Controlling officer: the Commissioner for Innovation and Technology will account for expenditure under this Head.

Estimate 2009–10	\$518.5m
<b>Establishment ceiling 2009–10</b> (notional annual mid-point salary value) representing an estimated 162 non-directorate posts as at 31 March 2009 rising by one post to 163 posts as at 31 March 2010	\$70.4m
In addition, there will be an estimated seven directorate posts as at 31 March 2009 and as at 31 March 2010.	
Commitment balance	\$281.2m

## **Controlling Officer's Report**

## Programmes

Programme (1) Support for Research and DevelopmentProgramme (2) Fostering University- Industry CollaborationProgramme (3) Promotion of Technological EntrepreneurshipProgramme (4) Planning for Innovation and Technology DevelopmentProgramme (5) Infrastructural Support	These programmes contribute to Policy Area 17: Information Technology and Broadcasting (Secretary for Commerce and Economic Development).
Programme (6) Quality Support	This programme contributes to Policy Area 15: Health (Secretary for Food and Health) and Policy Area 17: Information Technology and Broadcasting (Secretary for Commerce and Economic Development).
Programme (7) Subvention: Hong Kong Productivity Council, Hong Kong Applied Science and Technology Research	This programme contributes to Policy Area 17: Information Technology and Broadcasting (Secretary for Commerce and Economic Development).

#### Detail

# **Programme (1): Support for Research and Development**

Institute Company Limited

	2007–08	2008–09	2008–09	2009–10
	(Actual)	(Original)	(Revised)	(Estimate)
Financial provision (\$m)	22.1	22.4	24.0 (+7.1%)	<b>25.5</b> (+6.3%)

(or +13.8% on 2008–09 Original)

### Aim

2 The aim is to promote and support applied research and development (R&D) activities which can contribute to innovation and technology upgrading in industry.

# **Brief Description**

**3** The Commission achieves this aim by providing funding support and putting in place appropriate infrastructural facilities to encourage applied R&D activities. Of particular relevance is the Innovation and Technology Support Programme (ITSP) under the Innovation and Technology Fund (ITF) administered by the Commission. The ITSP supports applied R&D projects with a view to transferring the results to companies in the relevant industry. The Commission also administers the Patent Application Grant (PAG) to provide funding assistance to local companies and individuals applying for patent registration of their own inventions so as to help ensure that the outcome of their R&D efforts is properly protected.

**4** To strengthen Hong Kong's research capability for technological development and to stimulate the growth of technology-based industry in Hong Kong, the Commission has been working closely with the Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI) in strengthening its institutional and research capabilities to support the activities of its R&D Centre for Information and Communications Technologies (ICT R&D Centre). The ASTRI's subsidiary, the Hong Kong Jockey Club Institute of Chinese Medicine Limited (HKJCICM) promotes and supports the modernisation and further development of Chinese medicine in Hong Kong. The work of the ASTRI and the HKJCICM will be further described under Programme (7).

**5** To support the further development of innovation and technology with emphasis on five key elements, i.e. focus, market relevance, industry participation, leverage on the Mainland, and better co-ordination among different elements of the innovation and technology programme, five R&D centres were established in April 2006 to drive and co-ordinate R&D efforts in the technology areas of nanotechnology and advanced materials, textile and clothing, automotive parts and accessory systems, logistics and supply chain management enabling technologies, and information and communications technologies. The R&D projects carried out by these centres, except for those contract researches the full costs of which are borne by sponsoring companies, will be funded mainly by the ITF.

**6** To enhance the level of collaboration on R&D between organisations in Hong Kong and those in the Guangdong Province, the Guangdong-Hong Kong Technology Cooperation Funding Scheme (TCFS) was introduced under the ITSP in September 2004. The TCFS supports applied R&D projects which will facilitate the economic development in the Greater Pearl River Delta (PRD) region. In 2008, the Commission, the Guangdong Provincial Department of Science and Technology and the Shenzhen Bureau of Science, Technology and Information continued to jointly invite applications for the Scheme.

7 The performance under this programme is reflected in the extent to which the applied R&D activities receiving funding support are of relevance to industry and the extent to which the R&D centres, the ASTRI and the HKJCICM accomplish their research programmes effectively. Performance indicators in respect of the ITSP, TCFS, R&D centres, ASTRI and PAG are as follows:

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## Indicators

	2007 (Actual)	2008 (Actual)	2009 (Estimate)
	(Retual)	(Actual)	(Estimate)
ITSPY	107	102	2(0)
applications received and processed	137	192	360#
projects funded and being monitored	116	137	172#
TCFS			
applications received and processed	51	71	61
projects funded and being monitored	90	101	111
R&D centres' projectso			
Automotive Parts and Accessory Systems R&D Centre			
new projects	9	12	11
projects funded and being monitored	9	21	32
Hong Kong R&D Centre for Information and			
Communications Technologies			
new projects	35	45	62
projects funded and being monitored	51	94	124
Hong Kong R&D Centre for Logistics and Supply	01		121
Chain Management Enabling Technologies			
	8	9	14
new projects projects funded and being monitored	8	17	31
Nano and Advanced Materials Institute	0	17	51
	5	10	21
new projects	5 5	10	31
projects funded and being monitored	5	15	46
Hong Kong Research Institute of Textiles and Apparel	10		
new projects	13	15	25
projects funded and being monitored	13	28	52
ASTRI projects funded and being monitored <sup>^</sup>	25	9	1
PAG			
applications received and processed	131	103	103
projects funded	79	63	63
* *			

 $\Psi$  The figures do not include applications submitted by or projects undertaken by the five R&D centres and the ASTRI, which are reported under the indicators "R&D centres' projects" and "ASTRI projects funded and being monitored".

<sup>#</sup> The projected increases are due to the planned additional calls for entry for ITSP in 2009.

All projects (including TCFS projects and feasibility studies) undertaken and/or monitored by R&D centres are included.

^ The figures do not include projects undertaken by the ICT R&D Centre hosted by the ASTRI, which are reported under the indicator "R&D centres' projects". Since 2007, all new ASTRI projects are undertaken by the ICT R&D Centre.

# Matters Requiring Special Attention in 2009–10

- 8 During 2009–10, the Commission will continue to:
- administer the various funding programmes and monitor progress of the funded projects;
- support the activities of R&D centres with emphasis on technology transfer of funded projects;
- enhance collaboration on R&D between Hong Kong and Guangdong under the TCFS; and
- work closely with the ASTRI and the HKJCICM in strengthening their research capabilities and developing and implementing their research projects and transferring technologies to industry for commercialisation.

## Programme (2): Fostering University-Industry Collaboration

	2007–08	2008–09	2008–09	2009–10
	(Actual)	(Original)	(Revised)	(Estimate)
Financial provision (\$m)	6.3	6.6	7.0 (+6.1%)	<b>7.5</b> (+7.1%)

(or +13.6% on 2008–09 Original)

## Aim

9 The aim is to promote university-industry partnership in R&D projects.

# **Brief Description**

10 The Commission achieves this aim through administering the University-Industry Collaboration Programme (UICP) under the ITF to support commercial R&D projects undertaken by private companies in collaboration with local universities. Companies in the private sector are encouraged to invest and to leverage on the knowledge and resources of local universities through three schemes under the UICP, namely, the Teaching Company Scheme, Matching Grant for Joint Research, and Industrial Research Chair Scheme. The Teaching Company Scheme provides financial incentives to local companies to take on graduate students from local universities to assist in proprietary R&D work. Under the Matching Grant for Joint Research, private companies will contribute half of the project cost, in respect of R&D projects taken up jointly with local universities. They will also be able to hold the intellectual property rights arising from the projects. The Industrial Research Chair Scheme provides funding support to research efforts of universities and industry in technology fields which are not yet developed in Hong Kong but have good development potential.

11 The UICP received a total of ten applications requesting \$8.7 million in 2008.

12 The key performance indicators are:

## Indicators

	2007	2008	2009
	(Actual)	(Actual)	(Estimate)
UICP applications received and processed projects funded and being monitored	11 43	10 28	10 24

## Matters Requiring Special Attention in 2009–10

**13** During 2009–10, the Commission will continue to administer the UICP and monitor progress of the funded projects. Moreover, to encourage more private companies to collaborate with universities in undertaking R&D activities, the Commission is considering whether the geographical restriction of the Programme might be relaxed in 2009.

# Programme (3): Promotion of Technological Entrepreneurship

	2007–08	2008–09	2008–09	2009–10
	(Actual)	(Original)	(Revised)	(Estimate)
Financial provision (\$m)	6.7	7.7	7.5 (-2.6%)	<b>7.1</b> (-5.3%)

(or -7.8% on 2008–09 Original)

# Aim

14 The aim is to promote technological entrepreneurship in Hong Kong and provide essential support to technology-based entrepreneurial activities.

## **Brief Description**

**15** The Commission provides funding support to technology-based entrepreneurial activities through the Small Entrepreneur Research Assistance Programme (SERAP) of the ITF and the Applied Research Fund (ARF). The SERAP provides financing at the pre-venture capital stage for start-ups to carry out R&D activities and to conduct market validation. The ARF provides funding to technology companies in Hong Kong at the venture capital stage. In addition, the Commission works closely with the Hong Kong Science and Technology Parks Corporation (HKSTPC), which operates an incubation programme to provide technology start-ups with support in marketing, finance, technology and management in their critical initial years of operation.

- **16** During 2008–09, the Commission:
- administered the SERAP and the ARF programme;
- publicised the SERAP funding scheme via talks and seminars;
- published the SERAP Company Directory for 2009;
- organised topical seminars for SERAP companies;
- reviewed the SERAP programme to enhance effectiveness;
- provided networking support to some SERAP and ARF companies; and
- · monitored the management of SERAP and ARF companies.
- 17 The key performance measures are:

## Targets

	Target working days	2007 (Actual)	2008 (Actual)	2009 (Plan)
informing applicants of the result of their SERAP applications after receipt of full information	50.0	46.7	42.8	45.0
Indicators				
		2007 (Actual)	2008 (Actual)	2009 (Estimate)
SERAP applications received and processed projects funded and being monitored		38 79	53 87	68 82

The performance under this programme is also reflected by the extent the incubation programme is successfully run by the HKSTPC.

# Matters Requiring Special Attention in 2009–10

- 18 During 2009–10, the Commission will continue to:
- · administer the SERAP and oversee the ARF to support technology start-ups;
- provide value-adding services to companies participating in the SERAP and the ARF;
- · monitor progress of the funded projects; and
- pursue the exit of ARF projects through fund managers.

## **Programme (4): Planning for Innovation and Technology Development**

	2007–08	2008–09	2008–09	2009–10
	(Actual)	(Original)	(Revised)	(Estimate)
Financial provision (\$m)	22.9	37.3	34.9 (-6.4%)	<b>33.6</b> (-3.7%)

(or -9.9% on 2008–09 Original)

#### Aim

**19** The aim is to support the formulation and co-ordination of innovation and technology policies and sustain public awareness of innovation and technology.

### **Brief Description**

20 The Commission provides secretariat support and policy input to the Steering Committee on Innovation and Technology, chaired by the Secretary for Commerce and Economic Development, in examining policy issues and co-ordinating the various elements of the Government's programme and resources to promote innovation and technology.

**21** The Commission supports technology co-operation with the Mainland, and participates actively in relevant regional activities which help promote innovation and technology.

**22** To enhance public awareness and understanding of the importance of innovation, technology and design, the Commission organises promotional events locally and administers the General Support Programme (GSP) under the ITF to fund projects such as seminars and exhibitions which help foster an innovation and technology culture.

**23** An Internship Programme was introduced under the GSP in July 2004 for universities with projects funded under the ITSP or the Matching Grant for Joint Research Scheme of the UICP to recruit interns to assist in the projects. It aims to provide opportunities for graduates from tertiary institutions to acquire research/industrial experience, stimulate the interest of graduates in applied R&D activities and help create a larger pool of research talents.

**24** During 2008–09, the Commission:

- extended the Internship Programme to the five R&D centres established under the ITF and private sector companies undertaking ITF-funded projects;
- continued to implement the strategic framework for innovation and technology development under which five R&D centres have been established to drive and co-ordinate applied R&D in selected technology focus areas;
- supported and provided input to the policy deliberations of the Steering Committee on Innovation and Technology;
- enhanced technology co-operation with the Mainland at the central, regional, provincial and municipal levels through various co-operation mechanisms, including the Mainland/Hong Kong Science and Technology Cooperation Committee, the Pan-PRD Joint Conference on Regional Cooperation in Science and Technology, the Guangdong/Hong Kong Expert Group on Cooperation in Innovation and Technology, and the Steering Group on Shenzhen/Hong Kong Co-operation in Innovation and Technology;
- organised the Innovation Festival 2008 to promote innovation, technology and design to the general public in
  particular the youth. Activities of the Festival included the InnoCarnival, roadshows, seminars, and technology
  and design workshops;
- organised the Hong Kong Student Science Project Competition and arranged members of the winning teams to participate in an exchange tour to the Mainland;
- oversaw the operation of the Hong Kong Youth Innovation Club which provides a sustainable and interactive platform to nurture youth innovative talents;
- organised the Hong Kong Youth 3D Animation Competition 2008 which encourages the youth to develop their
  potentials in innovation, technology and design through the promotion of three-dimensional animation technology;
- funded the establishment of the Hong Kong RFID (Radio Frequency Identification) Centre and the production of a ten-episode television series 'TechnoFrontier' to promote an innovation and technology culture by showcasing the importance of and achievements in innovation and technology in Hong Kong;
- nominated entries from the Hong Kong Special Administrative Region in two categories of the State Science and Technology Awards, namely, the State Technological Invention Award and the State Scientific and Technological Progress Award;
- processed applications for setting up state key laboratories in Hong Kong and submitted recommendations to the Ministry of Science and Technology;

- organised a 'Hong Kong Pavilion' and a 'Shenzhen-Hong Kong Innovation Circle Pavilion' at the China Hi-Tech Fair 2008; and
- participated actively in the Asia-Pacific Economic Cooperation (APEC) Industrial Science and Technology Working Group (ISTWG).
- 25 The key performance indicators are:

Indicators

	2007 (Actual)	2008 (Actual)	2009 (Estimate)
GSP			
applications received and processed	8	8	8
projects funded and being monitored	4	5	7
Internship Programme			
applications received and processed	23	30	<b>600</b> ^
projects funded and being monitored	25	37	<b>625</b> ^

^ The projected increases are due to the extension of the Internship Programme to the five R&D centres established under ITF and private sector companies undertaking ITF-funded projects.

### Matters Requiring Special Attention in 2009–10

26 During 2009–10, the Commission will continue to:

- strengthen technology co-operation with the Mainland through the Mainland/Hong Kong Science and Technology Cooperation Committee, the Pan-PRD Joint Conference on Regional Cooperation in Science and Technology, and the Guangdong/Hong Kong Expert Group on Cooperation in Innovation and Technology, and the Steering Group on Shenzhen/Hong Kong Co-operation in Innovation and Technology;
- administer the GSP (including Internship Programme) and monitor progress of the funded projects;
- promote innovation, technology and design culture to the general public and nurture more creative young talents;
- · nominate entries for the State Science and Technology Awards;
- assist the Ministry of Science and Technology in implementing and monitoring the State Key Laboratory Scheme;
- organise the 'Hong Kong Pavilion' at the China Hi-Tech Fair 2009; and
- participate in the APEC Industrial Science and Technology Working Group.

# **Programme (5): Infrastructural Support**

	2007–08	2008–09	2008–09	2009–10
	(Actual)	(Original)	(Revised)	(Estimate)
Financial provision (\$m)	64.1	76.3	76.6 (+0.4%)	<b>77.6</b> (+1.3%)

<sup>(</sup>or +1.7% on 2008–09 Original)

## Aim

27 The aim is to develop world-class support infrastructure to facilitate technological upgrading and development of the industry and to promote innovation and design.

### **Brief Description**

**28** The Commission achieves the aim through planning, supporting and overseeing technological infrastructural projects; and participating actively in the formulation and implementation of policies by other government bureaux and departments which impinge on innovation and technology development in Hong Kong. The Commission works closely with relevant industry support organisations such as the HKSTPC, the ASTRI, the HKJCICM, the Hong Kong Productivity Council (HKPC) and the Hong Kong Design Centre (HKDC) in the process.

**29** To strengthen Government's support for design and innovation, and to promote wider use of design and innovation in industries to help them move up the value chain, the Commission implements the DesignSmart Initiative with a funding commitment of \$250 million. The Initiative comprises a Design Support Programme (DSP) and the InnoCentre. The DSP operates four funding schemes to support projects in four categories - design research; design/business collaboration; design professional continuing education; and fostering the culture of design. The InnoCentre is jointly operated by the HKSTPC and the HKDC for creating and sustaining a cluster of high value-added design activities among design professionals and companies, where creative ideas with functionality will be stimulated, nurtured, researched, promoted, commercialised and branded.

- **30** During 2008–09, the Commission:
- worked closely with the HKSTPC on its policy directions, including the completion of Phase Two of the Hong Kong Science Park (HKSP) at Pak Shek Kok, and giving consideration to the long-term development of the HKSP and to the study on the repositioning and revitalisation of the Industrial Estates;
- worked closely with the ASTRI in strengthening their institutional and research capabilities to develop its ICT R&D Centre;
- monitored the delivery of value-added support services to the manufacturing and related service industries by the HKPC;
- monitored the operation of HKDC and worked closely with the HKDC to promote design as a value-added activity and integrate it into business processes;
- administered the DSP and worked closely with the HKSTPC and the HKDC to develop the InnoCentre for the design cluster; and
- sponsored the Hong Kong Young Design Talent Awards 2008 organised by the HKDC seven awardees received sponsorship to undergo training or work attachment overseas, two of them were funded by the Commission and the other five by industry and educational institutions.
- 31 The key performance indicators are:

#### Indicators

	2007	2008	2009
	(Actual)	(Actual)	(Estimate)
DSP applications received and processed projects funded and being monitored	91 86	99 137	147 158

‡ Applications are on an increasing trend as more companies/organisations are aware of the DesignSmart Initiative and the value of design.

#### Matters Requiring Special Attention in 2009–10

- **32** During 2009–10, the Commission will continue to:
- work closely with the HKSTPC on its various development and business plans, including the study on the repositioning and revitalisation of the Industrial Estates and the implementation of the appropriate recommendations arising from the study;
- assist in the long-term development of the HKSP;
- assist the ASTRI in strengthening its R&D capabilities and lead research programmes in the four focus areas of communications technologies, consumer electronics, integrated circuit (IC) design and opto-electronics;
- assist the HKJCICM in developing research and assisting local Chinese medicine development;
- assist the HKDC in promoting design and encouraging the use of design to add value to our goods and services and Government's interface with the public;
- administer the DSP and monitor progress of the funded projects;
- work closely with the HKSTPC and the HKDC to operate the InnoCentre for the design cluster; and
- follow up the recommendations of the Director of Audit's Report No. 51 on the administration of the DesignSmart Initiative.

#### **Programme (6): Quality Support**

	2007–08 (Actual)	2008–09 (Original)	2008–09 (Revised)	2009–10 (Estimate)
Financial provision (\$m)	51.4	54.7	55.1 (+0.7%)	<b>57.4</b> (+4.2%)
				(

(or +4.9% on 2008–09 Original)

#### Aim

**33** The aim is to promote internationally accepted standards and conformity assessment services to underpin technological development and international trade.

#### **Brief Description**

**34** The Commission achieves this aim through the operation of the Standards and Calibration Laboratory (SCL), the Product Standards Information Bureau (PSIB), and the Hong Kong Accreditation Service (HKAS).

**35** During 2008–09, the SCL participated in seven projects on inter-laboratory comparison of standards. Its capabilities in the metrology areas of length, mass and related quantities, electricity, thermometry, and time and frequency have been listed in the technical schedules of the Mutual Recognition Arrangement (MRA) drawn up by the International Committee for Weights and Measures (CIPM). Through the CIPM MRA to which the SCL is a signatory, calibration certificates bearing the CIPM MRA logo issued by the SCL are internationally accepted by over 195 national metrology institutes in 72 economies and 2 international organisations. The HKAS provides a comprehensive range of accreditation services under the Hong Kong Laboratory Accreditation Scheme (HKLAS), the Hong Kong Certification Body Accreditation Scheme (HKCAS) and the Hong Kong Inspection Body Accreditation Scheme (HKIAS). Accreditation services have been extended to cover proficiency testing in 2007. Through the MRAs signed between the HKAS accreditation marks issued by organisations of accreditation bodies, reports and certificates bearing the HKAS accreditation marks issued by organisations accredited by the HKAS are widely recognised worldwide. The PSIB represented Hong Kong, China in the APEC Sub-Committee on Standards and Conformance.

**36** The key performance measures are:

#### **Targets**

	Target working days	2007 (Actual)	2008 (Actual)	2009 (Plan)
processing of quotation for calibration	3	2	2	3
services calibration of equipment provision of technical advice in response	15α	14	13	14 14
to oral enquiries on product standards@	1	1	N.A.	N.A.
processing of simple written enquiries on product standards@	1	1	N.A.	N.A.
processing of complicated written enquiries on product standards@	8	8	N.A.	N.A.
processing of simple enquiries on product standards@	1	N.A.	1	1
processing of complicated enquiries on product standards@	8	N.A.	8	8
issue of quotations for documented standards	1	1	1	1
processing of orders for photocopies of documented standards	2	2	2	2

 $\alpha$  This target has been revised from 16 to 15 days as from January 2008.

@ With effect from 2008, the three targets of processing enquiries on product standards have been replaced by two new targets which measure the performance of the PSIB in processing enquiries with different levels of complexity.

## Indicators

	2007 (Actual)	2008 (Actual)	2009 (Estimate)
SCL			
calibrations performed	743	728§	728
revenue generated (\$)	1,434,285	1,666,910§	1,666,910
revenue/post (\$)	388,711	404,991	404,991
PSIBΔ			
technical enquiries	489	473	470
sales and photocopying of documented standards			
enquiries	388	382	380
quotations given	1 779	1 482	1 480
orders placed	228	223	220
revenue generated (\$)	211,109	154,431β	154,000β
revenue/post (\$)	183,573	376,660∇	376,000
HOKLAS			
accredited laboratories (cumulative)	153	164	168
assessments and re-assessments conducted	251	297	300
overseas laboratory accreditation schemes with			
mutual recognition arrangement with the	<i></i>	<i>.</i> -	
HOKLAS (cumulative)	61	65	66
HKCAS	10		
accredited certification bodies (cumulative)	13	14	16
assessments, re-assessments and surveillance			
conducted	14	15	16
overseas certification bodies accreditation schemes			
with multilateral recognition arrangement with the	20	20	41
HKCAS (cumulative)	38	39	41
HKIAS	17	10	20
accredited inspection bodies (cumulative)	16	19	20
assessments, re-assessments and surveillance	22	20	20
conducted	23	29	28
overseas inspection bodies accreditation schemes with			
multilateral recognition arrangement with the	11	11	11
HKIAS (cumulative)	11	11	11

§ The drop in the total number of calibration requests in 2008 was mainly due to lower demand from government departments for calibration service, which is not subject to fees and charges. The increase in revenue was solely due to the rise in the number of calibration requests from the private sector in 2008.

 $\Delta$  The drop in these indicators in recent years is mainly caused by the increase in avenues for obtaining standards, such as through the internet, and that more customers have moved their operation to the Mainland. The drop in total revenue in 2008 and 2009 was mainly due to the decreasing transaction amounts of orders

ß placed.  $\nabla$  The number of officers deployed to provide the service in 2008 has been reduced.

## Matters Requiring Special Attention in 2009–10

**37** During 2009–10, the Commission will:

- participate in activities to promote the MRAs of the Asia Pacific Laboratory Accreditation Co-operation, the International Laboratory Accreditation Co-operation, the Pacific Accreditation Co-operation, and the International Accreditation Forum;
- develop plans to extend accreditation services to other areas to support industry and expand its accreditation service in the area of food testing;
- participate in the activities of the CIPM MRA and the Asia Pacific Metrology Programme;
- participate in more projects on inter-laboratory comparison of standards;
- strengthen interactions between staff of the SCL and local metrology users with a view to disseminating measurement techniques and knowledge to local industries;
- conduct visits to SCL customers to gauge their needs and offer professional advice on-site;
- participate in APEC activities in the areas of standards and conformance; and ٠
- participate in international standardisation activities.

#### **Programme (7): Subvention: Hong Kong Productivity Council, Hong Kong Applied Science** and Technology Research Institute Company Limited

	2007–08 (Actual)	2008–09 (Original)	2008–09 (Revised)	2009–10 (Estimate)
Financial provision (\$m)				
Hong Kong Productivity Council	176.7	181.5	185.7 (+2.3%)	<b>186.7</b> (+0.5%)
				(or +2.9% on 2008–09 Original)
Hong Kong Applied Science and Technology Research Institute Company Limited	119.9	121.4	121.4 (—)	<b>123.1</b> (+1.4%)
				(or +1.4% on 2008–09 Original)
Total	296.6	302.9	307.1 (+1.4%)	<b>309.8</b> (+0.9%)
				(or +2.3% on

<sup>(</sup>or +2.3% on 2008–09 Original)

# Hong Kong Productivity Council

## Aim

**38** The aim is to promote productivity excellence through the provision of integrated support across the value chain of the industry, in order to achieve more effective utilisation of resources, enhance the value-added content of products and services, and enhance the industry's international competitiveness.

# **Brief Description**

**39** The HKPC provides integrated support to innovative and growth-oriented Hong Kong firms across the value chain. Its principal sectoral focus is on manufacturing, particularly in Hong Kong's foundation industries, and related service activities. The main geographical focus is Hong Kong and the PRD.

**40** The work of the HKPC is guided by three strategies: to enhance manufacturing technology and process upgrading, to tap new manufacturing opportunities arising from the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA), and to provide regionalisation and globalisation support to improve the cost-effectiveness of manufacturing activities. Its activities mainly fall in the following areas:

- providing one-stop services to the manufacturing industries, particularly the foundation industries, in the areas of manufacturing and materials technology, product design and development, technology commercialisation and e-manufacturing;
- promoting the application of good management practices and continuous benchmarking across the value chain for innovative and growth oriented enterprises, especially small and medium enterprises (SMEs), through operation management, human resources management, innovation management and strategic business management;
- assisting information technology (IT) service providers, in particular SMEs, to improve their quality, capacity and productivity, and supporting the integration of IT services across the value chain; and
- providing environmental technology support in green manufacturing, efficient energy and resource usage, compliance with environmental legislation and internal standards, as well as environmental methods and technology transfer.
- **41** During 2008–09, the subsidiaries run by the HKPC include:
- the HKPC Technology (Holdings) Company Limited which functions as a vehicle for commercialisation of patents, technologies and projects deliverables of the HKPC and other R&D institutes;
- the Productivity (Holdings) Limited which operates consulting firms in Guangzhou, Shenzhen and Dongguan to strengthen the HKPC's integrated support and services for Hong Kong firms operating in the PRD; and
- the Automotive Parts and Accessory Systems R&D Centre Limited which undertakes market-led R&D projects in collaboration with industry, universities and technology institutes.

42 The key performance indicators for the HKPC are:

## Indicators

	2007–08 (Actual)	2008–09 (Revised Estimate)	2009–10 (Estimate)
overall income/expenditure ratio (%)	61.6	63.9	60.6
income from consultancy/technical assistance (\$m)	159.9	171.4	170.3
income from training courses (\$m)	26.7	31.4	31.2
income from exhibitions/study missions/conferences (\$m)	10.2	9.1	11.4
income from manufacturing support/process control (\$m)	33.7	29.2	26.8
no. of people who attended the HKPC training courses	11 853	10 790	10 700
Fee-charging courses	5 926	5 395	6 4 2 0
Non-fee-charging courses	5 927	5 395	4 280
no. of people who attended the HKPC exhibitions no. of people who participated in the HKPC study	2 200	2 200	2 300
missions/conferences	4 755	3 155	3 240

# Matters Requiring Special Attention in 2009–10

**43** During 2009–10, the HKPC will continue to:

- provide integrated support to innovative and growth-oriented Hong Kong enterprises across the value chain, with the main sectoral focus on manufacturing, particularly in Hong Kong's foundation industries, and related service activities;
- assist local manufacturers in industrial upgrading, business transformation or relocating their operations under the challenges of the Mainland's processing trade policy through such programmes as Transform, Upgrade and Relocate for a New Horizon;
- assist Hong Kong companies and industries to leverage on the business opportunities arising from CEPA;
- enhance its support to Hong Kong enterprises operating in PRD, through subsidiary consulting firms set up in Guangzhou, Shenzhen and Dongguan;
- operate the R&D Centre for Automotive Parts and Accessory Systems;
- promote the adoption of cleaner production technologies and practices by Hong Kong owned-factories in the PRD through such initiatives as the Cleaner Production Partnership Programme; and
- support R&D institutions in commercialising advanced manufacturing and processing technologies, and promote technology commercialisation and effective intellectual property management to Hong Kong and Mainland enterprises.

Hong Kong Applied Science and Technology Research Institute Company Limited

# Aim

44 The aim is to provide research capability for Hong Kong's technological development and stimulate the growth of technology-based industry in Hong Kong.

# **Brief Description**

- 45 The ASTRI's missions are to:
- perform relevant and high quality R&D and transfer the technologies and results to industry;
- promote greater application of technology in industry;
- become a focal point for attracting outside R&D personnel to work in Hong Kong;
- enhance Hong Kong's technological human resources development;
- act as a spawning ground for technology entrepreneurs; and
- provide a focal point for industry-university collaboration.

**46** Over the years, the ASTRI's research areas include photonics technologies, internet applications, wireless communications and IC design. Its operating strategy is to transfer the technologies and results developed from its R&D projects to industry for technology dissemination through licensing arrangements, contract research arrangements and spinning-off new technology companies. This process will elevate the technology level of Hong Kong industry and accelerate the expansion of the technology industry base, thereby creating new employment opportunities. Since the launching of the ICT R&D Centre which focuses on four technology areas, namely, communications technologies, consumer electronics, IC design and opto-electronics, the ASTRI has become more customer-focused in its R&D business. Commercial companies are encouraged to contribute a significant portion of the total project cost as industry collaborative projects undertaken by the ASTRI.

**47** ASTRI has a subsidiary company, the HKJCICM, in which it has a 50 per cent shareholding - the other 50 per cent is held by the Hong Kong Jockey Club Charities Trust (the Trust) - to promote and support the modernisation and further development of Chinese medicine in Hong Kong. The Trust has pledged to donate \$500 million to fund the R&D activities managed by the HKJCICM while the ASTRI provides premises and supporting facilities to the HKJCICM and funds its recurrent operating costs.

**48** Since its set-up, the HKJCICM has funded 17 projects in collaboration with local universities and Mainland institutions, including the setting up of a Chinese medicine laboratory and associated network to strengthen pharmacognosy and quality control of Chinese medicine.

**49** The key performance indicators for ASTRI are:

#### Indicators

	2007 (Actual)	2008 (Actual)	2009 (Estimate)
no. of new full projects#	14	26	42
no. of new seed projects¶ no. of patents filed	58	63	20 65
no. of technology transfers no. of clients engaged in technology transfer	42 33	70 44	84 54
no. of members joining consortia formed by ASTRIno. of technology workshops/seminars organised	26 55	41 31	47 30
no. of participants of seminars	5 400	3 900	3 800
amount of income (\$m)	9.8	20.7	22.0

# Full projects are R&D projects with more than \$2 million funding support from the ITF, including collaborative projects with the industry.

¶ Seed projects are feasibility studies for developing substantive R&D project proposals. These studies should not cost more than \$2 million nor exceed six months in duration.

#### Matters Requiring Special Attention in 2009–10

- **50** During 2009–10, the ASTRI will:
- continue with the research projects initiated in 2008–09 and before;
- continue to strengthen its institutional and research capabilities through the development of its ICT R&D Centre;
- promote and transfer technologies developed from its R&D projects to industry;
- work closely with the local industry and universities on the latest development of manufacturing technology and market trend with a view to fostering closer collaboration;
- enhance local high-technology human resources development by recruiting engineering graduates of local universities as fellows under the extended ITF Internship Programme; and
- improve the industrial involvement and contribution on its R&D projects through collaborative projects.

**51** During 2009–10, the HKJCICM will continue to conduct research on Chinese medicine and provide support for the development of the local Chinese medicine industry through information and dissemination exchange, technology intermediary and project incubation.

#### ANALYSIS OF FINANCIAL PROVISION

Programme	2007–08 (Actual) (\$m)	2008–09 (Original) (\$m)	2008–09 (Revised) (\$m)	2009–10 (Estimate) (\$m)
(1) Support for Research and	22.1	22.4	24.0	
<ul><li>(2) Development</li><li>(2) Fostering University-Industry</li></ul>		22.4	24.0	25.5
Collaboration	6.3	6.6	7.0	7.5
(3) Promotion of Technological	(7		7.5	<b>7</b> 1
<ul><li>(4) Planning for Innovation and</li></ul>	6.7	7.7	7.5	7.1
Technology Development		37.3	34.9	33.6
(5) Infrastructural Support		76.3	76.6	77.6
(6) Quality Support	51.4	54.7	55.1	57.4
<ul> <li>(7) Subvention: Hong Kong Productivity Council, Hong Ko Applied Science and Technolog Research Institute Company</li> </ul>				
Limited		302.9	307.1	309.8
	470.1	507.9	512.2 (+0.8%)	518.5 (+1.2%)

(or +2.1% on 2008–09 Original)

## **Analysis of Financial and Staffing Provision**

## Programme (1)

Provision for 2009–10 is \$1.5 million (6.3%) higher than the revised estimate for 2008–09. This is mainly due to the increased provisions for salary and general departmental expenses.

#### Programme (2)

Provision for 2009–10 is \$0.5 million (7.1%) higher than the revised estimate for 2008–09. This is mainly due to the increased provisions for salary and general departmental expenses.

## Programme (3)

Provision for 2009–10 is \$0.4 million (5.3%) lower than the revised estimate for 2008–09. This is mainly due to the reduced provision for general departmental expenses.

### Programme (4)

Provision for 2009–10 is \$1.3 million (3.7%) lower than the revised estimate for 2008–09. This is mainly due to the reduced general departmental expenses, partly offset by the increased cash flow requirements for non-recurrent items.

#### Programme (5)

Provision for 2009-10 is \$1.0 million (1.3%) higher than the revised estimate for 2008-09. This is mainly due to the increased cash flow requirements for non-recurrent items, partly offset by the reduced salary provision.

## Programme (6)

Provision for 2009–10 is 2.3 million (4.2%) higher than the revised estimate for 2008–09. This is mainly due to the increased salary provision arising from staff changes and filling of vacancies. In addition, one post will be created in 2009–10.

#### Programme (7)

Provision for 2009-10 is \$2.7 million (0.9%) higher than the revised estimate for 2008-09. This is mainly due to the increased provisions for the HKPC and the ASTRI, partly offset by the reduced cash flow requirement for a non-recurrent item.



(No government staff under PROG 7)

Changes in the size of the establishment (as at 31 March)



Number of posts

Year

Sub- head (Code)		Actual expenditure 2007–08	Approved estimate 2008–09	Revised estimate 2008–09	Estimate 2009–10
		\$'000	\$'000	\$'000	\$'000
	<b>Operating Account</b>				
	Recurrent				
000	Operational expenses	401,470	426,468	435,610	439,602
	Total, Recurrent	401,470	426,468	435,610	439,602
	Non-Recurrent				
700	General non-recurrent	66,059	78,945	73,980	76,529
	Total, Non-Recurrent	66,059	78,945	73,980	76,529
	Total, Operating Account	467,529	505,413	509,590	516,131
	Capital Account				
	Plant, Equipment and Works				
661	Minor plant, vehicles and equipment (block vote)	2,591	2,530	2,611	2,385
	Total, Plant, Equipment and Works	2,591	2,530	2,611	2,385
	Total, Capital Account	2,591	2,530	2,611	2,385
	Total Expenditure	470,120	507,943	512,201	518,516

#### **Details of Expenditure by Subhead**

The estimate of the amount required in 2009–10 for the salaries and expenses of the Innovation and Technology Commission is \$518,516,000. This represents an increase of \$6,315,000 over the revised estimate for 2008–09 and of \$48,396,000 over actual expenditure in 2007–08.

#### **Operating Account**

#### Recurrent

**2** Provision of \$439,602,000 under *Subhead 000 Operational expenses* is for the salaries, allowances and other operating expenses of the Innovation and Technology Commission.

**3** The establishment as at 31 March 2009 will be 169 permanent posts. It is expected that one permanent post will be created in 2009-10. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2009–10, but the notional annual mid-point salary value of all such posts must not exceed \$70,424,000.

4 An analysis of the financial provision under *Subhead 000 Operational expenses* is as follows:

	2007–08 (Actual) (\$'000)	2008–09 (Original) (\$'000)	2008–09 (Revised) (\$'000)	2009–10 (Estimate) (\$'000)
Personal Emoluments				
- Salaries	82,345	86,888	89,800	92,888
- Allowances	1,073	1,267	1,168	1,220
- Job-related allowances	—	2	2	2
Personnel Related Expenses				
- Mandatory Provident Fund				
contribution	18	22	58	84
<ul> <li>Civil Service Provident Fund</li> </ul>				
contribution	89	79	118	52
Departmental Expenses				
- General departmental expenses	38,705	51,571	52,899	50,188
Subventions				
- Hong Kong Productivity Council	159,333	165,253	170,179	172,062
- Hong Kong Applied Science and				
Technology Research Institute				
Company Limited	119,907	121,386	121,386	123,106
	401 470	126 169	425 (10	420 (02
	401,470	426,468	435,610	439,602

## Capital Account

## Plant, Equipment and Works

**5** Provision of \$2,385,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents a decrease of \$226,000 (8.7%) against the revised estimate for 2008–09. This is mainly due to the reduced requirement for minor plant and equipment.

# Commitments

Sub- head Item (Code) (Code)	) Ambit	Approved commitment \$'000	Accumulated expenditure to 31.3.2008 \$'000	Revised estimated expenditure for 2008–09 	Balance \$'000
Operating A	ccount				
700	General non-recurrent				
002	Consultancy studies on Hong Kong Mainland technological collaboration	5,000	120	_	4,880
003	Consultancy study on biotechnology industry in Hong Kong	1,300	_	400	900
006	Impact studies on Innovation and Technology Fund projects	5,000	665	1,230	3,105
047	Hong Kong Productivity Council: Repayment of loan to the Loan Fund	548,690	427,071	15,562	106,057
438	DesignSmart Initiative	250,000	108,172	39,688	102,140
897	Hong Kong Design Centre	100,000	18,808	17,100	64,092
	Total	909,990	554,836	73,980	281,174