Head 155 — GOVERNMENT SECRETARIAT: INNOVATION AND TECHNOLOGY COMMISSION

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

Estimate 2012–13	**$515.5m**
Establishment ceiling 2012–13 (notional annual mid-point salary value) representing an estimated 162 non-directorate posts as at 31 March 2012 rising by 20 posts to 182 posts as at 31 March 2013	**$88.5m**
In addition, there will be an estimated eight directorate posts as at 31 March 2012 and as at 31 March 2013.	
Commitment balance	**$189.1m**

Controlling Officer's Report

Programmes

Programme (1) Support for Research and Development **Programme (2) Fostering University-Industry Collaboration** **Programme (3) Promotion of Technological Entrepreneurship** **Programme (4) Planning for Innovation and Technology Development** **Programme (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 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

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	**2012–13 (Estimate)**
Financial provision ($m)	34.4	46.7	39.7 (–15.0%)	**41.2** (+3.8%) (or –11.8% on 2011–12 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. The Innovation and Technology Support Programme (ITSP) under the Innovation and Technology Fund (ITF) 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 for the first time. The grant ceiling for each case stands at $150,000.

4 Five R&D centres were established in April 2006 to drive and co-ordinate R&D efforts in five focus areas namely nanotechnology and advanced materials, textile and clothing, automotive parts and accessory systems, logistics and supply chain management enabling technologies, and information and communications technologies (ICT). The R&D projects carried out by these centres, except for those contract researches the full costs of which are borne by sponsoring companies, are funded mainly by the ITF.

5 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 Co-operation 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 2011, the Commission, the Guangdong Provincial Department of Science and Technology and the Shenzhen Science & Technology, Industry, Trade and Information Committee continued to jointly invite and process applications under the Scheme.

6 To reinforce the research culture among companies and encourage them to establish stronger partnership with designated local public research institutions, the R&D Cash Rebate Scheme was introduced in April 2010. Under the Scheme, companies conducting applied R&D projects with the support of the ITF or in partnership with designated local public research institutions enjoy a cash rebate equivalent to ten per cent of their investments.

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 accomplish their research programmes effectively. Performance indicators in respect of the ITSP, PAG, R&D centres, TCFS and R&D Cash Rebate Scheme are as follows:

Indicators

	2010 (Actual)	2011 (Actual)	**2012 (Estimate)**
ITSPΨ			
applications received and processed	335	344	**358**
projects funded and being monitored	213	216	**237**
PAG			
applications received and processed	186	235	**252**
projects funded	102	152	**176**
R&D centres' projectsγ			
Automotive Parts and Accessory Systems R&D Centre			
new projects	8	8	**10**
projects funded and being monitored	44	37	**30**
Hong Kong R&D Centre for Information and Communications Technologiesθ			
new projects	45	29	**54**
projects funded and being monitored	128	103	**113**
Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies			
new projects	3	3	**12**
projects funded and being monitored	29	30	**37**
Nano and Advanced Materials Institute			
new projects	15	18	**28**
projects funded and being monitored	43	57	**66**
Hong Kong Research Institute of Textiles and Apparel			
new projects	13	13	**20**
projects funded and being monitored	44	47	**49**
TCFS			
applications received and processed	64	77	**71**
projects funded and being monitored	95	75	**69**
R&D Cash Rebate Scheme			
applications received and processed	179	192	**250**
applications approved	153	191	**250**

Ψ The figures do not include applications submitted or projects undertaken by the five R&D centres, which are reported under the indicators "R&D centres' projects".

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

θ The indicator "ASTRI projects funded and being monitored" in previous Controlling Officer's Reports has been subsumed into the "Hong Kong R&D Centre for Information and Communications Technologies" under the indicator for "R&D Centres' projects".

Matters Requiring Special Attention in 2012–13

8 During 2012–13, the Commission will continue to:

- administer the various funding programmes and monitor progress of the funded projects;
- support the activities of the R&D centres with emphasis on technology transfer of funded projects;
- enhance collaboration on R&D between Hong Kong and Guangdong under the TCFS;
- provide funding assistance to the Partner State Key Laboratories (PSKLs) in Hong Kong to enhance their research capabilities; and
- administer the R&D Cash Rebate Scheme to reinforce the research culture among companies and encourage them to establish stronger partnership with designated local public research institutions.

Programme (2): Fostering University-Industry Collaboration

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	**2012–13 (Estimate)**
Financial provision ($m)	6.8	6.6	6.6 (—)	**7.0** (+6.1%) (or +6.1% on 2011–12 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 companies in collaboration with local universities. Companies in the private sector are encouraged to invest and 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, companies contribute half of the project cost in respect of R&D projects taken up jointly with local universities. They are also 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.

11 The UICP received a total of 14 applications requesting $31.4 million in 2011.

12 The key performance indicators are:

Indicators

	2010 (Actual)	2011 (Actual)	**2012 (Estimate)**
UICP			
applications received and processed	18	14	**11**
projects funded and being monitored	25	30	**34**

Matters Requiring Special Attention in 2012–13

13 During 2012–13, the Commission will continue to administer the UICP and monitor progress of the funded projects.

Programme (3): Promotion of Technological Entrepreneurship

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	**2012–13 (Estimate)**
Financial provision ($m)	6.6	6.2	6.3 (+1.6%)	**7.6** (+20.6%) (or +22.6% on 2011–12 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. The SERAP provides financing at the pre-venture capital stage for start-ups to carry out R&D activities. 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 2011–12, the Commission:

- administered the SERAP and monitored its management;
- publicised the SERAP funding scheme via talks and seminars;
- published the SERAP Company Directory for 2012;
- provided networking support to some SERAP companies; and
- monitored the residual work relating to the ARF.

17 The key performance measures are:

Targets

	Target working days	2010 (Actual)	2011 (Actual)	**2012 (Plan)**
informing applicants of the result of their SERAP applications after receipt of full information	50.0	30.0	30.4	**30.0**

Indicators

	2010 (Actual)	2011 (Actual)	**2012 (Estimate)**
SERAP			
applications received and processed	71	50	**65**
projects funded and being monitored	122	115	**127**

Matters Requiring Special Attention in 2012–13

18 During 2012–13, the Commission will continue to:

- administer and review the SERAP with a view to better supporting small and medium-sized enterprises (SMEs) to conduct R&D;
- monitor progress of the funded projects under SERAP; and
- monitor the residual work relating to the ARF.

Programme (4): Planning for Innovation and Technology Development

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	**2012–13 (Estimate)**
Financial provision ($m)	31.4	35.1	34.7 (–1.1%)	**35.9** (+3.5%)
				(or +2.3% on 2011–12 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 Financial Secretary with the Secretary for Commerce and Economic Development as the Deputy Chairman, in examining policy issues and co-ordinating the Government's programmes 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 2011–12, the Commission:

- 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 Co-operation Committee, the Pan-PRD Joint Conference on Regional Co-operation in Science and Technology, the Guangdong/Hong Kong Expert Group on Co-operation in Innovation and Technology, and the Steering Group on Shenzhen/Hong Kong Co-operation in Innovation and Technology;
- organised the InnoTech Month (ITM) 2011 to promote innovation and technology to the general public, in particular the youth. Activities of the ITM included the InnoCarnival, road shows, seminars, competitions and technology workshops;
- launched the Innovation and Technology Scholarship Award Scheme to nurture young talents to become future leaders in innovation and technology;
- oversaw the operation of the Innovation and Technology Student Club which provides a sustainable and interactive platform to nurture young innovative talents;
- funded the operation of the Centre for Creative Science and Technology in the Hong Kong Science Park (HKSP);
- participated in Innovation, Design and Technology Expo to promote the five R&D centres, 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;
- started to provide funding support for PSKLs in Hong Kong;
- enhanced promotion at business level through organising a 'Hong Kong Pavilion' at the China Hi-Tech Fair 2011 and other technology trade shows such as the Innovation, Design and Technology Expo; and
- participated in the Asia-Pacific Economic Cooperation (APEC) Industrial Science and Technology Working Group.

25 The key performance indicators are:

Indicators

	2010 (Actual)	2011 (Actual)	**2012 (Estimate)**
GSP			
applications received and processed	11	22	**22**
projects funded and being monitored	12	23	**34**
Internship Programme			
applications received and processed	329	214	**220**
intern positions funded	579	491	**500**

Matters Requiring Special Attention in 2012–13

26 During 2012–13, the Commission will continue to:

- strengthen technology co-operation with the Mainland through the Mainland/Hong Kong Science and Technology Co-operation Committee, the Pan-PRD Joint Conference on Regional Co-operation in Science and Technology, and the Guangdong/Hong Kong Expert Group on Co-operation in Innovation and Technology, and the Steering Group on Shenzhen/Hong Kong Co-operation in Innovation and Technology to dovetail with the technology development in the Mainland as guided by the National 12th Five-Year Plan;
- support the development of Chinese medicines, and set up a new government-led committee to coordinate various parties in promoting the development of R&D and testing of Chinese medicines;
- administer the GSP, including Internship Programme, and monitor progress of the funded projects;
- promote innovation and technology culture to the general public and nurture more young innovative talents;
- nominate entries for the State Science and Technology Awards;
- provide funding support to the PSKLs and invite a new round of applications for them;
- work on recommending Hong Kong experts to be included in the National Science and Technology Programmes Expert Database;
- organise the 'Hong Kong Pavilion' at technology trade shows including the China Hi-Tech Fair 2012; and
- participate in the APEC Industrial Science and Technology Working Group.

Programme (5): Infrastructural Support

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	**2012–13 (Estimate)**
Financial provision ($m)	11.3	11.5	12.0 (+4.3%)	**12.0** (—) (or +4.3% on 2011–12 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 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, Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI) and the Hong Kong Productivity Council (HKPC) in the process.

29 During 2011–12, the Commission:

- worked closely with the HKSTPC on its policy directions, including implementation of the Phase Three development of the HKSP 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; and
- monitored the delivery of value-added support services to the manufacturing and related service industries by the HKPC.

Matters Requiring Special Attention in 2012–13

30 During 2012–13, the Commission will continue to:

- work closely with the HKSTPC on its various developments and business plans of the HKSP and the Industrial Estates; and
- assist the ASTRI in strengthening its R&D capabilities and lead research programmes in the focus areas of communications technologies, consumer electronics, integrated circuit (IC) design, opto-electronics and biomedical engineering.

Programme (6): Quality Support

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	**2012–13 (Estimate)**
Financial provision ($m)	75.6	82.0	83.0 (+1.2%)	**99.3** (+19.6%) (or +21.1% on 2011–12 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 2011–12, the SCL participated in four 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 222 national metrology institutes in 84 economies and three international organisations. The HKAS provides a comprehensive range of accreditation services under the Hong Kong Laboratory Accreditation Scheme (HOKLAS), the Hong Kong Certification Body Accreditation Scheme (HKCAS) and the Hong Kong Inspection Body Accreditation Scheme (HKIAS). Accreditation services have been extended to cover production of reference materials, certification of food safety management system and occupational health and safety management system. 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. The Secretariat of HKCTC provided support to HKCTC in co-ordinating the implementation of a three-year development plan for the testing and certification industry.

34 The key performance measures for SCL, PSIB and HKAS are:

Targets

	Target working days	2010 (Actual)	2011 (Actual)	**2012 (Plan)**
processing of quotation for calibration services	2	2	2	**2**
calibration of equipment	13	13	13	**13**
processing of simple enquiries on product standards	1	1	1	**1**
processing of complicated enquiries on product standards	8	8	8	**8**
issue of quotations for documented standards	1	1	1	**1**
processing of orders for photocopies of documented standards	2	2	2	**2**

Indicators

	2010 (Actual)	2011 (Actual)	**2012 (Estimate)**
SCL			
calibrations performed	802	891	**890**
revenue generated ($)	1,622,305	1,837,285	**1,830,000**
revenue/post ($)	411,632	413,445	**407,519**
PSIBΔ			
technical enquiries	426	382	**380**
sales and photocopying of documented standards enquiries	271	221	**220**
quotations given	1 418	687	**680**
orders placed	198	170	**160**
revenue generated ($)	138,679	133,268	**125,000**
revenue/post ($)	338,241	325,043	**324,390**
HOKLAS			
accredited laboratories (cumulative)	173	184	**188**
assessments and re-assessments conducted	350	385	**392**
overseas laboratory accreditation schemes with MRA with the HOKLAS (cumulative)	74	78	**78**
HKCAS			
accredited certification bodies (cumulative)	17	17	**18**
assessments, re-assessments and surveillance visits conducted	21	33	**35**
overseas certification bodies accreditation schemes with multilateral recognition arrangement with the HKCAS (cumulative)	45	52	**52**
HKIAS			
accredited inspection bodies (cumulative)	21	19	**20**
assessments, re-assessments and surveillance visits conducted	34	32	**34**
overseas inspection bodies accreditation schemes with multilateral recognition arrangement with the HKIAS (cumulative)	12	13	**13**

Δ The drop in this indicator in recent years is mainly attributed to the ease of obtaining standards through the Internet and across the border.

Matters Requiring Special Attention in 2012–13

35 During 2012–13, the Commission will:

- continue to work closely with HKCTC in adopting a dual approach to further develop the testing and certification industry – making general improvements to the accreditation service and factors of production of the industry to enhance its competitiveness, while focusing effort to explore business opportunities in the four selected trades of Chinese medicines, construction materials, food and jewellery, and two emerging trades of environmental protection and ICT;

- support the testing and certification industry in implementing the new Mainland initiative to allow qualified Hong Kong testing laboratories to test all Hong Kong processed products that require China Compulsory Certification to enter the Mainland market;
- 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;
- host the Pacific Accreditation Co-operation Plenary Meetings;
- develop plans to extend accreditation services to other areas to support industry and continue to work closely with HKCTC to promote existing accreditation services to industry;
- 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

	2010–11 (Actual)	2011–12 (Original)	2011–12 (Revised)	**2012–13 (Estimate)**
Financial provision ($m)				
Hong Kong Productivity Council	193.2	176.6	182.9 (+3.6%)	**178.0** (–2.7%) (or +0.8% on 2011–12 Original)
Hong Kong Applied Science and Technology Research Institute Company Limited	106.1	133.5	133.5 (—)	**134.5** (+0.7%) (or +0.7% on 2011–12 Original)
Total	299.3	310.1	316.4 (+2.0%)	**312.5** (–1.2%) (or +0.8% on 2011–12 Original)

HKPC

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 and sustainability.

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 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 2011–12, HKPC runs the following subsidiaries:

- 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 ITF.

40 The key performance indicators for the HKPC are:

Indicators

	2010–11 (Actual)	2011–12 (Revised Estimate)	**2012–13 (Estimate)**
overall income/expenditure ratio (%)	67.2	66.5	**67.5**
income from consultancy/technical assistance ($m)	202.2	220.0	**229.8**
income from training courses ($m)	21.0	25.0	**24.6**
income from exhibitions/study missions/conferences ($m)	7.7	9.4	**10.9**
income from manufacturing support/process control ($m)	23.4	23.1	**26.1**
no. of consultancy projects accepted	1 443	1 400	**1 420**
no. of people who attended the HKPC fee-charging training courses	6 172	6 400	**6 000**
no. of people who attended the HKPC events/networking activities for associations/non-fee-charging seminars	21 132	14 000	**18 100**
no. of people who attended the HKPC exhibitions	1 700	1 000	**1 600**
no. of people who participated in the HKPC study missions/conferences	1 610	2 300	**1 520**
no. of R&D projects			
new projects	17	26	**26**
on-going projects	46	44	**40**

Matters Requiring Special Attention in 2012–13

41 During 2012–13, the HKPC will continue to:

- provide integrated support to innovative and growth-oriented Hong Kong companies 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;
- 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 companies 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; 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.

ASTRI

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, and to enhance Hong Kong's competitiveness in technology-based industries through applied research.

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, ASTRI now has five technology areas, namely, communications technologies, enterprise and consumer electronics, IC design, material and packaging technologies and biomedical electronics, as its focus areas. ASTRI has become more customer-focused in its R&D business. Companies are encouraged to contribute a significant portion of the total project cost as industry collaborative projects undertaken by the ASTRI.

45 The key performance indicators for ASTRI are:

Indicators

	2010 (Actual)	2011 (Actual)	**2012 (Estimate)**
no. of new full projects^	33	16	**38**
no. of new seed projects¶	12	13	**16**
no. of patents filed	50	43	**40**
no. of technology transfers	79	84	**85**
no. of clients engaged in technology transfer	66	60	**71**
no. of members joining consortia formed by ASTRI	100	186	**207**
no. of technology workshop/seminars organised	43	47	**45**
no. of participants of seminars	4 030	4 550	**4 500**
amount of income from industry ($m)	57.9	51.0	**72.3**

^ 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 2012–13

46 During 2012–13, the ASTRI will continue to:

- pursue the research projects initiated in 2011–12 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 ITF Internship Programme; and
- improve the industrial involvement and contribution on its R&D projects through collaborative projects.

ANALYSIS OF FINANCIAL PROVISION

Programme	2010–11 (Actual) ($m)	2011–12 (Original) ($m)	2011–12 (Revised) ($m)	**2012–13 (Estimate) ($m)**
(1) Support for Research and Development	34.4	46.7	39.7	**41.2**
(2) Fostering University-Industry Collaboration	6.8	6.6	6.6	**7.0**
(3) Promotion of Technological Entrepreneurship	6.6	6.2	6.3	**7.6**
(4) Planning for Innovation and Technology Development	31.4	35.1	34.7	**35.9**
(5) Infrastructural Support	11.3	11.5	12.0	**12.0**
(6) Quality Support	75.6	82.0	83.0	**99.3**
(7) Subvention: Hong Kong Productivity Council, Hong Kong Applied Science and Technology Research Institute Company Limited	299.3	310.1	316.4	**312.5**
	465.4	498.2	498.7 (+0.1%)	**515.5 (+3.4%)**
				(or +3.5% on 2011–12 Original)

Analysis of Financial and Staffing Provision

Programme (1)

Provision for 2012–13 is $1.5 million (3.8%) higher than the revised estimate for 2011–12. This is mainly due to the increased provision for salary and cash flow requirements for a non-recurrent item, partly offset by the reduced provision for general departmental expenses. In addition, there will be an increase of two posts in 2012–13.

Programme (2)

Provision for 2012–13 is $0.4 million (6.1%) higher than the revised estimate for 2011–12. This is mainly due to the increased provision for salary and general departmental expenses.

Programme (3)

Provision for 2012–13 is $1.3 million (20.6%) higher than the revised estimate for 2011–12. This is mainly due to the increased provision for salary, partly offset by the reduced provision for general departmental expenses. In addition, there will be an increase of two posts in 2012–13.

Programme (4)

Provision for 2012–13 is $1.2 million (3.5%) higher than the revised estimate for 2011–12. This is mainly due to the increased provision for general departmental expenses.

Programme (5)

Provision for 2012–13 is comparable with the revised estimate for 2011–12.

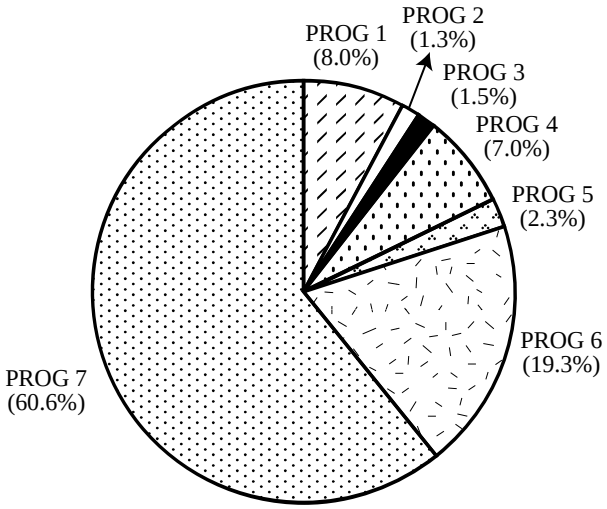
Programme (6)

Provision for 2012–13 is $16.3 million (19.6%) higher than the revised estimate for 2011–12. This is mainly due to the increased provision for salary and procurement of capital equipment, partly offset by the reduced provision for general departmental expenses. In addition, there will be an increase of 16 posts in 2012–13.

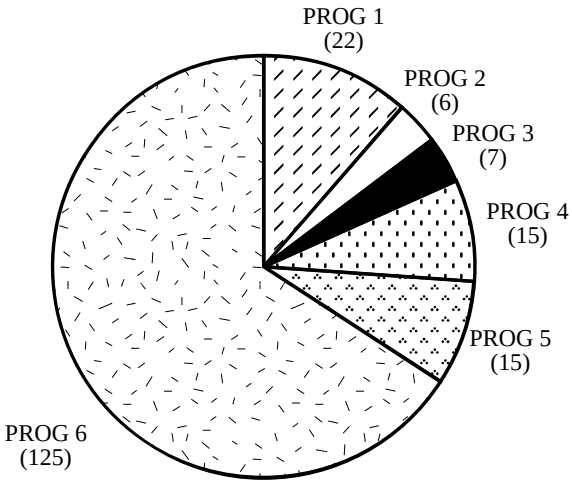
Programme (7)

Provision for 2012–13 is $3.9 million (1.2%) lower than the revised estimate for 2011–12. This is mainly due to the reduced provision for procurement of capital equipment for HKPC.

Allocation of provision to programmes (2012-13)

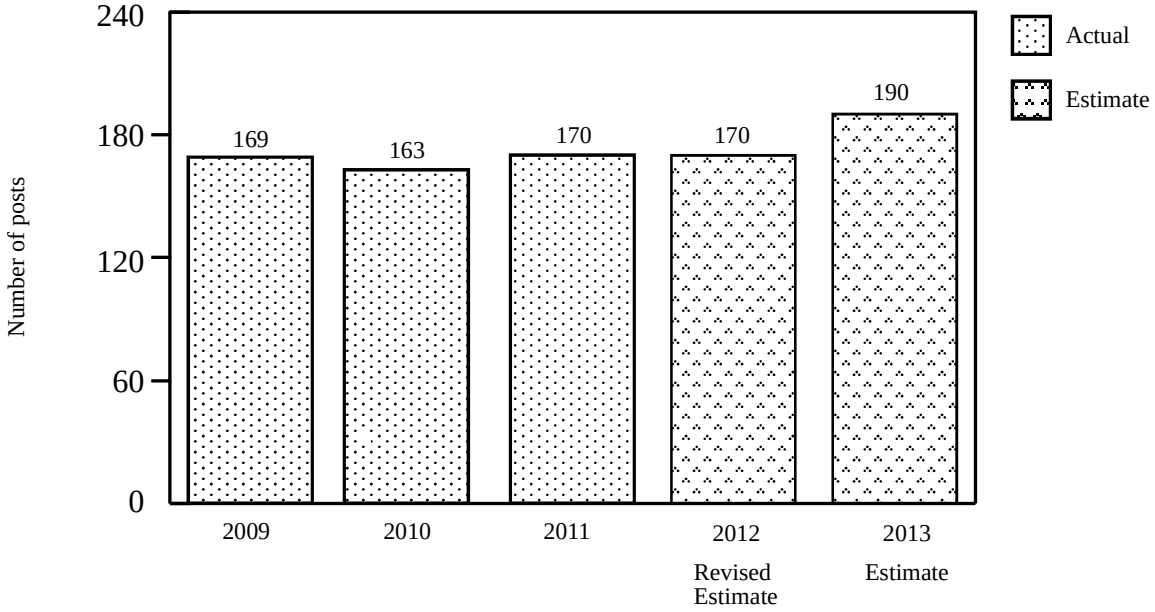


Staff by programme (as at 31 March 2013)



(No government staff under PROG 7)

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



Sub-head (Code)		Actual expenditure 2010–11	Approved estimate 2011–12	Revised estimate 2011–12	**Estimate 2012–13**
		$'000	$'000	$'000	**$'000**
	Operating Account				
	Recurrent				
000	Operational expenses	432,665	473,736	482,636	**495,017**
	Total, Recurrent	432,665	473,736	482,636	**495,017**
	Non-Recurrent				
700	General non-recurrent	21,139	15,136	7,500	**8,200**
	Total, Non-Recurrent	21,139	15,136	7,500	**8,200**
	Total, Operating Account	453,804	488,872	490,136	**503,217**
	Capital Account				
	Plant, Equipment and Works				
603	Plant, vehicles and equipment	—	1,350	970	**2,280**
661	Minor plant, vehicles and equipment (block vote)	3,773	2,810	2,810	**9,970**
	Total, Plant, Equipment and Works	3,773	4,160	3,780	**12,250**
	Subventions				
	Hong Kong Productivity Council	7,855	5,200	4,850	**—**
	Total, Subventions	7,855	5,200	4,850	**—**
	Total, Capital Account	11,628	9,360	8,630	**12,250**
	Total Expenditure	465,432	498,232	498,766	**515,467**

Details of Expenditure by Subhead

The estimate of the amount required in 2012–13 for the salaries and expenses of the Innovation and Technology Commission is $515,467,000. This represents an increase of $16,701,000 over the revised estimate for 2011–12 and of $50,035,000 over the actual expenditure in 2010–11.

Operating Account

Recurrent

2 Provision of $495,017,000 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 2012 will be 169 permanent posts and one supernumerary post. It is expected that there will be an increase of 20 posts in 2012–13. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2012–13, but the notional annual mid-point salary value of all such posts must not exceed $88,456,000.

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

	2010–11 (Actual) ($'000)	2011–12 (Original) ($'000)	2011–12 (Revised) ($'000)	**2012–13 (Estimate) ($'000)**
Personal Emoluments				
- Salaries	88,988	88,300	91,500	**102,700**
- Allowances	1,858	2,315	1,898	**2,585**
- Job-related allowances	—	2	2	**2**
Personnel Related Expenses				
- Mandatory Provident Fund Contribution	142	141	145	**210**
- Civil Service Provident Fund contribution	202	466	546	**997**
Departmental Expenses				
- General departmental expenses	63,968	77,571	77,027	**76,067**
Subventions				
- Hong Kong Productivity Council	171,401	171,401	177,978	**177,978**
- Hong Kong Applied Science and Technology Research Institute Company Limited	106,106	133,540	133,540	**134,478**
	432,665	473,736	482,636	**495,017**

Capital Account

Plant, Equipment and Works

5 Provision of $9,970,000 under *Subhead 661 Minor plant, vehicles and equipment (block vote)* represents an increase of $7,160,000 (254.8%) over the revised estimate for 2011–12. This is mainly due to the increased requirement for minor plant and equipment.

Commitments

Sub-head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2011	Revised estimated expenditure for 2011–12	Balance
			$'000	$'000	$'000	$'000
Operating Account						
700		*General non-recurrent*				
	860	Research and Development Cash Rebate Scheme	200,000	5,638	7,500	186,862
			200,000	5,638	7,500	186,862
Capital Account						
603		*Plant, vehicles and equipment*				
	831	For Direct Current Laboratory of Standards and Calibration Laboratory to set up new facility for calibration services for spectral power and irradiance responsivity of photo-detectors	3,250	—	970	2,280
			3,250	—	970	2,280
		Total	203,250	5,638	8,470	189,142