

WRTI to appear at the British Invention Show

CLUB TAKE A STAND AT UK's PREMIER SHOWCASE

FIVE MEMBERS of the WRTI will represent the club on stand number D10-12 at the *British Invention Show 2004* at Alexandra Palace from 21 to 24 October.

The annual exhibition, which this year welcomes hundreds of exhibitors from as far afield as Croatia, Eire, Japan and Malaysia, is the showcase event for members of the British Inventors Society (the BIS). During the Show, the BIS will facilitate face-to-face meetings between their management advisory group and inventors.

The show's founder, Kane Kramer – inventor of the MP3 – is also a director of the BIS, whose declared aim is to strengthen the support of UK inventors through the formation of a network of affiliated clubs (ten such clubs will be exhibiting at the show).

An inventor who constructed a hovercraft out of two lawn-mowers at the age of nine and devised the first pocket car alarm at the age of

18, Kane has organised the British Invention Show since its inception three years ago.

So much to see, so little time

Numerous seminars and events will be staged during the exhibition, which will also include stands and presentations by innovative businesses, patent and prototype companies, funding agencies and individual inventors.

Professor Andrew Self, President of the BIS and guest speaker at the *WRTI Annual Keynote Lecture 2004* last July, will be one of those making a presentation at the BIS.

"I feel we are on the verge of a renaissance for invention," said the professor, a successful inventor in his own right and pro-vice chancellor (enterprise) at Kingston University.

Roll of honour

The five WRTI members whose devices are being exhibited are: Brian Stickley of Talking Products Ltd

Next WRTI meeting

WEDNESDAY 13 OCTOBER

Guest speaker Brian Russell from the Hovercraft Museum will give an illustrated lecture in room HC 017, Herbert Collins Building, Southampton Institute, commencing at 6.30pm.

Map: <http://www.solent.ac.uk/location.stm>.

(www.TalkingProducts.com) with his products for the visually impaired; Brian Flynn, inventor of the AutoCone™ (www.autocone.com) in which Balfour Beatty has injected capital and agreed a first option; Shamal Barzanji of Gravity Pumps Ltd (shamalbarzanji@yahoo.co.uk), who has recently entered into a licencing agreement with a Dorset-based group; David Robson, who has developed a system which dramatically reduces call costs for telephone and internet connections; and Eddie Czerniack, who will be exhibiting a revolutionary marine craft designed to reduce wake. ■

● To book tickets for the *British Invention Show 2004*, contact: V11 Ltd, 6 Sun Street, Hitchin, Herts SG5 1AE www.thebis.org info@thebis.org
Tel: 0870 4328111 Fax: 01462 420356
www.britishinventionshow.com

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



VIEW FROM THE CHAIR

THE WRTI LAUNCHED its autumn and winter programme of guest lectures last month, when Dr Martin Wood talked to us about soil technology. (Martin was a last-minute substitute for his Reading University colleague Lester Simmons, who was to have lectured on water technology.) Martin provided us with some fascinating insights, demonstrating how scientific research can sometimes be translated into exploitable commercial products.

As a matter of fact, I had previously worked with Martin in helping him gain a Government grant, a SMART award enabling him to develop techniques to measure activity in soil. As he explained, soil is not only an irreplaceable resource but it is also a valuable commodity. "It's a shame to call it dirt!" he said.

Members will be saddened to hear that our fellow member and friend, irrigation engineer Shamal Barzanji, has returned to his home in Kirkut, Iraq. However, prior to his departure, 'Sam' was able to set up licencing deals for both his Gravity Pump and X-stream Pump projects.

You will also be interested to know that the FanWing article which appeared in last month's issue of *Inventique* coincided with extensive coverage of the device in the Independent newspaper. According to FanWing's inventor, Pat Peebles, this resulted in over 16,000 hits being made on the company's website within 24 hours of the article's publication on 6th September – an extraordinary occurrence.

Sincerely,

David

PROFESSOR DAVID NICHOLAS MBE, Chairman

INVENTORATOR Darrell Mann

The TRIZ chronicles...

FROM THE AUTHOR OF 'HANDS-ON SYSTEMATIC INNOVATION FOR BUSINESS & MANAGEMENT'

THANKS TO Dr Graham Rawlinson's introductory series on TRIZ (*Inventique*, May to December'03, at www.wrti.org.uk), readers will be familiar with the theory of inventive problem solving, developed by Russian patent officer Genrich Altshuller, which can help solve any inventive problem, *writes Darrell Mann*.

Since its inception in 1946, TRIZ has essentially focused on the solving of technical problems. However, the ambition of its original researchers, to place all the world's best innovation practices into one manageable whole, also made it potentially suitable for business situations. This, at least, was my hypothesis as a Rolls-Royce engineer in the 1990s.

Eight years later, following the systematic analysis and distillation of ideas from the 1,800 or so management texts published annually, the fundamental pillars of TRIZ in a business context remained valid; my book *Hands-On Systematic Innovation for Business & Management*, published last month, is the result.

This title represents the world's

first TRIZ-for-business handbook, offering readers a comprehensive insight into what makes some businesses successful while others find themselves treading water (or travelling backwards).

Containing case studies from just about every sector of business – from finance to HR and from marketing to change management – the book does exactly what it says in the title: offer companies the means to create real business innovation solutions in a systematic and reliable manner.

In this regard, I also began presenting workshops and seminars on my research (and the resulting 'systematic innovation tool-kit') to managers and companies from around the globe three years ago, helping them to generate tangible benefits by delivering business and organisation design solutions. ■

© Darrell Mann 2004

● **Hands-On Systematic Innovation for Business & Management**
ISBN 1-898546-73-8

To find out more about this book and the systematic innovation method, log on to www.systematic-innovation.com or contact Darrell at 01275 342960.

News in brief The 6th Annual British Female Inventors & Innovators exhibition, conference and awards will be held at The Café Royal, Regent Street, London W1 on 16-17 February 2005. Hosted by the Global Women Innovators and Inventors Network (GWIIN), a special feature of this year's event is the introduction of a Regional Awards category, enabling each region to identify top innovative women and celebrate their contribution to manufacturing industry and economic growth.

● **Contact:** www.gwiin.com office@gwiin.com Tel: 020 8591 9964

HUMORESQUE A man driving through the countryside thinks he sees a scarecrow in the distance. As he draws closer he realises that the 'scarecrow' is actually a farmer standing in the middle of a field. The driver can't resist asking him why he is standing there. 'Waiting for the prize,' says the farmer. 'What prize is that?' asks the driver. The farmer replies: 'The Nobel Prize for those outstanding in their field, of course!' (Boom, as they say, boom.)

COMMERCIAL GOOD PRACTICE-3

PROTECTING IPR, KNOWING THE MARKET, EXIT ROUTES FOR INVESTORS

INTELLECTUAL PROPERTY (IP) is one of the most important assets a company can own, *writes Rosanna Cooper*. Like other forms of property, it can be licensed, bought, sold, hired or mortgaged.

In order for companies and individuals to maintain the value of their IP, they must ensure a sufficient level of protection, and safeguard against infringing a third party's IP.

A brief checklist of the key intellectual property rights (IPRs) a business needs to protect includes:

Copyright Is the work original? Who owns the copyright in the work? Have copyright notices been placed on all original work?

Designs Is the design original? Is the design commonplace? Who owns the design? *Note that changes in legislation now allow the owner of a design to market it for a 12-month 'grace period' before filing an application to register it.*

Know-how Is the know-how kept secret and identifiable? Have any know-how licences been granted?

Patents Is the invention capable of patent protection? Have the relevant patent searches been carried out? Is there a risk of infringing a third party's patent? Has the invention been disclosed in any form to a third party?

Trade Marks and Brands Who owns the trade mark? Have the requisite trade mark clearance searches been carried out? What is the trade mark filing strategy? What is the risk of infringement and/or passing off?

Protecting as many of a company's IPRs as possible acts as a deterrent to potential infringers or, where their IPRs have been infringed, provides them with a course of action. This is essential risk management – and a crucial strategy when attracting and satisfying the requirements of potential investors.

ROSANNA COOPER CLARIFIES THE LEGAL POSITION FOR INVENTORS AND ENTREPRENEURS

The market

There is no question that many products and services are extremely useful and of good quality. The problem is that if consumers are unaware of them, success is impossible. Similarly, a product aimed at the wrong market simply invites failure. Both scenarios require significant but ultimately unnecessary expenditure.

It is essential to conduct early, effective market research. This should generate answers to questions such as:

Competitors Who are they?

Market barriers Are there any?

Market share What is possible? Is it potentially profitable?

Market trends What are they?

Niche market Is there one? Can it be penetrated?

SWOT analysis Has research identified the strengths, weaknesses, opportunities and threats?

Target market Who/where is it?

It is crucial that realistic forecasts of the market justify the proposition – an unconvincing market is unlikely to improve once you launch into it.

Marketing strategy

Once a market has been identified, a plan of action for penetrating it is required. Investors want to see the big picture, where an obvious, easily-accessible and large target market has been identified. Marketing strategies should convey the following information:

- The identity or segment of the market.
- How to access it (advertising, cold-calling, websites etc).
- The likely success rate of each method.
- How much time, money and resources will be allocated.
- Any contingency plans

Exit routes for investors

The key thing to bear in mind is that an investor's main concern is to obtain a good return on investment (ROI). It is therefore vital to indicate a significant ROI, and just when this might be achieved.

Some investors look to exit from an investment within three to five years (depending on the industry and the level of investment). They want to be able to recoup their initial investment plus interest, or trade in shares which have appreciated in value. The main exit routes open to an investor are:

- **Public Offering (flotation of the company).**
- **Purchase of investors' shares by the company.**
- **Takeover of the company by a third party.**

Consideration of the issues raised in this 3-part article will improve the chances of creating a successful, sustainable business venture. ■

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

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THE INVENTORS WEBSITE

CENTRE OF EXCELLENCE www.queensawards.org.uk

The Royal 'Oui'...

BRITAIN'S ULTIMATE ACCOLADE FOR ENTERPRISE

THE CURRENT round of the *Queen's Awards for Enterprise 2005* is under way, with 31 October 2004 set as the closing date for applications.

The Queen's Awards for Enterprise are the most prestigious business accolades in the UK, celebrating and recognising the activities of companies and individuals who make outstanding contributions to the nation's enterprise culture.

Awards are announced on the Queen's birthday, 21 April; successful nominees are informed shortly before the announcement.

Recipients of the Queen's Awards receive a commemorative engraved crystal item and a Grant of Appointment at an award ceremony at Buckingham Palace in July. The names of those receiving the Awards are published in the London Gazette.

Honours for outstanding UK businesses

Winners receive a range of benefits including worldwide recognition and extensive media coverage. Business Awards are presented in three categories:



● Innovation

Criteria include outstanding innovation sustained over not less than two years, or continuous innovation and development sustained over

not less than five years.

● International Trade

● Sustainable Development

Royal Awards for enterprising individuals

Up to ten Individual Awards are granted each year. A single Lifetime Achievement Award may also be given for consistent, high-quality promotion of an enterprise culture over a substantial period of time.

The Enterprise Promotion category of the Awards is described as 'encouraging or facilitating the kinds of skills and attitudes found in an enterprise environment, whether in a commercial business or social enterprise'.

● How to Apply:

Nomination forms can be completed or downloaded by logging-on to www.queensawards.org.uk, or requested by telephoning 08705 13 44 86.

There is a separate application form for each category of Award. You do not need to be sponsored or nominated.

WEBSITE OF THE MONTH

www.1000inventions.com

A unique online market-place, where inventions from more than 100 countries are offered for sale or licencing by the

International Federation of Inventors' Associations (IFIA), Geneva, Switzerland.

Website supplied by Mike Overy.

BOOK OF THE MONTH

The Notebooks of Leonardo da Vinci

Selected and edited by Irma A. Richter
Oxford World's Classics 432 pages
ISBN 0-19-283897-0 £5.99

MEMBER SERVICES

Entries in this column are free to WRTI Members, who should mail their details to the Editor (see panel at foot of page).

CONCEPT TO MANUFACTURE. Help with presentation, prototyping, technical & manufacturing issues. Contact: Innovate Product Design, 01722 410 295

FREELANCE EDITOR/DESIGNER
Over 30 years book, magazine and partwork experience. Contact: Frank Landamore on 01273 475 184
franklandamore@hotmail.com

ELECTRONICS CONSULTANT with 30 years experience, specialising in wireless and positioning technologies.
Contact: Mike Overy, 01420 562378
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ELECTRONICS ENGINEER Concept to proof of principle. Ex-scientific civil servant. Own lab. Contact: Mike Wright, 01428 722833
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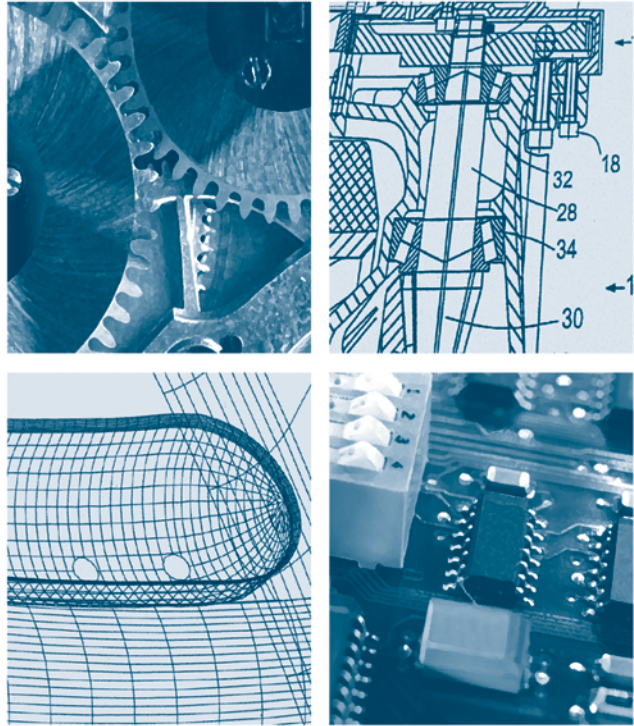
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patent plan

prototype service

**Our Prototype and Engineering Design Centre
for inventors and small companies**

Guiding you through the complex process of innovation
with practical industrial design advice based on
experience to develop your idea from concept to
drawing, prototype or production

Our Prototype and Engineering Design Centre (PEDC)

Background

Taking a new product, such as a new invention or design, from conception to manufacture, and then to the market, is a complicated and vastly underestimated process. It requires a knowledge of a number of different disciplines. A key component is industrial design.

The product needs to be designed not only from an aesthetic point of view but also to make it manufacturable and at a favourable cost. Choosing the right materials, manufacturing process, making the product function properly, and look right, are all part of this exercise, and making an error in the early stages can prove a costly mistake.

PEDC have designed a tried and tested formula to take you down a logical Industrial Design path to help make your product a success.

The method

Before we commence work we usually require an in depth meeting with any potential client where we discuss not only the product but, just as importantly, the commercial objectives. For example at small start-up company might wish to choose a low cost manufacturing process albeit with a product cost penalty to test the market, whereas an existing company may wish to invest in expensive tooling at the outset to obtain an immediate benefit in cost. Another client may be looking to licence the product to an existing manufacturer. These factors would influence our work.

The first stage (CONCEPTS) is to examine a number of different design concepts (usually 2D sketches hand or computer drawn) which might be acceptable, and come up with a number of outline drawings for discussion. From these one is then selected as a final concept design option to move forward with.

This process of examining the various design options at the outset is vital so that one can always be confident at a later date that there is not a better alternative design to the final design selected, and also to be confident of the reasons for selecting the final design.

The second stage (IDGA) is to take the final concept design and draw what is known as an Industrial Design General Arrangement drawing(s) (IDGA). This is an outline design of what the product would look like and include all its functions. This is usually a 2D drawing in CAD.

This drawing(s) can be used, initially, for market research purposes to ascertain views on the final design, and outline costings for the eventual manufacture of the product. The IDGA drawing may be modified based on any feedback obtained on the final design.

The third stage (BLOCK MODEL - optional). In some circumstances it can be desirable to produce a block model of the design. This can be used for example to undertake market research, to prove a principle without the expense of a full prototype, or finalise aesthetic shape.

The fourth stage (PROTOTYPE DRAWINGS) is to convert the IDGA into a detailed engineering prototype drawing suitable to make a prototype. Costings can then be obtained for the production of a prototype.

The fifth stage (PROTOTYPE MODEL) is to have a prototype made. This can be used for market research purposes, pre-selling the product, licensing the product and obtaining more accurate manufacturing quotes.

The sixth stage (MANUFACTURING DRAWINGS) is to create a final manufacturing drawing(s). This usually requires collaboration with a manufacturer and/or tool maker.

As the above method is divided into a series of distinct stages, our clients are always in control of the costs. Our client can also choose not to complete all the stages. For example one may follow the stages just through to an IDGA or perhaps a prototype, e.g. in order to raise funds to take the new product through to manufacture or licence the product.

Each stage is performed only after a meeting with our clients.

Clients are always provided with quotes before work is commenced. In some instances, our clients have raised finance to cover our costs through a DTI grant. We can provide details of grants on request.

Note

When producing a prototype of a product, one is producing a product which has never been made before. This inevitably means that unforeseen issues can arise, which may result in re-scheduling. Also PEDC is responsible for designing a new product and project managing its development, but the actual fabrication of a prototype is usually sub-contracted in good faith to a manufacturer not part of PEDC and this can sometimes lead to issues beyond PEDC's control. All quotes and delivery schedules are made in good faith, but all work is subject to our published terms and conditions available for inspection on request. It is recommended that no contractual obligations are entered into before delivery of a prototype.

The Team



Kit Grundy managing director

Kit Grundy founded our sister company patent plan in 1993 and is also Managing Director. Kit spent seven years working for a leading London firm of Patent Agents and European Patent Attorneys. He then founded a unique service in 1982 to help inventors and small companies license their ideas to industry in the UK and overseas. He is a Director of several other companies. His interest in promoting UK innovation and understanding the problems of producing prototypes has led him to start this unique service.



Graham Thomson design director

Born in Scotland and after achieving a BSc in Industrial Design at Napier in Edinburgh in 1979 and becoming an MCSD, he has spent the last 25 years as a designer/design director in leading industrial design consultancies; Ogle Design, Loewy International and Michael Peters. In 1987 he co-founded his own consultancy, Product first Ltd. He has been responsible for award winning, ground breaking and commercially successful projects from concept to manufacture in International markets including mainland Europe, Scandanavia, America and the Asia Pacific Basin. These have ranged from transport, small and large consumer/capital goods, medical and structural packaging, for companies which include Shell International, Unilever, Kango, Racal, 3M, The inventor, Apple, Ross, and Jaguar. Has been involved in lecturing, research studies and sat on consultative panels for education, government bodies and businesses on all matters pertaining to new product development.

He takes an idea and injects analysis, functionality, aesthetics and ergonomics, integrated with engineering, production methods and materials to produce a truly creative sustainable marketable solution

Our Patent Service

patent plan also provides a minimal cost, personalised service offering patent assistance to inventors and small companies to protect inventions.

Contact us for a brochure on our patent service at the address below.



patent plan

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