Hong Kong Science Park - Optimising Synergies

Nicholas Brooke, Chairman
Hong Kong Science & Technology Parks Corporation
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Hong Kong Science Park

- Statutory body incorporated in 2001 under Hong Kong Science and Technology Parks Corporation Ordinance
- Operate according to commercial principles
- Board comprises non-executive Chairman and 15 non-executive directors from a wide range of backgrounds
Role of Government

- Essentially the only shareholder
- Made available site
- Provided initial funding for hard and soft infrastructure - US $1 billion
- Thereafter Corporation on its own and has to make ends meet
Economic growth is underpinned by technological progress - new and better ways of doing things.
Initial Drivers

- Effect of the Asian financial crisis on the wider economy
- Traditional economic pillars of finance and services being challenged
- Urgent need to build a knowledge-based, more balanced and diversified economy
- Major potential for technology-based innovation to influence/change our lives for the better
HKSTP – Vision

- To be the flagship for technology industry innovation in Hong Kong
- To position Hong Kong as a major international centre for innovation and technology development for high value-adding, skill-intensive manufacturing and service industries
Hong Kong Science & Technology Parks Corporation

Hong Kong Science Park

InnoCentre

Industrial Estates
HKSTP – Mission

- To provide quality infrastructure and support facilities for innovation and development of selected technology clusters
- To provide full-service incubation programme for technology start-ups
- To foster partnership and collaboration between industry and universities and applied research institutes
HKSTP - Campus

- State-of-the-art physical and soft infrastructure
- Three-phase development with Phase 1 and 2 currently comprising 20 buildings
- Ultimate development will cover 330,000 square metres
- Knowledge-based campus environment occupying 22 hectares
- Home for 250 companies ranging from start-ups to established multi-nationals
Companies in HK Science Park

- Hong Kong
- USA
- Mainland China
- Japan
- Taiwan
- France
- Germany
- Netherlands
- Singapore
- UK
- Canada
- Austria
- Belgium
- Korea
- Sweden
- Denmark
- Norway
- New Zealand
- Italy
Creating Clustering Synergy

- Precision Engineering
- Biotechnology
- Information Technology & Telecommunications
- Electronics
- Green Technology

HKSTP
World-class Niche Technologies

HKSTP

- Green Technology 綠色科技
- Electronics 電子
- Biotechnology 生物科技
- Precision Engineering 精密工程
- IC Design for Mobile Devices 移動裝置集成電路設計
- RFID 無線射頻識別
- Information Technology & Telecoms 資訊科技及電訊
- Building Energy Management 建築能源管理
- Environmental Engineering 環境工程
- Thin Film PV Solar Cells 薄膜光伏電太陽能電池
- LED 發光二極體
- Environmental Engineering 環境工程
- Thin Film PV Solar Cells 薄膜光伏電太陽能電池
- LED 發光二極體
Cluster Distribution
(as at 31 Aug 2009)

Partner Companies + Incubatees
Total No. of Companies = 279

- Electronics: 29%
- IT & Telecoms: 39%
- Precision Engineering: 12%
- Biotech/Life Science: 8%
- Green Tech: 8%
- Services: 4%
Services

- Technical support
- Incubation Programme
- R&D commercialisation and raising of angel fund
- Networking and mentoring support
- Universities and industry collaboration
- Talent Pool Programme
- Training and education
Incubation Programme

- 100 companies currently in programme
- 213 companies incubated to date including four IPOs
- Active angel/venture capital raising programme (raised HK$584m since 2003)
- Incubatees from all five clusters
Technology Support Laboratories

- Integrated Circuit Design & Development Support Centres
- Reliability Laboratory
- Materials Analysis Laboratory
- Biotechnology Laboratories
- Photovoltaic Test Lab
- Intellectual Property Servicing Centre
- Wireless Communication Test Centre
- Solid State Lighting Test Centre
- Hong Kong RFID Centre
Development support through laboratory services from design to production release within a 15 minutes walk.
Other Soft Infrastructure

- Indoor exhibition area & technology exposition
- Auditorium & Conference Centre
- Business Centre
- Serviced Apartments
- Fitness and Recreation Club
- Lakeside alfresco amenity areas
- Retail & dining facilities
- Banking services
- Medical clinic
- Bakery shop
Supporting Local Companies

(as at 31 Aug 2009)

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<tr>
<th></th>
<th>Local</th>
<th>Foreign</th>
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<tr>
<td>Incubatees</td>
<td>88%</td>
<td>12%</td>
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<tr>
<td>Partner Companies</td>
<td>58%</td>
<td>42%</td>
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Number of Partner Companies: 107
Number of Incubatees: 82
Hong Kong Science Park Enabling Growth and Innovation

**Phase 1 + 2**
(Current)

- 279 Companies
- 7,000 People
  - R&D: 4000
  - Supporting staff: 3000
- Estimated 2009 Annual Turnover
  HK$62b

**Phase 1 + 2 + 3**
(Projected)

- 450 Companies
- 15,000 People

Projected Phase 1 + 2 + 3
Looking Ahead
Science Park – Phase 3

- HKSTP plans to develop Phase 3 as a green tech cluster focusing renewable energy and environmental industries and green technology development and internationalisation.
- Commissioned Ove Arup to undertake Sustainability Master Planning Study.
- Plans to commission study to identify focus areas in green tech which would best position Hong Kong and most benefit the Mainland.
Challenges

- Low understanding and acceptance of R&D in business community
- Private investment in R&D is low
- Limited VC to support developing companies, especially incubatees
Overview of Technology Development in Hong Kong

The number of R&D personnel in business sector in 2007 was **4.6 times** over that in 1998.

**Number of R&D Personnel**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
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<tr>
<td>1998</td>
<td>2,750</td>
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<tr>
<td>2007</td>
<td>12,700</td>
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Overview of Technology Development in Hong Kong

Annual R&D expenditure by the business sector in 2007 was **3.8 times** over that in 1998.

Source: Census and Statistics Department, HKSAR
R&D Spending as % of GDP 2006

SOURCE: OECD, Main Science and Technology Indicators, 2008
Opportunities

- Hong Kong-Shenzhen (PRD) Business Model
- Mainland’s energy and environmental agenda
- World class research from Hong Kong’s universities
- Support development of the six economic pillars
Example – DuPont Apollo Ltd

- R&D facilities in Hong Kong and manufacturing capabilities in Shenzhen, forming a full value chain:
  - Hong Kong to contribute R&D talents
  - The Shenzhen Municipal Government to provide land and other facilities to support the downstream development and manufacturing of solar energy products

- Generate clustering effect -- DuPont is in discussion with the Nano and Advanced Materials Institution in HK for further co-operation
Hong Kong-Shenzhen Business Model

Other Examples – ICT Cluster

![Image of various company logos]
Hong Kong-Shenzhen Business Model

Other Examples – Electronics Cluster
New economic pillars recommended by the HKSAR Government

HKSTP’s five focused clusters

Testing & Certification
Innovation & Technology
Environmental Industry
Medical Services
Cultural & Creative Industries
Educational Services
Electronics
Information Technology & Telecoms
Precision Engineering
Biotechnology
Green Technology
The End

Thank you