**Introduction**

NMI is delighted to introduce the second event of the “Electronics Enabling the Low Carbon Economy” Network. With a focus on the automotive sector we are delighted to be working in partnership with SMMT, the automotive industry trade body.

It’s well-recognised that electronics is a major part of automobile value. With the continuing rapid pace of developments in semiconductors and the emergence of the volume electric vehicle market, NMI believes there are now significant new opportunities in the automotive electronics supply chain. Working closely with SMMT, we have aimed this event at bringing together the automotive electronics supply chain from semiconductor materials to major automotive companies. This event will explore these opportunities from both supply and demand perspectives and will provide a focal point for building greater understanding of technology capability and market requirements.

This event, hosted this year by the University of Warwick at their impressive International Conference Centre, will include leading speakers from companies and organisations such as TATA Motors, Jaguar Land-Rover, Ricardo, Freescale Semiconductor, Infineon, NXP, Axeon, University of Warwick, Mentor Graphics, International Rectifier, Synopsys and will focus on how the electronics industry is responding to the challenges is battery electronics, efficient and safe charging systems, next generation ECUs / body electronics. The event will also explore the potential of new emerging electronic materials such as silicon carbide and gallium nitride.
For On-line Registration:  www.nmi.org.uk/events/nmi-events

For Vehicle Exhibition & Table Top availability:
Call  :+44 (0) 1506 401210  Email : sophie.ericson@nmi.org.uk

Event Overview:
The event will appeal directly to companies engaged in the automotive electronics supply chain from materials development to vehicle manufacturers. It is aimed at Senior Engineering, Programme Management and Business Development professionals active in this area.

In addition to our line up of exciting talks we invite you to get your questions ready for an exciting Panel debate on the topic of “Low Carbon Vehicles – Reaching the tipping point”.
Don’t miss this opportunity to learn about the future of Automotive Technology and where Electronics plays a key enabling role.

The event comprises:
Technical Knowledge sharing - Presentations from leading Industry Experts and Researchers

Q&A Opportunities – Open sessions for the audience to ask key questions and for leading speakers to debate.

Mini-Expo - At a small cost delegates have the opportunity for a “Table Top” expo to demonstrate particular capability. This is aimed at new business development, R&D collaborations, A2B and B2B partnerships.

Static Vehicle Demonstrators - The following companies will have a demonstrator at the event.
- TATA Motors
- Zytek – Mercedes ( Commercial EV )
- F3 Low Carbon Sports Car ( University of Warwick )
- Jaguar Land-Rover (tbc)
- Selected others have been approached

University of Warwick Silicon Carbide Line Tour - Our hosts at Warwick have kindly provided an excellent opportunity for delegates to have a window tour of what is the first prototype Silicon Carbide facility in the UK. Silicon Carbide is a fundamentally new technology which offers superior performance to current Power Electronic devices and would allow significant breakthrough in automotive vehicle performance.

Networking Opportunities - As always, there will be ample opportunity to network with a wide variety of organisations delegates from industry and academia and spanning the automotive electronics eco-systems from semiconductor equipment and materials through to major automotive companies.
Agenda:

DAY 1: Tuesday 22nd June

University of Warwick Silicon Carbide facility tour

09:00  Registration
09:30  Warwick University Silicon Carbide facility tour  
       Professor Phil Mawby, University of Warwick
10:30  Transfer to Main Conference venue

A view of Automotive Development / Manufacture...

Venue: University of Warwick International Manufacturing Centre

10:30  Registration & Coffee
11:00  Welcome and Introduction  
       Introduction to Warwick  
       Professor Phil Mawby, University of Warwick
11:20  Automotive manufacturing challenges  
       Nick Fell, TATA Motors
11:50  Strategy for next generation Low Carbon vehicles  
       tbc, Jaguar Land Rover
12:20  Buffet Lunch & Tour of Exhibitions
13:20  Technical challenges for Low Carbon Vehicles  
       tbc, TATA Motors
13:50  Low Carbon Vehicle Technology Project  
       John O'Connor, University of Warwick
14:20  Coffee & Networking
14:50  Compact, high reliability DC-DC converters for Automotive applications  
       Frank Warnes, Ricardo
15:20  Panel session: “Low Carbon Vehicles – Reaching the tipping point?”
16:00  Mapping the Automotive Electronics eco-system in the UK  
       Paul Jarvie, NMI
16:15  Wrap up (Move to Exhibitor Hall / Further Networking)
19:00  Networking Dinner
21:30  Close of DAY 1
DAY 2 – Wednesday 23rd June

Drivetrain & Automotive Electronics

09:00 Registration and Refreshments

SESSION 1 --- Drivetrain

10:00 Welcome & Introduction                               Paul Jarvie, NMI
10:15 Green Driving: Adapting to a Changing Climate of Innovation in Automotive Electronics  Barry Dennington, NXP UK
10:45 Battery technology for Electric Vehicles          Chris Vowles, Axeon
11:15 Refreshments
11:35 Energy efficiency - It’s all about the software! Chris Croft-White, Synopsys
12:05 Panel Session 1: “Can EV’s offer the best ROI for Energy Efficiency?”
12:45 Buffet Lunch, Networking, Vehicle demonstrators, Table Top Exhibitions

SESSION 2 ---- Automotive Electronics

13:45 Advances in Body Electronics                        Andrew Birnie, Freescale Semiconductor
14:15 Design Tools For Electric & Hybrid Vehicle Design    Phil Davies, Mentor Graphics
14:45 Refreshments
15:05 Vehicle Safety strategy                            Simon Brewerton, Infineon
16:05 The role of Power Electronics in reducing fuel consumption and emissions Andrew Stewart, International Rectifier
16:35 Panel Session 2: “How can we enable the UK Auto Electronics Supply Chain?”
17:00 Wrap up / Close of DAY 2
About the NMI…

The NMI is a leading Trade Association for the UK Electronics industry. Our mission is

*To lead the development of a world-class sustainable UK-based microelectronics Systems Design, Device and Manufacturing community providing a compelling value-proposition for our members*

The NMI is a not-for-profit organisation funded by its members and includes leading companies, universities and stakeholder organisations across the diverse electronics community within the UK & Ireland.

**Key work streams include:**
- Encouraging innovation, communication and business collaboration through sector networks.
- Supply chain efficiencies through benchmarking and best practice.
- Information provision.
- Representation to government, policy makers and regulators.
- Skills development, education and training.

See [www.nmi.org.uk](http://www.nmi.org.uk) and click on events for full schedule and latest information

**Note:** All Photographs in this document were provided courtesy of Freescale Semiconductor

**Map and directions:**

**Warwick Address**
International Manufacturing Centre, University of Warwick, Coventry CV4 7AL, UK
Tel: +44 (0)24 7652 3523

Click for Directions to Warwick…

“International Manufacturing Centre”