

# Short Circuit

The monthly newsletter for Intellect's electronics members

**intellect**  
REPRESENTING THE UK TECHNOLOGY INDUSTRY

May 2009

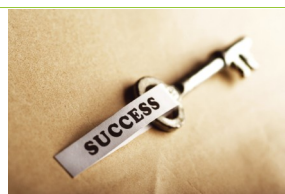
## How do I meet key procurement decision makers?

**The answer, increasingly, is by keeping in touch with what's going on at Intellect.**

The evening of Wednesday 20 May sees the third in our series of electronics manufacturing receptions, which feature presentations from a range of key decision makers at OEMs on the manner in which they procure components and manufacturing services, as well as details of upcoming contracts and projects. By attending, you'll steal a march on your competitors and gain important insights into how best to develop your business to meet their needs.

The upcoming reception will feature Martin Greenhalgh, Head of Advanced Supply Chains at General Dynamics UK. Martin currently leads on procurement at General Dynamics UK. He has completed a number of projects within the GDUK Supply Chain including the development of high risk, low volume suppliers into reliable and high

performance entities. He is a key skills supply chain specialist with over 25 years experience within the defence and electronics sectors.



He will be joined by Malcolm Warr, from the Homeland Security Team at Finmeccanica. Malcolm is an expert in UK defence & security supply chains and the effective integration of SMEs and prime contractors into them. He will present on these themes.

**If you want access to the really juicy projects, and the long term revenue that will bring to your company, we urge you to come along.**

**For further information contact Henry Parker, T 020 7331 2019, E [henry.parker@intellectuk.org](mailto:henry.parker@intellectuk.org)**

## 6.4 billion cost savings could all add up for UK businesses

Businesses will be able to claim their share of £6.4bn in resource efficiency savings by using a simple online calculator devised by sustainable business experts Envirowise.

The Envirowise Savings Calculator takes businesses through three simple steps to help them minimise costs and maximise profits. By inputting a few basic details into the calculator they can reveal the savings they could make on costs such as paper, waste disposal, water, heating and transport.

Envirowise programme marketing manager Elaine Sharp said, "Businesses are increasingly looking at ways to cut their costs as the challenging economic climate hits their bottom line. Putting profit back into the business rather than seeing it wasting away is a great place to start and we can see that those companies who have a positive attitude towards resource efficiency are reaping the rewards."

She continued, "Although many businesses have already taken steps to improve their processes, there is always something more that can be done and we hope our Savings Calculator will help them make some small changes that will have a lasting, positive impact on their business."



Once information is entered into the calculator, a company can use it to create an individual, tailored plan to help cut costs. The calculator pools all relevant Envirowise guides and money-saving advice to help businesses get started on the journey towards resource efficiency.

**To find out the amount of money your business could save, log on to the Envirowise Savings Calculator at [www.envirowise.gov.uk/savingscalculator](http://www.envirowise.gov.uk/savingscalculator)**

### Inside the May edition of Short Circuit...

|  |    |
|--|----|
| Intellect, industry and member news                  | 02 |
| Intellect, industry and member news                  | 03 |
| Intellect, industry and member news                  | 04 |
| Intellect, industry and member news<br>News in brief | 05 |
| Intellect events                                     | 06 |

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**SME Update** - monthly newsletter offering member SMEs updated information on SME specific issues

**Switched On** - Monthly overview of the big stories breaking in digital communications

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## Intellect charts roadmap to international electronics event in the UK

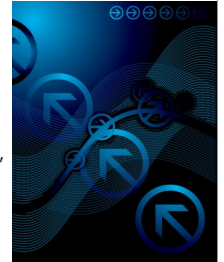
Intellect has recently published a road map outlining conditions that must be fulfilled in order for the UK to host a successful international technology event. The report finds that a major event would raise the profile of the UK's capabilities across the global marketplace by creating a focus for its leaders, and a shop window for UK plc. The report included contributions from 20 global players in the electronics sector. However there are a number of barriers to the successful implementation of a large scale event. Key conditions to be satisfied include:

- ▶ identifying an event theme that is clearly market orientated
- ▶ initiation of a global public relations and marketing campaign conducted by a top tier consultancy
- ▶ significant and high level government support in recruiting high level speakers
- ▶ attracting an events organiser, with significant international experience

Broadly we found that the UK is still some way off hosting a globally recognised electronic technology event. Our key players need to see a compelling proposition before committing to it. This report is a call to action for industry and government to put the necessary conditions in place. If the UK is to have any chance of realising the levels of success enjoyed by other major international showcases, we must all work together in partnership and pool the necessary resources.

Based on the views of interviewees, the report notes that an 'ideal event' should follow on a 'village' format encompassing a diverse range of content around a headline grabbing conference, with additional features such as clearly focused exhibition areas, technical master-classes, workshops, award ceremonies and technology 'grand challenges' also included. Whilst any event would be positioned as an international event in its own right, this

more intimate, content focused, approach would be better suited to the UK's strengths than the regular 'tradedair' type events that are already established around the globe.



The study was commissioned by a government/industry working group, administered by the Department for Business, Enterprise & Regulatory Reform (BERR), with the aim of assessing the feasibility of hosting a major international showcase for the electronics and technology industry. Following its completion, industry and government will meet again to discuss whether and how to put this action plan into practice.

**The full text of the report, as well as the data that supported its conclusions, can be found at [www.intellectuk.org/reports](http://www.intellectuk.org/reports)**

## RoHS Directive revisions finalised



The European Union has now formally published proposals to revise the RoHS Directive.

The following measures will be enacted:

- ▶ categories 8 (medical) and 9 (monitoring and control instruments) will fall within the scope of the RoHS Directive. Implementation will be from 2014, with *in vitro* diagnostic medical devices in 2016 and industrial monitoring and control instruments in 2017, details of supporting exemptions will feature in a new annex where substitution is not currently feasible.
- ▶ four hazardous substances are identified for priority assessment and possible future ban. As part of a separate review of exemptions carried out by the Oko Institute to be announced early in 2009. These are:
  - hexabromocyclododecane (HBCDD)
  - diethylhexyl phthalate (DEHP)

- Butyl benzyl phthalate (BBP)
- Dibutyl phthalate (DBP)

So, we will all face a significant compliance data collection exercise as in 2006. Gathering compliance information was certainly a challenge before and this will become more complex, with new product categories falling within scope.

As well as additional substances, the review also looked at exemptions, and how they are likely to be changed in the future. The report outlines the exemptions to be continued, in most cases with amended wording, the exemptions to be eliminated and the recommendations for new exemptions. The recommendations must be voted on by the Environment Directorate Technical Adaptation Committee and adopted by the EU prior to implementation. The main headlines of the review are:

- ▶ 21 exemptions will be continued, many with amended wording providing greater clarity, with

proposed expiration dates between 2010 and 2014

- ▶ five exemptions will be eliminated by 2011

These are:

- lead in linear incandescent lamps
- lead as activator in the fluorescent power of discharge lamps - except sun tanning lamps that will expire July 2014
- lead in oxide glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays
- lead with PbBiSn-Hg and PbInSn-Hg in specific compositions
- lead oxide in the glass envelope of Black Light Blue lamps
- lead alloys as solders for transducers used in high-powered loudspeakers will not be continued

One new exemption will be introduced: cadmium within a colour converting single crystal semiconductor film for use in solid state illumination or display systems, that will have an expiry date of July 2014.

## National Electronics Week 2009

NEW is returning to London's world-class Earls Court 2 venue over 16 - 18 June. This year the show is going to be better than ever, introducing new sectors dedicated to innovation, future technologies and design and development applications. Intellect will be exhibiting in the 'Associations Area'.

National Electronics Week is the NEW event for the UK marketplace, set-up to ensure the industry has an exhibition it can be proud of. For too long, the UK has lacked an all encompassing event - but NEW has changed all that. NEW has cost-effective stand opportunities for exhibitors and a whole host of time-

efficient and valuable solutions for visitors. The event is now even more relevant than ever, providing dedicated support for a wider range of industries including embedded, components, solar and green design, photonics and laser technology, wireless, EMS, test and measurement, design and development and production and assembly. These areas are colour coded on the floorplan allowing visitors to make the most of their day.

We're operating a multi-tiered pricing system to help you get even more out of the show, offering a 6m stand (3m x 2m) for £1,500+VAT. Our pricing makes us



the most cost effective UK event and our shell scheme package includes furniture, power and lighting. And Intellect members can benefit from a further 15% agreed discount when confirming their stand space.

**For more information on NEW 2009 contact the team at T 01483 420 229 or E [info@new-expo.co.uk](mailto:info@new-expo.co.uk)**

**Register online at [www.new-expo.co.uk](http://www.new-expo.co.uk)**

## Remploy Barking Business Improvement (BiT) Training

Remploy Barking has just awarded 19 employees that have successfully completed their NVQ Level2 Business Improvement techniques. The BiT training has equipped the workforce with the tools to continually challenge and improve the way we work. By using the ideas and creativity of all our people, we can further improve the level of

service offered to our customers. It also ensures that we meet the Remploy mission to train and develop our people.

The training forms part of a business wide programme to ensure that every Remploy Electronics site, is a Centre of Excellence' which is now well underway. Gerald Young, factory manager at the

Barking site commented, we have seen an extremely positive reaction to this training and so have our customers and based on these improvements they have already started to give us more work, and thanks to the BiT Training we have capacity for more.'

[www.remployelectronics.co.uk](http://www.remployelectronics.co.uk)

## Electric dreams

Back in 1902, electric cars outsold petrol driven ones. With a top speed of 14mph and 18-mile range, models such as Wood's Phaeton - one of the first electric cars in the US - were highly competitive because they weren't loud, didn't belch fumes and drivers didn't have to shift gears. However, cheap petrol for long-distance driving meant the internal combustion engine developed more rapidly, leaving electric vehicles trailing. Now QinetiQ is working to making electric cars competitive again.

The RED-LION project (REDuced cost Lithium-iON) is developing a hybrid vehicle battery at half the weight and half the cost of existing batteries. In collaboration with PSA Peugeot Citroën, QinetiQ teams produced a demonstrator based on the Berlingo van, which showed the Li-Ion batteries could supply sufficient power. The latest version of the demonstrator uses new QinetiQ battery technology based on an iron

cathode rather than a cobalt one, which gives it a crucial safety advantage. "If you overcharge with a cobalt-based cathode, there's a risk of a fire," said Ian Whiting, QinetiQ. "That doesn't happen with the iron-based cathode."

The other advantage is price: the iron cathode Li-Ion batteries can be produced on an industrial scale at lower cost, making them far more affordable. RED-LION is part-funded by the Energy Saving Trust's Low Carbon R & D Programme on behalf of the UK government's Department of Transport, which aims to reduce carbon dioxide emissions.

The more glamorous face of QinetiQ's Lower Carbon Transport programme is the LifeCar, a Morgan Aero Eight powered by a combination of fuel cells and a supercapacitor. It uses a stack of four six-kilowatt fuel cells, with the supercapacitor only cutting in to give an extra boost during acceleration. Drivers

typically only use 20 percent of a car's maximum power - so the

relatively modest fuel cells can power the car at cruising speed.

LifeCar may look like a futuristic concept car, but the technology is very practical. QinetiQ deliberately chose the six-kilowatt fuel cell rather than a larger version as this size is already in demand for less glamorous vehicles like forklifts. Having a real market will push the technology. The ultimate reward of this effort will be a major drop in CO<sub>2</sub> emissions. The average European car currently puts out 50 percent more than the EU goal of 120 grams per kilometre.

[www.QinetiQ.com](http://www.QinetiQ.com)



## Another world first for Graphic plc

Graphic Plc has just been granted approval by BSI under IECQ capability approval ( QC 001002-3 ) for a system of manufacturing printed circuit boards that comply to the requirements of the IPC 6011 series of documents – IPC-6012 and IPC-6013.

This is the first approval of its type and demonstrates a third party assessment of

the system in place at Graphic to ensure that the requirements of IPC 6012 and IPC 6013 class 2 or 3 are met. It is believed that there are no other third party assessments of such systems at present.

Customers also have the option of invoking OD 301 which enables the end user to utilise a recognised reduced final

testing regime for class 3 product which will save time on fast turn orders and reduce cost compared to full testing. This is supported by in-process checks that are also evaluated as part of the third party assessment.

[www.graphic.plc.uk](http://www.graphic.plc.uk)

## Plextek celebrates 20 years at the forefront of technology

Plextek recently celebrated its 20th birthday. Since 1989 the company has earned an enviable international reputation for innovation and quality service, based on the calibre of its personnel and a wealth of highly successful projects spanning communications, defence, automotive, industrial and medical markets.

Dr Colin Smithers, Plextek's co-founder and managing director commented, "When we started trading back in 1989 the world was a very different place. Technology has moved on leaps and bounds since then but we've always prided ourselves on keeping one-step-ahead, helping customers overcome complex design challenges with our innovative and cost effective custom electronic product and system designs.

Over the years we've needed to evolve

and adapt our business model to remain competitive and tackle global markets. From our origins as a pure design consultancy, we've gone on to develop wider product design, contract manufacturing and strategic consulting services and are now managing products through the entire cycle from conception to detailed design to manufacture and supply. These positive changes have put us in a very strong position to continue our success for the next 20 years."

Fellow Plextek co-founder, Ian Murphy added, "In 20 years we've developed some truly great technology. Products like our Blighter family of portable and fixed radar systems, our Ultra Narrow Band technology for telemetry have made an enormous impact on the world we live in, from helping the armed forces to helping us consume our electricity and gas more efficiently to quickly recovering



our car if it is stolen and to helping heart patients in hospital during the first crucial hours after a cardiac event. We're all extremely proud of what Plextek has achieved and would like to thank everyone involved, past and present, for their contribution towards getting us to where we are today."

[www.plextek.com](http://www.plextek.com)

## Teknoflex awarded AS9100 approval

Teknoflex is delighted to announce that it is the first UK dedicated flexible circuit manufacturer to be awarded the prestigious AS9100 Approval. The extensive scope of this approval includes circuit design, manufacture of all the company's flexible, sculptured and flex rigid circuit technologies and its surface mount and through hole assembly facilities.

Managing director, Brian Shorrock

stated, "This award demonstrates the company's commitment to meeting the stringent demands of the high technology, safety critical markets including aerospace and defence. Securing this award in addition to its existing BSEN ISO 9001:2000, UL and wide ranging IECQ CECC BSI EN 123000 approvals recognises and re-emphasises the high level of quality control practiced and embedded within the company."

Teknoflex anticipates that achieving AS9100 approval will further strengthen the company's position as the UK's leading supplier of flexible, sculptured and flex-rigid multilayer circuits and encourage growth in its already impressive international customer base. Further objectives include the securing of NADCAP Approval and internationally recognised environmental approvals.

[www.teknoflex.com](http://www.teknoflex.com)



Intellect Consumer Electronics Conference  
02 July 2009, 'Driving Digital Value'  
Book online at [www.intellectuk.org/events](http://www.intellectuk.org/events)

## Prism builds on long standing contract to help develop low energy lighting

Prism Electronics Limited has won a contract which will help to create the next generation of high brightness light emitting diodes (LEDs) – highly energy-efficient lighting which can significantly reduce greenhouse gas emissions when used in place of conventional lighting.

Prism is to supply a range of PCB assemblies to a Cambridge-based supplier of manufacturing equipment for the semiconductor industry.

The new supply agreement builds on a long-standing contract under which Prism already manufactures a number of PCBs for the company and provides spares for several of its

long-established systems. The sub-assemblies being provided by Prism are components of metalorganic chemical vapour deposition (MOCVD) reactors used in the volume manufacture of high brightness LEDs. Prism has secured the additional business because it has consistently offered flexible and cost-effective manufacturing services to its customer's exact specification and was able to demonstrate a long term approach to business development.

The market for high brightness LEDs is still in its infancy and Prism is continuing to help technology companies in research and development projects in support of



changing market requirements.

David Dickin, business development director at Prism Electronics, said, "We are delighted that we have been able to develop this long term relationship. We are also delighted that this is because our production expertise and flexibility allow us to match our schedules to our customer's manufacturing and R & D needs."

[www.prism-electronics.com](http://www.prism-electronics.com)

## News in brief

### Google unveils 'smarter search'

Web giant Google has unveiled new products that it says will push search in a new direction. Google is using so-called semantic web technology to leverage the underlying data on websites to enhance results.

Source: BBC

### Credit card code to combat fraud

A credit card with a built-in display is being tested by Visa with the aim of reducing online fraud. The Emue Card generates and displays a unique code each time it is used. Developers say that the new technology would make it very hard for fraudsters, as any transaction would require the pin to generate the code.

Source: BBC

### UK ICT 35th Annual Symposium, 04 June 2009

The Institute of Circuit Technology are pleased to announce their 35th Annual Symposium on Thursday 04 June 2009. This year's theme is 'Printed Electronics'.

Visit [www.instct.org](http://www.instct.org) for further information

## Plextek in double Queen's Awards win

Plextek has announced that it has won two coveted Queen's Awards for Innovation and International Trade. Plextek has shown superb growth in its international sales, nearly trebling exports over the last three years to an aggregate of £48m. The company has also been recognised for its continued innovation, particularly in the field of wireless technologies, as illustrated by the success of its Ultra Narrow Band (UNB) radio devices and its 'Blighter' electronic scanning radar technology.

Colin Smithers, co-founder and managing director of Plextek commented, "Plextek, by its very nature, sells innovation and for the last 20 years has been continually developing the best and most effective new technologies for our diverse clients. This innovative culture and advanced technology has helped fuel impressive international sales growth, particularly in the US, Far East and Middle East. It's a proud feeling knowing that our talented team's hard work has been recognised and rewarded

with, not one, but two prestigious Queen's Awards."

Plextek wins the Innovation award for continued innovation in all facets of its business of communications system and product design, in particular the wide commercial application of its proprietary UNB technology and various radar based projects.

Plextek's Blighter family of portable and fixed electronic scanning radar systems were selected and purchased last year by the UK Ministry of Defence for an 'urgent operational requirement' and continue to outperform rivals in intruder detection and target identification. Blighter radars have been sold into Europe, Asia, the Middle East and the US.

The UNB technology has formed the core of a low power transmitter system designed for the UK Ministry of Defence enabling communications between military vehicles in convoys, with

minimum risk of enemy detection. UNB-based wireless meter readers,

with a battery life of ten years, have also been developed for domestic gas and electricity suppliers. Similar systems based on UNB have been developed to monitor hospital cardiac patients, for controlling street lighting and for covertly monitoring stolen vehicles. Plextek continues to design and supply stolen vehicle recovery systems for TRACKER Network in the UK and LoJack Corporation in the US.

To date, TRACKER has recovered 17,800 stolen vehicles in the UK resulting in 1700 arrests.

[www.plextek.com](http://www.plextek.com)



THE QUEEN'S AWARDS  
FOR ENTERPRISE:  
INTERNATIONAL TRADE  
2009



THE QUEEN'S AWARDS  
FOR ENTERPRISE:  
INNOVATION  
2009

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If you are interested in sponsoring a future edition of **Short Circuit** or have any relevant industry news that you would like to be considered for inclusion in forthcoming editions, please contact Claire Yarrow on T 020 7331 2050 or E [claire.yarrow@intellectuk.org](mailto:claire.yarrow@intellectuk.org)

**Editorial should be submitted no later than the 07 of each edition month.**

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**Signals** - Quarterly digest of defence and security developments affecting the UK technology industry

**Switched On** - Monthly overview of the big stories breaking in digital communications

**Whitehall Watch** - Fortnightly public affairs digest

## Electronics Manufacturing Reception Meet key procurement decision makers

**Date:** 20 May 2009  
**Time:** 17:15-19:45  
**Venue:** Intellect Conference Suite, Russell Square House, 10-12 Russell Square, London WC1B 5EE



We are pleased to announce the third in our series of events specifically tailored to help electronics manufacturers gain insight to the procurement strategy of major OEMs. This is an excellent chance to focus and expand your portfolio of customers. You will hear keynote speakers provide high-level insights into their respective markets, as well as inside informa-

tion on trends in the UK electronics manufacturing sector. Speakers are:

- ▶ Martin Greenhalgh, Advanced Supply Chain Manager, General Dynamics UK
- ▶ Sion G. Davies, Head of Supply Chain (Ground Systems), General Dynamics UK
- ▶ Malcolm Warr, Homeland Security Team, Finmeccanica UK

**Cost: free of charge to attend**

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## Intellect Information Morning Get the most from your Intellect membership

**Date:** 28 May 2009  
**Time:** 09:00-13:00  
**Venue:** Intellect Conference Suite, Russell Square House, 10-12 Russell Square, London WC1B 5EE



Intellect is the technology trade association which serves to represent all its members and ensure their voice is being heard. Our free information mornings have been set up due to popular demand to remind you how, as a member, you can benefit from your membership.

There will also be the chance to hear how

one of our member companies expanded their knowledge and grew their business by being a member of Intellect.

These sessions are designed to inform you of our business offerings and how we can support you.

**Cost: free of charge to attend Intellect members only**

**Contact:** Francesca Sbuttoni  
T 020 7331 2012  
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## Intellect Telematics Group Cooperative Vehicle Infrastructure Systems (CVIS) Project

**Date:** 03 June 2009  
**Time:** 13:30-16:00  
**Venue:** Intellect Conference Suite, Russell Square House, 10-12 Russell Square, London WC1B 5EE



CVIS is a system will revolutionize telematics and intelligent transport technologies. Already at advanced stages of development, the system involves vehicles emitting a constant 'heartbeat' revealing their location, speed and direction of travel.

It will also permit direct vehicle-to-vehicle communications within 500m, and connection to the wider network via nodes in motorway gantries, mobile phone towers, road sign and perhaps even private sites like

garages or service areas. Both The EU and the UK Government have shown significant interest in CVIS as a means reducing road accidents, congestion and carbon emissions. Spectrum has already been set aside 5.9 GHz to facilitate car-to-car communications via CVIS, and its envisaged that the system will also make use of mobile cellular and wireless local area networks, short-range microwave, infrared as well as satellite communications in order to operate.

**Cost: free of charge to attend Intellect members only**

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