

Now entering our second decade, the National Microelectronics Institute (NMI) provides a practical mechanism for the commercial and technological development of the microelectronics industry in the UK and Ireland.

Our mission is to build and support a strong microelectronics community and act as the catalyst and facilitator for sector development. How?

By: Influencing, shaping and developing
the innovation system

Representing the industry

Supporting skills development,
education and training

Improving the supply chain

Providing information

Chairman's Statement

A handwritten signature in blue ink, appearing to read 'S. Neill', with a long, sweeping underline.

Steve Neill NMI Chairman

NMI enters its second decade in robust health.

I'm sure you'll join me in congratulating the whole team on its success at this year's Trade Association 'Oscars'. Winning the Membership category was itself a significant achievement, validating as it does all that has gone before – 10 years' endeavours to build the community and unite our industry. To also walk away with the Environmental Award was enormously encouraging. Recognising the semiconductor industry's contribution to the environment and resource efficiency, this second award suggests that we have an equally bright and sustainable future ahead of us.

However publicly satisfying these awards may be, they are an incentive for further improvement rather than an end in itself. You can rest assured that the Board will be working closely with the team to ensure that NMI continues to move forward relentlessly. We're positioned favourably for the future, but much more needs to be done to transform the UK electronics industry and NMI has a vital role in that continued transformation.

Yes, we now have our widest ever membership: the result of NMI's strategy to broaden its appeal and remit from purely manufacturing to covering the entire industry. And yes, we're already delivering tangible benefits – particularly through our flagship technical networks. But we have ambition and appetite to do more . . . a lot more. By leading the way we can help to shape the future and by working with others, amplify the 'NMI effect'.

Looking to the future, NMI intends to capitalise on its existing strengths: our knowledge of the industry, well-supported networks and the transfer of knowledge and best practice. By building on these solid foundations and partnering with other organisations, we hope to set a new standard for UK trade associations and to have an even bigger impact on the UK and Ireland electronics industry.

Chief Executive's Statement

A handwritten signature in blue ink that reads "Derek Boyd". The signature is stylized with a large, sweeping underline that loops back under the name.

Derek Boyd NMI Chief Executive

What a year! Membership has gone through the roof and is still rising; we've won two prestigious industry awards from our peers (of which more in a moment); we've had a significant impact on reducing the industry's CO₂ emissions; we've hosted our first truly international conference; we've launched a Fables Operations Forum; and still found time to take stock and improve the overall delivery of benefits to Members.

Returning to those awards, NMI was delighted to receive two accolades at this year's Trade Association Forum Best Practice Awards.

The first of these was in the Membership Success category. The judges were especially impressed by the fact that we had attracted large numbers of SMEs. They also noted that we had engaged academia in the development of our network events to create greater opportunities for knowledge transfer. This is tremendous acknowledgement of the effort that NMI has put into uniting the UK's different semiconductor communities. We've increased our Membership significantly in recent years and with the recent introduction of a new category of Business Associate Membership, it really does now cover the entire industry spectrum, from early stage start-ups through to global integrated device manufacturers and other stakeholders who have an interest in the industry's success.

In the Environmental Initiative category, our study of air conditioning energy efficiency at 16 Members' wafer fabs was the unanimous choice of the judges. Supported by funding from The Carbon Trust, the study identified opportunities to reduce CO₂ emissions by more than 40,000 tonnes and achieve average savings of 10% of total site emissions. The award was great news not just for NMI, but the climate change initiative as a whole.

During the year, I was also delighted to take on the Chair of the UK Electronics Alliance (UKEA), which represents all sectors of the electronics community. There's a real power to the Alliance's collective voice and I'm proud to lend my support.

Combining these successes with everything else that has been achieved in each of the five workstreams highlighted inside this Review, I hope you'll agree that together it all adds up to a very promising start to our second decade. Thank you to all our Members and the rest of the NMI team without whom none of it would have been possible.

A 'not-for-profit' organisation funded by its Members and working for the good of the industry, NMI has expanded its remit over the years to cover the entire semiconductor value chain from design and manufacturing to stakeholders in the industry. Today, our Membership includes fabless semiconductor companies, intellectual property providers, contract design services, integrated device manufacturers, merchant foundries, vendors and service providers, as well as research and academic institutions and business support companies. It stretches all the way from the UK and Ireland to Continental Europe, the US and Far East. If you're not already part of it, isn't it time you were?

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Network NMI

influence
collaboration
performance
intelligence
innovation
knowledge

Influencing, shaping and developing
the innovation system

By continually improving communication, fuelling innovation and improving access to finance, NMI is helping the UK maintain its position in the global microelectronics industry.

Both the quantity and quality of our technical and business networks continues to improve. Alongside Analogue & Mixed Signal, System Level Design, Design for Manufacturing, Power Electronics, Verification, IC Packaging and Failure Analysis, Characterisation & Reliability, NMI has made permanent additions of Embedded Software & Systems and Reconfigurable Platforms networks following successful pilots. Over the course of the year, some 700 attendees have benefited from these proven opportunities for technical advancement, knowledge exchange, business development and collaboration.

We want to do even better. Which is why we're making improvements to the way these technical networks are run and delivered, as well as developing them to yield even greater results. We're excited at the prospect and hope our Members are too.

This year also marked something of a milestone for NMI. A natural, but nonetheless significant progression from our continued effort to raise the bar on performance, this October saw NMI host its first truly international conference. Themed around CMOS Variability, we plan to make this

the first of many industry-leading annual events that highlights the UK's position on the world map.

Returning to more familiar territory, NMI continues to run follow-up partner events with SiliconSouthWest on various business-related topics and TWI on IC Packaging, building on previous successes. Together with two other Members we also delivered events on venture capital and fabless ERP (Enterprise Resource Planning) systems. It's in NMI's nature to be a collaborative organisation and we're always on the look out for partners who can help us to accelerate the transfer of knowledge and networking for the benefit of Members.

The knowledge is there. As is the willingness to collaborate and desire to succeed. All that's missing is the funding. To bridge this gap, NMI continues to participate in the EPISTEP programme to engage SMEs in European Research programmes. Closer to home, our joint proposal with the UKEA for a Knowledge Transfer Network spanning the UK's electronics industry hit its mark. The Technology Strategy Board (TSB) has committed to investing £3 million and we look forward to seeing the results for the greater good of the industry.

Representing the industry

No-one does more or speaks with a louder voice for the whole of the microelectronics community. This year, we've turned up the volume.

NMI has always accepted the challenging role of representing the industry to 'Government' and the many stakeholders that covers at a national and regional level. While we provide a direct link to the microelectronics community, we're clear that there is value in working with fellow Trade Associations from other parts of the electronics industry to provide a collective and more influential voice. That's why we give our full support to the UKEA of which our Chief Executive, Derek Boyd, is now Chair. As well as helping to ensure that microelectronics is properly represented within the wider electronics field, this appointment strengthens our support of the ELC (Electronics Leadership Council) and we'll be working with them to grow the influence of the electronics sector on Governmental policy.

To contribute to that dialogue and raise awareness of industry's concerns, NMI facilitated a series of visits by BERR (the Department for Business, Enterprise & Regulatory Reform) to Member sites. We also continued to work with key RDAs, including SWRDA (South West of England Regional Development Agency) and SE (Scottish Enterprise) to help develop regional initiatives.

During the course of the year, NMI – and the industry it represents – celebrated several major wins. Together with industry users, we successfully lobbied the Water Industry Commissioner for Scotland to freeze water prices north of the Border. High energy prices are proving a tougher nut to crack, but until we do NMI is doing everything it can to help Members reduce their energy bills. Our 'Air Conditioning and Handling' project, sponsored by The Carbon Trust, won this year's Trade Association Forum Environmental Award and is now being promoted by The Carbon Trust as a model for network projects.

A home win is always well received but, increasingly, our industry is having to compete on the global stage. To stake our Members' claims abroad, NMI has participated in scoping missions to Italy, Germany, Russia, Finland and soon Japan with UKTI (UK Trade & Investment), SDI (Scottish Development International), SSSF (Scottish Semiconductor Suppliers Forum) and as part of EPISTEP. The word seems to be spreading.

Supporting skills development, education and training

You know it and we know it – the microelectronics industry is good at what it does in the UK and Ireland. But we all need to get better. All the time.

NMI is rising to the challenge, working with industry and academia to meet industry's need for the continuous development of its staff.

CEESI, in particular, continues to go from strength to strength. Boasting a range of new modules and with more universities joining all the time, the Continuing Education in Electronic Systems Integration programme sets an impressive standard.


Leadership development remains a key concern for the industry and here too NMI is showing the way. As well as re-developing and strengthening our Diploma in Management, we're in the process of developing a new Team Leader qualification, both formally recognised by the Chartered Institute of Management.

Talking of new developments, NMI joined forces with one of our Members, CTI (the Components Technology Institute) to co-ordinate two in-depth courses providing an 'Introduction to Semiconductor Processing'. In a similar venture, we helped to co-ordinate delivery of a Fault Finding course aimed at promoting a consistent approach to tool debug.

By channelling our own energy and resources into the promotion of other relevant courses – offered by either our academic or commercial training Members – we're continually helping to ensure that industry makes the most of what it's got.

Longer-term, NMI's closer association with both the UKEA and ELC provides further encouragement as these influential bodies develop a joined up approach to skills development and, in particular, to address the challenges of attracting more talented young people into science and engineering.

NMI is investing more effort in aligning activities among disparate groups and it's beginning to pay dividends.

 I've always found NMI's networking events to be worthwhile. The last opportunity converted into a contract worth over 10 times our membership fee. NMI networking really does pay off for all concerned!

Paul Double, EDA Solutions

Improving the supply chain

What do we want? To do things better, faster and cheaper. When do we want it? Yesterday. Which is why NMI has once again pulled out all the stops with its business enabling networks, Best Practice Forums and business support services.

Building on the lessons learned and progress made last year, our Best Practice Forums continue with their far more focused approach. On the agenda this year: industrial engineering, precious metal and specific tool types. These are all topics that Members have asked for and, like the new Call for Action request system that feeds into them, they're progressing well.

Recruited from our industry's senior ranks, the new Fabless Operations Forum is NMI's first sally into the commercial dimension of running a semiconductor business. Having identified four key areas for improving operational effectiveness – supply chain, ERP systems, test development and quality systems – the next step is to take control of these issues and start influencing the future.

One initiative that has already made the transition from planning to implementation is Global Stockroom. Although still in its infancy, this virtual equipment spares stockroom has already helped solve machine downs and reduce obsolete stock. USED4SEMICON should be congratulated for all the energy they've donated to developing this system, which is sure to realise its full potential as Members become aware of what it can do and how they can benefit.

Talking of energy, more Members than ever before are now benefiting from the Climate Change Agreement managed by NMI on their behalf. With £3 million of savings already assured for the next two years, NMI is busy helping other Members come onboard while continuing to lobby DEFRA to broaden the application criteria. This, together with our award-winning Air Conditioning and Handling Project, underscores NMI's commitment not just to Members, but also to the environment.

Providing information

“Tell me more” say our Members. “What do you want to know?” responds NMI.

Throughout the year, NMI has continued to provide one of its least publicised, but most beneficial and widely used services. Our unique position within the industry means that we can find the answer to any question you care to ask. We call it our ‘support-line’ service – no need to ask why.

Specific highlights of the year include: publication of our Manufacturing Report, which provided an eye-opening summary of the diverse nature of our manufacturing activities and where we’re helping Members to collaborate; and our second Fab Benchmarking exercise. A follow up to the first study conducted in 2005, this latest exercise featured improvements to important metrics and data collection, maximising value to Members.

We continue to run our Quarterly Business Demand Forecasting, which provides a good industry barometer, and our informative Quarterly Newsletter with its regular ‘Meet the CEO’ feature where we interview leading figures in the industry. So far, we’re delighted to have included discussions with Aart de Gues (Synopsys), Frans van Houten (NXP), Doug Dunn (ARM) and Mike Fister (Cadence).

We’re also in the process of developing a legal service with one of our partners. Specifically aligned to the needs of the semiconductor industry, this new service will provide free, expert advice on such issues as IP and supplier agreements, as well as international employment. We’ll be rolling this out to Members before the year-end.

Something else to look forward to is NMI’s topical study into the origins and benefits of strategic alliances – a critical topic for our industry. This important piece of research is nearing completion, so watch this space – www.nmi.org.uk

“ First of all, thanks for your rapid response to my plea for assistance. It’s reassuring to see that your network really does “work” and that your team takes the time to help. Eric Samson, ICEMOS Technology

Technical Networks Agenda:

Verification

Failure Analysis, Characterisation & Reliability

Reprogrammable Technology

Power Electronics

Embedded Systems & Software

Advanced Packaging

Analogue, Mixed Signal & RF Design

System Level Design

Design for Manufacturing

For all the latest news, dates and venues, visit www.nmi.org.uk