

ETPLicit

Exploit Technologies Pte Ltd Is The Commercialisation Arm of A*STAR

JUL - AUG 2005



>THE CHAIR SPEAKETH

When we started ETPLicit more than two years ago, our objective was to bring you the highlights of Exploit Technologies' activities; such as successful licensing of our researchers' inventions, incubation projects and development in legal, intellectual property management, technology and competitive intelligence.

We continue to search for innovative ways to improve the quality of the newsletter and that is why we are launching our new layout design with this issue.

The focus has not changed, and in this issue, you'd learn about Exploit Technologies' press conference in July to announce its investment to translate A*STAR's RFID technologies into commercially viable applications. Our aim is to make it easier for companies in Singapore to implement RFID.

In the same month, we joined Veredus Laboratories in the launch of their diagnostic kits. The avian influenza and malaria kits were developed with technologies developed by GIS and IMCB/NUS respectively, licensed from Exploit Technologies.

Our Incubation and Spin-off Management team also embarked on a series of roadshows with talks by CEOs to A*STAR research institutes to inspire you with the opportunities for incubation and spin-offs of A*STAR technologies.

We know that it is only with your input that we can make this a dynamic and useful publication for you. We welcome your views and suggestions.

Boon Swan Foo



>HOW MUCH DOES A PATENT COST?

Typical costs of a patent application that is prepared, filed, prosecuted, granted, and maintained in Singapore for twenty years is about S\$30,000.

Whether above or below the S\$30,000 depends on:

- Complexity of subject matter that is being patented;
- Existing known matter or prior art, relevant to the subject matter, that have been published or patented;
- Responsiveness of both inventor and patent practitioner during preparation and prosecution of the patent application; and
- Duration for which the patent for the patent application is maintained after grant.

The S\$30,000 does not include an inventor's time in supporting a patent practitioner in filing and prosecuting the patent application.

The S\$30,000 also does not include the costs of filing in one or more other countries. To patent the same subject matter in other countries, a general estimate is about S\$20,000 per additional country. If not commercially useful or if freedom to operate on subject matter for research is not intended, then is there a need to patent?

Contributed by Ho Cheng Huat
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>BATTLING AGAINST INFECTIOUS DISEASES

Veredus Laboratories Pte Ltd launched its three patented molecular diagnostic kits using home-grown technologies licensed from Exploit Technologies Pte Ltd and the National University of Singapore.

This includes the Avian Influenza H5N1 Diagnostic Kit utilising proprietary nucleic acid diagnostic primers developed by GIS and the Malaria Diagnostic Kit based on technologies developed jointly by IMCB and NUS.

Veredus believes it can fill the gap for the growing international need for rapid diagnosis and proactive public health management. It believes that in the battle against the Avian Influenza Virus of the H5N1 strain, the government and private

sector will see the benefit of using Veredus well-tested kits as a tool for public health epidemiology, surveillance or diagnosis as the virus is mutating rapidly and poses a clear and present danger of creating a deadly avian flu pandemic.

Contributed by Kwan Meng Hui
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>EXHIBITION HIGHLIGHTS

Exploit Technologies partnered our research institutes in three exhibitions in June 2005 to generate greater awareness of our researchers' work:



CommunicAsia 2005



BIO 2005



Drug Discovery and Development

>RFID'S BIG BOOST

In a press conference on 21 July 2005, Exploit Technologies announced that it will invest \$10 million over three years to execute proof of concept (POC) proposals for A*STAR's RFID technologies with industry and end-users.

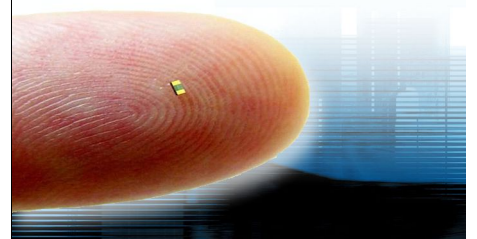
These technologies include development of the world's first integrated RFID tag with an on-chip antenna (OCA) that has read/write capabilities with passive RF power by the Institute of Microelectronics (IME).

Forward-looking major consumer electronics retailer, BiG by Safe Pte Ltd, is one of the companies which responded to the call. It is exploring development of an RFID track-and-trace system for all items in its stores and warehouses.



Others that have responded to Exploit Technologies' initiative include the National Library Board for a Smart Shelf System and Smart ID Technology Pte Ltd for passive Ultra High Frequency electronic seals. Exploit Technologies is also exploring applications such as tamper-proof RFID tags for pharmaceutical and logistic supply chain management solutions.

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>PATENTING OR TRADE SECRETS

How do you decide if you should file for patents or trade secrets?

The rule of thumb for making this decision is: As an inventor, if you can “reverse engineer” a product and assess that there are traces of your technology in the product, then the technology is better protected as a patent as it can be defended in court.

However, if by reverse engineering, you are unable to find any trace of your technology, then the technology is better kept as a trade secret.

The most prized trade secret may be the formulation for Coca-Cola. By keeping the formulation a secret, it generates a lot of revenue for the company. Likewise, many petrochemical companies (eg Royal Shell, ExxonMobil, etc.) and consumer chemical companies (eg Procter & Gamble, Unilever, etc.) keep their most important processes as trade secrets and not patents. It is because there are no by-products from these

processes that could be detected from the end product, but the company gets an additional marketing boost (and in return, revenue boost) from using these processes.

However a trade secret is very difficult to defend in court. So companies must strategise and rationalise the benefit of keeping a process as a trade secret as IP leakage may become an issue that would dissuade venture capitalists from funding the company.

So should you file for patent or keep it as a trade secret? It's a hard decision that must be made.

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>CEO TALKS

The Incubation and Spin-Off Management (ISM) Division announced its series of CEO Talks last year. This year, ISM is combining the CEO Talks with a roadshow that is making its rounds to the research institutes.

The team hopes to inspire researchers and scientists with the opportunities for spin-offs and incubation of technologies.

ISM will be inviting Chief Executive Officers from its portfolio of spin-off companies, venture capitalists and other entrepreneurs to provide first hand account of their experience in managing their companies.

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>BENCHMARKING IN COMPETITIVE INTELLIGENCE FOR R&D PRODUCTIVITY



Benchmarking is a targeted effort to gather just enough information and perspective to suggest improvements in productivity within the context of one's own culture and strengths. The approach of "Focus, Source, Analysis, Impact" can define a benchmarking framework.

Case 1: Technology Platform – Can you benchmark Technology X across the industry?

Focus:

Client has certain inefficiencies hampering its team productivity. It wishes to identify "best practices" companies, what they have accomplished through implementation of this technology platform and how they distributed resources.

Source:

Technical meetings, vendor and industry analyst communities; open source searching (eg. trade, journals, press releases, etc); external conference presentations and on-site Q&As; non-confidential interviews with vendors and industry analysts

Analysis:

- (a) Cluster technology elements and practices relative to its maturity level (eg. "mature" if widely adopted with vendors available for outsourcing, "growth," or "emerging" if it is still unproven);
- (b) Assess competitive advantage of companies (eg. leader, adopter, follower) in these clusters and
- (c) Assess gaps or advantages relative to the company for each cluster

Impact:

Suggest options for optimised implementation of this technology across the company. To explore adoption of several best practice (including mature) concepts through technology investment, leveraging in-house and outsourced technologies

Case 2: Licensing- Can you benchmark R&D licensing?

Focus:

Company's in-house R&D can no longer sustain desired productivity and outsourcing is an attractive option. To benchmark successful competitors' R&D licensing functions and organisation structure

Source:

Trade literature that feature "best partner" vision statements of companies; companies that work on direct model of licensing; interview with potential outsourcing company

Analysis:

Credible comparison of outsource company's status compared with the vision of successful competitors

Impact:

To result in management commitment to change and focus decision making on which model to choose

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 CLASSIFIED

A*STAR's Exploit Technologies and the National University of Singapore (NUS) are jointly organizing the first Asian leg of the Idea to Product (I2P™) Competition. This competition will involve participants from some of Asia's more prestigious technology universities, including China, Japan, Taiwan, Hong Kong, India and Singapore. The semi-final and final presentation rounds will be held at the Biopolis on September 26-27 2005.

Modeled after the annual I2P™ International Competition hosted by University of Texas, the competition aims to foster interest in technology commercialisation through increasing



awareness of available technology, developing contacts and building experience in developing and presenting the merits of technology and associated investment opportunities. Participation is by invitation only.

For more information, please go to <http://www.exploit-tech.com/news/eventDetail.asp?UID=57>

