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

Estimate 2010–11	\$466.1m
<b>Establishment ceiling 2010–11</b> (notional annual mid-point salary value) representing an estimated 155 non-directorate posts as at 31 March 2010 rising by seven posts to 162 posts as at 31 March 2011	\$69.1m
In addition, there will be an estimated eight directorate posts as at 31 March 2010 and as at 31 March 2011.	
Commitment balance	\$108.0m

# **Controlling Officer's Report**

## Programmes

r ogrunnings	
Programme (1) Support for Research and Development Programme (2) Fostering University- Industry Collaboration Programme (3)Promotion of Technological Entrepreneurship Programme (4) Planning for Innovation	These programmes contribute to Policy Area 17: Information Technology and Broadcasting (Secretary for Commerce and Economic Development).
and Technology	
Development Programme (5) Infrastructural Support	
<b>Programme (6) Quality Support</b>	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 Institute Company Limited	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**

	2008–09 (Actual)	2009–10 (Original)	2009–10 (Revised)	<b>2010–11</b> (Estimate)
Financial provision (\$m)	23.7	25.5	26.0 (+2.0%)	<b>28.0</b> (+7.7%)
				(or +9.8% on 2009–10 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 2009, the Commission, the Guangdong Provincial Department of Science and Technology and the Shenzhen Science & Technology, Industry, Trade and Information Committee 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

	2008	2009	2010
	(Actual)	(Actual)	(Estimate)
ITSPΨ			
applications received and processed	192	395#	630#
projects funded and being monitored	137	183#	254#
TCFS	107	1001	
applications received and processed	71	79	65
projects funded and being monitored	101	102	107
R&D centres' projectsy			
Automotive Parts and Accessory Systems R&D Centre			
new projects	12	17	16
projects funded and being monitored	21	37	52
Hong Kong R&D Centre for Information and			
Communications Technologies			
new projects	45	48	71
projects funded and being monitored	94	109	154
Hong Kong R&D Centre for Logistics and Supply			
Chain Management Enabling Technologies			
new projects	9	9	11
projects funded and being monitored	17	26	37
Nano and Advanced Materials Institute			
new projects	10	15	37
projects funded and being monitored	15	30	65
Hong Kong Research Institute of Textiles and Apparel			
new projects	15	11	20
projects funded and being monitored	28	38	51
ASTRI projects funded and being monitored^	9	1	0
PAG			
applications received and processed	103	147	130
projects funded	63	86	80

 $\Psi$  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".

# The increases in 2009 and the projected increases in 2010 are due to additional calls for entry in these two years.

- $\gamma$  All projects (including TCFS projects and feasibility studies) undertaken and/or monitored by R&D centres are included.
- <sup>^</sup> 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 2010–11

- 8 During 2010–11, the Commission will:
- continue to administer the various funding programmes and monitor progress of the funded projects;
- continue to support the activities of R&D centres with emphasis on technology transfer of funded projects;
- continue to enhance collaboration on R&D between Hong Kong and Guangdong under the TCFS;
- continue to 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; and
- launch and administer a new R&D Cash Rebate Scheme under which enterprises conducting applied R&D projects with the support of the ITF or in partnership with local designated research institutions will enjoy a cash rebate equivalent to ten percent of their investments.

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

	2008–09 (Actual)	2009–10 (Original)	2009–10 (Revised)	<b>2010–11</b> (Estimate)
Financial provision (\$m)	6.8	7.5	7.6 (+1.3%)	<b>7.3</b> (-3.9%)
				(or –2.7% on 2009–10 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 \$13.5 million in 2009.

**12** The key performance indicators are:

#### **Indicators**

	2008 (Actual)	2009 (Actual)	2010 (Estimate)
UICP			
applications received and processed	10	10	10
projects funded and being monitored	28	21	22

## Matters Requiring Special Attention in 2010–11

13 During 2010–11, the Commission will continue to administer the UICP and monitor progress of the funded projects.

## Programme (3): Promotion of Technological Entrepreneurship

	2008–09 (Actual)	2009–10 (Original)	2009–10 (Revised)	<b>2010–11</b> (Estimate)
Financial provision (\$m)	7.2	7.1	6.8 (-4.2%)	<b>7.4</b> (+8.8%)
				(or +4.2% on 2009–10 Original)

# Aim

14 The aim is to promote technological entrepreneurship in Hong Kong and provide essential support to technologybased 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. 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 Applied Research Fund (ARF) provides funding to technology companies in Hong Kong at the venture capital stage but has been on a winding down mode since 2005. 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 2009–10, the Commission:
- administered the SERAP and the ARF programme;
- publicised the SERAP funding scheme via talks and seminars;
- published the SERAP Company Directory for 2010;
- organised topical seminars for SERAP companies;
- provided networking support to some SERAP companies; and
- monitored the management of SERAP and ARF companies.
- **17** The key performance measures are:

## Target

	Target working days	2008 (Actual)	2009 (Actual)	2010 (Plan)
informing applicants of the result of their SERAP applications after receipt of full information	50.0	42.8	48.2	30.0
Indicators				
		2008 (Actual)	2009 (Actual)	2010 (Estimate)
SERAP applications received and processed projects funded and being monitored		53 87	86 115	95 120

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 2010–11

- **18** During 2010–11, the Commission will continue to:
- administer the SERAP and oversee the ARF to support technology start-ups;
- monitor progress of the funded projects; and
- pursue the exit of ARF projects through fund managers.

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

	2008–09	2009–10	2009–10	<b>2010–11</b>
	(Actual)	(Original)	(Revised)	(Estimate)
Financial provision (\$m)	35.3	33.6	30.6 (-8.9%)	<b>29.3</b> (-4.2%)

(or -12.8% on 2009–10 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 and technology, 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 The Commission also administers an Internship Programme which provides financial support for organisations undertaking R&D projects funded by the ITF 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 2009–10, the Commission:

- 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 2009 to promote innovation and technology to the general public in particular the youth. Activities of the Festival included the InnoCarnival, road shows, seminars, competitions and technology and design workshops;
- oversaw the operation of the Innovation and Technology Student Club which provides a sustainable and interactive platform to nurture youth innovative talents;
- organised the Hong Kong Youth 3D Animation Competition 2009 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;
- funded the establishment of Creative Centre of Science and Technology in the Hong Kong Science Park (HKSP);
- participated in Innovation, Design and Technology Exposition (held together with the Business of Design Week) to promote the five R&D centres established under the Government's strategy of innovation and technology development, and the HKJCICM, and to introduce ITC's funding schemes to visitors;
- 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;
- organised a 'Hong Kong Pavilion' and a 'Shenzhen-Hong Kong Innovation Circle Pavilion' at the China Hi-Tech Fair 2009; and
- participated actively in the Asia-Pacific Economic Cooperation (APEC) Industrial Science and Technology Working Group.
- 25 The key performance indicators are:

Indicators

	2008 (Actual)	2009 (Actual)	2010 (Estimate)
GSP			
applications received and processed	8	8	8
projects funded and being monitored	5	9	12
Internship Programme			
applications received and processed	30	$365\Omega$	300Ω
intern positions funded <sup>‡</sup>	37	323Ω	$600\Omega$

 $\Omega$  The increases in 2009 and the projected increases in 2010 are mainly 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 since 2009.

‡ Revised description of the previous indicator "projects funded and being monitored" to give a clearer definition.

## Matters Requiring Special Attention in 2010–11

**26** During 2010–11, 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 2010; and
- participate in the APEC Industrial Science and Technology Working Group.

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

	2008–09	2009–10	2009–10	<b>2010–11</b>
	(Actual)	(Original)	(Revised)	(Estimate)
Financial provision (\$m)	15.2#	14.8#	13.4# (-9.5%)	<b>13.0</b> (-3.0%)

(or -12.2% on 2009–10 Original)

# For comparison purpose, the figures exclude relevant provisions for design which have been transferred to Head 55—Government Secretariat: Commerce and Economic Development Bureau (Communications and Technology Branch) for the establishment of the Create Hong Kong office with effect from 1 June 2009.

# 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 technology.

# **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 and the Hong Kong Productivity Council (HKPC) in the process.

**29** During 2009–10, the Commission:

- worked closely with the HKSTPC on its policy directions, including the completion of Phase Two of the 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; and
- worked closely with the HKSTPC and the Hong Kong Design Centre to develop the InnoCentre for the design cluster.

## Matters Requiring Special Attention in 2010–11

- **30** During 2010–11, the Commission will continue to:
- work closely with the HKSTPC on its various development and business plans, including the implementation of appropriate recommendations of the study on the repositioning and revitalisation of the Industrial Estates;
- 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; and
- assist the HKJCICM in developing research and assisting local Chinese medicine development.

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

	2008–09 (Actual)	2009–10 (Original)	2009–10 (Revised)	<b>2010–11</b> (Estimate)
Financial provision (\$m)	56.0	57.4	60.8 (+5.9%)	<b>76.3</b> (+25.5%)
				(or + 32.9% on

(or +32.9% on 2009–10 Original)

## Aim

- **31** The aim is to promote:
- internationally accepted standards and conformity assessment services to underpin technological development and international trade; and
- the development of the testing and certification industry in Hong Kong.

# **Brief Description**

**32** The Commission achieves this aim through the operation of the Standards and Calibration Laboratory (SCL), the Product Standards Information Bureau (PSIB), the Hong Kong Accreditation Service (HKAS) and the Secretariat of the Hong Kong Council for Testing and Certification (HKCTC).

**33** During 2009–10, the SCL participated in three projects on inter-laboratory comparison of measurement standards. Its capabilities in the metrology areas of length, acoustics, 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). The SCL is a signatory of the CIPM MRA and SCL's calibration certificates bearing the CIPM MRA logo are internationally accepted by 198 national metrology institutes in 74 economies and two 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 and the international and regional organisations of accreditation bodies, reports and certificates bearing the HKAS accreditation marks issued by organisations accredited by the HKAS are widely

recognised world-wide. The PSIB represented Hong Kong, China in the APEC Sub-Committee on Standards and Conformance. In September 2009, the Commission set up the Secretariat to serve the newly formed HKCTC in the formulation of a three-year development plan for the testing and certification industry by early 2010.

#### **34** The key performance measures are:

#### Targets

	Target working days	2008 (Actual)	2009 (Actual)	2010 (Plan)
processing of quotation for calibration services calibration of equipment processing of simple enquiries on product	3 14α	2 13	2 13	2 13
standards processing of complicated enquiries on	1	1	1	1
product standards issue of quotations for documented	8	8	8	8
standards processing of orders for photocopies of	1	1	1	1
documented standards	2	2	2	2

 $\alpha$  This target has been revised from 15 to 14 days as from January 2009.

### Indicators

	2008 (Actual)	2009 (Actual)	2010 (Estimate)
	(netual)	(netual)	(LStimate)
SCL			
calibrations performed	728	819§	850
revenue generated (\$)	1,666,910	1,448,276§	1,512,000
revenue/post (\$)	404,991	417,056	420,568
PSIBA	170	1.5.1	
technical enquiries	473	464	460
sales and photocopying of documented standards			
enquiries	382	438	400
quotations given	1 482	1 672	1 600
orders placed	223	291	270
revenue generated (\$)	154,431	171,000β	160,000
revenue/post (\$)	376,660	417,073	390,243
HOKLAS			
accredited laboratories (cumulative)	164	167	172
assessments and re-assessments conducted	297	308	320
overseas laboratory accreditation schemes with			
mutual recognition arrangement with the			
HOKLAS (cumulative)	65	68	69
HKCAS			
accredited certification bodies (cumulative)	14	15	17
assessments, re-assessments and surveillance visits			
conducted	15	15	17
overseas certification bodies accreditation schemes			
with multilateral recognition arrangement with the			
HKCAS (cumulative)	39	40	40
HKIAS			
accredited inspection bodies (cumulative)	19	20	21
assessments, re-assessments and surveillance visits			
conducted	29	30	31
overseas inspection bodies accreditation schemes with			
multilateral recognition arrangement with the			
HKIAS (cumulative)	11	11	11

§ The increase in the number of calibration requests in 2009 was mainly due to higher demand from government departments which is not subject to fees and charges. The decrease in revenue was due to the lower average fee for charged calibration requests from the private sector in 2009.

The drop in these indicators in recent years is mainly caused by the increase in avenues for obtaining  $\Delta$ standards, such as through the internet, and that more customers have moved their operation to the Mainland. The slight increase in total revenue in 2009 is due to the sales of the new version of ISO 9001.

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## Matters Requiring Special Attention in 2010–11

- **35** During 2010–11, the Commission will:
- provide secretariat support to HKCTC in taking forward the three-year development plan for the testing and certification industry currently being formulated;
- 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 measurement 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
- participate in international standardisation activities.

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

	2008–09 (Actual)	2009–10 (Original)	2009–10 (Revised)	<b>2010–11</b> (Estimate)
Financial provision (\$m)				
Hong Kong Productivity Council	185.7	186.7	186.2 (-0.3%)	<b>198.7</b> (+6.7%)
				(or +6.4% on 2009–10 Original)
Hong Kong Applied Science and Technology Research Institute Company Limited	121.4	123.1	123.1 (—)	<b>106.1</b> (-13.8%)
				(or -13.8% on 2009-10 Original)
Total	307.1	309.8	309.3 (-0.2%)	<b>304.8</b> (-1.5%)
				(or -1.6% on 2009–10 Original)

## Hong Kong Productivity Council

## Aim

**36** 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**

**37** 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.

**38** The work of the HKPC is anchored on its core competence of manufacturing technologies, management systems, information technologies and environmental technologies, including the following:

• 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, knowledge management, strategic business management, corporate social responsibility and sectoral platforming with quality certification schemes;
- 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.
- **39** During 2009–10, 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 and is funded entirely by the Innovation and Technology Fund.
- 40 The key performance indicators for the HKPC are:

#### Indicators

	2008–09 (Actual)	2009–10 (Revised Estimate)	<b>2010–11</b> (Estimate)
overall income/expenditure ratio (%)	64.5	64.7	64.0
income from consultancy/technical assistance (\$m)	172.3	180.6	181.5
income from training courses (\$m)	31.3	33.6	31.5
income from exhibitions/study missions/conferences (\$m)	7.7	11.5	11.2
income from manufacturing support/process control (\$m)	28.3	28.4	25.5
no. of consultancy projects accepted $\delta$ no. of people who attended the HKPC fee-charging training	840	873	914
courses no. of people who attended the HKPC events/networking	7 554	4 052	6 755
activities for associations/non-fee-charging seminarso	13 980	17 634	13 500
no. of people who attended the HKPC exhibitions no. of people who participated in the HKPC study	1 558	2 390	1 445
missions/conferences no. of R&D projectsδ	2 711	3 255	1 760
new projects	12	20	16
on-going projects	45	48	38

 $\delta$  New indicators.

θ Revised description of the previous indicator "no. of people who attended the HKPC non-fee-charging training courses" to give a clearer definition.

## Matters Requiring Special Attention in 2010–11

**41** During 2010–11, 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 the Mainland and Hong Kong Closer Economic Partnership Arrangement;
- enhance its support to Hong Kong enterprises operating in PRD, through subsidiary consulting firms set up in Guangzhou, Shenzhen and Dongguan;
- operate the Automotive Parts and Accessory Systems R&D Centre;

- 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;
- 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; and
- follow up the recommendations of the Director of Audit's Report No. 53 and those made by the Public Accounts Committee of the Legislative Council to strengthen the governance and administration of the organisation.

Hong Kong Applied Science and Technology Research Institute Company Limited

#### Aim

42 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**

- 43 The ASTRI's missions are to:
- perform high quality R&D and transfer the technologies developed to industry;
- promote greater application of technology in industry;
- become a focal point for attracting international R&D talent 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.

44 Over the years, the ASTRI's research areas include photonics technologies, internet applications, wireless communications, IC design and biomedical electronics. 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, enterprise and consumer electronics, IC design and material and packaging technologies, 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.

**45** 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) Limited - to promote and support the modernisation and further development of Chinese medicine in Hong Kong. The Hong Kong Jockey Club Charities 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.

**46** Since its set-up, the HKJCICM has funded 20 projects in collaboration with local universities and Mainland institutions, including the setting up of a Chinese Medicine Laboratory which provides a networked technical platform to advance quality-related research, product development and testing of Chinese medicine.

#### 47 The key performance indicators for ASTRI are:

#### Indicators

	2008 (Actual)	2009 (Actual)	2010 (Estimate)
no. of new full projectsλ	26	23	41
no. of new seed projects ¶	19	25	30
no. of patents filed	63	60	60
no. of technology transfers	70	100	110
no. of clients engaged in technology transfer	44	63	70
no. of members joining consortia formed by ASTRI	41	83	90
no. of technology workshop/seminars organised	31	39	40
no. of participants of seminars	3 900	3 950	4 000
amount of income (\$m)µ	30.2	44.5	57.7

 $\lambda$  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.

 $\mu$  Revised to include income generated from non-ITF funded activities. Amount of income received in 2008 has been revised to reflect the new definition.

## Matters Requiring Special Attention in 2010–11

- **48** During 2010–11, the ASTRI will continue to:
- pursue the research projects initiated in 2009–10 and before;
- strengthen its institutional and research capabilities;
- 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.

**49** During 2010–11, the HKJCICM will continue to enhance Chinese medicine R&D and provide support for the development of the local Chinese medicine industry through project incubation, technology intermediary and information and dissemination exchange.

#### ANALYSIS OF FINANCIAL PROVISION

Pro	gramme	2008–09 (Actual) (\$m)	2009–10 (Original) (\$m)	2009–10 (Revised) (\$m)	2010–11 (Estimate) (\$m)
(1)	Support for Research and				•••
( <b>2</b> )	Development	23.7	25.5	26.0	28.0
(2)	Fostering University-Industry Collaboration	6.8	7.5	7.6	7.3
(3)	Promotion of Technological	0.0	, 10		
	Entrepreneurship	7.2	7.1	6.8	7.4
(4)	Planning for Innovation and				
	Technology Development	35.3	33.6	30.6	29.3
(5)	Infrastructural Support	15.2#	14.8#	13.4#	13.0
(6)	Quality Support	56.0	57.4	60.8	76.3
(7)	Subvention: Hong Kong				
	Productivity Council, Hong Kong				
	Applied Science and Technology				
	Research Institute Company				
	Limited	307.1	309.8	309.3	304.8
		451.3#	455.7#	454.5# (-0.3%)	466.1 (+2.6%)

(or +2.3% on 2009–10 Original)

# For comparison purpose, the figures exclude relevant provisions for design which have been transferred to Head 55—Government Secretariat: Commerce and Economic Development Bureau (Communications and Technology Branch) for the establishment of the Create Hong Kong office with effect from 1 June 2009.

## Analysis of Financial and Staffing Provision

#### Programme (1)

Provision for 2010–11 is \$2.0 million (7.7%) higher than the revised estimate for 2009–10. This is mainly due to the increased provision for general departmental expenses.

#### **Programme** (2)

Provision for 2010–11 is \$0.3 million (3.9%) lower than the revised estimate for 2009–10. This is mainly due to the decreased cash flow requirements for non-recurrent items and reduced provision for salary.

#### Programme (3)

Provision for 2010–11 is \$0.6 million (8.8%) higher than the revised estimate for 2009–10. This is mainly due to the increased provision for general departmental expenses.

#### Programme (4)

Provision for 2010–11 is \$1.3 million (4.2%) lower than the revised estimate for 2009–10. This is mainly due to the decreased cash flow requirements for non-recurrent items and reduced provision for salary.

#### **Programme** (5)

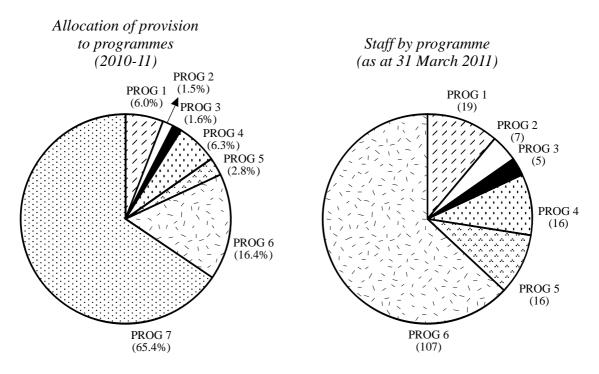
Provision for 2010–11 is \$0.4 million (3.0%) lower than the revised estimate for 2009–10. This is due to the reduced provision for salary, partly offset by the increased provision for general departmental expenses.

#### Programme (6)

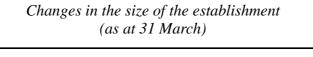
Provision for 2010–11 is \$15.5 million (25.5%) higher than the revised estimate for 2009–10. This is mainly due to the increased provision for general departmental expenses and procurement of capital equipment. In addition, seven posts will be created in 2010–11.

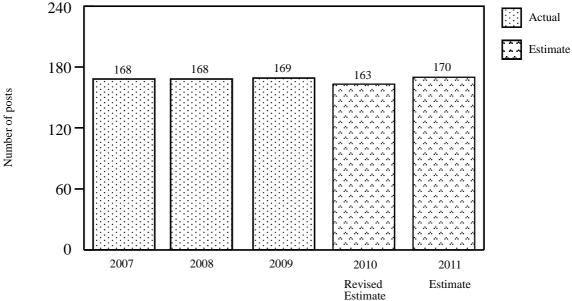
## Programme (7)

Provision for 2010–11 is \$4.5 million (1.5%) lower than the revised estimate for 2009–10. This is mainly due to the decreased provision for the ASTRI, partly offset by the increased provision for HKPC to procure capital equipment.



(No government staff under PROG 7)





Year

Sub- head (Code)		Actual expenditure 2008–09	Approved estimate 2009–10	Revised estimate 2009–10	Estimate 2010–11
		\$'000	\$'000	\$'000	\$'000
	<b>Operating Account</b>				
	Recurrent				
000	Operational expenses#	433,652	439,602	436,167	433,968
	Total, Recurrent#	433,652	439,602	436,167	433,968
	Non-Recurrent				
700	General non-recurrent#	66,279	76,529	29,383	14,658
	Total, Non-Recurrent#	66,279	76,529	29,383	14,658
	Total, Operating Account#	499,931	516,131	465,550	448,626
	Capital Account				
	Plant, Equipment and Works				
661	Minor plant, vehicles and equipment (block vote)	2,602	2,385	2,385	3,400
	Total, Plant, Equipment and Works	2,602	2,385	2,385	3,400
	Subventions				
85B	Hong Kong Productivity Council				14,100
	Total, Subventions	—	—	—	14,100
	Total, Capital Account	2,602	2,385	2,385	17,500
	Total Expenditure#	502,533	518,516	467,935	466,126

# For consistency with previous estimates, the figures for 2008–09 and 2009–10 include relevant provisions for design which have been transferred to Head 55—Government Secretariat: Commerce and Economic Development Bureau (Communications and Technology Branch) for the establishment of the Create Hong Kong office with effect from 1 June 2009.

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

The estimate of the amount required in 2010–11 for the salaries and expenses of the Innovation and Technology Commission is \$466,126,000. This represents a decrease of \$1,809,000 against the revised estimate for 2009–10 and of \$36,407,000 against actual expenditure in 2008–09.

#### **Operating Account**

#### Recurrent

**2** Provision of \$433,968,000 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 2010 will be 162 permanent posts and one supernumerary post. It is expected that seven permanent posts will be created in 2010–11. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2010–11, but the notional annual mid-point salary value of all such posts must not exceed \$69,061,000.

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

	2008–09 (Actual) (\$'000)	2009–10 (Original) (\$'000)	2009–10 (Revised) (\$'000)	2010–11 (Estimate) (\$'000)
Personal Emoluments				
- Salaries	89,138	92,888	90,070	89,050
- Allowances	1,027	1,220	1,360	2,571
- Job-related allowances		2	2	2
Personnel Related Expenses				
- Mandatory Provident Fund				
contribution	53	84	115	145
<ul> <li>Civil Service Provident Fund</li> </ul>				
contribution	119	52	71	73
Departmental Expenses				
- General departmental expenses	51,750	50,188	49,756	65,458
Subventions				
<ul> <li>Hong Kong Productivity Council</li> <li>Hong Kong Applied Science and</li> </ul>	170,179	172,062	171,687	170,563
Technology Research Institute				
Company Limited	121,386	123,106	123,106	106,106
	433,652	439,602	436,167	433,968

#### Capital Account

#### Plant, Equipment and Works

**5** Provision of \$3,400,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents an increase of \$1,015,000 (42.6%) over the revised estimate for 2009–10. This is mainly due to the increased requirement for minor plant and equipment.

# Commitments

Sub- head Item (Code) (Code) Ambit	Approved commitment	Accumulated expenditure to 31.3.2009	Revised estimated expenditure for 2009–10	Balance
	\$'000	\$'000	\$'000	\$'000
Operating Account				
700 General non-recurrent				
006 Impact studies on Innovation and Technology Fund projects	5,000	1,290	1,325	2,385
047 Hong Kong Productivity Council: Repayment of loan to the Loan Fund	548,690	442,633	14,493	91,564
Capital Account				
85B Hong Kong Productivity Council				
848 Upgrading the reliability testing services of the Hong Kong Productivity Council	4,200	_	_	4,200
849 Setting up a new Electromagnetic Compatibility Chamber in the Hong Kong Productivity Council	9,900	_	_	9,900
	14,100			14,100
Total	567,790	443,923	15,818	108,049