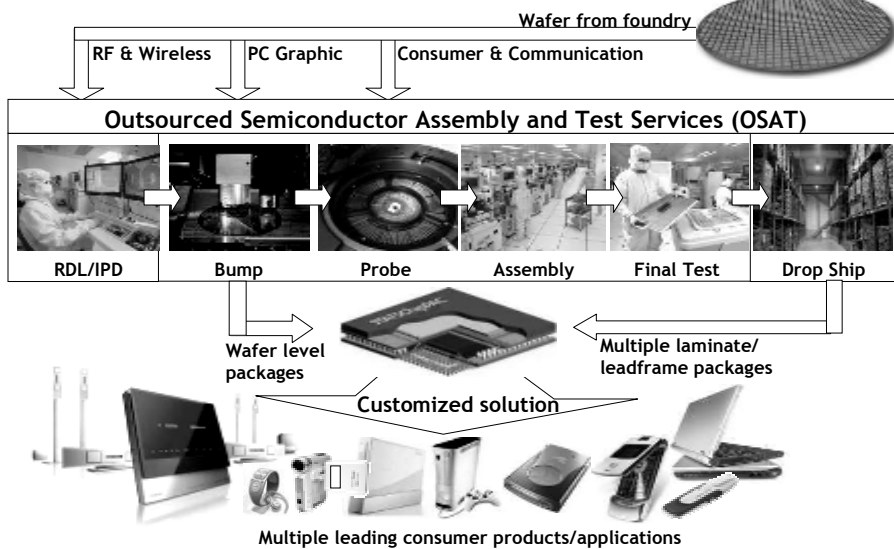


## Trading Ideas 2009

### Successful Commercialisation Strategies and Models

30-31 July 2009  
Singapore

#### What We Do - Total Turnkey Solutions



## Technology Leadership

### Awards Demonstrate R&D Capabilities

- Advanced Packaging's 3D Technology Award for FiPoP (2007) and fcPiP (2008)
- 381 US patent applications filed and 49 US patents awarded in 2008

STATS ChipPAC's Fan-in PoP  
Technology Recognized by  
Advanced Packaging Magazine Award



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STATS ChipPAC

## 7th CNBC Asia Business Leaders Awards

### STATS ChipPAC CEO Tan Lay Koon Named Asia Innovator of the Year



#### Asia Innovator of the Year 2008

The Asia Innovator of the Year Award recognizes Mr. Tan Lay Koon of STATS ChipPAC for his leadership in an organization that has innovation at its very core. STATS ChipPAC is a leader in semiconductor design, test, probe, assembly, and test and electronic assembly. Leading semiconductor companies worldwide look to STATS ChipPAC for world class packaging and test solutions. Mr. Tan's leadership has helped STATS ChipPAC to win Advanced Packaging Awards for excellence in 3D packaging technology for the past two years, and under his guidance, STATS ChipPAC has filed over 380 patents, that as of 10/31/08, comprises over 1000 patents over the past three years.



Mr. Tan encourages employees to work creative innovations, offering annual bonus for new invention, and rewards for employees whose technical papers are published in notable journals. His encourage suggestions from employees, and rewards those who offer suggestions that lead to improvements in processes, customer service, product quality, and other aspects of STATS ChipPAC's work. Mr. Tan has effectively fostered an environment that inspires and encourages innovation, making STATS ChipPAC a worldwide leader in a high tech industry. [STATS ChipPAC]

Source: CNBC Asia Pacific

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STATS ChipPAC

## Why invest in IP?

IP is used to improve company's competitive position and mitigate risk

### Defensive reasons:

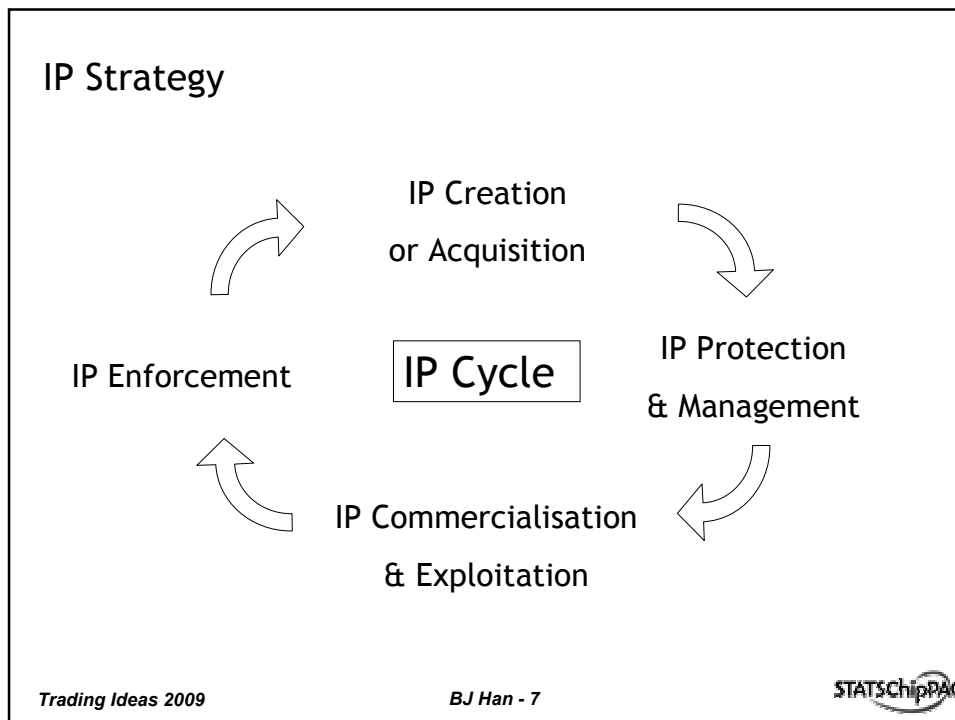
- Protect new products, processes and services
- Operation Freedom
- Prevent others from entering market (creating barrier)
- Prevent lawsuits

### Strategic reasons:

- Use for business negotiation (e.g., licensing, capital raising)
- Build up reputation
- Market leadership
- Market freedom

## Criteria for successful IP exploitation

- A well developed IP Strategy is needed for IP to be
  - Recognised
  - Identified
  - Secured
  - Registered
  - Protected
  - Exploited
  - Enforced



## IP Strategy

### IP Creation / Acquisition

Instilling Company IP Culture & Awareness is critical for successful IP creation/acquisition

- Staff awareness and education program about IP
- Induction of new staff about IP
- Encourage disclosure of IP by staff to employer
- Target R&D activities towards patentable or patented inventions
- Liaise with (in-house and external) lawyers and/or patent agents during R&D for continuous protection
- Reward and Recognition program for staff who create IP and disclose it to employer
- Benchmark and license if needed

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STATSChipPAC

## IP Strategy

### IP Protection & Management

#### IP Registration

- Identify the process and criteria for:
  - Selection of IP for business priority (Review Board)
  - Choice of registration timing
  - Choice of protection (jurisdictions)
- IP portfolio management and field concentration

#### Confidentiality

- Staff will maintain confidentiality and will not disclose any company information without a Non-disclosure agreement.
- To have Non-disclosure agreements with business partners

## IP Strategy

### IP Commercialisation & Exploitation

#### IP Audit & Valuation

- Identify IP you have.
- Identify IP that can be or already commercialised.
- Identify IP/technology that can be or already licensed.

#### IP Commercialisation

- Integration with Marketing during R&D development for business strategy towards commercialisation
- Exploit IP to maximum potential by clear product design/development procedure integrated IP management

## IP Strategy

### IP exploitation

- Licensing: Inward-Licensing (licensee) or Outward-Licensing (licensor).
- Cross-licensing: Negotiating tool to obtain licenses from other companies
- Business needs to decide commercialisation degree
  - Defensive protection for a period of time
  - License to allies
  - License to public including competitions
- Strategic Alliances
- Joint Venture/Collaboration
- Using IP to raise funds or increase valuation
- IP Sale & Auction

## Licensing

Licensing and Cross-Licensing is most commonly ways for commercialising inventions and exploitation of IP.

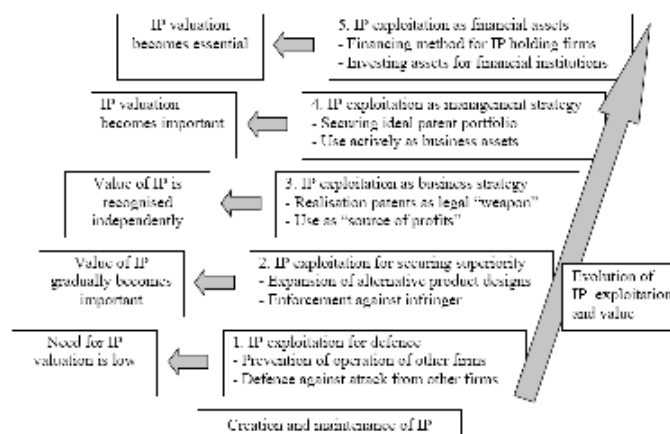
### Advantages & Disadvantages of Outward-Licensing

Advantages	<ul style="list-style-type: none"> <li>• Additional revenue stream through royalties</li> <li>• Companies having limited resources (e.g. manufacturing capacity) can benefit by engaging another company to commercialise its product. E.g., Fabless Semiconductor companies</li> <li>• New market penetration through new distribution networks of licensee</li> <li>• Means of turning an infringer/competitor into an ally or partner</li> <li>• Some degree of control of subsequent technology innovations &amp; development direction</li> <li>• Many companies sharing the same technology license can form together to set up standard-setting bodies, turning patented technology into industry standard</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Can generate higher profit than royalties if commercialising alone</li> <li>• Licensee may be/become competitors that can erode future profits</li> <li>• Additional resources required for technology transfer to Licensee</li> <li>• Licensee is ineffective in develop and market the patented technology (i.e. no royalty revenue)</li> </ul>

### Advantages & Disadvantages of Inward-Licensing

Advantages	<ul style="list-style-type: none"> <li>• Provide access to technologies and market which are already established</li> <li>• Faster development and increase speed-to-market of new products</li> <li>• Lesser cost than developing own technology</li> <li>• Lower risk (customer acceptance and new investment) if the product is already commercialised and mature</li> </ul>
Disadvantages	<ul style="list-style-type: none"> <li>• Profit erosion due to royalty payment</li> <li>• May license technology that is not "readily developed"</li> </ul>

### Various stages of IP exploitation



Source: Abuzgama, 2003

## IP Strategy

### IP Enforcement

- Patent monitoring:
  - To continuous obtaining technical and commercial information of the product/technology
  - Patent mapping: mapping the landscape of patents owned by own company and others
- Arbitration and negotiation in licensing contracts
- Injunction to infringed products

### IP philosophy

- Defensive or Offensive?