JULY 2004

Innovation

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Invetech
BRINGING IDEAS TO LIFE

Editorial

While much of our 'public' focus in recent times has centred on major projects in the USA and Europe, we're still continuing our work with many emerging companies in Australia.

We currently have more than 40 projects underway involving local companies, three of which figure in articles featured in this issue: Rural Industries Research and Development Corporation (RIRDC); Tandou Ltd and Pulmosonix Pty Ltd.

While these three projects again demonstrate the great range and depth of our team's capability, they likewise show the full spectrum of offerings we bring to the 'idea to market' table.

The RIRDC is a prime example of the federal government's commitment to building industries from R&D outcomes while Tandou Ltd came to us for assistance in developing plans for the commercialisation of a technology capable of delivering improved results over conventional wine making processes.

At the other end of the commercialisation scale is our recent work with a publicly-listed medical devices investment company and a Monash University research team looking to develop leading medical devices for diagnosis of respiratory illnesses.

While being able to come up with a product that met the client's requirements was important, it was not the only reason why they chose Invetech as their business partner. As you'll see in this interesting story involving world-competitive moves into the fast-growing respiratory monitoring market, customers realise that in addition to our 'idea to market' offering, Invetech brings a range of other advantages such as world scale and world class capability, proven track record over more than 25 years as well as a passion and keen interest in helping other technology companies succeed.

Indeed, this issue also features our continuing commitment to Victorian and Australian manufacturing excellence through our involvement in the highly successful State Government's 'Innovation Insights' Program.

Paul Wright
Chief Executive Officer

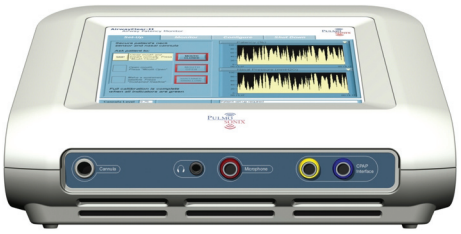
Pulmosonix breathes new life into respiratory diagnostics

Invetech is working with a publicly-listed medical devices investment company and its research team based at Monash University to develop leading medical devices for diagnosis of respiratory illnesses in both infants and adults.

Industry analysts say the products provide major improvements over existing technologies and will be in great demand for both the adult and infant respiratory illness markets, estimated to be worth more than $10 billion annually.

The first instrument under further development by Invetech, in conjunction with ASX-listed Premier Bionics Ltd (PBI) and its subsidiary, Pulmosonix Pty Ltd, located at The Ritchie Centre for Baby Health Research at Monash University, is known as AirwayClear.

It is an upper airway patency monitoring device to be used to help diagnose and monitor Obstructive Sleep Apnea (OSA). OSA refers to closure of the upper-airway during sleep. It is believed to affect more than 5 per cent of the adult population and has been linked to heart attack, stroke and hypertension.



The Pulmosonix upper airway patency monitoring device

Dr Martin Soust, Executive Director and CEO of PBI, said the global OSA market is estimated to be in excess of $1 billion per annum and is growing at around 20 per cent annually and the current market for sleep testing services is believed to be $2 billion.

He said the company expected to have its first concept demonstration prototype ready for testing at the Monash Medical Centre by mid-May, followed by several further refined prototypes by early July.

Dr Soust said that Pulmosonix had previously developed and successfully evaluated a 'robust but basic analog/digital hybrid prototype' prior to contacting Invetech.

Rohan Smith, Invetech Project Manager, said the project involved several key enhancements on the original design, not the least of which was delivering "a flexible, easy-to-use platform incorporating advanced software and digital signal process (DSP) configurations that would facilitate rapid development and lead to a more cost-effective end product," Rohan said.

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Pulmosonix breathes new life into respiratory diagnostics

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This fully-developed digital prototype will be showcased to potential commercial partners (who have already conducted preliminary due diligence on the technology) from July onwards.

Dr Soust said following discussions with several possible technology partners last year, PBI opted to go with Invetech.

"There are several organisations that could have taken away the specifications and built the device, but no one offered a co-development function from which enhancements would be expected as well as the full array of services that Invetech provides – including the ability to provide advanced software and DSP as well as informed input into such critical issues as bio-safety and FDA guidelines," Dr Soust added.

Another application of Pulmosonix's technology is the development of a lung inflation monitoring device, known as the PulmoSonde, for use primarily in babies in neonatal intensive care units.

Dr Soust says there is currently no established method for measuring adequate lung inflation in premature babies. "Most premature babies require several weeks of assistance in breathing via mechanical ventilation systems, which cannot tell if the infant's lung is over or under inflated.

"This can lead to chronic scarring of the lung or even a punctured lung leading to ailments that the babies will carry into adulthood. The PulmoSonde will overcome these problems and allow non-invasive lung monitoring of newborn infants suffering respiratory distress," Dr Soust explained.

> *" … the project involved … delivering a flexible, easy-to-use platform incorporating advanced software and digital signal process (DSP) configurations that would facilitate rapid development and lead to a more cost-effective end product … "*

He added the global market size for the PulmoSonde is estimated to be in excess of $200 million a year. The cost of this intensive care is substantial, estimated to average $25,000-$30,000 per surviving infant. By reducing the average time spent in intensive care per baby, Dr Soust believes that use of the PulmoSonde could result in substantial cost savings for neonatal intensive care units worldwide.

"We hope to be able to move the PulmoSonde forward quickly to the point where we are able to utilise the services of Invetech again to help us develop a device for clinical evaluation," Dr Soust concluded.

Sleeping easy … Pulmosonix expects great demand for both the adult and infant respiratory illness markets.

Invetech stocktake helps rural R&D group yield new 'crops'

A peak Australian rural industries funding body has turned to Invetech for help in identifying and fast-tracking projects that show major commercial potential for land owners and rural businesses.

Although this sounds like a straightforward assignment, The Rural Industries Research and Development Corporation (RIRDC) has managed more than 7500 projects since its inception in 1990.

The RIRDC currently funds about 175 new projects each year across such diverse industry sectors as agro forestry, essential oils and plant extracts, new animal products, pasture seeds, rare natural animal fibres, rice and chicken meat. Annual expenditure averages about $23 million with funds coming from Commonwealth appropriations, voluntary industry contributions, industry levies and Commonwealth dollar-for-dollar matching amounts. These funds are frequently supplemented by other research partners.

"While not as big as some of the other statutory Corporations in Australia, we are certainly the most diverse," said Dr Simon Hearn, Managing Director of RIRDC. "We've turned to Invetech for assistance in helping us not only assess the commercial potential of more than 100 internally selected projects, but also improve our ability to capture the benefits of the R&D investment."

Recent RIRDC-funded research projects have ranged from commercial wattle plantations and eucalypt-fired power stations to harvesting free range gourmet snails and looking at ways in which agro forestry and native foods can assist Aboriginal communities. The corporation also works with the horse, Asian foods, wildflower and honeybee industries.

"It's an extremely exciting and challenging assignment which began with a comprehensive review of more than 100 projects and now involves working with RIRDC managers to develop business plans for the most promising ones," said Dr Colin White, Invetech's Manager, Commercialisation Strategy.

Dr White said each project has been scrutinised under a complex matrix of issues, including: How does any Intellectual Property support the commercial development of the technology? What are the size, segmentation and outlook for the target markets? What is the nature and cost point of the competition? How attractive is the technology or product likely to be relative to the observed competition? How strong is the value proposition for potential customers in each target market segment? and what are the key technical and commercial risks?

"We've been very pleased with Invetech's work to-date and believe we've established a good working partnership for future activities," Dr Hearn concluded.

Invetech inFIGorates new wine initiative

Invetech figured prominently in securing a major federal food grant for a collaborative venture aimed at lifting the recovery of wine from grapes.

The project, being spearheaded by Mildura-based agribusiness Tandou Ltd, obtained a boost when it secured a $1.3 million grant through the National Food Industry Strategy's (NFIS) Food Innovation Grant or FIG program.

Through the NFIS, the Australian Government is providing $34.7 million under the FIG Program to help industry develop innovative solutions to drive market expansion. FIG provides matching funding to food businesses undertaking R&D projects leading to commercialisation in the food business.

Tandou's receipt of the FIG grant was announced by Senator Judith Troeth in February and is aimed at developing a novel marc processing scheme for lifting the recovery of wine from grapes.

The lost wine departs the winery in a stream called 'marc,' which, in addition to the lost wine, is composed largely of grape skins and seeds. Grape marc that has been heavily pressed may still contain over 50% liquid. This liquid is wine or juice. Currently, this wine or juice is lost with the marc or at best, only small amounts of the alcohol are recovered.

The key to the process is the re-engineering of a technology currently employed to extract useful material from the residue left after traditional juice extraction from such substances as cranberries and oranges. The process has been created by Predict International who are Tandou's partner in the commercialisation journey.

Mr Bob Smith, Tandou's CEO, said "The receipt of the FIG grant has been vital to assist in verifying the quality, yield and benefits of the process and contacts made through this grant has enabled us deliver the quality needed for our UK exports."

Dr Colin White, Manager of Commercialisation Stratgegy for Invetech, "The food industry is a major contributor to Australia's GDP and exports amount to more than $20 billion. The FIG scheme provides a major growth industry with a practical means of managing risk in highly innovative and challenging projects."

NFIS is an industry-led, Australian Government-funded company that drives the national food strategy, which is a five-year blueprint for growth in the Australian food industry. It is overseen by a joint government-industry council comprising six Australian Government Ministers and leading figures from the food industry.

Mr Paul Ford, General Manager Innovation at the NFIS said "The Australian Government is providing nearly $35 million under the FIG Program to help industry develop innovative solutions to drive market expansion. The scheme is open to all food businesses and matches funding for R&D projects leading to commercialisation."

Food Innovation Grants will range in value from $25,000 through to $1.5 million. The focus is on addressing science and technical issues that will lead to a commercial benefit to your business and to Australia.

For further details contact: Paul Ford, (02) 6270 8800, Colin White, (03) 9211 7700 or Bob Smith, (03) 5018 6500.

Learning from the best

More than 65 visits occurred last year in the Innovation Insights program, with more than 1,000 attendees visiting and observing best practices at such operations as Alcoa, Placard Pty Ltd, Air International, Nissan Casting, Kodak Australasia and Holden Engine Operations.

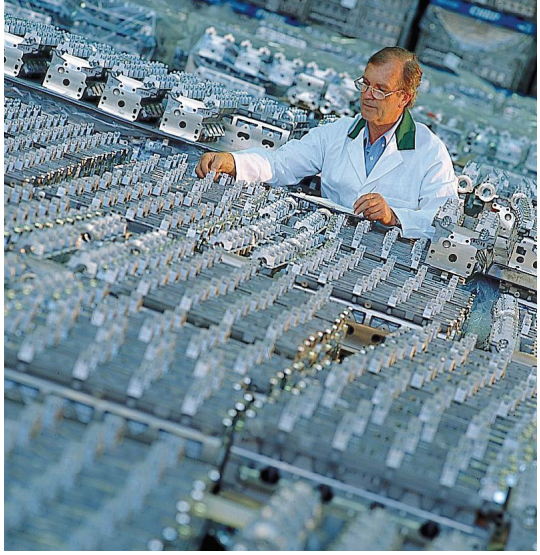
"The Innovation Insights Program is an excellent opportunity for manufacturers to learn from each other, to observe new technologies at work in a hands-on setting and gain a competitive advantage in today's international marketplace," said Dr Jon Hodson, Director, Manufacturing Innovation at Invetech, and program co-ordinator.

Innovation Insights is based on similar programs run overseas in the UK and Canada. Hundreds of small to medium-sized manufacturers have taken part in the shop-floor visits since the Canadian version started in 1998. Recent independent exit surveys of participating organisations have reported that nearly 75% believed information gained during the visits will prove useful while 95% said their objectives were achieved.

" ... While much of this [internet-based] information may be valuable, it can't compare with 'hands-on' access where you not only get to go on the shop floor, but talk to the staff and learn about other people's experiences ..."

While still early days, recent exit polls from attendees have revealed that 50% said the program had led to changes in their own companies. Positive changes have been implemented in everything from plant layouts and colour schemes to ordering systems and inventory management.

"I went on the Internet and keyed in 'continuous improvement' and came up with over three million entries. While much of this information may be valuable, it can't compare with 'hands-on' access where you not only get to go on the shop floor, but talk to the staff and learn about other people's experiences," says Annmarie Darcy, Training & Process Improvement Manager for paint manufacturer PPG Industries Australia.



"As a large regional manufacturer, our staff have very limited exposure to the ways other businesses operate - especially to companies employing such best practice principles as continuous improvement, lean manufacturing and Six Sigma. Innovation Insights has addressed this limitation," said Dana Hofheins, Director of Operations at Ballarat-based FMP Group, (formerly Bendix Mintex).

Innovation Insights, which is being managed by Invetech, a division of Vision Systems Limited on behalf of the Victorian Government, includes the following support organisations: AEEMA, Australian Industry Group, AME, AMTIL, FIMMA, Geelong Manufacturing Council, ManSA, NorthLink, NIETL, PACIA, Peter Walsh Consulting, SmartLink, South East Networks, City of Greater Dandenong, WREDO and WorkSafe.

Innovation INSIGHTS

Fact File: Innovation Insights is a three-year program established by the Victorian Government working in close cooperation with Invetech and other industry partners. Its main objective is to demonstrate innovative best practices to small to medium manufacturers through a series of half-day, shop-floor visits.

Register online at www.innovationinsights.com.au or call the toll-free number – 1800 007 730 – to request a program brochure and registration form.

Come and see us in 2004 ...

Each year Invetech presents its skills and services at various exhibitions and trade shows around Australia and around the world. The table below outlines where we'll be on show in the next few months. Please feel welcome to contact our Marketing Department, via e-mail <kmc@invetech.com.au>, for more information on any of the exhibitions.

Exhibition	Location	Dates	Services
AACC	Los Angeles Convention Centre, Los Angeles CA	27-29 July	Product Development
MDN Showcase	Melbourne Convention Centre, Australia	10-11 Aug	Product Development
10th Asian Pacific Congress of Clinical Biochemistry	InterContinental Burswood Resort, Perth WA	20-23 Sept	Product Development
Automate	Melbourne Exhibition & Convention Centre, Australia	5-7 Oct	Manufacturing Innovation
Ausbiotech - Going Global	Brisbane Convention & Exhibition Centre, Australia	7-10 Nov	Product Development
Medica	Dusseldorf Trade Fair Centre, Dusseldorf, Germany	24-27 Nov	Product Development

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