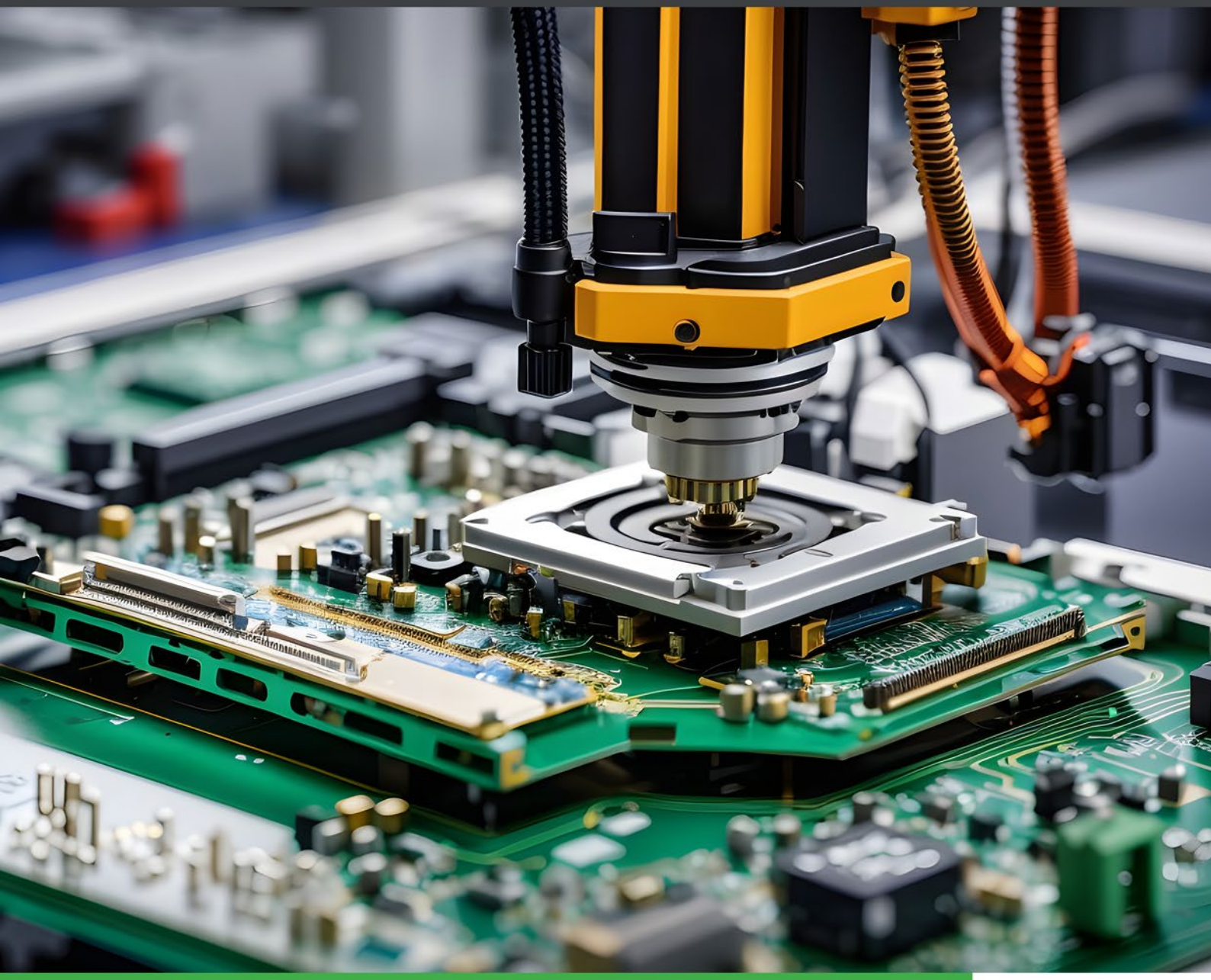
IGNITO

INDIA'S ESDM QUARTERLY DIGEST

July-September 2023



IN THIS ISSUE

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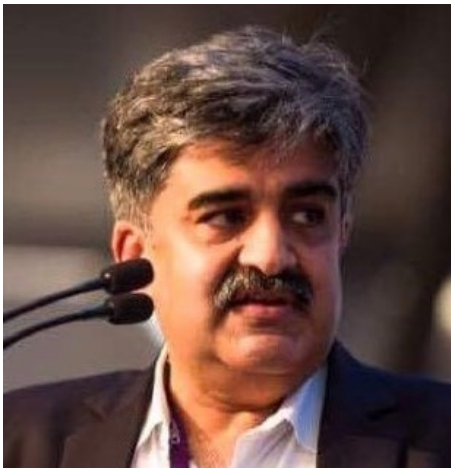
Dear Readers,



The year 2023 is drawing to a close, and we at the India Cellular & Electronics Association (ICEA) are reflecting on the progress that India has made in the field of Ease of Doing Business (EoDB). This is a key indicator of how friendly and efficient the regulatory environment is for businesses and investors.

However, EoDB is not just a one-time campaign, it is a continuous exercise. It is also not just a ranking or a score. It is a crucial factor that influences the competitiveness, scalability, innovation, efficiency, speed and predictability of businesses. In turn, these factors can lead to positive outcomes such as increased FDI inflow, enhanced employment, improved exports and higher GDP growth.

EoDB also affects the participation of businesses in Global Value Chains (GVCs) - networks of production and trade that span across countries. According to a paper by the Asian Development Bank published in December 2020, an improved business environment can boost GVC participation and growth. Therefore, policies that promote EoDB can make a country more attractive for lead firms and brands that coordinate and manage GVCs.

To support the government's vision of making India a global hub for electronics manufacturing and innovation, ICEA has been working with the government and has developed a framework that identifies and addresses the most challenging and cumbersome regulatory compliances that affect the electronics sector. The framework not only highlights the problems but also suggests possible solutions and best practices for the government to consider.

Regulatory reforms are essential to create an environment of trust, digitalisation and timely approvals through sustained engagement between the government and the industry.

Thanks to the positive impact of these reforms and the continuous collaboration with private enterprises in a "trust-based governance" model, India has become the second-largest mobile manufacturer in the world. Electronics have also become the fourth largest export category in the first quarter of 2023.

Nevertheless, as the sector continues to grow exponentially, it is important to realise that complex and unnecessary compliance requirements can act as a "Sludge" for businesses and investors. This term was coined by Professor Cass R. Sunstein, the author of the famous book 'Nudge', to describe "excessive or unjustified frictions, such as paperwork burdens, that cost time or money; ... and that might end up depriving people of access to important goods, opportunities and services."

With the Government of India aiming to increase domestic value addition and become a semiconductor-producing nation, it is imperative to remove the "Sludge" and bring more ease to the electronics industry in conducting business in India and making it a favourable destination.

As Shri Amitabh Kant, G20 Sherpa said during the National Workshop on 'Ease of Doing Business' organised by DPIIT in October 2022, there is a need for "de-novo thinking" on whether certain processes, permissions and renewals are really even necessary or not to achieve EoDB in its true spirit.

Therefore, we urge the government and all stakeholders to work together to eliminate all obstacles that hinder the electronics manufacturing industry in India and scale up our efforts to facilitate seamless EoDB. This will help us reach our target of USD 300 billion in domestic electronics production by 2026.

Still, increasing the scale of production is not enough to achieve our vision of becoming a global leader in electronics manufacturing and innovation. We also need to increase the share of domestic value addition and thus enhance our exports based on our own capabilities. This can only happen when we align our domestic reforms with the needs and expectations of global lead firms and investors.

At ICEA, we believe that collaboration is the key to success. We strive to increase the cooperation between the government and industry to improve the regulatory framework of India and adopt the philosophy of kaizen, which means making small and continuous changes for betterment.

Keeping this mindset, in this edition of IGNITO, we cover the opportunities created with the PLI Scheme for IT Hardware, how India can improve its "Export Preparedness", the Critical Minerals that are essential for the Electronics Industry, the latest Digital Protection Act in India, and the huge potential we have in increasing the electronics trade between India and the US to USD 100 billion within a decade.

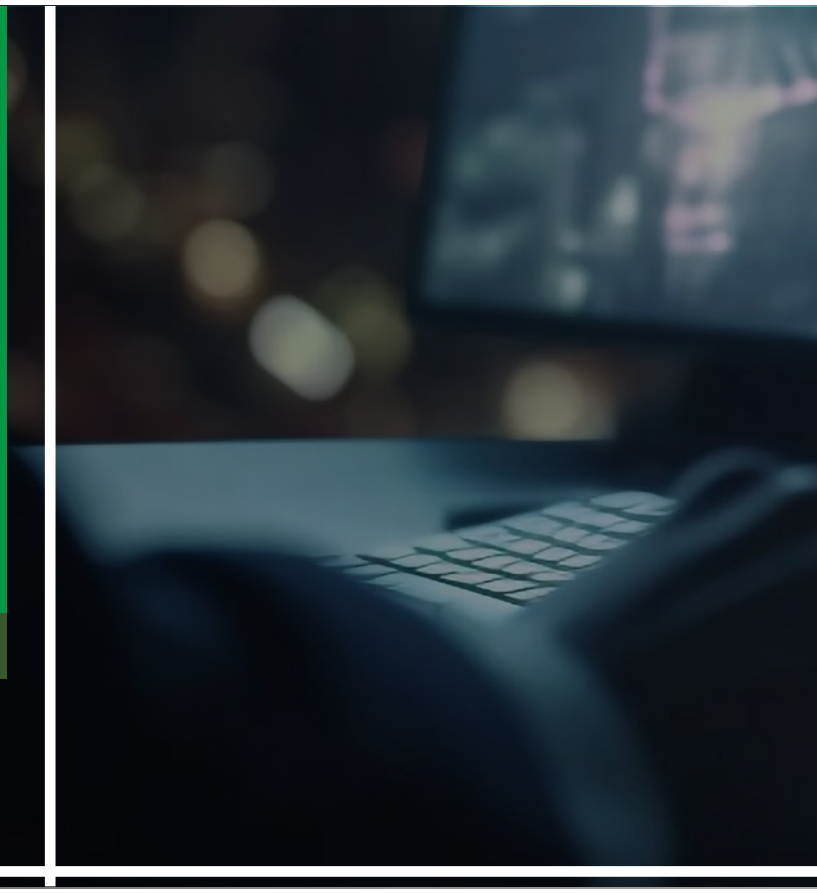
We hope you enjoy reading this edition and find it informative and insightful.

Thank you for your readership.

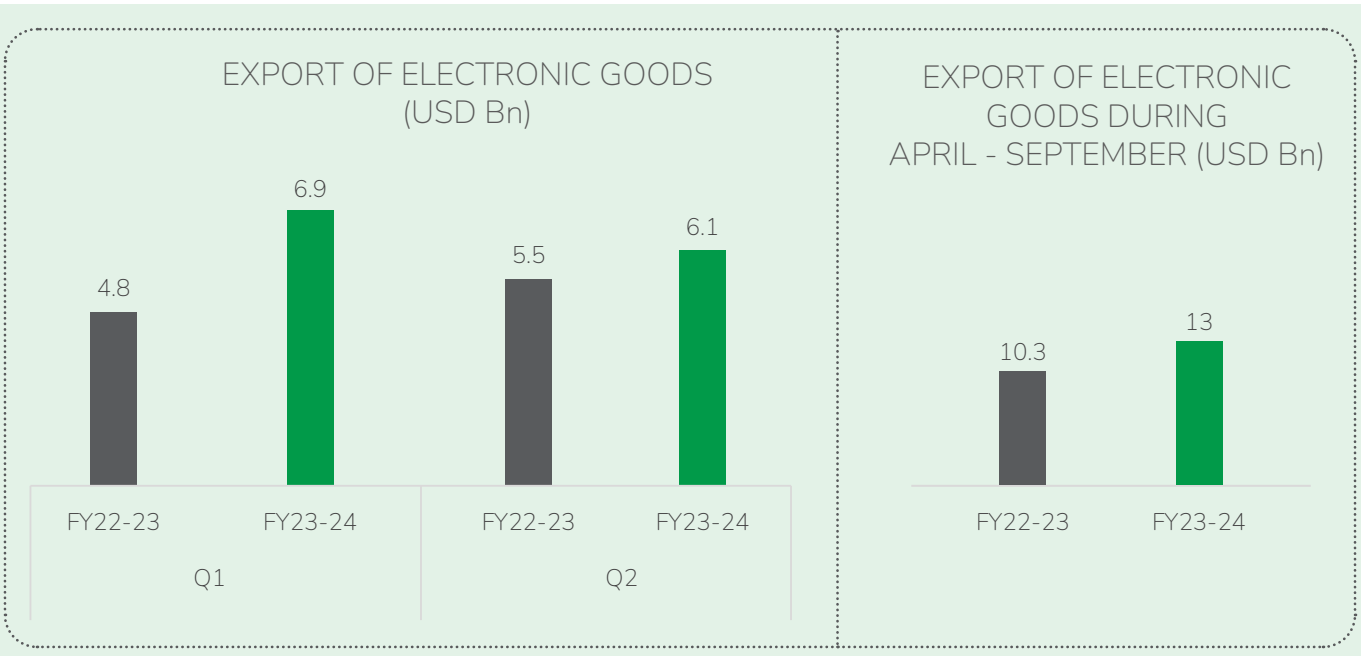
Sincerely,

Pankaj Mohindroo
Editor-in-Chief

INDUSTRY STATISTICS

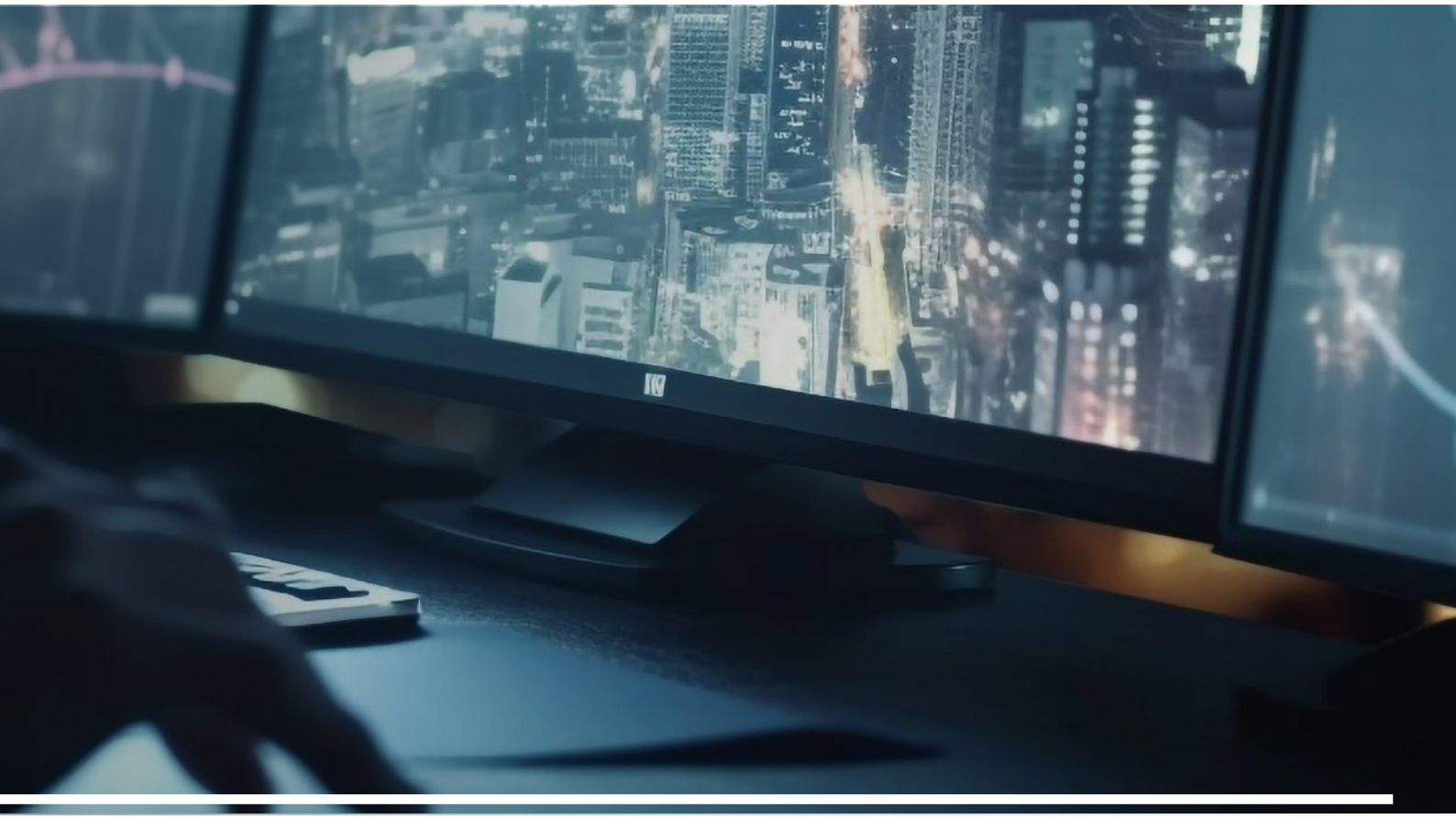


EXPORT OF ELECTRONIC GOODS

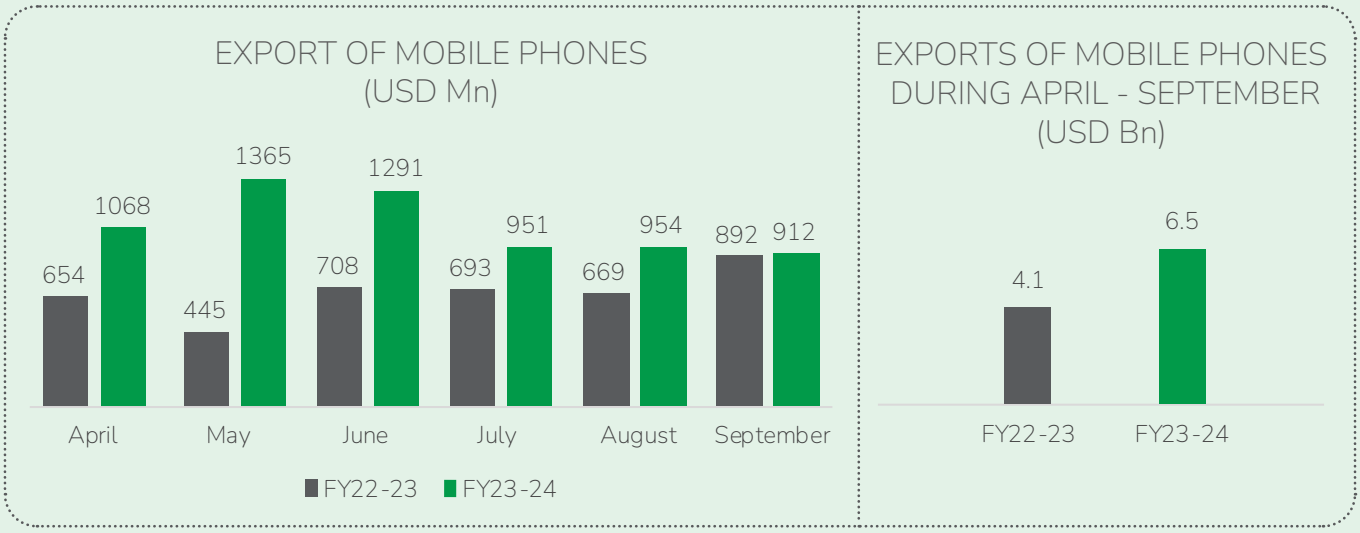


Source: Department of Commerce

The exports of electronic goods in USD billion, divided by quarters (Q1 and Q2) for two fiscal years (FY22-23 and FY23-24). In FY23-24, there is an increase in exports for Q1 compared to FY22-23, moving from USD 4.8 billion to USD 6.9 billion. However, in Q2, the exports in FY23-24 (USD 6.1 billion) were slightly higher than in FY22-23 (USD 5.5 billion). Overall, the data indicates an upward trend in the exports of electronic goods from one fiscal year to the next across both quarters, reflecting a positive growth in this sector.



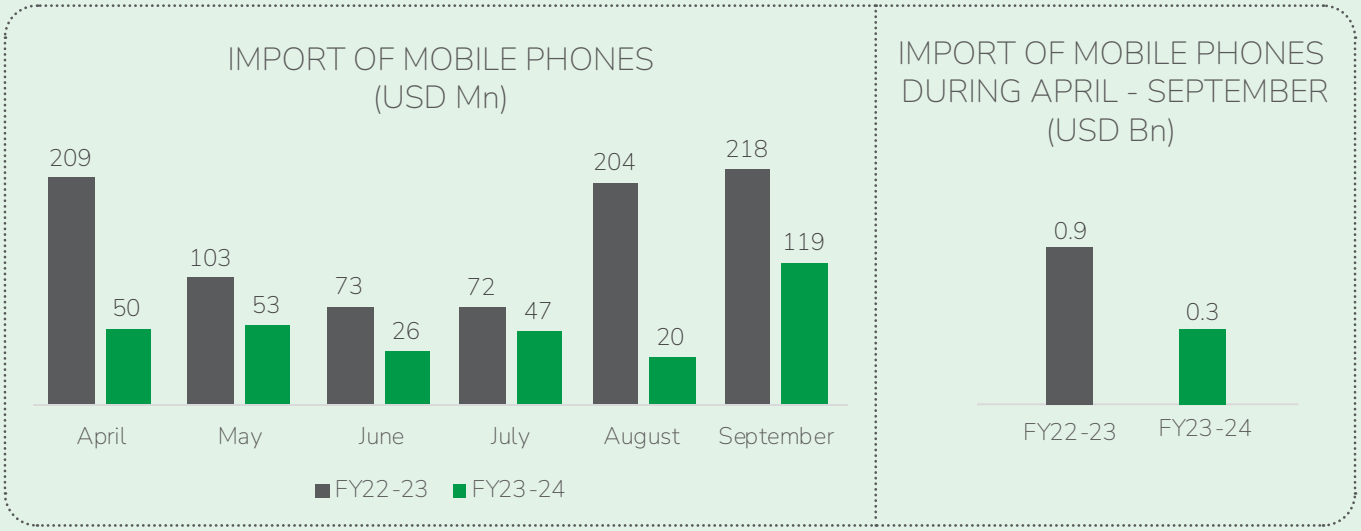
EXPORT OF MOBILE PHONES



Source: Department of Commerce

The table provides a comparison of mobile phone exports between two fiscal years, FY22-23 and FY23-24, on a month-to-month basis from April to September. In FY23-24, there was a significant increase in exports in all the months compared to FY22-23, with the most notable jumps in May and June, where exports more than doubled. The total exports in the first six months of FY23-24 are 61% higher than in FY22-23, indicating a strong upward trend and potentially a booming market for mobile phone exports.

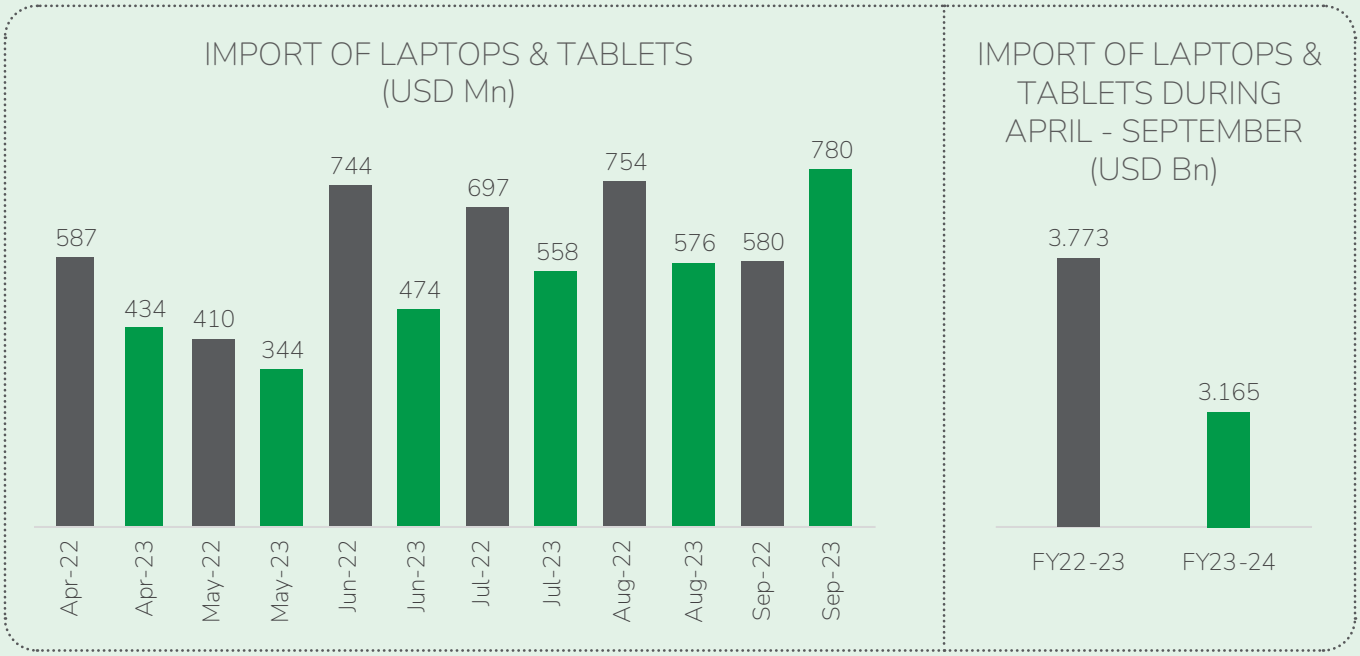
IMPORT OF MOBILE PHONES



Source: Department of Commerce

The provided table outlines the comparison of mobile phone imports between FY22-23 and FY23-24, spanning from April to September. In contrast to the exports data, imports have significantly decreased in FY23-24 across all months when compared to FY22-23, with the most substantial drops in April and August. The total imports in the first six months of FY23-24 are 64% lower than the same period in FY22-23, indicating a sharp decline. Despite fluctuations in monthly values, the overall trend clearly shows a reduction in mobile phone imports.

IMPORT OF LAPTOPS & TABLETS



Source: Department of Commerce

The graph depicts a comparison of the import of laptops and tablets during April-September in fiscal years FY22-23 and FY23-24. There is a noticeable decrease in imports, with a total decline of about 16% from USD 3,773 million in FY22-23 to USD 3,165 million in FY23-24.

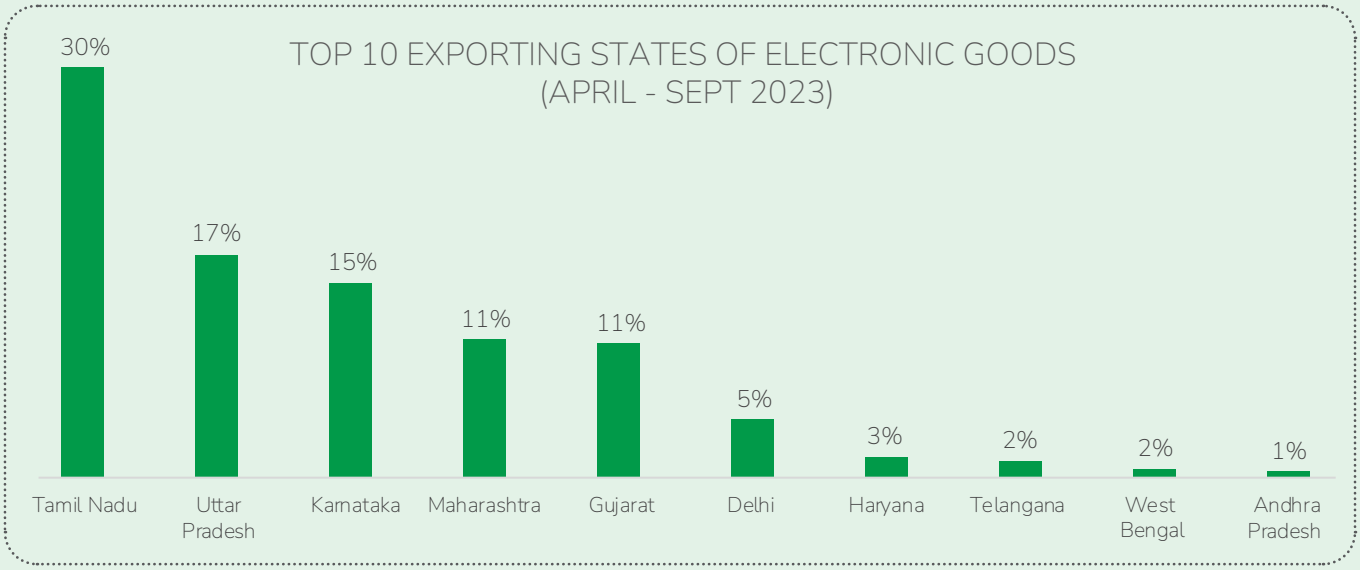
ELECTRONIC GOODS: TOP 10 COMMODITIES - EXPORT

ELECTRONIC GOODS: Top 10 Commodities - Export (USD Mn)					
S. No.	**HSCode**	**HSN Description**	**Commodity**	**Apr-Sept 2022**	**Apr-Sept 2023**
1	85171300	Smartphones	Smartphones	3,902	6,539
2	85414300	Photovoltaic cells assembled in modules or made up into panels	Solar Modules	182	985
3	85044090	Others	Static Converter, Microinverter	376	397
4	85176290	Other	Smartwatches, Hearables and Networking Equipment	525	373
5	85389000	Other Parts of HDG 8538	Mechanics- Components of connector	318	315
6	85371000	Bords etc for a Voltage<=1000 VLTS	Power Distribution System	246	300
7	85044010	Electric Inverters		258	235
8	85044030	Battery Chargers	Chargers	96	178
9	85049010	Parts of Transformers	Goods (Ferrite core) for use in manufacture of a transformer, of a charger/ power adapter	132	148
10	85177990	Other	Parts and inputs of mobile phones	103	125

Source: Department of Commerce

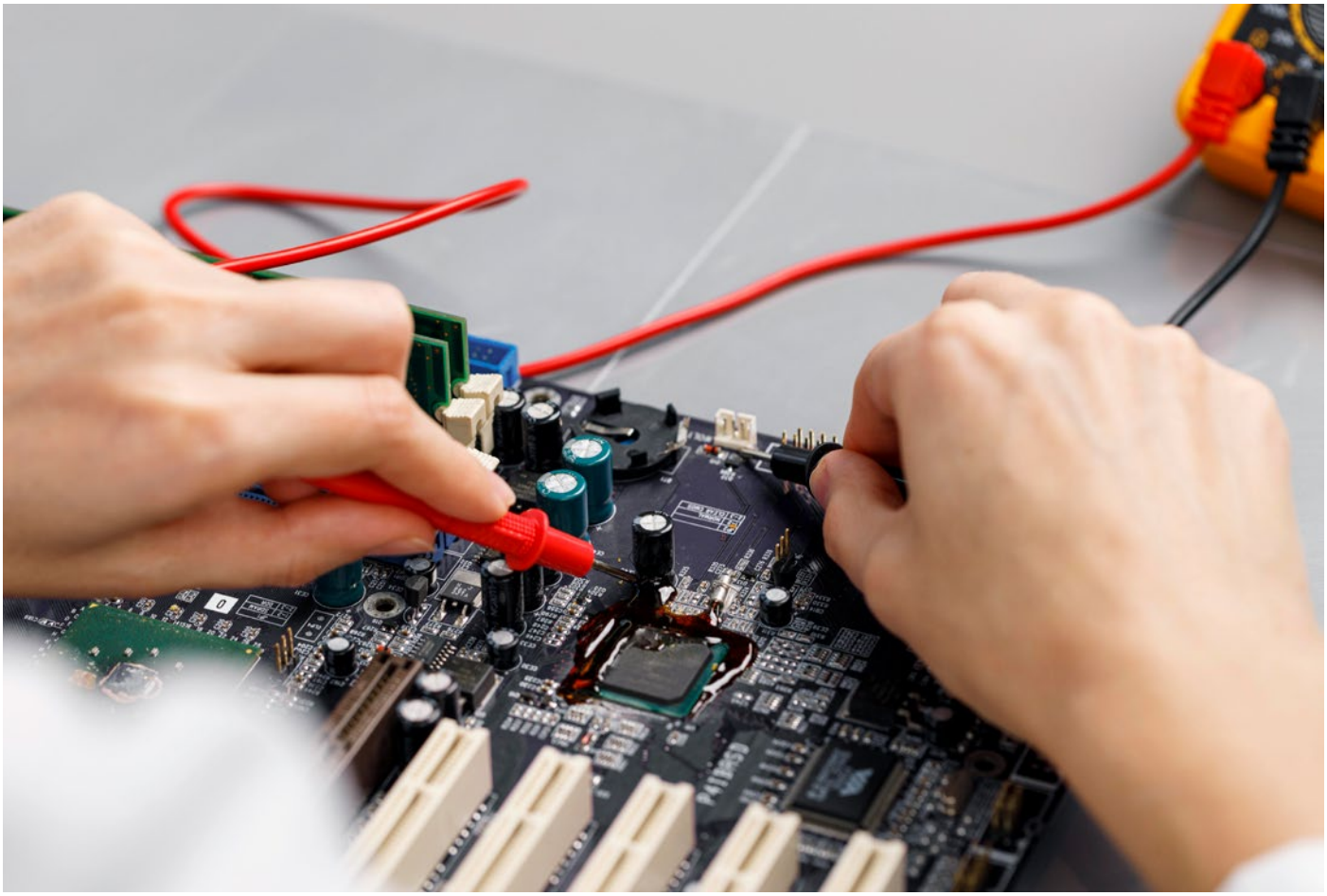
The exports of electronic goods in USD million for the top 10 commodities from April to September in 2022 and 2023. Smartphones dominate the list, showing a significant increase from USD 3902 million to USD 6539 million. In contrast, exports of smartwatches, hearables, networking equipment, and electric inverters have witnessed a notable decline. Despite these decreases, the overall trend for the top 10 commodities appears positive, driven primarily by the substantial growth in smartphone exports.

TOP 10 EXPORTING STATES OF ELECTRONIC GOODS (APRIL - SEPT 2023)

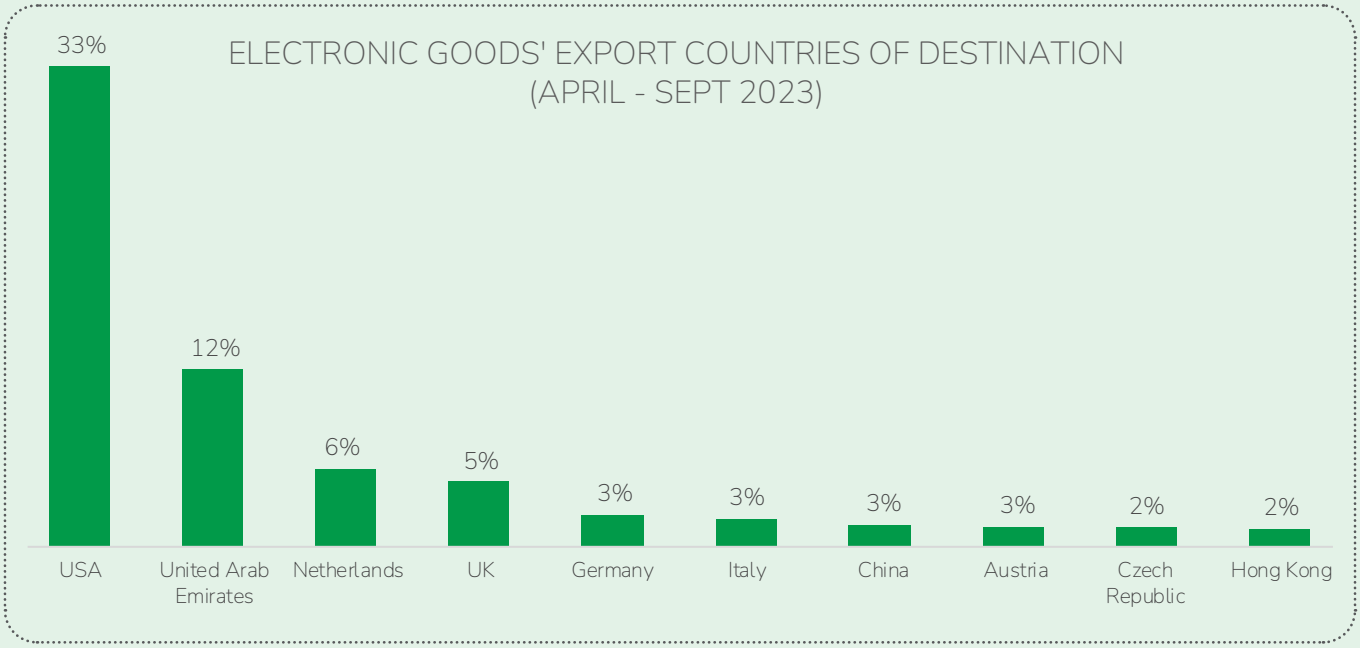


Source: Department of Commerce

The above data showcases the distribution of mobile phone exports across different states and union territories in India. Tamil Nadu leads with a substantial 30% share, highlighting its major role in the country's mobile phone export industry. Uttar Pradesh and Karnataka follow, contributing 17% and 15% respectively, indicating significant export activities in these states as well. Maharashtra and Gujarat each hold an 11% share, while the remaining states—Delhi, Haryana, Telangana, West Bengal, and Andhra Pradesh—together make up 13%, demonstrating a more dispersed export contribution. This distribution reflects the geographical concentration of India's mobile phone manufacturing industry, with a strong presence in the southern and northern regions.



ELECTRONIC GOODS' EXPORT COUNTRIES OF DESTINATION (APRIL - SEPT 2023)



Source: Department of Commerce

The above data represents the distribution of mobile phone exports across different countries and territories. The USA stands out as the predominant destination, accounting for one-third of the exports, showcasing its significant market share and potential influence on export dynamics. The United Arab Emirates is the second-largest market, holding 12% of the exports. The rest of the countries, including European nations like the Netherlands, UK, Germany, Italy, and Austria, as well as China, Czech Republic, and Hong Kong, together make up 23% of the exports, indicating a diversified export scenario.

GOVERNMENT ANNOUNCEMENTS

MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY (MEITY)

Cabinet approves Memorandum of Cooperation between India and Japan on Japan-India Semiconductor Supply Chain Partnership

The Union Cabinet, led by Prime Minister Narendra Modi, approved a Memorandum of Cooperation (MoC) between India and Japan, focusing on the Japan-India Semiconductor Supply Chain Partnership. Signed in July 2023, the MoC seeks to bolster cooperation between the two countries in strengthening the semiconductor supply chain, vital for industrial and digital technology advancements. Effective from its signing date, the MoC will last five years, facilitating government-to-government and business-to-business collaborations. The partnership will lead to job creation in IT. Historically, India's Ministry of Electronics and Information Technology (MeitY) has been keen on fostering an environment conducive to electronics manufacturing, launching programs to support semiconductor and display production. The current MoC builds upon the "India-Japan Digital Partnership" initiated in 2018, emphasizing the significance of semiconductors and aiming to enhance supply chain resilience through mutual collaboration.

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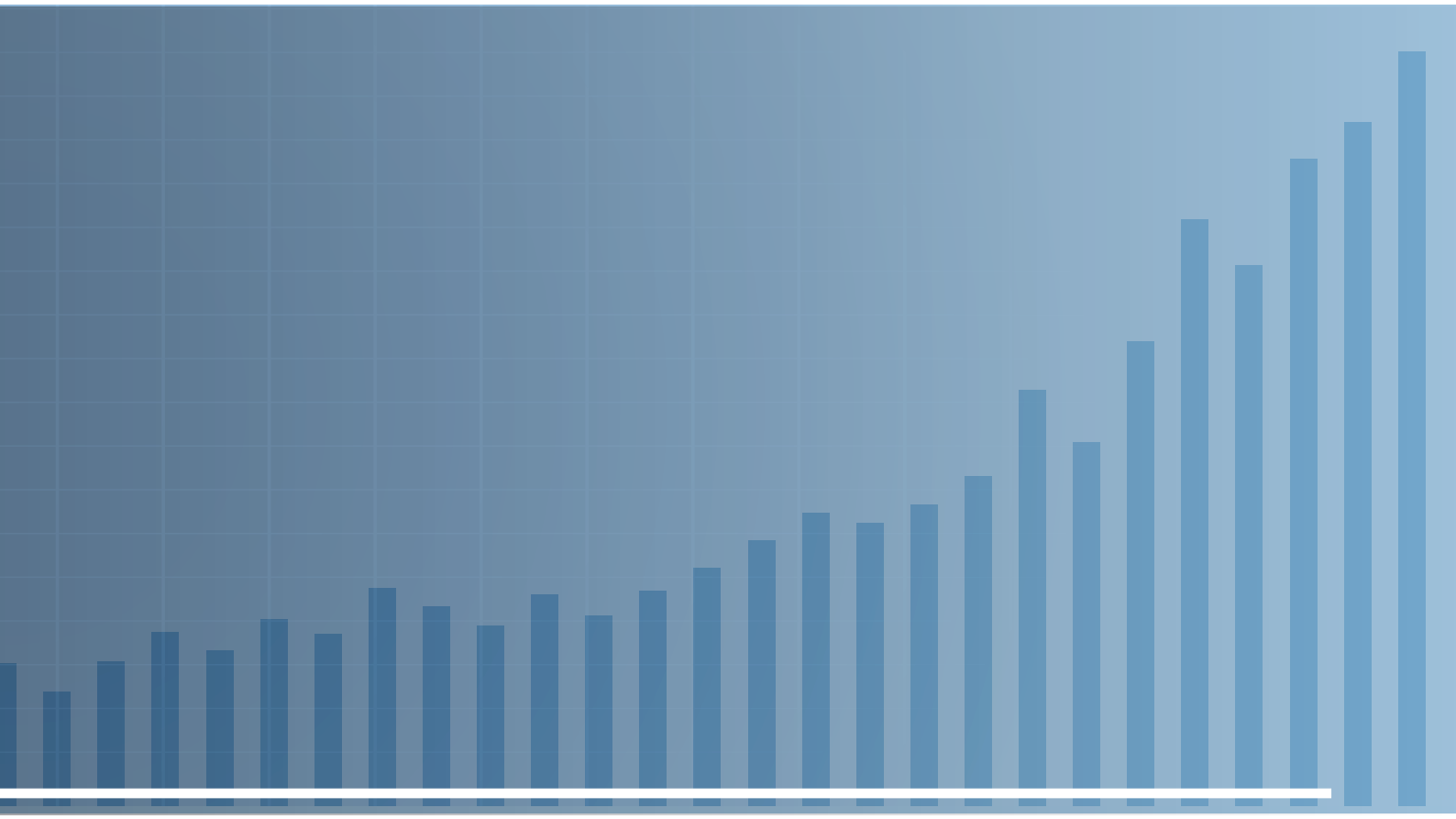
India is working towards the development of Silicon Photonic Processor Chips

India has made significant strides in technological advancement with the Centre for Programmable Photonic Integrated Circuit and Systems (CPPICS) inaugurated at the Indian Institute of Technology Madras (IIT Madras). The Secretary of the Ministry of Electronics and Information Technology (MeitY), Shri S Krishnan, unveiled the centre, emphasizing India's dedication to pioneering photonics and digital tech innovations. Photonic Integrated Circuits (PICs) are set to transform sectors like telecommunications, healthcare, and automotive due to their speed and energy efficiency. They're also key for affordable quantum technologies. Under MeitY's guidance, India is



developing various PIC platforms, aligning with the "Atmanirbhar Bharat" mission. A notable endeavour is the Silicon Photonics Centre of Excellence at IIT Madras, focusing on Photonic Processor Chips. CPPICS aims for self-sustainability, fostering startups and enhancing India's PIC manufacturing. The technology promises quantum computing, communication, 5G/6G, and IoT advancements.

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The 18th G20 Summit and Digital India Experience Zone in New Delhi, 2023

New Delhi hosted the 18th G20 Summit on September 9-10, 2023, with the Digital India Experience Zone serving as a major attraction. Under India's Presidency, the G20 had established a consensus on shaping the Digital Public Infrastructure (DPI) of the future, encompassing topics like global DPI repositories, financing DPIs, and fostering digitally skilled talent. Memorandums of Understanding were signed with six countries to share INDIA STACK, a collection of digital solutions.

The Digital India Experience Zone at Pragati Maidan aimed to familiarize G20 delegates with India's digital transformation successes, offering an immersive experience of India's flagship DPI initiatives. These included Aadhaar, DigiLocker, UPI, eSanjeevani, DIKSHA, Bhashini, and ONDC. Features had included LIVE demonstrations of Aadhaar's face authentication, UPI's payment applications, and DigiLocker's streamlined processes across sectors. The eSanjeevani exhibit offered real-time health consultations, while DIKSHA displayed a vast array of educational resources. The Bhashini exhibit provided speech-to-speech translations in various languages, and the Digital Tree exhibit outlined DPI's core principles and Digital India's evolution.

The zone had leveraged advanced technologies, including interactive displays and virtual reality, to provide visitors with a comprehensive understanding of India's digital journey, its achievements since 2014, and its commitment to a digitally empowered future.

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India's Leadership at G20: Groundbreaking Consensus on Digital Public Infrastructure and Emphasis on Cybersecurity and Digital Skills

On 5th September 2023, Union Minister of State for Skill Development & Entrepreneurship and Electronics & IT, Shri Rajeev Chandrasekhar, spoke with the media about the outcomes of the Digital Economy Ministers' Meeting from August. He emphasized that, under India's G20 Presidency, a groundbreaking consensus was reached on shaping the digital public infrastructure (DPI) of the future. The discussions primarily revolved around three areas: DPI, Cybersecurity, and Digital Skills.

Chandrasekhar highlighted that for the first time, a global consensus on DPI's definition, framework, and principles was achieved. He noted that India had become a case study for effectively utilizing technology for growth. Many countries, which had previously lagged in technological advancements, viewed this consensus as an opportunity to emulate India's success in DPIs.

India had signed eight MoUs with nations like Armenia, Sierra Leone, and Mauritius, offering them the India Stack and DPI free of charge with open-source access, enabling these countries to bolster their innovation ecosystems.

Moreover, Chandrasekhar had discussed the global emphasis on cybersecurity due to the rising significance of the digital economy. Lastly, he had pointed out the unanimous agreement on the importance of nurturing digital skills in the youth, especially in a post-COVID world, with many countries showing interest in collaborating on this front.

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SEMI intent to support the India Semiconductor Mission (ISM)

On 29th July 2023, the Ministry of Electronics and IT (MeitY) announced the signing of a Memorandum of Understanding (MoU) between the Centre for Nano Science and Engineering (CeNSE) at the Indian Institute of Science (IISc), Bengaluru, and Lam Research India during the SemiconIndia event in Gandhinagar. SEMI had declared its intention to support the India Semiconductor Mission (ISM) with the aim of fostering a robust semiconductor manufacturing and design ecosystem in India. This partnership aimed to enhance the successes achieved in ISM's previous two SemiconIndia editions and further SEMI's tradition of uniting stakeholders across the semiconductor ecosystem. The announcement of this collaboration was made in the presence of notable dignitaries including Minister of State for Electronics & IT, Shri Rajeev Chandrasekhar, MeitY Secretary Shri Alkesh Kumar Sharma, and President of SEMI Shri Ajit Manocha, along with other senior government and industry officials. An MOU detailing this collaboration was in the process of being finalized.

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India's Assertive Leap in Global Electronics and Semiconductor Landscape: Highlights from SemiconIndia 2023

At the conclusion of the three-day SemiconIndia 2023, the Indian government underscored its commitment to becoming a major force in the global electronics and semiconductor industries. External Affairs Minister Dr. S Jaishankar emphasized India's growing role as a trusted global electronics manufacturing partner, with significant international collaborations, notably with the US, Japan, and Australia. During the event, Shri Pankaj Mohindroo, Chairman of ICEA, moderated a session discussing India's burgeoning presence in electronics. He, along with other panellistss, shed light on the remarkable growth of the electronics sector in India. The shift from a mere 'slogan' to a deeply-rooted belief in 'Make in India' was highlighted, emphasizing a strategic manufacturing approach. The event witnessed discussions ranging from state-level preparedness for semiconductor industries to exploring global semiconductor talent. The narrative shifted from "why invest in India" to "why not invest in India" in the semiconductor realm, echoing Prime Minister Narendra Modi's sentiments. The government's initiatives on talent skilling and startup support were highlighted as major catalysts for the sector's growth. The second SemiconIndia edition positioned India centrally in global semiconductor conversations.

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Exemption of Electronics and Semiconductors sector from Operationalization of Section 65A [Removal of IGST exemption under MOOWR]:

As per Office Memorandum W-38/20/2022-IPHW dated September 11, 2023, issued by the MeitY, the following resolutions have been made:

1. **Exemption Scope:**

- Units engaged in manufacturing electronic goods, semiconductor chips/devices (including assembly, testing, marking, and packaging), and all types of displays (including LCD/LED/OLED/AMOLED/Micro LED) that fall under chapters 84, 85, 90, 91, and 95 will be eligible for exemption under Section 65A (3) on the import of inputs and capital goods.
- Units that supply their finished products as inputs or capital goods exclusively to the units described above will also be eligible for the Section 65A (3) exemption on imports.

2. **Certification:**

- The Ministry of Electronics and Information Technology (MeitY) will be responsible for examining the exemption requests from the units and certifying their eligibility to the Customs for recognizing them as exempted units.

MINISTRY OF COMMUNICATION

TRAI releases recommendations on "Issues related to FM Radio Broadcasting"

The Telecom Regulatory Authority of India (TRAI) released its recommendations on issues related to FM Radio Broadcasting, responding to the Ministry of Information and Broadcasting's request from May 2022. TRAI's suggestions, formulated

after consultation with stakeholders and an Open House Discussion, include delinking the annual license fee for FM radio channels from the Non-Refundable One Time Entry Fee (NOTEF). They propose that the license fee be set at 4% of the Gross Revenue (GR) excluding GST. TRAI recommended that the government should consider providing pandemic-related relief to FM operators. Additionally, private FM Radio Operators should be permitted to air news and current affairs with a limit of 10 minutes per hour, adhering to the program code followed by All India Radio.

The regulatory body also suggested that mobile handsets with FM radio hardware should keep this feature activated, mandating compliance overseen by a Standing Committee led by a Joint Secretary-level officer. An online portal for grievance redressal regarding FM radio functionality in mobile handsets was also recommended. The complete recommendations are accessible on TRAI's website.

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India Advances in Telecom Sector with NavIC-based IST Time Synchronization Initiative

The Centre for Development of Telematics (C-DOT) and the CSIR-National Physical Laboratory (NPL) signed an agreement to develop a NavIC-based Indian Standard Time (IST) traceable Primary Reference Time Clock (PRTC) for the telecom sector. This initiative, supported by the Telecom Technology Development Fund (TTDF), aims to provide precise IST traceability to Telecom Service Providers (TSPs) and Internet Service Providers (ISPs) within a margin of ± 20 nanoseconds. The project will help reduce reliance on GPS by shifting to India's own IRNSS/NavIC, enhance digital forensic capabilities, and improve cyber security across networks. It will also synchronize telecom services with a unified time reference, IST, fostering "One nation One time."

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DoT conducts Cell Broadcast Alert System testing to enhance emergency communication during disasters

The Department of Telecommunications (DoT), in partnership with the National Disaster Management Authority (NDMA), conducted tests of the Cell Broadcast Alert System across various regions in India. These tests aimed to evaluate the system's ability to effectively broadcast emergency alerts during disasters to all mobile devices within a specific geographical area. The technology is designed to send urgent messages to inform the public about imminent threats, ensuring widespread dissemination of critical information regardless of the recipient's residency status in the area. During the trials, simulated emergency notifications were sent to mobile users, clearly marked as "SAMPLE TESTING MESSAGE" to prevent any misunderstanding about their nature as part of the testing process, not actual emergencies.

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DoT Launches Bharat 6G Alliance

The Department of Telecommunications (DoT) launched the Bharat 6G Alliance to spearhead 6G technology development and collaboration in India. The alliance, composed of public and private entities, academia, and research institutions, aims to align with global 6G initiatives and foster international cooperation. Additionally, two significant agreements backed by a grant of Rs. 240.51 crores under the Telecom Technology Development Fund (TTDF) were signed to establish advanced communication test beds.

Under the Digital Communication Innovation Square (DCIS), DoT awarded Rs. 48 crores to 66 startups and MSMEs and felicitated over 75 innovators for their contributions to the telecom sector. Shri Devusinh Chauhan highlighted the sector as India's economic bright spot, noting the rapid 5G deployment with over 2.7 lakh towers and the 4G coverage at 99%. Shri Ashwini Vaishnaw, Minister for Communications, reflected on the nine-year transformation of telecom in India, emphasizing reduced data costs, expedited spectrum allocation, BSNL's profitability, and global technology export. The USA and India have agreed to jointly create technology, signalling a significant step toward India's technological development and leadership in 6G.

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MINISTRY OF COMMERCE

Amendment in Registration Fees under Steel Import Monitoring System (SIMS)

The Government of India, through the Directorate General of Foreign Trade, announced an amendment to the registration fees under the Steel Import Monitoring System (SIMS) as per the Foreign Trade (Development and Regulation) Act, 1992. The amendment, which takes effect immediately, revises the policy conditions related to Chapters 72, 73, and 86 of the Import Policy in the ITC(HS) 2022. Previously, importers were required to pay a fee calculated at Rs. 1 per thousand, with a minimum of Rs. 500 and a maximum of Rs. 1 lakh based on the CIF value of the consignment. With the new amendment, a flat registration fee of Rs. 500 is now mandated. Importers must still apply for registration 60 days prior to the consignment's arrival, and the registration number provided remains valid for 75 days. This change has been put into effect with the endorsement of the Minister of Commerce & Industry.

https://content.dgft.gov.in/Website/dgftprod/9a469b64-3453-4a9b4c7d3e9a1f65deb/Notification%2028%20dt%2028-08-23%20Eng.pdf

DPIIT notifies Quality Control Orders for 'Copper Products'

The Department for Promotion of Industry and Internal Trade (DPIIT), in conjunction with the Bureau of Indian Standards (BIS) and other stakeholders, notified the Quality Control Order for Copper Products on October 20, 2023. The order covered nine standards pertaining to various copper products used in electrical, plumbing, and general engineering applications. This action is part of DPIIT's mission to enhance India's manufacturing quality standards, thus supporting the 'Made in India' brand and advancing the Prime Minister's vision of an Aatmanirbhar Bharat. The order mandates BIS certification for these products, with non-compliance resulting in significant penalties, including imprisonment and fines. Small and micro industries have been given additional time for compliance to facilitate a smooth transition.

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Changes notified for Production Linked Incentive Scheme for White Goods (ACs and LED Lights)

The Indian government revised the Production Linked Incentive (PLI) Scheme guidelines for White Goods, responding to industry feedback to simplify operations and enhance ease of doing business. Changes included adopting a Cost-Plus method for pricing in captive consumption, recognizing toolroom investments as eligible, extending the time for beneficiaries to inform about additional facilities, adjusting the claim submission deadline, and incorporating site visits by the ministry. Amendments were also made to the scheme's annexures. Launched in April 2021 to boost domestic manufacturing of ACs and LED lights components, the scheme has an outlay of ₹6,238 crore and is part of the "Atmanirbhar Bharat" initiative. Selected beneficiaries have begun commercial production, with others progressing towards the same.

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DPIIT notifies Quality Control Orders for 'Smart Meters' and 'Welding Rods and Electrodes'

The Department for Promotion of Industry and Internal Trade (DPIIT) notified two Quality Control Orders (QCOs) for 'Smart Meters' and 'Welding Rods and Electrodes' on July 14, 2023. These QCOs mandate compulsory certification under Indian Standards and will take effect six months from the notification date. The orders aim to enhance domestic manufacturing standards, ensure consumer safety, and prevent the import of sub-standard products. Extensive consultations with stakeholders preceded the QCOs' notification, followed by a legal review and a comment period through the WTO website. Violations of these orders attract significant penalties under the BIS Act, of 2016.

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UAE and India Sign MoU to Foster Sustainable Industrial Development and Technological Advancement

The UAE and India signed an MoU to enhance sustainable industrial development and technology transfer in various sectors. The agreement, focusing on industrial investments and advanced technology deployment, aims to bolster joint industrial and technological growth. It covers cooperation in supply chain resilience, renewable energy, healthcare, space, AI, Industry 4.0, and standardization. Both nations agreed to share best practices, collaborate on R&D, and align their industrial strategies with sustainable and climate-friendly initiatives. This partnership is set to diversify their economies and promote competitive and efficient industries.

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India Concludes Chairmanship at 22nd SCO Trade Ministers Meeting, Emphasizes Multidimensional Cooperation and Innovation

The 22nd Meeting of SCO Trade Ministers was held in Bishkek, Kyrgyzstan, chaired by the Kyrgyz Republic, with India's Minister of State for Commerce & Industry participating virtually. Initiatives to boost manufacturing, support for domestic industries, and welcoming investments were highlighted by India. India concluded its SCO chairmanship, emphasizing multi-dimensional cooperation and naming Varanasi as the cultural and tourism capital of SCO. Key issues addressed included environmental preservation, digitalization, and leveraging SCO for inclusive development. India will permanently chair the newly created Special Working Group on Startups and Innovation and hosted the upcoming Expert Working Group on Traditional Medicine.

https://pib.gov.in/PressReleasePage.aspx?PRID=1961946

National Logistics Policy Marks Year of Strides in Streamlining India's Logistics Sector

The National Logistics Policy (NLP), complementing the PM GatiShakti National Master Plan, was launched by Prime Minister Modi on September 17, 2022, with a vision to create a cost-effective and sustainable logistics network. Aimed at economic growth and competitive business, the NLP focused on reducing logistics costs, improving India's Logistics Performance Index ranking, and creating data-driven decision support. The Comprehensive Logistics Action Plan (CLAP) outlined measures across eight action areas, including digitization and logistics parks development. Significant steps were taken post-launch, such as inter-ministerial meetings and regional workshops to facilitate the policy's implementation. Digital integrations like the Unified Logistics Interface Platform (ULIP) were introduced, along with initiatives to streamline EXIM logistics and develop sector-specific logistics plans. States developed logistics policies aligned with NLP, and efforts were made to estimate logistics costs accurately, setting a baseline for future interventions.

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India and Saudi Arabia Explore Strategic Trade and Investment Growth Opportunities: Post G20

The Indian Commerce and Industry Minister met with the Saudi Investment Minister, discussing India's growth ambitions for Amrit Kaal in 2047 and the G20 Summit's importance. They explored boosting the current $52 billion trade to $200 billion, with an invitation extended to Saudi investors to explore opportunities in Gujarat's GIFT city. Proposals included a new office in Riyadh to promote investment and trade, collaboration in food security and energy, and potential contributions to Saudi Arabia's NEOM city project. Discussions also covered enhancing FDI from Saudi Arabia into India's agricultural processing and pharmaceutical sectors for mutual benefits.

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India-Vietnam Bilateral Exchange to Strengthen Infrastructure and Logistics Collaboration

The DPIIT of India hosted a Vietnamese delegation to enhance bilateral ties in infrastructure and logistics. The visit, from July 31 to August 4, 2023, followed an Indian delegation's trip to Vietnam earlier that year. Over 80 participants from both countries engaged in G2B and B2B meetings. They discussed investment opportunities and shared knowledge in sectors such as industrial parks, textiles, and leather. Site visits to industrial and logistics sites in Greater Noida, Aurangabad, and Bangalore were conducted. The interaction aimed to foster collaboration and encourage foreign investment in the logistics sectors of both nations.

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India's Comprehensive National IPR Policy Framework: A 2016 Overview and Achievements

The Indian government announced the National Intellectual Property Rights (IPR) Policy in 2016, incorporating eight types of IPRs into a unified framework. The policy aimed to streamline the implementation, monitoring, and review mechanisms for IP laws. It set forth seven objectives to foster an environment conducive to innovation and creativity, providing stronger protection and incentives. Measures were introduced to expedite IP filing processes, offer fee reductions for startups, MSMEs, and educational institutions, and facilitate expedited patent examination for select applicants.

Significant efforts were made to modernize and digitize IP offices and to raise awareness about the importance of IPR through initiatives like the National Intellectual Property Awareness Mission (NIPAM). The Patent Facilitation Programme was revamped, and IPR chairs were established across educational institutions to promote IPR-related studies and research. To bolster IP commercialization, Technology Innovation Support Centres (TISCs) and Technology Transfer Organizations (TTOs) were set up, contributing to a substantial number of patent filings and commercialization.

The legal and regulatory framework for these IPRs, governed by specific acts and rules, was detailed, covering the subject matter and term of protection for each IP type. This comprehensive information was provided by the Union Minister of State for Commerce and Industry in a written reply in the Rajya Sabha.

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Ms. Nivruti Rai appointed as Managing Director & CEO of Invest India

Ms. Nivruti Rai assumed the position of Managing Director & CEO of Invest India on July 12, 2023, succeeding Ms. Manmeet K Nanda. Rai, a recipient of the Nari Shakti Puraskar, joined Invest India following a notable 29-year tenure at Intel, where she led Intel India. Her expertise spans technology development, the start-up and electronics manufacturing ecosystems, and policy formulation. Invest India, recognized for supporting flagship government initiatives, is steered by a board comprising eminent leaders from various sectors.

https://pib.gov.in/PressReleasePage.aspx?PRID=1940772

DGFT introduces an import management system for IT hardware items under HSN 8471 of ITC(HS) 2022.

On 3rd August 2023, the DGFT introduced an import management system for items under Chapter 84 of Schedule I (Import Policy) of ITC (HS) 2022 by requiring an authorisation for importing laptops, tablets, all-in-one personal computers, ultra small form factors, etc., under the given sub-headings of HSN 8471. However, after trade representation, including from ICEA, the implementation of IMS was postponed till 31 October 2023. The importers require import authorisation from 1 November 2023.

Further changes announced by DGFT in the import management system for IT hardware:

- DTA units can transfer IT hardware items from SEZ units without authorisation if they are manufactured in SEZ, but not if they are only modified or checked in SEZ.
- Exemption in cases of Central Government and agencies
- Exemption to imports for repair, return or replacement
- Exemption to SEZ/EOUs/EHTP/STPI/BTP
- No restriction on spares and parts
- Exemption for capital goods

The importers can apply for multiple authorisations and such authorisations issued will be valid till 30 September 2024. The quantity on a valid import authorisation can also be changed at any point, if the overall value of the import authorisation is unchanged.

The application for change can be filed online on the DGFT website.

Zero-rating benefit for SEZ units on lease rental services for employee welfare amenities

The Department of Commerce has issued a clarification on the lease rental services that SEZ units receive and use for employee welfare amenities. It has received representations that claim that authorities are limiting the zero-rating benefits on the lease rental services that developers provide to SEZ units for the space that is allocated for employee welfare amenities.

The government has clarified that the lease rental/other charges that developers collect from SEZ units for the space that is dedicated to the employee welfare facilities of the SEZ unit's employees are still eligible for the zero-rating benefit.

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

Battery Waste Management (Amendment) Rules, 2023

Announced on October 25th, 2023, these revisions aim to address uncertainties related to Extended Producer Responsibility (EPR) certification and validity. Producers no longer need to annually renew their EPR certificates, altering the original mandate. Additionally, the update allows tradability of achieved or over-achieved targets set by the BWMR-2022, creating a platform for trading EPR certificates online. Furthermore, the rules offer a provision for relaxation of timelines up to nine months for filing returns by producers, recyclers, and refurbishers, empowering the Central Government to issue such relaxations.

Plastic Waste Management (Second Amendment) Rules, 2023

Published on 16th October, 2023 the amended rules expand the scope of EPR to include manufacturers and importers of plastic raw materials, and introduce regulations for the management of compostable and biodegradable plastics. Units manufacturing commodities from plastic or commodities containing parts made of plastic must now process the pre-consumer plastic waste generated. Other provisions include: introducing an online electronic trading platform for trading of certificates generated by registered plastic waste processors, making the thickness requirement for carry bags inapplicable to carry bags made up of compostable plastics and biodegradable plastics, and prohibiting the use of plastic raw materials in the production of banned single-use plastic (SUP) items.

India Launches Green Credit Program and Revamped Ecomark Scheme to Foster Sustainable Practices

The Ministry of Environment, Forest and Climate Change announced two initiatives on October 13, 2023, to advance the 'LiFE' movement proposed by India's Prime Minister. The Green Credit Program (GCP) was introduced to incentivize environmental conservation efforts such as water conservation and afforestation through a market-based mechanism. A digital platform for registering, verifying, and trading Green Credits will be established. The Ecomark Scheme was revamped to label and promote eco-friendly consumer products, aligning with environmental criteria and Indian standards. Both programs aim to promote sustainable living and environmental protection, reflecting India's commitment to eco-conscious practices.

https://pib.gov.in/PressReleasePage.aspx?PRID=1967476

India Commits to Net Zero Emissions by 2070 with Comprehensive Environmental Strategy

India, with historically low cumulative emissions, set a target for net zero by 2070 at COP 26, reflecting its minimal responsibility for global warming despite its population. The nation's long-term low-carbon development strategy includes seven transitions such as electricity system development, efficient transport, and forest cover enhancement. Notable actions to combat environmental challenges include launching the National Clean Air Programme, PRANA portal for monitoring air quality, transitioning to BS-VI fuel norms, promoting bio-gas and e-vehicles, river conservation initiatives, expanding Ramsar Sites, banning single-use plastics, and addressing land degradation. Afforestation schemes and the Trees Outside Forests in India program support these environmental commitments.

https://pib.gov.in/PressReleasePage.aspx?PRID=1945472

MINISTRY OF FINANCE

Mandatory additional qualifiers in import/export declarations in respect of certain Chemical categories

According to Circular No. 23/2023-Customs released on 30th September 2023, the following additional details will become mandatory at the time of filing import declarations on or after 15.10.2023.

In case of non-availability of information for even one ingredient with the importer for the reason that information is not shared by the supplier due to confidentiality, a self-undertaking is to be provided in the Bill of Entry.

Chemical Category	Additional Details Required
Bulk and Basic Chemicals	CAS number and IUPAC name is mandatory
Formulations and Mixtures	CAS number and IUPAC name of Main / Active ingredient (atleast one) is mandatory
Proprietary Component R&D or Others	CAS number and IUPAC name of Main / Active ingredient (atleast one) is mandatory

Recommendations of the 52nd GST Council Meeting:

The 52nd GST Council Meeting, chaired by Union Minister for Finance & Corporate Affairs Smt. Nirmala Sitharaman, made several significant recommendations. Among these, the following key measures for the facilitation of trade were highlighted:

1. **Amnesty Scheme for Filing Appeals:**

   An amnesty scheme was recommended for taxable persons who couldn't file appeals against demand orders within the allowed time period. Taxpayers can now file appeals against such orders until January 31, 2024, subject to certain conditions, including a pre-deposit of 12.5% of the disputed tax.

2. **Clarifications on Taxability:**

   Clarifications were provided regarding the taxability of personal guarantees offered by directors to banks and corporate guarantees for related parties. It was clarified that when no consideration is paid for providing personal guarantees, no tax would be payable.

3. **Automatic Restoration of Provisionally Attached Property:**

   An amendment was recommended to ensure that provisionally attached properties would automatically be released after one year, without requiring a separate written order from the Commissioner.

4. **Clarifications on Place of Supply:**

   A circular was proposed to clarify the place of supply for various services, including transportation of goods, advertising services, and co-location services.

5. **Export of Services Clarifications:**

   A circular was recommended to clarify the admissibility of export remittances received in Special INR Vostro accounts for the consideration of supply of services as export of services.

6. **Supplies to SEZ Units/ Developers:**

   An amendment was suggested to allow suppliers to Special Economic Zone (SEZ) developers or units to supply goods or services to them on payment of integrated tax and claim a refund of the tax paid.

https://pib.gov.in/PressReleasePage.aspx?PRID=1965431

Initiation of Sunset Review Investigation on Anti-Dumping Duties for Glass Imports from Malaysia

The Directorate General of Trade Remedies initiated a sunset review investigation concerning the imports of "Textured Tempered Coated and Uncoated Glass" from Malaysia. This review aims to assess whether the continuation or recurrence of dumping and injury would occur if the current anti-dumping duties were to expire. The product under consideration remains as defined in the original investigation, with the period of investigation set from April 2022 to March 2023. The review will cover all aspects of the final findings that led to the imposition of anti-dumping duties and evaluate the need for their continued application.

https://www.dgtr.gov.in/sites/default/files/Initiation%20Notification_TTG_SSR.pdf

Recommendations of the 51st GST Council Meeting

The 51st GST Council meeting was held on August 2, 2023, and the following were the major recommendations:

Liability to pay GST on online money gaming by foreign suppliers: The GST Council has recommended that a specific provision be inserted in the IGST Act, 2017 to provide for liability to pay GST on the supply of online money gaming by a supplier located outside India to a person in India. This would mean that foreign suppliers of online gaming would need to register in India and pay GST on their supplies.

Simplified registration scheme for foreign suppliers: The GST Council has also recommended that a simplified registration scheme be made available for foreign suppliers of online gaming. This would make it easier for these suppliers to comply with the GST laws.

Valuation of supply of online gaming: The GST Council has recommended that the valuation of supply of online gaming and actionable claims in casinos may be done based on the amount paid or payable to or deposited with the supplier, by or on

behalf of the player (excluding the amount entered into games/ bets out of winnings of previous games/ bets) and not on the total value of each bet placed.

Amendments to the CGST Act and IGST Act: The GST Council has recommended amendments to the CGST Act and IGST Act to provide clarity on the taxation of supplies in casinos, horse racing and online gaming.

Effective date of amendments: The GST Council has decided to complete the process of making amendments in the Act at the earliest and bring the amendments into effect from 1st October 2023.

https://pib.gov.in/PressReleasePage.aspx?PRID=1945208

Recommendations of the 50th GST Council Meeting

The 50th GST Council meeting was held on July 11, 2023, and the following were the major recommendations:

1) GST Council recommends Casino, Horse Racing, and Online gaming be taxed at the uniform rate of 28% on full face value.
2) GST Council recommends notification of GST Appellate Tribunal by the Centre with effect from 01.08.2023.
3) GST Council recommends exemption of cancer-related drugs, medicines for rare diseases, and food products for special medical purposes from GST tax.
4) Recommendation to bring down rates from 18 percent to 5 percent on 4 items - Uncooked, unfried & extruded snack palettes, fish soluble paste, LD slag to be at par with blast furnace slag, and imitation zari thread.
5) The GST Council also recommends several measures for streamlining compliance in the GST.

https://pib.gov.in/PressReleasePage.aspx?PRID=1938812

Government launched a one-time settlement Scheme Vivad se Vishwas – II (Contractual Disputes) to effectively settle pending contractual disputes, as announced in the Union Budget 2023-24

The Indian Government has unveiled "Vivad se Vishwas II – (Contractual Disputes)," a scheme for resolving pending contractual disputes involving government bodies, as part of the Union Budget 2023-24. This one-time settlement initiative offers graded settlement terms based on the dispute's duration, with eligibility for disputes where arbitral or court awards were made by 31.01.2023 and 30.04.2023, respectively. Settlement amounts can reach up to 85% for court awards and 65% for arbitral awards. Claims must be submitted through the Government e-Marketplace (GeM) or IREPS for non-GeM Railway contracts by 31.10.2023. Detailed guidelines are available on the Finance Ministry's website.

https://pib.gov.in/PressReleasePage.aspx?PRID=1945072

GST Council clarifies on cross charge and ISD mechanism for the electronics industry

CBIC has issued a clarification Circular No. 199/11/2023-GST on this issue, based on the recommendations of the 50th GST Council meeting. This clarification addresses the inquiries and concerns raised by investigation agencies such as the DGGI, Anti Evasion of CGST, and State Intelligence. It brings relief to the businesses operating with multiple GSTINs under a single PAN, which have been facing challenges with the differentiation between ISD and Cross Charge mechanisms and their appropriate use.

The key points from the circular are:

- The Head Office (HO) has the option to distribute the Input Tax Credit (ITC) in respect of common input services by following the ISD mechanism or by issuing tax invoices under Section 31 of the CGST Act to the concerned Branch Offices (BOs) in respect of common input services procured from a third party by HO but attributable to the said BOs. The BOs can then avail ITC on the same subject to the provisions of Section 16 and 17 of the CGST Act.
- The ISD mechanism is not mandatory for the distribution of input tax credit of common input services procured from third parties to distinct persons as per the current provisions of GST law. Other mechanisms mentioned in the GST law could be followed by the industry.
- The HO is required to get itself registered mandatorily as an ISD in accordance with Section 24(viii) of the CGST Act, only if it distributes or wishes to distribute ITC to BOs in respect of such common input services through the ISD mechanism.
- The HO can issue tax invoices under section 31 of the CGST Act to the concerned BOs, in respect of any input services, procured by HO from a third party on or on behalf of a BO, only if the said services have actually been provided to the concerned BOs.

No GST on Share-Holding by Holding Companies

Circular No. 196/08/2023-GST dated July 17, 2023 issued clarification stating that securities (including shares) are neither goods nor services under GST laws. Therefore, there is no GST liability for holding companies that hold shares or securities in their subsidiary companies.

Clarification on interest on ITC utilization for IGST ITC balance

A clarification Circular No. 192/04/2023-GST dated July 17, 2023, was issued regarding the Revenue authorities demanding interest on excess utilization of ITC under the IGST tax head. The circular states that the interest on excess IGST ITC balance utilization should be calculated on the shortfall after taking into account the cumulative ITC balance available under IGST, CGST and SGST tax heads.

GST on warranty replacements for electronic goods

Circular No. 195/07/2023-GST dated July 17, 2023, issued a clarification, regarding the notices received from the Revenue authorities demanding GST or reversal of Input Tax Credit (ITC) on warranty replacements. The circular states that the expected cost of manufacturing warranty is already included in the original supply, so no GST is required to be paid by the manufacturer/distributors on warranty replacements that are free of cost (FoC). The circular also states that GST is applicable only on any extra consideration, if any, charged from the customer by the manufacturer/ distributors. Furthermore, the circular clarifies that no ITC is required to be reversed on the FoC replacements.

MINISTRY OF CONSUMER AFFAIRS

Amendment of Legal Metrology (Packaged Commodities) Rules, effective 1st April 2024

For electronic products, spare parts and accessories, the declaration of month and year of manufacture shall be specified anywhere on the retail package in a visible and clearly legible manner.

The amended rules also define spare parts and accessories to include any "part", "component", or "accessories that are complementary to the main or core product" of a machine, device or equipment, by whatever name called, including parts that are sold separately for use in support or replacement of a damaged or worn-out part, in order to have intended operation or functioning of the machine, device or equipment."

India Joins Elite Group as 13th Nation Authorized to Issue International Organization of Legal Metrology (OIML) Certificates

India became the 13th country globally capable of issuing internationally recognized OIML (International Organization of Legal Metrology) Certificates, as announced on September 14, 2023. Indian manufacturers are now empowered to test their weighing and measuring instruments domestically and access the international market directly, leading to cost savings and the potential for increased exports. Furthermore, India can now provide testing facilities for foreign manufacturers, earning revenue and creating job opportunities. With this development, India also gains the ability to influence OIML policies and contribute to its strategic direction. The Secretary of Consumer Affairs, Shri Rohit Kumar Singh, presented this milestone in a press conference, with Paul Dixon from OIML's Paris office underscoring India's new role and pledging ongoing support.

https://pib.gov.in/PressReleasePage.aspx?PRID=1957429

LEGISLATIVE UPDATES

Jan Vishwas (Amendment of Provisions) Act, 2023

On August 11, 2023, the Jan Vishwas (Amendment of Provisions) Act, 2023, received presidential approval. The Act's commencement date will be determined by the Central Government and announced in the Official Gazette, with the possibility of varying dates for different legislative amendments as outlined in the Schedule. Noteworthy provisions include a systematic 10% increase in the base fines and penalties every three years after the Act comes into effect. The Act brings about the decriminalization of 183 provisions within 42 Central Acts, overseen by 19 Ministries/Departments. This decriminalization will occur as follows:

- Certain provisions will no longer impose imprisonment and/or fines;
- Some will eliminate imprisonment but keep fines;
- Others will remove imprisonment and increase fines;
- Some will replace both imprisonment and fines with a penalty, and a few will introduce the option for compounding offenses.

https://egazette.gov.in/WriteReadData/2023/248047.pdf

The Anusandhan National Research Foundation Act, 2023

The Anusandhan National Research Foundation Bill, 2023, introduced in the Lok Sabha on August 4, 2023, aims to replace the Science and Engineering Research Board Act, 2008, by establishing the Anusandhan National Research Foundation (NRF) as the premier body for guiding research, innovation, and entrepreneurship across various science and technology fields in India. The NRF will create roadmaps for research, provide grants, foster international collaboration, and encourage private and public investments. Funded through government grants, donations, and investments, the NRF will maintain several specialized funds for different purposes, including salaries, innovation, and continuation of projects from the 2008 Act, with the utilization of these funds governed by central government rules and annual audits by the CAG. The Governing Board, led by the Prime Minister, and an Executive Council, chaired by the Principal Scientific Advisor, will oversee strategic direction, implementation, and financial assistance procedures for the Foundation.

https://dst.gov.in/sites/default/files/NRF.pdf

UNLEASHING INDIA'S POTENTIAL IN IT HARDWARE MANUFACTURING: INTRODUCING PLI 2.0

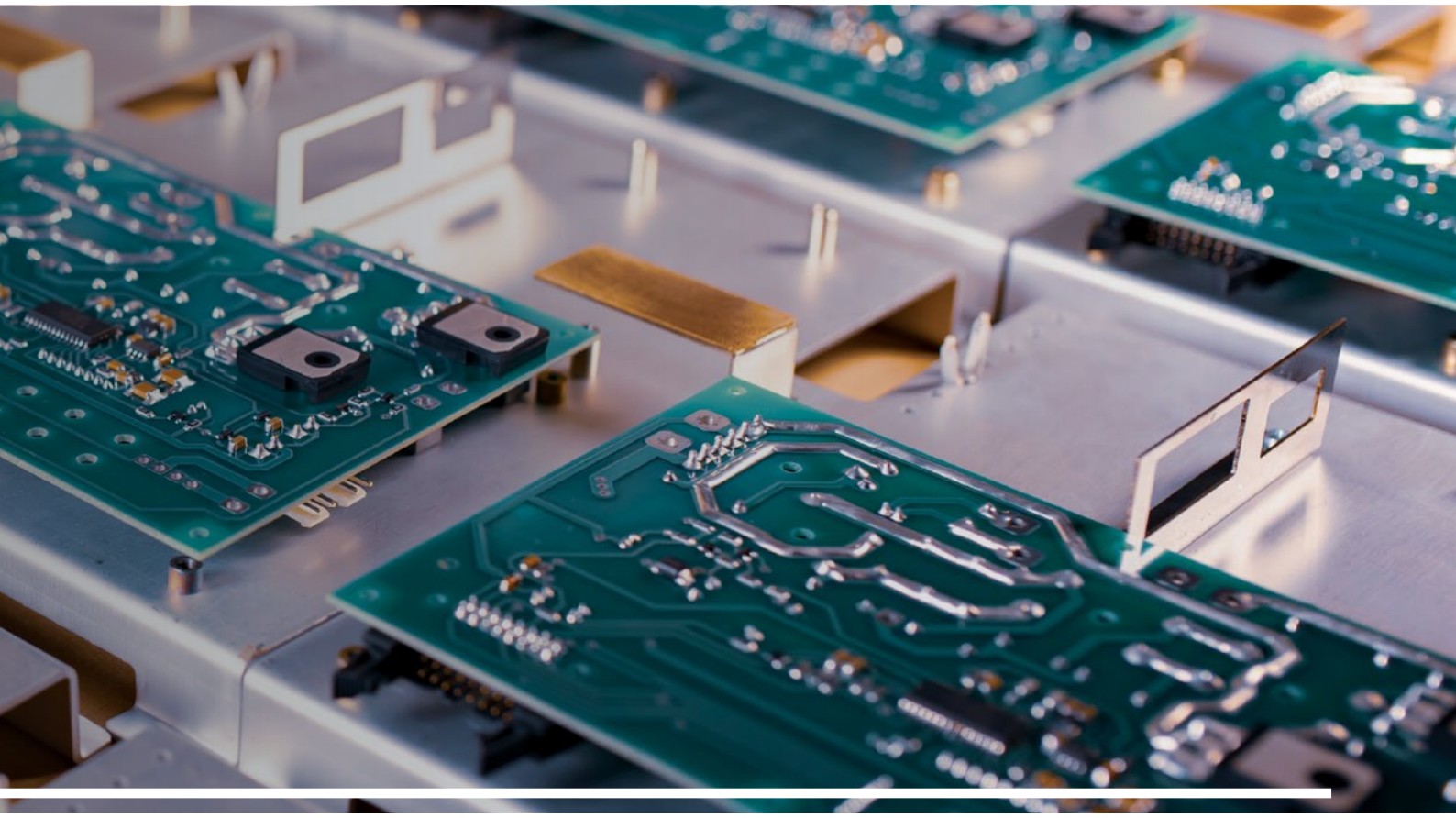
By:
Shri Amitesh Kumar Sinha
Former Joint Secretary, MeitY, Government of India

Electronics are a ubiquitous component of the economy and hold cross-cutting strategic and economic significance in this digital age. It has been the government's goal to create a conducive environment for manufacturing and to provide incentives to attract large investments to the sector. A substantial increase has taken place in the domestic production of electronic goods over the past few years, growing at a 15% CAGR from USD 49 Billion in 2016-17 to USD 87.1 Billion in 2022-23. It is also noteworthy that India's share of global electronics manufacturing has risen from 1.2% in 2014 to 3.75% in FY 2021-22, illustrating its growing influence in this industry.

In the dynamic electronics sector, personal computing devices emerge as a key focus. Research studies underscore how PCs have positively impacted governance, education, and productivity. Despite the rising popularity of smartphones and mobile devices for content consumption and data access, personal computing devices remain essential for content creation. Yet, India's Personal Computer (PC) penetration lags behind at 15 per 1000 people, a stark contrast to countries like the United States (784 for 1000 people) and China (41 per 1000 people). This disparity brings forth remarkable growth opportunities.

However, the country faces a challenge as IT Hardware manufacturing capability and capacity witness a gradual decline, with numerous units either ceasing operations or operating at low capacities. It's time to unlock India's potential in IT Hardware manufacturing and bridge this technological divide for a thriving future.

In a concerted effort to confront these challenges and harness the immense untapped potential, the Government of India unveiled the esteemed Production Linked Incentive Scheme - 2.0 tailored exclusively for the IT Hardware sector. This visionary scheme presents a strategic financial incentive aimed at galvanizing indigenous manufacturing capabilities while concurrently enticing substantial investments across the



entire value chain. By embracing this visionary initiative, the government seeks to foster a robust ecosystem that propels the nation's technological prowess and bolsters its competitive edge on the global stage. The scheme Production Linked Incentive Scheme - 2.0 for IT Hardware (PLI 2.0 gives emphasis on broadening and deepening electronics manufacturing and introduces incentives on an optional basis for sourcing additional components/sub-assemblies made in India including chipsets and creating an enabling environment for the industry to compete globally.

Our focus is on the Target Segment, comprising Laptops, Tablets, All-in-One PCs, Servers, and Ultra Small Form Factor (USFF) devices. Through a budget outlay of INR 17,000 crore, we intend to incentivize the net incremental sales of manufactured goods in these categories, directly bolstering our domestic manufacturing ecosystem.

The tenure of PLI 2.0 spans six years, with applicants having the flexibility to commence operations starting from either 1st July 2023, 1st April 2024, or 1st April 2025. The base year for incremental sales will be the fiscal year (FY) 2022-23, but this can be adjusted to FY 2023-24 or FY 2024-25 for later applicants.

PLI 2.0 realizes the reality of contract manufacturing, therefore, the applicants are also allowed to count incremental investment done by manufacturers of components/ sub-assemblies etc. for meeting the incremental investment thresholds for individual years, provided it is established that such manufacturer is exclusively manufacturing components/sub-assemblies for the applicants.

A combined ranking system shortlisted applicants based on their revenue (including a group of companies) in FY 2021-22 for the ESDM / Target Segment. The number of applicants shortlisted are subject to the availability of our budget.

A key highlight of PLI 2.0 is the emphasis on localization. We are offering an average incentive of around 5% for the localization of items, including semiconductor components and sub-assemblies like SSDs, Memory modules, and display panels. This push towards localization will also require applicants to localize Printed Circuit Board Assembly (PCBA) and Assembly during the first year, with at least one additional component or sub-assembly localized every subsequent year.

Furthermore, companies that applied under the first PLI scheme have the option to migrate to PLI 2.0. They can either continue in the existing scheme, transition to PLI 2.0 starting from the 2nd or 3rd year or participate as new applicants for six years, with the investment made under the existing scheme not being counted in the latter case.

To accommodate a range of entities, we have created three categories of applicants: Global, Hybrid (Global/ Domestic), and Domestic. The year-wise Investment and Incremental Sales details are available in Annexure I.

We have provided a relaxation on investment thresholds, allowing a shortfall in investment by up to 40% in a particular year, with a proportional reduction in the PLI. Applicants will also need to provide year-wise and overall PLI projections for the scheme period, which will act as a ceiling for the calculation of incentives.

The annual incentive projection provided by the applicant shall become the annual ceiling of incentive for the respective financial year. To bring discipline in the projections and ensure realistic targets, Discipline penalties have been introduced to ensure scheme adherence. If the actual PLI amount for a year is less by 25%-50% than the projected amount, there will be a penalty of 5%. If the shortfall is more than 50%, the penalty increases to 10%.

Finally, an incentive ceiling has been set: ₹4,500 Crore for Global companies, ₹2,250 Crore for Hybrid (Global/Domestic) companies, and ₹500 Crore for Domestic companies. Any incentive above the ceiling for a particular year is subject to unutilized incentive availability.

To summarize, PLI 2.0 transcends mere classification as a scheme; it represents a strategic paradigm shift in India's IT Hardware landscape, a robust mechanism that shall amplify domestic manufacturing prowess, and a pivotal milestone propelling us towards ascendancy as a formidable digital and manufacturing force. With the domestic production of electronic goods projected to soar significantly, reaching approximately USD 300 billion by FY 2026, it becomes imperative for India to curtail the escalating foreign exchange outflow stemming from electronics imports. Hence, PLI 2.0 assumes the character of not merely a scheme, but rather an indispensable imperative to uphold India's economic stability and elevate its stature in the global IT hardware arena. We eagerly await witnessing the transformative impact of PLI 2.0 on our IT hardware sector and the broader economy, solidifying our position on the global stage.

For a detailed breakdown of the Year-wise category-wise incremental investment and incremental sales, please refer to **Annexure I**.

For a comprehensive list of items for localisation, please refer to **Annexure II**.

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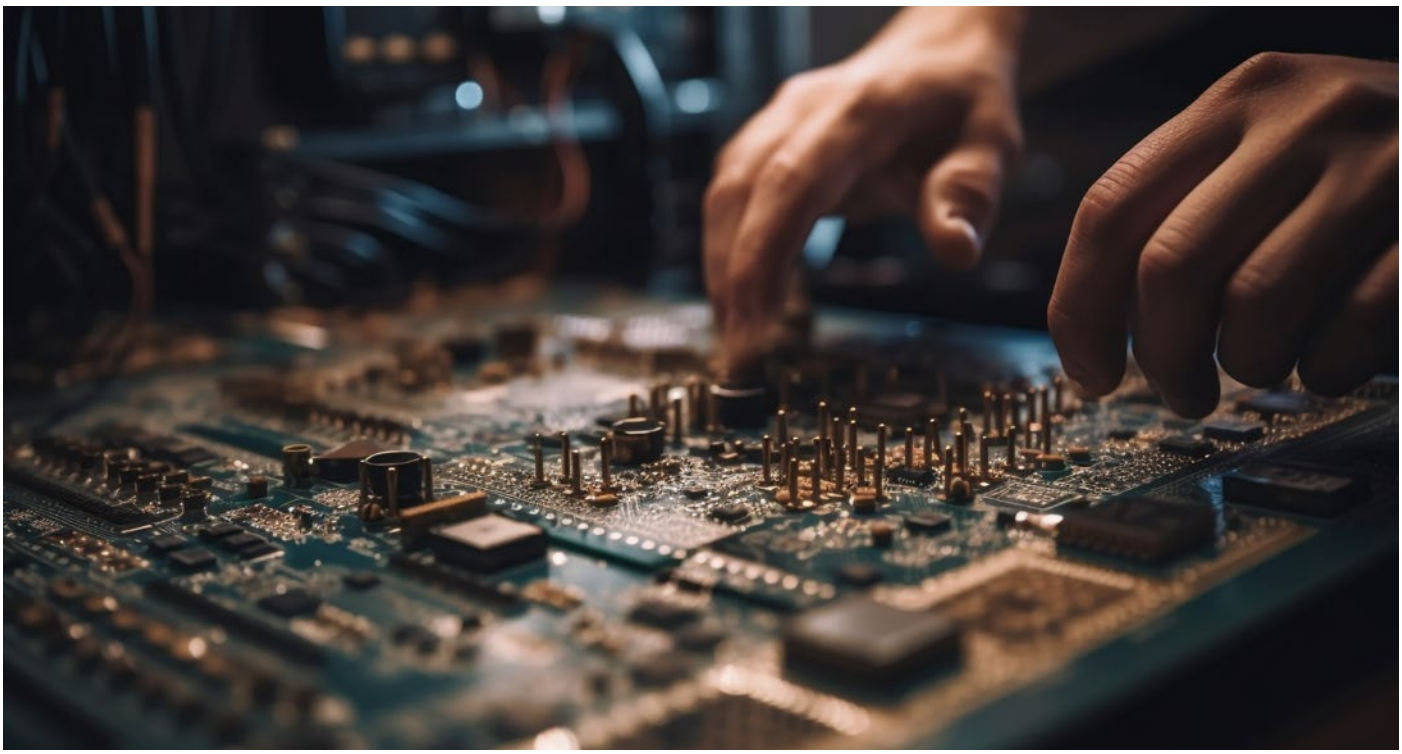


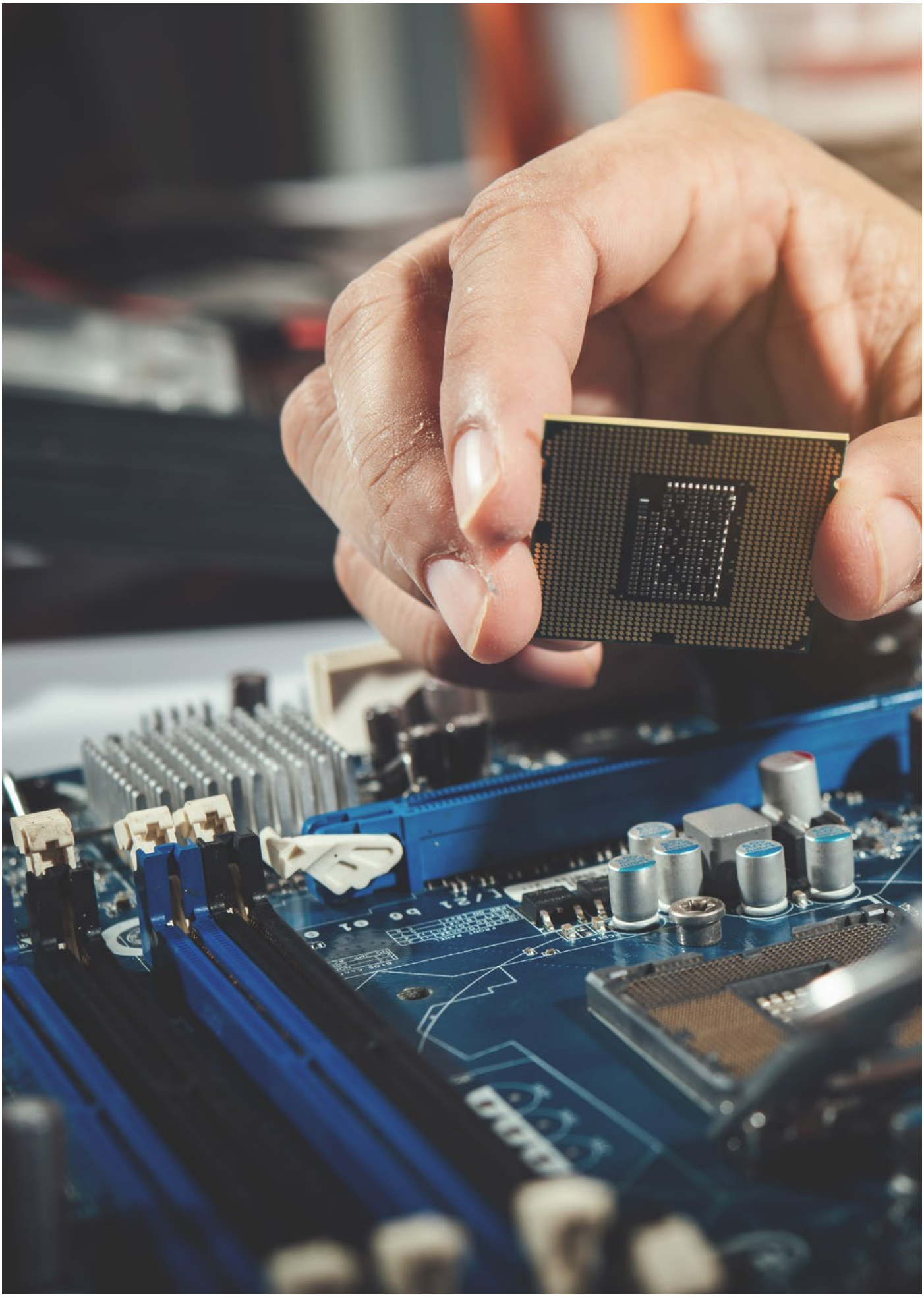
ANNEXURE I: YEAR-WISE CATEGORY-WISE INCREMENTAL INVESTMENT AND INCREMENTAL SALES

Category	Incremental Investment after 31.03.2023	Incremental Sales of Manufactured Goods over Base Year
Global IT Hardware Companies **I. Laptops (Invoice value of INR 30,000 and above),** **II. Tablets (Invoice value of INR 15,000 and above),** **III. All-in-One PCs** **IV. Servers** **V. Ultra Small Form Factor (USFF)**	INR 500 Crore over 6 Years Cumulative Minimum (Crore): Year 1: INR 50 Crore Year 2: INR 150 Crore Year 3: INR 250 Crore Year 4: INR 350 Crore Year 5: INR 450 Crore Year 6: INR 500 Crore	Year 1: INR 1,000 Crore Year 2: INR 2,500 Crore Year 3: INR 5,000 Crore Year 4: INR 10,000 Crore Year 5: INR 12,000 Crore Year 6: INR 15,000 Crore
Hybrid (Global/Domestic) companies **I. Laptops (Invoice value of INR 30,000 and above)** **II. Tablets (Invoice value of INR 15,000 and above)** **III. All-in-One PCs** **IV. Servers** **V. Ultra Small Form Factor (USFF)**	INR 250 Crore over 6 Years; Cumulative Minimum (Crore): Year 1: INR 25 Crore Year 2: INR 75 Crore Year 3: INR 125 Crore Year 4: INR 175 Crore Year 5: INR 225 Crore Year 6: INR 250 Crore	Year 1: INR 500 Crore Year 2: INR 1,250 Crore Year 3: INR 2,500 Crore Year 4: INR 5,000 Crore Year 5: INR 6,000 Crore Year 6: INR 7,500 Crore
Domestic Companies **I. Laptops** **II. Tablets** **III. All-in-One PCs** **IV. Servers** **V. Ultra Small Form Factor (USFF)**	INR 20 Crore over 6 Years; Cumulative Minimum (Crore): Year 1: INR 4 Crore Year 2: INR 8 Crore Year 3: INR 12 Crore Year 4: INR 15 Crore Year 5: INR 18 Crore Year 6: INR 20 Crore	Year 1: INR 50 Crore Year 2: INR 100 Crore Year 3: INR 200 Crore Year 4: INR 300 Crore Year 5: INR 400 Crore Year 6: INR 500 Crore

ANNEXURE II: ITEMS FOR LOCALISATION

S. No.	Components/Sub-assemblies	% Incentive
1.	Assembly of IT Hardware – Laptop / Tablets/ AIOs (Year-1/Year-2/Year-3/ Year 4/ Year 5/Year 6)	3/2/1/1/1/0
2.	Assembly of IT Hardware – Server / USFF (Year-1/Year-2/Year-3/Year 4/Year 5/Year 6)	3/2/2/1/1/0
3.	PCBA of IT Hardware (Target Segment)	1.20
4.	Add on Controllers assembled in India – (For Servers)	0.41
5.	Bare PCB	0.57
6.	Memory Modules assembled in India	0.95
7.	Memory Modules assembled in India – (For Servers)	1.89
8.	Solid State Drive (SSD) assembled in India	0.95
9.	Display panel – Assembled in India (Not for Servers/USFF)	1.49
10.	Power Adapter / SMPS	0.41
11.	Power Adapter / SMPS – (For Servers)	0.54
12.	Battery	0.41
13.	Cabinets / Chassis / Enclosures	1.49
14.	Memory Modules additional incentive for ATMP in India (over and above incentive for item 6)	+0.25
15.	Memory Modules additional incentive for ICs manufactured in India (over and above incentive for item 6)	+0.25
16.	Memory Modules additional incentive for ATMP in India (over and above incentive for item 7) (For Servers)	+0.50
17.	Memory Modules additional incentive for ICs manufactured in India (over and above incentive for item 7) – (For Servers)	+0.50
18.	Solid State Drive (SSD) additional incentive for ATMP in India (over and above incentive for item 8)	+0.25
19.	Solid State Drive (SSD) additional incentive for ICs manufactured in India (over and above incentive for item 8)	+0.25
20.	Display Panel – Additional incentive for ICs manufactured in India (over and above incentive for item 9)	+0.60
21	System on Chip (SoC) Processors designed in India (IP ownership/Co-ownership in India) including but not limited to SHAKTI and VEGA (IC manufactured outside India) for Laptop, Tablet, AIO, USFF and Server)	+3.24/3.78
22.	System on Chip (SoC) Processors designed in India - Additional incentive for ATMP/ ICs manufactured in India (over and above incentive for item 21) for Laptop, Tablet, AIO, USFF and Server)	+1.49/1.62

Note: The Incentive percentage mentioned in the above table is for Year 1 for items listed from Sr. No.3 to 22. The incentive percentage of Items 2 to 13 shall taper down by 5%, 10%, 15%, 20% and 25% in Year 2, 3, 4, 5 and 6 respectively.



EXPORT PREPAREDNESS INDEX 2022: UNLOCKING INDIA'S EXPORT POTENTIAL

By:
Amit Kapoor and Sheen Zutshi
Institute for Competitiveness (IFC)

India's Foreign Trade Policy (FTP) for 2023 has outlined the importance of exports as a driver of the nation's growth, steering India toward its ambitious goal of evolving into a developed economy by 2047. It has set the target for India to achieve USD 2 trillion in exports by 2030.[1]

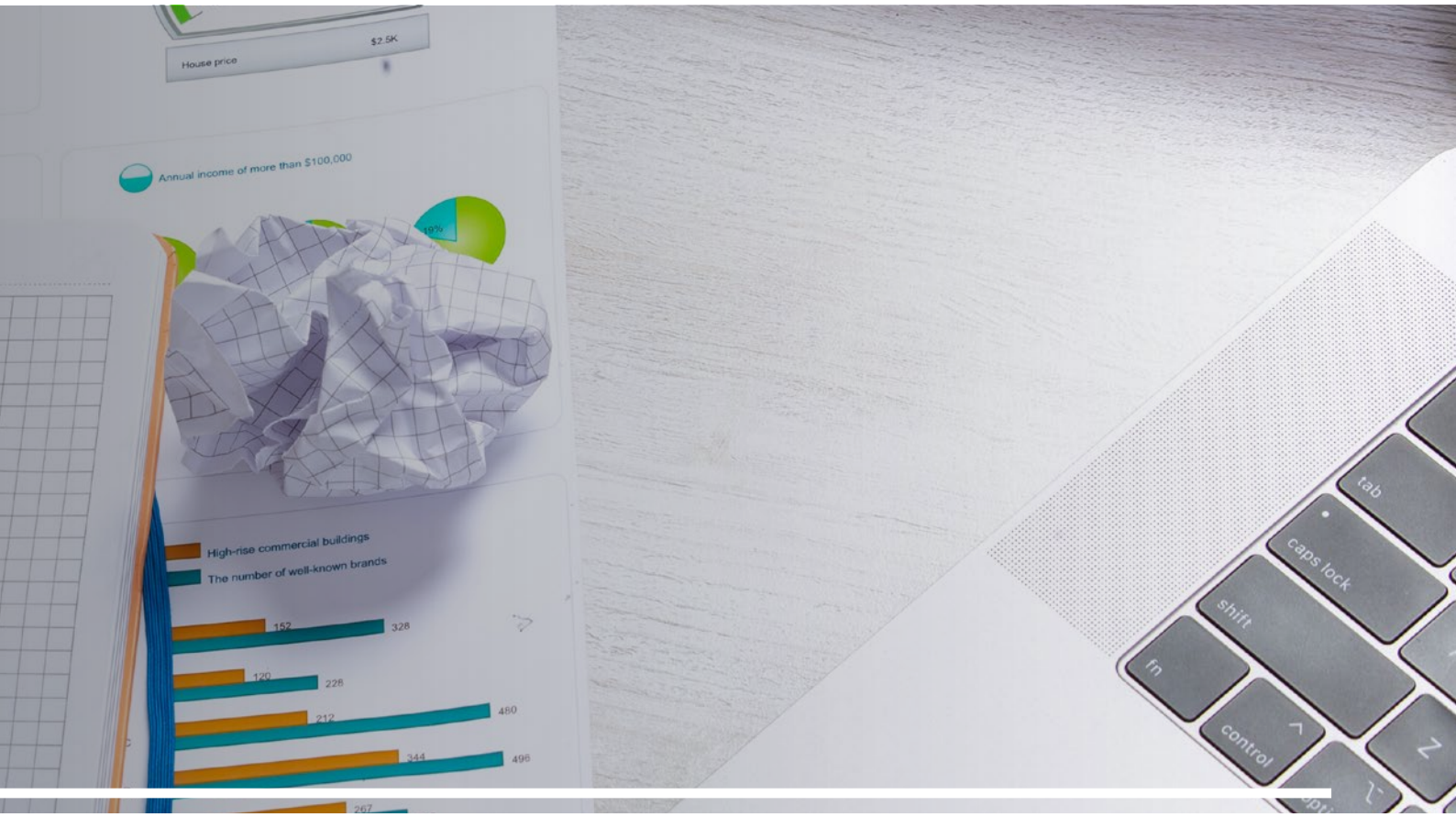
Over the years, the Indian economy has demonstrated remarkable resilience in its exports in the time following the pandemic, when countries aimed to restore their pre-pandemic trade levels. Despite the challenges posed by the COVID pandemic, Indian exports, surpassing pre-COVID levels, have recovered strongly, registering positive growth. Along with the recovery of global demand coupled with a revival in domestic activities, the timely initiatives of the government also played a vital role in fostering Indian exports.

During the fiscal year 2021–22, India achieved a merchandise export value of USD 422 billion. This exceeded the ambitious target of USD 400 billion. This further increased to USD 450 billion in 2022–23, marking a growth of 6.74 percent. Whereas, service exports from India achieved an all-time high of USD 254 billion, which was further increased to USD 322 billion.

Of particular note is the remarkable performance of agricultural exports, which reached an unprecedented peak of nearly USD 53 billion. Therefore, sustaining this positive momentum is crucial for Indian exports to attain the goal of reaching USD 2 trillion by 2030.[2] The key to this is the effective utilisation of India's inherent diversity to improve its export competitiveness.

India needs to address the existing regional disparity across states to build the antifragile export ecosystem. Around 85 percent of total merchandise exports originated from just ten states in 2021-22. There is Regional Disparity as coastal states continue to be the flag bearer of the export sector growth in India. This is reflected in their share of exports in India. In 2021-22, Gujarat (30.05), Maharashtra (17.32), Tamil

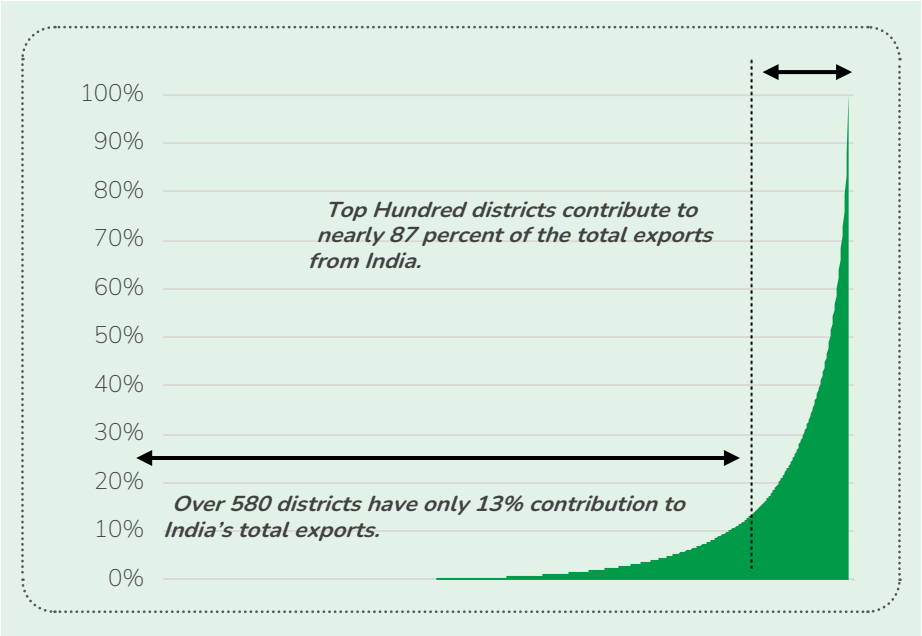
[1] *Foreign Trade Policy 2023*
[2] *India Achieves its Highest Ever Overall Exports of USD 776 Billion*
[3] *State wise Export data*



Nadu (8.34), and Karnataka (6.13) together accounted for over 61 per cent of India's exports.[3] Furthermore, the top ten exported commodities contribute to nearly 80 percent of the country's total export value. These trends indicate a significant level of export concentration both regionally and in terms of commodities. Such a concentrated export portfolio exposes our economy to external shocks, as fluctuations in demand for these products can directly impact our economic stability.

For a more equitable approach to exports, diversification of the export basket and decentralisation of exports become important. **Presently, a significant portion of India's total merchandise exports, approximately 87 percent, originate from the top hundred districts.**

DISTRIBUTION OF TOTAL EXPORTS FROM DISTRICTS IN INDIA



Source: Ministry of Commerce and Trade

Among these, the districts of Jamnagar (12.18%), Surat (4.57%), Mumbai Suburban (3.75%), Mumbai (3.70%), and Pune (2.73%) are the top exporting districts and are responsible for exports worth over USD 113 billion. **This highlights the untapped potential present in the remaining districts, which should be harnessed to achieve a more balanced regional distribution of exports.**

Although, the Government of India has launched two initiatives, "Districts as Export Hubs" (DEH) and "One District, One Product" (ODOP), to boost exports. DEH aims to leverage regional advantages and create District Export Action Committees to produce exportable goods. Over 670 districts have established DEHs, and 570 have formulated plans. ODOP identifies at least one exportable product from each district, with over 774 identified. These initiatives align with the vision of promoting local products and domestic manufacturing, contributing to a self-reliant India. This vision set forth by the Honourable Prime Minister Modi to establish 'Districts as Export Hubs' aligns with this objective.

The Export Preparedness Index (EPI), prepared by NITI Aayog in association with the Institute for Competitiveness (IFC), goes beyond evaluating and measuring the export preparedness of states to evaluate their readiness to improve their export capacity over the years. The index sheds light on the absence of a viable export ecosystem across states and UTs. These interstate and intrastate gaps must be eradicated by the effective implementation of national and state government policies. The objective of this index is to promote competitive federalism, which states and UTs achieve by identifying multiple important impediments and overcoming them with the context-specific techniques advised in the scope of this research.

Over the last 3 years, EPI via ranking assesses the states and UTs based on export readiness and performance, providing crucial insights to improve the export ecosystem of each state and UT. To help the states identify their strengths and challenges, the index assesses the states using a comprehensive framework designed with rigorous discussion with NITI Aayog, State government officials and organizations such as DGFT, EXIM Bank and DGCIS, to evaluate their preparedness for the export ecosystem. The States and UTs are assessed across four main pillars: policy, business ecosystem, export ecosystem, and export performance.

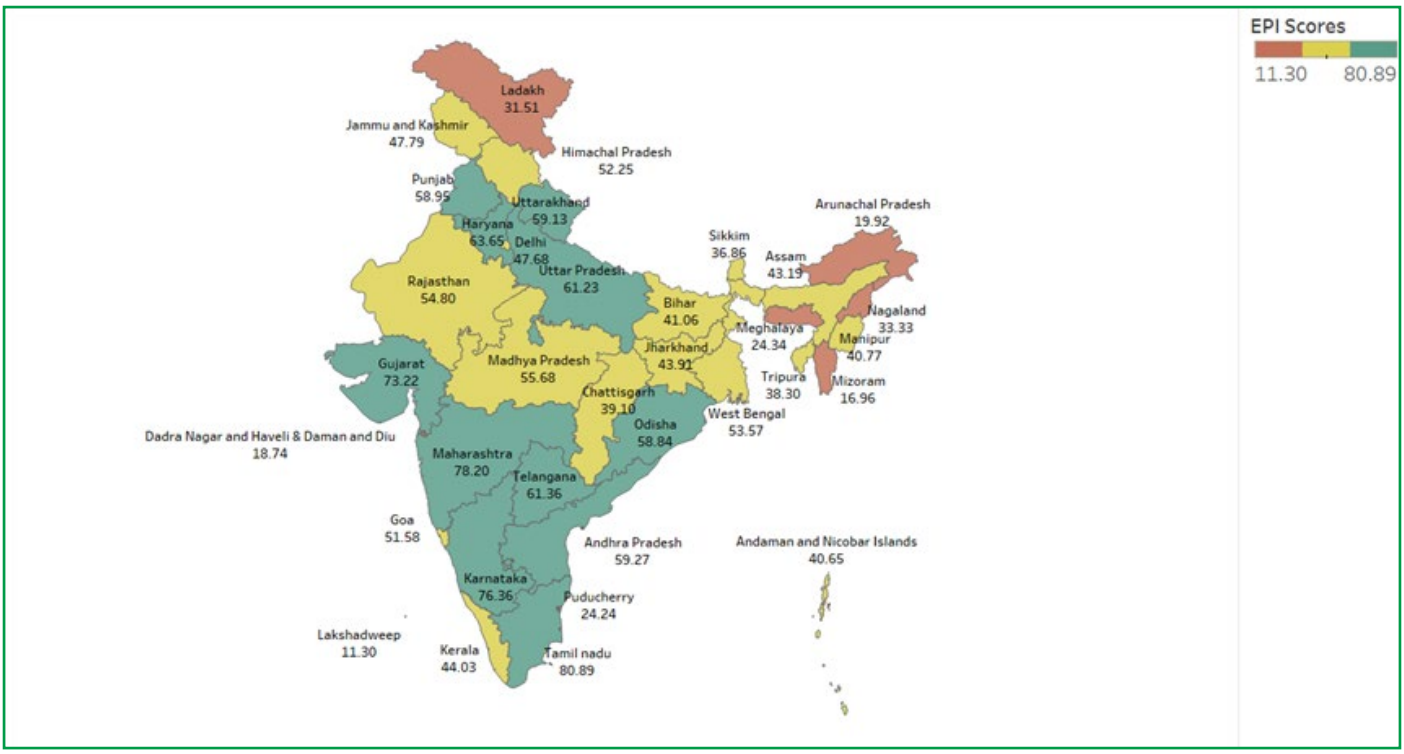
Each of these pillars are further divided into sub-pillars, each comprising relevant indicators. Moreover, the states and UTs are categorised into four groups: coastal, Himalayan, landlocked, and small states and UTs. This categorisation acknowledges the diversity present in the country's geography and the entailing impact it has on exports from each state, making it inappropriate to compare them on a one-on-one basis. These categories, thus, enable each state and UT to have a peer group, and the detailed profiles and scorecards provided in the report allow them to assess their performance relative to their peers. By understanding the distinctive prospects and addressing challenges, EPI 2022 provides a significant policy roadmap for the states and UTs to foster their exports.

According to EPI 2022, the national average score for the policy pillar is 74.71, indicating a viable policy ecosystem fostering exports across states and UTs. However, the pandemic has affected the business ecosystem, with states experiencing a decline in FDI inflow and value addition in the manufacturing sector.

Tamil Nadu has emerged as a top scorer with a score of 80.89, signifying the greatest degree of export preparedness in the country. It is closely followed by coastal states such as Maharashtra (78.20), Karnataka (76.36), Gujarat (73.30), and Haryana (63.65). These states along the country's coastline have performed well in all categories, followed by the states that are landlocked.

EPI 2022 OVERALL RANKINGS

Rank	State	State	Score
1	Tamil Nadu	Coastal	80.89
2	Maharashtra	Coastal	78.20
3	Karnataka	Coastal	76.36
4	Gujarat	Coastal	73.22
5	Haryana	Landlocked	63.65
6	Telangana	Landlocked	61.36
7	Uttar Pradesh	Landlocked	61.23
8	Andhra Pradesh	Coastal	59.27
9	Uttarakhand	Himalayan	59.13
10	Punjab	Landlocked	58.95



Source: Export Preparedness Index 2022

In various crucial areas, the Himalayan states, with the exception of Uttarakhand and Himachal Pradesh, score below the national average of 46.56. Similarly, UTs and minor states performed low on the index and their administrations must make major efforts to improve their export performance.[4] **Coastal and landlocked states have a well-developed export ecosystem, while Himalayan and small states/UTs have the potential for growth.** It is noted that the export-oriented policy framework is well-adopted, but urgent steps are needed in trade support, business infrastructure, connectivity, and research and development to improve export performance.

The Export Preparedness Index 2022 emphasizes the importance of export expansion for a nation's development and highlights the need for fostering export performance at state and district levels. **The report suggests creating a supportive business ecosystem, investing in research and development, and leveraging unique products. By analysing state and UT's performance at national, pillar, and sub-pillar levels, it helps identify strengths and areas for improvement. State governments play a crucial role in this process, and learning from their peers can help India become a dominant global trade player.**

Authors:

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Sheen Zutshi is Research Manager, Institute for Competitiveness

The Export Preparedness Index (EPI) was prepared by NITI Aayog in association with the Institute for Competitiveness (IFC).

The opinions expressed here are those of the authors.

[4] *Export-Preparedness-Index-2022*

ELECTRONICS AS THE NEW FRONTIER: STRENGTHENING INDO-US TRADE TIES

By:
Kapil Gupta
India Cellular & Electronics Association (ICEA)

In the intricate game of global trade, akin to a grand chessboard, India and the U.S. stand together on the same side, strategizing as allies. Their moves, carefully coordinated and mutually beneficial, centre around technology and market opportunities, particularly in the electronics sector. This partnership, reflective of a modern adaptation of the ancient chess game, is about making calculated moves that advance shared interests and reshape the power dynamics in international trade, especially within the domain of electronics.

Historical Context and Current Landscape

Trade between India and the U.S. has a rich tapestry that dates back centuries. From the early days of the spice trade, which brought exotic flavours to American shores, to the modern era's quest for software and services, this bilateral relationship has been marked by a spirit of innovation and mutual benefit.

Timeline of key events in Indo-US relations concerning trade, technology, and supply chain partnerships from 1947 to 2023:

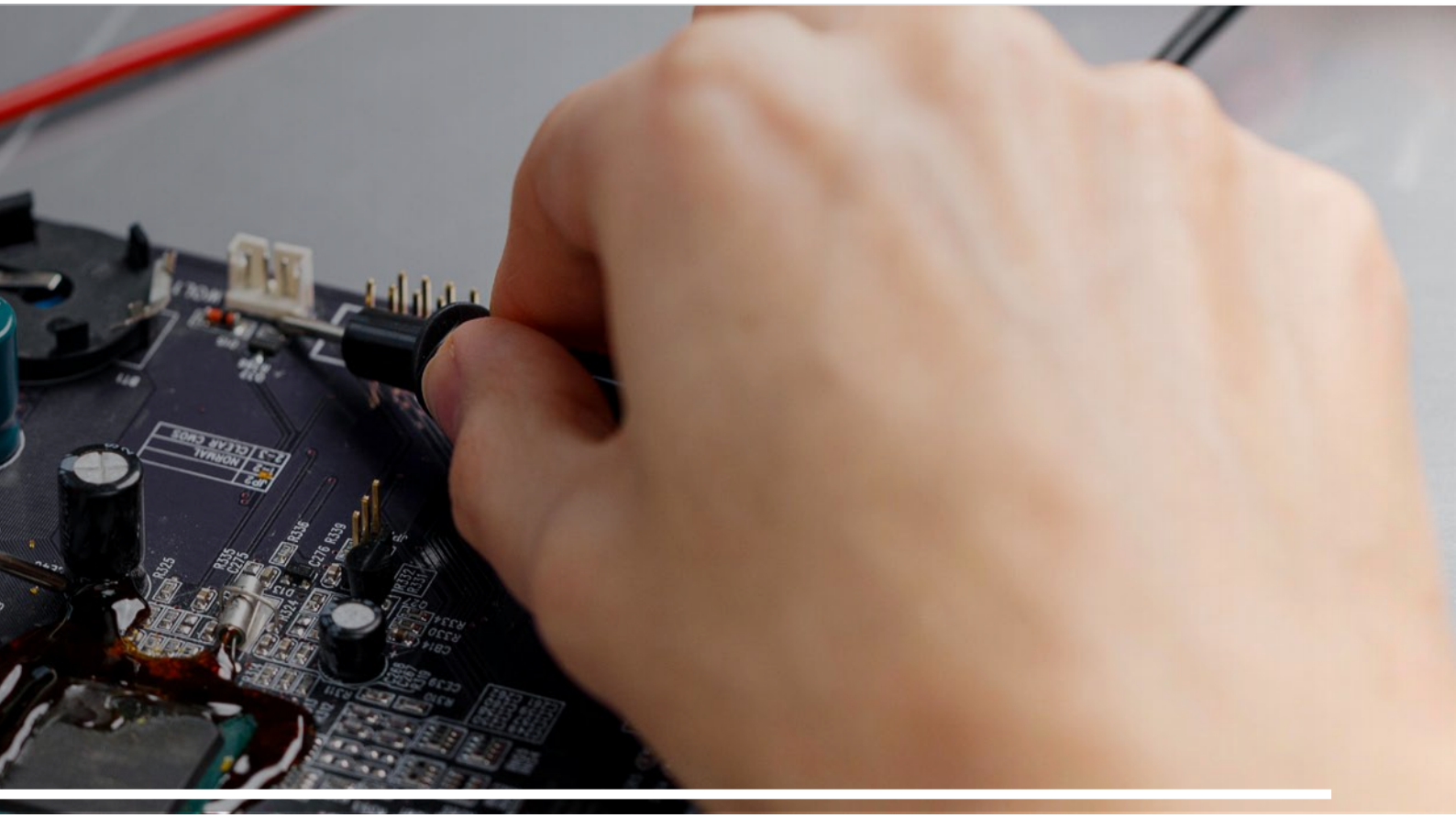
1947-1949:

- India declares independence (1947).[1]
- Prime Minister Nehru visits the US (1949).[1]

1959-1962:

- President Eisenhower visits India (1959).[1]
- US universities support Indian Technological Institute (1962).[1]

[1] *Council on Foreign Relations (CFR): "Timeline: U.S.-India Relations". https://www.cfr.org/timeline/us-india-relations*



1971-1978:

- India's first nuclear test (1974).[1]
- US enacts Non-proliferation Act (1978).[1]

1982-1991:

- Indira Gandhi mends ties during the US visit (1982).[1]
- India launches economic reforms (1991).[1]

1998-2008:

- India tests nuclear devices (1998).[1]
- Clinton trip signals warming ties (2000).[1]
- US lifts India Sanctions (2001).[1]
- Landmark Civil Nuclear Deal announced by President George Bush in July 2005, formally signed as the 123 Agreement (2008).[2]
- Mangoes-for-Motorcycles Deal signals deepening trade ties (2007).[1]
- Nuclear Energy Regulator allows Indian Nuclear Trade (2008).[1]

2010-2013:

- US Treasury Secretary launches Economic Partnership (2010).[1]
- US, India hold first Strategic Dialogue (2010).[1]
- US, India ink Cybersecurity Memorandum (2011).[1]

2014-2019:

- Post-2014, under PM Modi's leadership, defense ties between the US and India have deepened. US recognized India as a Major Defense Partner (2016).
- Trump ends India's Special Trade Status (2019).[1]

2020-2023:

- Officials sign deal to boost intelligence sharing (2020).[1]
- First In-Person Quad Leaders' Summit (2021).[1]
- In May 2022, US President Joe Biden and Indian Prime Minister Narendra Modi announced the US-India initiative on Critical and Emerging Technologies (iCET).
- Deepening Defense and Economic Cooperation continues with a robust engagement calendar between Biden and Modi for developing an ambitious roadmap for defense ties (2023).[3]

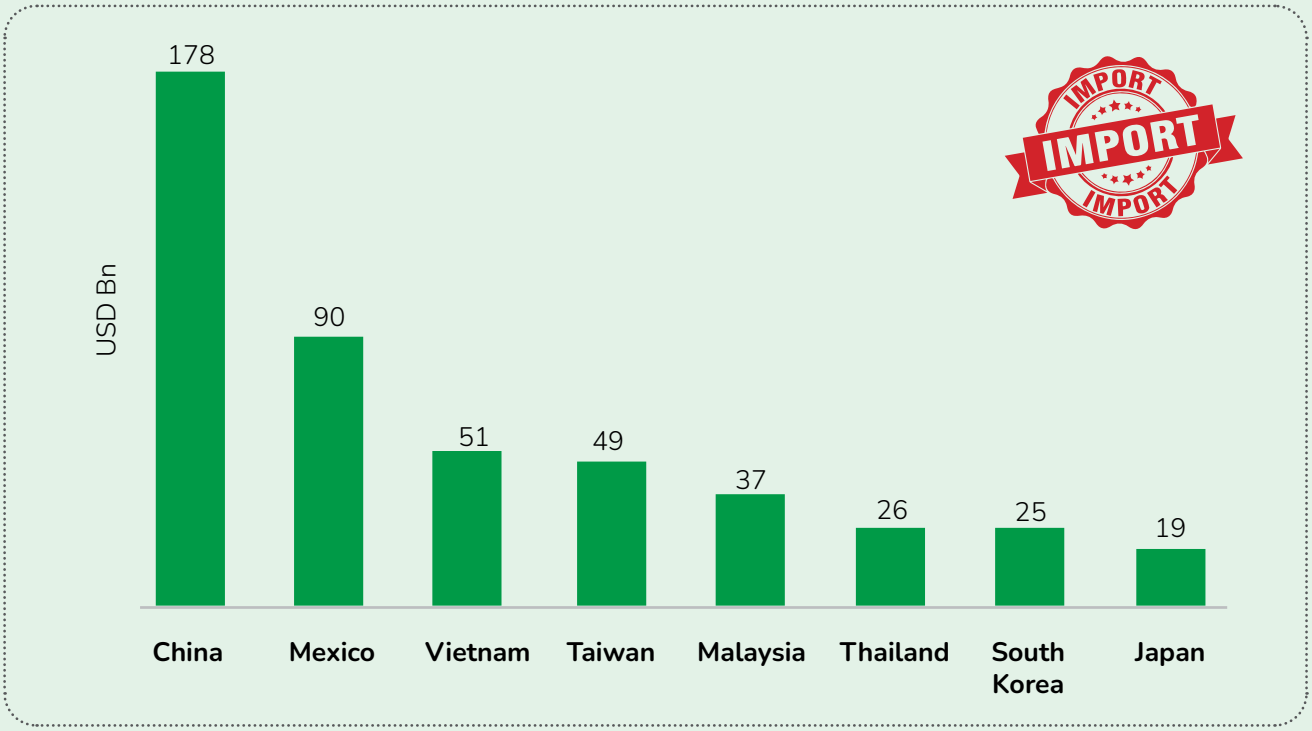
[2] *Vivekananda International Foundation (VIF): "Evolution of Indo-US Relations: From Estranged Democracies to Engaged Democracies". https://www.vifindia.org/article/2021/september/26/evolution-of-indo-us-relations-from-estranged-democracies-to-engaged-democracies*

The trade numbers between the two nations have grown steadily over the years, and yet, when one considers the scale of the U.S. market and India's manufacturing capabilities, it's clear that the surface has only been scratched, particularly in the high-stakes electronics sector. A closer look at the historical trade volumes reveals that the electronics trade between India and the US in the last five years has grown by a massive 742%, although in comparison with competing electronics manufacturing nations, there is still scope for huge improvement.

The Electronics Trade Opportunity

The U.S. has always been a powerhouse of consumption, particularly for electronics. The market is vast, with American homes and businesses continuously seeking the latest in technology. Currently, much of this demand is met by imports, with a significant portion originating from China.

FIGURE 1: US IMPORTS ELECTRONICS FROM



The global trading environment experienced a seismic shift when the U.S. imposed a 25% tariff on Chinese imports in 2018. This significant move not only reshaped trade flows but also created a vacuum in the market. This shift has presented the Indian Electronics sector with a pivotal opportunity to step up and fill the gap. However, this reliance is being re-evaluated due to geopolitical tensions and supply chain risks. With its burgeoning electronics manufacturing sector, India is poised to make a significant impact. The sector's recent surge to over USD 100 billion in FY 2022-23, coupled with projections of tripling to USD 300 billion within the next three years, positions India as a pivotal force in diversifying the U.S. supply chain and reshaping the landscape of global electronics trade.

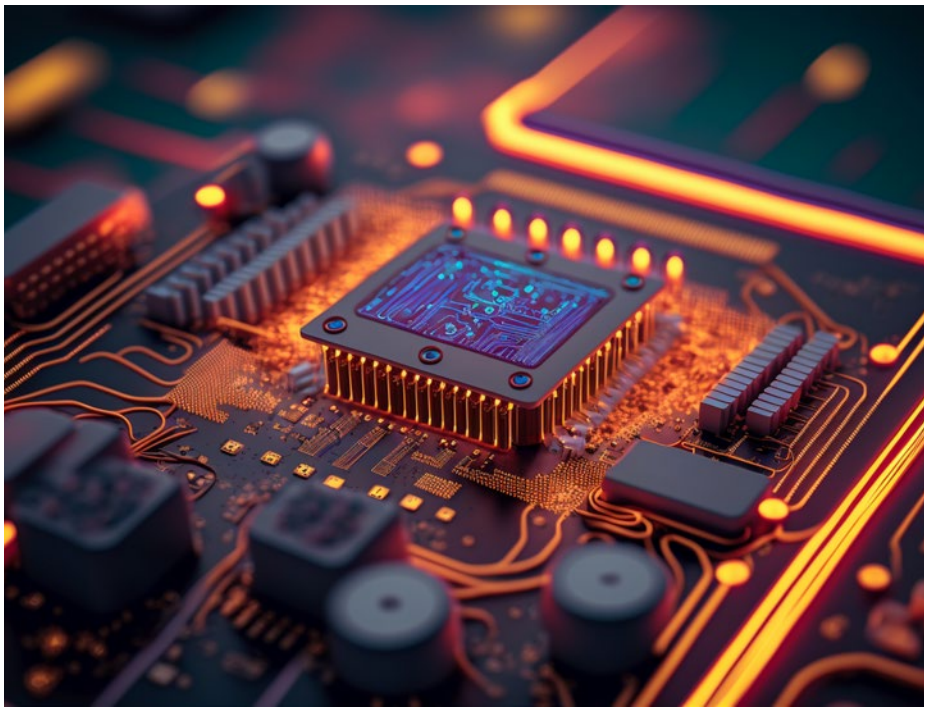
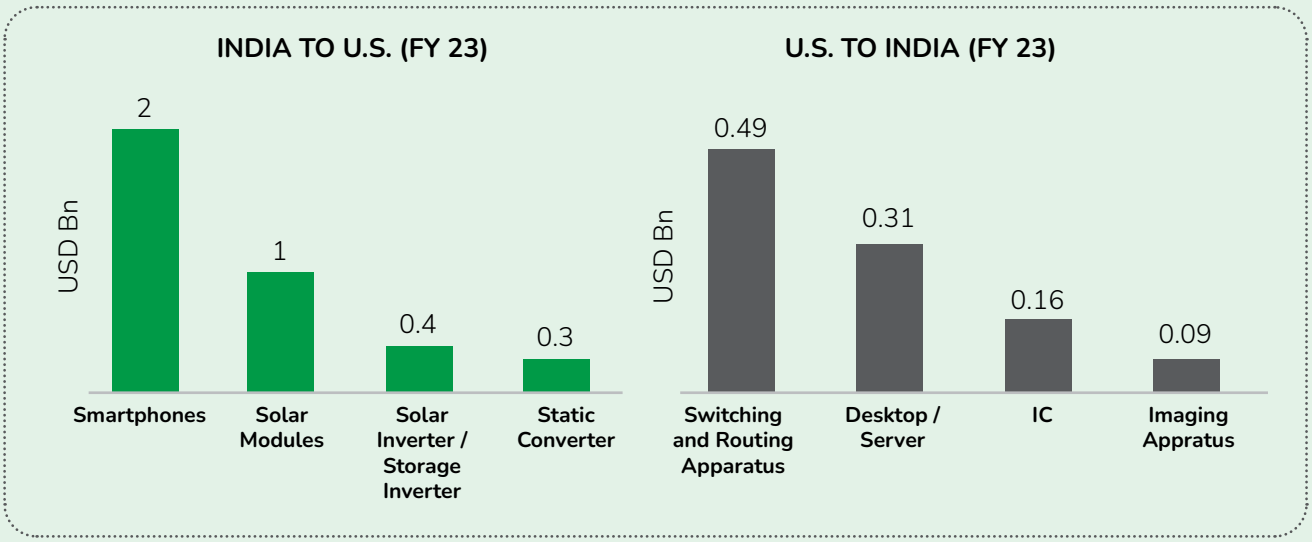


FIGURE 2: TRADE OF TOP ELECTRONIC GOODS BETWEEN INDIA AND THE US



Indo-US Task Force for Electronics

In August 2023, the India Cellular & Electronics Association (ICEA) launched the Indo-US Task Force for Electronics, heralding a new chapter in this strategic partnership.

Main Goals of the Indo-US Task Force for Electronics

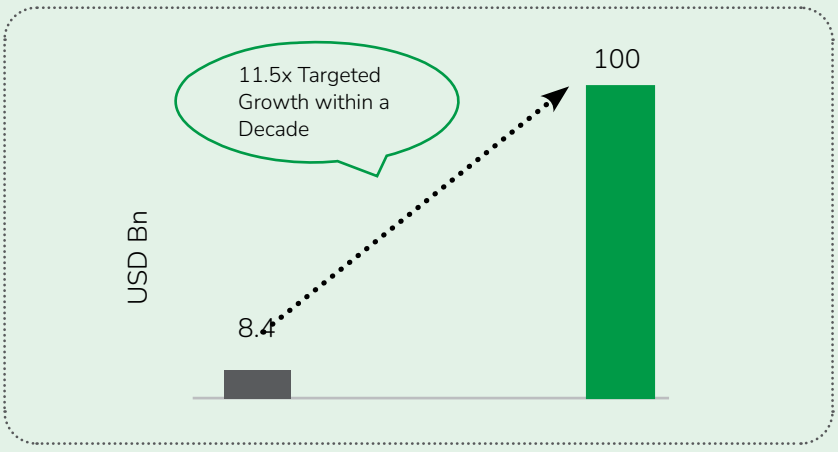
Expand Trade: Aim to increase the value of electronics trade between the two nations to USD 100 Billion in the next ten years.

Promote New Ideas: Support the creation of new technology and products that benefit both countries, in line with the shared vision for technology between the U.S. and India.

Create Jobs: Build new job opportunities and support business growth in both Indian and American markets.

This initiative is not just a series of meetings and agreements; it's a concerted effort to align India's growth in electronics manufacturing with the U.S.'s need to diversify its electronics import sources.

FIGURE 3. INDO-US ELECTRONICS TRADE OPPORTUNITY



Historical and Present Context to Indo-US Trade

Reflecting upon history, the relationship between India and the U.S. has been one of ebbs and flows. From the Cold War era, when India's non-alignment seemed at odds with U.S. interests, to the post-liberalization boom which saw India emerge as a global IT services giant, the journey has been transformative. Today, we stand at another inflection point, where electronics have become the new currency of power and exchange. The U.S., in its pursuit of technological security, looks to India as a trusted partner that can offer both scale and skill.

Strategic Importance of the Electronics Sector

The strategic value of the electronics sector cannot be overstated. It's not just about consumer goods; it's about the very tools that power our economies, secure our data, and drive our innovations. India's policy environment is increasingly conducive to electronics manufacturing, with reforms aimed at attracting investment and building capabilities. This policy shift is a clear signal of India's commitment to becoming an electronics powerhouse.

Challenges and Recommendations

However, the path ahead is not without its challenges. India's infrastructure, while improving, needs significant investment to support a large-scale electronics industry. Regulatory processes can be complex and time-consuming, often posing hurdles for businesses. Moreover, the skill gap in the labour market is set to be addressed to ensure a workforce capable of high-tech manufacturing. The Task Force should recommend a multi-pronged approach to tackle these issues, emphasizing the need for infrastructure development, regulatory streamlining, and skill development.

Conclusion and Call to Action

The Indo-US Task Force for Electronics, an initiative spearheaded by the ICEA in August 2023, is a pivotal development in the collaborative journey of these two nations. While it enjoys government support, it's crucial to recognize its roots in the ICEA's vision and leadership. This Task Force is emblematic of the synergistic potential between Indian and U.S. industries and stakeholders in the electronics sector.

As we look to the future, the endeavours of this Task Force highlight the combined strength and strategic intent of India and the U.S. in global electronics trade. This partnership, fostered by industry-led efforts and bolstered by governmental backing, transcends traditional trade dynamics. It is a testament to how aligned industry goals and collaborative efforts can open new doors for innovation, economic growth, and a more resilient supply chain.

The alliance forged through the Task Force is set to redefine international cooperation in the digital era. By joining forces, the two nations are poised to catalyse significant advancements in electronics, benefiting not only their economies but also setting a new standard for industry-led international collaborations. The chessboard is set, and with this strategic alignment, India and the U.S. are making moves that promise widespread benefits and mark a new chapter in the global electronics trade

Author:

Kapil Gupta, Deputy Director - Public Policy, ICEA

THE DIGITAL PERSONAL DATA PROTECTION ACT

HOW DOES IT IMPACT YOUR BUSINESS?

APPLICABILITY

The Act applies to digital personal data, i.e. data about any person who is identifiable by such data, or in relation to such data. It only covers 'digital' data, not offline records. It does not cover non-personal data (business insights, anonymized data).

KEY PLAYERS

Data Fiduciary
Who determines the purpose and means of processing the data

Data Processor
Any person who processes the data on behalf of a Data Fiduciary

Data Principal
Individual to whom the personal data relates

WILL THIS CHANGE HOW COMPANIES USE DATA?

Yes. To collect personal data, fiduciaries must either get an individual's consent or the collection / processing must be for certain "legitimate uses" recognised in the law.

WHAT HAPPENS TO PERSONAL DATA COLLECTED BEFORE THIS LAW?

For data collected before the law kicks in, fiduciaries must send individuals a fresh notice, which sets out what data is processed, purpose, how individuals can exercise their rights and make complaints to the Board.

WHO IS RESPONSIBLE

Data fiduciaries are responsible for users' data and are accountable under the law. They may also pass these obligations on data processors through contracts.

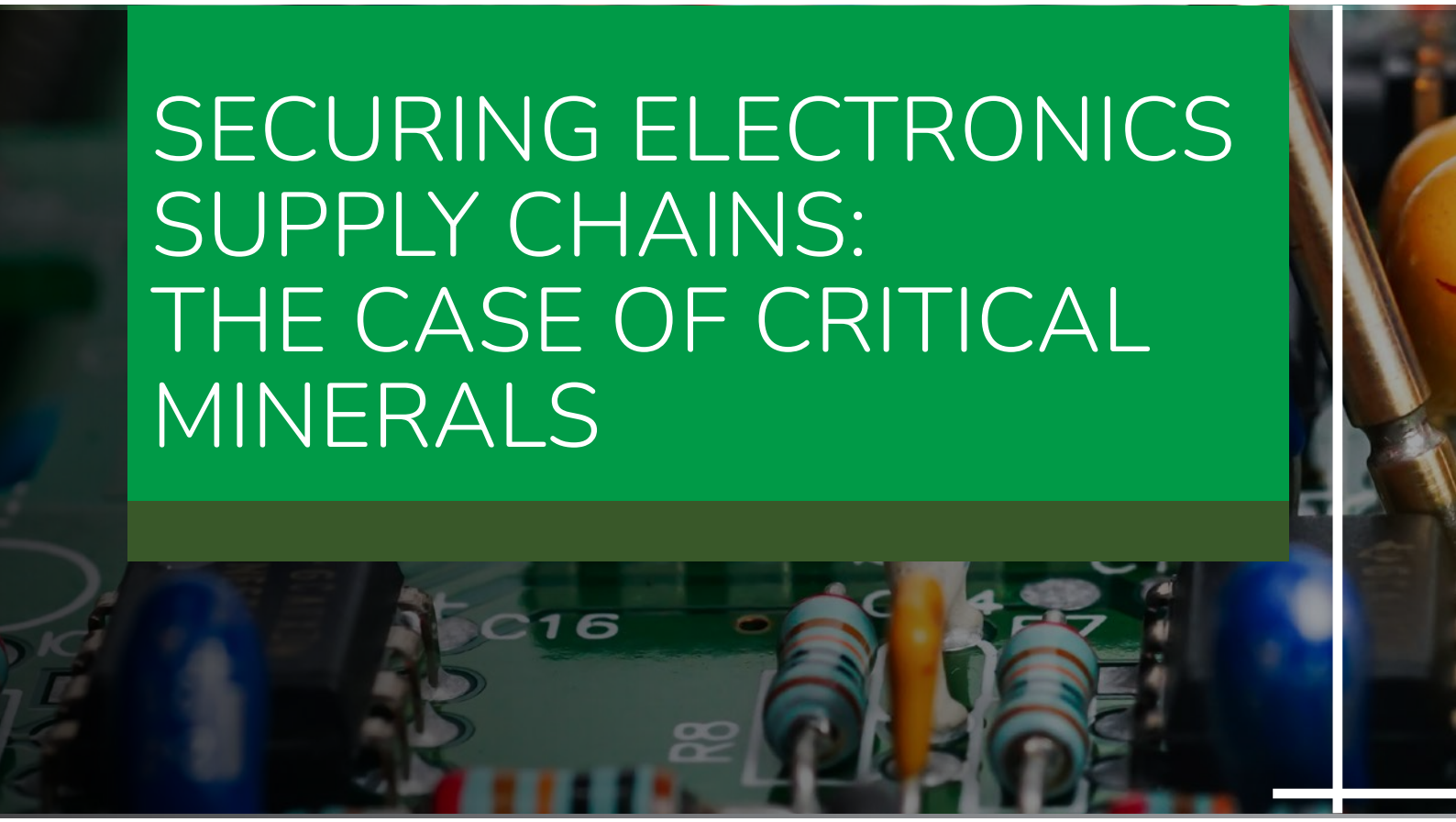
WHAT SHOULD A DATA FIDUCIARY DO?

- ○ Map data (identify where each team and function interacts with personal data)
- ○ Revisit user interface (identify where to show pop-up notices, checkboxes, more information in the customer journey)
- ○ Update privacy policies or notices
- ○ Review contractual arrangements with vendors or data processors.
- ○ Train employees (across product, business, sales, HR, etc.)
- ○ Appoint the right officers (grievance officer, data protection officer if a 'significant data fiduciary')

For more, reach out to
contact@ikigailaw.com

Info By: Ikigai Law

SECURING ELECTRONICS SUPPLY CHAINS: THE CASE OF CRITICAL MINERALS



By:
Ritika Passi
Geo-economics Analyst

Critical minerals will power the 21st century industries — and electronics will be at center-stage. Interestingly and equally importantly, the development of the electronics industry will play an increasingly vital role in securing critical mineral supply chains going forward.

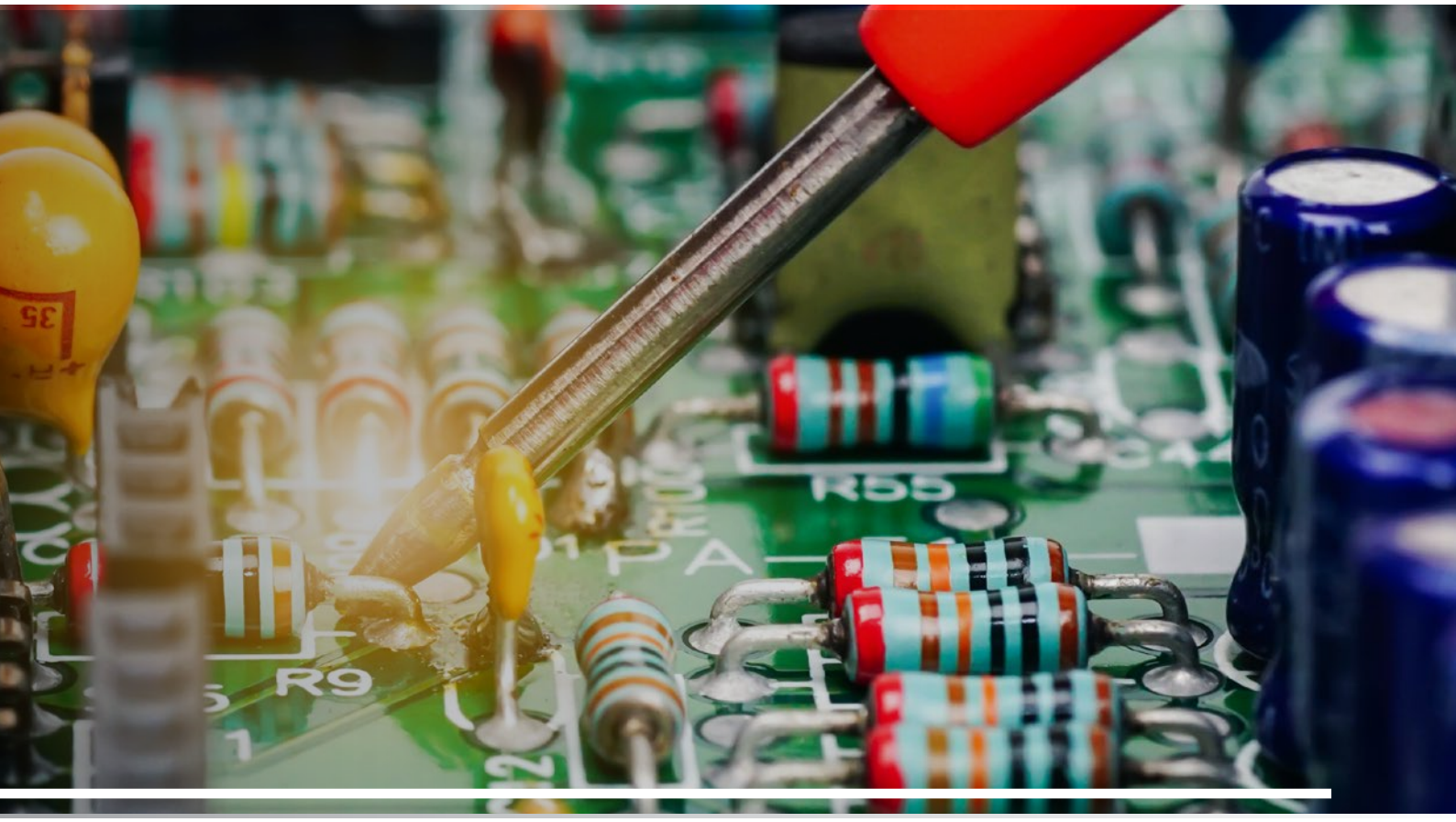
The pervasiveness of electronics and a transition towards green economies dependent on clean energy technologies are dictating a shift from a fuel-intensive economy to one dominated by minerals. Countries must move to de-risk and secure their supply chains of these critical minerals that have now become key for economic development and national security. According to India's Ministry of Mines, "the lack of availability of these minerals or even concentration of existence, extraction or processing of these minerals in few geographical locations may lead to supply chain vulnerability and disruption."

India is currently pursuing the goal of becoming a global electronics and semiconductor manufacturing hub, with the target of establishing a $300 billion domestic electronics manufacturing ecosystem by 2026.[1] It needs to urgently address the role raw materials play in its domestic ambitions and global vision — materials that include critical minerals such as silicon, lithium, iridium, indium, copper, cobalt, gallium, germanium, and rare earth elements. Firstly, tectonic shifts in geopolitics, trade, and investment are not only affecting supply chains of food, fuel, fertilisers, but also critical minerals. Secondly, technology — and the critical minerals embedded within them — have become yet another playground for power rivalry as well as economic nationalism, resurrected in the face of global headwinds, even as the demand for technology is on the rise.

The critical connect

The current urgency for the Indian electronics industry to address upstream considerations arises out of a growing mismatch between demand and supply — but also the sheer content and concentration of minerals going into electronic components and devices.

[1] *India Cellular & Electronics Association (ICEA), $300 bn Sustainable Electronics Manufacturing & Exports by 2026, 2022, https://static.pib.gov.in/WriteReadData/specificdocs/documents/2022/jan/doc20221247801.pdf*



1. Increasing demand

Technology is driving development pathways and the global agenda: from daily devices to systemic-level energy and digital transitions. Just as there is increasing demand for clean, green, digital, and daily technologies, so is the case for the raw materials that power these technologies, everything from chips and batteries to electric vehicles and solar panels.

Electronics system design and manufacturing (ESDM) has emerged as one of the fastest growing industries in the Silicon Age — and an increasingly digitised world, particularly post-Covid, means no likely slowdown. Electronics are among the top globally traded product categories in the world. As per estimates, the global electronics industry is currently valued upward of $3 trillion[2] — around the size of India's economy. India's own demand for consumer electronics is expected to increase from less than $10 billion at present to over $120 billion by 2030.[3] Indeed, it is already the second-largest market for smartphones — and as it taps into the significant electronics manufacturing opportunity to generate employment and income, smartphones have become one of India's top-five export commodities.[4]

Rising demand for the component or equipment means rising demand for inputs. According to the World Bank, global demand for lithium could rise anywhere between 13 to 51 times from current levels. The IEA predicts demand for rare earth elements could increase between three to seven times by 2040. The market for indium, a rare and expensive corrosion-resistant metal used to generate light and colour on our screens and displays, is expected to double this decade.

Moreover, electronic devices, components, and equipment permeate all sectors of the economy. The government has rightly recognised that they are important for the development of other economic or strategic sectors, such as telecommunications, energy, mobility, and defence. Electronics are implicated in existing (such as electric vehicles) and emerging technologies (think sensor-based Internet of Things, for instance).

And these sectors, too, are growing. For example, a 2016 report co-authored by NASSCOM estimated that the aerospace and defence industry will consume electronics worth upward of $70 billion by 2030.

2. Growing supply risks

Firstly, it bears asking whether there is enough anticipated supply of critical minerals to meet the world's appetite for technology. Global demand projections already exceed the rate at which new critical mineral sources are being developed. Copper, the lifeline of electronic circuitry, and even aluminium, a prominent material used across electronic devices, may

[2] *JEITA, "Production Forecasts for the Global Electronics and Information Technology Industries, December 16, 2020, https://www.jeita.or.jp/english/press/2020/1216.pdf*

[3] *Ravi Agarwal, "The ongoing transformation of consumer electronics: How quality and affordability are reshaping the industry," The Times of India, July 25, 2023, https://timesofindia.indiatimes.com/blogs/voices/the-ongoing-transformation-of-consumer-electronics-how-quality-and-affordability-are-reshaping-the-industry/*

[4] *Mimansa Verma, "Apple has made smartphones one of India's top five exports," Quartz, June 12, 2023, https://qz.com/iphones-make-smartphones-one-of-top-five-indian-exports-1850528452*

run out — even with 100% recycling and reuse — unless new sources and mines come online.[5]

Secondly, the COVID-19 pandemic, the Russia-Ukraine conflict, and a worsening US-China systemic rivalry have exposed supply chain vulnerabilities arising from over-dependence.

The production and processing of critical minerals are more globally concentrated than oil and natural gas.[6] China currently dominates several critical mineral markets of importance to the electronics industry. For example, it accounts for at least 60% of global rare earth's production and refines 40% of the world's copper, 59% of the world's lithium, and 73% of the world's cobalt.

Further complicating availability are technical and environmental barriers to entry by other sources. Lithium, for instance, is expensive to extract. Gallium and indium cannot be recycled at present.

Bottlenecks arising out of this concentration and over-dependence are already in plentiful evidence.[7] Take Peru, for example, which accounts for 10% of global copper supply. Recent political unrest has led to the suspension of operations in one of the mines earlier this year.

More worryingly, as countries seek to secure critical mineral supply chains, they are adopting a range of economic security measures and policies — from trade weaponisation to economic nationalism — that threaten stable and secure supply (not to mention the impact on prices).

China's recent salvo in the ongoing US-China tech and trade war is a case in point. It produces 60% of the world's germanium and 80% of the world's gallium and has now put in place restrictions on its exports. These materials are used predominantly in electronics, such as semiconductors and LEDs. Another example is the US's Inflation Reduction Act, which has introduced specific critical mineral requirements. Such measures could escalate in the time to come and further disrupt existing supply chains and affect market prices.

National security concerns are leading major critical mineral-producing and consuming countries to begin realigning supply chains. In short: an uncertain global trade landscape makes urgent the task of ensuring manufacturing and supply chain resilience.

3. Content and concentration

Electronics are mineral-rich. The mobile phone — the current poster child of India's manufacturing drive — is a handy example. As the US Geological Survey notes, more than one-half of all components in our smartphones are made from mined and semi-processed minerals. The display contains silicon, indium, tin, gallium, and germanium. The electronics and circuitry use copper, silicon, tantalum, and tungsten. The battery: lithium and graphite. Speakers: rare-earths. Semiconductors, a core component of electronics and a new priority focus for India, also require a range of minerals: silicon, gallium, arsenic, and cobalt.

The potential for urban mining — as a means to secure a circular source of critical mineral supply — is enormous. By one measure, electronic waste the weight of 19 Eiffel Towers is discarded every day — but the contents of electronic waste are "as varied as they are valuable, containing up to 60 unique elements."[8] Effectively, e-waste is a far richer source of critical minerals than natural deposits.

The industry imperative

The electronics industry stands at the forefront of India's current mission to mobilise domestic manufacturing. As a successful first mover to capitalise on the opportunity for India, it is now well placed to lead and become an instructive example for India Inc. on how to navigate critical minerals and ensure end-to-end supply chain security.

The Ministry of Mines recently released a list of 30 critical minerals for India based on measures of economic importance and supply risk. Encouragingly, the process entailed an inter-ministerial consultation to identify sector-specific minerals: the Ministry of Electronics & Information Technology (MeitY) was also consulted. The list includes several minerals of specific importance to the electronics industry.

Much like other countries around the world, the Indian government, too, is currently working towards creating an institutional architecture and strategic vision around critical minerals to translate into facilitating policies — to de-risk and secure their supply chains for industries, strengthen national security, and contribute towards Atmanirbhar Bharat.

Now, industry must also come to the fore to help define and shape policy pathways towards these ends.

The electronics industry, must, for example:

- Identify an exhaustive list of sector-specific critical minerals to confirm criticality. It will need to map usage and concentrations, any existing and potential domestic reserves as well as mined and refined quantities, potential for

[5] *International Copper Association; Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition, IBRD, World Bank, 2020.*

[6] *As per the the industry researcher Oregon Group.*

[7] *Ritika Passi, "Strategies, Policies, and the Search for Critical Minerals: A Situation Report," Global Trade Observer, March 2023, https://www.globaltradeobserver.com/post/strategies-policies-and-the-search-for-critical-minerals-a-situation-report*

[8] *Christopher Kaminker, "Urban mining: A literal gold mine," Lombard Odier, October 2019, https://www.lombardodier.com/goldmine*

recycling and substitutability, and align these with current and anticipated market demand and import/export volumes. This will allow the industry to track developments and trends, assess opportunities and challenges, and identify actionable insights with respect to critical minerals.

- Ensure alignment between industry strategy and targets and mineral-specific plans of action. At present, India's ambitious $300 billion electronics strategy is being defined as "broadening and deepening" electronics manufacturing in the country. To this end, a 2022 ICRIER-ICEA study recommends the electronics sector first globalise before localising. For example, India is "well on its way to become a leader in the mobile device market of the world and play a major role in India's electronic exports," as has identified India's communication minister Ashwini Vaishnaw.[9] But as India moves from assembly to increased value addition and even indigenisation — such as in the case of semiconductors — which critical mineral will play what role in the domestic ecosystem? Which critical minerals will be mined or refined, stockpiled or recycled, or sources diversified — and how will timelines align with the electronic sector's strategy and approach? For instance, India is looking to increase domestic production of rare earth elements (REE), but, as per the International Energy Agency, an REE project takes an average of 16 years to come online from scratch. Another pertinent illustration: **India at one point used to produce gallium as a by-product of alumina. Is there a potential to restart domestic production?**
- Prioritise recycling electronic waste to build supply chain resilience and enhance security, as identified above. Every year, over 17 million TV sets, 148 million smartphones, and 19 million audio devices are sold in India, and it currently ranks as the third-largest e-waste producer after China and the US.[10] It is time for India to enhance efforts to make urban mining more cost-effective than virgin mining. More broadly, the electronics industry should invest towards creating step-change technological opportunities in the critical minerals space — those that will both lower risk for India in case of supply disruptions, but also enhance Indian competitiveness in the electronics sector globally. For instance, iridium (member of the platinum group of elements, also classified as critical on India's list) is currently used to light up smartphones and TV screens — but it is the rarest naturally occurring element on Earth. The much more abundantly-found copper has been identified as a possible alternative.[11]
- Explore and outline how India's emerging bilateral and plurilateral critical mineral partnerships can tangibly benefit and promote India's electronic supply chains and champions.

Author:

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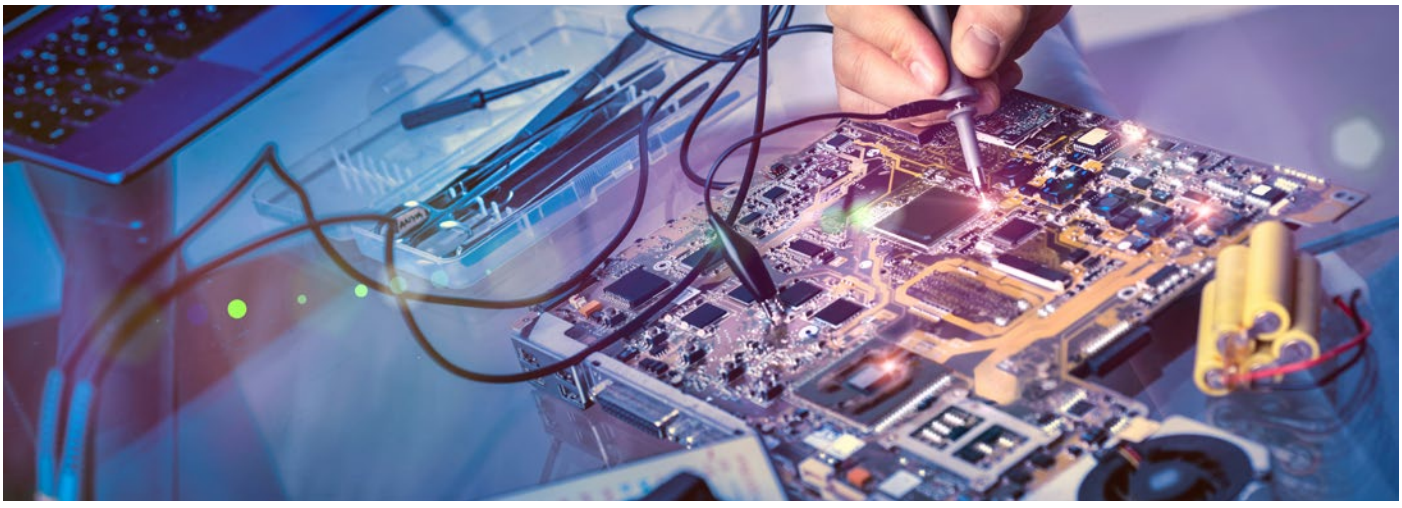
The opinions expressed here are those of the authors.

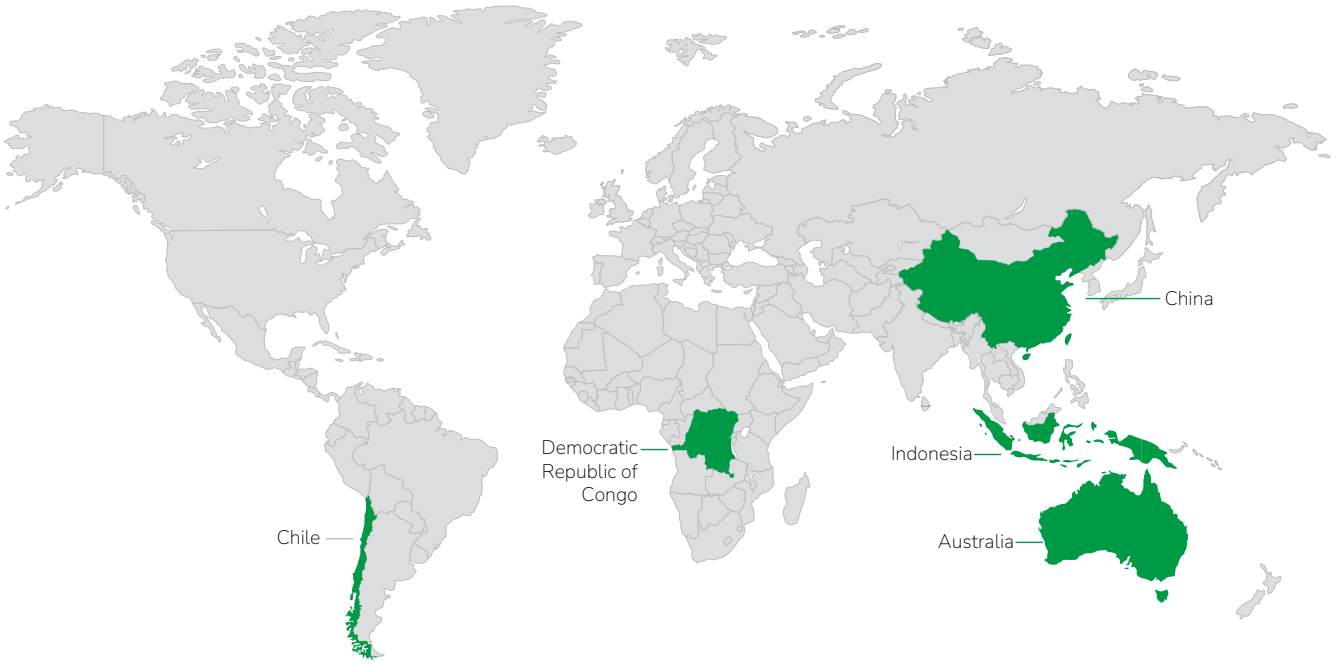


[9] *"India to become leader in global mobile phone market: Ashwini Vaishnaw," The Economic Times, April 13, 2023, https://economictimes.indiatimes.com/industry/cons-products/electronics/india-to-become-leader-in-global-mobile-phone-market-ashwini-vaishnaw/articleshow/99443911.cms?from=mdr*

[10] *Nidhi Singal, "Will India's bet on new policy to tackle e-waste pay off?," Business Today Magazine, June 2023, https://www.businesstoday.in/magazine/deep-dive/story/will-indias-bet-on-new-policy-to-tackle-e-waste-pay-off-385530-2023-06-14*

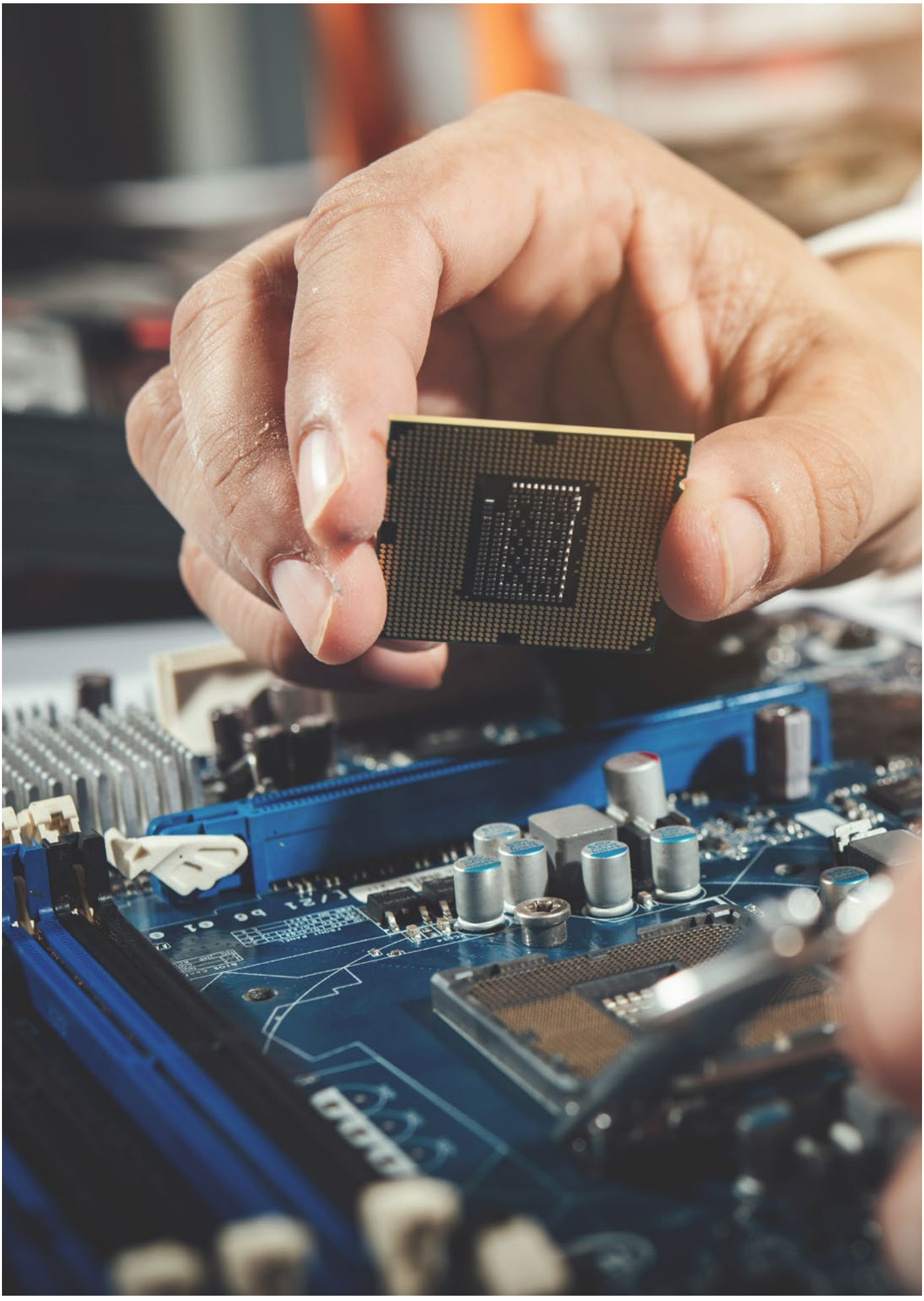
[11] *Emily Gersema, University of Southern California, "Scientists' discovery could mean less-expensive smartphones, TVs," University of Southern California, February 2019, https://news.usc.edu/154142/usc-less-expensive-smartphones-tvs/*

Concentration of the global Critical Mineral Supply Chains



Select Critical Minerals	Leading Producing Country In 2022	% of World Total in 2022	Refining / Processing
Cobalt	Democratic Republic of Congo	68	China refines 65% of global cobalt production
Copper	Chile	28	China refines 40% of global copper production
Gallium	China	98	
Germanium	China	60	
Graphite	China	65	
Indium	China	59	
Lithium	Australia	47	China refines 52% of global lithium production
Nickel	Indonesia	48	China refines 35%* of global nickel production
Rare Earth Elements	China	70	China refines 87% of global REE production
Silicon	China	68	
Tantalum	DRC	43	China is leading import source

Sources: USGS Mineral Commodity Summaries 2023; International Energy Agency; European industry association Critical Raw Materials Alliance.
**Some estimates are as high as 68%*



INDUSTRY NEWS

MOBILE PHONE ECOSYSTEM

1. Google to manufacture Pixel phones in India from 2024

Google has announced that it will start making its flagship Pixel smartphones in India from 2024, as part of the Make in India initiative. The company said India is a priority market for Pixel and it is committed to being a trusted partner in India's digital growth. Google's CEO Sundar Pichai met with India's Technology Minister Ashwini Vaishnaw in May to discuss the local manufacturing plans. Google joins other global tech giants like Apple and Samsung who have already set up production units in India, which is now the second-biggest manufacturing hub for mobile phones. India is expected to export about 22 per cent of its total assembled mobile phones in 2023, with Apple leading the market.

https://www.livemint.com/technology/tech-news/google-to-manufacture-pixel-phones-in-india-11697698560183.html

2. Apple sets record revenue in India with strong iPhone sales

Apple CEO Tim Cook announced that the company achieved a quarterly revenue record in India with a double-digit growth in the July-September period. He said India is a major focus for Apple and has a lot of potential for growth. The record revenue was driven by strong iPhone sales, which crossed 2.5 million units in the quarter. Cook also praised the performance of the two retail stores that Apple launched in Mumbai and New Delhi earlier this year. Apple's overall revenue was $89.5 billion, with iPhone and services being the main contributors.

https://www.livemint.com/companies/news/apple-sets-record-revenue-in-india-with-strong-iphone-sales-11648390038232.html

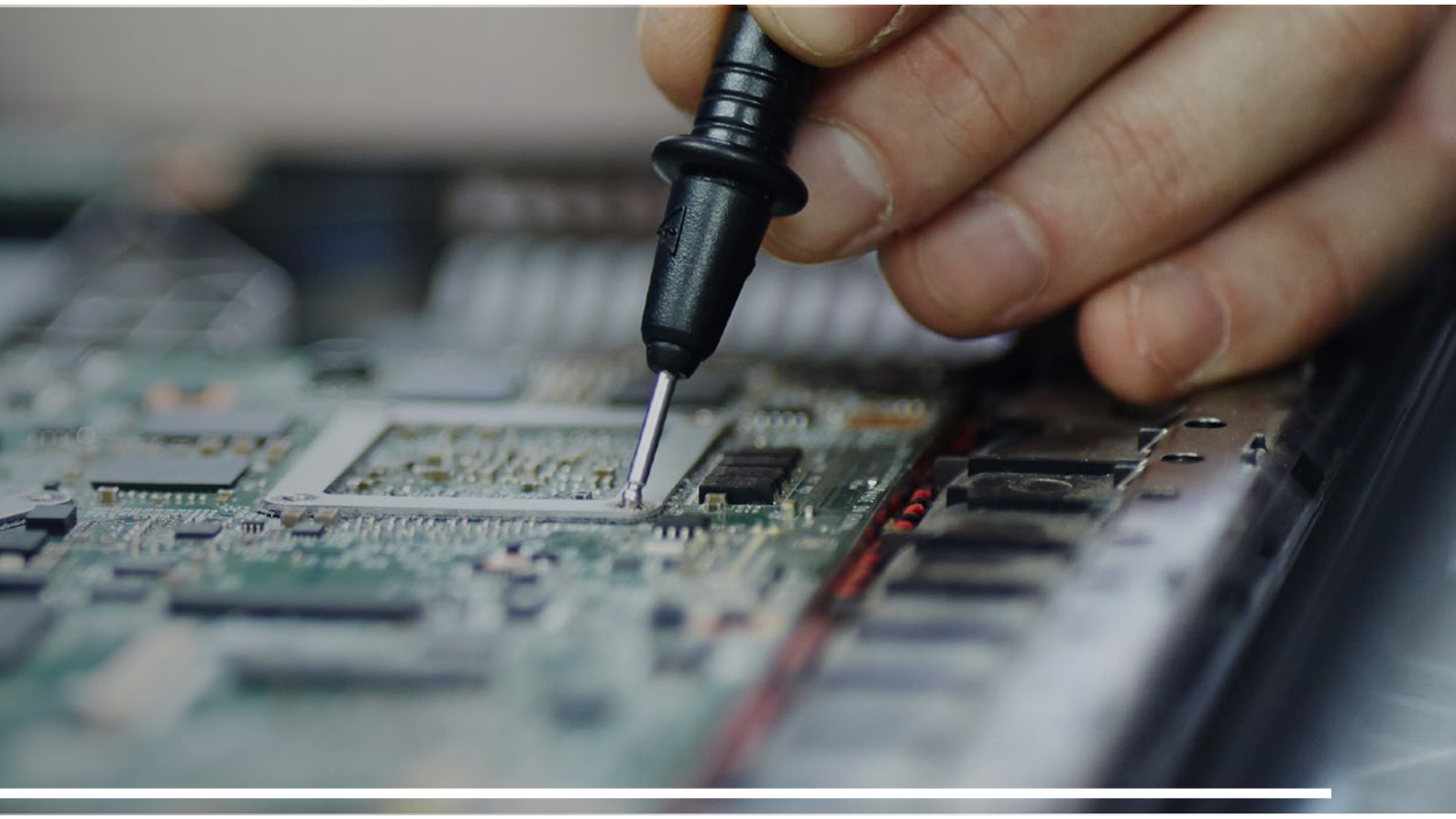
3. Tata Group to manufacture iPhones in India

The Tata group has taken over the operations of Wistron, a Taiwanese company that was previously making iPhones in India, and will now produce the smartphones for domestic and global markets. This was announced by Rajeev Chandrasekhar, the union minister of state for electronics and information technology, on X. He praised the Prime Minister's Production Linked Incentive (PLI) scheme for making India a major hub for smartphone manufacturing and exports. He also thanked Wistron for its contributions and expressed support for the growth of Indian electronics companies.

https://indianexpress.com/article/technology/tech-news-technology/tata-group-to-make-iphones-in-india-for-global-market-9002201/

4. Xiaomi launches digital loan scheme for smartphone buyers in India

Xiaomi, a Chinese smartphone maker, has introduced a digital loan programme for consumers who want to buy its phones in India. The scheme, called Xiaomi Easy Finance Program (XEF), offers instant approval,



paperless process and no-cost EMI options for its Redmi 12 model, priced under Rs 15,000. Xiaomi said it aims to make technology accessible to all and provide inclusive financial solutions. The company has partnered with Axio, a digital consumer financial service, and Trustonic, a digital security and service company, for the programme. Xiaomi is facing competition from Samsung and Vivo, who have also launched similar financing schemes in India.

https://www.hindustantimes.com/india-news/xiaomi-india-launches-digital-loan-scheme-to-make-smartphone-purchase-affordable-details-101696487525780.html#:~:text=Beijing-based%20smartphone%20maker%20Xiaomi,'&text=%E2%80%9CWe%20aim%20to%20make%20smartphone,seamless%20and%20hassle-free%20experience.

5. Dixon to make smartphones for Xiaomi at Noida facility

Dixon Technologies, a leading contract manufacturer, has announced that its subsidiary Padget Electronics will make smartphones and other related products for Xiaomi India at its Noida facility. The company said it is delighted and encouraged by the trust of Xiaomi and believes that this association will leverage their shared capabilities and support the Make in India initiative of the government. Dixon has been making TVs for Xiaomi since 2018 and also makes smartphones for Motorola and Samsung. Dixon is one of the beneficiaries of the production-linked incentive scheme for smartphones and has received around Rs 110 crore as incentives.

https://m.timesofindia.com/business/india-business/dixon-arm-to-make-phones-for-xiaomi/articleshow/104116196.cms#:~:text=Dixon's%20unit%2C%20Padget%2C%20will%20become,Noida%20to%20fulfill%20the%20order.

6. Tata Electronics makes mobile phone parts worth Rs 463 crore in FY23

Tata Electronics, a new entity in the electronics manufacturing services space, has produced mobile phone parts worth Rs 463 crore in 2022-23, according to its filings to the Registrar of Companies. The company said it is manufacturing mobile enclosures, which are the outer mechanical parts that house the electronics and modules of the phone. The company said it has built indigenous capability around new technologies that are expected to help India establish its mark in the EMS ecosystem.

https://economictimes.indiatimes.com/industry/cons-products/electronics/tata-electronics-makes-mobile-parts-worth-rs-463-crore-in-fy23/articleshow/103611277.cms#:~:text=Tata%20Group%2C%20which%20started%20operations,likes%20of%20Foxconn%20and%20Dixon.

7. Indian electronics sector to tap $7 bn untapped revenue via circular economy by 2035

A joint report by the India Cellular and Electronics Association (ICEA) and Accenture reveals that India's electronics sector could tap into $7 billion in untapped revenue by 2035 through circular business models and policy pathways. These models, including circular design, repair, and resell, have the potential to reshape the sector and contribute to a $13 billion market by 2035. Through effective public-private partnerships, the report suggests that the total addressable market could reach $20 billion, showing a substantial untapped potential of 35%. India aims to prioritize responsible resource management and circular practices, aligning with its commitment to resource reuse, repair, recovery, and re-manufacturing. However, the formal sector manages only 22% of collected e-waste, indicating room for improvement.

https://www.deccanherald.com/india/indian-electronics-sector-to-tap-7-bn-untapped-revenue-via-circular-economy-by-2035-2664180

8. India's 5G smartphone sales crossed the 100-million mark in May

India reached a significant milestone in May 2023, surpassing 100 million 5G smartphone sales for the first time, while also exceeding monthly 4G smartphone sales, as reported by Counterpoint Research and CyberMedia Research (CMR). The lower-priced segment witnessed a surge in 5G smartphone adoption, driven by the introduction of more affordable models like the Lava Blaze 5G. Despite limited network coverage, experts see this achievement as a positive sign for India's 5G ecosystem, with growing demand and the upcoming festive season expected to further boost adoption. Samsung led the Indian 5G smartphone market with a 23% market share, followed by Apple at 17%, though the overall smartphone market experienced a 21% YoY decline in shipments during Q1 2023, as per CMR data.

https://telecom.economictimes.indiatimes.com/news/devices/5g-smartphone-shipments-cross-10-cr-in-india-for-1st-time/101573866

9. Optiemus and Corning Form Joint Venture for Mobile Cover Glass Manufacturing in India

Optiemus Infracom Limited and Corning International Corporation have joined forces to establish India's inaugural manufacturing facility for high-quality finished cover glass parts for mobile consumer electronics. This partnership aligns with India's "Make in India" initiative, aiming to enhance the country's electronics manufacturing ecosystem. The venture plans to create a world-class manufacturing facility in India, leveraging advanced technologies. It will manufacture "Made in India" cover glass parts for next-gen mobile devices, contributing to job creation and skill development in India's tech sector. Optiemus aims to become a top manufacturer of finished cover glass parts within five years.

https://www.timesnownews.com/technology-science/optiemus-and-corning-form-jv-for-indias-first-mobile-cover-glass-manufacturing-facility-article-103281812

IT HARDWARE

1. Government approves 110 applications for IT hardware imports

The government has cleared 110 out of 111 requests for importing laptops, computers and other IT hardware products so far, according to an official. The companies that received approvals include Dell, Apple, HP, Lenovo, ASUS, IBM, Samsung, Xiaomi, Cisco, Siemens and Bosch. The government had eased the import restrictions on IT products last month, allowing importers to bring in shipments on a mere 'authorisation' upon detailing quantity and value. The new 'import management system' is aimed at monitoring the imports of IT products without affecting the market supply or creating a cumbersome licensing regime. The new license regime is applicable to certain IT products to ensure India's trusted supply chain.

https://www.livemint.com/industry/infotech/govt-approves-110-applications-for-it-hardware-imports-11648390038232.html

2. HP and Google to make Chromebooks in India from October 2023

HP and Google have announced a partnership to manufacture Chromebooks in India at the Flex facility in Chennai, where HP has been making laptops and desktops since 2020. The production of Chromebooks, which are affordable PCs with ChromeOS, will start from October 2, 2023 and will cater to the demand from the education sector. HP and Google said this move will support the Make in India initiative of the government and help advance digital equity and education in the country. HP has also applied for the revised PLI scheme for IT hardware and has expanded its portfolio of locally made products.

https://timesofindia.indiatimes.com/gadgets-news/google-joins-hands-with-hp-for-made-in-india-chromebooks/articleshow/104011691.cms#:~:text=These%20Chromebook%20devices%20will%20be,mainly%20from%20the%20education%20sector.

3. HP and Asus tap into refurbished laptop and PC market in India

HP and Asus, two leading IT hardware makers, have launched initiatives to sell refurbished laptops and PCs in India, as consumer demand for new devices declines after a pandemic-induced surge. The companies are opening their own retail stores or partnering with third-party retailers to offer affordable and quality products

to customers who could not afford a PC. The refurbished market is estimated to be around 5-6 lakh units per year, and is growing rapidly due to the digitalisation trends among small businesses and the education sector. HP and Asus are also providing warranty and post-sales support for their refurbished products, as well as subscription models and premium ranges.

https://economictimes.indiatimes.com/industry/cons-products/electronics/asus-opening-more-exclusive-stores-hp-ties-up-with-certified-partners-to-sell-such-old-products/articleshow/104614841.cms#:~:text=IT%20hardware%20makers%20like%20HP,partnering%20with%20third%2Dparty%20retailers.

4. Sahasra Electronics Set to Launch India's First Desktop Motherboard

Sahasra Electronic Solutions, based in Noida, India, is preparing to introduce the country's first Made-in-India computer motherboard in November. Designed around Intel's latest 13th-generation chipset, the motherboard marks a significant shift, as such components have traditionally been designed in China or Taiwan. These locally designed motherboards are expected to be priced 10-15% lower than comparable imported Chinese brands, contributing to India's efforts to boost domestic electronic hardware production and local value addition.

https://www.financialexpress.com/business/industry-sahasra-electronic-set-to-launch-first-made-in-india-desktop-motherboard-3241378/

WEARABLES AND HEARABLES

1. boAt develops indigenous IP for neckband headphones with ICEA & CoE support

boAt has collaborated with ICEA, and the Centre of Excellence (CoE) for Electronics System Design and Manufacturing to develop an indigenous IP for neckband headphones. The IP was created under the Make in India initiative and offers a feature-rich product that enhances user experience and provides value to Indian brands and consumers. The IP is a result of innovative design and approaches by Boat engineers, who worked with global technology partners and component suppliers. The IP also demonstrates the potential of the Indian electronics industry to innovate and compete globally.

https://www.business-standard.com/article/companies/boat-develops-indigenous-ip-for-neckband-headphones-with-coe-support-123102900428_1.html

2. Global Smartwatch Market See 11% Growth in Q2 2023, Driven by India and Huawei

According to the data from Counterpoint Research, the global smartwatch shipments bounced back with an 11% YoY growth in Q2 2023, thanks to a surge of 70% in India's smartwatch shipments. Huawei climbed to the second position in global market share, driven by a 58% increase in shipments and a 39% domestic market share. Apple, on the other hand, saw a 10% YoY decline in shipments, causing its market share to fall to 22%. Indian brands Noise and Fire-Boltt also made substantial gains, with 86% and 70% YoY growth, respectively. Samsung, however, experienced a 19% YoY decline in Q2 2023.

https://www.counterpointresearch.com/insights/global-smartwatch-shipments-see-yoy-growth-two-quarters/

CONSUMER ELECTRONICS

1. India's cooling demand to surge ninefold by 2050: IEA

India's electricity consumption for household air conditioners is projected to increase nine times by 2050, exceeding the total power use in Africa today, the International Energy Agency (IEA) said in its latest World Energy Outlook. India will see the largest energy demand growth of any country or region in the next three decades, driven by its geographic and meteorological conditions, rising incomes and population. Oil demand will also rise, but at a slower pace than electricity. IEA said India can reduce its peak electricity demand and system costs by adopting energy efficiency policies, building codes and demand response measures for cooling.

https://www.ndtv.com/india-news/indias-electricity-demand-just-for-acs-to-exceed-africas-total-consumption-iea-4509689#:~:text=%22Residential%20electricity%20demand%20from%20cooling,the%20whole%20of%20Africa%20today

2. LG India crosses ₹20,000 crore revenue mark in FY23

LG Electronics India, the country's largest home appliance manufacturer, reported a 17% year-on-year growth in total income to ₹20,112 crore in FY23, according to its regulatory filings. The company also posted a 14% increase in net profit to ₹1,345 crore. LG India's sales were driven by its home appliances segments, which accounted for over 70% of its revenue. The company did not comment on the reasons behind its performance. LG India has been focusing on premium products and large capacity in the Indian market, which has helped it to improve its margins. India is the second largest market for LG after the US.

https://www.business-standard.com/article/companies/lg-india-crosses-20-000-crore-revenue-mark-in-fy23-123110400954_1.html

3. Daewoo enters Indian consumer electronics market with Kelwon partnership

Daewoo, a South Korean brand owned by POSCO DAEWOO, has made its debut in the Indian consumer electronics and appliances market

through a 10-year brand licensing agreement with Kelwon Electronics & Appliances, a local company that sells products such as Lithium Hybrid Inverters and LED TVs. Kelwon plans to invest around Rs 300 crore in the next three years to introduce products in sectors such as energy and power, and consumer electronics, under the Daewoo brand. Kelwon will also continue to sell its own products under a twin brand strategy. Daewoo will provide R&D and technical support to Kelwon, which will initially source the products from OEMs.

https://www.business-standard.com/companies/news/daewoo-enters-indian-consumer-electronics-appliance-market-through-kelwon-electronics-123102501181_1.html

SEMICONDUCTOR

1. L&T enters fabless semiconductor chip design business with Rs 830 crore investment

Larsen and Toubro (L&T), India's largest engineering company, has announced its foray into the fabless semiconductor chip design business by setting up a wholly-owned subsidiary with an investment of Rs 830 crore. The subsidiary will focus on designing and owning chips for the automobile and industrial sectors, and will collaborate with global technology partners and component suppliers. The company said it will leverage its domain capability in the IT and Technology Services segment and its brand and engineering expertise to tap into the opportunity in the semiconductor market. The company also reported a 45% jump in net profit and a 19% rise in revenue for the second quarter of FY23-24, driven by strong order inflow and improved execution.

https://www.livemint.com/companies/news/l-t-enters-fabless-semiconductor-chip-design-business-with-rs-830-crore-investment-11648390038232.html

2. Sahasra Semiconductors becomes the first Indian company to produce memory chips

Sahasra Semiconductors, a Rajasthan-based company, has started producing micro-SD cards in its Bhiwadi unit, becoming the first Indian company to make memory chips. The company has received approval under two government schemes, PLI and SPECS, that provide incentives for electronics manufacturing. Sahasra has also shipped its first batch of products to ecommerce platforms and received positive feedback. The company plans to expand its production capacity and product range in the next phase.

https://www.moneycontrol.com/news/business/sahasra-semiconductors-becomes-first-indian-firm-to-produce-memory-chips-11616581.html#:~:text=Rajasthan%2Dbased%20Sahasra%20Semiconductors%20has,Bhiwadi%20district%20earlier%20this%20month.

3. India and Japan sign pact on semiconductor supply chain partnership

India and Japan have agreed to cooperate on the development and resilience of the semiconductor supply chain, according to a statement from the Union Cabinet. The memorandum of cooperation was signed in July 2023 by the ministries of electronics and information technology of both countries. Japan is the second Quad partner after the US to join hands with India on this strategic sector.

https://indianexpress.com/article/business/cabinet-approves-india-japan-chip-supply-chain-partnership-8999634/#:~:text=The%20Union%20Cabinet%20has%20approved,talent%20development%20for%20the%20industry.

4. CDIL becomes India's first Silicon Carbide semiconductor maker

CDIL, an electronic component maker based in Mohali and Delhi, has become the first company in India to start manufacturing Silicon Carbide (SiC) semiconductors, which are used in high power-consuming technology products. The company has started exporting SiC components to China, the US, Europe and Australia, and plans to increase its production capacity to 100 million devices. The company has received incentive support from the Centre under the SPECS scheme and has signed an agreement with the Semi-Conductor Laboratory (SCL) to make Mohali an end-to-end semiconductor hub in the country. The company is targeting sectors like electric vehicles, solar and power electronics with its SiC products.

https://economictimes.indiatimes.com/industry/cons-products/electronics/cdil-becomes-first-indian-firm-to-produce-silicon-carbide-components-starts-exports-to-china-us/articleshow/104025919.cms

5. Indian Scientists Develop Super-Flexible Composite Semiconductors

Scientists at the Indian Institute of Science (IISc) have developed a highly flexible composite semiconductor material, potentially revolutionizing the display industry with applications in flexible displays, foldable phones, and wearable electronics. The material combines a water-insoluble polymer for flexibility with indium oxide for excellent electronic transport properties. Using a unique inkjet printing technique, up to 40 percent polymer content was incorporated without compromising semiconductor performance, making it super flexible and foldable. The breakthrough opens the door to low-cost, fully printed, and flexible electronic devices, but further quality testing and scalability are needed before mass production.

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

6. Indian semiconductor industry to generate 12 lakh jobs

India's semiconductor industry, aiming to establish itself as a manufacturing hub, is expected to generate a demand for approximately 1.2 million jobs, according to Jaya Jagadish, Country Head of AMD India and Chairperson of the Semicon Talent Building Committee (TBC). This demand encompasses various roles, including engineers, operators, and technicians. The chip design sector alone is projected to require 275,000 professionals, from undergraduates to postdoctoral candidates. While India boasts a large talent pool, addressing skill gaps through initiatives like curriculum changes in engineering colleges and reskilling programs is essential for readiness in the job market. Collaboration among industry, academia, and government is emphasized for building a robust talent landscape.

https://www.thehindubusinessline.com/info-tech/indian-semiconductor-industry-to-generate-12-lakh-jobs/article67260424.ec

7. Tata Projects wins contract for Micron's semiconductor plant in Gujarat

Tata Projects Limited, a leading engineering, procurement, and construction company, has announced that it has secured a contract from Micron Technology, Inc., a global leader in memory and storage solutions, to build its new semiconductor fabrication facility in Gujarat. The project, valued at $2.75 billion, is expected to create over 10,000 direct and indirect jobs and boost the state's electronics manufacturing ecosystem. Tata Projects will leverage its expertise and experience in executing complex industrial projects to deliver the facility within the stipulated time and quality parameters.

https://www.thehindubusinessline.com/companies/tata-projects-bags-contract-to-build-microns-275-billion-semiconductor-plant-in-gujarat/article67337571.ece

ELECTRIC VEHICLES / AUTO-ELECTRONICS

1. Exide Industries to begin the first phase of the cell manufacturing plant in Bangalore

Exide Industries is set to commission the first phase of its lithium-ion cell manufacturing plant in Bangalore by the end of 2024-25, with a capacity of 6 GWh out of the total 12 GWh for the Rs 6,000 crore project. They plan a capex of Rs 700 crore in 2023-24 for capacity expansion and technology upgrades, with automotive and industrial sectors driving demand, including electric two-wheelers, three-wheelers, telecom towers, and data centres.

https://www.telegraphindia.com/business/exide-industries-to-begin-first-phase-of-cell-manufacturing-plant-in-bangalore/cid/1957748

2. India's Li-Ion Market Expected to Grow at 14.8% CAGR Through 2028: IMARC

A recent study by IMARC Group reveals that India's lithium-ion (Li-Ion) battery market, valued at US$2.5 billion in the previous year, is poised for substantial growth. Projections indicate that the market is set to reach US$5.9 billion by 2028, boasting a robust compound annual growth rate (CAGR) of 14.8% during 2023-2028. The report highlights lithium cobalt oxide as the dominant segment within the market due to its favourable electrochemical properties, high energy density, and suitability for high-performance battery applications.

https://www.saurenergy.com/solar-energy-news/indias-li-ion-market-will-touch-cagr-of-14-8-in-2023-28-imarc

3. India Achieves Remarkable Milestone as Electric Vehicle Sales Surpass 1 Million in 2023

In a significant achievement, India has seen electric vehicle (EV) sales cross the 1 million mark in just nine months of 2023, a feat that took a full year to accomplish in 2022. Data from the Ministry of Road Transport and Highways reveals that 1,037,011 EVs were registered by September 19, constituting 6.4% of total automotive sales this year. Factors contributing to this surge include increased individual and business purchases, the impact of the FAME-II initiative, expanded charging infrastructure, high-quality vehicle launches, tax incentives, improved financing options, and robust swapping facilities. Two-wheelers dominated the market, accounting for 56% of EV sales in 2023, with monthly sales consistently exceeding 100,000 units.

https://www.business-standard.com/companies/news/india-s-electric-vehicle-sales-top-1-million-in-first-nine-months-of-2023-123091900783_1.html

AGRITECH

1. Telangana launches India's first agri-data exchange platform

The state of Telangana has launched the country's first agricultural data exchange platform, which aims to provide farmers with timely and accurate information on crops, markets, weather, and other related aspects. The platform, called Agri Data Exchange (ADE), is a collaborative initiative of the state government, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and Microsoft India. ADE will enable farmers to access data from various sources, such as satellite imagery, soil health cards, crop insurance schemes, market prices, and weather forecasts, through a single portal. The platform will also allow farmers to share their own data and feedback with other stakeholders, such as researchers, policymakers, and agri-businesses. ADE is expected to improve the productivity, profitability, and resilience of the farming sector in Telangana, which has over 5.8 million farmers.

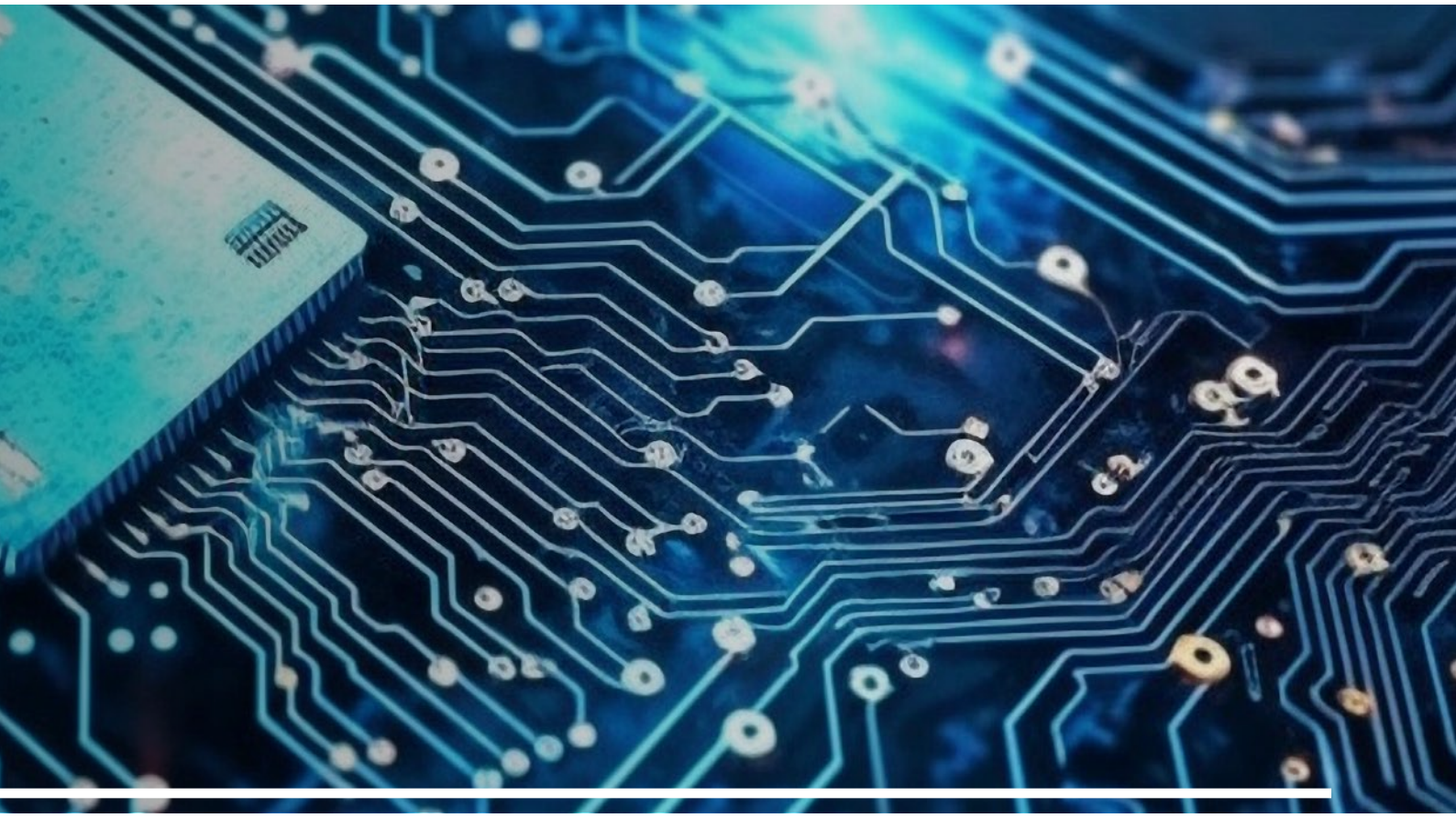
https://economictimes.indiatimes.com/news/economy/agriculture/telangana-launches-indias-first-agricultural-data-exchange-platform/articleshow/102650171.cms

ICEA ACTIVITIES

SEMICON INDIA 2023

ICEA delegation, led by Chairman Mr. Pankaj Mohindroo, attended SemiconIndia 2023 in Gujarat from July 25th to 27th. The event brought together government representatives and industry leaders to discuss the future of the Indian Semiconductors industry.

Mr. Mohindroo also moderated a session on India's growing presence in the Electronics Global Value Chain, featuring panellists like Aman Gupta from BoAt, Raminder Singh of Radiant, Mr. Sudhir Pillai from Corning, and Nandini Tandon a Venture Capitalist from Silicon valley.



INDO-US TASKFORCE FOR ELECTRONICS

ICEA launched the Indo-US Task Force for Electronics on 25th August 2023, which aims to elevate the electronics trade between India and the United States to a staggering USD 100 Billion within a decade. The inaugural roundtable was a confluence of Government representatives- Mr. Amitesh Kumar Sinha Joint Secretary Meity, representatives from the US embassy, Industry Leaders of the electronics sector, and investment bankers, amongst others.

REPORT LAUNCH: PATHWAYS TO CIRCULAR ECONOMY IN THE INDIAN ELECTRONICS

ICEA released a comprehensive report titled "Pathways to Circular Economy in Indian Electronics Sector" on 28th August 2023. The report was released by Shri Alkesh Sharma, Secretary MeitY.

INDIA DISPLAY MANUFACTURING CONFERENCE (IDMC)

ICEA in collaboration with Society For Information Display (SID) organized the India Display Manufacturing Conference (IDMC), from 13th-15th September 2023, at Electronica/Productronica at Bangalore International Exhibition Centre (BIEC), Bengaluru showcasing Innovation in Display Manufacturing at BIEC, Bengaluru.

ONLINE WORKSHOP ON THE INDIRECT TAX ON 'CUSTOM VALUATION' FOR INDIAN BUSINESSES

As part of the ICEA Knowledge Forum, ICEA organized an online workshop on the Indirect Tax on 'Custom Valuation' for Indian Businesses on 11th October 2023. The keynote speaker was Shri Gautam Ray (Retd. IRS) Former DG (Audit), CBEC and Joint Secretary (TRU), GoI.

PANEL DISCUSSION: INDIA - A FAVORED MANUFACTURING HUB

ICEA took part in organizing a panel discussion titled "India - A Favored Manufacturing Hub" during the Corning India Regional Meet (IRM) 2023.

Chaired by Mr. Pankaj Mohindroo, Chairman of ICEA, the panel comprised notable figures from industry, government, and think tanks: Sudhir Marwaha from the Ministry of Electronics and IT; Anubhuti Kaul Bhrany, Senior Director & Head Government Affairs at Flex; Vimal Mahendru, IEC Vice President and Chair of the Standardization Management Board (SMB); Piyush Doshi, Partner at the Foundation for Economic Development (FED), and Gourab Basu, Vice President of Business Development at VVDN Technologies.

The discussion centered on India's evolution as a favored manufacturing destination due to its resilience in the global supply chain and its expansive & growing domestic market.

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.

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FIRE-BOLTT

INDIA'S NO.1 SMARTWATCH BRAND

Source: IDC India Monthly Wearable Device Tracker, November 2023