

Inventique®

The newsletter of Wessex Round Table of Inventors

June 2008

26-30 June **FESTIVAL OF DESIGN & INNOVATION** www.festival.bournemouth.ac.uk

Doug breathes fire

DRAGON URGES OVERHAUL OF BUSINESS SUPPORT

FORMER BBC *Dragons' Den* judge Doug Richard has described business support in the UK as “confusing and out of control” – and his major new report proposes a massive overhaul.

The current system involves over 3,000 different schemes run by 2,000 public bodies and their contractors, “with no measurable impact whatsoever.” The Richard Report recommends creating a single, web-based system.

The 59-page report points out

that 4.4m SMEs exist in the UK, employing 47.5% of the workforce and generating 48.7% of the nation's turnover, yet two-thirds of the UK's £2.5bn business support budget is spent on telling companies where to find advice rather than helping them to gain access to finance and secure contracts.

Doug Richard is a UK-based Californian entrepreneur and specialist in technology transfer, commercialisation and business incubation. His independent report



Small Business and Government:
The Richard Report

Submitted to Shadow Cabinet
Doug Richard

To download a copy of Doug Richard's report, click on the pictures above.

was commissioned by the Shadow Cabinet's Small Business Task Force.

“As an American living and working in Britain, I believe this country has a significant role to play in the rapid globalisation of enterprise we are living through,” he says. “These recommendations would enable the UK to once again become one of the best places in the world to do business.” ■

THE RICHARD REPORT RECOMMENDATIONS

The Richard Report on Small Business & Government outlines initiatives to improve the support given to businesses in the UK, including:

- Creating a single, national, web-based Business Information System.
- Improving access to finance for Small and Medium-sized Enterprises.
- Helping small businesses secure more Government contracts.
- Overhauling enterprise education in schools.

INVENTOR IN RESIDENCE FOR WRTI LECTURE

THE WRTI ANNUAL PUBLIC KEYNOTE LECTURE 2008 takes place at 6.30pm on Wednesday 9 July at Southampton Solent University. Admission is free and the lecture is open to the public.

The event will feature Mark Sheahan, Inventor in Residence at the British Library. Mark, an entrepreneurial inventor, company director and a popular and entertaining speaker, is also a member of the British Library's 'Ask an Expert' panel based at the BL Business & IP Centre. His lecture is followed by the WRTI AGM.

- Contact: secretary@wrti.co.uk Tel: 01420 562378 www.wrti.org.uk
British Library Business & IP Centre: www.bl.uk/bipc

Next WRTI meeting

WEDNESDAY 11 JUNE

Club visit to Yellowfin Ltd at Saxon Wharf, Southampton, to view the company's world-beating Variable Pitch Surface Drive marine technology. Arrive at 6 for 6.30pm tour. www.yellowfin.com

- Members wishing to attend should email: secretary@wrti.co.uk
Tel: 01420 562 378 wrti.org.uk/events

Wessex Round Table of Inventors meet at 6.30pm on the second Wednesday of each month at Southampton Solent University SO14 0RP

VIEW FROM THE CHAIR

A WAVE of reality is sweeping world markets just now. In times like this the best businesses can go under, so this month's Top Tip is about how to survive a downturn or finance meteoric growth (the rules are the same for either).

With interest rates up and exchange rates down, your first big stock import can be frightening if not terminal, and with banks now so nervous, don't expect too much help. It is vital you get a grip on cashflow and ensure you keep reworking the forecast. The numbers are not much more complicated than your own bank account, so keep the key ones in your head.

If the orders are not coming as fast as you'd hoped, don't wait – get on to your supplier and slow supply down (if you're at all unhappy with the quality, use that as a reason); if things pick up, you can say demand has already outstripped supply!

These days there are many ways to stay cash positive. Despatch a backlog of internet orders the day delayed stock comes in and you can get the cash in before having to pay.

Profit is less important, but raise your prices to restore your margins: with fuel, raw material and import costs up, you'll never have a better excuse. If your product is price sensitive at start-up you're probably in the wrong business anyway, so now's the time to find out.

You may be able to handle orders over the internet, but you must shift stock before it builds up. Distributors and retailers may be happy to take extra stock (specially before a price rise), but beware giving extended credit: it's cash you want.

Your first orders can make great press releases to trade papers etc for a lasting impact on cash flow, and now's the time to open up those secondary markets: target high-margin premium and luxury sectors with viral marketing, as they tend to be less affected. Then hold on and ride the wave – it still could be fun!

Sincerely, Peter

PETER HEBARD, WRTI Chairman

INVENTORATOR Sir James Dyson

The business of engineering

TRADITIONAL THINKING WON'T BOOST PERFORMANCE

Continued from last month...

HENRY FORD, the pioneer of popular motoring, reflected: "If I'd asked customers what they wanted, they would have said faster horses."

Having recognised that the level of public expectation was much lower than the lofty heights of his own vision, Ford got on with his tinkering, exploding and inventing of gasoline engines and, ultimately, the Model T Ford.

But I find it interesting that he's remembered far more for his system of mass production – essentially an economic achievement – than for his experiments with race cars or search for a 'magic metal', light enough and robust enough for the rutted roads of rural America (it was vanadium steel, in case you're interested).

It is regrettable to me that the engineering genesis is lost in the word Fordism, which has come to mean a philosophy of high manufacturing output: his output of inventions was also pretty prolific. Henry Ford made the first really reliable engine, then the quadrocycle, the transmission mechanism, the Model A automobile, followed by the Model B, then AC, C, F, K, N, R, S, before finally creating the Model T. Oh, and I mustn't forget the A4 tri-motor aeroplane.

Ignoring the received logic

The admirable thing about Ford was that he was a quietly persistent engineer who ignored the received logic of his era. At that time his rivals saw the automobile as a luxury item, targeted at the rich and idle and made to order; Ford instead imagined a car readily available to all, requiring a huge leap in performance and many years of hard work.

As his forefather Thomas Edison remarked: "Opportunity

passes by most people, because it dresses itself in overalls and looks like work."

You see, traditional thinking may be safe and comfortable, but it won't give you a leap in performance. It may not even be safe, because the future arrives quicker these days.

To the business bureaucrat, that is a cause for worry, but to the entrepreneurial rule-breaker it's what makes business exciting; great ideas emerge in response to new circumstances, or because you're frustrated with a poor product or service and you want to see if you can do it better.

My first law of invention

But if you hope to be a creative rule-breaker, you'll have to learn to live with opposition. The more original your idea, the more resistance you will meet. I suppose this would be my first law of invention: just because an idea's not been thought of before, it's easy for someone to miss its importance (or, more irritatingly, to catalogue all the reasons why it could fail).

Even venture capitalists adopt a disdainful tone when turning you down for a loan to build a manufacturing business – and I speak from experience: I was written off by the City when I approached them for a loan to start making my vacuum cleaner.

And the grounds for rejection? "Engineers can't know what makes a good business plan, surely!" ■

© Sir James Dyson 2008

Continued next month...

● This is an edited extract of a Podcast first broadcast in January 2008, reprinted with permission. Sir James Dyson is best known as the inventor of the Dual Cyclone™ bagless vacuum cleaner. With his research team he has developed products that have achieved global sales of over £3bn. www.dyson.co.uk

Barrier dream

ENTREPRENEURIAL inventor Simon Phelps of Poole in Dorset hopes his new product will make a splash at the IET Innovation Awards in November.

Simon – whose start-up company Fluvial Innovations is a spin-out from Bournemouth University, where he studied computer-aided product design – has entered his patented FLOODSTOP modular flood-barrier system for an award.

Walls of sandbags are the most common method used to hold back flooding but are heavy and porous, making it difficult for a team to quickly create a watertight barrier in the face of rising floodwaters; and they are discarded after use.

So Simon devised a modular, reusable plastic barrier, triangular in



EYE ON THE PRIZE Simon Phelps has entered his patented FLOODSTOP modular flood-barrier system in the IET Innovation Awards (see page 5).

section, which is anchored in place partly by the weight of the water it holds back and partly by a patented key fixing system. Water enters the barrier through its 'riverward' side, pressing down the flexible foam floor and creating a watertight seal.

The stackable lightweight units can be quickly erected by one person and the cost per metre is less than that of sandbags. The system is multifunctional and can also be used to form water-retaining reservoirs or traffic barriers.

Simon gained a £22,000 DTI

R&D Grant to create his prototype FLOODSTOP, and studied in the USA for six months on a Flying Start Global Fellowship programme (www.flyingstart-ncge.com), a government-funded scheme run by the National Council for Graduate Entrepreneurship and the Kauffman Foundation in Kansas City, Missouri. ■

● **Fluvial Innovations**
21 Whitby Crescent
Poole, Dorset BH18 8HX
info@fluvial-innovations.co.uk
www.fluvial-innovations.co.uk

Some like it hotter still...

LINGERIE MANUFACTURER Triumph International raised a few eyebrows – not to mention the temperature – when they unveiled their Solar-Powered Bra in Tokyo last month.

The longline bra, designed for promotional events in Japanese department stores to raise awareness of global warming and the need to conserve energy, features a photovoltaic panel worn across the stomach. The solar panel produces enough electricity from sunlight and room lighting to charge a mobile phone or an iPod. An electrical bulletin board on top of the bra can display slogans such as 'Save the Earth'.

According to the company the bra is not intended for sale in Japan, where eco-friendly products are gaining in popularity. Other 'green' concept bras include one with a reusable shopping bag folded inside, and a bra that holds a set of reusable collapsible chopsticks on either side. Good grief. ■

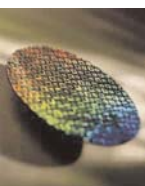
Source: Xinhua News Agency



● **450, AND COUNTING...** Intel, Samsung and TSMC have agreed to develop 450mm wafers for semiconductor manufacturing, scheduling the target date for pilot production, 2012, for the transition away from current 300mm technology. A wafer is a thin slice of semiconductor material – such as a pure, almost defect-free, silicon crystal – used in the fabrication of integrated circuits and other microdevices. The change will increase the wafer size by 2.25 times to 636,173mm² total area.

The combination of finer manufacturing widths and larger wafers should dramatically improve the number of microprocessor dice that can be fabricated per wafer: 5,945 processors could be manufactured from a single 450mm wafer versus 2,642 before, which at a price of \$250 each would make each wafer worth almost \$1.5m.

Semiconductor manufacturers make the switch to a larger wafer every decade; the change to 300mm wafers began in 2001. Source: ExtremeTech



MINIMARVEL
An etched silicon wafer.

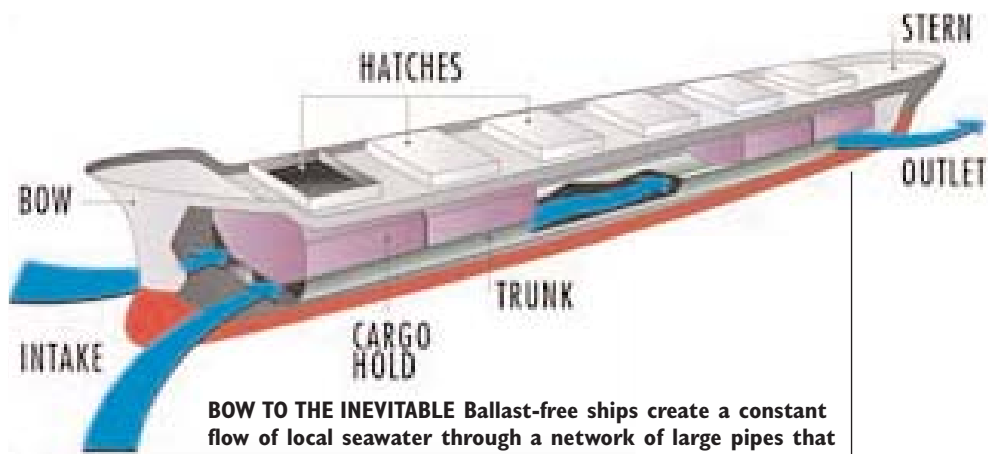
Radical new ship design

UNIVERSITY of Michigan researchers are investigating a radical new design for cargo ships that would eliminate ballast tanks.

Ships take on ballast water for stability when they're not carrying cargo, then discharge it (often into different waters) when they load freight, expelling tons of water and anything else that's in it – from pathogenic materials to molluscs and fish: ballast is blamed for the contaminating introduction of harmful organisms and non-native species.

“The patented ballast-free ship concept offers a promising alternative that could block hitch-hiking organisms while eliminating the need for expensive sterilisation equipment,” said Michael Parsons, professor of naval architecture and marine engineering at the university.

A ballast-free ship creates a constant flow of local seawater



BOW TO THE INEVITABLE Ballast-free ships create a constant flow of local seawater through a network of large pipes that run from bow to stern below the waterline.

through a network of large pipes, called trunks, that run from the bow to the stern below the waterline.

Parsons and his colleagues recently built a 16-foot, \$25,000 wooden scale model of an oceangoing ballast-free bulk carrier to test the concept – and it has highlighted an unforeseen benefit: the design appears to provide savings of over 7% in the power required to propel the ship. For a 650-foot bulk carrier hauling 32,000 metric tons of cargo across the Atlantic, that translates into a fuel savings of \$75,000 per crossing.

Towing tests are expected to confirm that the power savings are due to the fact that water expelled from the trunks' stern-ends smooths the flow into the propeller, allowing

it to operate more efficiently.

Building an oceangoing bulk carrier can cost \$70 million. The added construction costs of the ballast-free design – for extra hull steel, trunk-isolation valves, piping and welding – would be more than offset by eliminating the filtration system and the ballast tanks.

The researchers conclude that the new design would result in net capital-cost savings of \$540,000 per ship. Combined with the expected fuel savings, total cargo transport costs could be cut by over \$2.50 per metric ton.

“The ballast-free ship has the potential to be an economic winner while addressing the ballast problem seriously,” Parsons says. ■

● www.engin.umich.edu

© U-M MARINE HYDRODYNAMICS LABORATORY

NASA'S TOP TIP

THE US SPACE AGENCY announced last month that the latest 'NASA Government Invention' is a heat shield material slightly more dense than balsa wood, designed to protect spacecraft during their fiery re-entry into Earth's atmosphere.

The Lightweight Ceramic Ablator

material was developed at NASA's Ames Research Center. It is a low-density material that weighs one-fifth as much as conventional heat shields, but can withstand temperatures up to 2,760°C (5,000°F).

The material has a foundation made of fibres coated with a thin

layer of organic polymeric resin. The resin, traditionally used as a bonding agent, creates a light, durable, heat-resistant shield.

Because of their durability and low density, the LCA family of protective materials is expected to play a significant role every time a spacecraft enters a planetary atmosphere on future NASA missions.

NASA applied a type of this innovative heat shield material, the Phenolic Impregnated Carbon Ablator, on the Stardust sample return capsule which brought back the first comet particles and interstellar dust samples in January 2006. Stardust holds the record for the fastest Earth re-entry speed of any man-made object.

In the future, PICA is planned for use as the heat shield on NASA's new Orion crew vehicle and the Mars Science Laboratory mission. ■

● www.nasa.gov

ROCKET MAN

Pilot and inventor Yves Rossy has become the first person to fly a jet-powered single wing. The successful 6-minute test flight took place above the town of Bex, near Lake Geneva in the Swiss Alps.

Yves exited a Pilatus Porter aircraft at 7,500 feet with a folded pair of wings – and four jet engines – strapped to his back, before looping from one side of the Rhone valley to the other at 2,600 feet. Yves and his sponsor, the Swiss watch company Hublot, spent \$285,000 building the device.

● www.jet-man.com



© XINHUA/AFP

HUMORESQUE

1. Sit at your desk in front of your computer, then lift your right foot off the floor and make clockwise circles with it.

2. While doing this, draw the number '6' in the air with your right hand.

Your foot will change direction every time...

Festival of Design & Innovation

THE 16th annual Festival of Design & Innovation, hosted by Bournemouth University's School of Design, Engineering & Computing, takes place between 26-30 June. The festival is open to the public and admission is free.

This year's event will feature more than 150 innovative designs and prototypes with commercial potential by final year students in product design, industrial design, design engineering, fashion &

textiles, interior design and computer-aided product design.

The event attracts over 1,500 visitors per year, including talent scouts from companies such as Dyson and BBC *Dragons' Den*. ■

● **Festival of Design & Innovation Bournemouth University**
Talbot Campus
Poole, Dorset BH12 5BB
Tel: +44 (0)1202 965 529
info@festival.bournemouth.ac.uk
www.festival.bournemouth.ac.uk



The Institution of Engineering and Technology
INNOVATION AWARDS 2008

THE INSTITUTION OF Engineering and Technology is calling for entries to its prestigious Innovation Awards 2008. The deadline for submissions is Friday 25 July.

Award categories include asset management, built environment, electronics, emerging technologies, information technology, power & energy, product design, project team, measurement in action, security, software in design, start-ups,

sustainability, telecommunications and transport.

Entries are being called for from organisations and individuals with an innovative engineering project, product or process for commercial use which demonstrates genuine innovation. With submissions already received from as far afield as Argentina and India, entries will be judged by a panel of industry leaders and engineering experts

Founded in 1871, the Institution

of Engineering and Technology is one of the world's leading professional organisations working to develop science, engineering and technology. With more than 150,000 members in 127 countries, the IET registers more engineers each year than any other UK institution, and has offices in Asia, Australasia, Europe, the Middle East and North America to aid its global knowledge network.

The IET Innovation Awards presentation ceremony, hosted by BBC technology presenter Maggie Philbin, will take place in London on Monday 3 November. ■

● **www.theiet.org/innovationawards**

● **VENTURE FACTORY**

Modwenna Rees Mogg, editor of AngelNews, will be guest speaker at the 3en Ventures / Finance Southeast 'Venture Factory' on Wednesday 11 June, commencing at 5pm at Sherfield School, Basingstoke. AngelNews is a leading news service for the investment market, especially for business angels, venture capitalists and the companies they back.

The evening includes a number of early-stage businesses pitching for investment in a *Dragons' Den*-style format, followed by Q&A sessions.

● www.sherfieldschool.co.uk www.angelnews.co.uk
www.3enventures.com www.finance-southeast.com

● **NOBODY DOES IT BETTER**

Women are more effective in nearly all aspects of business management, with men superior in only two areas, according to recent research in Australia, which collected data from over 1,800 male and female CEOs and managers.

Women scored higher than men in strategic drive, risk-taking, aesthetics and altruism, people

skills and innovation, and equalled males in emotional stability, while men were superior in command and control of management operations, and focusing on financial returns.

This indicates that men are more task-focused and more comfortable getting the job done, rather than working at relationships.

"People might have suspected women are stronger in some of the typically softer skills, but the results in terms of strategic drive, risk-taking and capacity for innovation might surprise some," said Gillian O'Mara, managing director of Steps Leadership Programs, Sydney, which commissioned the study; the results were presented at their *Women and Contemporary Leadership* seminars in Sydney and Melbourne last month.

The study was conducted using the Hogan Assessment System, an international personality test designed to help organisations select employees and develop leaders. It has been used by such companies as BHP, Qantas, Harvey Norman and AMP.

● www.steps-programs.com

IVY SECRETES nanoparticles to help it grip surfaces, say US-based chemists who have confirmed this remarkable discovery.

The evergreen plant clings onto surfaces using tiny rootlets that spring out from their stems – and they are remarkably hard to prise off. On the microscopic scale, says Mingjun Zhang of the University of Tennessee, these rootlets end in fingers or disks hundreds of micrometers long.

And as Charles Darwin first reported in his monograph *Movements and habits of climbing plants* in 1876: “the rootlets of the Ivy, placed against glass... secrete a little yellowish matter.” But just what this substance was, and how it helped ivy to climb, has remained unclear since Darwin’s time.

What lies within

Zhang and colleagues grew Boston ivy *Parthenocissus tricuspidata* on silicon and mica wafers, and analysed its secretions with atomic force microscopy. They found remarkably uniform particles measuring 70nm across.

“We are confident that the nanoparticles are formed inside the ivy stem, then secreted out through the rootlet’s fingers,” Zhang says.

The researchers then checked

the composition of the particles with high-performance liquid chromatography/mass spectrometry (HPLC/MS). They picked out 19 organic compounds, which they suggest consist of long hydrocarbon tails and polar nitrogen, oxygen or sulfur-containing heads. “This suggests that the nanoparticles rely on hydrogen bonding to affix to different surfaces,” they report.

Heather Viles, an Oxford University geomorphologist who studies ivy damage to walls, commented that the few studies to be done on ivy secretions suggest that they contain polysaccharides. The whitish, dried deposits left behind after ivy is removed from a wall are thought to contain calcium oxalate, she says – though this may be due to a subsequent reaction with calcium carbonate in the rock.

Unique climber

Zhang says his team are now investigating the mechanism by which the ivy produces nanoparticles – and he hopes to work out exactly how they help the plant stick to surfaces. He also wants to try forcing ivy to produce metallic nanoparticles rather than synthesise them chemically.

Many plants have already been used to grow nanoparticles. Alfalfa,



The University of Tennessee team are now investigating the mechanism by which ivy produces nanoparticles.

for instance, soaks up gold and silver to produce metallic nanoparticles, while extracts of camphor, lemongrass and aloe vera have been used to synthesise nanoparticles in the laboratory.

But the idea that a plant would secrete nanoparticles naturally in order to help it climb is “pretty unique”, Zhang says – and is something that suggests a highly evolved biosynthetic pathway. ■

● Source: Royal Society of Chemistry / www.rdmag.com

● CHICKEN FEED: \$1m R&D AWARD

People for the Ethical Treatment of Animals (PETA), an animal rights group in the USA, is offering a \$1m incentive to the first scientist who creates and markets lab-grown chicken meat for mass consumption by the summer of 2012.

The organisation says the scientist has to be able to produce the meat in large enough quantities to be sold in ten US states, and at a price competitive to the prevailing price of chicken in the marketplace.

Further, the meat has to have a “taste and texture indistinguishable from real chicken flesh to vegetarians and meat eaters alike.” A taste-test panel will determine if the lab-produced meat meets the criteria.

The group’s website says researchers already produce *in vitro* meat – created from animal stem cells placed in a medium to grow and reproduce – but this was still several years away from general availability. Source: CNN ● www.peta.org

● COMPETITIVE MANUFACTURERS CONFERENCE

The Michigan-based Society of Manufacturing Engineers is attempting to forecast the enabling technologies of tomorrow at their *Competitive Manufacturers Conference* at the Chicago Marriott, Schaumburg, Illinois on 17-19 June, showcasing self-assembling nanotechnology, direct digital manufacturing, ultracapacitors, intelligent device integration, and integrated 3-D simulation and modeling/desktop supercomputers.

Self-assembling nanotechnology – which essentially allows objects, devices and even systems to form other structures without external manipulation – made the list because it has moved from theory to practice, most notably when IBM used it to enhance conventional computer chip manufacturing.

Other conference highlights include interactive sessions on lean manufacturing practices and ways a company can develop its own innovations. ● www.sme.org/cmc

In order to stop people leaving the UK for more enterprise-friendly locations, our entrepreneurial environment must be improved, say Kulveer Taggar

THE FUTURE FACE of enterprise will be defined by those who are willing to take risks, experiment vigorously, and continue on in the face of failure.

For those wishing to support us, it's important to create an environment that does not punish failure harshly, that supports risk-taking, and which doesn't look down on people who seek to experiment with new ideas and processes: environments that encourage enterprising behaviours will survive change.

In London, graduates are much more likely to become consultants, bankers or lawyers, and wear their jobs as badges of honour, rather than risk becoming an entrepreneur and doing something different from their peer group.

In Silicon Valley – the very model of a risk-taking environment – it's the other way round: there is pride in taking a risk and trying to build something for yourself. This environment cultivates collaboration and co-operation: people are very willing to talk or generally help, and 'networking' isn't something

that has to be organised or encouraged – it just happens.

In my experience this friendly, optimistic and ambitious atmosphere rewards big thinking – which is something sometimes frowned upon in London.

One thing I love about 'the Valley' is the speed with which things happen. Ideas develop quickly, leads are swiftly chased up, and everything seems typically to be very fast-paced. The consequence is that ideas are quickly tested or iterated on, which weeds out the bad ideas to the net benefit of the economy and wider society.

Having good access to risk capital without onerous conditions also encourages this – something I've witnessed first-hand in America – whereas I've found the risk appetite amongst British investors to be low.

If the UK would like to keep people like me from leaving to more enterprise-friendly locations, the entrepreneurial environment must be improved. Based on my own experience of building a startup company, I think new

graduates should be given some incentives to join startups; it's very hard to compete for talent with big firms that can offer security and a high salary (one solution would be to tax stock options less heavily so that startups can reward early joiners for the risk they are taking).

In addition, enterprise curricula should prepare people for the practical aspects of starting a business; this will encourage them to make the leap and get started in the business world. ©Kulveer Taggar ■
● *Kulveer Taggar co-founded the Oxford Entrepreneurs Society and www.boso.com (the UK's first online student marketplace) whilst at university. After working as an investment banker he moved to California, raised angel funding and co-founded www.Auctomatic.com, which simplifies selling on eBay.*

This article first appeared on www.makeyourmark.org.uk. Make Your Mark is the national campaign to create an enterprise culture among people in their teens and twenties in the UK, by giving them the inspiration and opportunity to turn their business or social enterprise ideas into reality.

THE THIRD BlackBerry Women & Technology Awards were held at the Marriot Grovesnor Square, London last month. Winners were announced across seven categories and the overall winner of the BlackBerry Outstanding Woman in Technology Award was announced.

The awards recognise and celebrate the achievements of women using technology, both within and beyond the IT sector. These achievements are recognised in the corporate sector, the multimedia industry, the public sector and academia, and within small- to medium-sized enterprises.

Charmaine Eggberry, Vice President and Managing Director, EMEA, at Research In Motion commented: "I am astounded by the high level of talent we have witnessed in this year's entrants.

"We are delighted to recognise their phenomenal achievements through the BlackBerry Women & Technology Awards."

● www.blackberrywomentechnologyawards.com



BLACKBERRY OUTSTANDING WOMAN IN TECHNOLOGY:

Prof. Lizbeth Goodman, SMARTlab Digital Media, UEL

BEST USE OF TECHNOLOGY BY A WOMAN WITHIN THE CORPORATE SECTOR:

Jayne Opperman, Lloyds TSB

BEST USE OF TECHNOLOGY BY AN UNDER-30-YEAR-OLD WOMAN:

Lisa Ditlefsen, Base One

BEST WOMAN IN TECHNOLOGY (PUBLIC SECTOR AND ACADEMIA):

Prof. Lizbeth Goodman, SMARTlab Digital Media, UEL

BEST USE OF TECHNOLOGY WITHIN THE MULTIMEDIA INDUSTRY BY A WOMAN:

Beatriz Alonso Martinez, Avid Technology Europe Ltd

BEST COMPANY ADVANCING WOMEN IN TECHNOLOGY: BT Group

BEST USE OF TECHNOLOGY BY A WOMAN IN AN SME:

Polly Gowers, Everyclick.com

BEST FEMALE MENTOR: Kate Bishop-Dell

www.wrti.org.uk

THE INVENTORS WEBSITE

CENTRE OF EXCELLENCE Manufacturing Advisory Service

Proactive role...

AGENCY INCREASES MANUFACTURERS' TURNOVER

ONE OF THE FEW support agencies to gain the approval of The Richard Report (see page 1), the Manufacturing Advisory Service has been a huge success since its launch in 2002, playing a vital role in helping UK manufacturers to share knowledge, improve productivity and achieve success.

Research shows that companies using MAS increase turnover by an average of £85,000 per year. Initial advice, information and diagnostic assessments are free of charge for small and medium-sized enterprises.

MAS is delivered through three main components:

● **MAS Regional Centres** The recommended first point of contact, MAS advisors based in the centres are able to help manufacturers by providing information, advice and follow-up support.

● **Specialist support organisations** A network providing additional specialised assistance to businesses involved in manufacturing – including technology institutes and manufacturing centres, centres of expertise in skills and training, industry sector bodies (such as trade associations and industry forums), centres of knowledge and research such as university departments with particular manufacturing expertise (including many of the Engineering and Physical Sciences Research Council's innovative manufacturing research centres), Faraday Partnerships, and certain commercial research and technology organisations.

● **Key services** Direct helpline support through the Regional Centres; a free one-day on-site diagnostic visit by a MAS

BOOK OF THE MONTH

Group Genius: The Creative Power of Collaboration

by Keith Sawyer

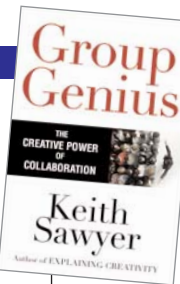
Perseus 288 pages £15.99
ISBN 9780465071920

'At first this looks as though it might be just another exercise in corralling fashionable ideas into a volume of advice to corporations, but Sawyer is an unusually interesting writer: jazz pianist, former videogame designer, and now a university professor of education and psychology. The book's polemical big idea is that there is no such thing as the lone genius: everything turns out to be collaborative.'

– Steven Poole, books.guardian.co.uk

manufacturing specialist to review a company's entire manufacturing operation; in-depth follow-up consultancy (for example, to introduce lean manufacturing techniques, product or process innovations, or design advice); and best-practice activities, training and workshops across each region. ■

● **Manufacturing Advisory Service**
Tel: 0845 658 9600
info@mas-uk.org.uk
www.mas.berr.gov.uk



BUSINESS LINK INNOVATION CLINICS

Are you thinking about developing a new product, process or service? Have you invented something and don't know what to do next? Through its series of free Innovation Clinics, Business Link provides confidential and impartial guidance on such subjects as investigating an innovative idea, product development, working with universities, R&D funding sources, protecting intellectual property rights and licensing. Innovation Clinics are held throughout the SEEDA region.

● Advice Hotline: 0845 600 9 006 innovation@businesslinksoutheast.co.uk www.businesslink.gov.uk/southeast

WRTI PATRON Trevor Baylis OBE WRTI CHAIRMAN Peter Hebard MBE chairman@wrti.co.uk

DEPUTY CHAIRMAN Richard Little deputychairman@wrti.co.uk SECRETARY Mike Overy secretary@wrti.co.uk

TREASURER Mike Wright treasurer@wrti.co.uk MEMBERSHIP SECRETARY Professor Richard Penson membership@wrti.co.uk

INVENTIQUE EDITOR Frank Landamore editor@wrti.co.uk WEBMASTER Mike Overy webmaster@wrti.co.uk

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Edited, designed and produced by Frank Landamore, 42 South Way, Lewes BN7 1LY on behalf of WRTI.