

Issue 72 www.wrti.org.uk

Inventique®

The newsletter of Wessex Round Table of Inventors November 2006

WRTI member and world's first auxetic process in next month's issue

**Next WRTI meeting
WEDNESDAY 13 DECEMBER**
Guest speaker Geoff Allen of MHH Engineering will present a talk on 'successful entrepreneurship'. This will be followed by an 'Inventors Clinic' Q&A. Room HC 017, Herbert Collins Building, Southampton Solent University, commencing at 6.30pm. Guests welcome.

● Non-members wishing to attend should e-mail: secretary@wrti.co.uk or tel: 01420 562 378
Map: www.streetmap.co.uk (SO14 0RP)
www.wrti.org.uk/events

SInC Reports...

The WRTI is delighted to announce that director Mike Herd, right, and staff at the award-winning Sussex Innovation Centre (www.sinc.co.uk), have agreed to write for *Inventique*.



The Sussex Innovation Centre (SInC) provides support for the creation and growth of technology- and knowledge-based companies, and is a nationally recognised business incubator (over 90% of its companies have become sustainable profitable businesses). More than 130 companies, with cumulative revenues of over £170m, have been based at the centre since 1996.

SInC hosts a series of free workshops designed to help Start-ups protect, finance and sell their ideas, and includes opportunities to speak to a diverse range of experts. ■

● Information contact: **Leslie Rudyk**
Tel: 01273 704424 leslie@sinc.co.uk
www.newproductnetwork.co.uk/esep

Double whammy!

LIFELOCK WINS TWO GOLD MEDALS AT BIS2006

WRTI MEMBER Joe Silver, winner of a Silver Medal at last year's British Invention Show with his prototype LifeLock® product, went two better last month by winning Gold Medals in both the Best Invention and Best Design categories at the BIS2006 Awards held at Alexandra Palace in London – making a total of five awards the product has won over the last 18 months.

In addition, club member Frank Landamore won a Bronze Medal in the Innovation category with his Grass Snake Cable Grip™ device.

Joe, Frank and Richard Little of Jenton International were exhibiting at the show thanks to the support of Hampshire Enterprise Gateway

(www.hantsenterprisegateway.co.uk), who sponsored the WRTI stand.

The pocket-sized LifeLock portable door-lock prevents unauthorised access into any room whilst you are inside it, and is especially suitable for business travellers, women travelling alone, holiday-makers, flat sharers, university and gap year students and children on school trips. It is now selling successfully worldwide.

The Grass Snake Cable Grip™ – which helps avoid accidents when operating electric lawn mowers and other gardening equipment – was a Runner Up in the Individual Category at Innovention 2006 and has won a DTI Smart Award. ■

For more BIS2006, see page 3.

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From left: Joe Silver (lifelock.co.uk), Jane Richards (jenton.co.uk) and Frank Landamore (grasssnake.co.uk) on the Hampshire Gateway-sponsored WRTI stand at the British Invention Show.

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

INSIDE Bev Hurley • British Invention Show • Design from Nature • Humoresque • NCGE etc...

HUMORESQUE

from Dave Challice dchallie@bournemouth.ac.uk

LESSER-KNOWN DICTUMS:

- Light travels faster than sound. That's why some people appear bright until you hear them speak.
- The shin-bone is a device for finding furniture in a dark room.
- A fine is a tax for doing badly. A tax is a fine for doing well.
- THE 50/50/90 RULE: Whenever there's a 50/50 chance of getting something right, there's a 90% probability you'll get it wrong.

£10m MOD competition

THE MINISTRY OF DEFENCE is to spend £10m in a bid to identify the best ideas in science, engineering and technology, in order to meet some of its toughest technological challenges.

A *Competition of Ideas* has been developed by the MOD's Research Acquisition Organisation as part of a commitment to develop the defence supplier network and provide investment for science, technology and engineering to SMEs and the academic sector in particular.

The MOD are interested in ideas from any UK supplier, whether industrial or academic, regardless of size or previous experience of defence-related activity.

"We are seeking the best new ideas that can rapidly be turned into equipment for our Armed Forces," said Lord Drayson, Minister for Defence Procurement, when the competition was introduced as part of the Defence Technology Strategy last month. I am well aware how difficult it is for smaller companies and research laboratories to get large organisations interested in their ideas. Through the Competition of Ideas, I believe we will make it much easier for them to approach the MOD."

The competition hopes to inspire the best innovators across the UK to bid for contracts to develop their ideas further to help meet key defence challenges (including so-called 'quick and dirty' solutions to personnel protection).

To be considered in the first review of proposals, submissions must be made by 31 January 2007.

● www.ideas.mod.uk

INVENTORATOR Bev Hurley

East of Eden...

UNIQUE PROGRAMME FOR ENTERPRISING WOMEN

THE ENTERPRISING WOMEN community, a new initiative funded by the East of England Development Agency and the European Science Foundation, was launched across the East of England in June and July. In a region already noted for its high levels of innovation, women entrepreneurs now promote their businesses via an interactive Google map as part of a programme delivered by seven providers.

The scheme is unique in the UK for a number of reasons – first, because of the size and composition of the partnership: for the first time a consortium with expertise in pre-start, start-up, high growth and social and rural enterprise, plus Science, Engineering and Technology (SET), have come together to deliver an ambitious programme of skills improvement, business start-up and growth, performance improvement and job creation. Partners are *Customer First*, *Investors in People* and *Prowess Flagship*-accredited, so support is of the highest quality (several partners are or have been successful entrepreneurs).

Enterprising Women already successfully brings demand-side and supply-side together, including both public and private sectors, focusing on shared objectives and working partnerships. These in turn aid reach and engagement, making specific help much easier for women entrepreneurs and established businesses to find both regionally and nationally (almost 100 have joined so far).

Approximately half the training budget is devoted to post-start growth support, with specific extra provision on key topics such as risk, funding, market development, strategic alliances, and leadership development. This is of critical importance, as women's enterprise budgets have traditionally been

spent almost entirely on pre-start and start-up work; once out in the real world, women often find themselves ill-prepared to reach sustainability and growth.

SET for life

We at YTKO are also working to increase the numbers of women in SET businesses, based on the success of the flagship bioscience fellowship programme they manage for *Yorkshire Forward*, which became the largest bioscience pre-incubation cluster in Europe (a majority of the first new ventures being formed are by women taking their IP to market).

The project has a strong focus on supporting, training and promoting women in business through website publicity, profiles, developing and publicising case histories and news, and PR promotion to the wider UK audience, thus contributing to their success and to the development of new role models.

It achieves these aims through a vibrant online (and face-to-face!) community, and training at all stages and in each county. It also delivers both online and offline information and signposting, mentoring, peer learning and dozens of networking events. The programme is underpinned by YTKO's robust network technology, a sustained marketing campaign, and a 'can-do' entrepreneurial culture throughout the partnership. ■

© Bev Hurley 2006

● Bev Hurley is chief executive of YTKO, a strategic business and marketing consultancy with 25 years experience of science and technology innovation in Europe and the USA.

● www.ytko.com

www.enterprising-women.org

PRECISION MOULDING

COTSWORLD PLASTICS of Nailsworth, Gloucestershire, is regarded as a market leader in the field of technical plastic injection moulding, providing high-quality solutions to diverse manufacturing sectors including electrical and electronic, medical, automotive and packaging.

Cotsworld's 'customer partnership' approach enables them to provide tailor-made solutions to specific challenges through tooling and thermoplastic materials expertise, supported by a design facility which offers both 2D and 3D CAD capabilities.

The company supplies markets in Europe, Asia and the Americas, but maintains close links with UK businesses, from Start-ups and SMEs to global blue-chip organisations.

● www.cdsplastics.co.uk

Meet Bronty...



INVENTED BY mother-of-two Sharon Palmer, the Talking Tooth Friend Timer could soon put many dentists out of work.

Devised to encourage children to brush their teeth for the full two minutes recommended by dental health experts, Tooth Friends 'talk' children into brushing properly by emitting encouraging phrases ("Well done, you're halfway there!") at twenty-second intervals, while the digital timer counts down

the time remaining.

Bronty, the first Talking Tooth Friend in the range, has already featured on BBC2's Dragons' Den, GMTV, BBC Radio Essex and The Big Idea on Sky One, as well as winning the Diamond Award for Innovation of the Year (and a Silver medal for Design) at the British Invention Show.

Talking Tooth Friend Timers are free-standing or can be wall-mounted with the suction cup supplied. Retailing at just £4.99 and with other Friends soon to join Bronty, who'd have imagined brushing your teeth could be so much fun?

● www.toothfriends.com



● **THE MILLI-GRIP** is an adjustable spanner for fitting millimetre nuts and bolts from 2mm to 24mm sizes in exact 1mm increments. It provides the equivalent of a whole box of open-ended millimetre spanners in a single tool – and doesn't lose its grip or burr any edges. With its unique 'fast-fit' button, the Milli-grip instantly and precisely locks onto a nut or bolt, and never loosens its setting during use. No more slippage, no more damage – and no more skinned knuckles! ● www.milli-grip.co.uk

MAKING LIGHT OF IT

With Mains earth-trip fuses becoming the norm, power failures are becoming much more common.

The SafeTlight is the perfect solution, supplying emergency lighting for up to 8 hours during a power failure, yet also acting as a permanent child's night-light which automatically switches itself on when darkness falls, and converting into a powerful torch when removed from its base. Providing an instantaneous emergency lighting system without the need for special wiring, the SafeTlight uses only 3 watts of power and leaves the electric wall socket free to use. ● www.safetlight.co.uk



The right Mix

The Mix™ Insect Bloc is a highly effective insect repellent blended from natural plant extracts in a grape-seed oil base.

"I clearly remember the day 12 years ago when I became aware that I was onto an effective recipe," said creator Paul Barbier.

"I spent 2 days in Ecuador wading through swampy Amazonian jungle, having covered myself in the insect repellent, and by the end I was the only one free of leeches and insect bites." ● www.insectolutions.co.uk



Loc8tor

Have you ever lost or mislaid your iPod, mobile phone, car keys, laptop, briefcase, television remote control – or even your car?

Postage stamp-sized Loc8tor tags attach to an item in seconds – and can even warn you if your pets or children wander off! Loc8tor uses audio beeps and flashing LEDs to help guide you in, and includes a panic button for children. Each handset registers up to 24 tags and can be used in either Locate or Alert modes. ● www.loc8tor.co.uk



mustget1.com

● **ARE YOU AN INVENTOR** or manufacturer of innovative products ideas? Get exposure to thousands of motivated buyers for your items at Mustget1.com. New products often make their debut on the website, either as full launch products or marketing trials. MG1 works closely with inventors and manufacturers of speciality products at an early stage in their development and marketing cycle.

● **Mustget1.com, 7 Harrier Close, Shoeburyness, Essex SS3 8DX**
Tel: 01702 299663 www.mustget1.com

HALF OUR APPRECIATION of food is due to its texture – how it breaks (crispness is associated with freshness, for instance). Here’s an experiment to try during the fruit course at the end of a dinner party. Make sure you have some fresh apples – I find Granny Smiths are pretty reliable.

Prepare two pieces of apple flesh from the ‘equator’ of the apple in cubes of approximately 10-15mm (top right). Bite slowly into the cubes using your front teeth, orientating one of them so that the bite goes radially and the other so that it is tangential (parallel to the core).

If the apple is truly fresh and has been kept properly, you’ll find an obvious difference between the two directions. Bitten radially the apple is crisp, makes a sharp noise when it breaks, but is not juicy. In the other direction there is a lesser, but continuous, noise and bite, and juice is released. Most people cannot believe that two such different textures come from the same apple.

The ‘crisp’ fracture went between the cells and along air channels (middle and bottom right), and so the cells were simply forced apart. But in the other direction the air channels stopped the crack, which then had to be forced through the individual cells, breaking them as it went and releasing juice.

And then, and then?

The real lesson is that there is lots of juice in an apple (about 95%) which also contains nutrients and flavours, and that this juice is contained in strong cells. *This* is the drip-free drink!

However, there are some apples – like the later-maturing Norfolk Beefing, which is only ready in November – which are so dense and have so little air space that they can be sliced, dried and carried around in the pocket as a snack; place the slice of dried apple in water and it will soak it up and, to an extent, recover its moisture.

But why stop at apples? We can package droplets all sorts of materials in semi-permeable membranes using phase separation.

Which leads to the following product description:

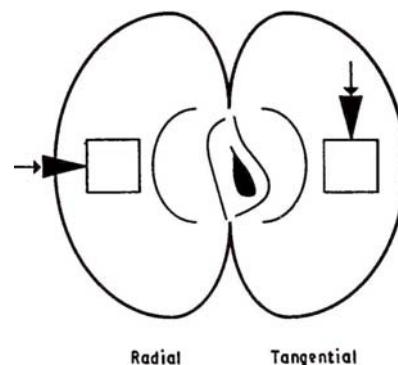
Out on patrol, or exploring the jungle, our intrepid adventurer is alerted by his mobile phone that it’s time for lunch. He reaches into his inside pocket and pulls out a small bar of solid material which he immerses in a conveniently handy pool of water. The bar swells

In accordance with Professor Vincent’s commitment to the principles of Open Access, the ideas presented here are freely available. In demand as a lecturer and consultant to industry, he welcomes consultation or research enquiries by companies and entrepreneurs.

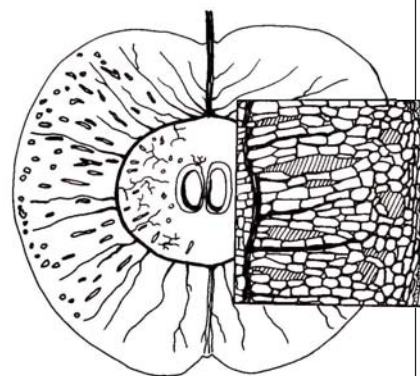
rapidly, revealing different colours along its length.

Our hero starts chewing the bar, experiencing the texture, flavour and nutrition of vichyssoise: the main course is sea-food salad with French dressing, followed by raspberry mousse and some refreshing mint tea!

He possesses other rehydratable packages which include oral medicines and wound dressings, all custom-assembled from packets of dust-like granules which were



Above: Orientations for preparing an apple specimen to bite.



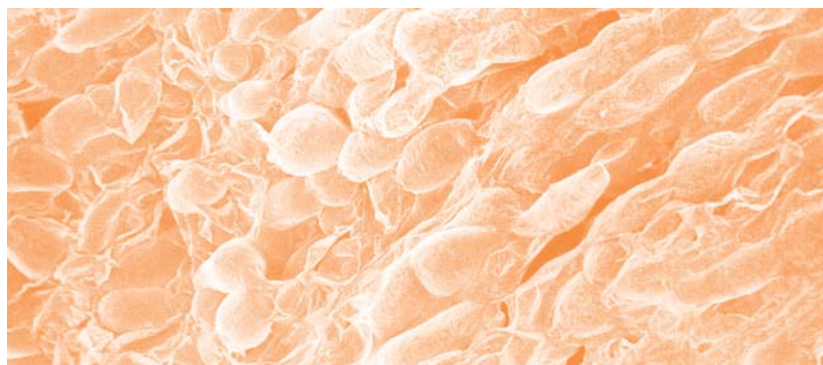
Above: The texture of an apple, showing the orientation of air spaces.

mixed-and-matched at base camp, then dampened and lightly compressed to hold them together.

Our explorer will be back at base well before their expiry date. ■

© Julian Vincent 2006

Below: Cells in the flesh of a Cox’s Orange Pippin. The cells are about 100µm across; the air spaces run diagonally.



Julian F V Vincent is Professor of Biomimetics at the University of Bath. Biomimetics is the concept of taking ideas from nature and implementing them in another technology, such as computing, design or engineering.

● **Professor Julian Vincent, Centre for Biomimetic & Natural Technologies
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www.bath.ac.uk/Departments/Eng/biomimetics**

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"Inventors shouldn't be rolled out when the money rolls in" – Trevor Baylis

www.wrti.org.uk

THE INVENTORS WEBSITE

CENTRE OF EXCELLENCE NCGE

Raising profiles...

INFLUENCING THE ENTREPRENEURIAL GRADUATE

THERE IS particular concern for the role entrepreneurship plays in stimulating technology transfer and the commercialisation of academic research.

The National Council for Graduate Entrepreneurship (NCGE) was formed in 2004 with the aim of raising the profile both of entrepreneurship in general and the option of starting your own business as a career choice amongst students and graduates in particular.

By understanding the circumstances in which graduate entrepreneurship can flourish, NCGE's goal is to influence and inspire an increase in the number of students and graduates who give serious thought to self-employment or business start-up.

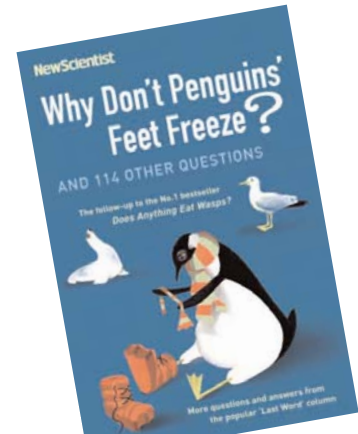
The Council, which is based in Birmingham, is not only focused on graduates starting businesses but on understanding, developing and promoting a culture of

entrepreneurship within Higher Education through research, education and facilitation.

NCGE aims to become the national focal point for graduate entrepreneurship by collaborating with bodies across the UK. Their sponsorship of the Flying Start scheme gives thousands of undergraduates and graduates the opportunity to follow their dreams and start their own business.

Flying Start has three components: one-day rallies aimed at students with ideas but who don't know what to do next; Programmes for students who have a clear business idea that they want to pursue; and an Online community housing a comprehensive graduate funding database for every UK region. ■

● **The National Council for Graduate Entrepreneurship (NCGE)**
3 Priestley Wharf, Holt Street
Birmingham B7 4BN
Tel: 0121 380 3545 www.ncge.com



BOOK OF THE MONTH

Why Don't Penguins' Feet Freeze?

Edited by Mick O'Hare

New Scientist / Profile £7.99
ISBN 1861978766 256 pages

Does Anything Eat Wasps? was the surprise Christmas bestseller of 2005, and put the 'popular' back into popular science. A sure-fire stocking-filler this Christmas, *Why Don't Penguins' Feet Freeze?* is a new selection of the best of New Scientist magazine's popular 'Last Word' column. Every week readers of all ages send in hundreds of questions in the hope that other readers will be able to answer them in the column. The result is a celebration of the trivial, idiosyncratic, baffling and strange – popular science at its most entertaining and enlightening.

BUSINESS LINK WESSEX INNOVATION CLINICS

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 www.businesslinkwessex.co.uk/events

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