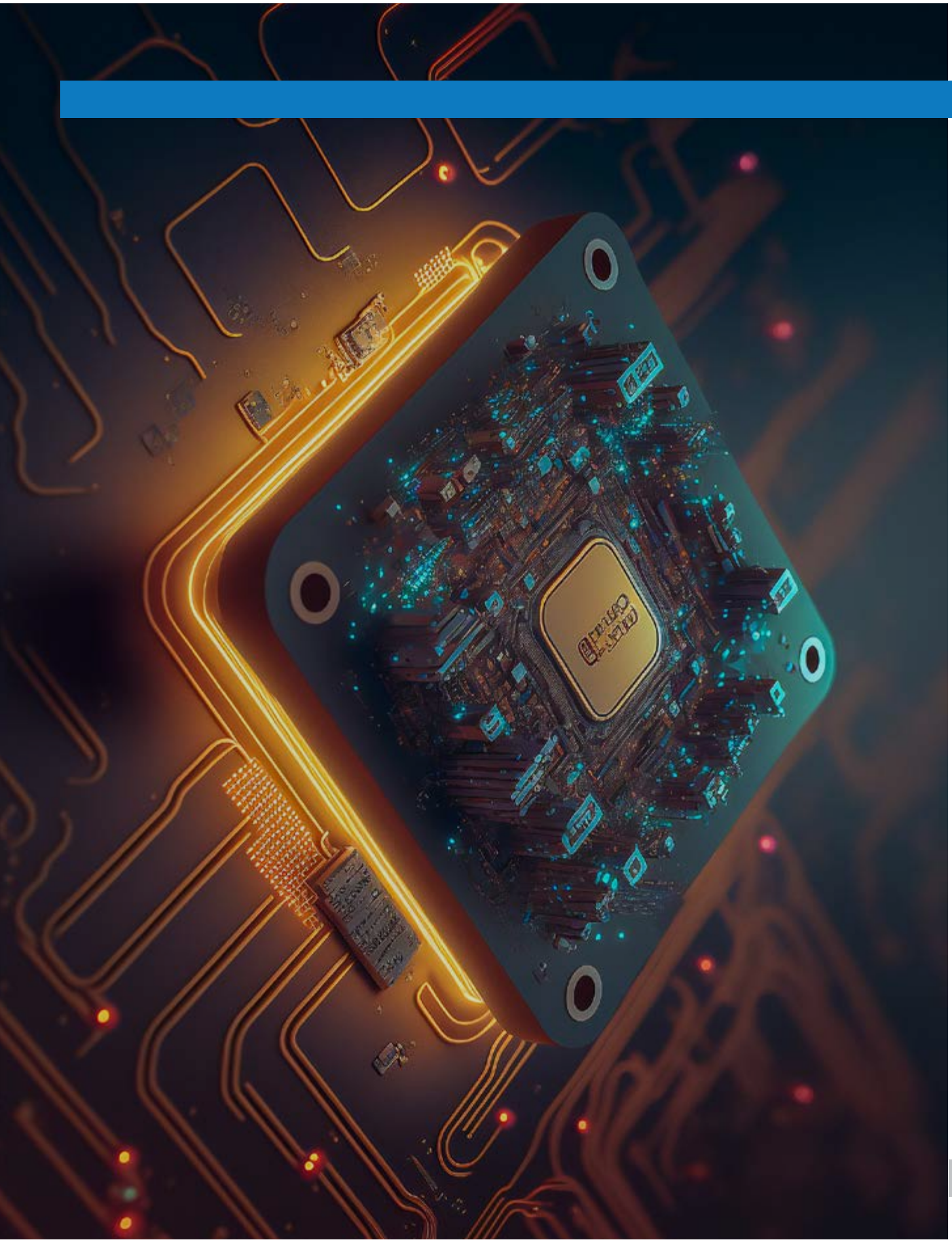
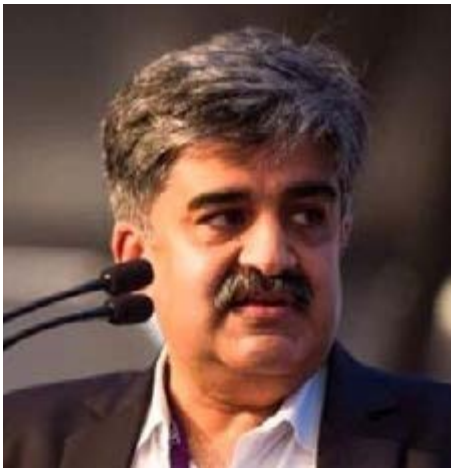


Dear Readers,



I would like to thank you for your positive reception of our inaugural edition of IGNITO: India's ESDM Quarterly Digest. Our team's resolve and commitment to provide you with valuable policy insights and analysis have been strengthened and we will continue to strive for excellence in bringing transformative ideas to you.

This past quarter of April-June 2023 has been exceptional in bringing the government and private firms together to achieve India's ambitions of becoming a global electronics manufacturing powerhouse. In FY24Q1, Electronic Goods exports were INR 57,220 Crore as compared to INR 36,533 Crore in FY23Q1, showcasing a growth of 57%.

In the last fiscal year, FY22-23, India exported Electronic Goods worth INR 1,90,099 Crore as compared to INR 1,16,896 crore in FY21-22, showcasing a staggering growth of 63% and consequently becoming the 6th largest export commodity segment in the country.

I am reminded of the famous couplet by Urdu Poet, Muzaffar Razmi, 'Ye jabr bhi dekha hai tareekh ki nazron ne. Lamhon ne khata ki hai sadiyon ne saza payi hai.' (Much injustice has been seen by the eyes of history / When for a mistake made by a moment, centuries were punished.)

The past actions and inactions on behalf of both, the industry and the government did not amount to results that matched our capabilities and potential. Despite being one of the largest consumer markets and a key emerging economy, India's electronics industry was still dependent on imports, and domestic manufacturing was entirely gutted.

With the reforms that have been ushered over the past years and augmented by targeted policies to make the Indian economy more globally competitive, the recent announcement by Micron Technology to set up a new USD 2.75 billion assembly and test facility for memory chips in Gujarat stands as a testament to India's progress.

The proof of the pudding can also be observed from the successful state visit of the Hon'ble Prime Minister Shri Narendra Modi to the United States of America. The Indo-US "Hi-Tech Handshake" will benefit India by boosting manufacturing, enhancing domestic value addition, and integrating smoothly with the global tech community.

The agreement between the two countries to promote policies and adapt regulations for easier technology sharing, co-development, and co-production opportunities will have a lasting and impactful effect on India's tech industry, positioning it as a global technology leader.

In addition, the PLI 2.0 for IT Hardware that was announced in May demonstrated the government's receptiveness to industry inputs and their determination to translate words into action. This is an opportune moment for India to shift global IT hardware manufacturing in its direction. The momentum gained by the mobile phone industry will likely create a snowballing effect on IT Hardware manufacturing as well.

It is this unwavering commitment and unity in the effort from the government and the industry that has turned the wheel of destiny in India's favour, teaching us that "*Har kisi ko mukammal jahan nahi milta, Kahin zameen to kahin aasman nahi milta*." But we dared to dream and reach for both the earth and the sky, and here we stand today, on the threshold of a new dawn.

India now has to fire on all cylinders. We are positive that our relentless efforts to establish a USD 300 billion electronics manufacturing ecosystem by 2025–2026 will be successful.

With that in mind, in this edition of IGNITO, we bring you insights into the opportunities India has in the global semiconductor ecosystem, how the Indian economy can radically increase its competitiveness by revising the customs tariff structure, the wonder material that is Silicon Carbide, and how legal issues of Intellectual Property Rights (IPR) are impacting India's electronics industry.

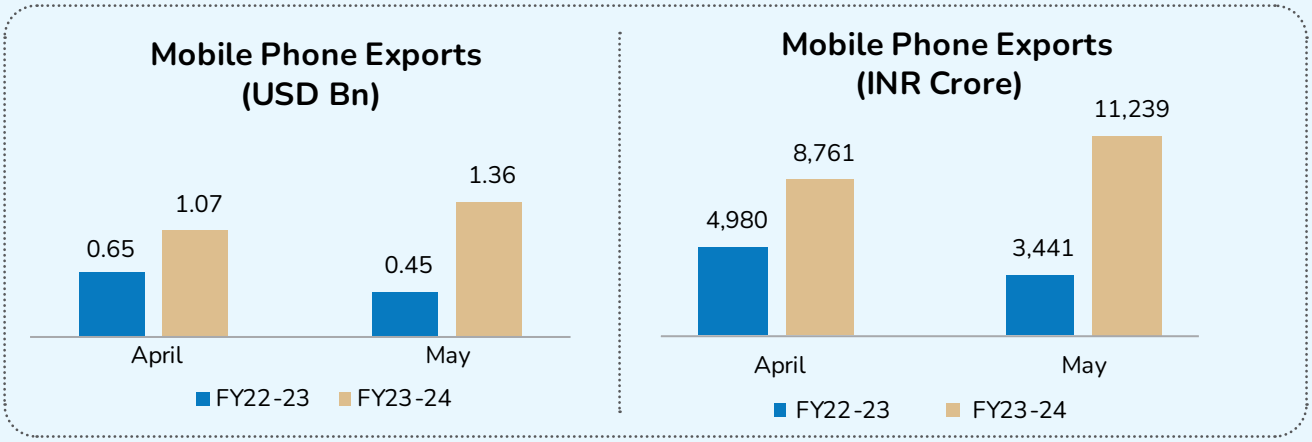
We hope you find this edition informative and insightful.

Thank you for your readership.

Sincerely,
Pankaj Mohindroo
Editor-in-Chief

INDUSTRY FIGURES

MOBILE PHONE EXPORT (USD BN AND INR CRORE)

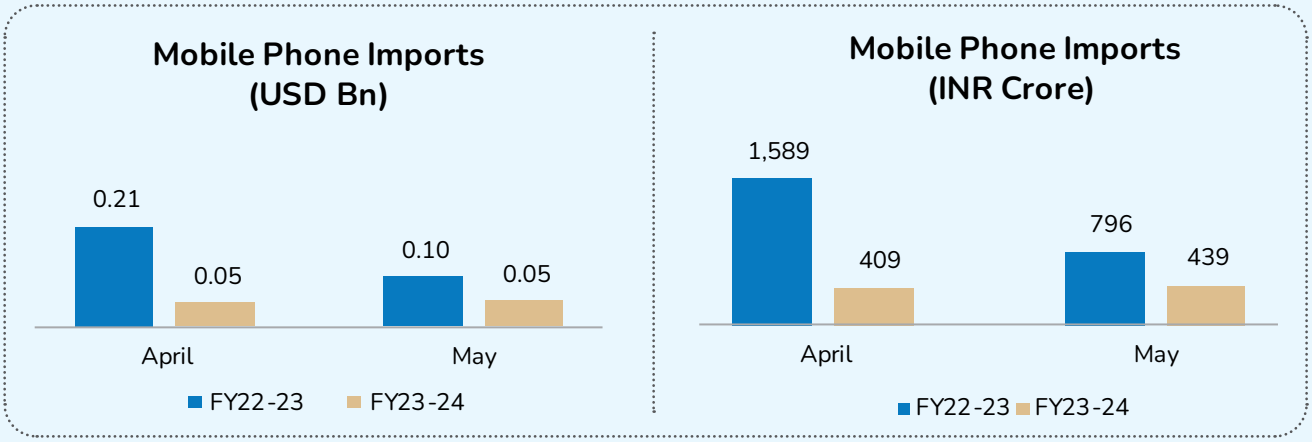


Source: Department of Commerce

EXPORT OF MOBILE PHONE:

There is a trend of growth from FY22-23 to FY23-24. April's export figures alone show a significant increase from $0.65 billion in FY22-23 to $1.07 billion in FY23-24. This increase continued in May with an even larger rise from $0.45 billion to $1.36 billion. The total for these two months shows an increase of 118% in exports of mobile phones. This is due to the increased production capacity and shifting of the supply chain to India with the competitive business environment.

MOBILE PHONE IMPORT (USD BN AND INR CRORE)

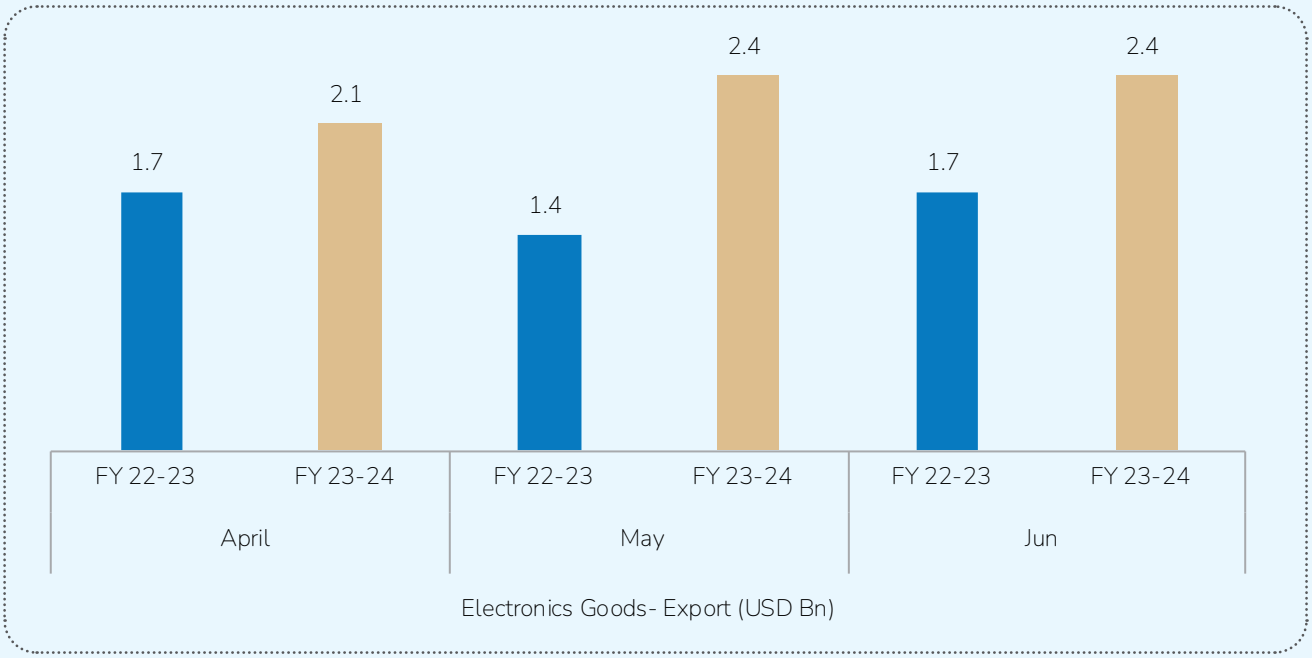


Source: Department of Commerce

IMPORT OF MOBILE PHONE:

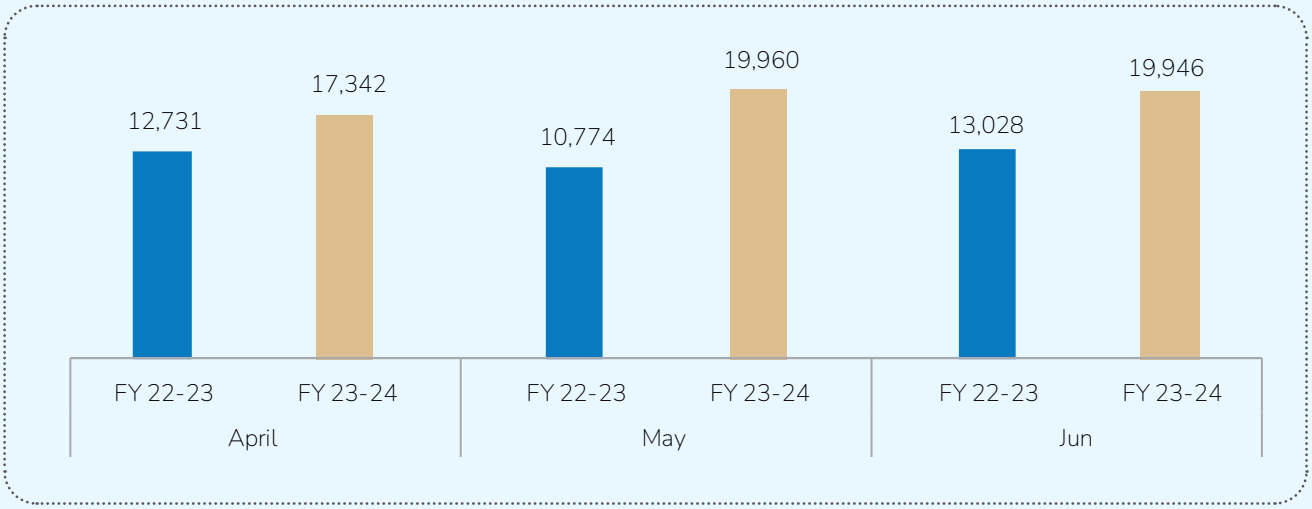
In the case of imports, the data shows a decrease from $0.3 billion in FY22-23 to $0.1 billion in FY23-24. This sharp decline of 67% suggests a significant shift in the domestic mobile phone market. The rapid expansion of the local manufacturing ecosystem has played a crucial role in reducing dependency on imports and promoting self-sufficiency.

ELECTRONIC GOODS- EXPORTS (IN USD BN)-FOR Q 1



Source: Department of Commerce

ELECTRONICS GOODS- EXPORT (INR Crore)- for Q1



Source: Department of Commerce

The consistent increase in the export of electronic goods across all three months suggests a growing demand for electronic goods made in India and it also reflects an enhanced production capacity. Furthermore, this growth indicates a positive trend for the country's electronics industry, showing its increasing competitiveness in the global market. Cumulatively there has been a significant increase in Q1 exports from $4.7 billion in FY 22-23 to $7.0 billion in FY 23-24, marking a growth of around 49%. This is a result of several factors including an enhanced production capacity, efficient supply chain management, increased global demand for these goods made in India, and even effective trade agreements.

TOP 10 COMMODITIES ELECTRONIC GOODS EXPORT (USD BN):

ELECTRONIC GOODS: Top 10 Commodities- Export (USD Mn)					
S. No.	**HSCode**	**HSN Descreiption**	**Commodity**	**Apr-May 2022**	**Apr-May 2023**
1	85171300	Smartphones	Smartphones	942.8	2430.7
2	85414300	Photovoltaic cells assembled in modules or made up into panels	Solar Modules	16.7	293.4
3	85044090	OTHERS	Static Converter, Microinverter	113.3	140.8
4	85176290	OTHER	Smartwatches, Hearables and Networking Equipment	153.6	119.9
5	85389000	OTHER PARTS OF HDG 8538	Mechanics- Components of connector	103.8	100.8
6	85371000	BORDS ETC FOR A VOLTAGE<=1000 VLTS	Power Distribution System	70.1	94.0
7	90158090	OTHERS	Ocean bottom seismic data recording unit/ Survey equipment	48.7	73.1
8	85044030	BATTERY CHARGERS	Battery Chargers	33.5	58.9
9	85044010	ELECTRIC INVERTERS	Storage Inverter/ Solar Inverter	115.4	58.9
10	85049010	PARTS OF TRANSFORMERS	Goods (Ferrite core) for use in manufacture of a transformer, of a charger/ power adapter	43.3	45.7
Total export of the top 10 commodities in Electronic goods				**1641.3**	**3416.1**
Overall total export of electronic goods				**3,056.8**	**4537.8**

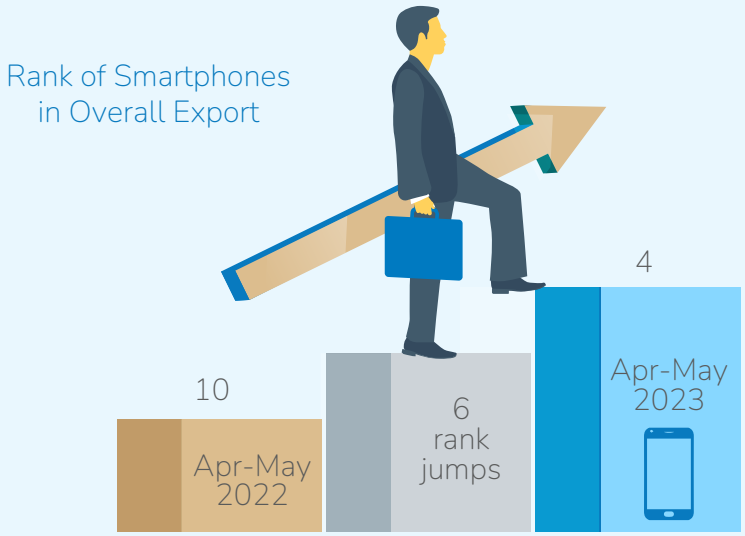
Source: Department of Commerce

The above table is a snapshot of the top 10 commodities exported in the electronics goods category for the period of April-May in 2022 and 2023. The total export of these top 10 commodities has seen a substantial increase, from $1641 million in 2022 to $3416 million in 2023, which is more than a 100% increase.

Looking at individual commodities, the export of smartphones increased substantively, moving from $942 million to $2431 million, signifying a thriving demand for Made in India smartphones in the global market.

Overall, the total export of all electronic goods increased from $3057 million in the first two months of FY23 to $4538 million during the same period in FY24, implying healthy and continuous growth in the sector. The data reveals a general positive trend in the exports of electronic goods, with significant growth in some commodities indicating shifting global demands and potentially successful local strategies in those sectors.

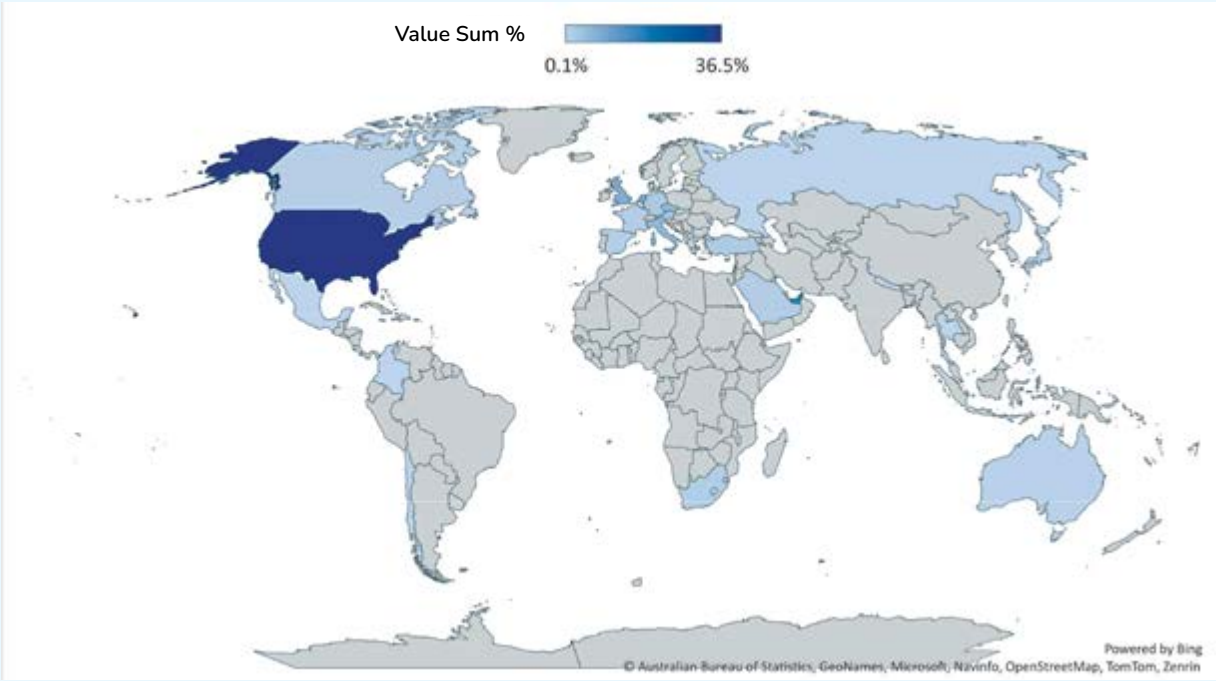
RANK OF SMARTPHONES IN TERMS OF OVERALL EXPORT FROM INDIA:



In the first two months of FY23, smartphones were ranked 10th in exports whereas by during the same period in FY24, smartphones export had moved up to the 4th position. This rise in rank indicates a significance of smartphones as an individual commodity in the overall exports from India.

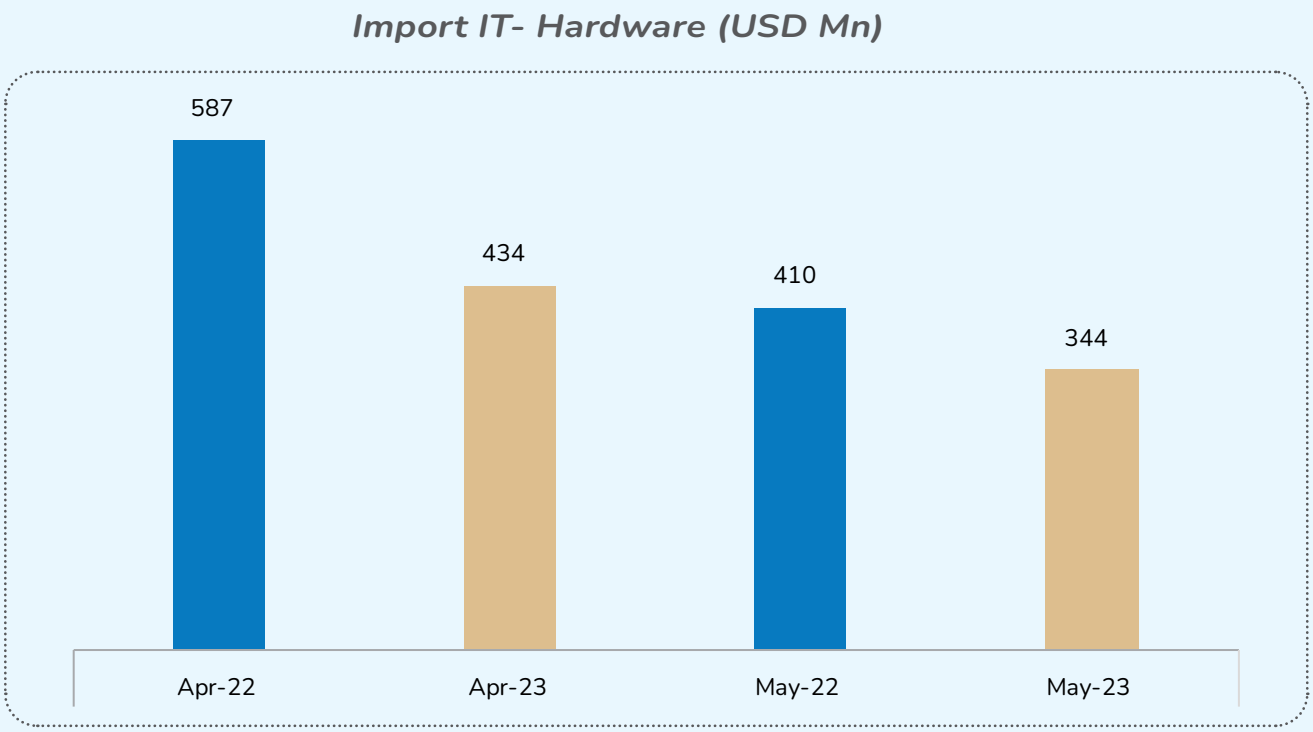
Source: Department of Commerce

EXPORT OF MOBILE PHONE FROM INDIA Q1(2023-24)



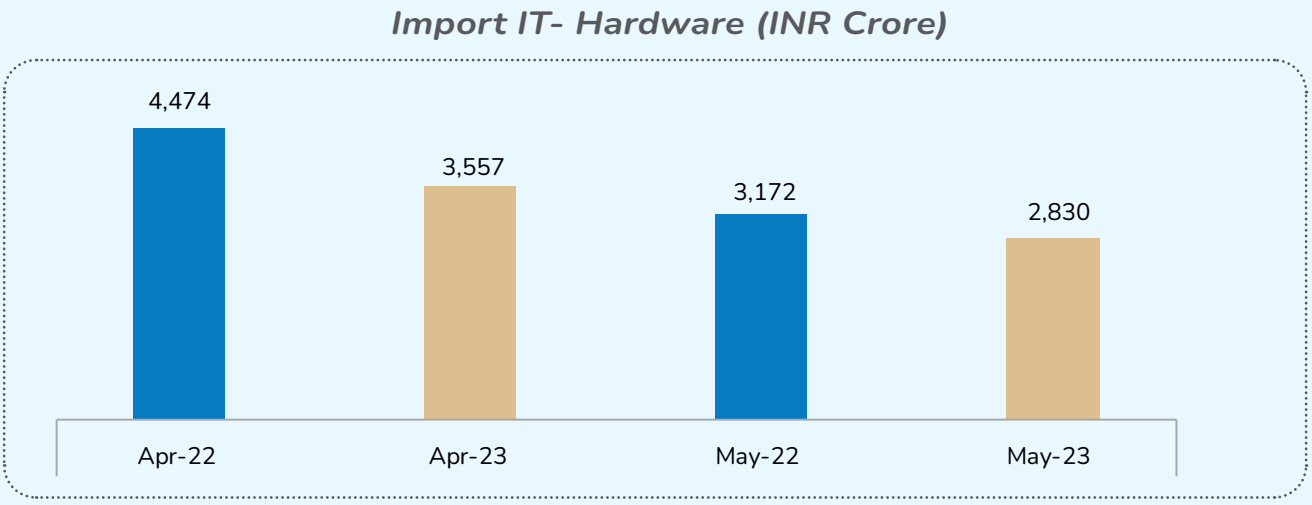
The above graph outlines the distribution of mobile phone exports from India during the first quarter (Q1) of the fiscal year 2023-24 across various countries. The United States is the largest importer of mobile phones from India, accounting for approximately 37% of India's total mobile phone exports. The United Arab Emirates is the second-largest importer with about 17%, followed by the Netherlands at about 9%, and the United Kingdom at 8%. This points to a strong market presence for Indian mobile phones in these countries. The analysis of this data suggests diverse export partners, with a strong focus on the Middle East, North America, and Europe as key trading partners. Expanding and maintaining trade relations with these regions, as well as exploring the untapped potential in other markets, can help promote export-driven economic growth in India.

IT-HARDWARE IMPORTS (APR-MAY) (USD MN):



Source: Department of Commerce

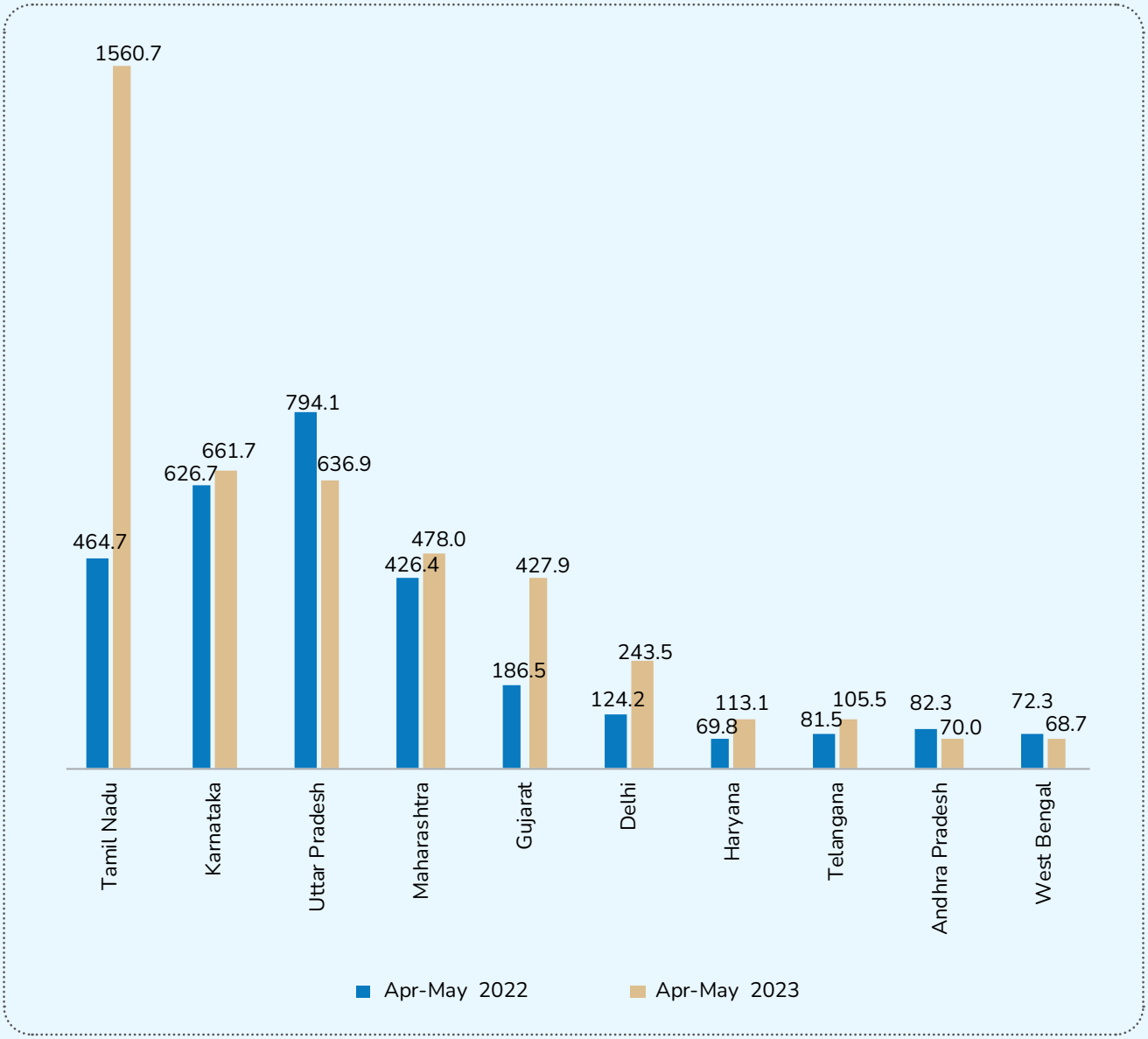
IT-HARDWARE IMPORTS (APR-MAY) (INR CRORE):



Source: Department of Commerce

In April 2022, IT Hardware imports stood at $587 million, which decreased to $434 million in April 2023, showing a drop of approximately 27%. Similarly, in May, the imports decreased from $410 billion in 2022 to $344 billion in 2023, a decline of about 17%. This declining trend suggests a decrease in demand for IT -Hardware products.

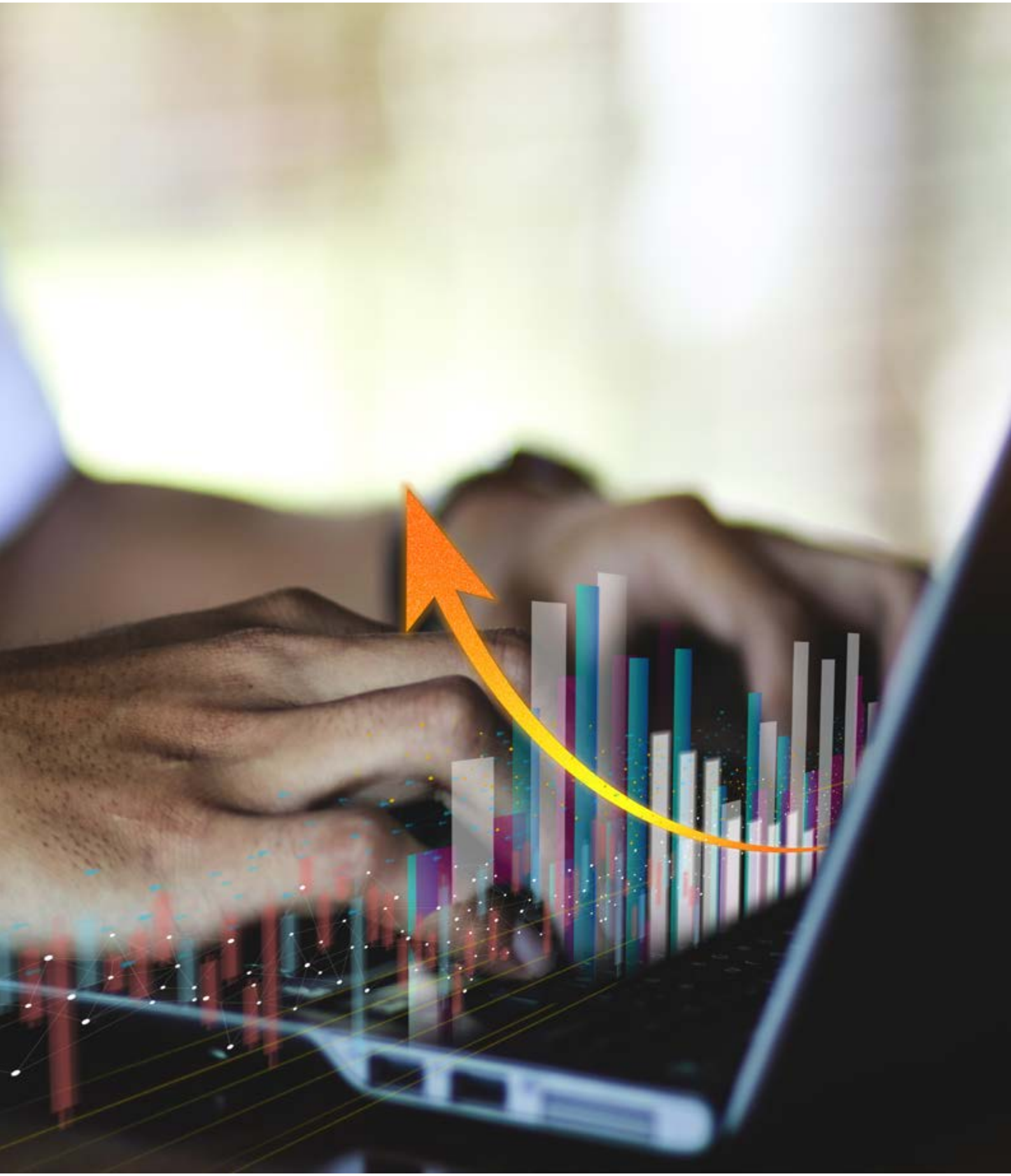
TOP 10 STATES ELECTRONIC GOODS EXPORTING (USD Bn)



Source: Department of Commerce

The above graph illustrates the top 10 electronics goods exporting Indian states and Union Territories for the period of April-May in FY23 and FY24

The most significant change was observed in Tamil Nadu, where exports surged from $465 million in 2022 to $1561 million in 2023, an impressive increase of over 200%. Overall, the total exports for these top 10 electronics manufacturing states and territories increased from $2928 million in 2022 to $4365 million in 2023 for April and May. The exports of the states increased by 51.7% in April-May 2023 compared to April-May 2022.



GOVERNMENT NEWS

MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY

1. GOVERNMENT OF INDIA AMENDS SPECS TO INCLUDE COVER GLASS FINISHING

The Government of India has amended the Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS) to include cover glass finishing. This is a significant milestone in bolstering India's mobile manufacturing capabilities and deepening the value chain manufacturing in India. The amendment will make it easier for companies to set up cover glass finishing facilities in India, which will help to boost domestic manufacturing and reduce reliance on imports. The amendment is expected to have a positive impact on the Indian economy and help to make India a more attractive destination for electronics manufacturing.

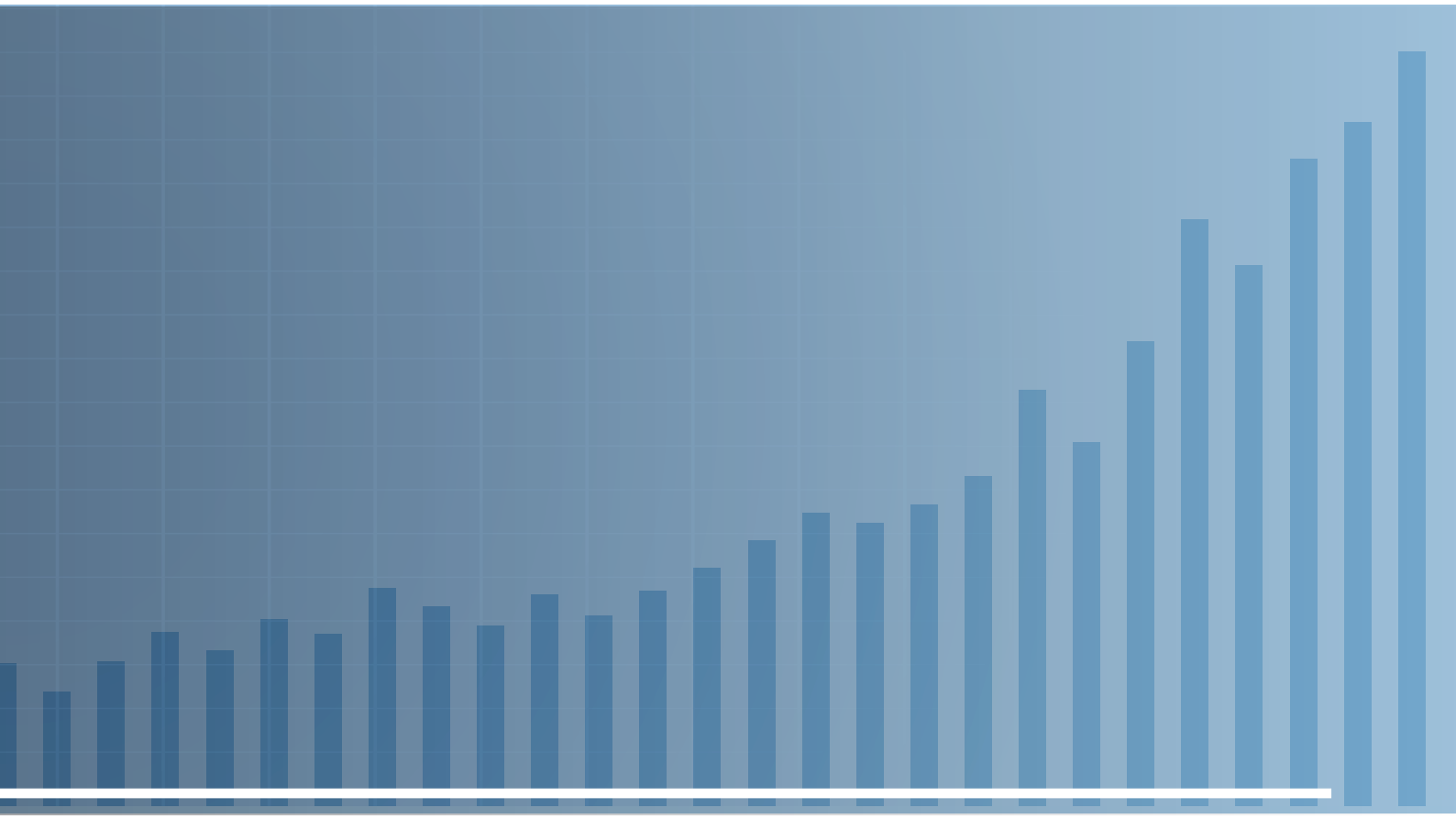
2. SENIOR IAS OFFICER AMIT AGRAWAL ASSUMES CHARGE AS CEO OF UIDAI

Senior IAS officer Amit Agrawal has taken charge as the new CEO of UIDAI. He is a graduate of IIT Kanpur and has held several important positions in the government, including Additional Secretary in the Ministry of Electronics and Information Technology and Ministry of Finance. Agrawal's appointment comes at a time when UIDAI is facing challenges in scaling up Aadhaar enrolments and addressing concerns about data privacy. He is expected to play a key role in addressing these challenges and ensuring that Aadhaar continues to be a reliable and secure identity platform for Indians.

https://pib.gov.in/PressReleasePage.aspx?PRID=1933728

3. THE THIRD MEETING OF 'G20 DIGITAL ECONOMY WORKING GROUP (DEWG)'

The third meeting of the G20 Digital Economy Working Group (DEWG) was held in Pune, India on 12th and 13th June. The meeting focused on priority areas such as Digital Public Infrastructure, Digital Skilling, and Cybersecurity in Digital



Economy. India signed MoUs with four countries to share its successful digital solutions. The summit featured 10 panel discussions and a Global DPI Exhibition. The next meeting is scheduled to take place in Bengaluru in August 2023.

https://pib.gov.in/PressReleasePage.aspx?PRID=1932370

4. MEITY TRANSFERS COST-EFFECTIVE LI-ION BATTERY RECYCLING TECHNOLOGY TO NINE INDUSTRIES AND START-UPS

MeitY has transferred a cost-effective Li-ion battery recycling technology to nine industries and start-ups. The technology can recover more than 95% of Lithium, Cobalt, Manganese, and Nickel contents from discarded batteries. It was developed by MeitY's Centre of Excellence on E-waste management in collaboration with the Government of Telangana and M/s Greenko Energies Pvt. Ltd.

https://pib.gov.in/PressReleasePage.aspx?PRID=1929480

5. MEITY LAUNCHES PILOT PROJECT ON ELECTRONICS REPAIR SERVICES OUTSOURCING (ERSO)

MeitY has launched a pilot project on Electronics Repair Services Outsourcing (ERSO) with the aim of making India the Repair Capital of the World. The project, supported by various government departments and industry stakeholders, seeks to validate policy and process changes that will attract outsourced repair services to India. The pilot project is being implemented in Bengaluru, Karnataka, and involves five companies: Flex, Lenovo, CTDI, R-Logic, and Aforeserve, and will assess the effectiveness and efficiency of the introduced changes. This initiative aligns with Prime Minister Narendra Modi's vision of promoting global environmental sustainability and extending the life of ICT products through affordable and reliable repair services.

https://pib.gov.in/PressReleasePage.aspx?PRID=1928643

6. GOVERNMENT INVITES APPLICATIONS FOR SEMICONDUCTOR AND DISPLAY FABS UNDER MODIFIED SEMICON INDIA PROGRAMME

The Indian government has opened applications for setting up semiconductor fabs and display fabs in India under the Modified Semicon India Programme. The program offers a fiscal incentive of 50% of the project cost to companies, consortia, and joint ventures for establishing semiconductor fabs and display fabs of specified technologies in India. The application window is open until December 2024. Previously submitted applications under the earlier schemes are allowed to be resubmitted under the Modified Scheme after incorporating appropriate modifications.

https://pib.gov.in/PressReleasePage.aspx?PRID=1928479

7. MEITY INVITES APPLICATIONS FOR INCENTIVES UNDER PLI 2.0 FOR IT HARDWARE

MeitY has announced the opening of applications for incentives under the Production-Linked Incentive (PLI) Scheme 2.0 for IT Hardware. The scheme aims to promote localization of components and sub-assemblies, facilitate the development of the domestic supply chain, and incentivize growth through incremental sales and investments. It includes semiconductor design, IC manufacturing, and packaging as incentivized components. The scheme has a budgetary outlay of ₹17,000 crore and is expected to generate additional direct jobs and contribute to the growth of the electronics manufacturing sector in India.

https://pib.gov.in/PressReleasePage.aspx?PRID=1928326

8. INDIA'S AI SUPERCOMPUTER AIRAWAT SECURES 75TH POSITION IN TOP 500 GLOBAL SUPERCOMPUTING LIST

India's AI supercomputer AIRAWAT has achieved a significant milestone by securing the 75th position in the prestigious Top 500 Global Supercomputing List. The supercomputer is installed at the Centre for Development of Advanced Computing (C-DAC) in Pune and has a peak compute capacity of 200 AI Petaflops. AIRAWAT is a key component of the National Program on Artificial Intelligence initiated by the Government of India and is designed to support and empower various sectors in developing indigenous AI solutions.

https://pib.gov.in/PressReleasePage.aspx?PRID=1926942

9. MOS RAJEEV CHANDRASEKHAR INAUGURATES PRATAP SUBRAHMANYAM CENTRE FOR DIGITAL INTELLIGENCE, SECURITY HARDWARE, AND ARCHITECTURE AT IIT MADRAS

Union Minister of State for Skill Development & Entrepreneurship and Electronics & IT, Rajeev Chandrasekhar, inaugurated the Pratap Subrahmanyam Centre for Digital Intelligence, Security Hardware, and Architecture (PS CDISHA) at IIT Madras. The centre will focus on computer architecture, security, machine learning, and VLSI design. Chandrasekhar highlighted the three key trends shaping the global economy: rapid digitalization, the importance of trusted technology partners, and the demand for digital talent. He expressed confidence in India's technologically empowered youth, stating that they will shape the future of technology design and create innovative solutions with global impact. The minister also praised the efforts of IIT Madras Director Prof V Kamakoti, who spearheaded the Digital India RISC-V Microprocessor program (DIR-V), positioning India as a hub for RISC-V talent and supplier of RISC-V SoCs worldwide.

https://pib.gov.in/PressReleasePage.aspx?PRID=1920329

10. GOVERNMENT INTRODUCES GUIDELINES TO ENSURE SAFETY AND ACCOUNTABILITY IN ONLINE GAMING INDUSTRY

MeitY has introduced new guidelines to regulate the online gaming industry in India. The guidelines aim to mitigate the negative impact of online gaming activities, especially on vulnerable sections of society such as children. The guidelines ban games or sites that involve wagering and introduce the concept of "permissible online games" verified by SRBs. They also address addiction concerns by incorporating safeguards such as warning messages, monetary spending limits, and time restrictions. The guidelines promote transparency and accountability by mandating KYC procedures, prohibiting third-party financing, and requiring online gaming intermediaries to disclose relevant information. The government aims to foster responsible online gaming practices and safeguard Indian users.

https://pib.gov.in/PressReleasePage.aspx?PRID=1918383

11. MEITY ADVISES MOBILE PHONE MANUFACTURERS TO KEEP THE FM RADIO FEATURE ENABLED.

The drastic fall in mobile phones with FM tuners feature has affected not only the ability of the poor to get free FM Radio services but also the Government's ability to disseminate real-time information during emergencies, disasters and calamities. MeitY has issued an advisory that it should be ensured that wherever the mobile phone is equipped with an inbuilt FM Radio receiver function or feature, that function or feature is not disabled or deactivated but is kept enabled/activated in the mobile phone. Further, it is advised that if the FM Radio receiver function or feature is not available in mobile phones, it may be included.

Link: https://www.meity.gov.in/writereaddata/files/Advisory%20on%20inbuilt%20FM%20Radio%20receiver%20feature%20in%20mobile%20phones_28.04.2023.pdf

MINISTRY OF COMMUNICATIONS

1. TRAI SEEKS STAKEHOLDER FEEDBACK ON SPECTRUM ASSIGNMENT FOR SPACE-BASED COMMUNICATION SERVICES.

The Telecom Regulatory Authority of India (TRAI) has published a consultation paper on spectrum assignment for space-based communication services. The paper seeks input from stakeholders on various aspects, including demand assessment, spectrum sharing,

interference mitigation techniques, and auction methodologies. Stakeholders are encouraged to provide their feedback on the TRAI website.

https://pib.gov.in/PressReleasePage.aspx?PRID=1914312

2. UNION CABINET APPROVES THIRD REVIVAL PACKAGE FOR BSNL WITH INR 89,047 CRORE OUTLAY.

The Union Cabinet has approved the third revival package for Bharat Sanchar Nigam Limited (BSNL) with a total outlay of Rs. 89,047 crore. As part of the package, BSNL will receive 4G/5G spectrum through equity infusion, and its authorized capital will be increased from Rs. 1,50,000 crore to Rs. 2,10,000 crore. This move aims to transform BSNL into a stable telecom service provider, focusing on providing connectivity to remote areas of India. The allotted spectrum will enable BSNL to offer pan-India 4G and 5G services, expand coverage in rural areas, and provide high-speed internet services.

https://pib.gov.in/PressReleasePage.aspx?PRID=1930444

3. TRAI RELEASES RECOMMENDATIONS TO IMPROVE EASE OF DOING BUSINESS IN TELECOM AND BROADCASTING SECTOR.

TRAI has recommended a set of measures to improve the ease of doing business in the telecom and broadcasting sector. These include the establishment of a digital single window system, standing EoDB committees, granting infrastructure status to the broadcasting sector, simplifying surrender of DoT licenses, issuance of NOCs, and release of bank guarantees.

Link: https://www.trai.gov.in/sites/default/files/PR_No.37of2023.pdf

4. CENTRE LAUNCHES SYSTEM ALLOWING PEOPLE TO BLOCK AND TRACK LOST MOBILE PHONES

The Central Equipment Identity Register (CEIR) system has been launched by the government to track and block lost or stolen mobile phones. The system uses the IMEI number, a unique identifier for mobile devices, to track and block unauthorized devices on telecom networks. The CEIR system has already shown promising results, with the Karnataka Police recovering and returning over 2,500 lost mobile phones to their owners.

Link: https://www.livemint.com/news/india/lost-your-phone-very-soon-people-will-be-able-to-block-track-mobile-phones-with-new-system-details-here-11684108567132.html

MINISTRY OF COMMERCE & INDUSTRIES

1. PLI SCHEMES DRIVE PRODUCTION, EMPLOYMENT, AND ECONOMIC GROWTH IN INDIA

The Production Linked Incentive (PLI) Schemes have proven to be instrumental in increasing production, generating employment, and boosting economic growth in India. According to Secretary Rajesh Kumar Singh, the PLI Schemes have led to a remarkable 76% surge in Foreign Direct Investment (FDI) in the manufacturing sector in FY 2021-22 compared to the previous fiscal year.

These schemes, with an incentive outlay of Rs. 1.97 lakh crore, have transformed India's exports from traditional commodities to high value-added products, such as electronics, telecommunication goods, and processed food. The PLI Scheme has yielded tangible results, including incremental production/sales of over Rs. 6.75 lakh crore, employment generation of around 3,25,000, and a boost in exports by Rs. 2.56 lakh crore until FY 2022-23. Notably, the scheme has successfully facilitated the localization of smartphone manufacturing, achieving a significant value addition of 20% within just three years, surpassing the achievements of other countries.

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2. INDIA AND UAE STRENGTHEN ECONOMIC PARTNERSHIP THROUGH COMPREHENSIVE AGREEMENT

India and UAE have strengthened their economic partnership through the Comprehensive Economic Partnership Agreement (CEPA). The 1st Meeting of the Joint Committee of the CEPA was held and committees, sub-committees, and a technical council under the CEPA were operationalized. Both countries agreed to more than double their trade in non-petroleum products to USD 100 billion by 2030. The agreement is expected to boost bilateral trade and investment, and create jobs in both countries. Bilateral trade between the two nations has grown by approximately 16.5%, reaching an all-time high of USD 84.84 billion in FY 2022-23.

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3. INDIA-EU STAKEHOLDERS EVENT ADVANCES TRADE AND TECHNOLOGY COOPERATION

The India-EU Stakeholders Event was a successful event that brought together 18 stakeholders from various business sectors in India and the EU. The event discussed digital technologies, interoperability for cross-border payments, harmonized standards, green energy technologies, and more. Minister Goyal emphasized the importance of digital transformations and skills development, advocating for mutual recognition of degrees and ongoing engagement between working groups to achieve tangible

outcomes in skilling, talent exchange, and semiconductor ecosystems.

https://pib.gov.in/PressReleasePage.aspx?PRID=1924734

4. INDIA'S OVERALL EXPORTS ARE PROJECTED TO SCALE NEW HEIGHTS, GROWING AT 13.84% DURING FY 2022-23 OVER FY 2021-22 TO ACHIEVE USD 770.18 BILLION WORTH OF EXPORTS.

India's overall exports are projected to reach new heights, with a growth rate of 13.84% during the fiscal year 2022-23 compared to the previous year. The merchandise exports have achieved a record high annual value of USD 447.46 billion, showing a growth rate of 6.03% during the fiscal year 2022-23, surpassing the previous year's record of USD 422.00 billion. The growth in overall exports is primarily led by the services sector, which is expected to set a new record annual value of USD 322.72 billion, with a growth rate of 26.79% during the fiscal year 2022-23 compared to the previous year.

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BIS

1. EXTENSION OF PARALLEL TESTING PILOT PROGRAMME EASES ELECTRONIC INDUSTRY'S TESTING PROCESS

The Bureau of Indian Standards (BIS) has extended the pilot programme to streamline the testing process for mobile phones, laptops/tablets, and wireless headphones, through parallel testing, while also reducing time-to-market.

DEPARTMENT OF CONSUMER AFFAIRS

1. EXTENSION, ON A CONTINUOUS BASIS, FOR DECLARING INFORMATION UNDER LEGAL METROLOGY RULES VIA QR CODE ON PACKAGES OF ELECTRONIC PRODUCTS.

The Department of Consumer Affairs ["DoCA"] has amended the Legal Metrology Rules to extend the pilot programme, on a continuous basis, of declaring information via QR Code on packages of electronic products. Companies can now declare the following information through a QR Code on their packages:

1. Address of the manufacturer/ packer/importer.
2. Common or generic name of the commodity.
3. Name and quantity of each product in the package.
4. Size and dimension of the commodity.
5. Name and Address of the contact person in case of consumer complaints.

MINISTRY OF EXTERNAL AFFAIRS

1. INDIA-US HI-TECH HANDSHAKE EVENT

Prime Minister Modi and US President Biden participated in the India-US Hi-Tech Handshake event at the White House. The event was an opportunity to review the deepening technology collaboration between India and the US. The CEOs explored ways to leverage existing linkages, India's talented workforce, and advances in digital public infrastructure to build global collaborations. They called for regular engagement between the respective industries to kickstart strategic collaborations, cooperate on standards, and accelerate innovation.

Link: https://mea.gov.in/press-releases.htm?dtl/36718/Prime_Ministers_participation_in_the_IndiaUS_HiTech_Handshake_event

LEGAL UPDATES

1. INDIA IN DISPUTE WITH EU, JAPAN, AND CHINESE TAIPEI OVER ICT TARIFFS

In 2019, European Union, Japan and Chinese Taipei ("complainants"), alleged that India by imposing duties on certain information and communication technology ("ICT") products, India is in violation of provisions of General Agreement on Tariffs and Trade 1994 ("GATT 1994"). The panel was established individually for all three cases during second half of 2020.

The Panel issued its final report to all WTO members on 17 April 2023.

Brazil, Canada, China, Indonesia, Korea, Norway, Pakistan, Russian Federation, Singapore, Thailand, Turkey, Ukraine, and United States have joined as third parties in these disputes. It has been alleged by the complainants that India has applied duty on imports of the certain ICT products of up to 20% which is in excess of its bound rate of 0% as set forth in its Schedule of Concessions (tariff lines based on HS 2007). The contested products include mobile phones, mobile phone components and accessories, line telephone handsets, base stations, static converters, electric conductors and cables.

The Panel in its reports has over-ruled India's argument with respect to ITA-1, and recommended that India brings the abovementioned measures in conformity with its GATT 1994 obligations.

As per the available Dispute Settlement procedures, India is taking the necessary steps, and is also exploring the options available in light of its WTO rights and obligations. It is expected that the panel's report will not have any immediate impact on India's ICT products. EU's share of total imports of aforementioned ICT products into India during the calendar year 2022 was at 3.03% (estimated at USD 550 million), while Japan's and Chinese Taipei's are at 0.33% (estimated at USD 24 million) and 2.86% (estimated at USD 235 million) respectively. Moreover, India has brought its duty rates to 0% with respect to two of the contested products, namely, Headphones/ Earphones and Electric Convertors since February 2022.

Link: https://commerce.gov.in/press-releases/india-tariff-treatment-on-certain-goods-in-the-information-and-communications-technology-ict-sector-disputes-against-india-at-wto-by-eu-japan-and-chinese-taipei/

2. DELHI HIGH COURT PROVIDES CLARITY ON SEP OBLIGATIONS

In INTEX TECHNOLOGIES vs. TELEFONAKTIEBOLAGET L M ERICSSON, the Delhi High Court has ruled that FRAND is not a one-way street and imposes obligations on both SEP holders and implementers. The court held that implementers cannot insist on accessing SEP holders' third-party licensing agreements to make a counteroffer, but must either accept the offer or make a counteroffer with security payment. The court also held that interim injunctions may be granted to SEP holders against unwilling licensees, and that SEP holders need not always have to map an implementer's product to the standard to prove infringement. Finally, the court held that injunctions may be granted by demonstrating infringement of one SEP, and that the FRAND terms of a portfolio may be examined by evaluating only a handful of representative patents.

3. CCI IMPOSES A MONETARY PENALTY OF INR 1337.76 CRORE ON GOOGLE FOR ANTI-COMPETITIVE PRACTICES IN RELATION TO ANDROID MOBILE DEVICES

The Competition Commission of India (CCI) has imposed a penalty of Rs. 1337.76 crore on Google for abusing its dominant position in the Android Mobile device ecosystem. The CCI found that Google had engaged in a number of anti-competitive practices, including requiring device manufacturers to pre-install Google's proprietary apps, making it difficult for device manufacturers to develop and sell devices operating on alternative versions of Android, and leveraging its dominant position in the app store market to protect its position in other markets.

Link: https://www.cci.gov.in/antitrust/press-release/details/261/0

4. NCLAT UPHOLDS INR 1,337 CR PENALTY ON GOOGLE.

The National Company Law Appellate Tribunal (NCLAT) has upheld a penalty of Rs 1,337.76 crore imposed by India's competition regulation body on Google, for its anti-competitive conduct in the Android ecosystem. The tribunal held that a number of Google's practices pointed to an abuse of dominance, which in some cases, had also stalled scientific development. However, Google managed to score a partial victory in the judgement as four of the ten conditions that the Competition Commission of India (CCI) had imposed on the company – including preventing sideloading of apps, and sharing Google's Play Store code with original equipment manufacturers (OEMs) – that would have further hamstrung the tech giant, was set aside by the NCLAT.

Link: https://indianexpress.com/article/explained/explained-sci-tech/nclat-penalty-google-cci-case-explained-8527495/

5. DELHI HC RULES IN FAVOUR OF NOKIA IN A PATENT INFRINGEMENT CASE AGAINST OPPO

The Delhi High Court has ruled in favour of Nokia in a patent infringement suit against Oppo and ordered Oppo to furnish security payment of the India portion of the last-paid licence fee. "This Court is of the view that the Oppo FRAND case in China is a prima facie admission that Nokia does own Standard Essential Patents and that Oppo must necessarily license it against FRAND royalty payment," Bench of Justices Manmohan and Saurabh Banerjee said.

Link: https://www.business-standard.com/companies/news/delhi-hc-rules-in-favour-of-nokia-in-patent-infringement-case-against-oppo-123070300922_1.html

STATE NEWS

1. GUJARAT GOVT, US FIRM MICRON SIGN MOU FOR SEMICONDUCTOR PLANT IN SANAND

The Gujarat government has signed a Memorandum of Understanding with computer storage chip maker Micron for setting up a $2.75 billion semiconductor assembly and test facility at Sanand in Ahmedabad district. Micron's plant has been approved under the Union government's `Modified Assembly, Testing, Marking and Packaging (ATMP) Scheme'. Under the scheme, Micron will receive 50 per cent fiscal support for the total project cost from the Indian government and incentives representing 20 per cent of the total project cost from the Gujarat government.

Link: https://www.businesstoday.in/latest/deals/story/gujarat-govt-us-firm-micron-sign-mou-for-semiconductor-plant-in-sanand-387524-2023-06-28

2. IN A FIRST, TAMIL NADU OVERTAKES UP AND KARNATAKA TO EMERGE INDIA'S TOP ELECTRONICS EXPORTER

Tamil Nadu has for the first time overtaken Uttar Pradesh and Karnataka to emerge as India's top electronics exporter in the fiscal year ended March 2023 as the global giants Foxconn and Pegatron accelerated iPhone exports last year. Exports data released by the Union Government for FY23 shows that Tamil Nadu's electronics exports almost tripled in the last fiscal and stood at $5.37 billion up from from $1.86 billion in the previous year. This helped TN swiftly climb the ladder from the fourth spot in FY22 to bagging the top spot in FY23. Skilled manpower, port connectivity and good infrastructure are often cited as key benefits of TN by the industry.

Link: https://timesofindia.indiatimes.com/city/chennai/in-a-first-tamil-nadu-overtakes-up-and-karnataka-to-emerge-indias-top-electronics-exporter/articleshow/101381471.cms?from=mdr

3. TAMIL NADU SIGNS SIX MOUS WITH SINGAPORE

Six memoranda of understanding (MoUs) were signed between Tamil Nadu government agencies and various organisations in Singapore in the presence of Chief Minister M.K. Stalin and Singapore's Minister for Transport and Minister in charge of Trade Relations S. Iswaran. One of the MoUs dealt with a proposal to open an electronics spare parts unit on an investment of ₹312 crore. The MoU between Guidance Tamil Nadu, the investment promotion agency of the State government, and the Singapore Indian Chamber of Commerce and Industries was on research and development, collaboration between universities and between government and private players, and assistance in exports from companies in Tamil Nadu, an official release said.

Link: https://www.thehindu.com/news/national/tamil-nadu/tamil-nadu-signs-six-mous-with-singapore/article66889434.ece

4. TAMIL NADU INKS MOU WITH TATA ELECTRONICS TO PREPARE STUDENTS IN TAMIL NADU FOR INDUSTRY 4.0

Tamil Nadu's Directorate of Technical Education (DoTE) signed an agreement with Tata Electronics Private Limited (TEPL) to develop a diploma course on "Digital Manufacturing Technologies - Earn while Learn model", an industry-ready curriculum, with the required approval from AICTE and offer the same to students through polytechnics in the state.

Link: https://knnindia.co.in/news/newsdetails/state//dote-inks-mou-with-tata-electronics-to-prepare-students-in-tamil-nadu-for-industry-40

5. TATA GROUP SUBSIDIARY SIGNS MOU WITH GUJARAT GOVT TO SET UP GIGAFACTORY FOR LI-ION BATTERIES

An agreement was signed between a Tata Group subsidiary and the Gujarat government for setting up India's first gigafactory for Lithium-Ion batteries in the state. Tata Group subsidiary Agratas Energy Storage Solutions Private Limited will initially invest Rs 13,000 crore for setting up a 20 gigawatt (GW) unit, stated an official statement from Gujarat government. The project is expected to generate employment for 13,000 people, the government said.

Link: https://indianexpress.com/article/cities/ahmedabad/tata-group-subsidiary-signs-mou-with-govt-to-set-up-gigafactory-for-li-ion-batteries-8643139/

6. PUNJAB GOVERNMENT ANNOUNCES RS 300 CR INCENTIVE TO PROMOTE USE OF ELECTRIC VEHICLES

The Punjab government has announced a Rs 300 crore incentive scheme to promote the adoption of electric vehicles (EVs). The incentives will be available for electric two-wheelers, e-cycles, e-rickshaws, e-autos, and electric light commercial vehicles. The government has also directed the transport department to request the finance department to create a dedicated EV fund to support EV adoption initiatives.

Link: https://www.business-standard.com/industry/auto/punjab-announces-rs-300-cr-incentive-to-promote-use-of-electric-vehicles-123062200349_1.html

7. UP GOVERNMENT ANNOUNCES PLAN TO CONVERT ALL GOVERNMENT VEHICLES TO EVS BY 2030

The Uttar Pradesh government has announced a plan to convert all government vehicles to electric vehicles (EVs) by 2030. This is a significant step towards reducing pollution and promoting the use of sustainable transportation in the state. The government has already notified the Uttar Pradesh Electric Vehicle Manufacturing and Mobility Policy 2022, which provides a number of incentives for the purchase and use of EVs. These incentives include exemption from tax and registration fees, as well as a relaxation of the prevailing upper limit on the purchase of vehicles for official events. The government has also instructed all departments and institutions to convert 100% of their vehicles to EVs by 2030.

Link: https://economictimes.indiatimes.com/news/economy/policy/up-on-its-way-to-become-first-state-to-have-100-pc-electric-vehicles-in-govt-departments/articleshow/99610813.cms

8. TELANGANA TO SET UP NATIONAL CENTRE FOR ADDITIVE MANUFACTURING

The Telangana government has announced plans to set up a National Centre for Additive Manufacturing (NCAM) in the state. The NCAM will be a state-of-the-art facility that will focus on research, development, and commercialization of additive manufacturing technologies. The centre will also focus on indigenization of additive manufacturing technologies and building a skilled workforce in the sector. Additive manufacturing, also known as 3D printing, is a rapidly growing technology that has the potential to transform traditional manufacturing processes.

https://www.deccanchronicle.com/nation/in-other-news/080623/national-centre-for-additive-manufacturing-inaugurated-at-hyderabad.html

9. FOXCONN TO START MANUFACTURING IPHONES IN KARNATAKA BY APRIL 2024

Foxconn, the world's largest contract electronics manufacturer, has set a target of manufacturing 20 million iPhones a year at the plant in Devanahalli, on the outskirts of the state capital and tech hub Bengaluru. The land for the factory would be handed over to Foxconn by July 1, the government said, adding that the project, valued at 130 billion rupees ($1.59 billion), is expected to create around 50,000 jobs.

https://www.financialexpress.com/industry/foxconn-to-make-iphones-in-indias-karnataka-by-next-april-state-govt/3110745/

SILICON CARBIDE

A Wonder Material and Catalyst for Change in India's Electronics and EV Landscape

By:
Pankaj Mohindroo

History remembers the 'Green Revolution' as a significant turning point in India's agrarian landscape. It was during the 1960s and 70s that India dramatically increased its food production through the introduction of high-yielding seeds and modern farming techniques. This transformative era catapulted us towards food security. Today, we stand on the brink of another equally transformative revolution, not in the fields of agriculture, but in the vibrant corridors of our electronics, Electric Vehicle (EV) and EV charging industry. Silicon Carbide (SiC) is poised to become the torchbearer of this imminent revolution.

Silicon has been the heart of the electronics industry for decades. It is the material used in creating semiconductors - the foundation of our modern world. Every electronic device, from the humble calculator to the most sophisticated computer, relies on them. This includes mobile phones that we use for almost everything: ordering groceries, making payments, connecting with loved ones, and entertainment.

However, we are now witnessing a paradigm shift in this domain, with Silicon Carbide emerging as a potent alternative to silicon. Known as carborundum, SiC boasts an impressive hardness of around 9.5 on the Mohs scale, just behind diamonds. While SiC was first synthesized in 1891 by Edward Goodrich Acheson, its natural variant, known as moissanite is found in certain meteorites, and is a rare entity. Given its scarcity in nature, the SiC used today is predominantly synthetic. SiC surpasses its silicon counterpart in several aspects - it has a greater power handling capacity and maintains consistent performance even at extremely elevated temperatures. This enhances the longevity and reliability of devices that use SiC, making it akin to a supercharged version of silicon.

Beyond its role in the electronics industry, SiC's high thermal conductivity and hardness make it a robust choice for heat-intensive processes in industries such as foundries, steel, and ceramics. Its resistance to high temperatures and chemical reactions also enhances tool

life and efficiency. Additionally, due to its lightweight and high strength, SiC is gaining traction in vehicle armour applications, further highlighting its wide-ranging potential.

The unique material characteristics of SiC are decoding system-level advantages in high-power device applications. SiC boasts superior thermal stability, reduced parasitic capacitance, and a power density and efficiency that surpasses that of Silicon. Importantly, SiC operates reliably at intrinsic temperatures as high as 900°C, significantly exceeding Silicon's limit of 150°C. Its wide band gap, high electron mobility, and impressive thermal conductivity facilitate rapid and efficient charge transfer during switching operations. The result is less power loss, heightened efficiency, and the capability to operate at high frequencies leading to a significant reduction in device size and system cost, along with faster application speeds. These characteristics allow higher charging voltages, which translate into lower currents, thus minimizing heat generation primarily caused by current.

SiC is synchronizing rapidly with nearly all high-power applications like Electric and Hybrid Vehicles, traction inverters for EVs, Solar Cells, AC-DC, DC-DC charging and bidirectional power capabilities, even for high power ranging from Kilowatt (KW) to Megawatt (MW). Moreover, SiC's potential in EV charging infrastructure stands out, with high voltage SiC devices enabling hyper charging stations of 500KW to 1MW. This capability dramatically reduces charging times to 5-20 minutes, easing congestion and lowering infrastructure costs at charging stations. Furthermore, SiC's reduced heat generation allows for sustained high-power charging at high frequencies, making fast charging in very less time a reality.

The mass production in SiC is helping to overcome technical barriers that come with any new technology, leading to better accuracy and reduced costs. There's a trend in the SiC manufacturing world towards the use of larger, 8-inch wafers instead of the traditional 6-inch ones, a change that's making production more cost-effective. Plus, SiC technology requires fewer mask sets — tools used in manufacturing — compared to silicon, making it an even more affordable and practical choice. Furthermore, SiC's ability to maintain stable performance at high temperatures eliminates the need for liquid cooling systems, leading to additional savings in cost, energy use, volume, and weight, as well as simplifying installation and maintenance.

India provides an ideal ecosystem for SiC manufacturing, owing to its rich reservoir of talented engineers and scientists, a rapidly expanding electronics, EV and EV Charging market, and a progressive government that ardently supports manufacturing initiatives. Our strategic geographical location, serving as a bridge between the technologically progressive markets of the East and the West, further enhances India's allure as a potential hub for SiC production.

By leveraging the potential of SiC, India can elevate its semiconductor manufacturing capabilities, a critical component in the electronics industry. This shift could minimize our reliance

on semiconductor imports, effectively positioning India as a formidable player in the global electronics arena. The ripple effect of this transition would also stimulate job creation and catalyse economic growth.

Furthermore, India's dedication to bolstering its electronics sector is reflected in the ambitious goals set for its electronics production. The country aspires to reach an electronics production worth USD 300 bn by 2025-26, with an eye towards a staggering USD 1.2 tn by 2032. Undoubtedly, Silicon Carbide will play a significant role in these ambitious plans.

The government's commitment to this vision is exemplified by the India Semiconductor Mission (ISM), an initiative designed to build a vibrant semiconductor and display ecosystem and enable India's emergence as a global electronics hub.

Under the ISM, the Indian government has breathed new life into the USD 10 bn Semicon India Program, an initiative that aims to attract businesses into setting up chip manufacturing and design facilities including compound semiconductors on Indian soil. A revamped incentive structure now sees the government pledging to cover up to 50% of project costs across technology nodes, coupled with additional support for infrastructure and research & development.

In light of recent geopolitical dynamics, export controls on China have been intensified, specifically within the semiconductor industry. This strategic move has dealt a substantial blow to China's semiconductor sector by limiting its access to equipment, services, and support from suppliers based in the US or its allied nations.

The prevailing geopolitical climate plays into India's hands, as it has the potential to draw in global firms looking to diversify their manufacturing operations away from China. The proactive initiatives of the Government of India including the appealing incentives render India as an attractive proposition for global semiconductor companies. This environment could catalyse an influx of investments into India's semiconductor industry, further solidifying its standing in the global electronics industry.

Presently, Wolfspeed (formerly known as Cree), Infineon, and STMicroelectronics are at the forefront of SiC manufacturing on a global scale. For India to join these ranks, it needs to nurture domestic companies that can compete globally in SiC technology. Through appropriate investment, dedicated research, and supportive government policies, India can foster the growth of 'Global Champions' companies focusing on SiC manufacturing, IP creation, and product design and development.

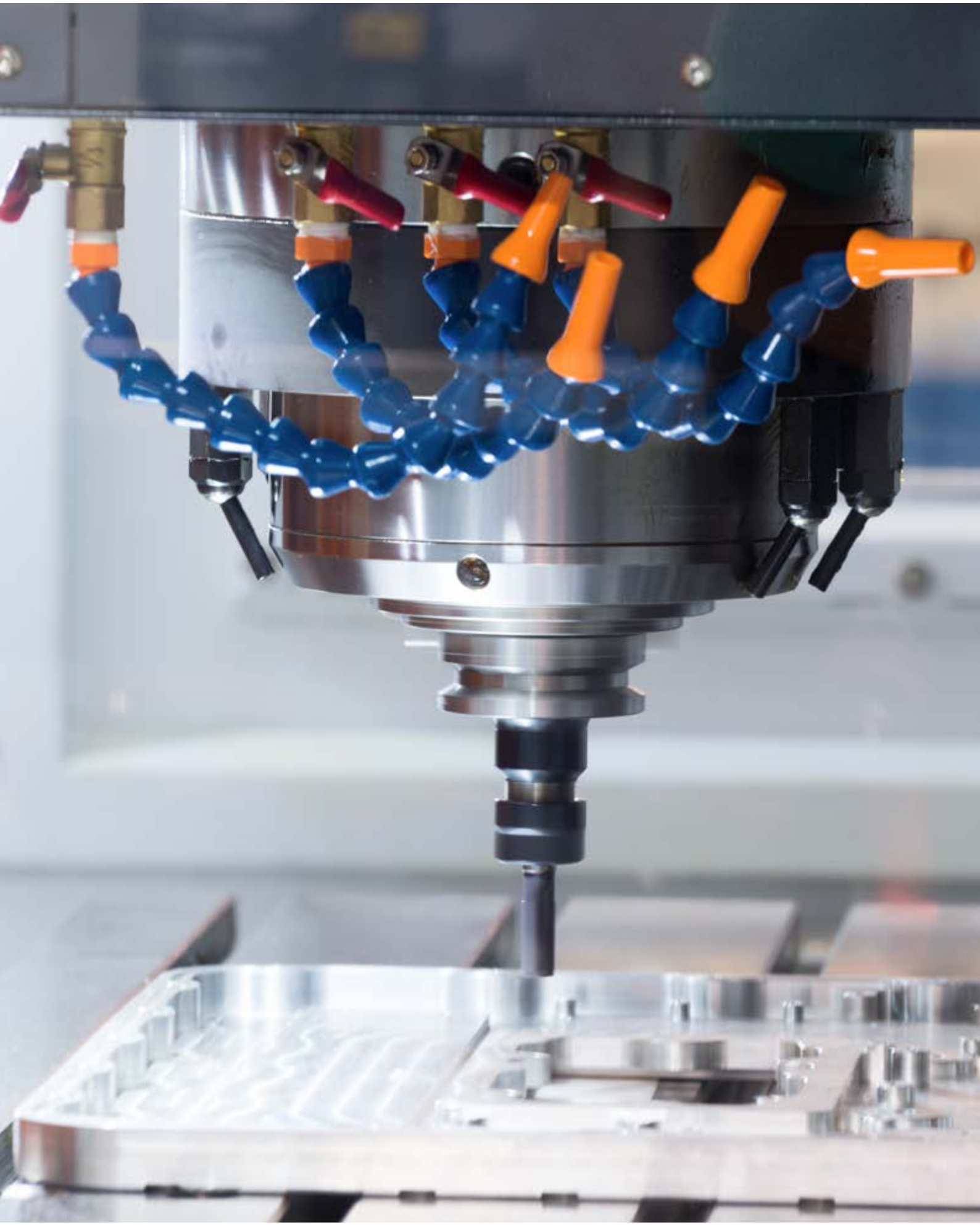
This transformational journey presents challenges, including the need for substantial investment, fostering public-private partnerships, overcoming logistical hurdles, and building a skilled workforce for semiconductor manufacturing.

Silicon Carbide has the potential to effect significant changes in our electronics industry, much like the high-yield seeds of the Green Revolution did for agriculture. By embracing SiC, India can foster energy-efficient electronics, cultivate a robust domestic manufacturing industry, and compete globally.

Just as the Green Revolution reshaped India's agricultural landscape, SiC carries the promise of revolutionising our electronics industry. As we stand at the dawn of this new era, it is incumbent upon us to seize this opportunity and ignite a new revolution in electronics. Let us sow the seeds of Silicon Carbide today, to reap the rewards of a technologically advanced future.

About the Author:

Pankaj Mohindroo is the Chairman of India Cellular & Electronics Association (ICEA), an apex industry body representing the entire electronics value chain, striving to make India a global electronics manufacturing hub. Kapil Gupta of ICEA also contributed to this article.



COMPETING ON A GLOBAL STAGE

How Tariffs Shape India's Electronics Industry

By:
Dr. Harsha Vardhana Singh
Mr. Kapil Gupta

Electronics, and within that the smartphone, are among the top traded items in international trade. International trade in these products is impacted by several overlapping factors. One, the huge significance of the sector due to the extensive and rapidly increasing impact of digital technologies across nations shows the major significance of electronics for a country's competitiveness, growth, widespread implementation of social programmes and efficient governance. Two, the major significance of global value chains (GVCs) for international trade, which potentially creates a possibility for multiple nations to participate in electronics production and trade, thus creating strong competitive pressures in international trade.

This results in a very strong focus among multiple competing nations on improving cost-competitiveness, attracting foreign direct investment through policies that reduce investment and operational costs, and facilitating operations and reducing the time taken for imported inputs to be processed for exports as part of the GVC trade. In this context, policy measures that facilitate GVC participation, attract investment, and enhance the cost-competitiveness of the electronics sector are paramount for a nation aspiring for a significant role in the international trade of electronics.

India Cellular and Electronics Association (ICEA) has conducted detailed studies that help clarify the relevant policies to improve competitiveness and achieve the high growth potential of the Indian electronics sector. These studies show that in general, especially after the Production Linked Incentive (PLI) scheme and an emphasis on facilitation policies to reduce operational costs, India and its competing nations have a similar approach to most policies, except for one major difference. That is the tariff (customs duty) policy adopted for the electronics sector, which directly raises the cost of manufacturing and sales, thereby impacting India's global competitiveness. This is shown for instance by a detailed recent

study conducted by ICEA titled "A Comparative Study of Import Tariffs in Electronics 2023."

This study explores how India's tariff policies affect the competitiveness of its electronics sector in comparison to the competing nations, such as China, Malaysia, Mexico, Thailand and Vietnam. The most significant learning comes from an assessment of the tariff regime of Vietnam, a nation which has rapidly become a major exporter of electronics, including being the second-largest global exporter of mobile phones. For the comparison, the study has considered 120 HS tariff lines of India which include the supply chain for mobile phones, as well as tariffs for some finished products such as laptops and tablets.

First, let us consider the facts. India's average MFN tariff (the Most Favoured Nation tariff) stands at 9.7%, whereas China's is 3.2%, and Vietnam's is 5.6%. Higher tariffs, especially on inputs raise the cost of production, thus reducing cost competitiveness as domestic prices increase due to tariffs.

An important point is that with respect to Vietnam, a comparison with MFN tariffs is not correct because about 80% of Vietnam's imports come at lower tariffs from countries with which it has Free Trade Agreements (FTAs). A valid comparison would be the weighted averages of FTA and MFN tariffs, based on a detailed exercise which has been performed in the ICEA study. The FTA weighted average tariffs come down to 7% for India and just over 1% for Vietnam, thus showing a large gap between the actual tariffs paid by imports into India and Vietnam.

Another important factor, especially for a product for which GVCs are a major part of international trade, is the number of tariff lines with zero tariffs because zero tariff not only reduces the cost of production but also the turn-around time for processing the imported inputs for further exports. The ICEA study shows that the competing economies have kept this aspect in mind, with a significant number of their tariff lines at zero duty. For instance, while India has zero duty on 32 of the 120 lines, the competing economies have many more duty-free lines: 56 (Thailand), 66 (Vietnam), 71 (China) and 77 (Mexico). This shows that the competing economies have strategically implemented their tariff regime to improve the ability of their exporters to be quicker and more cost-effective when competing in GVC trade.

The comparison of tariffs is an eye-opener. For India's tariff lines with non-zero tariffs, the competing economies have lower tariffs than India for at least 90 per cent of these lines, ranging from 90% for Thailand) to 93% for China. A similar comparison of the FTA weighted averages of India and Vietnam shows that Indian tariffs are higher than those for Vietnam in the case of about 98% of these tariff lines.

India's higher tariffs for electronics are a result of a specific policy focus. Tariffs in 2021 are higher for a very large number of lines compare to 2015 to 2021. In contrast, tariffs of competing economies have generally decreased during this period.

In 2023, the import duty on lens glass for cameras was reduced from 2.75% to zero, but its impact on costs is effectively inconsequential. Much more needs to be done to increase competitiveness because tariffs, particularly tariffs on inputs, raise costs and they are not a particularly good instrument for achieving the objectives for which they are put in place. Two such ostensible objectives are to encourage domestic production and to limit the large trade deficit of India. Regarding trade deficit, it is noteworthy that the economies with much lower tariffs have performed much better than India. Three of them (China, Vietnam, and Thailand) have registered trade surpluses for electronics, and Mexico has a much smaller trade deficit than India.

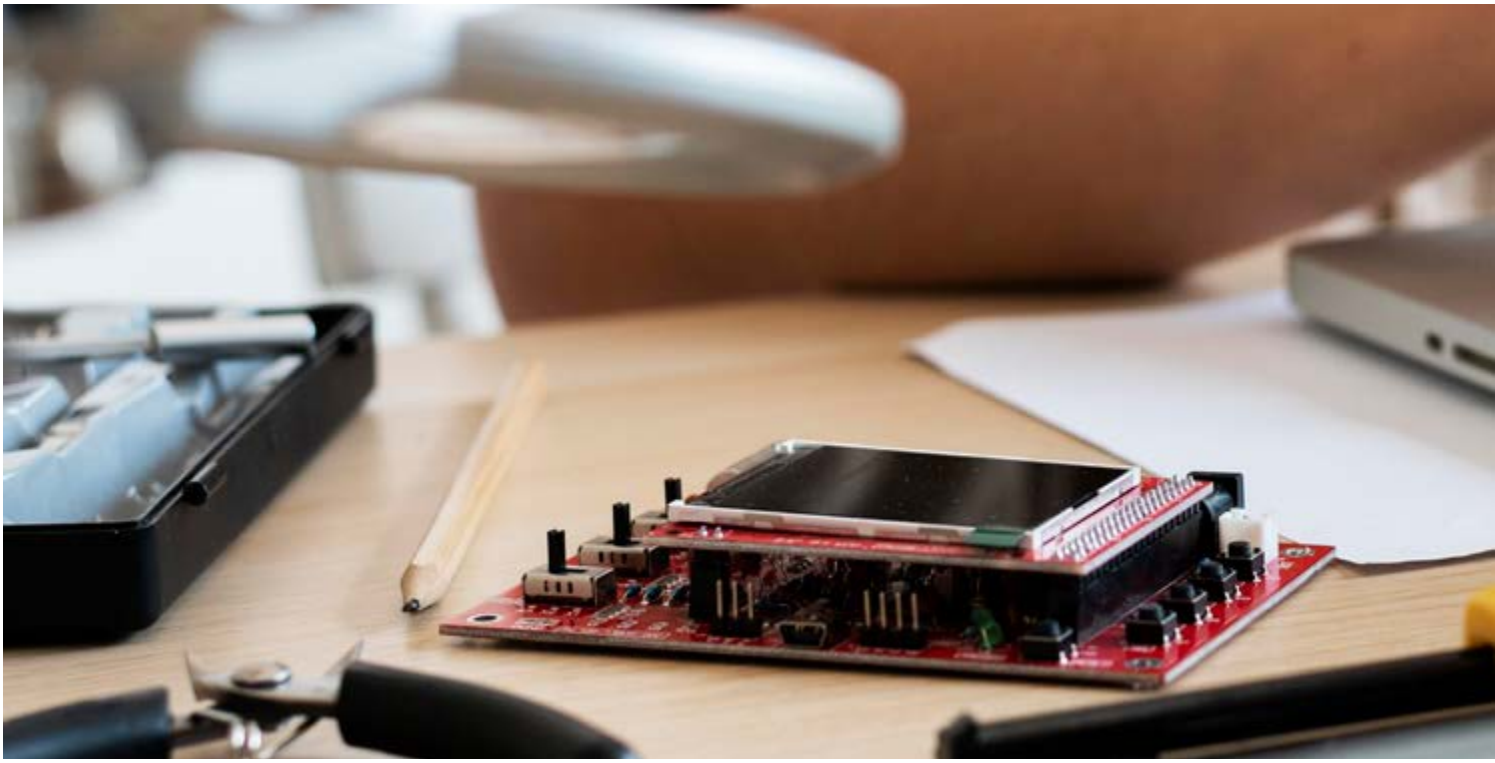
Thus, higher tariffs do not appear to reduce the trade deficit. In fact, the trade deficit will be reduced with an increase in exports, which requires improved competitiveness, and as we saw above, higher tariffs lead to lower competitiveness.

Further, the adverse impact of tariffs is more complex and a number of aspects are often overlooked. For instance, to some extent higher tariffs do lead to an increase in domestic production, but in actual fact the increase in domestic production is much less than usually anticipated. While tariffs make imports more expensive and producers may look for domestic substitutes, the domestic producers do not often have the technological capability to produce the item. As a result, the product either needs to be imported at a higher cost or is not of a quality level that meets the requirements of the global market. The result is a loss of competitiveness and a reduction in potential exports.

Even for the items that can be produced domestically, the domestic producers normally seek a higher margin by raising their price close to the import price plus tariff. This reduces demand for domestic inputs and in several instances, the reliance on imports continues. The net result is again an overall increase in domestic costs and lower exports potential. This makes it harder for programs like the Phased Manufacturing Programme (PMP) to develop important parts like mechanics and display assembly. High tariffs can thus create a cycle where a country relies on imports because it is too expensive for the local industry to compete. This is especially important for industries like electronics, which are trying to grow through exports.

There is a need to review tariffs both because of the negative impact on competitiveness as well as to support the export increase that has begun with support from the PLI scheme for mobile phones. With the increase in investment and production based on the PLI criteria, as India's production of mobile phones has begun to exceed domestic demand for mobile phones in recent years, India's exports have begun to take off. In 2022-23, India's exports of mobile phones increased almost 100% to $11.1 billion, and electronics exports went up by about 56% to $23.6 billion. The other impact of this development is that while imports met about 78% of the domestic demand of mobile phones in 2014-15, they were equivalent of only 4% of domestic demand in 2022-23; in volume terms, 99.2% of the number of phones sold in India are produced in India.

In effect, India has grown from a phase of import substitution into a period



of export promotion. In this phase, policies which reduce competitiveness, such as tariffs, need to be reviewed and amended. For instance, the ICEA report shows that the cost increase due to tariffs on inputs significantly erodes the benefits provided by the PLI scheme; and also that if the tariffs of Vietnam were implemented in India, the costs of production would have been about 4% lower in India.

The study recommends enhancing competitiveness by lowering tariffs on parts (components) used in mobile phone manufacturing, arguing that the existing tariffs no longer offer benefits. Another proposal is to gradually reduce tariffs on parts to align with the rates offered by Vietnam and China over the next two years. This approach would also help the local industry prepare for any impact of the adverse decision in the WTO case on the ITA-1 matter.

The industry also seeks to simplify the tariff system. Currently, India has six different tariff levels - 0%, 2.5%, 5%, 10%, 15%, and 20%, plus surcharges. This system is overly complex and leads to misunderstandings and disputes between importers and customs authorities. A reduction in the number of levels from six to three—0%, 5%, and 10%—is suggested to circumvent such issues.

Finally, there's an important recommendation for the formation of a joint team from the Ministries of Finance (MoF) and Electronics and Information Technology (MeitY) departments to manage tariff classification and solve interpretation-related issues. In case of a disagreement about interpretation, this team, consisting of Customs and MeitY, could review the case. This process would ensure proper classification under the correct codes, reducing conflicts and streamlining operations.

In conclusion, although India's high tariffs were initially designed to protect domestic industries, particularly the electronics sector, it is time to reconsider this approach in light of global economic shifts and increased local manufacturing capabilities. As India strives to strike a balance between protecting its electronics industry and enhancing its global competitiveness, a nuanced and informed approach to tariff policies will undeniably play a critical role.

Whether India chooses to adopt Vietnam's low tariff model or retain its current system will define the future of its electronics industry and economy. One thing is clear: the decisions made now will significantly impact India's economic future.

About the Author:

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INDIA'S AMBITIOUS PATH TO SEMICONDUCTOR REVOLUTION

By:
Krishaank Jugiani

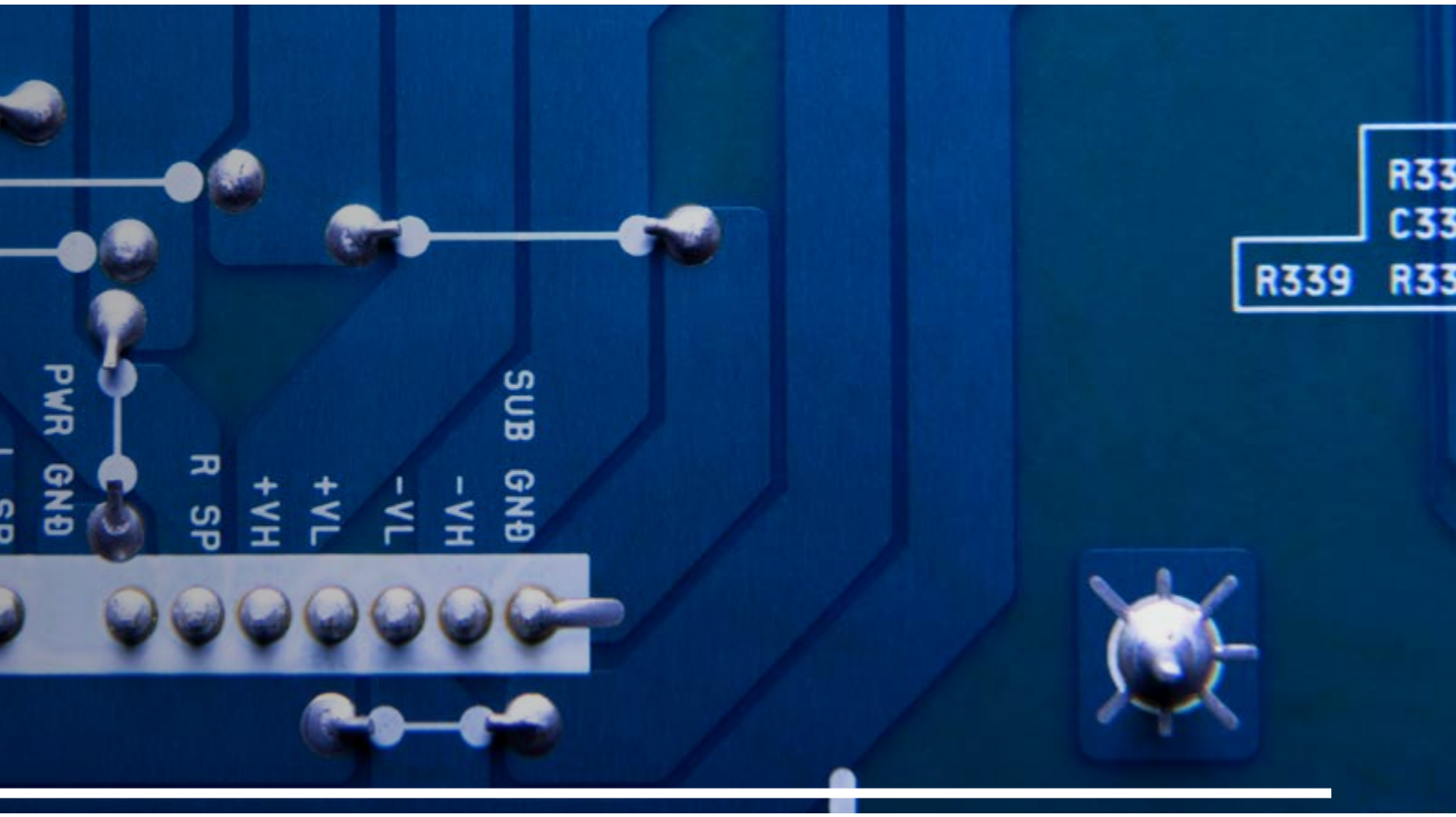
India's dream of 'ushering in a new era in electronics manufacturing' received an impetus with Prime Minister Narendra Modi's recent visit to the United States. While 'Charting a Technology Partnership for Future', the geopolitically driven Indo-US joint efforts will certainly help India in attracting investments in high-tech manufacturing, particularly in the much talked about semiconductor chips. Micron's USD 825 million investment in setting up a semiconductor assembly and testing facility in India is an important step forward towards India's integration into the global semiconductor supply chain.

The semiconductor supply chain is a complex network that spans countries and manufacturers encompassing various stages, including wafer fabrication, assembly, testing, and packaging. Taiwan dominates wafer fabrication, ASML, a Dutch company, maintains a near-monopoly on advanced chip-making machines, while the US excels in design and development and intellectual properties. China dominates the rare earth minerals mining and processing industry while Japan, South Korea, the US, and Europe are major suppliers of specialty chemicals. China and Southeast Asian countries play key roles in assembly, testing, and packaging due to lower labour costs.

However, the pandemic, the US-China trade war and weaponising the supply of chips and related raw materials citing national security, have exposed vulnerabilities in the supply chain. The US, joined by the Netherlands and Japan, has imposed export restrictions on semiconductor-related technologies to China, while China has imposed restrictions on the export of critical minerals - gallium and germanium.

This chip war has caused challenges in the supply chain, including trade flow disruptions, increased costs in dependent industries, and heightened scrutiny of technology transfers. Industries spanning automobiles, consumer electronics like mobile phones, electronic vehicles, high-performance computing and military weapons sectors have all felt the effects and are seeking alternative options.

Efforts are being made to diversify and de-risk the supply chain and enhance domestic manufacturing capabilities in countries like the US, Japan, Australia,



India and the European Union. The US, in particular, is promoting 'friend-shoring' by partnering with friendly nations to establish production facilities and bolster the supply chain, reduce dependency on a single region, and mitigate geopolitical risks.

Thus, amidst the disruptions caused by the trade war on the back of China's curtailed dominance, a window of opportunity has arisen for India to strengthen its position in the supply chain. With a target of manufacturing USD 300 billion in electronics by 2026, India is aiming to establish itself in semiconductor manufacturing, leveraging its strategic location in the Indo-Pacific, investment policies, cost-effective production factors and initiatives like "Make in India".

Capitalising strengths and exploring opportunities

India's strength in the semiconductor industry lies in chip design, with more than 20,000 design engineers designing about 2,000 chips every year. It benefits from a thriving innovation ecosystem, strong STEM education, and a skilled engineering workforce. The White House's statement on the U.S.-India Initiative on Critical and Emerging Technology (iCET), highlighting the importance of promoting the development of a skilled workforce and subsequently, Lam Research's initiative to train 60,000 Indian engineers through its "Semiverse Solution" in India showcases India's competence in the chip design and presents an opportunity to take a leadership role in the future.

To promote the growth of semiconductor manufacturing, the government launched the 'Semicon India' programme with a USD 10 billion investment and fiscal support of up to 50% of the project cost. It aims to establish semiconductor fabs, develop research and development (R&D) capabilities and reduce import dependencies. The 'India Semiconductor Mission' (ISM) provides financial support for display manufacturing, encourages indigenous Intellectual Property (IP) generation, and fosters collaborations with national and international agencies.

The Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS) incentivises domestic manufacturing of electronic components, offering a 25% financial incentive on capital expenditure. These initiatives collectively aim to foster infrastructure development and innovation to attract investments and promote self-sufficiency in the semiconductor sector, aiming to position India as a global hub for electronics manufacturing.

India is also engaging in silicon diplomacy through international groups like Quad (USA, Australia, Japan, and India). The Quad Semiconductor Supply Chain Initiative, collaborations with Australia and the US through the Australia-India Cyber and Critical Technology Partnership (AICCTP), along with iCET present opportunities for India in technology transfer, skill enhancement, and investment, enabling it to advance in manufacturing and R&D of semiconductors.

However, the US Chips Act, which aims to boost domestic semiconductor production in the US, may present challenges in terms of increased competition for domestic investments. But experts also believe that the Chips Act is aimed to safeguard advanced technologies, and India still has to

go a long way in the supply chain. Furthermore, iCET shows US support for the creation of an ecosystem in India for semiconductor design and fabrication. How the two dynamics play out is still to be seen.

Facing the headwinds

India's ambition to manufacture chips faces several roadblocks. Despite having a sizable proportion of engineers in chip designing, none of the technology is indigenous. The presence of multinational corporations' R&D labs in India is driven by skilled engineers, while foreign corporations own the intellectual property of chip designs. Most of India's involvement in the semiconductor industry has been in chip verification. High costs of acquiring IPs, delayed investment returns and dependence on imports for rare earth minerals hinder progress in the industry.

Additionally, competition from established global players, particularly Taiwan, China, and South Korea, and other emerging players like Vietnam and Singapore poses a significant challenge. India's trade policy, its stand on free trade agreements and its reluctance to sign the WTO's Information Technology Agreement-2 (ITA-2) may hamper access to foreign investment, technology exports and market access, affecting competitiveness. While its competitors may benefit from increased market access, advanced technological adoption, and global competition.

Paving the way forward

While chip manufacturing is a vital component, it takes time to establish and achieve significant results, due to the capital-intensive nature of the industry. Other areas of the semiconductor industry, such as Assembly, Testing, and Packaging (ATMP) or Outsourced Semiconductor Assembly and Testing (OSAT), are already experiencing significant growth and development as the government's incentive scheme has attracted interest from companies.

Therefore, it is crucial for India to focus on these areas, capitalising on the existing momentum. It should also focus on manufacturing trailing-edge and large-scale chips for industries such as medical devices and automotive electronics as these chips have significant demand and have less capital-intensive manufacturing requirements compared to leading-edge semiconductors.

Taking advantage of its chip design capabilities, India should prioritise investing in startups and domestic design companies that specialise in designing along with collaborating with leading chip makers. India should also invest in skill development programs to cultivate a skilled workforce. Deloitte estimates that over a million more skilled workers will be needed globally by 2030. With more than 1.5 million engineering students entering the workforce annually, India has the potential to meet this demand.

The Chips-to-Startup (C2S) programme to create over 85,000 skilled manpower by 2027 is a good step in this direction. Nevertheless, collaborative efforts between academia, industry, and training institutes are necessary to develop a talent pool equipped with the necessary skills in chip design, manufacturing, and testing.

India should also reconsider joining ITA-2 for investment, accessing technology, and market competition, strengthening its global trade position. By reducing tariffs and committing to international agreements such as with the EU, India can ensure integration into value chains and ensure a steady supply of minerals and chemicals for the semiconductor industry.

India being a trusted partner for countries like the United States in the present geopolitical scenario can tap into Quad's expertise to bolster its capabilities – gaining insights into advanced manufacturing and design capabilities from the US, precision engineering and quality control from Japan, and ensuring critical mineral supply from Australia. India may also consider establishing a separate partnership with Australia, apart from AICCTP, specifically dedicated to semiconductor manufacturing. This would enable both countries to leverage each other's expertise and resources in semiconductor production, creating a mutually beneficial collaboration.

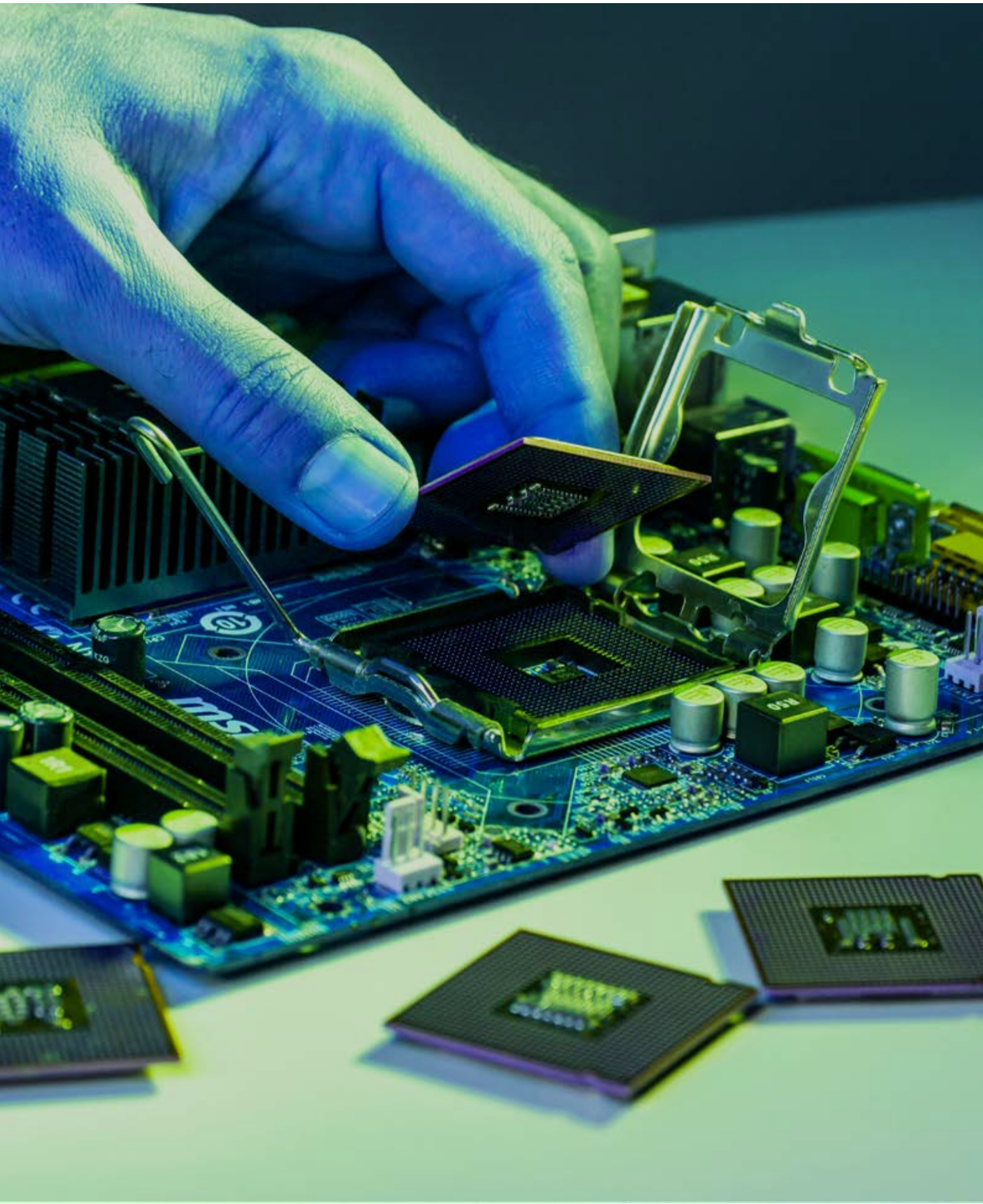
Furthermore, India should also consider collaborating with friendly countries like Kazakhstan as its rare earth mineral resources, strategic location with access to Europe, and government support make it a valuable partner in securing minerals and developing critical mineral exploration capabilities.

In addition, improving the regulatory environment, simplifying bureaucratic procedures, enhancing the ease of doing business, and offering tax incentives will make India an attractive destination for semiconductor companies.

While the ball may have been set rolling with Micron's investment for setting up a semiconductor assembly and testing facility, India must adopt a proactive approach and concerted efforts in strategies, policies, and investments to carve out a prosperous future in semiconductor manufacturing and also ensure resilience in the global value chain.

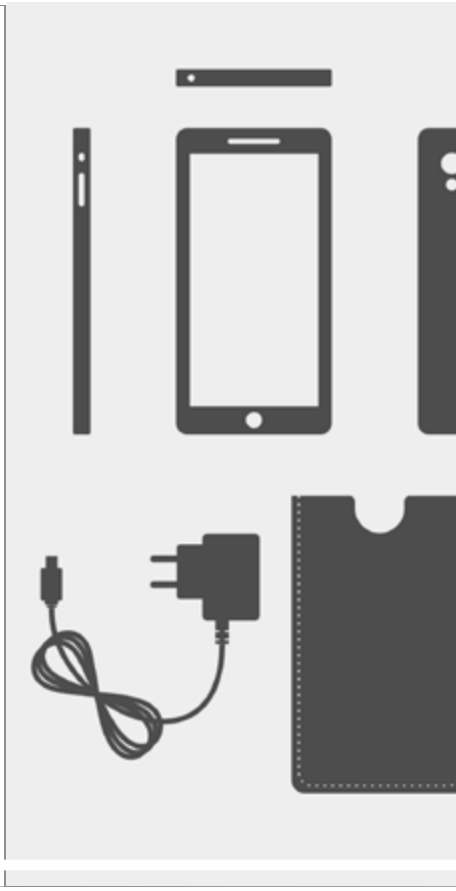
About the Author:

Krishaank Jugiani works as a Research Associate with CUTS International - a global policy think tank. His areas of work and interest include telecom policy, cybersecurity and Artificial Intelligence. He is currently working on the Ethical 6G project funded by the Department of Foreign Affairs and Trade, Australian government.



TEMPERED GLASS SCREEN PROTECTORS

Formalizing the Mobile Accessories Industry in India with Quality Standards



By:
A. M. Devendranath

Displays and touch panels are critical components in the functionality of a wide range of handheld devices: smartphones, tablets, medical devices, point-of-sale terminals, and more. A screen protector is an additional sheet of material – mostly Tempered Glass or others. A Screen Protector is akin to an "Insurance Policy" for any Smart ICT Product and protects the most important feature of these products – Displays.

Chemically Tempered Glass Screen Protectors (TG-SP) are the most used Screen Protectors on Mobile Phones due to their many technical advantages and low cost. There are many advantages of TG-SP which include protection from scratches which otherwise weakens the Display / Touch Panel Glass, protection from impact damage from falls or drops, easy and low-cost replacement, and they also provide a better resale value of Mobiles due to the protected displays.

Screen Protectors are one of the important and a large part of the Mobile Accessories market worldwide. It accounts for nearly 20% of the USD 225 Billion (in 2018)[1] worldwide market. Nearly 70% of Screen Protectors are Chemically Tempered Glass. The global screen protective film market is expected to grow at a CAGR of 7% between 2020 and 2028 from USD 43.15 Billion to USD 76.64 billion[2].

The demand for TG-SP in 2020 was estimated based on sales of Smartphones in 2020 in addition to the replacement demand from Smartphone sales in the 2017-2019 period. The demand for TG Screen Protectors for 2020 was estimated at 342.35 million pieces[3] .

A market with such a large demand has no established players supplying Tempered Glass Screen Protectors in India. The Screen Protectors market is dominated by a host of Brands with some known International Brands and a host of unknown brands and many of them are of inferior / sub-standard / poor quality. Most of the business (~90%) in Tempered Glass Screen Protectors are happening in the "Grey" market. There is a small portion of the market sold through E-commerce Channels which is formalized in the sense that there is a GST which is applied on the sale of these products,

[1] *Allied Market Research Report*
[2] *Market Research Future (MRFR) estimates*
[3] *Feedback Advisory analysis*

the rest are sold through roadside shops and mobile accessory shops in a mostly unorganized way.

It is estimated that the market for Tempered Glass Screen Protectors in 2020 was around INR 5,100 Crores (based on the Supplier's Sales Prices) and ~INR 15,400 crores (based on the MRP). At this level, since the market is a highly "Grey" market, there is a severe loss (~INR 2,773 Crore) to the Nation in terms of GST revenues[4].

Apart from the GST, as this business is done purely on cash trading and without bills, there are also other revenue losses to the nation through loss of Income Tax and Customs Duty. There is also a lack of employment which is not being generated by such a large industry in India in a formal way. Most importantly, Mobile consumers in India are being provided with spurious / sub-standard products.

The opportunity which the Tempered Glass Screen Protectors industry presents India is to be viewed from two perspectives:

1. Huge Domestic market for Tempered Glass Screen Protectors and the benefits thereof.

The future of the Tempered Glass Screen Protectors market is directly dependent on smartphone sales in India. The TG-SP demand in India is likely to grow at a CAGR of 10% from the current (2021) 342.35 million pieces to 554 million pieces in 2025 and in value terms, it is estimated to reach ~INR 25,000 Crore (USD 3.4 Billion) at consumer price.

There is a crying need to regularize this industry with quality standards and ensure that 'Sub-standard' TG-Screen Protectors are not made or imported and sold in the country. Once there is a level of standardization that comes through, then the local manufacturers will be forced to sell through proper channels to claim GST credits and there is a possibility of formalizing the entire supply chain.

There is a need for the Government of India to bring in BIS Standards for Screen Protectors and these BIS standards should be made mandatory for all Screen Protectors made in India or imported and sold in India.

Some of the possible standards may include:

- The method of testing using a 'Surface Stress Meter' equipment or equivalent should be made mandatory for all manufacturers in India making Screen Protectors.
- All Imported Screen Protectors should also be mandated to undergo such tests and get BIS approval on the products to be sold in India.
- Ensure the manufacturer / supplier responsibility there should be a mandatory 'Fog marking / etching' on the glass itself indicating the name / logo of the manufacturer / brand of the TG Screen Protector, similar to those markings on the Spectacle lens.

[4] *Feedback Advisory analysis*

- The Recommended Quality Standards for Tempered Glass Screen Protectors should be to measure the degree of chemical tempering measured by the magnitude of Compressive Stresses (CS) and the depth of the compressive stress layer (also called Depth of Layer (DOL)). The suggested acceptable minimum quality standards for the right Tempered Glass Screen Protectors can be:
  - Compressive Stresses (CS): Minimum of 600 Mpa
  - Depth Of Layer, or DOL: Minimum of 6 um

The potential gain of GST revenues to the Government of India will reach ~INR 4,500 Cr (USD 0.6 B) by 2025 or a cumulative gain to the nation is likely to be ~INR 18,500 Cr (USD 2.6 B) in the next 5 years, between 2021 to 2025.

2. Opportunities for India to participate in the Global Market through Exports

If quality manufacturing is encouraged with the right standards and the right firms are invited to make it in India, Tempered Glass Screen Protectors could be exported from the country. At the initial stage (for the next 5 years), India could attempt to gain a 15% global market share in the next 5 years with the global market expected to grow to USD 76.64 billion by 2028.

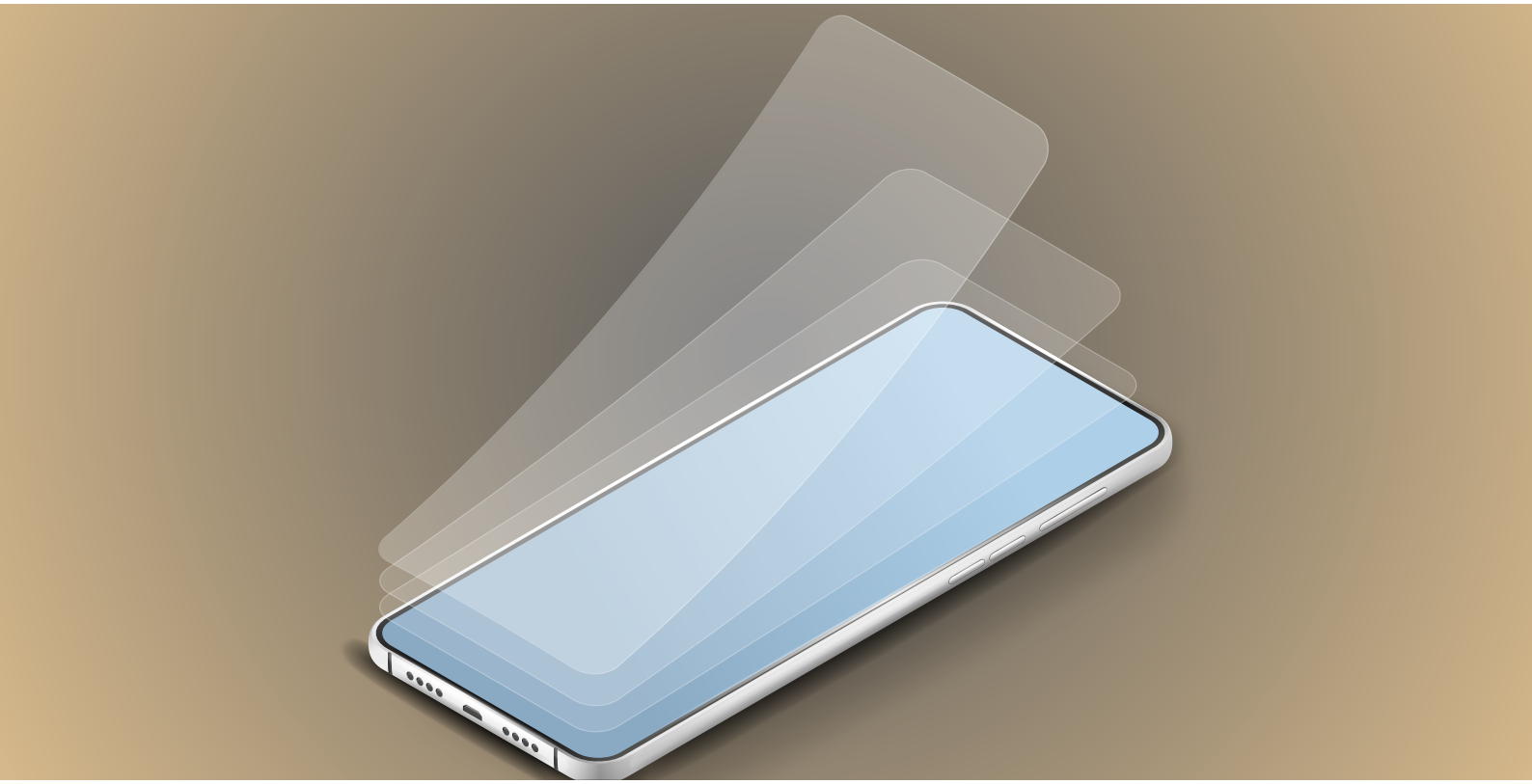
The current leading manufacturers in the global smartphone screen protector market include Nippon Electric Glass, Shenzhen Yoobao Technology, FeYong Digital Technology Limited, NuShield, IntelliARMOR, Clarivue, Corning Inc., Harito, Protek, ZAGG Inc., Belkin International, and Xtreme Guard.

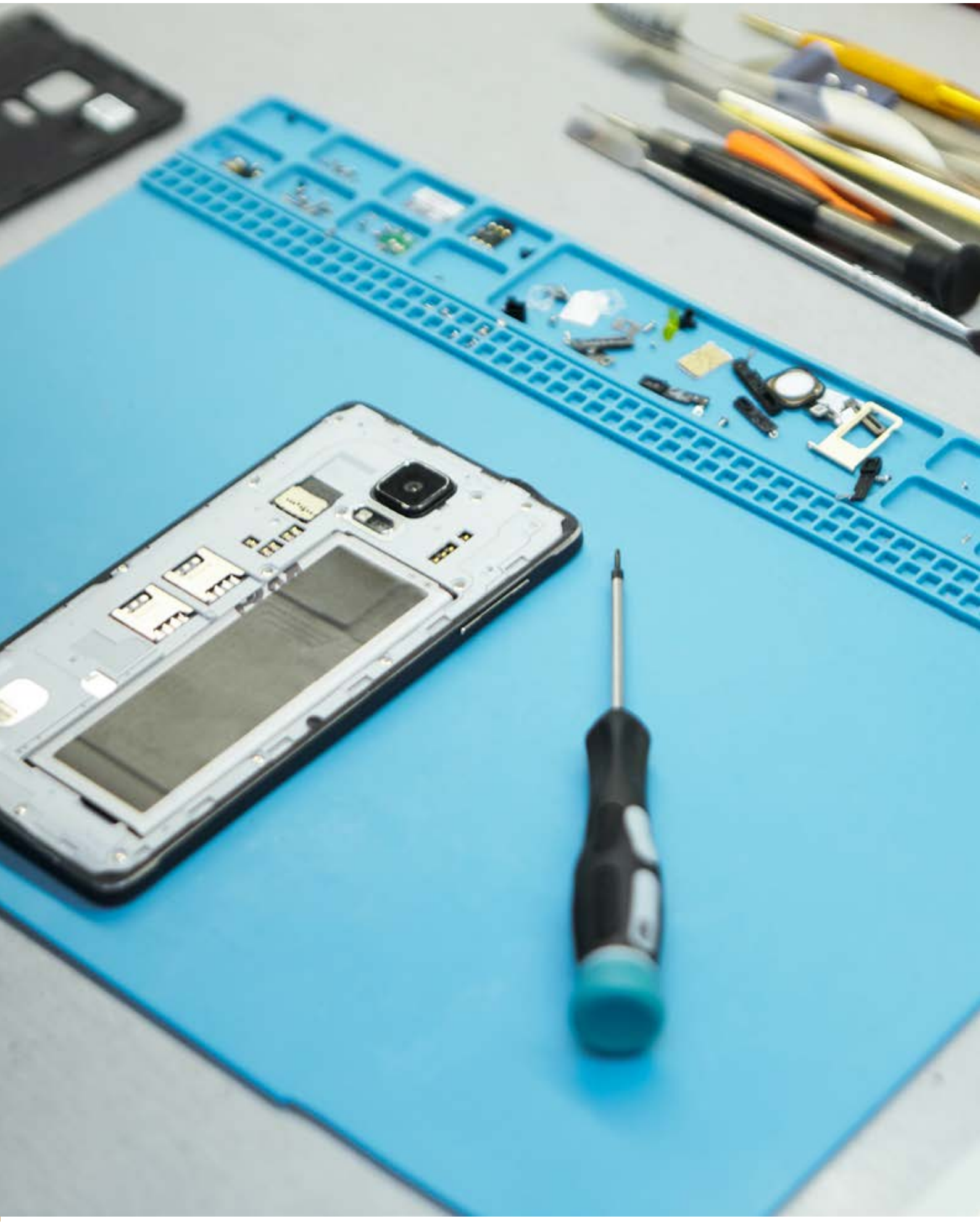
India could potentially look at Exports of TG-SP to the tune of 951 million pieces or INR 20,300 crores (USD 2.7 B) by 2025 or a cumulative of ~INR 40,000 Crores (USD 5.4 B) between 2022 and 2025 with Quality manufacturing from India.

This large Tempered Glass Screen Protectors market (if formalized) is likely to bring in a lot of other benefits for the nation such as improving the country's image as a quality products manufacturing base and also could lead to a very high employment generation to the tune of 25,000 direct employment and ~75,000 indirect employment.

About the Author:

A. M. Devendranath is the CEO and a key member of the Executive Council at Feedback Advisory. He has advised a host of Indian and International Corporations in Energy and Electricals & Electronics Businesses - Semiconductors, Electronics, Electronic Components, EMS Business, Electric Vehicles, Solar, NG Based Power Plants, Biomass Power, Distributed Power Plants, Wind Energy, Energy from Municipal Solid Waste.





DIGITAL BIOMETRICS

Patenting Trends and its Impact on Electronics and Cellular Industry

By:
Rohan Turior

Executive Summary:

This article offers an in-depth examination of digital biometrics in the mobile and electronics sector, with a specific focus on patenting trends and technologies related to facial, fingerprint, voice, retina, and iris detection systems. Upon analyzing a comprehensive dataset of 4,217 patents, it reveals a notable increase in patent filings, highlighting the rising significance of biometrics in this industry. Additionally, this article serves as a commentary on the prevailing issue of patent exploitation within the mobile and electronics sector, shedding light on the potential consequences and implications of this practice. It aims to provide valuable insights into the current state of biometrics patents and their impact on the industry

Introduction:

Digital detection techniques, also known as digital biometrics, deal with the science of verifying and identifying physiological and behavioural traits of any individual. Physiological biometrics, such as fingerprint, hand geometry, iris, retinal, vein, speech and face imaging, are derived from direct measurements of the human body that may uniquely recognise the individual. Behavioural biometrics are determined by a person's speech, signature, walk, writing etc. Although it may appear that biometric systems are a very recent concept, however, the use of biometrics has been around us for a long time (around 500 BC).

Digital biometric technologies are the solution to secure identification and human verification. The application of biometric systems can be found in different sectors like Government (Central, State and Local); defence purposes as well as commercial ones. Multimedia-based biometric technology is already having a significant positive impact on government IDs, retail transactions, law enforcement, and safe financial activities. In recent times, biometric systems have entered the mainstream markets, like facial or vocal or fingerprint recognition on

smartphones, banking or UPI apps have become a necessary part of our day-to-day life. Incorporation of multiple biometrics traits in the authentication system reduces the chances of identity theft as well as the chances of abnormalities in the process, which is why multimodal systems are more reliable as they capture more biometric traits with the help of multiple sensors.

Scope:

This report encompasses the data related to patenting trends and technology analysis for digital detection technologies including facial, fingerprint, voice, retina, and iris detection systems. To determine ongoing patterns, we examined 4217 relevant patents, both active and dormant.

Patent Analysis:

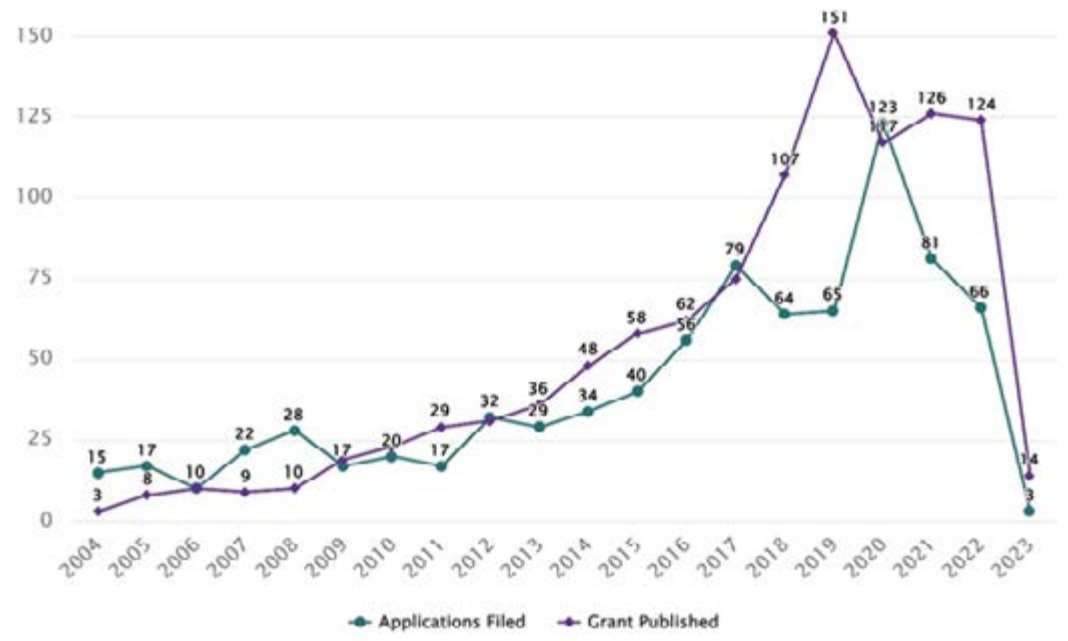
In this section, we have analysed 4217 related patents (active or inactive) which aids in the identification of patent filing and technological trends and assignee-specific activity in patented technologies. Additionally, it demonstrated a wide range of technical applications claimed in a patent dataset.

For better analysis purposes, we have divided the whole result set into active (alive) and inactive (dead) patents and also showed the difference between various trends of the two sets. This section is helpful in indicating regional insight as well as current and future market leaders in biometric systems having choke points as well as mostly cited patents.

Patent Filing Trend:

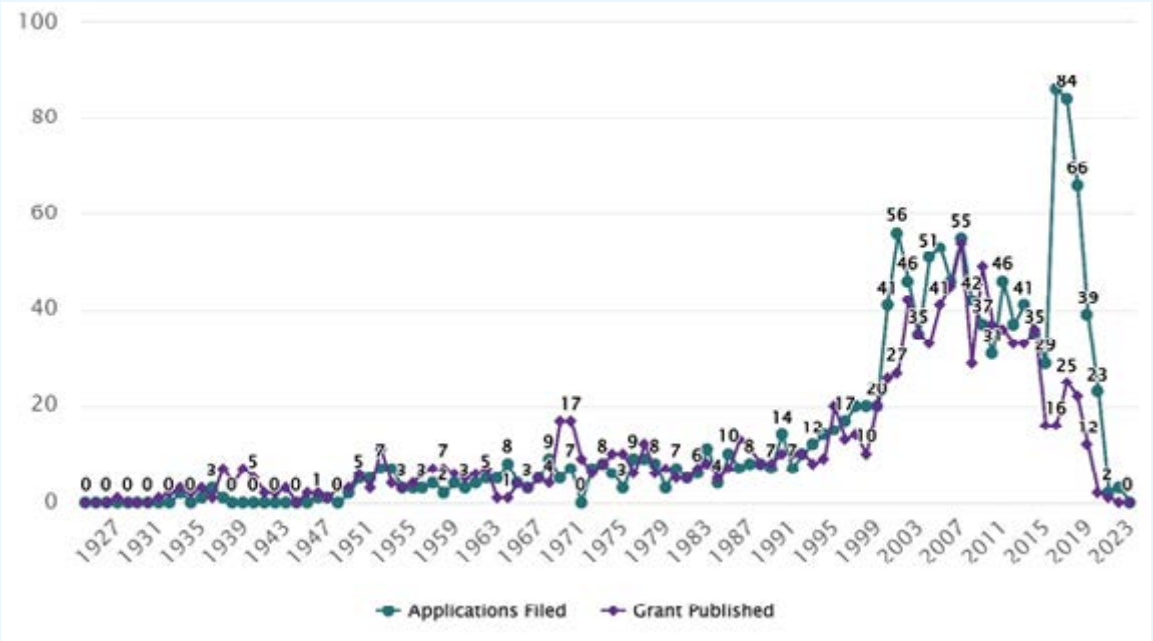
Filing trend of active (alive) patents from the year 2004 to the year 2023:

Figure 1: The chart shows the filing and grant trends in the technology space in recent years. The year shown in the chart is the calendar year and the applications are plotted by their filing date and the grants are plotted by their published date



Filing trend of inactive (dead) patents from the year 1927 to the year 2023:

Figure 2: The chart shows the filing and the grant trends in the technology space in recent years. The year shown in the chart is calendar year and the applications are plotted by their filing date and the grants are plotted by their published date.

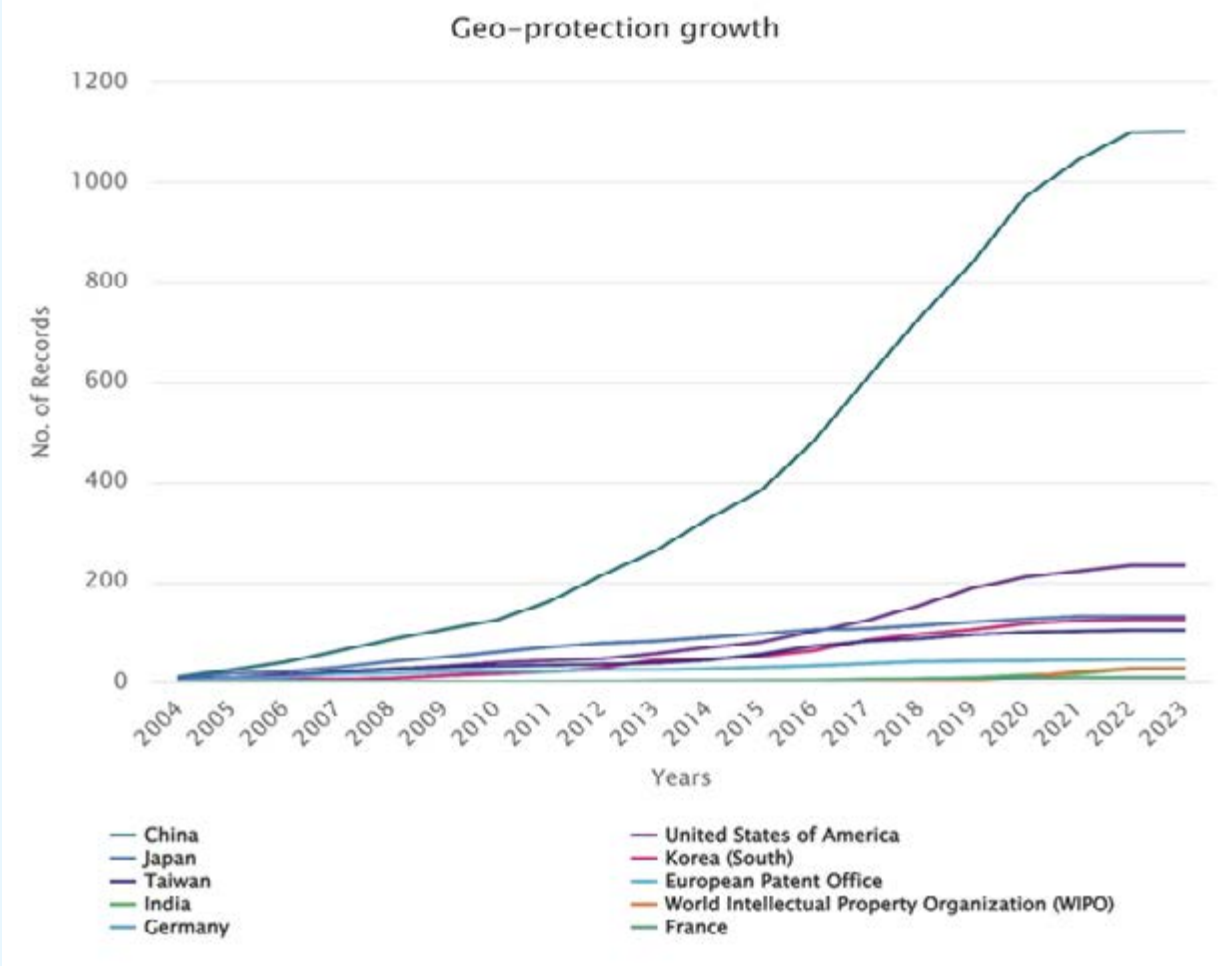


Based on the graphical representation of filing trends it is clearly evident that an increasing number of patents are being filed in this domain. Hence, it would be safe to conclude that this technological field is gaining more significance over the years.

Regional Insights:

China is a dominant leader in biometrics, and has received over 1000 patents throughout the years. China is followed by the United States, Japan, Korea, and Taiwan. China has become one of the global leaders in manufacturing components for biometric sensors and semiconductors in the world, as well as the rapid adoption of cutting-edge technologies in day-to-day government and public operations, which is driving the market expansion in China.

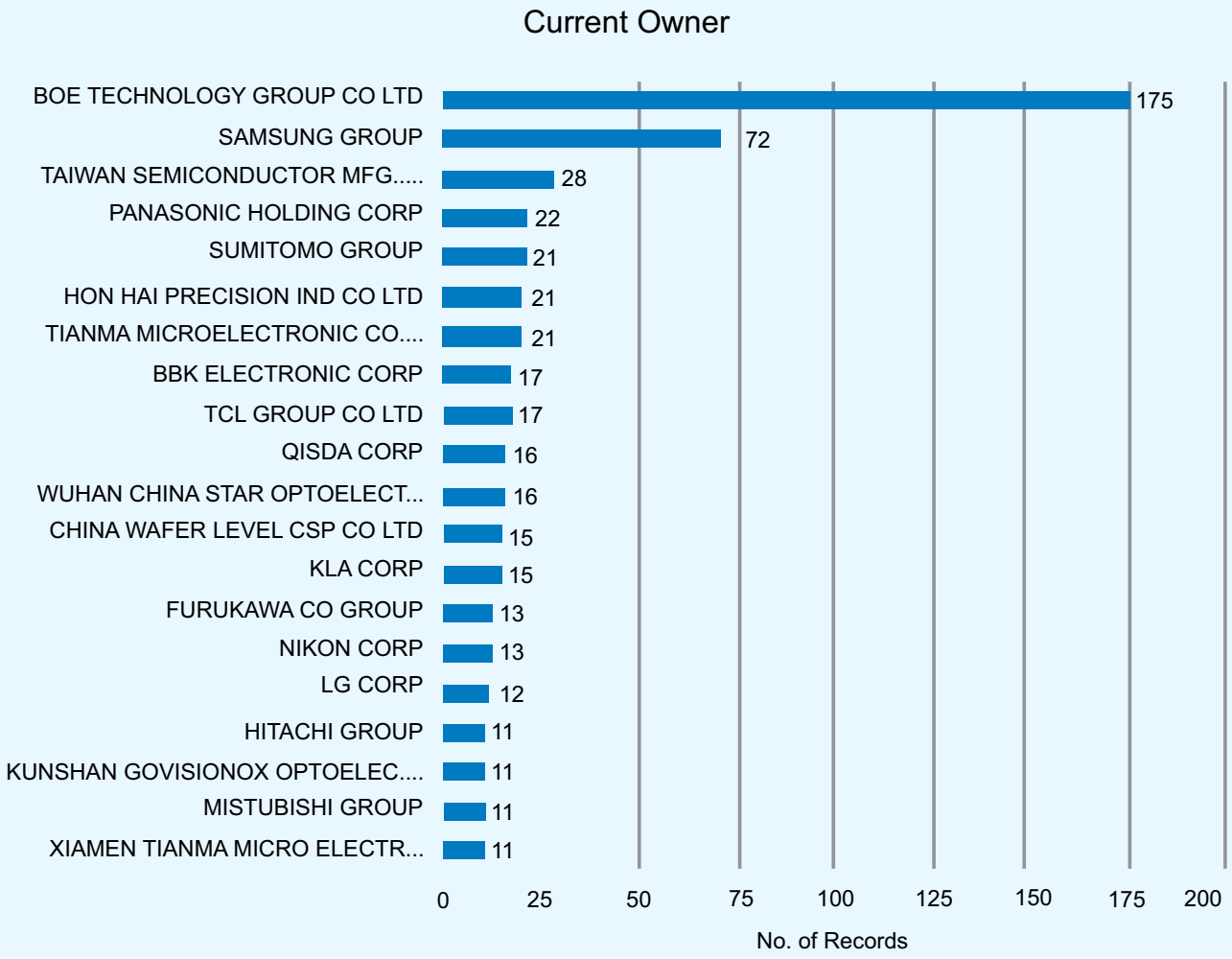
Figure 3: Global Geo-protection growth over the years



Key industry players' insight:

BOE Technology Group Co. LTD holds the most patents. This corporation is a large electronic component manufacturer, with a focus mainly on smart IoT systems, smart medications, interface devices, and engineering integration. BOE has created TFT large-area fingerprint identification products based on mature semiconductor technology, including optical and capacitive technological solutions that are extensively employed in consumer electronics, security, finance, and other industries.

Figure 4: The graph shows the top current owners of the records. The current owner is the parent organisation of the current assignee.

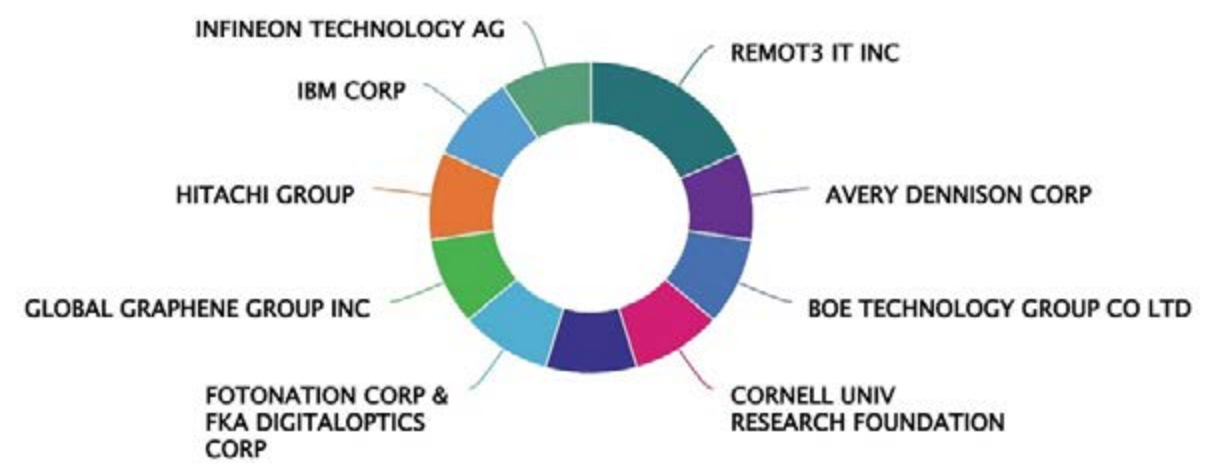


Furthermore, other market players include Samsung Group, Taiwan Semiconductor MFG Co LTD, Panasonic Holding Corp, Sumitomo Group, Hon Hai Precision IND Co LTD, Tianma Microelectronic Co LTD, BBK Electronic Corp, TCL Group Co LTD, Qisda Corp, Wuhan China Star Optoelectronics Semiconductor Display Tech Co LTD, China Wafer Level CSP Co LTD, Kla Corp, Furukawa Co Group, Nikon Corp, LG Corp, Hitachi Group, Mitsubishi Group, Thermo Fisher Scientific Inc and others. Many of these businesses have built their facilities in different emerging market regions which helps in flourishing the industry.

Companies having choke points:

In the field of biometrics, companies such as Remot3 IT INC, Avery Dennison Corp, BOE Technology Group Co Ltd, Cornell University Research Foundation, Doheny Eye Institute California, Fotonation Corp & FKA Digitaloptics Corp, Global Graphene Group INC, Hitachi Group, IBM Corp, and Infineon Technology AG have some important choke points. Having a choke point in any technological field implies having firms that already have significant patents in the biometrics technology domain. It is helpful to comprehend, that if there are several choke points or firms in the technology of interest, the corporation should proceed with caution, although minor choke points can be considered as potential investment opportunities.

Figure 5: The graph shows companies who already hold important patents around the technology area



In today's scenario companies like to have more choke points which can very well be fate-determining variables.

Technical Analysis:

Based on Biometric Technology, the global market is segmented into different types like face, voice, signature, iris, fingerprint, hand geometry recognition and others. The majority of the patents are related to fingerprint recognition systems as fingerprint recognition provides more convenient, secure and faster ways of verifying user identities. Fingerprints are important as two individuals can never have similar fingerprints, even in cases of identical twins - who share the same DNA pattern. Fingerprint recognition systems are used in different sub-technical fields like electronic devices; recognition modules; fingerprint recognition modules; recognition chips; fingerprint recognition chips and sensors [fig. 6].

Figure 6: The graph visualizes the different technology topics that are mentioned in the result set.

In recent years, the use of multimodal identification systems, which incorporate numerous behavioural and physiological features to recognise and authenticate people, has grown in popularity, resulting in improved accuracy levels.

Conclusion

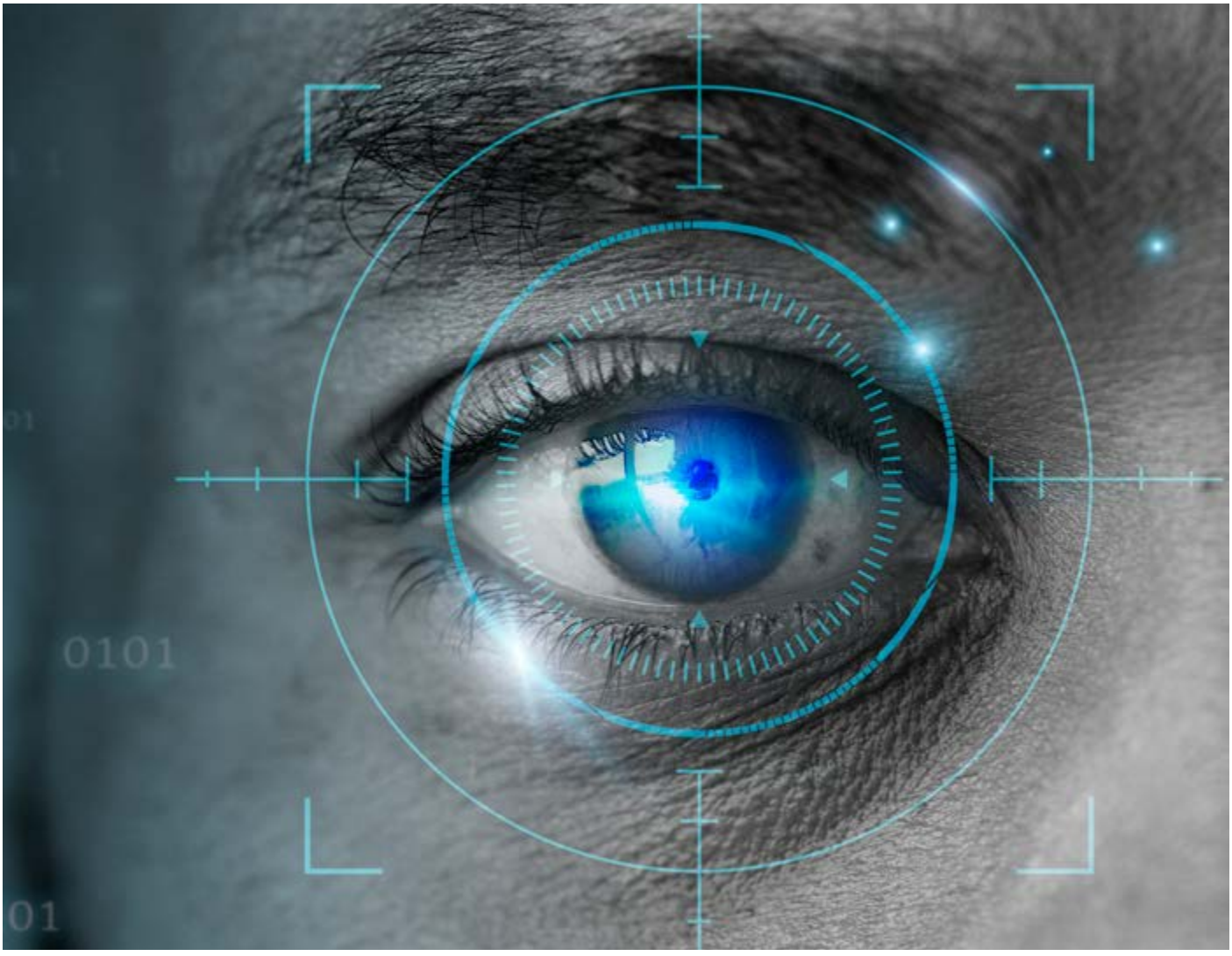
Biometrics became increasingly popular with end users, government, and public sectors following the pandemic due to no-touch interactions, access control, and crowd management.

We may conclude from the foregoing that biometrics will be more important than ever in the near future.

New firms, such as REMOT3 IT INC and Doheny eye institutes, have substantial choke points that can be proven to be some key technical steps in the future development of biometric technology. From the parts above, it is simple to establish current trends in the field of biometrics as well as identify current or upcoming market leaders.

About the Author:

Rohan Turior is a seasoned Intellectual Property Management Leader and a well-versed Technocrat with more than 17 years of rich and insightful experience in Innovation, IP protection, problem-solving, Patent Circumvention and technology management. He is Partner, Patent Attorney at Innoips - Innovation & IP Services.



INDUSTRY NEWS

IT HARDWARE

1. HP SEEKS TO RAMP UP LOCAL MANUFACTURING IN INDIA

HP, the California-based technology company, is planning to increase its manufacturing operations in India. The company aims to not only boost production volume but also generate innovative products that will contribute to the growth of the domestic market. According to Mr. Vickram Bedi, Senior Director (Personal Systems) at HP India, the company has been manufacturing in India for a significant period and has invested to increase production capacity. HP currently manufactures various laptop models, keyboards, and mice in the country.

Link: https://economictimes.indiatimes.com/industry/cons-products/electronics/hp-seeks-to-ramp-up-local-manufacturing-in-india-senior-director-says/articleshow/101216090.cms

2. SAMSUNG ELECTRONICS FACES POTENTIAL EXCLUSION FROM INDIA'S PLI SCHEME DUE TO INVOICING DISCREPANCIES

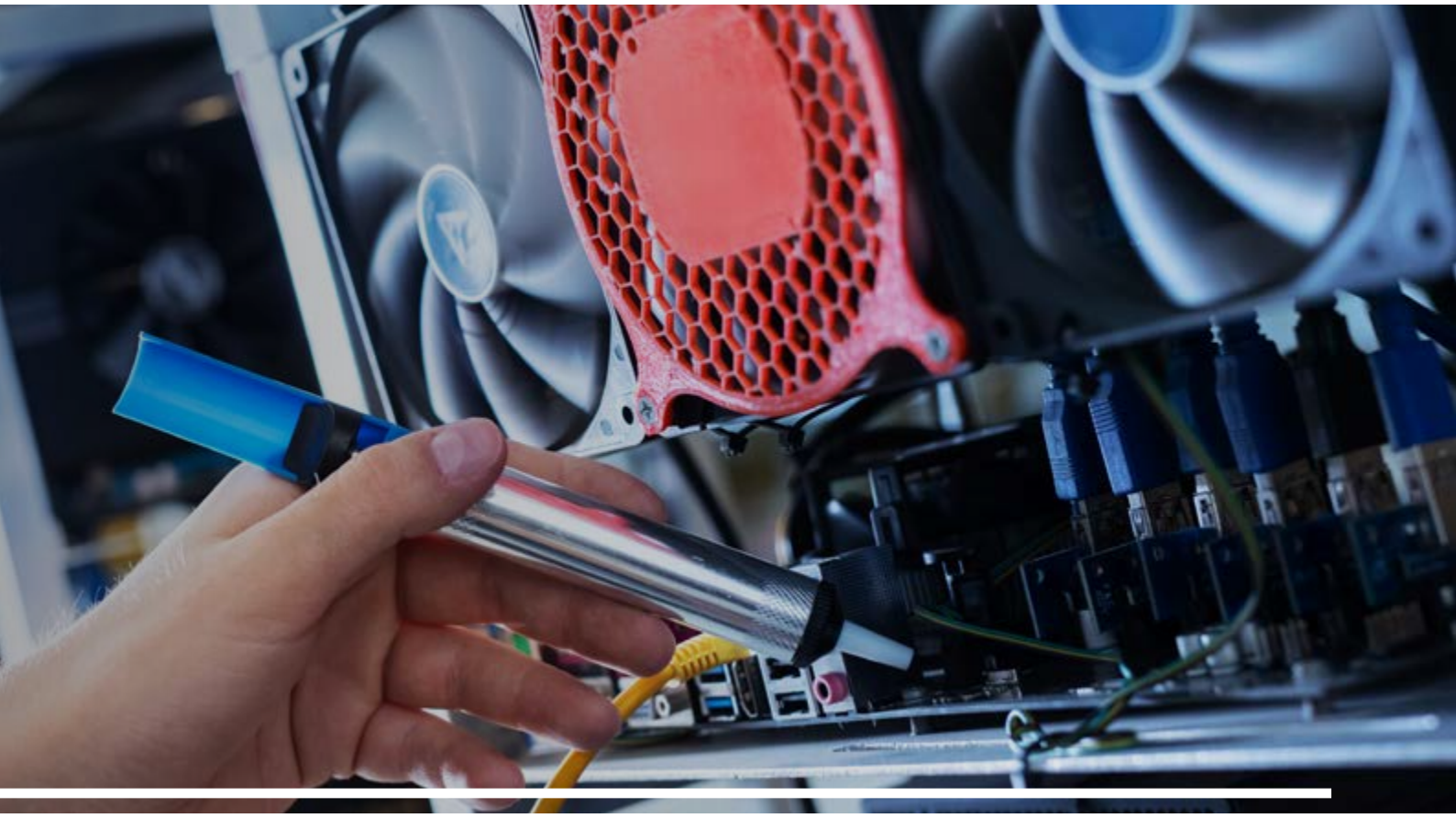
Samsung Electronics may not receive the incentives promised under India's production-linked incentive (PLI) scheme for smartphone manufacturing for the fiscal year 2021. This is due to what government officials describe as "discrepancies in invoicing." However, Samsung has expressed that it is engaged in advanced discussions with the government to resolve the issue.

Link: https://www.businesstoday.in/technology/news/story/samsung-electronics-faces-potential-exclusion-from-indias-pli-scheme-due-to-invoicing-discrepancies-384069-2023-06-03

MOBILE PHONE ECOSYSTEM

1. WTO RULING ON INDIAN DUTY, IF UPHELD, COULD HIT LOCAL PRODUCTION OF MOBILES

A recent ruling by the World Trade Organization (WTO) against India's import duty on mobile phones and telecommunications equipment could have significant implications for the country's local manufacturing industry. The WTO panel found that India had violated global trade rules by imposing import duties ranging from 7.5% to 20% on various IT products since 2017. As a result, India may be required to reverse these duties to zero, potentially impacting the momentum of its electronics manufacturing push. Industry experts warn that Chinese handset makers, not part of India's production-linked incentive scheme, could seize the opportunity to import fully assembled devices again. This could lead to a significant decrease in local production and hinder India's



ambitions of becoming a global smartphone manufacturing hub.

Link: https://economictimes.indiatimes.com/news/economy/foreign-trade/wto-ruling-on-indian-duty-if-upheld-could-hit-local-production-of-mobiles/articleshow/99649220.cms

2. XIAOMI PARTNERS WITH DIXON TECHNOLOGIES TO MAKE MOBILE PHONES IN INDIA

Dixon Technologies, an Indian contract manufacturer, has announced a partnership with Xiaomi India to produce and export phones for the Chinese company. This collaboration aligns with India's goal of encouraging global companies to invest in local manufacturing and strengthens its position in the global electronics supply chain. The news of the partnership has positively impacted Dixon's shares, causing a 4% increase. Xiaomi India aims to expand its retail network beyond the existing 20,000 partners and increase local procurement of mobile phone parts to reduce costs.

Link: https://www.reuters.com/technology/xiaomi-partners-with-dixon-technologies-make-mobile-phones-india-2023-05-31/

3. ERICSSON REPORT SAYS 5G SUBSCRIPTIONS IN INDIA TO REACH 700 MILLION BY END 2028

5G subscriptions in India are projected to reach around 700 million by the end of 2028 and average data traffic per smartphone is projected to grow from 26 GB per month in 2022 to around 62 GB per month in 2028. According to the latest Ericsson Mobility Report, 5G subscriptions reached around 10 million by the end of 2022 and are estimated to account for about 57 per cent of mobile subscriptions in the country by the end of 2028, making it the fastest growing 5G region globally. The report also highlighted that smartphone subscriptions in India as a percentage of total mobile subscriptions are expected to grow from 76 per cent in 2022 to 93 per cent in 2028. It added that 4G subscriptions are expected to decline from 820 million in 2022 to 500 million by 2028. By 2028, 5G is estimated to account for almost 80 per cent of all fixed wireless access (FWA) connections, it said.

Link: https://www.thehindubusinessline.com/info-tech/ericsson-report-says-5g-subscriptions-in-india-to-reach-700-million-by-end-2028/article66993986.ece

4. CHINA'S OPPO TO SHUT DOWN CHIP DESIGN UNIT AS SMARTPHONE SALES SLUMP

Chinese smartphone maker Oppo said it will shut down its chip design unit, citing uncertainties in the global economy and the smartphone industry. The company, one of China's best-selling domestic smartphone brands, said it will cease operations

of its Zeku unit, which it set up in 2019. Its products include the MariSilicon X chip, which is a neural processing unit (NPU) that improves images for video and photography taken on smartphones. "Due to the uncertainties in the global economy and the smartphone industry, we have to make difficult adjustments for long-term development," a company representative said.

Link: https://m.economictimes.com/tech/technology/chinas-oppo-to-shut-down-chip-design-unit-as-smartphone-sales-slump/articleshow/100199565.cms

5. APPLE'S FIRST STORE IN INDIA: A PROMISING FRONTIER FOR THE TECH GIANT

Tim Cook, the chief executive of Apple, visited India for the launch of the company's first two Apple stores in Mumbai and New Delhi. The Apple brand is not new to India. But for the past few years, Apple had relied solely on third-party sellers to get its phones into the hands of Indian consumers. India is an important frontier for Apple. It was by far the biggest country to lack an outlet bearing its own brand. Some much smaller countries have multiple Apple stores: Switzerland has four, and even Macao, a Chinese territory with a population of 680,000 people, or 0.5% of India's, has two. In a potential market so big, Apple does not need to make much of a dent to earn back its investment. The company's market share in India has been growing rapidly.

Link: https://economictimes.indiatimes.com/industry/cons-products/electronics/apple-opens-first-store-in-delhi-ceo-tim-cook-welcomes-customers/articleshow/99630409.cms

6. GOOGLE TO REPEAT APPLE'S INDIA PLAYBOOK AS IT SCOUTS FOR SUPPLIERS TO ASSEMBLE PIXEL

Alphabet Inc.'s Google is scouting for suppliers in India to assemble its Pixel smartphones as it borrows from Apple Inc.'s playbook to diversify beyond China. Google has initiated early conversations with companies including homegrown Lava International Ltd. and Dixon Technologies India Ltd. as well as Foxconn Technology Group's Indian unit Bharat FIH, people familiar with the matter said, asking not to be named as the matter is private. Still, there is no certainty Google's talks will result in a deal and the company could opt not to build the Pixel in India, the people said.

Link: https://economictimes.indiatimes.com/industry/cons-products/electronics/google-looks-to-repeat-apples-india-playbook-as-it-scouts-for-suppliers-to-assemble-pixel-smartphones/articleshow/101129592.cms

7. 'APPLE MAY MAKE 18% OF IPHONES IN INDIA BY FY25'

Apple currently manufactures iPhones in India at its contract manufacturing partners Foxconn, Wistron, and Pegatron. The company has been gradually increasing its iPhone production in India in recent years. In FY23, India's share in global iPhone production stood at 7%. The report by Bank of America said that Apple's share of iPhone production in India could rise to 18% by FY25. The report said that the PLI scheme is a major factor driving Apple's decision to increase its iPhone production in India. The report also said that Apple's decision to increase its iPhone production in India is a positive development for the Indian economy. It said that the move could create jobs and boost exports.

Link: https://economictimes.indiatimes.com/industry/cons-products/electronics/apple-may-make-18-of-iphones-in-india-by-fy25/articleshow/100974635.cms

HEARABLES AND WEARABLES

1. INDIA IS SET TO BE THE NO. 1 WEARABLES MARKET IN 2023

India is expected to become the world's largest wearables market in 2023, with shipments forecast to reach 130-135 million units. This growth is being driven by the increasing affordability of smartphones and wearable devices, the growing popularity of fitness tracking and other health-related applications, and the increasing penetration of e-commerce in the country. The growth of the wearables market in India is expected to create significant opportunities for both domestic and international players, and is a positive development for the country's economy.

Link: https://economictimes.indiatimes.com/industry/cons-products/electronics/india-set-to-be-no-1-wearables-market-in-2023/articleshow/101442211.cms

2. XIAOMI INDIA PARTNERS WITH OPTIEMUS ELECTRONICS FOR LOCAL PRODUCTION OF AUDIO PRODUCTS

Xiaomi India has announced a partnership with Optiemus Electronics Ltd to begin local production of audio products in India. This move is part of a larger initiative in the Artificial Intelligence of Things (AIoT) domain.

The company has emphasized its commitment to local manufacturing, with claims that 99% of smartphones and 100% of smart TVs sold in India are locally made. Xiaomi is also looking to expand its presence in offline stores to counter the decline in smartphone shipments.

Link: https://www.livemint.com/industry/manufacturing/xiaomi-india-partners-with-optiemus-to-manufacture-audio-products-locally-11685369501147.html

CONSUMER ELECTRONICS

1. POLYMATECH ELECTRONICS ANNOUNCES SUCCESSFUL PRODUCTION OF HIGH-QUALITY SAPPHIRE WAFERS FOR LED AND CONSUMER ELECTRONICS INDUSTRIES

Polymatech Electronics, India's first semiconductor chips manufacturer, has introduced a complete range of high-quality sapphire substrates which includes two, three, and four-inch diameter sapphire wafers in the market. The Made in India wafers are being produced in the Oragadam facility in Tamil Nadu to ensure lower costs and stability. The recent augmentation of the company's infrastructure has increased its ability to produce affordable, high-quality, large-diameter sapphire wafers in large volumes for customers worldwide. Polymatech's goal is to make high-quality sapphire wafers more accessible and affordable to Indian and global customers. The company's ability to produce large volumes of sapphire wafers is critical in supporting industries that manufacture LEDs for consumer electronics and general lighting companies.

Link: https://www.siliconindia.com/news/general/polymatech-electronics-announces-successful-production-of-highquality-sapphire-wafers-for-led-and-consumer-electronics-industries-nid-222863-cid-1.html

2. US-BASED FRIGIDAIRE VENTURES INTO INDIAN APPLIANCES MARKET IN PARTNERSHIP WITH OSSIFY

Frigidaire, a renowned US-based consumer electronics manufacturer, has made its entry into the Indian market through a collaboration with Ossify, a domestic consumer electronics brand. As part of the Electrolux group, Frigidaire brings its range of home appliances, including air conditioners, washing machines, refrigerators, and freezers. With a century-long history, Frigidaire is known for its innovation and advanced technology. The partnership with Ossify is expected to expand Frigidaire's presence in the growing Indian market.

Link: https://www.outlookindia.com/business/us-based-frigidaire-ventures-into-indian-appliances-market-in-partnership-with-ossify-news-277552

3. GOVERNMENT PLANS QUALITY CONTROL NORMS FOR ELECTRICAL APPLIANCES

The government of India is considering the implementation of mandatory quality norms for all electrical appliances used in households and commercial settings. This step aims to curb the import of substandard products and boost the domestic industry.

The Department for Promotion of Industry and Internal Trade (DPIIT) has drafted a control order in consultation with the Bureau of Indian Standards (BIS). The proposed norms would apply to electrical appliances intended for household, commercial, or similar applications with voltage ratings not exceeding 250V single-phase AC or 415V three-phase AC. The covered products include vacuum cleaners, electric shavers, massage appliances, electric steam cookers, electric heating tools, electric coffee makers, and electric food processors. These items would need to bear the BIS mark for production, sale/trade, import, and stocking.

Link: https://www.outlookindia.com/business/govt-considering-quality-control-norms-for-electrical-appliances-news-297213

4. HAIER INDIA AIMS FOR RS 10,000 CRORE TURNOVER BY 2024

Haier Appliances India has set a target of achieving a turnover of Rs 10,000 crore by the end of 2024. The company plans to become a comprehensive solution provider for home appliances and consumer electronics, expecting a revenue growth of 40% in 2023 and 30% in 2024 to meet its goal. Haier India has introduced innovative products such as refrigerators with multiple doors, self-clean technology in washing machines, shock-proof technology in water heaters, and self-cleaning features in air conditioners. With a focus on customer-centricity, research, and a strong manufacturing base, Haier India aims to expand its presence in the air conditioner and TV markets while strengthening its position in refrigerators and washing machines.

Link: https://www.indianretailer.com/news/haier-india-eyes-100-bn-turnover-2024

5. EKKA ELECTRONICS TO INVEST RS 1,000 CRORE IN NOIDA FACTORY FOR MANUFACTURING CONSUMER ELECTRONICS

Consumer electronics company Ekka Electronics has announced plans to invest Rs 1,000 crore in setting up a factory in Noida, Uttar Pradesh. The factory will focus on manufacturing products such as washing machines, smartwatches, hearables, and TWS (true wireless stereo) devices. The facility will enable complete backward integration and in-house design and manufacturing solutions. Ekka Electronics aims to expand its product range and become an original

design manufacturer (ODM) instead of relying on original equipment manufacturer (OEM) status. The Noida plant, expected to be operational in August, will have an initial capacity to manufacture 500,000 units of LED TVs per month, with the potential for expansion in the future. The company also plans to enter the export market, targeting the Middle East and Africa.

Link: https://www.business-standard.com/companies/news/ekka-electronics-to-invest-rs-1-000-cr-in-3-yrs-to-set-up-facility-in-noida-123050301072_1.html

6. CHINESE CONSUMER ELECTRONICS FIRM TCL FORMS JV FOR UNIT IN TELANGANA

TCL Electronics Holding plans to establish a washing machine manufacturing unit in a joint venture with home-grown Resolute Group of Companies in Telangana. This would be TCL's first overseas manufacturing facility for washing machines and over time likely to be expanded to make other consumer appliances, including refrigerators and dishwashers. The proposed facility will be set up in E-City, Raviryal, near Hyderabad and entail an investment of ₹225 crore.

Link: https://www.thehindu.com/news/cities/Hyderabad/chinese-consumer-electronics-firm-tcl-forms-jv-for-unit-in-telangana/article67020094.ece

7. GERMAN BRAND BLAUPUNKT TO TAKE INDIA-MADE TV TO GLOBAL MARKET, EXPAND PRODUCT PORTFOLIO

German consumer electronic brand Blaupunkt is planning to export LED TV to markets such as Australia and South America, making India a hub for production, said its Managing Director Andrzej Cebrat. The company, which operates in India through its brand licensee Super Plastronics Pvt Ltd (SPPL), is also working on expanding its offering beyond TV to other appliances.

Link: https://economictimes.indiatimes.com/industry/cons-products/electronics/german-brand-blaupunkt-to-take-india-made-tv-to-global-market-expand-product-portfolio/articleshow/100650895.cms

8. SAMSUNG ENTERS IN OLED TV SEGMENT IN INDIA; TO MANUFACTURE LOCALLY

Samsung has forayed into the OLED TV (Organic light-emitting diode) segment in the Indian market, enhancing its presence in the premium TV segment. As per the company, it will be getting its entire OLED TV lineup manufactured locally in India.

Link: https://economictimes.indiatimes.com/industry/cons-products/electronics/samsung-enters-in-oled-tv-segment-in-india-to-manufacture-locally/articleshow/100680392.cms?from=mdr

ELECTRIC VEHICLES/AUTO-ELECTRONICS

1. ADVISOR TO PRIME MINISTER URGES 100% TRANSITION TO ELECTRIC TWO-WHEELERS IN INDIA

Tarun Kapoor, Advisor to the Prime Minister, has called for India to aim for a complete transition to electric two-wheelers within the next 5-7 years. Speaking at a roundtable on electric mobility, Kapoor emphasized the importance of this transition for India's energy security and environmental concerns. He also highlighted the government's commitment to driving the electric vehicle (EV) sector and establishing India as a global manufacturing hub. Kapoor encouraged industry players to invest in battery manufacturing and reduce dependence on lithium batteries. Additionally, he announced that the government will introduce policies to promote electric public transportation in Indian cities. Industry representatives at the roundtable expressed their support for extending the FAME II subsidy scheme for another five years across various EV segments.

Link: https://www.livemint.com/auto-news/india-targets-100-transition-to-electric-two-wheelers-in-5-7-years-tarun-kapoor-11686065957451.html

2. JAPAN-BASED MUSASHI FORAYS INTO INDIAN EV MARKET WITH RS 70-CR INVESTMENT

Japanese auto parts manufacturer Musashi Auto has announced its entry into the Indian electric vehicle (EV) market with an investment of Rs 70 crore. The company has partnered with Bharat New Energy Company (BNC) and will collaborate with BNC Motors for expansion into the EV market. In the first phase, Musashi will establish an assembly line at its manufacturing facility in Bengaluru, focusing on the production of e-Axles starting from October. This move is driven by the enforcement of FAME II subsidies by the Indian government, which incentivizes companies to adopt sustainable practices in the automotive sector.

Link: https://www.business-standard.com/companies/news/japan-based-musashi-enters-indian-ev-market-with-rs-70-crore-investment-123061600722_1.html

3. AS IT MOVES INTO THE EVS SPACE, FOXCONN SETS ITS SIGHTS ON INDIA

Foxconn is aiming to start manufacturing EVs in India. The

company plans to make major investments to expand its production capacity to position itself for future growth in the market and is reportedly in talks with several state governments in this regard. It plans to build a vertical platform—that will include manufacturing, hardware, battery management, and components—and is likely to partner with local firms. India should see several significant benefits from Foxconn's EV factory including the creation of a significant number of jobs, technology transfer skill development, and collaboration with local stakeholders.

Link: https://www.just-auto.com/comment/as-it-moves-into-the-evs-space-foxconn-sets-its-sights-on-india/

SEMICONDUCTOR

1. APPLIED MATERIALS TO INVEST $400 MILLION IN INDIA FOR NEW ENGINEERING CENTER

Applied Materials, a leading supplier of semiconductor manufacturing equipment and software, announced on Thursday that it will invest $400 million over four years in a new engineering center in India. The new center will be located near the company's existing facility in Bengaluru and is expected to create 500 new advanced engineering jobs. The investment is part of a broader effort by Applied Materials to strengthen its presence in India, which is seen as a key market for the semiconductor industry.

Link: https://www.reuters.com/technology/applied-materials-invest-400-million-india-new-engineering-center-2023-06-22/

2. MICROCHIP TECHNOLOGY TO INVEST $300 MILLION IN INDIA

Microchip Technology, a US-based semiconductor company, has announced a $300 million investment plan to expand its operations in India. The investment will be used to enhance the company's engineering labs in Bengaluru and Chennai, as well as bolster its new Hyderabad R&D center. Microchip also plans to hire significantly in India, sponsor technical consortia, and support educational institutions and programs.

Link: https://www.livemint.com/technology/tech-news/usbased-microchip-to-invest-300-mn-in-india-opens-r-d-center-in-hyderabad-11688447301751.html

3. LAM RESEARCH WILL TRAIN 60,000 INDIAN ENGINEERS IN SEMICONDUCTOR TECH

Lam Research has announced plans to implement a virtual-physical ecosystem to address the growing need for semiconductor talent. The initiative will use virtual simulation to replicate real-world labs, enabling greater accessibility, safety, sustainability, and democratization of engineering skills training. The program will be complemented by program management and customizable course curriculum, providing an opportunity to educate up to 60,000 Indian engineers in nanotechnologies over a ten-year period.

Link: https://www.businessworld.in/article/Lam-Research-Joins-US-India-Partnership-Will-Train-60-000-Indian-Engineers-In-Semiconductor-Tech/23-06-2023-481560/

4. INDIA'S ELECTRONICS AMBITIONS AND GLOBAL COMPANIES' SHIFT FROM CHINA WILL AID INDIA'S CHIP MAKING GOALS, SAYS CHRIS MILLER

India has been making significant investments in its electronics manufacturing sector in recent years. The government has launched a number of initiatives, such as the Production-Linked Incentive (PLI) scheme, to attract foreign investment and boost domestic manufacturing. In addition, the global companies are increasingly looking to move their chip manufacturing out of China due to rising labor costs and geopolitical tensions. This provides India with an opportunity to become a major player in the global chip market. Chris Miller, an Assistant Professor of International History at Tufts University, believes that India has the potential to become a major hub for chip manufacturing. He points to the country's large pool of skilled labor, its relatively low wages, and its strategic location. However, Miller also acknowledges that India faces some challenges in achieving its chip making goals. These challenges include the lack of a strong domestic chip design industry and the need to invest in research and development. Overall, India is well-positioned to become a major player in the global chip market. However, the country will need to overcome some challenges in order to achieve its full potential.

Link: https://economictimes.indiatimes.com/industry/cons-products/electronics/indias-electronics-ambitions-global-companies-shift-from-china-will-aid-indias-chip-making-goals-says-chris-miller/articleshow/101436823.cms

5. INDIAN SCIENTISTS DEVELOP SUPER-FLEXIBLE COMPOSITE SEMICONDUCTORS FOR NEXT-GENERATION ELECTRONICS

Indian scientists have developed a super-flexible composite semiconductor material that can be used to fabricate next-generation flexible or curved displays, foldable phones, and wearable electronics. The material is made up of a water-insoluble polymer and indium oxide, and it can be printed on a variety of flexible substrates. The researchers have obtained a patent for their material and are currently working to scale it up for mass production. This development is a significant step forward in the development of flexible

electronics, and it has the potential to revolutionize the display industry.

Link: https://www.ndtv.com/science/indian-scientists-develop-super-flexible-composite-semiconductors-what-its-for-4197444

AGRITECH

1. NITI AAYOG SUGGESTS STATES TO FORMULATE SPECIFIC AGRITECH POLICIES TO PROMOTE START-UPS

NITI Aayog, in its white paper on addressing food security challenges, has advised states in India to formulate AgriTech policies to support agricultural start-ups. The paper highlights how agritech solutions have improved the lives of smallholders by enhancing access to quality inputs, markets, risk reduction, and information. However, agritech start-ups face obstacles like limited access to quality data, regulatory issues, and insufficient agricultural infrastructure. To address these challenges, NITI Aayog proposes several measures, including improving last-mile connectivity, facilitating access to public data, promoting local infrastructure for farm-level processing, digitalizing licensing processes, and establishing facilitation centres for agritech start-ups. The government aims to scale the current 2,000 agritech start-ups in India to 10,000 in the near future.

Link: https://economictimes.indiatimes.com/news/economy/agriculture/niti-aayog-suggests-states-to-formulate-specific-agritech-policy-to-promote-start-ups/articleshow/99642164.cms

2. UNION MINISTER CALLS FOR MASS ADOPTION OF AGRI TECH TO TAKE INDIA TOWARDS USD 5 TRILLION ECONOMY

Union Minister of State for Agriculture and Farmers Welfare, Kailash Choudhary, has called for widespread adoption of modern agricultural technologies to help India achieve its goal of becoming a five trillion-dollar economy. Speaking at a virtual workshop on innovative technological interventions in agriculture, Choudhary highlighted the potential of technology to enhance productivity, efficiency, and profitability in the sector. He encouraged farmers to embrace technologies such as precision farming, artificial intelligence, blockchain, and the Internet of Things (IoT) to improve yields and profitability. The minister also emphasized public-private partnerships to facilitate technology transfer and announced government initiatives promoting sustainable farming practices. The workshop brought together scientists, researchers, and agriculture professionals to discuss technological interventions in various areas of agriculture.

Link: https://krishijagran.com/news/union-minister-calls-for-mass-adoption-of-agri-tech-to-take-india-towards-usd-5-trillion-economy/

3. ATAL INNOVATION MISSION, NITI AAYOG, UNCDF TEAM UP TO MAKE INDIA GLOBAL AGRI-TECH LEADER

Atal Innovation Mission (AIM), NITI Aayog, and the United Nations Capital Development Fund (UNCDF) have jointly launched a whitepaper aimed at positioning India as a global leader in Agri-Tech innovation. The whitepaper provides actionable steps to overcome challenges faced by agri-tech startups and promote their growth at national and international levels. It highlights the importance of agri-tech innovations in addressing food security, supply chain inefficiencies, and climate change concerns. The partnership between AIM and UNCDF aims to facilitate cross-border engagement, knowledge exchange, and investments to support high-impact Agri-Tech innovations for smallholder farmers in developing economies. The launch signifies a significant milestone in India's journey towards global Agri-Tech leadership and inclusive agricultural growth.

Link: https://www.livemint.com/news/india/atal-innovation-mission-niti-aayog-uncdf-team-up-to-make-india-global-agri-tech-leader-11682006978357.html

4. IIT-MADRAS AND WAYCOOL FOODS PARTNER TO TAKE AGRITECH TO FARMERS

Food tech enterprise WayCool Foods has partnered with IIT-Madras (IIT-M) to expand offerings for farmers under IIT-M's RASA (Regenerative Agriculture Sustainable Architecture) tech stack. Under this partnership, WayCool Foods will provide innovative agri-focused solutions to create an ecosystem for regenerative agriculture in India. The MoU will also enable both WayCool Foods and IIT-M to help farmers move towards a sustainable model of agriculture.

Link: https://timesofindia.indiatimes.com/business/india-business/iit-madras-and-waycool-foods-partner-to-take-agritech-to-farmers/articleshow/100501306.cms

STRATEGIC ELECTRONICS

1. INDIA TO MANUFACTURE BRAHMOS, DRONES IN UP DEFENCE CORRIDOR, SAYS UNION MINISTER RAJNATH SINGH

India is planning to manufacture BrahMos missiles, drones, and electronic warfare systems in the Uttar Pradesh Defence Industrial Corridor (UPDIC). The UPDIC is a 300-kilometer long corridor that will

be spread across six nodes in Uttar Pradesh. The corridor is expected to attract investments of around $10 billion and create over 2 lakh jobs. The first node of the UPDIC is already operational in Lucknow and the other nodes are expected to be operational by 2024.

Link: https://economictimes.indiatimes.com/news/defence/india-to-manufacture-brahmos-drones-in-up-defence-corridor-says-union-minister-rajnath-singh/articleshow/101065569.cms

2. DEFENCE DEAL: US NAVY INKS AGREEMENT WITH L&T, TO ALSO TIE UP WITH MAZAGON DOCK AND GOA SHIPYARD

The US Navy has signed a Master Ship Repair Agreement (MSRA) with Larsen and Toubro (L&T) Shipbuilding Ltd., a leading Indian private defence company. The agreement will allow the US Navy to service and repair its mid-voyage ships at Indian facilities. This is a significant development in the defence sector and is a sign of the growing strategic partnership between India and the US. The agreements will help to reduce the cost of maintenance and repair of US Navy ships, and will also help to create jobs in the Indian defence industry.

Link: https://www.thehindubusinessline.com/news/national/us-navy-inks-agreement-with-lt-to-also-tie-up-with-mazagon-dock-and-goa-shipyard/article67000603.ece

3. TAMIL NADU TO ESTABLISH STRATEGIC ELECTRONICS AND DEFENCE INDUSTRIAL PARK

The Tamil Nadu government has announced plans to establish a Strategic Electronics and Defence Industrial Park at Karani, Tiruvallur. The park will provide the necessary infrastructure and facilities for manufacturers and developers to design, manufacture, and test strategic electronics and drones. It will also create a collaborative environment for the exchange of knowledge and resources among different companies and organisations involved in the industry. The government has also announced plans to set up an IT park at Tiruchi.

Link: https://www.thehindu.com/news/national/tamil-nadu/tamil-nadu-to-establish-strategic-electronics-and-defence-industrial-park-at-karani/article66707751.ece

4. GE AEROSPACE AND HAL SIGN MOU TO JOINTLY PRODUCE FIGHTER JET ENGINES

Gneral Electric (GE) Aerospace and Hindustan Aeronautics Limited (HAL) have signed a Memorandum of Understanding (MOU) to jointly produce GE Aerospace's F414 engines in India. The agreement is a significant development in the India-US defense relationship and is expected to boost defense cooperation between the two countries. The agreement will also help to create jobs and boost economic growth in India. GE has been working with India for more than four decades and has a strong presence in the country. The F414 engine has been selected for the prototype development, testing, and certification of the AMCA program.

Link: https://www.businesstoday.in/latest/corporate/story/ge-signs-deal-with-hal-to-produce-fighter-jet-engines-for-indian-air-force-386701-2023-06-22

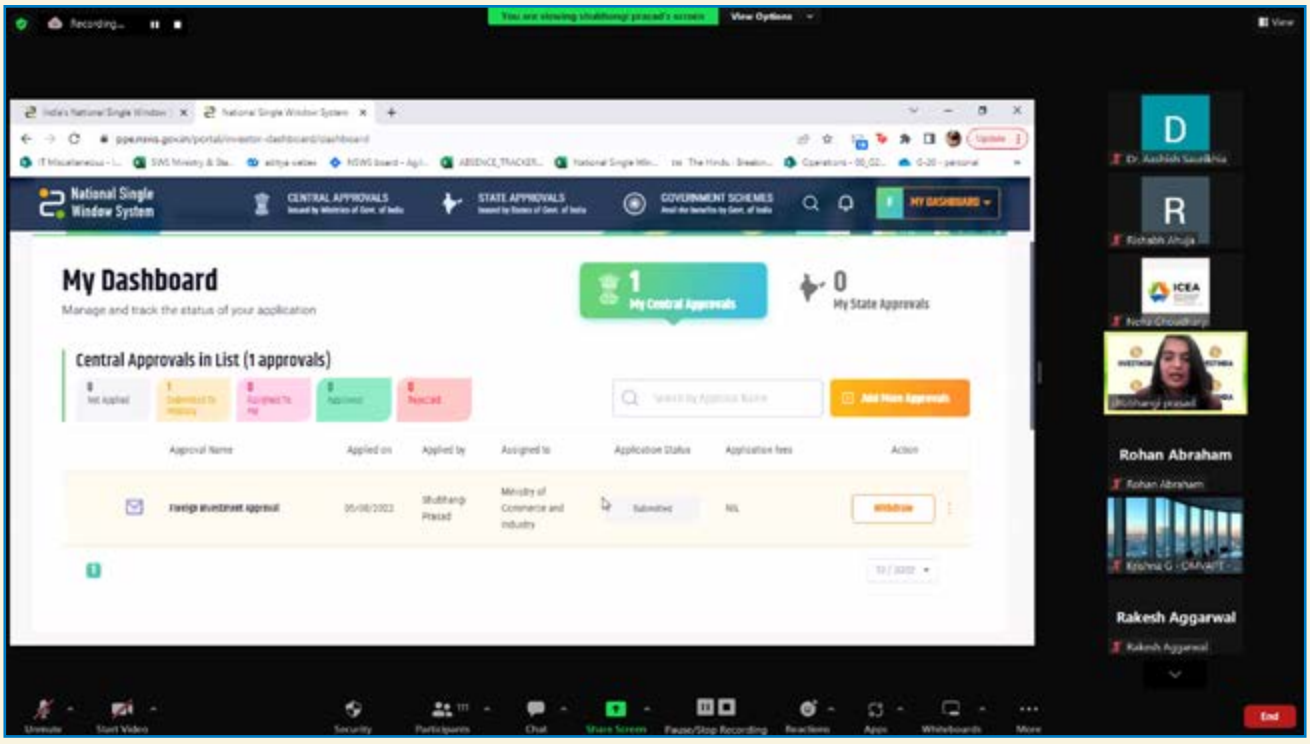
5. GODREJ AEROSPACE HAS SUPPLIED CRITICAL COMPONENTS TO ISRO'S CHANDRAYAAN—3 MISSION

Godrej Aerospace is a trusted partner of ISRO and has been supplying critical components to the space agency for over three decades. The company has supplied liquid propulsion engines, satellite thrusters, and antenna systems for PSLV and GSLV rockets. Godrej Aerospace is also planning to invest ₹250 crore to build a new facility at Khalapur in Maharashtra for advanced manufacturing and assembly, and integration facilities. This new facility will help the company meet the growing demand for aerospace components and systems in India and abroad.

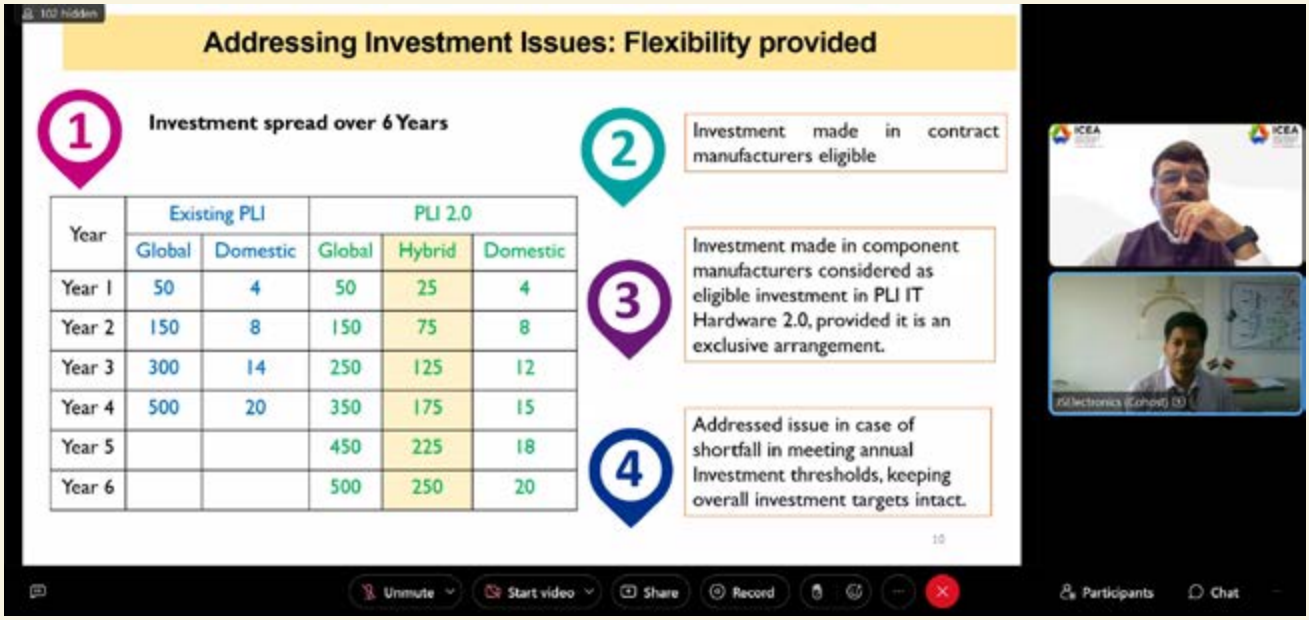
Link: https://www.thehindu.com/news/national/tamil-nadu/godrej-aerospace-has-supplied-critical-components-for-chandrayaan-3-mission/article67064881.ece

INDIA CELLULAR & ELECTRONICS ASSOCIATION (ICEA) ACTIVITIES

ICEA organised a workshop on the Right to Repair Portal with the Department of Consumer Affairs on 12th April 2023



Online Knowledge Session on the National Single Window System (NSWS) organised by ICEA, Invest India, and the Department for Promotion of Industries and Internal Trade (DPIIT) on 27th April 2023



Year	Existing PLI		PLI 2.0		
	Global	Domestic	Global	Hybrid	Domestic
Year 1	50	4	50	25	4
Year 2	150	8	150	75	8
Year 3	300	14	250	125	12
Year 4	500	20	350	175	15
Year 5			450	225	18
Year 6			500	250	20

ICEA and the Ministry of Electronics and IT (MeitY) organised an Interactive Session for Industry Awareness on PLI 2.0 for IT Hardware sector - Next Chapter in Indian Electronics Manufacturing on 23rd May 2023.

ICEA signed an MoU with Messe Muenchen India (MMI) to encourage industry interactions in the ESDM domain, facilitating tech transfers, investments, and seamless sourcing through joint events/conferences/ panel discussions on 24th May 2023.

Mr Pankaj Mohindroo (Chairman - ICEA) along with Mr Muralikrishnan B (President - Xiaomi India), Ashoek Kumar Gupta (Chairman - Optiemus Electronics Limited) and Nitesh Gupta (Director - Optiemus Electronics Limited) at the launch event of Xiaomi India & Optiemus Electronics's Partnership on 25th May 2023.

ICEA met Mr. Baushuan Ger, Ambassador of Taiwan & Economic Division Team at the Taipei Economic and Cultural Center in India on 2nd June 2023.

ICEA organized an Investment Promotion Workshop and Industry Interaction in Tirupati, Andhra Pradesh on 8th June 2023.

This event was a collaborative effort with the Ministry of Electronics and Information Technology, Govt. of India.

The platform was also graced by senior officials from the Dept. of Electronics & IT, Andhra Pradesh.

About India Cellular & Electronics Association (ICEA)

ICEA is the leading industry body representing the entire electronics ecosystem in India, including components, subassemblies, EMS, and finished goods across various ESDM verticals such as mobile phones, consumer electronics, and IT Hardware. Our members comprise Fortune 500 companies, including lead brands, EMS companies, and technology providers across multiple sectors, including IT hardware, semiconductors, and hearables & wearables.

It is working closely with the Government of India to achieve its vision of establishing a USD 300 billion electronics manufacturing ecosystem by 2025–2026. ICEA has been instrumental in conceptualizing the roadmap of the Phased Manufacturing Program (PMP), a first-of-its-kind program in India's history that has resulted in a 1300% increase in mobile phone manufacturing, from USD 2.5 billion to USD 36 billion in just six years.

It has also pioneered the Production-Linked Incentive (PLI) scheme for mobile phones, which has set the trend for such schemes in multiple sectors in India. We have closely worked with all key stakeholders, including industry and government, to encourage landmark schemes such as the Modified Electronics Manufacturing Clusters (EMC 2.0) Scheme and the Scheme for Promotion of Electronic Components Manufacturing and Semiconductors (SPECS).

The goal of the organisation is to build a robust electronics manufacturing ecosystem with a specific focus on enhancing design and R&D capabilities and establishing India as the Export Hub for different electronics hardware verticals, such as mobile phones and its components, consumer electronics, IoT devices, strategic electronics, auto electronics, wearable and hearable devices, among others.

Key services areas of ICEA are:

Its long-term vision is to transform India into an electronics manufacturing hub worth USD 300 billion by 2025- 26, with contributions from exports estimated to remain at USD 120 billion. Electronics hardware exports are estimated to be one of the largest export categories in India over the next few years.

Over the past decade, ICEA has partnered with industry stakeholders to work with various state governments, such as Gujarat, UP, AP, Telangana, and Karnataka, to promote investment and outreach activities in multiple countries such as China mainland, Taiwan, Korea, Japan, USA, Germany, Israel, and others to establish a strong ESDM ecosystem to serve India and the world.

For more info, contact:

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