



The European Institute for the PCB Community

EIPC SPEeDNEWS

*The Weekly On-Line Newsletter from the European Institute of Printed Circuits.
Issue 34 – November 2021*

NEWS FROM THE EIPC

Take a duster to your suitcase, your soul to Frankfurt.

That EIPC are to hold a Winter Conference in February 2022 will come as welcome news to many. They will recall the days when one could travel abroad, and by aeroplane. One waved a strip of paper at check-in, a passport at border control and one was getting a G&T down in short order before the orderly queue for the aircraft. Nowadays of course it is all different, and one requires all kinds of certification, proof of identity, details of next of kin, list of any strange diseases possibly experienced, and the queues are similar to those for an André Rieu Concert.

But it will be worth it, as EIPC is to circuitry what André Rieu is to light music. Our Call for Papers more of a programme creation, with works by well-known and new composers, with a variety of themes, all in harmony, all in one movement, and all enjoyed in rapt silence by a live audience. So pop your composition into us as soon as you can, as we in February, in Frankfurt, will love to see you – encore!

Send your abstract before November 30th to Kirsten Smit-Westenberg at kwestenberg@eipc.org.

Registration will be open soon.
For details please check www.eipc.org



The European Institute for the PCB Community

Call for papers

EIPC Winter Conference Frankfurt 2022

*Electronic Industry Growth and Sustainability:
Opportunities and Challenges for the PCB Industry*



Date: Thursday February 10th, 2022

Conference location: Frankfurt, Germany

Bonus programme: Networking dinner Wednesday February 9

Presentations on the following topics can be included in the conference programme:

Business Outlook: Global Electronics Industry

- Business update and trends for 5G, Antenna and filter applications and High Rel application
- Automotive, E-mobility, IoT, Medical Industrial Electronics, Aerospace, Avionics-G5
- Supply Chain Management: Risk management
- Industry 4.0 European Industry update

Roadmapping for 2021 and beyond

- Roadmap by market segments
- Technology Guidance through market needs
- Adapting processes, materials, chemistry, equipment to future technology needs
- Strategic Partnership and Planning for success through Networking

New Technologies: Success through Evolution- or Disruptive Technologies?

- Process technology development mSAP, SAP and full Additive Process
- Photonics: optical solutions in component and board level
- Packaging technologies
- Embedded technology: Passives, Actives, RFID tags
- Nanotechnology and Printed electronics: 3D Electronics/conductive pattern/dielectric layers
- Material Technology- Laminate technologies - Coating technologies
- Ni free surface finishes
- New technology, Innovations and Invention

Equipment and process evolution to meet Technology challenges

- Equipment and process capabilities supporting controlled conductor design features for high frequencies and improving process variation
- Thermal management technology
- Industry 4.0, Automation and AI in PCB manufacturing
- Imaging and Printing technology
- Laser, Mechanical drilling
- Embedding components and Metal Core PCBs

Materials, Reliability and Traceability requirements by Application

- Cost effective embedded RFID tags
- Responsibility and Standards for Product Reliability and Safety
- In-house process control and conformation Testing
- Material and finished product Safety and Testing
- Advanced supply chain and Third party Testing
- Measurement methodology

Environmental responsibility

- Sustainability development- Circular economy solutions through the whole supply chain/carbon footprint
- Green manufacturing



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NEWS FROM GERMANY

Schweizer Electronic AG expands into North America

SCHWEIZER is taking another important step towards the global positioning of the company. Under the name Schweizer Electronic Americas, Inc. the company has founded its own sales company in the USA, based in Wilmington, Delaware. In addition to its headquarters in Schramberg, Germany, as well as its new, state-of-the-art high-tech production facility in Jintan, China, the company expects to gain greater access to the American market with a focus on the USA, Canada and Mexico. SCHWEIZER will address the target markets of automotive, aviation and industry in particular.

SCHWEIZER was able to win **Robert Davenport** for the sales company. Davenport has extensive experience in PCB technology. Most recently, he worked as Director Sales Automotive at the American PCB company TTM. Here, Davenport led a global sales team and worked with key customers of the North American electronics companies with a focus on automotive. Davenport began his career with a mechanical engineering degree at Indiana University – Purdue University Indianapolis and then held various positions over many years from engineering to quality and sales. For SCHWEIZER, it is a great win to have found an employee for the new sales company who has many years of experience in opening up the American market.

SCHWEIZER, a company with a unique technology portfolio and the highest quality standards. Thanks to the significant increase in capacity over the last two years with the new plant in China, SCHWEIZER has already created the conditions for reaching new regions and markets with its advanced products and solutions.

Thomas Rall, Director of Sales, is pleased about the upcoming collaboration: "North America is a highly interesting and dynamic market that opens up great potential for our technologies. With Robert Davenport, we have succeeded in finding a highly experienced employee to successfully tap into these opportunities."

SMTconnect Meet & Treat event greeted with enthusiasm

With the return of physical events in Germany, the SMTconnect Meet & Treat held their on-site event on 16 November in Munich. The event, launched in 2019, was met once again with enthusiasm by the industry players, who have missed face-to-face encounters over the last two years.

A platform to meet personally, talk intensively, exchange ideas creatively: the Meet & Treat event continued its series of focus presentations with the EMS Special aimed at those working in the electronic manufacturing services.

With almost 30 guests, the event concentrated on providing the latest market data and analysis, as well as networking opportunities for those present. With only senior management present, the arena was set for high-caliber discussions. The exciting keynote talk entitled “EMS Europa – next generation” given by Dieter G. Weiss, known internationally for his market studies and analysis of the European EMS industry provided projections and impulses for the future of the industry. Dieter G. Weiss, in4ma: "The Meet & Treat event today brought together CEOs from well-known European EMS. In my presentation, I addressed forecasts for the market in addition to the latest market data for the European EMS industry. There was a great, open exchange which demonstrated that re-localization to Europe is indeed taking place."

Guests, who included CEO from companies such as Zollner Elektronik, PRETTL electronics, GPV and cms electronics, enjoyed the opportunity to gather information at a live event and discuss the topics moving the industry in detail.

Anthula Parashoudi, Vice President SMTconnect explains: “The event shows the need for in-person encounters. Providing a platform such as this for the industry enables key players to creatively discuss solutions for the technological challenges of the future. I’m delighted that the exchange among participants was so lively and that this successful format is one we can continue.”

The SMTconnect will be held in Nuremberg from 10 – 12 May 2022. More information is available at www.smtconnect.com.



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ELECTRONIC INDUSTRY NEWS

China's tech workers approaching burn-out

The draining 996 work schedule—named for the expectation that employees work 9 a.m. to 9 p.m., six days a week—has persisted in Chinese companies for years despite ongoing public outcry. Even Alibaba co-founder Jack Ma once called it a “huge blessing.”

In early October this year, it seemed the tide might have been turning. After hopeful signs of increased government scrutiny in August, four aspiring tech workers initiated a social media project designed to expose the problem with the nation's working culture. A publicly editable database of company practices, it soon went viral, revealing working conditions at many companies in the tech sector and helping bring 996 to the center of the public's attention. It managed to garner 1 million views within its first week.

But the project—first dubbed Worker Lives Matter and then Working Time—was gone almost as quickly as it appeared. The database and the GitHub repository page have been deleted, and online discussions about the work have been censored by Chinese social networking platforms.

The short life of Working Time highlights how difficult it is to make progress against overtime practices that, while technically illegal in China, are still thriving. But some suspect it won't be the last anonymous project to take on 996. “I believe there will be more and more attempts and initiatives like this,” says programmer Suji Yan, who has worked on another anti-996 project. With better approaches to avoiding censorship, he says, they could bring even more attention to the problem.

Tracking hours

Working Time started with a spreadsheet shared on Tencent Docs, China's version of Google Docs. Shortly after it was posted, it was populated with entries attributed to companies such as Alibaba, the Chinese-language internet search provider Baidu, and e-commerce company JD.com.

“9 a.m., 10:30 p.m.–11:00 p.m., six days a week, managers usually go home after midnight,” read one entry linked with tech giant Huawei.

“10 a.m., 9 p.m. (off-work time 9 p.m., but our group stays until 9:30 p.m. or 10 p.m. because of [involution](#),” noted another entry (“involution” is Chinese internet slang for irrational competition).

Within three days, more than 1,000 entries had been added. A few days later, it became the top trending topic on China’s Quora-like online forum Zhihu.

As the spreadsheet grew and got more public attention, one organizer, with the user name 秃头才能变强 (“Only Being Bald Can Make You Strong”), came out on Zhihu to share the story behind the burgeoning project.

“Four of us are fresh college and master’s degree graduates who were born between 1996 and 2001,” the organizer said. Initially, the spreadsheet was just for information sharing, to help job hunters like themselves, they said. But as it got popular, the organizers decided to push from information gathering to activism. “It is not simply about sharing anymore, as we bear some social responsibility,” 秃头才能变强 wrote.

1	公司 (必填)	部门 (必填)	岗位 (必填)	base地 (必填)	上班时间 (必填)	下班时间 (必填)
338	美团	智慧交通机票	后端	北京	10~10.5	8~10
339	明略科技	秒针	算法工程师	北京/上海	10点	7点
340	蘑菇街	中后台	前端	杭州	9:30	6:30
341	南方基金	it投研	投研	深圳	8.40	8~9
342	拼多多	多多买菜	软开	上海	10:00	8:00-9:00
343	拼多多	多多买菜	商务	上海	11:00	8:00
344	拼多多	广告	数分	上海	11:00	10:00-11:00
345	拼多多	平台治理	运营	上海	11:00 打卡	8:00打卡, 一般10点后下班

COURTESY OF THE AUTHOR

The spreadsheet filled a gap in China, where there is a lack of company rating sites such as Glassdoor and limited ways for people to learn about benefits, office culture, and salary information. Some job seekers depend on word of mouth, while others reach out to workers randomly on the professional networking app [Maimai](#) or piece together information from job listings.

“I have heard about 996, but I was not aware it is that common. Now I see the tables made by others, I feel quite shocked,” Lane Sun, a university student from Nanjing, said when the project was still public.

Against 996

According to China's labor laws, a typical work schedule is eight hours a day, with a maximum of 44 hours a week. Extra hours beyond that require overtime pay, and monthly overtime totals are capped at 36 hours.

But for a long time, China's tech companies and startups have skirted overtime caps and become notorious for endorsing, glamorizing, and in some cases mandating long hours in the name of hard work and competitive advantage.

In a [joint survey](#) by China's online job site Boss Zhipin and the microblogging platform Weibo in 2019, only 10.6% of workers surveyed said they rarely worked overtime, while 24.7% worked overtime every day.

Long work hours can benefit workers, Jack Ma explained in 2019. "Since you are here, instead of making yourself miserable, you should do 996," Ma said in a speech at an internal Alibaba meeting that was later shared online. "Your 10-year working experience will be the same as others' 20 years."

But the tech community had already started to fight back. Earlier that year, a user created the domain 996.icu. A repository of the same name was [launched on GitHub](#) a few days later. The name means that "by following the 996 work schedule, you are risking yourself getting into the ICU (intensive care unit)," explains the GitHub page, which includes regulations on working hours under China's labour law and a list of more than 200 companies that practice 996.

Within three days, the repository got over 100,000 stars, or bookmarks, becoming the top trending project on GitHub at that time. It was blocked not long after by Chinese browsers including QQ and 360, ultimately disappearing entirely from the Chinese internet (it is still available through VPNs).

The 996.icu project was quickly followed by the [Anti-996 License](#). Devised by Yan and Katt Gu, who has a legal background, the software license allows developers to restrict the use of their code to those entities that comply with labor laws. In total, the Anti-996 License has been adopted by more than 2,000 projects, Yan says.

State involvement



[This company delivers packages faster than Amazon, but workers pay the price](#)

South Korean e-commerce giant Coupang uses AI to promise almost-instant delivery. But speed comes with troubling labor issues—including worker deaths.

And on August 26, China’s Ministry of Human Resources and Social Security and the Supreme People’s Court jointly [published](#) guidelines and examples of court cases on overtime, sending reminders to companies and individuals to be aware of labor laws. But even though authorities and state media seem to be taking a tougher stand, it is unclear when or if the rules that make 996 illegal will be fully enforced.

Some companies are making changes. Anthony Cai, a current employee of Baidu, says working six days a week is quite rare in big companies nowadays. This year, several tech companies including and ByteDance, the developer of TikTok, cancelled “big/small weeks,” an emerging term in China that refers to working a six-day schedule every other week. “Working on Saturday is not that popular anymore,” Cai says. “However, staying late at the office is still very common, which is not usually counted as overtime hours.”

In the future, companies may have to scale further back on overtime to attract young applicants. Faper Fu, a university student in Nanjing, says he has little interest in accepting 996 when he enters the job market. “If I am getting paid a lot, I may consider it,” he says. “But it is not my long-term plan 100%. Having work and life balance is very important to me.”

Cary Cooper, a professor of organizational psychology and health at Alliance Manchester Business School in the UK, thinks Chinese companies will pull away from overtime culture when they see evidence of the impact that long hours have on the

health and productivity of workers. “There is no evidence that if people consistently work long hours, their productivity level will increase—it’s the opposite,” he says.

In the meantime, Cooper says, younger generations “won’t stop fighting for a good quality of working life.”

“996 will only make human machines,” wrote 秃头才能变强. “And the only result of a dry human battery is being thrown into the trash can after the battery goes dry.”

How Ford’s Farley Dug Fields of Gold

By [Colin Barnden](#) 11.14.2021 2

Ford has been on a roll ever since it promoted Jim Farley to the C-suite, first as COO and more recently as CEO.



James Farley

Connected

Following Tesla’s success with over-the-air (OTA) updates, Ford has developed a similar capability that it calls “Ford Power-Up” which appears to be based on NXP’s vehicle network processors.

Ford Power-Up will provide OTA updates for vehicle systems such as BlueCruise, as well as a range of connected vehicle services to be developed with Google. Ford announced a partnership with Qualcomm at CES in 2018 which is certain to lead to the proliferation of 5G cellular connectivity in Ford vehicles over the next couple of years.

Assisted

While Tesla CEO Elon Musk was busy bragging about “Full-Self Driving” and a one million vehicle robotaxi network, Ford quietly set about developing a partnership

with Intel's Mobileye to develop safe but somewhat mundane Level 1 and Level 2 driver-assistance technology.

"BlueCruise" is Ford's Level 2 hands-free highway assist system. It features operational design domain limits restricting use to divided highways only, and a robust vision-based driver monitoring system (DMS) to permanently monitor the driver's attention state and engagement level using head-pose estimation and eye-gaze tracking, thus successfully eliminating automation complacency.

I have spent many hours researching BlueCruise because my analysis suggests Ford has the safest and most sophisticated DMS in a production vehicle today, using the Seeing Machines Fovio processor running its Occula neural processing unit (NPU). Further explanation of this technology is provided in the video below.

The awareness of DMS as a critical safety technology is set to rise dramatically in the short-term, following the inclusion of legislation to monitor for impaired driving in the \$1.2 trillion bipartisan infrastructure bill. The importance of the impaired driving legislation to save lives was very clearly spelled out in this announcement from Mothers Against Drunk Driving (MADD).

The role of DMS to passively detect alcohol impaired driving is discussed in detail in this submission document to NHTSA (National Highway Traffic Safety Administration) by Seeing Machines. Research is currently underway to expand the future capability of DMS to also detect drugged driving, in particular for impairment caused by cannabis use.

Ford has provided little detail of BlueCruise thus far and recently announced the OTA rollout for the feature has been delayed until the first quarter of 2022, to allow more time for testing. However, I expect to hear a lot more about the system and especially the competence of its DMS to prevent automation complacency before the end of this year.

Personalized

With DMS set to become a mandatory requirement in all vehicles to detect for distracted, drowsy and impaired driving, an opportunity has been created for automakers to use the in-cabin driver monitoring camera for the provision of personalized services. This is currently one of the most exciting, fast moving, and innovative areas for automotive development.

In an article last year entitled "Time to Open Eyes to Eye Tracking," I observed that Google may be developing an eye-gaze controlled version of Android Automotive OS. Although I was a little off target with that specific assessment, I was in the right ballpark.

Subsequent speculation about the Apple Car and even a possible Apple C1 car applications processor formed the basis of my vision of a future where eye-gaze

tracking, voice assistants and 5G cloud connectivity would come together to create what I called an “immersive user experience.”

Although the development of an Apple Car is highly speculative, in an absolute masterstroke Ford’s Farley announced the appointment of Doug Field as chief advanced technology and embedded systems officer. Field joins Ford from none other than Apple, where he served as VP, Special Projects Group. In an interview since joining Ford, Field observed “the car will become an immersive experience.”

Based on announcements from Qualcomm, my assessment is that Field could already be evaluating a radical redesign of Ford’s infotainment system, combining Qualcomm’s fourth-generation cockpit applications processor and 5G baseband processor, with Seeing Machines’ DMS and Google’s Android Automotive OS.

This would create a never-before-seen automotive immersive experience delivering as yet undefined personalized services but also integrating the most advanced capabilities of the Seeing Machines Occula NPU to minimize driver distraction and monitor driver workload.

I always assumed that Apple would lead this highly innovative in-cabin development. However, with Farley’s leadership and Field’s vision, it is instead Ford that looks to have all the necessary building blocks in place to accomplish it first, possibly as soon as the 2024 model year. Who would have forecast that two years ago?

Forget about self-driving. The greatest opportunity for automakers to generate value-added, subscription-based services is a combination of 5G cellular, infotainment, and DMS. That’s Qualcomm, Google, and Seeing Machines.

Electric

Ford has made headlines this year with the launch of its Mustang Mach-E and the announcement of the F-150 Lightning, an all-electric version of its best-selling pickup truck. In September, Ford announced an \$11.4 billion investment in electric vehicles to create 11,000 jobs with a campus in Tennessee and twin battery plants in Kentucky. Ford targets forty percent electric car sales by 2030 and owns a minority holding in electric truck startup Rivian.

Storm clouds gather

Consumer Reports has described in detail how Tesla’s marketing hype has far exceeded its technological competence, while the appointment of Missy Cummings, an engineering professor at Duke University and outspoken critic of Tesla’s indifference on safety, to the role of senior safety advisor at NHTSA confirms the regulatory storm clouds are gathering.

With National Transportation Safety Board chair Jennifer Homendy publicly criticizing Tesla’s “self-driving” features and NHTSA conducting a formal safety

probe into the automaker, it is no surprise that Elon Musk is choosing to now sell billions of dollars of Tesla stock, a portent to the next chapter of the Tesla story.

Free of the baggage of “Full-Self Driving” and Autopilot, Ford is rapidly eroding Tesla’s lead with a technology strategy covering the key areas of connectivity, assisted driving, personalization, and electric vehicles. Under Farley’s leadership, Ford is showing not only that technological innovation and safety are not mutually exclusive, but that it is well positioned for a golden period ahead.

Share this:

Industrial electronics new product cost strategy and NPI launch management

By VentureOutsource.com Staff



Increasing electronics OEM hardware functionality and complexity combined with product life cycles becoming shorter and shorter is driving the need for better new product development processes and more effective management applications when launching new product introductions (NPI).

This is especially true in non-traditional markets such as industrial electronics, automotive, aerospace/defence, and medical electronics due to the nature of extended supply chains requiring additional layers of tracking and repeatability – where field failures can play a difference between life or death.

Contract EMS manufacturers can no longer claim to have in-house NPI services and expect electronics OEM customers to then just follow the EMS provider’s instructions and guidance.

Savvy OEM decision makers with extended contract EMS manufacturing supply chains know they still need to be an active participant to keep things aligned.



Discussions with industrial electronics OEM team members who focus on NPI today often place increasing emphasis on specific electronic design automation tools they want EMS firms to be using. These OEM NPI decision makers also express concerns about the lack of information flow coming from their EMS partners during NPI project start and evolution.

Understanding internal EMS factory NPI program costs, challenges, and EMS industry generally accepted NPI standards is helpful for OEMs wanting to [stay two steps ahead of their EMS partners](#) with regards to NPI program execution or, at the very least, what should be happening with their NPI program.

Add to this, OEM executives cannot afford to disregard NPI product costs, or EMS partner delays.

Focus. Focus. Focus.

Unless your new product will compete in a vacuum, every OEM NPI eventually faces continuous pricing pressure from end markets.

Your product needs to be built at the right quality, at the right time and, so on, and, while your OEM new product cost remains important, you also have your product [total landed cost objectives](#). And, once your NPI launches in the market your total landed cost objectives becomes your focus.

As you face continuous margin erosion, you try countering this by introducing other new products. But, whether your company has a team of 10, 100, or 1,000+ people responsible for NPI portfolio management, [knowing the right information](#) to focus on for your NPI program managed by EMS manufacturers can help keep your program, and corresponding EMS provider employees (whom you have no real, direct authority over) aligned.

To help meet your NPI program goals and objectives participating EMS and OEM teams members will usually include at least the following functions:

- EMS provider quality engineer
- EMS NPI process engineer
- EMS test engineer
- EMS production process engineer
- EMS component engineer
- OEM manufacturing test engineer

- OEM quality engineer

EMS providers are tasked with reviewing and updating customer NPI program documents frequently as changes occur. Being able to anticipate any changes to your NPI roadmap, or costs, ahead of time can help your company to launch new products with confidence and a more resilient contract manufacturing supply chain with better cash conversion that can have lasting effects on how your supply chain works to further support your total landed cost objectives.

Below is just one example where the following (reasonable) target spec goals and objectives might be established for a new program build and launch inside an EMS factory:

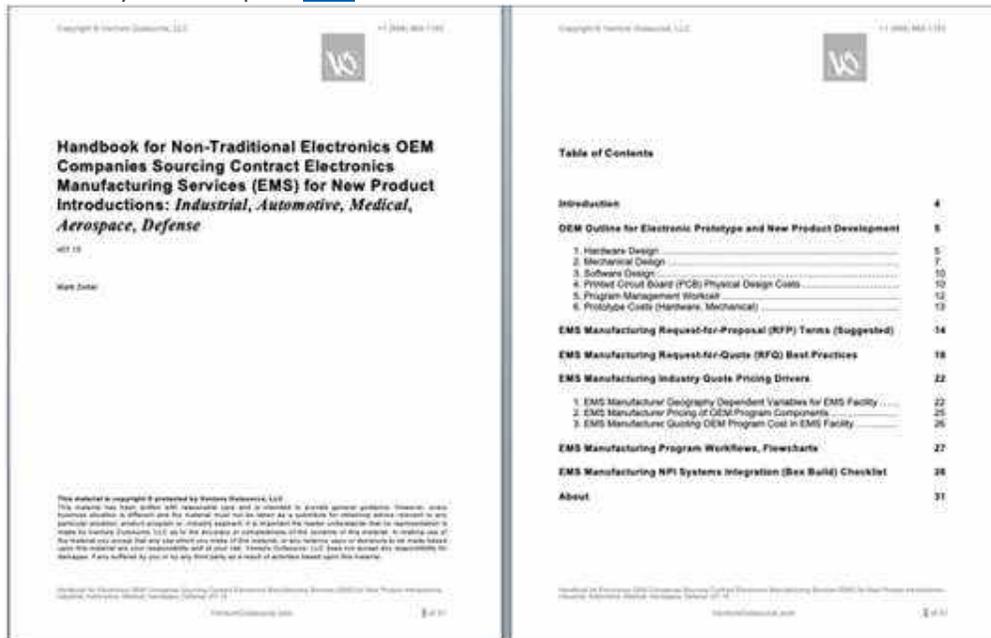
Process	Prototype	Pilot	Pilot+90 Days	Pilot+180 Days
PCB Assembly ICT	n/a	80%	93%	96%
PCB Assembly Functional Test	n/a	85%	95%	98.5%
Systems Functional Test	80%	95%	98%	99.5%
RMA*	n/a	n/a	.25%	.10%

As your NPI program progresses in your EMS provider factory, many new product cost reductions, especially on EMS box build and mechanical services, often times need design changes where there is an R&D cost surrounding these.

Most OEM equipment companies will have opportunities to introduce new products depending on several factors like how commoditized your market is, how aggressive your company is, financial stability of current EMS partners, program, sales and market growth, to mention a few.

But for the majority of OEM equipment firms, R&D investments are better spent on introducing new products. This sounds easy if have only a few product lines. But when you have 100 or 100s of products your NPI teams have to evaluate at the same time things becomes considerably more complex.

Learn more about new product NPI program launch and management in your 30-page handbook you can request [here](#).



Our handbook is divided into the primary topics below, with several topics going deeper, with detailed industry examples and clear suggestions and checklists for readers to consider:

- OEM Outline for Electronic Prototype and New Product Development
- EMS Manufacturing Request-for-Proposal (RFP) Terms
- EMS Manufacturing Request-for-Quote (RFQ) Best Practices
- EMS Manufacturing Industry Quote Pricing Drivers
- EMS Manufacturing Program Workflows, Flowcharts
- EMS Manufacturing NPI Systems Integration (Box Build) Checklist

Our handbook can help guide OEM equipment manufacturers when formulating and benchmarking their new product launch roadmap and strategy. [Request this handbook.](#)



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SEMICONDUCTOR INDUSTRY NEWS

For the definitive news on this industry sector, we commend a read of the

Future Horizons Global Semiconductor Free Newsletter

Industry News By Company

[U.K. Should Emulate Israel For Semiconductor Start-ups To Succeed](#)

This week, some of the most successful senior executives from the U.K. semiconductor industry gathered at the birthplace of modern computing, the Bletchley Park National Museum of Computing, to discuss how to crack the code to chip start-up innovation in the country. It was rather like a re-run of Captain Ridley's shooting party, managing partner of the incubator Silicon Catalyst, co-host of the gathering this week with the National Microelectronics Institute (NMI).

The two organizations announced a collaboration just a couple of weeks ago to work on creating the right environment for more U.K. semiconductor start-ups to be more successful globally. The gathering this week was aimed at bringing together in a room those who can potentially help make that happen, discuss what are the challenges and the possible solutions.

There were successful chip and EDA industry veterans like Jalal Bagherli, Simon Davidmann, and Stan Boland, as well as other influencers in the ecosystem such as John Goodacre and Neil Dickens, plus of course various start-up founders, as well as government representation on semiconductor industry policy.

[Arm Neoverse: Powering the Next-Generation of High-Performance Computing](#)

India's digital economy is in a stage of exciting growth. With over a billion mobile phones in use in the country and around 700 million internet subscribers, the opportunities for an ecosystem powered by digitalization are endless. In fact, India now is one of the leaders in data consumption and generation worldwide. The outbreak of the COVID-19 pandemic in 2020 further accelerated the adoption of

cloud computing in the country as enterprises sent employees to work from home and schools turned to online education. Add to this the demand for online services brought about by video streaming and gaming as people get to stay at home amid lockdowns and movement control orders, social media platforms, as well as increasing e-commerce activities. All of these trends are fuelling the growth of the country's data centre infrastructure industry. According to JLL India, India's data centre industry is expected to reach 1,007 MW by 2023, more than double its existing capacity of 447 MW.

Infineon Partners With MeitY To Strengthen Start-up Ecosystem In India

In order to promote technology innovation, start-ups and creation of intellectual property, MeitY Start-up Hub (MSH), an initiative of the Ministry of Electronics & IT (MeitY), has entered into a Memorandum of Understanding (MoU) with Infineon Technologies India. The collaboration aims to foster the development of incubation centres, Centres of Excellences (CoEs) and start-ups in India particularly in the field of Electronics and IT

Infineon Technologies is a renowned semiconductor company and counted amongst the top 10 semiconductor company globally. In India, Infineon has wide presence and outreach with large R&D and Sales teams developing leading edge semiconductors and software for Automotive, Power, IoT & Security markets and providing sales and technical support to local customers. The collaboration of MSH and Infineon shall assist in "capability building" of the MSH start-ups by providing them access to new products and solutions, development trends, network base, mentorship and technical guidance with a goal to strengthen the local competence of the start-ups. The joint efforts focus on creating a vibrant start-up ecosystem in India by creating a strong economy built on the twin engines of innovation and technological advancement thus promoting the growth and sustainability of start-ups in the country.



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NEWS FROM THE UK

iPower3 - Electronic Packaging for net zero

One Day Conference on Thursday 2nd December 2021 at the Advanced Propulsion Centre, University of Warwick

Hear About the Latest Advances in:

Electric Powertrain Technologies

Sintering using Silver and Copper Materials

Packaging and Modelling Options for Fast Switching Compound Semiconductors

System in Package Assembly and Leadframe Trim/Form Processes

Immersion Cooled Power Electronics

The iPower3 Conference is sponsored by Inseto (UK) Ltd.

The following organisations will exhibit at the Conference:

[Accelonix](#) - Specialist equipment sales and support for Microelectronics, Battery and PCB Assembly

[Alter Technology](#) - Leading provider and micro and optoelectronics services in engineering, procurement, assembly and test in space and harsh environment markets.

[Boschman](#)—Innovative packaging solutions provider

[Carl Zeiss](#)—Materials characterisation and failure analysis equipment

[Custom Interconnect Ltd](#) - Electronics Manufacturing, Advanced Technologies, Design Services, Power Electronics for BEVs/PHEVs, Box Build and Rapid Prototypes

[Gen 3](#) - Specialist British manufacturer and distributor of test and measurement equipment

[Heraeus Electronics](#)—Materials for power electronics assembly and packaging

[Inseto](#) - Manufacturing equipment, assembly materials and adhesives

[IPP Group Ltd](#) - Technical distributor of manufacturing equipment and consumables

[Zuken](#) - a global software company offering advanced design solutions for the creation of electrical and electronic systems

2 Weeks to Go, Book Now

For any other details or information, please contact:

IMAPS-UK Secretariat

125 High Street Chesterton, Cambridge, UK

Tel: +44 0131 2029004

e-mail: Office@imaps.org.uk

[Register Here for the iPower3 Conference](#)



Reminder - Free Online "Research Showcase"

"Recent Advances on Reliability and Gate Driving of WBG Power Electronics"

Monday 11 and Tuesday 12 January 2021: 10:00 - 12:30

Hear about the Latest Research on Power Electronics from
Warwick, Nottingham Bristol, Newcastle, Edinburgh and Aalborg Universities

This **Research Showcase** addresses several of the key issues critical to the increased adoption of **Wide Bandgap (WBG) Semiconductors** within the growing power electronics industry, including:

- Gate Interface Reliability in SiC/GaN power devices
- Latest Advances in Packaging/Interconnects
- High Speed Sensing and Monitoring around GaN devices
- Optimisation of switching transients for SiC MOSFETs
- High Current SiC Applications
- Testing of SiC MOSFETs under normal and abnormal operations

*Registration is **free** for this event.*

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[Semiconductor Packaging Workshop Online](#)

Thursday 11 February 2021

[MicroTech 2021 Online Conference - Heterogeneous Integration - Packaging Future Microsystems](#)

Thursday 25 March 2021



For any other details or information please contact:

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NEWS FROM THE IPC

New Study Finds Semiconductor Supply Chain Will Remain Vulnerable Without Robust Federal Investment in Advanced Packaging
Stronger IC substrate and OSAT capabilities are needed to realize U.S. semiconductor goals

BANNOCKBURN, Ill., USA, November 22, 2021 — A [new study](#) about the current state of advanced packaging in the semiconductor value chain finds that urgent action is required to strengthen domestic packaging ecosystem to meet increased production of semiconductor chips, without which the semiconductor supply chain is likely to remain weak and vulnerable.

The study from IPC is a thorough, data-driven analysis of the global semiconductor and advanced packaging ecosystem. The study highlights the role of advanced packaging in driving innovation in semiconductor designs.

The IPC report makes the case for congressional appropriations of more than \$50 billion to support U.S. semiconductor manufacturing, while also underscoring the need to expand advanced packaging capabilities to support the increased production of chips. At a time when the semiconductor supply chain is facing immense pressure, increasing silicon production without bolstering domestic advanced packaging capabilities is likely to lengthen the semiconductor supply chain, as chips will still have to be sent abroad for packaging and assembly into finished products.

“Semiconductor chips are critically important, which is why IPC supports full funding for the CHIPS for America Act. But chips can’t function on their own. They need to be packaged and interconnected with other electronic components in order to power the technology we all rely on, from cell phones to automobiles and beyond,” said John Mitchell, IPC president and CEO. “The data in this report shows that North America is well behind Asia in the advanced packaging of chips and in other key parts of the electronics manufacturing ecosystem.

“The U.S. must adopt a silicon-to-systems approach that strengthens the entire electronics manufacturing ecosystem, including chips, printed circuit boards, and hardware assembly,” Mitchell added. “Addressing electronics manufacturing more holistically is the only way to ensure a more resilient, innovative supply chain that can withstand external shocks in the future.”

Among other conclusions, the study finds that:

- After more than two decades of outsourcing, **the United States can design the most cutting-edge electronics but cannot manufacture them.**
- **The off-shoring of manufacturing spans the entire electronics ecosystem**, including the critically important advanced packaging of semiconductor chips, for which the North American share of global production is just 3 percent.
- **Most urgently, the US needs to invest in development and production of advanced integrated circuit substrates** – the base layers used in the packaging of integrated circuit chips – for which there are only nascent capabilities domestically.

“A healthy, capable assembly ecosystem is needed to bring a wide variety of technologies together to manufacture the finished electronics products that make modern life possible. Any disruptions or bottlenecks within this end-to-end ecosystem ultimately leads to delays in new products and innovations,

which underscores how critical it is to have a resilient, reliable system,” said Matt Kelly, IPC chief technologist and co-author of the report. “The United States needs to invest across this value chain, from silicon to systems, to successfully meet consumer demands and re-establish the United States as a global leader in electronics manufacturing.”

“The findings of this report make clear that, as a result of decades of offshoring, the United States’ semiconductor supply chains remain vulnerable, even with the new federal funding that’s expected,” added Jan Vardaman, president and founder of TechSearch International and co-author of the report. “It’s critical that the U.S. government recognizes and responds to industry needs on these systemic vulnerabilities, particularly integrated circuit substrates, where domestic capabilities are severely lacking.”



The European Institute for the PCB Community

EIPC SPEeDNEWS

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International Diary

2021

13th EIPC Technical Snapshot Webinar

Registrations via www.eipc.org

24 November

EIPC @ Evertiq Tampere

Tampere, Finland

1 December

HKPCA Hongkong

8-10 December

TPCA Taiwan

21-23 December

2022

EIPC Winter Conference

10 February

Frankfurt, Germany