



**Creation of a Favourable  
Ecological Environment  
for Facilitating Realisation  
of R&D Results**

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- I) Mission
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- III) Hong Kong Mainland Collaboration
- IV) How to Dovetail National 12<sup>th</sup> Five-Year Plan

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**I) Mission**

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- Government seeks to -
  - Reinforce the innovation and technology sector as an impetus for economic growth
  - Spearhead Hong Kong's drive to become a world-class, knowledge-based economy


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## II) Existing Support Provided by the Government

- Hardware
- Software


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### Hardware

#### A. Hong Kong Science Park

- Home to over 350 companies
- Phase 3
  - Expenditure: \$ 4.9 billion
  - Completion by phases between 2013-2016
  - Additional GFA ~105,000 sq m; 4,000 R&D related jobs
- 5 clusters
  - electronics; precision engineering, biotechnology, green technology and ICT industries



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#### B. Hong Kong Cyberport

- Strategic cluster of quality IT and related companies




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### Software

- A. Funding Support – Innovation & Technology Fund (ITF)
- B. R&D Centre Programme
- C. Promoting Use of Innovation and Technology in Public Sector
- D. Reinforcing Innovation and Technology Culture

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**A. Funding Support – ITF**

- Set up in 1999
- 4 programmes – support R&D and non R&D projects
  - Up to 50% of the R&D expenditure of an ITF project can be spent outside Hong Kong
- Funding commitment since inception – over \$6 billion


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**Four Funding Programmes** (Limit – except for GSP, HK\$21 million)

- Innovation & Technology Support Programme (Two major types)
  1. Platform Projects: 10% from industry; 90% from ITF  
Industry does NOT own IPs
  2. Collaborative Projects: 50% from industry; 50% from ITF  
Industry will own IPs
- University-Industry Collaboration Programme (50 % from industry; 50% from ITF; Industry will own IPs)
- General Support Programme (GSP; for non-R&D activities)
- Small Entrepreneur Research Assistance Programme (SERAP) (Dollar-to-dollar matching basis; maximum HK\$4 million from ITF)

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**Recent reform of ITF**


**Funding Scope**

- **Vertical extension** - Production of samples/prototypes and user trial via government department, public bodies and trade association) => Move away from paper research to real world applications.
- **Follow-on funding** (e.g. second phase)
- **Horizontal extension** - Funding for cluster projects towards a common goal (e.g. 3 different projects to combat water pollution at a certain location)

**Assessment Framework**

- More comprehensive to facilitate commercialisation

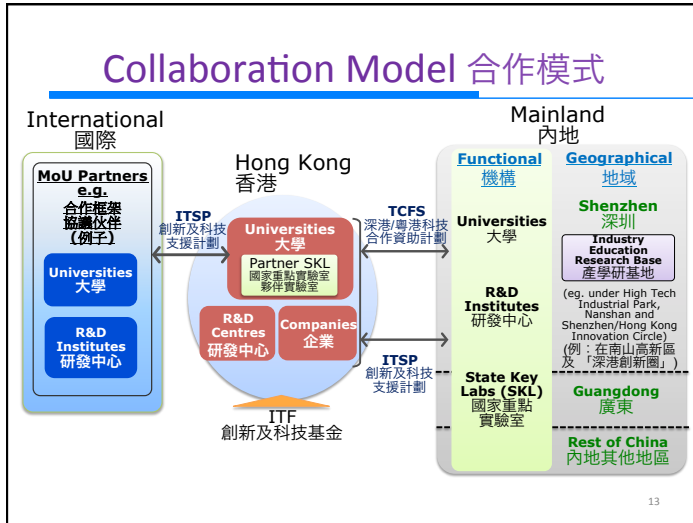
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**New Assessment Framework for Innovation and Technology Support Programme (ITSP)**

Components	Weighting
(1) Scientific Component	20%
(2) Technical Capability	20%
(3) Financial Considerations	16%
(4) Existence of a Holistic Plan to Realisation/ Commercialisation	16%
(5) Relevance with Government Policies or in Overall Interest of the Community	12%
(6) IP Rights and Benefit Sharing	8%
(7) Management Capability	8%

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### B. R&D Centre Programme

- 5 R&D Centres
  - 1) Nano & Advanced Materials Institute (NAMI)
    - Nanotechnology and advanced materials
  - 3) Research Institute of Textiles and Apparel (RITA)
    - Textiles and clothing
  - 5) Automotive Parts and Accessory Systems (APAS)
    - Automotive parts and accessory systems
  - 7) Logistics & Supply Chain Management Enabling Technologies (LSCM)
    - Logistics and supply chain management
  - 9) Applied Science and Technology Research Institute (ASTRI)
    - ICT

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### C. Promoting Use of Innovation and Technology in Public Sector

- ITC serves as a conduit to match user needs with technology know-how developed by innovators/researchers;
- ITC provides funding: ITF and Cash Rebate Scheme;
- Government users to provide inputs on user requirements to Innovation and Technology suppliers, ie. matching demand with supply;
- Government departments and public bodies to conduct trial use of research deliverables;
- User feedback after trial use would facilitate innovators/researchers to fine-tune research outputs to products more in line with market demand;
- Innovation and Technology suppliers build referenceability.

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### Projects

- LED lighting
- E-Lock-based enabling technology for monitoring the container cargo transshipment process
- E-Learning Pilot Scheme
- RFID Tags and Management System for tracking new born babies in hospital
- RFID Tags and Management System for Paediatric Mixed Specialties Ward (detect and avoid close contact between male and female patients)

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**D. Reinforcing Innovation and Technology Culture**


- General Public and Young Generation
  - Enhance awareness of our community, in particular the young generation, of the importance of innovation and Technology to economic development.

*Eg. InnoTech Month*
- University Students
  - Nurture young talents to become future leaders in science, technology and innovation.

*Eg. Innovation and Technology Scholarship Award Scheme*
- Industry
  - R&D centres actively showcase their latest R&D achievements for cultivating collaboration opportunities with the industry.


*Eg. NAMI Showcase 2011  
ASTRI Industry and University Consultation Forum*



## III) Hong Kong & Mainland Collaboration

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### ■ Cooperation at All Levels

- Guangdong & Shenzhen
- Central

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### Guangdong & Shenzhen

- Guangdong/Hong Kong Technology Cooperation Funding Scheme (粵港科技合作資助計劃) set up since 2004
- Co-operation agreement on "Shenzhen/Hong Kong Innovation Circle" (深港創新圈) signed in May 2007
  - Shenzhen-based BYD Co. Ltd signed a MoU with Hong Kong research institutes to jointly develop electric vehicles. It will also set up an R&D centre in Hong Kong Science Park
- Industry-Education-Research Base (產學研基地)
  - Four Universities in Hong Kong have already established their base in the site

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## Central Level

### National 12<sup>th</sup> Five-Year Plan

- Dedicated chapter on Hong Kong
  - Nurturing emerging industries and developing the **six industries – innovation and technology**; medical services; environmental industries; testing and certification; education services; cultural and creative industries where Hong Kong enjoys clear advantages, and their expansion into the Mainland.
- Key targets/strategies
  - GDP ↑ 7% p.a. (from RMB 39.8 trillion in 2010 to RMB 55.8 trillion in 2015)
  - Services ↑ 4% (from 43% of GDP in 2010 to 47% of GDP in 2015)
  - Urbanisation rate ↑ 4% (from 47.5% 2010 to 51.5% in 2015)
  - R&D expenditure: **2.2% of GDP by 2015 (cf 1.7% of GDP in 2009)**


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## The Seven Emerging Strategic Industries


1. Next Generation Information Technology
2. Energy Conservation & Environmental Protection
3. New Energy
4. Bio-industry
5. Advanced Equipment Manufacturing
6. New Materials
7. New Energy Automobile

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## IV) How to Dovetail National 12<sup>th</sup> Five-Year Plan


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## Matching of 12<sup>th</sup> FYP Foci and Efforts in Promoting Innovation and Technology of HK


Emerging Industries	HK R&D Centre	Partner SKL	Science Park Cluster	Trades Identified by Hong Kong Council for Testing and Certification to Focus on
1. Next Generation Information Technology	•ASTRI •LSCM	Partner SKL of Millimeter Waves (CityU)	Electronics, information technology & tele-communications	Information and communications technologies
2. Energy Saving & Environmental Protection	•ASTRI •NAMI	Partner SKL of Marine Pollution (CityU)	Green technology	Environmental Protection
3. New Energy	•NAMI	Partner SKL on Synthetic Chemistry (HKU)	Green technology	Environmental Protection

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Emerging Industries	HK R&D Centre	Partner SKL	Science Park Cluster	Trades Identified by Hong Kong Council for Testing and Certification to focus on
4. Bio-industry	•ASTRI (medical devices)	<ul style="list-style-type: none"> <li>•Partner SKL of Molecular Neuroscience (HKUST)</li> <li>•Partner SKL for Liver Research (HKU)</li> <li>•Partner SKL of Emerging Infectious Diseases (HKU)</li> <li>•Partner SKL of Brain and Cognitive Science (HKU)</li> <li>•Partner SKL of Oncology in South China (CUHK)</li> <li>•Partner SKL of Chirosciences (PolyU)</li> <li>•Partner SKL of Phytochemistry and Plant Resources in West China (CUHK)</li> <li>•Partner SKL of Agro-biotechnology (CUHK)</li> </ul>	Bio-technology	Chinese medicine

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Emerging Industries	HK R&D Centre	Partner SKL	Science Park Cluster	Trades Identified by Hong Kong Council for Testing and Certification to focus on
5. Advanced Equipment Manufacturing		Partner SKL of Ultraprecision Machining (PolyU)	Precision Engineering	
6. New Materials	•NAMI	Partner SKL on Synthetic Chemistry (HKU)		
7. New Energy Automobile	<ul style="list-style-type: none"> <li>•APAS</li> <li>•HKPC</li> </ul>		Green technology	Environmental Protection

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