

BIS

Department for Business
Innovation & Skills

**MANUFACTURING AND
MATERIALS**

Hot Issues

APRIL 2011



Contents

Editorial by Marie-Anne Mackenzie – Head of Manufacturing and Materials

Hot Topics

Government Sets out New Plan for Growth – Stuart Barthropp (MM)
Showcase – Automotive Design, Development and use of Low and Ultra Low Carbon Vehicles and Associated Technologies – Paul Blackmore (BIS - Automotive Unit)
Showcasing – Future Timetable Ivan Youd (MM)
Regional Growth Fund (RGF) Joanna Fletcher
Progress on Building Composite Centres in Bristol and Belfast – Sandy Grom
SEMTA Supporting Engineering, Manufacturing and Science Businesses – Jinny McDonald-Matthews (SEMTA)
Changing the Economic Development Landscape - Hannah White (EDD)
'Can We Fix It – Yes We Can'- Shelley Sharma (NPL)
The UKTI International Aerospace Xchange 2011 Maps Out The Future of The Industry – John Strang (UKTI)
UK Ice2011 (International Composites Exchange) – Janet Tingle

Latest BIS News

Budget sets out Plan for Growth
Airbus announces new £70m Business Park
UK Space Agency – Going for growth
Growth and Innovation Fund £100m to be Invested in Skills – Chris Griffin
Big Bang – Helping Young People in to Science – Cliff Salole

Consultations – The Department needs your Views

Competition Regime for Growth: A Consultation on Options for Reform
Resolving workplace disputes - public consultation
Employed students and the accommodation offset
Other Departments Consultations

Publications – A Selection of our Most Recent

The plan for growth
UK Government response: European Commission public consultation on the Mutual Recognition of Professional Qualifications Directive
Street trading and pedlar laws: a joint consultation on modernising street trading and pedlar legislation, and on draft guidance on the current regime - Government response
Solutions for business. Local Enterprise Partnership: good practice guide
UK low carbon automotive directory
Gateway to global growth

Future Events

Northwest Manufacturing Advisory Service and Manufacturing Institution

Contact Us

Manufacturing and Materials (MM) – Roles and Responsibilities

Cover Image: Business Secretary Vince Cable inspecting a Low Carbon Vehicle at BIS HQ London

Hot Topics

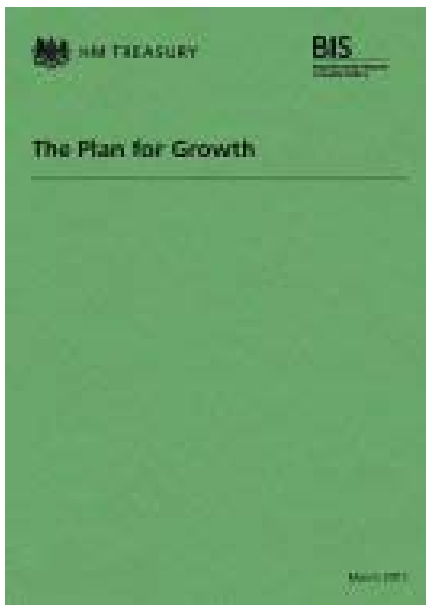
Editorial by Marie-Anne Mackenzie – Head of Manufacturing and Materials Unit

The front page shows Vince Cable in a new electric car, which formed part of the recent showcase of automotive design and development and you can read more details on page 6. The picture is an excellent introduction to this issue, which focuses on development and growth – with articles on the new Plan for Growth, the Regional Growth Fund, technology developments and skills. Manufacturing has a key role to play in ensuring economic growth as it is an integral part of so many sectors. That is why it was the focus of an early growth review and in June the Manufacturing Red Tape Challenge will be launched. This is an important part of the coalition's vision for removing barriers to economic growth by giving you the opportunity to have your say about regulations that particularly effect manufacturing. So that burdensome regulations can be removed unless there is real justification for them. The Red Tape Challenge website has already opened and the current theme is retail, which will be followed in May by hospitality, food and drink and by road transportation. We will tell you more in our next issue of Hot Topics but you may want to look at the website for more details before that.

GOVERNMENT SETS OUT NEW PLAN FOR GROWTH – Stuart Barthropp (MM)

'Plan for Growth'

Alongside Budget 2011 in March, Government published a new '*Plan for Growth*' setting out the Government's strategy to put the UK on a path to sustainable, long-term economic growth.



This plan is based around four overarching ambitions that will ensure the progress is made towards achieving this economic objective:

1. to create the most competitive tax system in the G20;
2. to make the UK one of the best places in Europe to start, finance and grow a business;
3. to encourage investment and exports as a route to a more balanced economy; and
4. to create a more educated workforce that is the most flexible in Europe.

Advanced Manufacturing Growth

Review

The '*Plan for Growth*' also contains the first outcomes of the Government's growth reviews, including the Advanced Manufacturing Growth Review. Following on from the 'Growth Review Framework for Advanced Manufacturing launched' in December, and the BIS Manufacturing Summit in January, the Advanced Manufacturing Growth Review announced a package of measures. These will benefit UK manufacturing through helping improve firms commercialise technology, boosting access to a skilled workforce, and improving the image of the sector.

The '*Plan for Growth*' can be downloaded from http://www.hm-treasury.gov.uk/ukecon_growth_index.htm

Summary of Advanced Manufacturing Review

1. The Government will extend the capital allowances short life asset regime for plant and machinery from four years to eight years, from April 2011, more closely aligning tax and economic depreciation.
2. The Government will expand the University Technical Colleges (UTCs) programme, to establish at least 24 new colleges by 2014.
3. The Government will launch a high value manufacturing Technology and Innovation Centre.
4. The Government will fund nine new university-based centres for Innovative Manufacturing by 2012.
5. The Government will fund a programme of new Manufacturing Fellowships.
6. The Government announced an accelerated launch of the new enhanced Manufacturing Advisory Service with an additional £7 million to deliver its services over the next three years.
7. The Government is launching a new £75 million programme of targeted support to help smaller employers access Advanced Level and Higher Apprenticeships.
8. The Government will support the development of a new degree-equivalent Higher Level Apprenticeship which will include incorporating engineering status and professional recognition for successful apprentices when they graduate.
9. The Government will strengthen its strategy for promoting STEM skills.
10. The Government will launch a high profile industry showcase alongside the 2012 Olympic and Paralympic Games and roll out of a programme of 'Made in Britain' exhibitions.
11. The Government will seek to promote a new international prize in engineering, working with private sector partners to create an endowment to support such a prize.

In addition to these measures, manufacturers will also benefit from further measures in the 'Path for Growth' such as reducing the main rate of corporation tax by a further one per cent, increasing the SME rate of R&D tax credit, increased funding for the Green Investment Bank, measures to increase finance for new start ups, changes to the planning system, and support for investment across regions with Enterprise Zones.

Showcase – Automotive Design, Development and use of Low and Ultra low Carbon Vehicles and Associated Technologies –

Paul Blackmore (BIS - Automotive Unit)



The automotive industry is an important part of the manufacturing landscape with over 300,000 manufacturing jobs accounting for 12 per cent of the UK's total manufacturing employment. It also supports R&D, technological innovation, skills and a supply chain

that is a mainstay of the wider manufacturing sector.

The Government has set a clear ambition of placing the country at the global forefront for the design, development, demonstration, manufacture and use of low and ultra low carbon vehicles. With that aim in mind, the Business Minister Mark Prisk launched the sixth in a rolling series of exhibitions at BIS in central London on 15 March.

The latest exhibition to promote UK manufacturing excellence was a display of UK manufactured low carbon vehicles and associated technologies. A range of vehicles were on show including an electric Range Rover Range-e, a Nissan Leaf, a Ford Transit Connect EV, a hybrid Toyota Auris and a hydrogen fuel cell black taxi produced by Intelligent Energy.



Business Secretary Vince Cable also stopped by for a look at the exhibition which included an internal display of engines, batteries and power systems demonstrating that the UK is home to some of the most impressive, cutting-edge engineering and manufacturing companies in the world; and clearly showing the huge

developments in the UK automotive industry.

The collection of exhibits included: a Lotus Ranger Extender Engine; an Electric car battery made by Axion; The MAHLE advanced downsizing demonstrator engine; Pod Point recharging points; an audio visual display of Leyland Truck's DAF LF Hybrid truck; a Nissan battery; the Flybrid flywheel hybrid system for premium vehicles; and the Gordon Murray diorama and film of their T27 concept.

Participating companies reported back their appreciation of Ministerial aims to promote manufacturing, the opportunity to work with BIS to highlight the skills and excellence of UK design and engineering, and to show how they are all leading the charge in low carbon excellence.

To coincide with the exhibition, BIS announced £10m worth of funding into three low carbon vehicle projects this which will answer 'fundamental research questions' related to low carbon vehicle development. Mark Prisk said "The Coalition Government is absolutely committed to low carbon growth, tackling climate change and making our energy supply more secure. This exhibition highlights UK success as advanced manufacturers of low carbon vehicles and the £10m research grant will help ensure that the UK remains a world leader."

Specifically, the projects will consider hybrid electric vehicles subsystems, enabling the design of more efficient vehicles; the use of recyclable materials for manufacturing vehicles; and optimising the performance of electric motors and power electronics.

Showcasing – Future Timetable Ivan Youd (MM)

Mark Prisk (Minister of State for Business and Enterprise), is very keen to promote excellence in British Design, Engineering and Manufacturing by displaying exhibits in the BIS HQ (1 Victoria Street, London).

BIS is continuing with its current programme of showcasing the excellence in British manufacturing, design and engineering. Details of our current programme may be seen below.

If you would like further information please contact **Ivan Youd** (Ivan.Youd@bis.gsi.gov.uk)

Showcase Timetable

Exhibition (Sector)	Date
Construction Products	4th - 15 April
Security Industry Products	9th – 22nd May
Composite Materials	6th -17th June
Space	4 th July – 15 th July
No Showcasing	August
Chemicals (TBC)	19 th – 30 th September
Aerospace	10th – 21 st October
Food & Drink (TBC)	7 th – 18 th November
Electronics	5 th – 16 th December
2012	
Energy (TBC)	23 rd January – 3 rd February
F1 Technology (TBC)	20 th February – 2 nd March
Marine	19 th – 30 th March

Regional Growth Fund (RGF) Joanna Fletcher

Over 100,000 new jobs will be created and safeguarded under Government plans announced recently to invest £450m in businesses across England.

The first round of the Regional Growth Fund (RGF) will see an expanded amount of public investment support 50 bids by companies and partnerships who demonstrated how they would create jobs and a high level of private

sector-led sustainable economic growth in their local communities over the coming years.

The Government expects over 27,000 jobs to be directly created and safeguarded, with close to a further 100,000 jobs in associated supply chains and local economies.

Many of the successful bids in the first round were manufacturing projects from companies such as Jaguar Land Rover, EADS, Haribo and Lotte Chemical. The quality of the successful bids received signifies that there is appetite from the private sector to lead growth and make serious contributions to the economy.

The second round of the fund is now open, and will aim to allocate nearly £1bn. BIS will be embarking on another series of regional road shows to offer advice and guidance to any organisations interested in submitting a bid.

The £450m being invested by the Government through the first round of the RGF is expected to leverage more than £2.5bn of private sector investment. For more information on the fund, visit www.bis.gov.uk/rgf

Progress on Building Composite Centres in Bristol and Belfast – Sandy Grom



Despite delays caused by this year's hard winter conditions both the National Composite Centre (NCC) – Pictured left - and the Northern Ireland Advanced Engineering Centre (NAICE) Photograph below - are on track to open on schedule.

BIS provided funding to help build both these centres to help UK companies undertake collaborative work to develop innovative manufacturing techniques for advanced composite structures.



The NCC will open in late September and the NAICE in November.

Semta supports engineering, manufacturing and science businesses –

Jinny McDonald-Matthews (SEMTA)

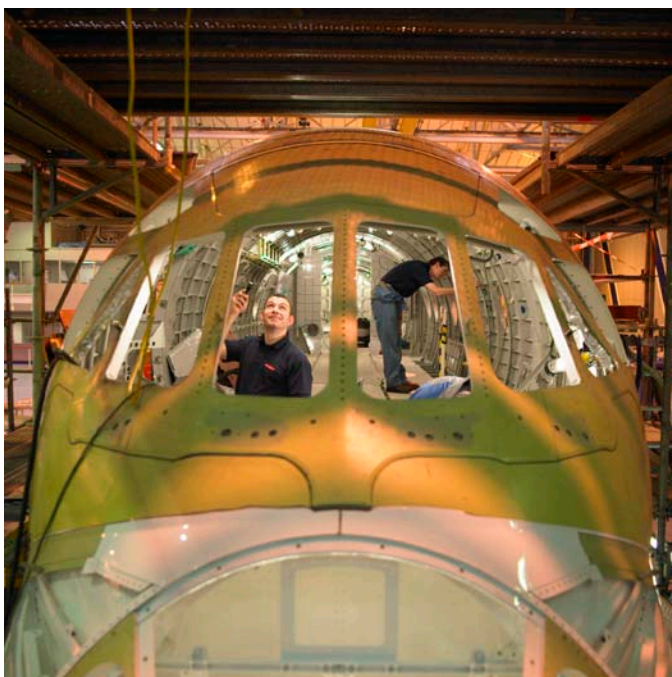


Sector Skills Council Semta is licensed by government to help improve the competitiveness of 130,000 UK science, engineering and manufacturing technologies businesses.

Semta research indicates employees in these sectors are up to doubly as productive as the UK average in terms of Gross Value Added. However, skills need to improve to support growth and rebalance the economy. For example, 23% of sector companies have skills gaps and 30,000 new employees will be needed across its sectors each year between now and 2016. A third of these need higher skills, highlighting the importance of apprenticeships in stemming the outflow of talent caused by retirements in a workforce where more than 40% is aged over 45.

As older workers retire and emerging technologies, like composites and biotechnology, create the need for increased technical and higher level skills, Semta is working with colleges and universities and creating apprenticeship frameworks that provide innovative development pathways from apprentice to degree and masters levels.

Semta expects that apprenticeships will have a greater role than ever before in ensuring businesses have the right skills to grow. Last year more than 30,000 apprentices started in engineering and manufacturing technologies, and Semta has already run programmes which stimulated apprenticeship growth, for example, where smaller employers share apprentice workplace development or where larger companies do the initial training of more apprentices than they need to help smaller companies in their supply chain.



Semta helps individual companies by analysing their business objectives and working out skills priorities that will give pay back. It then recommends the best available programmes, providers and funding. This approach has proved successful, with companies working with Semta's National Skills Academy for Manufacturing seeing, on average, a 6:1 ratio of return on their skills investment.

The Skills Academy offers a wide range of quality approved programmes and qualifications in Business Improvement Techniques, Leadership and Management, Employability, Health and Safety and Technical skills. To support individuals there is an e-learning centre with over 1,000 courses ranging from How to Make Presentations, through to Environmental Legislation and Policy, to Six Sigma. The cost of e-learning modules starts at £5 - £10.

To date, Semta has supported 6,000 companies to start business focused training. Semta's Compact, which over the last two years has funded training priorities identified by its sector skills agreements, has created training plans with 2,000 companies, 85% of them smaller companies, who traditionally struggle to find the right training resources. Without doubt such interventions have helped increase the number of people registering for National Vocational Qualifications by 25% to over 100,000.

For the future, Semta's leadership of skills improvement for these vital sectors will continue to be driven by employer priorities: Strategic Workforce Planning; Leadership, Management and Entrepreneurship; Productivity and Competitiveness and Technical Workforce Development including apprenticeships. Semta will make it easier for companies to get return on investment from skills by offering business performance diagnostics, consultancy and skills management services.

**For more information please visit <http://www.semta.org.uk/> or contact Semta customer services:
Tel: 0845 643 9001
E-mail: customerservices@semta.org.uk**

Changing the Economic Development Landscape - Hannah White (EDD)

Putting growth at the centre of the Government's work is our central task. We want to hand over power from Whitehall to local people, local businesses and local communities – the people who are best placed to drive forward change for the better in their areas. This was at the heart of the [Local Growth White Paper](#) published last year.

This Government is committed to building a new economic model, which aims to create a fairer and more balanced economy. It mustn't be

dependent on a small range of economic sectors. Instead economic growth needs to be driven by the private sector, led by new business opportunities.

Regional Development Agencies

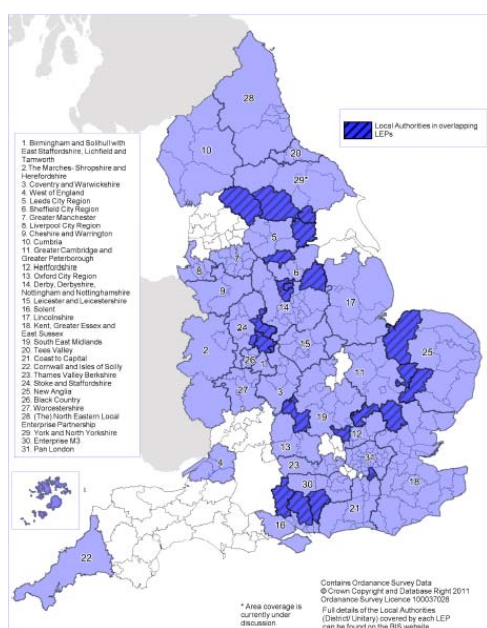
Over time Regional Development Agencies moved away from their core roles and were too centrally led. As we enter the period of transition we need to ensure the process is smooth and projects which are important to local and national growth still receive support.

The Manufacturing Advisory Service is one of the projects which will move to a national level: regional support will be replaced by nationally contracted service. The OJEU notice for the Manufacturing Advisory Service tender was issued on 23 March 2011.

Local enterprise partnerships

Local enterprise partnerships provide a real opportunity for business to lead the creation of the right environment for business and growth in their areas. They will be able to decide on a local vision for growth and action needed on priorities such as planning and housing, local transport and infrastructure, employment and enterprise.

The progress made so far is excellent: 31 local enterprise partnerships have been approved, covering 87% of businesses in England. Some have already put boards in place; working on plans to proceed and engaging with other local businesses.



Some areas do not have a partnership in place. We are working closely with business leaders in those areas to ensure that if a LEP will benefit the local economy, it is put in place.

For an enlarged electronic version of a map showing the latest Local Enterprise Partnerships please use this web address - <http://www.bis.gov.uk/assets/biscore/economic-development/images/lepsmapupdated.pdf>

Regional Growth Fund

The Government is welcoming bids to its Regional Growth Fund, which will support projects that can boost growth in the private sector by creating new jobs particularly in areas dependent on the public sector. The £1.4bn fund received over 460 bids in the first round, and bids are currently being considered by Ministers. We hope to announce the successful bids shortly, and the second round opens on April 12.

Enterprise Zones

Budget 2011 announced 21 new Enterprise Zones in Local Enterprise Partnership areas in England. The Budget named the first 11 local enterprise partnerships to benefit from the Zones and four of these have already allocated sites. Partnerships have been invited to compete to host zones and we hope to announce more in the summer. Businesses located in the zones will benefit from a range of measures including business rate discounts and support for super-fast broadband roll-out.

More details of Government's economic development work can be found on the BIS website at

<http://www.bis.gov.uk/policies/economic-development/>



Prime Minister David Cameron, Deputy Prime Minister Nick Clegg and Coventry and Warwickshire LEP chair Denys Shortt at the LEP Summit in Coventry March 2011.

'Can we fix it – yes we can'- Shelley Sharma (NPL)

Scientists at the National Physical Laboratory (NPL), the UK's National Measurement Institute are working on a project to develop a new, lighter weight beverage can punch with improved wear resistance. The target reduction of a can wall thickness of only 1 micrometre (0.001 mm), less than 1/25th of the thickness of a typical human hair, could save up to 800 tonnes of aluminium a year.

There are over 260 billion beverage cans being produced every year worldwide, with Europe being one of the biggest markets and growing at approximately 10% per year. The United Kingdom is the one of the leading markets with over 8.2 billion (steel and aluminium) cans being produced with 70% used for alcoholic drinks and 21% for soft drinks.

How cans are made

A single production line can make up to 500 million cans every year from coils of aluminium or steel. The main procedure to form the body of the can is done in one continuous punch stroke by a 'Bodymaker' in about one fifth of a second. It is this Bodymaker punch which is the principle target for weight saving and its operation is shown in Figure 1. Firstly a shallow cup formed from the aluminium sheet is drawn through a die to produce the can diameter (Step 2 in Figure 1) and then the can walls are thinned

and stretched through a series of ironing operations (Figure 1, step 3). In the last step, the punch presses the base of the can body against a metal dome, giving the bottom of the can its inward bulge (Figure 1, step 4).

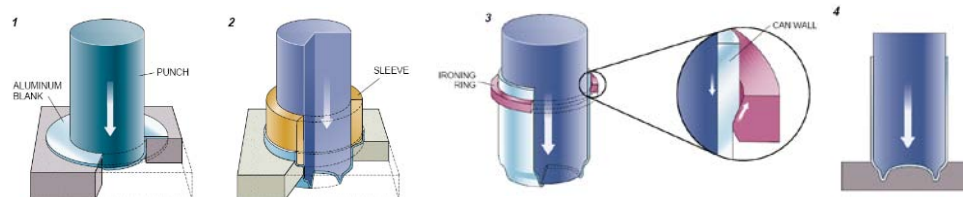


Figure 1: 1st Operation: Step 1: Blank and draw;
2nd Operation: Step 2: Redraw to final diameter, Step 3: Iron Wall Step,
Step 4: Base shaping

The Bodymaker punch is made from an extremely heavy hardmetal alloy to withstand high forces and conditions which would wear away most metals very quickly. However the punch weight causes problems of vibration and alignment because of the speed with which it has to move and the tolerances needed to keep the correct can dimensions of only ± 0.002 mm mean that the punches still need to be removed regularly for maintenance.

How the process can be improved

If the punch density can be reduced while maintaining or improving its wear resistance and stiffness then large savings in energy, raw materials and maintenance time can be made. Working with the manufacturers of the punches and the beverage can manufacturer (in a programme funded by the Technology Strategy Board), NPL has investigated how Bodymaker punches wear and how new materials with lower densities might behave when made into new lighter weight punches.

Using state of the art electron microscopy techniques including Electron Backscatter Diffraction and 3D imaging, the ways in which different hardmetal alloys wear away has been investigated. It has been found that at the simplest level the basic wear mechanism can be understood using a scratch testing method developed at NPL. This simulates the action of a single abrasive particle being rubbed over the surface of the punch using a sharp diamond point at the end of a finely balanced arm.

This does not however test materials in the same environment which the punches experience, so NPL has developed a novel test system that simulates the combination of high stress sliding contact and impact that is found in during can forming. The changes in friction as Aluminium is worn away by the movement of two test pieces of punch material is monitored over 100,000 cycles and the mass of material worn away from the punch material is recorded. Although this loss of material is less than 1/1000th of a gram, the differences in mass loss between different grades of material can still show which grade has better wear resistance and the volume of material worn away, less than a few

thousandths of a millimetre in depth, can be measured by 3D microscopy as shown in figure 2.

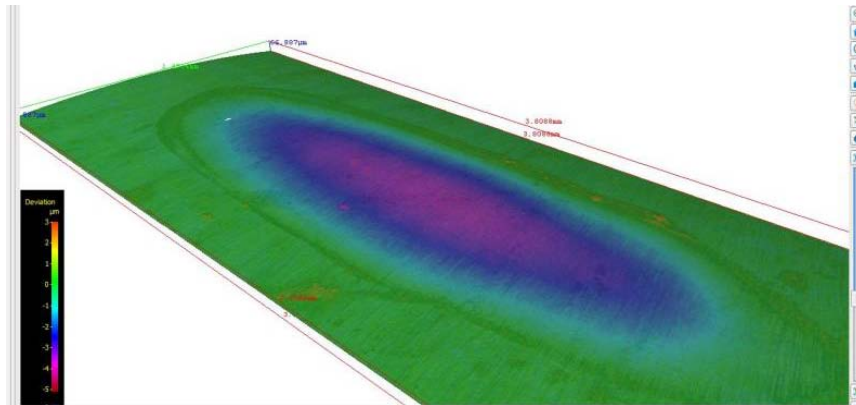


Figure 2:

Find out more by visiting:

<http://www.npl.co.uk/advanced-materials/materials-areas/powder-route-materials/>

Contact: Ken Mingard

Ken.mingard@npl.co.uk

The UKTI International Aerospace XChange 2011 Maps out the Future of the Industry – John Strang (UKTI)



114 UK aerospace supply chain companies came together at the annual 2011 Aerospace Xchange in London in February to discuss the future of the international aerospace industry, hear from global players such as Boeing, Airbus, Bombardier, Eurocopter and China's XAC, and their key contractors and learn about

the size, timing and accessibility of global aerospace opportunities arising in the next decade.

The annual one-day Xchange aims to help UK companies access major international supply chains and gain a better understanding of global procurement processes and procedures. The Xchange also provides a structured platform for aerospace manufacturers and contractors to explore a range of issues with their suppliers and partners in a structured but informal setting.

Key representatives from the major aerospace manufacturers provided authoritative insights into a range of issues affecting the industry and helped to put recent developments in context for an audience of UK supply chain companies. The programme also brought UK companies together with major aerospace contractors such as GKN and Thales in a series of seminar workshops to discuss future supply chain strategies, technology drivers and areas of future growth and opportunity.



This year's Xchange was conceived and organised by UKTI Advanced Engineering Team (SG5) in association with key industry trade association Aerospace Defence Security and Space (ADS). Participating companies were also able to hear about the range of support available to help the UK's world class aerospace supply chain sector realise their exporting potential.

The annual Xchange supports the launch of the *International Aerospace Marketing Strategy* which is developed by the A|D|S Market Development Board with funding and support from UK Trade and Investment. The annually updated strategy identifies the major opportunities for UK Aerospace in international markets and provides recommendations on how these opportunities should be approached during the next 12-18 months. The information contained in the report was compiled from a consolidated set of data provided by major UK-based companies and offers an invaluable insight into a range of exciting opportunities including significant opportunities for UK suppliers to win international business on new rotorcraft, business aircraft and Unmanned Aircraft Systems (UAS) programmes.

The strategy points out that over the next 10 years, the large emerging markets of China and India will drive global civil aerospace growth. The opportunities in these markets for UK aerospace companies will principally focus around the formation of partnerships and technology collaboration and it is key that the UK positions itself as a long-term strategy partner with these markets.

The strategy offers detail on the combined market outlooks of AgustaWestland, Doncasters, Flightglobal, GKN, Goodrich, HS Martson, Rolls-Royce, Selex Galileo, Spirit AeroSystems and Thales Aerospace and a summary of the priority opportunities that have been identified for the UK Aerospace Industry.

UK ICE2011 (International Composites Exchange) – Janet Tingle



On 21 March, 12 key international composites companies started a week long visit to three centres in the UK to explore the potential for trade and investment.

They were very impressed by the UK's composites capability and observed that they had not appreciated how much composites activity and research

was going on in the UK. Companies such as Mitsubishi Heavy Industries, Embraer and SSP Technology visited UK based companies, in Manchester, Belfast and Bristol, such as GKN, using world leading composites technology as well as UK Composites Centres and universities including Manchester, Queen's, Bristol and Bath.

In addition more than 50 UK organisations had 170+ fifteen minute one to one introductory business meetings with the international visitors.

UKTI plans follow-up events in 2011. If you are interested email janet.tingle@ukti.gsi.gov.uk

Latest BIS News

Budget sets out Plan for Growth

The Plan for Growth is a forensic look across government at the barriers to growth – and how government can remove them to stimulate private enterprise. To help this Government has announced an £180 million package for 50,000 additional apprenticeships, and an additional 80,000 work placements for young people.

Other measures include:

- Fundamental reforms to the way the planning system works.
- Land auction pilots, starting with public sector land.
- Reducing the burden of regulation for businesses. This includes scrapping proposals for specific regulations which would have cost business over £350 million a year.
- Twenty-one Enterprise Zones across England, with simplified planning rules, superfast broadband and tax breaks for businesses.

Airbus announces new £70m Business Park



Business Secretary Vince Cable visited Airbus in Filton, Gloucestershire, on Friday, as the company announced it will build a new £70m office campus on the site.

The project will consolidate more than 2,500 of Airbus's 4,000 engineers, designers and customer support staff into one

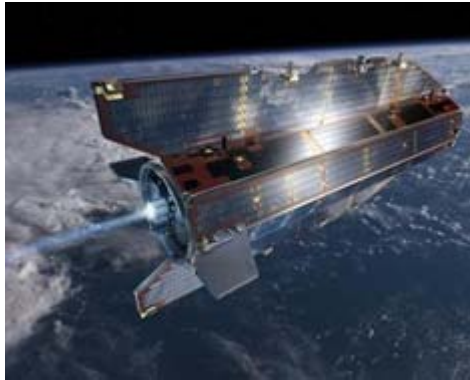
modern business area.

Vince Cable welcomed the announcement, saying it was "good news for Airbus, the West Country, and the UK economy." He continued: "The region has also been boosted by the Government's Growth Review announcement that the **National Composites Centre** will form part of a High Value Manufacturing Technology and Innovation Centre sharing £200

million funding to help companies fast track cutting edge research into commercial production."

At the Filton site the Business Secretary saw the A400M military transport aircraft and met Airbus apprentices and engineers.

UK Space Agency – Going for growth



The agency, recently established, will focus its efforts on areas which show the greatest potential for delivering economic benefits, scientific excellence and national security.

Its priorities include scientific advancement in space technology, discovering more about our planet using Earth observation spacecraft, and nurturing our next generation of space

scientists and researchers.

Minister for Universities and Science David Willetts said: "The UK space industry is worth an estimated £7.5 billion and is an important driver for economic growth. This is why we've earmarked £10 million in the Budget to start a national space technology programme, and committed to reducing the regulatory burden on the industry.

The UK Space Agency will also work with international regulatory authorities to allow space tourism from the UK, and to define regulations for new spacecraft that can reach space more cheaply.

The UK Space Agency's five-year strategy, published has been published for consultation.

The growth and Innovation Fund £100m to be Invested in Skills – Chris Griffin



The Growth and Innovation Fund (GIF) has been set up to support new initiatives to increase the contribution skills make to enterprise, jobs and growth. The funding could deliver new professional standards, or support new or extended National Skills Academies.

BIS will invest up to £50m per year in partnership with businesses, whose investment alongside Government could deliver a total of up to £100m a year.

The fund will be delivered in partnership by the **UK Commission for Employment and Skills (UKCES)** and the **Skills Funding Agency (SFA)** who has produced a **prospectus** that outlines three types of projects where GIF funding and employer investment can be brought together:

- 'Best Market Solutions' which will invest in the best innovative ideas to drive enterprise and remove skills barriers to growth, including through the introduction of new voluntary professional standards and voluntary training levies.
- National Skills Academies: expanding the successful network of National Skills Academies, which already exist in 16 sectors such as Environmental Technology, Railway Engineering and Retail.
- Joint Investment Programme: bringing together employer and public investment in specific training projects which improve business productivity and growth, or address skills gaps and shortages.

The GIF prospectus sets out how eligible organisations can apply to the investment element of GIF (the 'investment fund'), with employer-led proposals to raise skill levels and business performance through innovative approaches that address a clear market failure or opportunity.

Applications to the investment fund may be made by employer representative organisations. Sector Skills Councils are well placed as applicants, along with National Skills Academies and others to support sector skills solutions with the potential to make a significant impact on the big skills challenges facing employers. The investment will co-invest alongside employers, not fund projects in their entirety.

Business understand their own environments, technologies, market conditions and customers and therefore what types and combinations of levers would help them raise their game and succeed. We are looking for proposals which will boost business performance and enhance skills

though the utilisation of, for example, professional standards, including occupational licensing, accreditation and training levies. It will prioritise action that stimulates employer commitment and investment in Apprenticeships, which may include the establishment of Group Training Associations and Apprenticeship Training Agencies.

Further information can be found at: www.ukces.org.uk/gif

Big Bang – Helping Young People in to Science – Cliff Salole



The Government is committed to increasing post-16 participation and attainment in STEM subjects - science, technology, engineering and mathematics.

BIS works closely with the Department for Education (DfE) and a range of stakeholders to assess the needs of employers, and to embed STEM skills issues into Government policy.

BIS also supports a number of activities to increase participation and involvement including STEMNET and its cohort of STEM Ambassadors and The Big Bang Fair.

The Big Bang Fair is a giant, interactive extravaganza to excite young people about science, technology, engineering and maths (STEM). The Fair is collaboration between many science and engineering institutions and businesses led by Engineering UK with support of the British Science Association.

This year The Big Bang 2011 took place at ICC London ExCeL from 10 – 12 March, when up to 30,000 people attended. This represented a three-fold increase over attendance at the first Big Bang in 2009. Polling of visitors indicated that approximately 70% of under 12s attending the Big Bang Fair had 'learned a lot' about science, 95% of 12-19 year olds had 'learned something new', and 24% said that they were 'much more likely' to want to become an engineer following their Fair visit.

Among these visitors was our own Secretary of State Vince Cable who toured the stands and spoke to participants in The National Science and Engineering Competition (NSEC). NSEC is funded by BIS and organised by the British Science Association, in partnership with Young Engineers and Big Bang.



The competition, open to all 11-19 year olds, accepts projects from all areas of science, technology, engineering and maths. The finals of the competition are held as an integral part of the Big Bang Fair. There is one individual and one team winner in each age category for the science/maths stream and for the engineering/technology stream. The two individual winners in the senior category are given the titles the "UK Young Scientist of the Year" and the "UK Young Engineer of the Year". This year the first outright winner was Hannah Eastwood of Loreto College in Northern Ireland whose triumph as the first female UK Young Scientist received extensive coverage including an interview on BBC Radio 4's Woman's Hour. Her project explored how chromium could be removed from drinking water, allowing tap water to be purified and reclaimed for industry. Andrew Cowan of Sutton Grammar School for Boys was awarded the UK Young Engineer of the Year Award for developing a low-cost remote-controlled robot for search and rescue. The prizes were awarded by TV's Professor Brian Cox and Chief Government Scientist Professor Sir John Beddington.

The Big Bang Fair inaugurates National Science and Engineering Week, which this year saw over 3,000 grass roots science events are held around the 2011 theme of communication.



UK manufacturing companies play a significant role in the success of all these initiatives, from supporting employees to become STEM ambassadors, and sponsoring the Big Bang or prizes in the competition, to opening their doors or participating in events during National Science and Engineering Week.

The growing success of these initiatives reflects a public appetite for engaging with science which as Sir John Beddington emphasised in his speech was vital to the future prosperity and well being of the UK.

Consultations – The Department needs your Views

We want your views



The Department needs you to respond to consultations as they make a difference to the outcome of the Department's policies. Please let us know your views.

Full details of the Consultation process may be found on the [BIS Consultation website](#) together with details of closed and archived Consultations. You can [order a printed copy of the consultation](#) document online. If you would prefer to request a copy by telephone, phone **0845 015 0010**.

Once the consultation deadline has passed and we have analysed the responses, the Department will place a copy of the Government Response on the consultation's page on the BIS Consultation Website - you will find this by going to the [Closed with Response](#) page. The Department aims to do this within three months of the date the consultation closed.

A selection of our current Consultations:

Competition Regime for Growth: A Consultation on Options for Reform

Open date: 16 Mar 2011

Closing date: 13 Jun 2011

Competitive markets drive productivity and growth, and an effective competition regime is central to providing them.

The current UK competition regime is world-class, but there is still scope for improvement. The Government's overarching objective in reforming the competition regime is to maximise the ability of the competition authorities to secure vibrant, competitive markets that work in the interests of consumers, to promote productivity, innovation and economic growth.

Who this consultation is aimed at

We would like to hear from all who are interested and in particular welcome businesses of all size, economic regulatory bodies, consumer organizations, legal bodies, economic consultants and academics.

Download the consultation

[A competition regime for growth: a consultation on options for reform \(PDF, 830 Kb\)](#)

A competition regime for growth: a consultation on options for reform. Response form (DOC, 113 Kb)

A competition regime for growth: a consultation on options for reform. Impact assessment (PDF, 855 Kb)

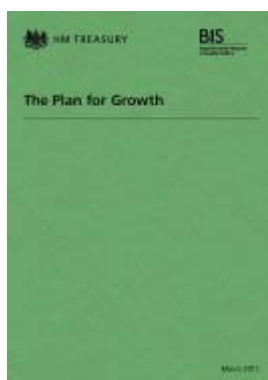
Other Departments Consultations

The **DirectGOV Website** has a full list of other Departments Consultation Websites.

Useful Link: **DirectGOV**

http://www.direct.gov.uk/en/Governmentcitizensandrights/UKgovernment/PublicConsultations/DG_170463

Publications – A Selection of our Most Recent



The plan for growth

URN: 11/817

Publication date: 23 Mar 2011

A forensic look across government at the barriers to growth – and how government can remove them to stimulate private enterprise. Sets out a package of measures to support private sector investment, enterprise and innovation.



UK Government response: European Commission public consultation on the Mutual Recognition of Professional Qualifications Directive

URN: 11/794

Publication date: 24 Mar 2011

This publication explains the UK Government's suggestions for improving the system for recognising professional qualifications across the EU, in response to the European Commission's consultation.

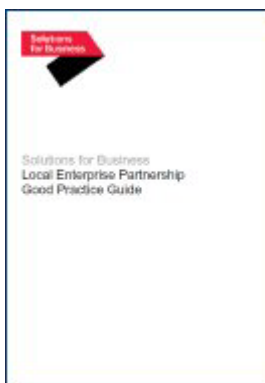


Street trading and pedlar laws: a joint consultation on modernising street trading and pedlar legislation, and on draft guidance on the current regime - Government response

URN: 11/542

Publication date: 18 Mar 2011

Government response to the consultation on street trading and pedlary (URN 09/1074). Explains how the Services Directive applies in general to retail sale of goods, including pedlary and street trading. Also summarises the public responses received.



Solutions for business. Local Enterprise Partnership: good practice guide

URN: 11/777

Publication date: 17 Mar 2011

Guidance for Local Enterprise Partnerships that provide business support on the streamlined Solutions for Business portfolio products that focus on improving business performance and growth. Shares best practice and includes information that can be adapted and used by local enterprise partnerships and other organisations who are designing or delivering business improvement activity.



UK low carbon automotive directory

URN: 11/761

Publication date: 15 Mar 2011

Provides information on UK companies and organisations involved in the low carbon automotive sector. Includes Government/NGO/trade bodies, academic research, development, production/manufacture, consultants, training and qualifications, and aftermarket. Includes a matrix showing providers of key services and products.



Gateway to global growth

URN: 11/734

Publication date: 7 Mar 2011

Case study cards for companies that have benefitted from the UK Trade & Investment's gateway to global growth programme. They include customer testimonials for these high value small and medium sized enterprises.

Future Events

Date	Event
Jul \ Aug 11	Opening of Nat Composite Centre, Bristol
Nov -11	Opening of NI Composite Centre

Northwest Manufacturing Advisory Service and The Manufacturing Institution Events

May

- 12th Make It Event – Sellafield Make It Enterprising Challenge
- 17th & 18th Shingo Workshop Principles of Operational Excellence
- 18th Make It Event – Toolkit Day at Fab Lab

June

- 07th MAS Breakfast Event - Next generation Manufacturing LeadersII
- 08th Make It Event – Toolkit Day at Fab Lab
- 14th & 15th Shingo Workshop Operational Excellence
- 15th Make It Event – McBride Make It Enterprising Challenge, Grange over Sands
- 16th MAS Manufacturers Northwest Conference - MUFC
- 23rd Make It Event – Regional Make It in Aerospace final Ribby Hall Village
- 30th Make It Event – Challenge Final Ribby Hall Village

Contact Us

We trust that you enjoyed this new edition. If you have not yet subscribed to a regular distributed copy of our publication or we can assist you with any of the issues raised in this edition please contact us. Your feedback on this publication is always welcome.

Department for Business Innovation and Skills Manufacturing and Materials Unit

Bay 4.42
1 Victoria Street
London
SW1H 0ET
United Kingdom

Telephone: 020 7215 6517

E-Mail: **BIS – Hot Issues** (businessrelations.hotissues@BIS.gsi.gov.uk)

Please see our website for an electronic version of this publication.
<http://www.bis.gov.uk/policies/business-sectors/manufacturing-and-materials/hot-issues>

Manufacturing and Materials (MM) – Roles and Responsibilities

Name	Job Title
Marie-Anne Mackenzie (Mrs M)	Head of Manufacturing & Materials
Noreen Moriarty (Miss NF)	Personal Assistant

Relationship Management

Name	Role
Brian Greenwood	Team Leader and Relationship Management, Corus, Siemens and liaison with EEF
Sandy Grom	Engineering, non ferrous metals and composites including Rio Tinto Alcan, EAMA
Kenton Thompson	Materials and Nanotechnology Team - Technology Coordination
Ivan Youd	Nanotechnologies and Materials, Bombardier transportation and Hitachi (Trains)

Manufacturing Strategy

Name	Role
Brian Greenwood	Manufacturing Strategy Team Leader
Stuart Barthropp	Manufacturing Policy
Martin Gilligan	Manufacturing Strategy Implementation
Karen Willcocks	Managing Image and Perceptions and Manufacturing Policy
Russell Kerr	Manufacturing Strategy / Communications

UK Trade & Investment (UKTI)

Name	Role
Donald McNeill (Mr D)	Head of Advanced Engineering
Janet Tingle (Miss JA)	Head of Engineering within the Advanced Engineering Team.
Ben Taylor (Mr B)	Marketing Executive
Roisin McClory (Mr R)	Marketing Account Manager: Oil & Gas and Advanced Engineering (UKTI MG Marketing Services)
Faye Smith	Sector Specialist – Materials

This edition produced and Edited by the BIS AMS-MM Central Team:
Chris Griffin, Cliff Salole and Judith Williams – February 2011

© Crown Copyright.

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit [National Archive Open Government Website](#) or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk .

Copies of this publication are available on-line
<http://www.bis.gov.uk/policies/business-sectors/manufacturing-and-materials/hot-issues>

E-mail: [**Hot Issues \(hot.issues@bis.gsi.gov.uk\)**](mailto:Hot Issues (hot.issues@bis.gsi.gov.uk))

Tel: **020 7215 6517**
BIS General Enquiries Tel: **020 7215 5000**

URN 11/415/B