Issue 64 www.wrti.org.uk

Inventique©

The newsletter of Wessex Round Table of Inventors March 2006

10-14 March NATIONAL IDEAS WEEK www.ideasuk.com

Patent Office's May consultation deadline

THE PATENT OFFICE is inviting innovators, scientists, engineers, technologists, legal professionals and businesses to comment by 31 May on whether the 'inventive step' – required to make an invention patentable – works in the best way for innovators and the UK economy.

Starting from an understanding of the purpose of the patent system and centred on the inventive step, The Patent Office wants respondents to consider whether trivial patents are being granted and how well the current legislation maximises innovation and competitiveness within the R&D sector.

The consultation is designed to ascertain how the inventive step is used in the UK patent system and how it compares to other countries, and whether appropriate parameters are set with respect to the objectives of the legislation, the impact on the role of the patents system in the economy, the effect on third parties, consistency and harmonisation with other countries, patent quality, and whether any aspect of the inventive step requirement should be modified.

www.patent.gov.uk/about/consultations/inventive/index.htm

● Responses should be sent to:
Matthew Cope, Room 1.G40
The Patent Office, Concept House
Cardiff Road, Newport NP10 8QQ
Tel: +44 (0) 1633 813778
Fax: +44 (0) 1633 814444
isreview@patent.gov.uk

Innovention 2006

SOUTH'S INVENTION SHOW CALLS FOR ENTRIES

THE 15th annual *Innovention* competition and exhibition will take place at Winchester's INTECH interactive science and technology centre on Friday 23 June. Inventors, entrepreneurs and SMEs wishing to exhibit their latest innovative products, processes or marketable ideas have until Friday 12 May to submit their entries.

A prize pool totalling £20,000 will be awarded to the innovations judged most likely to succeed within two separate categories: business entries and lone inventors.

Innovention 2006 is southern England's premier showcase for innovation, and provides a unique opportunity to parade new products before the region's investors, customers and media.

Open to companies, lone inventors and entrepreneurial innovators from Hampshire, Dorset and the Isle of Wight, *Innovention 2006* is organised by Wessex Innovation Service, a subsidiary of the South Hampshire Enterprise Agency (SHEA).

First Prize Award winner at last year's show was WRTI member Joe Silver (www.lifelock.co.uk). ■

● Online entry form: www.shealtd.co.uk
Tel: 02392 449449 innovention@sehea.co.uk

YOUNG WOMAN ENGINEER OF THE YEAR

SARA PULLEN, the only woman crew systems engineer on a team working on the Eurofighter aircraft at BAE Systems in Warton, near Preston, has been named young woman engineer of the year by the Institution of Incorporated Engineers. Sara, whose grandfather built helicopters at Boeing and whose great aunt was an aircraft engineer on Concorde, works for the Head Equipment Assembly team, responsible for the initial concept and design through development and assessment to customer delivery.

● *www.iie.org.uk www.baesystems.com*

Next WRTI meeting WEDNESDAY 8 MARCH

Professor Julian Vincent of the Centre for Biomimetic and Natural Technologies at Bath University will talk on *'Technology transfer from biological paradigms'* and the use of TRIZ. Room HC 017, Herbert Collins Building, Southampton Solent University, commencing 6.30pm.

● *Non-members wishing to attend should contact: secretary@wrti.co.uk*
Map: www.streetmap.co.uk (SO14 0RP) www.wrti.org.uk/events
www.bath.ac.uk/mech-eng//biomimetics

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

VIEW FROM THE CHAIR

THERE IS A CASE to be made for the argument that sales, or selling, is actually the world's oldest profession; it's certainly a vital aspect of inventing. From a business point of view, there is little point in making an invention that nobody buys.

People won't buy what they don't want, so a salesman has to connect with people who *do* want his product – or with people in whom he can create that want.

The inventor has to do the same, but very often without the glossy brochures and demo models, and typically with a new concept. Thus the successful inventor has to be a good salesman – or has to contract that task out to a good salesman, because even the perfectionist who has made the greatest-ever gizmo may lack sufficient objectivity and charisma to charm and convince investors and customers.

The breakthrough comes when the inventor realises that s/he may not be the best person to perform all the functions of getting the product to market; there must be thousands of crestfallen inventors with good products that didn't make it simply because the sales process was unfamiliar.

When in doubt, ask for help in assessing the market from people in the know or, failing that, from as many people as the inventor can trust to give an honest opinion as to whether the product is 'wanted'

If the answer is 'yes,' a case then has to be made to people who can buy into the concept as investors or customers. That's the selling – and, dare I say it, difficult – bit, where the enthusiasm for the product has to be transferred.

Sales courses are widely available, informative and fun. But if selling isn't for you, then the best thing about the WRTI and other inventors' groups is the mutual support, clinics, contacts and introductions we give each other to save us from this lonely torment.

Sincerely,
Richard

RICHARD LITTLE, WRTI Chairman

INVENTORATOR Larry Elliott

Better design requires better products...

CREATIVE EFFORT SHOULD HELP TO IMPROVE MANUFACTURED GOODS, NOT JUST TART THEM UP

HARRISON FISHER has been making cutlery in Sheffield since 1838, *writes Larry Elliott*. In 2004 the company was singled out by Gordon Brown in his budget speech as an example of how design and innovation can cope with the challenge of globalisation.

Back in 1997, it's hard to imagine the government being overly concerned about how Harrison Fisher turned around its fortunes by spending £60,000 on design for a swanky new knife sharpener. Cutlery? Sheffield? Do me a favour. Design then was all about harnessing the talents of the metropolitan glitterati and then waiting for Britain to turn into a weightless economy; it certainly wasn't about people who were still making things. Sheffield? *The Full Monty*, right?

Fortunately, we hear rather less of this piffle today. Labour's dalliance with Cool Britannia was a short-lived affair and it quickly became apparent that there was more to transforming Britain's economic prospects than investing in the arts or guys in red specs bragging about their latest online venture.

Indeed, Brown's interest in design is an admission that things have not gone quite as planned. Most of the online ventures are now offline ventures, having gone to the wall in the dotcom bust, and the chancellor knows there's more to making a living in the global economy than flogging a couple of Tracey Emins and opening a new sushi bar. He sees companies using better design to make their products more desirable than low-cost competition, and thus fending off the challenge from China and India: "Design is not incidental to modern economies but integral; not a part of success but the heart of success; and not a sideshow but the centrepiece."

The Cox Review of Creativity

The chancellor commissioned a report from George Cox, chairman of the Design Council, to pinpoint Britain's weaknesses and responded to the recommendations it makes in his pre-budget report. Vicky Pryce, the chief economist at the Department for Trade and Industry, will produce her own report taking a hard-nosed look at the returns companies can expect from making design integral to their activities.

Here's the state of play: to the extent that the Cool Britannia hype had any effect, it was to persuade vast numbers of young people to enrol on design courses. A decade ago, one in 64 students was doing design; now it is one in 16. There is a vast pool of potential talent out there for business to draw on, should it want to.

The problem is that an awful lot of British industry doesn't want to. ■

Continued next month

● *Larry Elliott is economics editor of The Guardian newspaper and author of* Age of Insecurity, *ISBN 1859842259. Reprinted with the kind permission of the author from The Guardian, 21 November 2005.*

www.guardian.co.uk

Cox Review: http://www.hm-treasury.gov.uk/independent_reviews/cox_review/coxreview_index.cfm

DATA PROTECTION ISSUES - 2

Continued from last month

ROSANNA COOPER CLARIFIES THE LEGAL POSITION FOR INVENTORS AND ENTREPRENEURS

WHEN CONDUCTING audits for organisations, or training them to become compliant in this difficult area of law, we at RT Coopers tend to find that although they may have some idea of what data protection is all about, they do not fully appreciate the steps that have to be taken in order to become compliant, *writes Rosanna Cooper.*

Organisations must comply with the DPA's eight data protection principles by adopting a number of processes, policies and security measures. The eight data protection principles are:

1. Personal data must be processed fairly and lawfully.

2. Personal data must be obtained only for specified and lawful purposes and must not be processed further in any manner incompatible with those purposes.

3. Personal data must be adequate, relevant and not excessive in relation to the purposes for which they were collected.

4. Personal data must be accurate and, as necessary, kept up to date.

5. Personal data must not be kept longer than is necessary for the purposes for which they were collected.

6. Personal data must be processed in accordance with the rights of data subjects.

7. Personal data must be kept secure against unauthorised or unlawful processing and against accidental loss, destruction or damage.

8. Personal data must not be transferred to countries outside the European Economic Area unless the country of destination provides an adequate level of data protection for those data.

The areas that cause most difficulties to organisations are: determining the length of time they should retain data, and what they should do if they have to transfer data outside the European Economic Area (EEA).

You must be clear about the purposes for which you are processing data. Usually, the data subject would be required to sign a data protection notice agreeing to the processing of his or her data at the point of collection of the data. The processing must be fair and lawful, and adequate for the purpose. If you collect data from clients as part of your business, you cannot simply use this data for marketing purposes.

There is an obligation on your organisation to ensure that the data is accurate and that there is no unauthorised disclosure or accidental destruction. For instance, employee's data must be kept secure and confidential and not disclosed to other's within or outside your organisation without either notifying the data subject or his or her consent.

Having collected the data, how long do you retain it? You obtained it for a purpose – can you destroy it now that you have finished your campaign or disaster appeal? Are there any legal obligations on your organisation to keep this data for a specified period? Do you have to transfer the data to a country outside the EEA? If so, check to see what data protection laws there are in this country and if you are unsure, seek legal advice. ■

Continued next month

● *Dr Rosanna Cooper is a partner at RT Coopers, a commercial law firm focusing on inventors and business start-ups.*

RTC RTCoopers Solicitors

5 Telfords Yard, 6/8 The Highway, London E1W 2BS
Tel: 020 7488 2985 Fax: 020 7488 2102
enquiry@rtcoopers.com
www.rtcoopers.com

HUMORESQUE *from Dave Challice dchallic@bournemouth.ac.uk*

INNOVATORS' EXAM

Q1. You are participating in a race. You overtake the second person. What position are you in?
(If you answered that you are in first place, then you're wrong. If you overtake the second person and you take his place, you're second.)

Q2. If you overtake the last person in the race, then you are...?
(If you answered that you are second to last, then you're wrong again. How can you overtake the LAST person?)

Q3. Using mental arithmetic only, take 1000 and add 40 to it. Now add another 1000. Now add 30. Add another 1000. Now add 20. Now add another 1000. Now add 10. What is the total?
(Did you get 5000? The correct answer is actually 4100. Don't believe it? Check with your calculator.)

Q4. Mary's father has five daughters: 1-Nana, 2-Nene, 3-Nini, 4-Nono. What is the name of the fifth daughter?
(Did you answer Nunu? Her name is actually Mary. Read the question again.)

Anti-wobble boat keeps low profile

A HIGH-SPEED landing craft unveiled last month by the US Department of Defence will not only stay steady at its top speed of 50 knots, but also produces virtually no wake. The vessel, dubbed *Stiletto*, is the prototype for a new breed of craft designed to carry troops and their equipment ashore without attracting attention.

Stiletto's hull has a double-M shape that channels the wake under the craft, where it mixes with onrushing air to produce froth which lifts it partly out of the water, reducing drag and increasing stability.

The hull is made of carbon fibre, and the 27m-long-by-12m-wide vessel will be able to carry a payload of approximately 37 tonnes. The prototype (above right) cost $6m to build and is to be tested this year. ■

© SAMANTHA L QUIGLEY

Over 80 feet in length, the *Stiletto* (above) is a shallow-water transport vessel. The experimental $6m craft can travel at more than 50 knots on the cushion of froth created by its carbon-composite 'M-hull'.

● ***www.defenselink.mil***

Source: New Scientist magazine, 16 Jan'06

OUT OF ITS SKIN

A self-healing material that instantly repairs damage from objects such as micrometeoroids could be used to build spacecraft. Researchers at the University of Bristol, funded by the European Space Agency, have created a composite material that contains glass fibres, some filled with liquid resin and some with a hardener. If the glass breaks, the liquids leak out and mix, filling any cracks.

● ***www.bris.ac.uk*** ***Source: New Scientist magazine, 28 Jan'06***

SPACE SIGNPOST

EVER WONDERED where Saturn is? A new electronic signpost will tell you. Just plug in any planet, asteroid, satellite or spacecraft on the touch-screen and the GPS-enabled software will calculate the distance and direction. *Space Signpost*, developed by space scientist Adam Nieman of Bristol, also displays an animated 3D journey to whichever asteroid you fancy. It is designed to be an interactive exhibit for museums. ■

● **www.spacesignpost.com**

Source: New Scientist magazine, 4 February'06

Spring-loaded microbe inspires nanomachines

A SCUM-DWELLING pond microbe is the inspiration for minute springs that bioengineers hope will operate tomorrow's miniaturised devices, *writes Peter Aldhous*.

Danielle France (right) at the Massachusetts Institute of Technology is studying a protozoan called *Vorticella convallaria*, which can attach itself to rocks, lily pads and even other creatures in the plankton using a stalk called a spasmoneme. When the protozoan is disturbed, the spasmoneme contracts abruptly, like a stretched telephone lead springing back into a coiled shape. "We think that it operates on stored energy," says France.

This striking behaviour was first observed by the inventor of the microscope, Anton van Leeuwenhoek, in 1676. But only now have France and her colleagues revealed how this spring-like structure works – and just how powerful it is.

France told the American Society for Cell Biology meeting in San Francisco last November about experiments in which she spun *Vorticella* cells on a revolving microscope stage, exposing them to accelerations of 10,000g. Even working against the colossal resulting forces the cells could still contract their spasmonemes.

The researchers calculate that a contracting spasmoneme exerts a force of at least 300 nanonewtons. That might not sound like much, but France says that, for its size, *Vorticella*'s spasmoneme is more powerful than a car engine.

The mighty nanospring is triggered by the release of calcium ions from the cell. The spasmoneme contains six proteins from a family called the centrins. By using antibodies to disable each centrin in turn, France and her colleagues have identified one, called centrin 5, that seems especially responsive to the calcium signal.

© DONNA COVENEY

At the same time as investigating the natural fibres, the team is also trying to build artificial nanosprings by cross-linking centrins to fibres of polyethylene oxide. She suggests that centrin-triggered springs could one day form part of miniature probes that would deliver drugs deep inside the body. ■

● ***Source: New Scientist magazine, 17 Dec'05***

web.mit.edu/newsoffice/2005/nanospring.html

Luca Giancardo, winner of the inaugural David Nicholas Innovation Award last year, tells us how it all happened

WHEN I FIRST arrived in England from Italy in 2002, to begin my Bsc(Hons) degree course in software engineering at the then Southampton Institute (now Southampton Solent University), I was driven by the desire to become an expert in the field of computing in order to create exciting new technologies.

By the time the need for my dissertation arrived, I felt confident enough to tackle an ambitious project which took nine months of intensive development to perfect: The tftMouse™ (it stands for 'The Face-Tracker Mouse'). This incorporated algorithmic software and a webcam to scan and track the computer operator's facial image, making it possible to click the computer's mouse or use its applications by blinking one's eyes and moving one's head.

I presented the final product at a Southampton Institute showcase event for final-year projects in engineering-related courses – and was honoured to be awarded the *David Nicholas Innovation Award 2005* by judges from the WRTI.

As if that were not enough, we then started to chat about my future and they introduced me to Paul Schenk, co-founder of Real Time Tracking, a start-up company that produces artificial intelligence and computer vision technologies.

I am proud to be able to say that I am now a researcher with the company, creating algorithms to intelligently track sport events and broadcast them via the internet, television and mobile phones, including a project that applies the technology to live music venues.

In my spare time I have tried to combine my two passions – music and computer science – in designing a software that can automatically compose a piece of music by interpreting a video, depending on the shapes, colours and relationship between sequences of images.

Much has happened since I won that award last summer and I have a lot to be thankful for. I hope this year's winner experiences the same fun and excitement as I did. ■

● **wacco@retebk.com**
Real Time Tracking Limited
Chiltern House, Station Road
Henley-on-Thames RG9 1AT
Tel: 07932 641913 info@rttracking.com
www.rttracking.com

NATIONAL IDEAS WEEK IS INSPIRED BY EINSTEIN

ideasUK is committed to developing the truism that within employees there is a vast untapped resource of creative ideas, the harnessing of which has a major impact on business performance. Founded in 1987, ideasUK is the only professional, not-for-profit association in the UK dedicated to the development of efficient and effective staff suggestion schemes.

ideasUK provides professional support, advice and guidance to organisations wishing to create formal programmes to promote staff creativity and innovation on and around the anniversary of Einstein's birth on 14 March, in order to utilise 'in-house' creative ideas and suggestions.

A small central management team provides day-to-day support, advice and assistance to members within all private and public business sectors – including SMEs and organisations employing in excess of 100,000 staff. ■

● ***Tel: 0870 9021658 enquiries@ideasUK.com www.ideasuk.com***

● BRITAIN URGED TO HELP SMALL FIRMS BOOST R&D

BRITAIN LAGS BEHIND THE USA and the leading European economies when it comes to research and development, and has much ground to make up if it is to achieve the government's goal of heading the world's innovation league, according to the west's leading economics thinktank.

The Paris-based Organisation for Economic Cooperation and Development (OECD) bracketed the UK with Australia and Ireland in the third rank out of four in its assessment of innovation, judging Britain to have a 'somewhat below-average performance.

In a 'health check' of structural policies to enhance growth, the OECD called on the government to boost spending on public R&D and to direct the financial help it provides for the private sector through tax credits towards small and medium-sized firms.

Jean-Philippe Cotis, the OECD's chief economist, said the strength of the service sector in Britain might explain why its record on patents was no better than average across the organisation's 30 countries. The picture looked less bad, he said, if trademarks and intellectual property rights were taken into account.

"But I would still not describe it as outstanding. The UK has good fundamental research, but improving the links between the public and private sector is a challenge."

To boost innovation, Britain should ensure the long-term capability of the public R&D system by securing adequate funding for the maintenance and upgrading of research infrastructure. It should consider boosting the funds of those universities which have a record of successful collaboration with business.

With Gordon Brown now reviewing the R&D tax credit ahead of this month's budget, the OECD called on the government to improve the effectiveness of the taxpayers' money it spent on boosting innovation.

It said the money would be better spent on smaller firms which were experiencing trouble raising finance rather than on larger firms, where support was now focused. ■

● ***Source: Larry Elliott, economics editor The Guardian, 8 Feb'06 www.guardian.co.uk***

"Greater creativity is a way to greater productivity..." – Sir George Cox

www.wrti.org.uk

THE INVENTORS WEBSITE

CENTRE OF EXCELLENCE Creative Ventures Consortium

Ventured gain...

THE ONE-STOP ROUTE TO COMMERCIALISATION

EVERY NEW technology, product and service requires a different route to commercialisation; and every new technology, product and service will have different needs. Some projects need funding, others a management team and many are sold or licensed to existing companies with the skills and infrastructure to make the project a success.

The Creative Ventures Consortium (CVC) specialises in sourcing and commercialising a range of high-potential products, technologies and services and serves four principal stakeholder groups: inventors, entrepreneurs and technology IP developers; companies seeking new products and services to exploit; investors and funds seeking a range of investment opportunities; and managers with the right skills wanting exciting assignments.

Inventors and entrepreneurs

If you are an inventor, entrepreneur or technology IP developer, CVC will assess your project and recommend the best route to commercialisation by only accepting projects that fit strict criteria.

This might be through joint venture, direct sale or licensing of your new product or service to a corporate partner; raising funds through investment partners to develop the project further and grow the business independently and organically; or providing appropriate skills and a management team to take the project to commercial success.

Companies

For companies seeking new technologies to exploit, CVC provide a one-off or subscription-based service to search out new products and services to suit your criteria. You specify which sectors, products and service types interest you and your company, and the Creative Ventures Consortium attempts to match you with the right innovation.

Investors and institutions

For investors or institutions seekings high value commercialisation projects to invest in, CVC have a range of opportunities requiring sums from £50,000 to £5m. Working with FSA-registered partners, CVC find the investment best suited to clients' requirements, areas of interest and risk profile. ■

● **Contact: Charles Dawes**
Creative Ventures Consortium Ltd
Glebe Place, Pluckley Road
Smarden, Kent TN27 8ND
Tel: 01233 770 884 Fax: 01580 764 795
info@cvconsortium.com
www.cvconsortium.com

WEBSITE OF THE MONTH

www.innovation.gov.uk/randd

Here you'll find information about R&D and innovation, including government support for businesses embarking on R&D projects.

MAGAZINE OF THE MONTH

www.inventorsdigest.com

Starting life as a black-and-white eight-page newsletter in June 1985, *Inventors' Digest* – America's only inventor's magazine – is now a full-colour subscription publication with a free e-newsletter service.

INNOVATION CLINICS *www.businesslinkwessex.co.uk/events*

Are you thinking about developing a new product or process? Have you invented something and don't know what to do next?

Through its series of free Innovation Clinics, Business Link Wessex provides confidential and impartial guidance on such subjects as investigating an innovative idea, developing a new product or process, working with universities, exploiting inventions and intellectual property rights. Innovation clinics are held in the Bournemouth, Portsmouth and Southampton regions.

● ***Advice Hotline: 08454 58 85 58 innovation@businesslinkwessex.co.uk***

To receive free online editions of Inventique, simply follow the instructions on the 'Inventors newsletter' page at www.wrti.org.uk

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