



The European Institute for the PCB Community

EIPC SPEeDNEWS

The Weekly On-Line Newsletter

Issue 12 – May 2024

NEWS FROM THE EIPC

THE EUROPEAN PCB INDUSTRY REPORT 2023

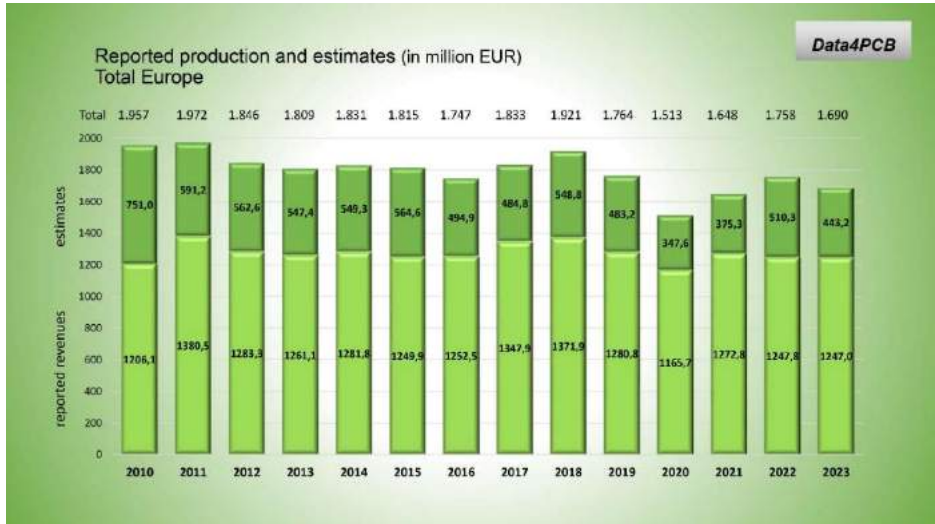
You will doubtless be aware that Mr. Michael Gasch from Data4PCB writes an annual PCB Industry Report. To this end he sends out questionnaires to all the PCB manufacturers in Europe and the returns represent the European production volume, and do not include traded PCB from outside Europe. It is the only publication that allows this insight.

The report covers the European PCB production and is based on the input of about a third of the remaining active PCB manufacturers. These companies, however, represent almost three quarters of the total PCB production volume. The report consists of two parts: the first (37 pages) with comments and tables, taking a close look at each country. The second (58 pages) offers detailed graphs, visualising the most important data.

We have been successful in obtaining a 10 % discount for our EIPC members € 1350, as for non-members the normal price is € 1500.

To give you an idea of the format that Mr. Gasch uses we can send you the table of content, and a sample Report. Neither include forecasts nor data on individual companies, but the combination of the two provides a wealth of information, indeed one may liken it to having a Thesaurus on the desk of a writer. Printing and writing are close allies, so may we commend the purchase of this report to complement your own treasury of knowledge.

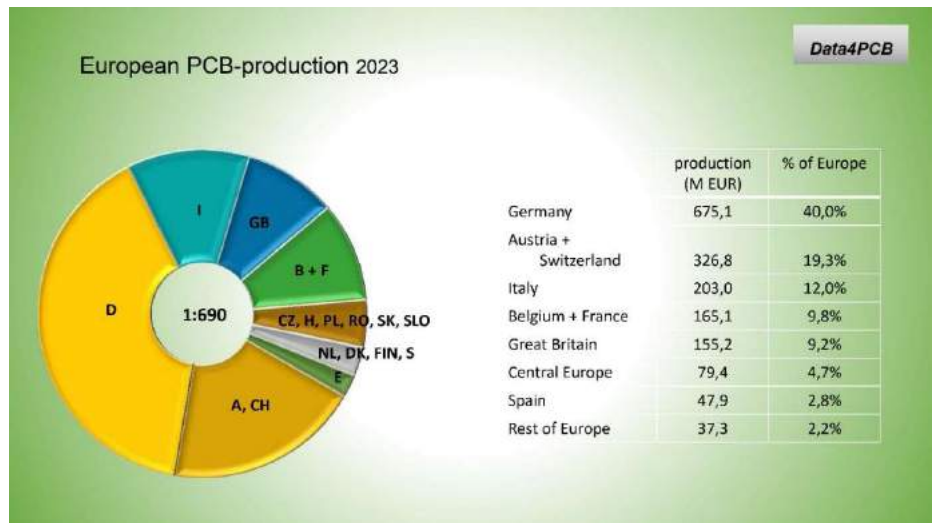
To obtain more information or your own personalised copy, please contact the EIPC office via email; eipc@eipc.org



Data4PCB

European PCB-production

summary	2015	>>	2020	2021	2022	2023
revenues (million €)	1.815		1.513	1.648	1.758	1.690
staff	16.491		14.989	15.361	14.958	14.852
number of manufacturers per company size						
< 2 million €	110		68	70	55	60
2 – 10 million €	98		87	75	74	64
10 – 50 million €	34		32	33	38	34
> 50 million €	6		5	5	5	6
Total	248		192	183	172	164



Letter of urgency

We believe that urgent action is required by European Governments to support our domestic PCB production and mitigate the real risk of it shrinking below critical mass.

Will you join us by signing this letter of urgency to our government leaders?

Please support this letter on behalf of your organisation/company by confirming this to eipc@eipc.org. In doing so, the name of your organisation will be added to the published support list.

Please share our initiative as much as possible. Thank you!





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NEWS FROM EVERTIQ

The European PCB industry is in jeopardy

Evertiq

The printed circuit board (PCB) is the building block for electronics systems providing electrical connection and physical structure to electronic systems with additional optical interconnect and thermal management.

The PCB is ubiquitous and an integral part of nearly all electronic products. In 2023, the global PCB market was estimated at USD 87 billion, with over 90% being produced in Asia.

For many years, Asian PCB manufacturers have outcompeted and outpaced European production. It has already been established that the primary drivers were price competitiveness and a significant outsourcing tsunami sweeping the entire electronics sector. Since the early 2000s and the dotcom crash, PCB production has been steadily migrating from Europe and North America to Asia

In 2000, Europe's domestic PCB manufacturing accounted for 16% of the global total; by 2022, this figure had dropped to 2.3%. At the same time, the number of European PCB manufacturers fell from 555 to around 180, with the top 20 European manufacturers accounting for 60% of total production value, as pointed out by the EIPC, the European Institute for the PCB Community.

For this very reason, Evertiq has invited **Alun Morgan, President of EIPC**, to participate as a keynote speaker at the Evertiq Expo in Berlin, Germany on June 20, 2024, to paint a clearer picture of the industry, and where we currently are heading.

The decline in European PCB production has also had a domino effect on the base materials supply chain - with the number of full-scale PCB base material manufacturers falling from over 20 in the 1980s to only two today. The supply chain for base material manufacturing has also been critically affected with the loss of the entire electronics glass fabric manufacturing sector, the reduction of copper foil manufacturing facilities to a single surviving site, and the elimination of all volume epoxy resin manufacturing capability. The supply chain for all of these major raw materials, required for PCB production, currently begins in Asia.

The EIPC points out that the European PCB industry is especially disadvantaged compared to its Asian and North American competitors with high energy costs. PCB makers are concerned about the ramifications of ongoing high energy prices, believing that without internationally competitive energy costs, the number of European PCB producers will shrink further.

European PCB manufacture supplies several end markets, the largest of which is industrial electronics, accounting for around 45% of the total, followed by automotive, accounting for approximately 15%. High-reliability medical electronics is also strongly represented.

EIPC highlights that aerospace and defence together account for approximately 12% of European PCB production, with a value of approximately EUR 200 million per year. However, it should also be noted that this plays an important role in underpinning the strategically important European aerospace and defence industry, which supports a total turnover of EUR 578 billion and a total employment of 3.57 million - including direct, indirect, and induced jobs.

As mentioned earlier, there are initiatives in place to support the European semiconductor industry - such as the European Chips Act and the UK National Semiconductor Strategy. Both play an important role in revitalising domestic production - however, chips require interconnection with other components via PCBs which are mostly built outside of Europe. If Europe truly wants to have “technological sovereignty” as a whole, PCBs are a necessary and fundamental element in this and need support.

Critical strategic defence sourcing inside Europe could be at risk if the European PCB manufacturing base continues to decline. This would result in a higher dependency on imported PCB and the very real possibility that domestic manufacturing would not be able to fulfil the demand for the

defence and aerospace sector. The risk that defence procurement departments may have to share confidential design data and IP with non-European companies arises from a forced reliance on sourcing from outside of Europe.

Given the current trajectory of the European PCB industry, Evertiq has invited Alun Morgan, President of EIPC, to participate as a keynote speaker at the Evertiq Expo in Berlin, Germany on June 20, 2024, to talk about dire situation that the industry faces.

In his presentation, he will review macroeconomics highlighting current and upcoming global risk factors before focusing on the European PCB market and trends. European Purchasing Managers' Indices will be discussed along with technology and market trends before concluding with global and European business outlook.



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ARTIFICIAL INTELLIGENCE NEWS

Data Centers' doubling of power demand is seen to be stressing Energy Grids

By [Alan Patterson](#) *EE TIMES*

An expected doubling in power consumption by the world's data centers during the next few years is expected to strain the capacity of electricity suppliers, according to experts who spoke with EE Times. Those power constraints, without improvements in data center efficiency, will potentially impede the expansion of AI.

Electricity demand from data centers, AI and crypto currency miners will surge by 2026, the Paris-based International Energy Agency (IEA) said in [a January report](#). After consuming an estimated 460 terawatt-hours (TWh) worldwide in 2022, data centers' total energy intake could more than double to 1,000 TWh by 2026—roughly equivalent to the electricity consumption of Japan, according to the IEA. Updated regulations and tech improvements, including efficiency, are crucial to slowing the surge, the report said.

The electricity demands of a large data center—like some that are currently under construction in the U.S.—will be roughly equivalent to a city with one million people, according to Philip Krein, an electrical engineering professor at the University of Illinois, Urbana-Champaign.

“If you asked me a year or two ago, I would say a typical data center is going to a scale of 10 or 20 or 30 megawatts [MW],” Krein told EE Times. “That’s like an industrial park. We heard from a designer who’s been tasked by an industry client to design a 500 MW data center. That’s not an industrial park. That’s a significant city. The real concern is some of these data centers want to be able to ramp up and down arbitrarily. If you’re

running a 500 MW plant and you're allowed to ramp it up and down, zero to 100%? You can't. By the time you get to 500 MW, the challenges are on a very different scale than we've seen in the past."

Of the world's more than 8,000 data centers, about 33% are in the U.S., 16% in Europe and 10% in China, according to the IEA. U.S. consumption will increase from around 200 TWh in 2022, or about 4% of U.S. electricity demand, to almost 260 TWh in 2026 to account for 6%. Increased adoption of [5G networks](#) and cloud-based services will drive growth.

Few dare to estimate the energy consumption of data centers, crypto currency tools or gaming devices. That problem involves what's called the "rebound effect." The steadily increasing efficiency of electronic products like computers and smartphones, plus the more recent development of AI models, are fuelling the explosion of data center services, and that boosts demand for electricity.

Electricity demand in a typical data center breaks down to computing, which accounts for 40% of the total, the IEA said. Cooling the server racks to achieve stable processing efficiency consumes another 40%. The remaining 20% comes from peripheral IT equipment.

In the U.S., the Energy Act of 2020 requires the federal government to study the energy use of data centers and promote their efficiency. The Department of Energy is supporting local production of semiconductors and funding for development of more efficient chips that cut cooling requirements. The state government in Virginia, with the world's largest concentration of data centers, imposed requirements for better sustainability practices and carbon-emission reductions.

"If we have 10 or 12 or 15 places in the next year talking about 500 MW data centers, it won't be long before they're getting pushback from regulators and utilities saying, 'You just can't do this,'" Krein said. "You can't take a city-sized load and drop it in any particular place. Folks are going to have to figure out how to spread this out more regionally rather than trying to build these incredibly intense point sources."

Saving energy

About 10% of the total terawatt budget for data centers could be saved through improvements in the thermal efficiency of semiconductors in power equipment, according to Adam Khan, the founder of Diamond Quanta, a startup diamond-material semiconductor venture in California.

“Diamond is much better than silicon carbide just from the thermal standpoint,” Khan told EE Times. “With our enablement of N- and P-type doping on simple power supply units, we can start to actually make a huge dent in terms of this budget. We’re not looking at replacing AI chips from Nvidia, but we’re looking at the power supply to these centers.”

Taking a different approach, Krein said data centers need a DC distribution system to cut energy demand.

“Instead of using conventional three-phase 60 Hz AC, some places actually rectify it right at the service entrance and then distribute, for example, 400-volt or +/- 350-volt DC right to the racks,” Krein says. “The intent is to cut down on a couple of layers of power conversion and save a fair amount of energy. You’re probably reducing the overall building power consumption on the order of 10%.”

Boosting supply

In addition to efficiency improvements, data center operators are looking for ways to increase electricity supplies that include small nuclear power plants located near the data centers.

Most of the electricity suppliers in the U.S. are highly regulated and cannot increase generation capacity without approval, Krein said.

“You worry about compliance and reliability and everything else,” he added. “It’s real hard for a utility to say, ‘Sure. 500-MW load. Come on down. We’ll build another plant’.”

Some data center operators have set up their own generation facilities to circumvent state regulatory issues, Krein said.

OpenAI CEO Sam Altman made headlines in recent weeks as the chairman of startup Oklo, which aims to build its first small modular reactor (SMR) in Idaho—potentially using nuclear power for the data centers that OpenAI and rival companies need to run AI training, inference and services. While land-based SMRs are in the early stages of development around the world, military submarines have used them for decades.

Krein says that land-based SMRs will not start operating in time to prevent an energy crunch emerging in the next few years.

“That technology is 10 or 20 years away, so that can’t somehow save us over the next five or 10 years of build out here,” he said. “People should put the magic bullet out of their minds.”



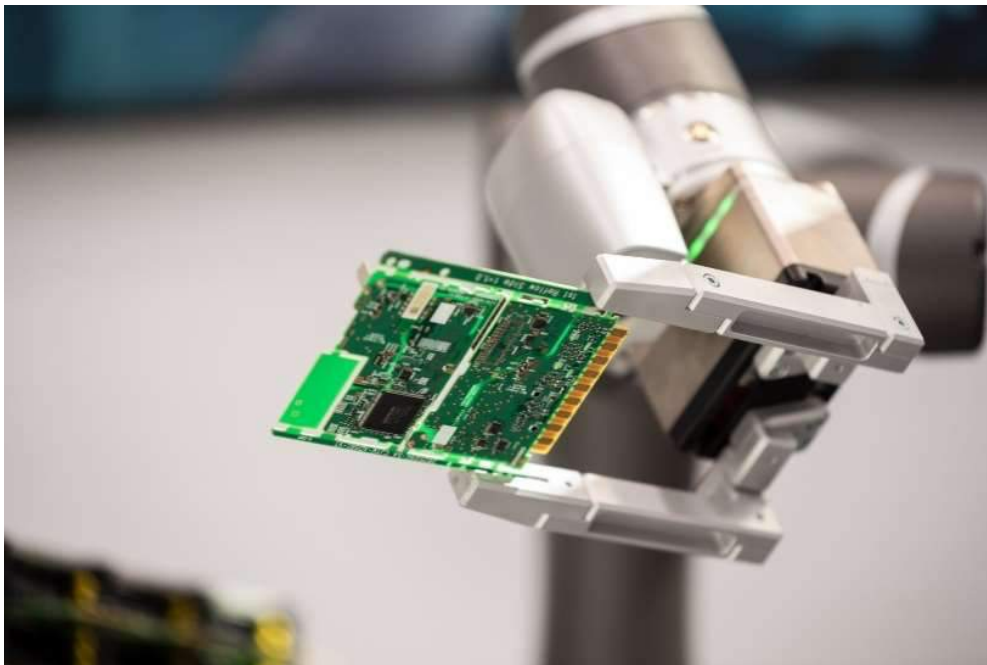
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NEWS FROM GERMANY



smtconnect

Highlights of the SMTconnect at a glance

Stuttgart, Germany, 21 May 2024. The countdown is on: The SMT connect trade fair for microelectronics will take place in Nuremberg, Germany from 11 – 13. June 2024. Visitors can look forward to a wide range of products and services on site and make new contacts within the industry.

With its focus on Surface Mount & Microelectronics Manufacturing Technologies, the SMTconnect is unique in Europe and will once again offer visitors in-depth insights into topics and trends relating to the electronics manufacturing industry this year. The trade fair also serves as a platform

for numerous networking opportunities. Asys, Essemtec, FUJI Europe, Göpel electronic, SmartRep, Techvalley, Viscom and many other exhibitors are already expecting valuable discussions with stakeholders during the event.

The latest forum program

At this year's SMTconnect forum, visitors can look forward to specific presentations by experts from industry and science on the following topics:

- Manufacturing in power electronics
- AI in electronics production / Industry 4.0

In cooperation with the editors of EPP the exhibition forum EPP will host a series of keynote speeches and presentations on current trends and future challenges in the field of power electronics manufacturing. Aspects such as improving power density, increasing efficiency and extending the service life of electronic components will be discussed. Insights into these topics will be provided by Nils Thielen, Director of the Electronics Production Research Sector at the FAPS Institute, University of Erlangen-Nuremberg, with a keynote speech on “Trends from a research perspective” and Dr. Markus Meier, Group Leader Reliability & Surfaces at Zestron, with a presentation on “HAST quality testing of epoxy mold compounds based on iodine vapor testing and impedance spectroscopy”.

Further presentations on the above-mentioned key topics will be given by Dr. Sandra Engle, speaker from the Productronic department, and Volker Pape, member of the VDMA Executive Board, on “VDMA Productronic network activities for mechanical engineering in the semiconductor value chain” and Olesja Kopp, Product and Innovation Manager at Viscom, on “The next level of effective inspection processes”.

Annual visitor highlight: The “Future Packaging” production line

Under the motto “See the REAL DEAL”, the Fraunhofer Institute for Reliability and Microintegration (IZM) is presenting its production line at the SMTconnect this year. In particular, the line will be examining how a higher degree of digitalization and automation can make production processes more robust against disruptions and external influences. Participating companies include F&K Delvotec Bondtechnik GmbH, IBL-

Löttechnik GmbH and Siemens AG. Visitors can take part in live guided tours every day at 10 a.m., 1 p.m. or 3 p.m. and gain valuable insights and specialist know-how.

Visitors can look forward to these and other highlights this year.

Tickets for the SMTconnect can be found [here](#).

The trade fair ticket includes admission to the parallel events the PCIM Europe and the SENSOR+TEST. Separate registration is required for the SENSOR+TEST.



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NEWS FROM INDIA

India's Rise In The Global Supply Chain

By Dave Evans, Forbes.



Fictiv's Bengaluru Manufacturing Hub

FICTIV

Many supply chain leaders are diversifying their supply chains across global regions to reduce risk and increase flexibility in costs and lead times.

International instability doesn't help. 2024 presents many geopolitical headwinds, only exacerbating global tensions on supply chains. Based on research done by the [Wall Street Journal](#), geopolitics is directly increasing

supply chain costs. As a result, many companies are anticipating additional shockwaves as tensions mount in critical markets.

For supply chain leaders, this means exploring emerging global supply chain regions for diversification. India is one of those promising new regions. According to International Monetary Fund estimates, [India will be the world's third-largest economy](#) by 2027, with a GDP of \$5 trillion—bypassing Germany and Japan. Additionally, [India has the second-largest](#) English-speaking population globally and focuses on STEM education, with over 2 million graduates annually. This combination of an increasingly well-educated workforce and its strategic location near the Middle East, Europe, and West Africa, to SE Asia and E Asia, bolstered by well-established sea routes, make India an ideal place to do business.

India's Emerging Role in the Global Supply Chain

According to the [India Review](#), “India is emerging as a reliable alternate destination for manufacturers and supply chain diversification due to its large labor and consumer base, low operating costs, and linkages to important international markets.” India is also appealing because of its strong economy, relative ease of doing business, and an increasing number of sectors open to foreign investment. I believe that India is poised to be a significant center of commerce moving forward.

Indian Government Incentives That Support Manufacturing



India Manufacturing Facilities

FICTIV

Companies like [FedEx](#) [FedEx 0.0%](#), [Foxconn](#), [Apple](#) [Apple 0.0%](#), and many well-known electronics, aerospace, and medical device companies are scaling up India operations. Part of the reason is likely the incentives. The National Policy on Electronics (NPE), established in 2019 to position India as a global hub for electronics, encouraged the development of core components like semiconductor chips, graphics chips, motherboard chipsets, and other computing devices. This led to improved competitiveness globally for the electronics industry. Next, the Production Linked Incentive (PLI) program for large-scale electronics manufacturing offered a financial incentive to boost domestic manufacturing and attract significant investments in electronic components and semiconductor packaging. These incentives have now expanded to include 14 additional industries.

Industry Focus Areas for India Manufacturing



India Manufacturing Facilities

FICTIV

India's manufacturing sector has witnessed significant growth and diversification in recent years, with various industries playing a pivotal role in the country's economic development. From aerospace and defense to medical devices, automobiles, electronics, and space technology, India's manufacturing ecosystem is as diverse as it is dynamic.

Aerospace: India is an ideal location for manufacturing aircraft, spacecraft, and related components. Its aerospace manufacturing sector has steadily grown, focusing on military and commercial applications. The industry benefits from a skilled workforce, technological advancements, and government initiatives to promote aerospace manufacturing. India's aerospace manufacturing capabilities are increasingly gaining recognition on the global stage, with collaborations and partnerships with international aerospace companies contributing to this sector's growth.

Medical Technology: The medical technology (MedTech) sector is growing rapidly. For example, after opening its first facility in Gurugram in 2016, Boston Scientific [Boston Scientific 0.0%](#), a US-based company, launched its second R&D center in Pune in 2023. India is home to the company's

second-largest R&D centers outside of the United States of America. India's medical device manufacturing sector has also increased, with companies such as Trivitron Healthcare and Opto Circuits India Ltd. producing a wide range of medical equipment and devices for healthcare providers worldwide.

Automotive: India is becoming a significant player in the global automotive industry, with companies like Tata Motors, Mahindra & Mahindra, and Maruti Suzuki manufacturing a diverse range of vehicles, from cars and motorcycles to commercial trucks and buses.

But this is just the beginning. India is also focusing on developing a robust series of plans to strengthen international commerce, one of which is the [“Make in India”](#) initiative.

Make in India Program



Make in India at Hannover Messe Industrial Trade Fair

AFP VIA GETTY IMAGES

In 2014, Indian Prime Minister Narendra Modi started the [“Make in India”](#) program to strengthen the case for India globally. The stated purpose of the campaign is to facilitate investment, foster innovation, enhance skill development, protect intellectual property, and build a best-in-class manufacturing infrastructure. The resulting job creation and increase in foreign investment directly impact 25 identified sectors, including railways, defense, insurance, and medical devices.

Why Businesses Relocate to India

This webinar provided helpful information on “[Why India is the Next Manufacturing Hub](#),” focusing on incentives that make India an appealing choice for foreign businesses seeking global commerce. Key insights include:

1. **Indian government**—Panelists agreed that both the central and state governments are doing all they can to incentivize growth in manufacturing. If anything, states are competing to win foreign investment.
2. **Focus on manufacturing**—Panelists also agreed that the focus on manufacturing has ‘left the station’ and that the next government will continue to invest here.
3. **Investment in Infrastructure**—India is already investing heavily in infrastructure, which will continue to accelerate.
4. **Targeted investments in critical areas**—Some industries have special economic zones, particularly around semiconductors and fabrication plants.
5. **Bureaucracy or pro-business**—There continue to be tensions between old bureaucracy (very slow) and ‘[Invest India](#),’ which focuses on increasing the ease of doing business in India.
6. **Indian Education**—The top-tier schools produce employment-ready talent, but there is a huge gap between the next tier of schools. On the other hand, there is a high degree of cooperation between industry and universities to bridge this gap.



An engineer works on an aerospace component.

AFP VIA GETTY IMAGES

Shifting Consumer Demand

Part of India's manufacturing expansion (especially for electronics) is driven by shifting consumer demand. Customers want higher-quality products with more advanced features and functionality at the best price point. India offers more options (particularly for electronics) with savings that pass through to the consumer. But aerospace is uniquely positioned to win in India. With a well-established aerospace infrastructure, manufacturing partnerships ([it's the relationships, right?](#)), and significant incentives, well-known companies are investing heavily in India.

Lower Tariffs and Landed Cost

Lower tariffs are one reason companies choose India (3% versus 30% in China), but India's lower landed cost is another attractive feature for international businesses considering putting operations in the region. India offers [lower labor costs](#) than many other countries, with a strategic location for trade across Southeast Asia, the Middle East, and Europe. Additionally, India has multiple trade agreements that reduce tariffs and

facilitate smoother and less expensive import and export processes. Finally, logistics efficiency and lower transportation costs further lower the total landed cost for businesses operating in the region.



India's lower landed cost is an attractive feature for international businesses.

GETTY

Key Takeaways

India is quickly becoming a key player in global manufacturing, and [according to the Business Standard](#), that role will only grow in the next few years. With lower tariffs, lower landed costs, and special incentives for many industries, [India is a](#) solid option to diversify your global supply chain. When I talk to supply chain leaders, it's clear that success looks like operating with agility—often across borders—in a changing global economy. India is a great place to start.



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NEWS FROM ISRAEL

Eltek Ltd. Reports 2024 First Quarter Financial Results

First Quarter 2024 Highlights

- Revenues were \$11.8 million, up 3% over Q1 2023
- Operating profit was \$1.7 million, up 8% over Q1 2023
- Net income was \$1.7 million or \$0.27 per fully diluted share, up 11% over Q1 2023
- Net cash provided by operating activities amounted to \$1.3 million.

“We have ended another successful quarter with net income of \$1.74 million, compared to \$1.56 million in the first quarter of 2023, an increase of 11%. Revenues reached \$11.8 million, marking a 3% rise compared to the same period last year. These results are the outcome of our continuous investment in increasing efficiency and quality. We have seen a consistent uptrend in both product orders and requests for quotations during the quarter. Recently, we secured a repeat order worth \$1.6 million from a defence client for PCB supply, with \$1 million due by the end of 2024 and the remainder by the end of 2025. We anticipate sustained high demand in the defence sector, for the next 2-3 years. Our current principal production constraint lies in manpower and not in machine capacity. To manage this increased demand for our products, we’re actively seeking to boost our workforce by 15% in the short term and an additional 10% thereafter,” said Eli Yaffe, CEO of Eltek.

“Looking ahead to 2024 and 2025, we anticipate significant challenges as we undertake extensive construction work and integrate additional new production lines and machines. Our focus is on ensuring the smooth installation of new equipment while sustaining full production capacity on our existing lines. Despite a slight delay of several months in our

investment program, our progress remains steady, with the successful installation of the first of three ordered coating lines during the quarter,” continued Mr. Yaffe.

“We continue to seek a suitable PCB manufacturing company to acquire in the American market to enhance our presence in North America. Concurrently, we are exploring additional options for expanding production at our plant in Israel to support our growth strategy,” concluded Mr. Yaffe.

First Quarter 2024 GAAP Financial Results

Revenues for the first quarter of 2024 were \$11.8 million, compared to \$11.5 million in the first quarter of 2023;

Gross profit for the first quarter of 2024 was \$3.3 million (28% of revenues) compared to \$3.0 (26% of revenues) in the first quarter of 2023;

Operating profit for the first quarter of 2024 was \$1.7 million compared to operating profit of \$1.6 million in the first quarter of 2023;

Net income for the first quarter of 2024 was \$1.7 million or \$0.27 per fully diluted share compared to net income of \$1.6 million or \$0.27 per fully diluted share in the first quarter of 2023;

Cash and short-term bank deposits amounted to \$19.9 million as of March 31, 2024, with no outstanding debt.

First Quarter 2024 Non-GAAP Financial Results

EBITDA for the first quarter of 2024 was \$2.1 million (18% of revenues) compared to EBITDA of \$1.9 million (17% of revenues) in the first quarter of 2023;

To Access a Replay of the Conference Call held on 21st May.

A replay of the call will be available for 30 days on the Investor Info section on Eltek’s corporate website at <http://www.nisteceltek.com> approximately 24 hours after the conference call is completed.

About Eltek

Eltek - “Innovation Across the Board”, is a global manufacturer and supplier of technologically advanced solutions in the field of printed circuit boards (PCBs), and is an Israeli leading company in this industry. PCBs are the core

circuitry of most electronic devices. Eltek specializes in the manufacture and supply of complex and high quality PCBs, HDI, multilayered and flex-rigid boards for the high-end market. Eltek is ITAR compliant and has AS-9100 and NADCAP Electronics certifications. Its customers include leading companies in the defense, aerospace and medical industries in Israel, the United States, Europe and Asia.

Eltek was founded in 1970. The Company's headquarters, R&D, production and marketing center are located in Israel. Eltek also operates through its subsidiary in North America and by agents and distributors in Europe, India, South Africa and South America. For more information, visit Eltek's web site at www.nisteceltek.com



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NEWS FROM ITALY

Piciesse announces the acquisition of Baselectron consolidating its position in the Italian PCB market

Italian PCB manufacturer Piciesse Elettronica is proud to announce that on May 9, 2024, it concluded the acquisition of Baselectron, a historic company present in the Italian printed circuit scene for 47 years.

Piciesse Elettronica

Established in 1993, Piciesse Elettronica specialises in PCB manufacturing, currently operating a 10,000m² production facility in Italy and maintaining a branch office in Shenzhen, China.

Baselectron

Baselectron, established in 1977, specialises in manufacturing single/double-sided boards, multilayer boards, and rigid-flex boards at its factory located in San Martino Siccomario, Italy.



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Issue 4 – February 2024

NEWS FROM THAILAND

Thailand Electronics Circuit Asia (THECA) 2024 is scheduled for July 24 to 26, 2024, at the Bangkok International Trade & Exhibition Centre (BITEC) in Bangna, Bangkok

Positioned at the forefront of global electronics innovation, Thailand Electronics Circuit Asia (THECA) 2024 is primed to catalyze groundbreaking advancements in the electronics manufacturing industry. Scheduled for July 24 to 26, 2024, at the Bangkok International Trade & Exhibition Centre (BITEC) in Bangna, Bangkok, THECA serves as a pivotal platform for unveiling cutting-edge technologies in Printed Circuit Boards (PCBs) and Printed Circuit Board Assemblies (PCBAs).

The global PCB market is witnessing remarkable growth, projected to reach \$86.17 billion by 2026, marking a compound annual growth rate (CAGR) of 3.3% from 2021 to 2026. High-Density Interconnect (HDI) PCBs, known for their superior electrical performance, are leading this surge with a forecasted CAGR of 11.1%, reflecting the industry's shift towards more sophisticated circuitry in compact formats. Additionally, the flexibility and adaptability of Flexible PCBs are catering to the burgeoning demands of wearable technology, smart devices, and medical electronics, with their market expected to climb to \$15.29 billion by 2026.

Mr. Pitharn Ongkosit, President of the Thailand Printed Circuit Association (THPCA) underscored that APAC continues to dominate global PCB production, with China alone accounting for 50% of worldwide output and Thailand becoming for the second largest PCB/PCBA producer in APAC. The region's robust manufacturing infrastructure and favourable government policies are attracting substantial foreign investments and fostering technological partnerships, further solidifying its status as a global manufacturing powerhouse.

By hosting THECA 2024, Thailand is set to showcase its strategic initiatives and technological capabilities, aiming to attract global players and stimulate further growth in the PCB and PCBA sectors. The trade show will feature exhibitions from top international suppliers, dynamic workshops, and networking opportunities designed to foster collaborations and innovations.

THECA's Hosted Buyer Program is strategically designed to enhance global trade relations and facilitate direct access to Asia's thriving electronics manufacturing scene. This exclusive initiative offers top-level potential buyers personalized business matchmaking services with exhibitors, focusing on one-on-one meetings to maximize networking and deal-making opportunities.

Key Features of the Hosted Buyer Program:

- Targeted Connections: Connect with local and international suppliers tailored to your business needs.
- Pre-scheduled Meetings: Plan all your meetings in advance with our online scheduling tool, maximizing your time at the event.
- Exclusive Benefits: Qualified buyers will receive complimentary accommodations, access to special networking events, and transport services between the airport, hotel, and event venue.
- Dedicated Support: Enjoy the comfort of a dedicated meeting space and the support of our team to ensure a smooth and productive experience.

Eligibility and Benefits:

- Industries Covered: The program is open to buyers from diverse sectors such as Aerospace, Automotive, Consumer Electronics, Medical Devices, and more.
- Complimentary Services: Eligible buyers will enjoy benefits like hotel accommodations for the duration of the trade show, exclusive access to lounges, and special luncheons.
- Efficient Networking: Facilitated meetings in a business-friendly environment ensure that you make the most out of your participation.

How to Apply:

Participants interested in the Hosted Buyer Program must apply through our online platform. Applications will be reviewed based on the buyer's purchasing authority, market influence, and relevance to the exhibiting sectors.

Register for the Hosted Buyer Program:

Enhance your business by joining this premier buyer initiative at THECA 2024. For more details and to register, please visit the [Hosted Buyer Program Registration](#).

By fostering an environment conducive to business development and innovation, THECA's Hosted Buyer Program aims to connect the electronics industry's key players and decision-makers, driving forward global collaborations and business success.

Additionally THECA will host a series of international academic conferences and workshops covering a variety of topics, including market trends and smart manufacturing technologies integrated with artificial intelligence. These sessions are designed to facilitate knowledge exchange and networking among entrepreneurs and innovators in the electronic circuit board industry.

Global Participation at THECA 2024, poised to emerge as the epicentre of global innovation, is drawing significant attention and participation from across the globe. With over 3,000 visitors and 200 exhibitors already pre-registered from various corners of the world, the event's broad appeal is unmistakable. The diversity in participant demographics is striking: 60% of visitors and 50% of exhibitors originate from Asia, underlining robust regional engagement. Following closely, Europe accounts for 20% of visitors and 25% of exhibitors, while North America contributes 10% of visitors and 15% of exhibitors. The remaining 10% of visitors and exhibitors represent diverse regions worldwide. This rich tapestry of global representation underscores THECA's pivotal role as a premier platform for catalyzing innovation and fostering invaluable international business relationships within the PCB, PCBA and EMS manufacturing sectors.

The Thailand Board of Investment (BOI), in collaboration with the Thailand Printed Circuit Association and the Hong Kong Printed Circuit Association, invite industry stakeholders, innovators, and technology enthusiasts to join us at THECA 2024 to experience firsthand the transformative potential of

the latest advancements in PCB and PCBA technologies. Register now to secure your participation and connect with global leaders in the electronics industry at THECA Visitor Registration.

Thailand Electronics Circuit Asia (THECA) 2024 represents a strategic platform for showcasing global innovations and fostering economic growth through technological advancements in the electronics sector. For more details about the event and to explore partnership opportunities, please visit THECA Website.

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**THAILAND ELECTRONICS CIRCUIT ASIA: THECA 2024, July 24-26 at BITEC
Bangna, Bangkok, Thailand**



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NEWS FROM THE TPCA

Taiwan PCB makers focus spending on high-end HDI boards

Taiwan-based PCB manufacturers are prioritizing capital expenditure on high-end HDI boards.

The AI boom has sent demand rising for high-end HDI boards supporting AI servers. ABF substrates account for about half of the cost of the AI server-use PCBs, and coming next in importance are High-Layer-Count (HLC) and high-end HDI boards.

Unit prices for these boards amount to a few hundred US dollars to up to US\$1,000, according to industry sources. Major HDI suppliers include Taiwanese firms Compeq Manufacturing, Tripod Technology, Unimicron, Zhen Ding Technology, Unitech Printed Circuit, and Dynamic Holding.

HDI boards have seen adoption extend from handsets to high-end notebooks and automotive electronics, with electric vehicle (EV) applications particularly promising substantial business opportunities. Major HDI suppliers have devoted significant sums of capex—at least NT\$4-5 billion (US\$123.64-154.55 million) - for expanding production capacity.

Taiwanese PCB firms have moved their new HDI capacity to production in China over the past two years. Compeq and Tripod have already started making plans for their next-stage capacity expansions eyeing the growing demand from the 5G and EV sectors.

The industry sources said HDIs' competitiveness comes from their light weight, slimness, and small sizes.

Dynamic Holding is optimistic about business in the second and third quarters of 2024, expecting increasing demand for networking and server applications. For HDI production, the first phase of its Huangshi Second Plant in China has already reached full capacity, and its second-phase capacity will come online gradually starting in the third quarter of 2024.

Demand for automotive PCBs growing fast

Dynamic said that order visibility has improved in the second quarter compared to the first quarter, with demand for high-end HDI products remaining strong. Utilization rates for HDI boards have already reached 90-95%, compared to 90% seen in the first quarter.

Dynamic's new plant in Thailand is scheduled to start production in the fourth quarter of 2024. It is a smart plant with highly automated production lines for HLC and HDI boards catering for servers, networking, storage, and automotive applications.

Of Taiwanese PCB makers' output value in 2023, automotive applications accounted for almost 15%, the industry sources said, adding that automotive HDIs will see a CAGR of 16.5% from 2022-2028, the fastest growth among all PCB segments.



The European Institute for the PCB Community

International Diary

2024

EIPC Summer Conference Conference & Visit @ ESA/ESTEC

Tuesday 4 & Wednesday 5 June
Noordwijk, The Netherlands

SMT Nuremberg

11-13 June
Nuremberg, Germany

EIPC Technical Snapshot Webinar

Registrations via www.eipc.org
September

EIPC @ FED Conference

20 & 21 September
Ulm, Germany

EIPC Technical Snapshot Webinar

Registrations via www.eipc.org
October

EIPC @ Electronica

12-15 November
Munich, Germany