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

Controlling officer, the Commissioner for finiovation and recliniology will account for expenditure under the	illis Head.
Estimate 2003–04	\$156.6m
<b>Establishment ceiling 2003–04</b> (notional annual mid-point salary value) representing an estimated 182 non-directorate posts as at 31 March 2003 rising by one post to 183 posts as at 31 March 2004	\$74.7m
In addition there will be an estimated nine directorate posts as at 31 March 2003 reducing by one post to eight posts as at 31 March 2004.	
Capital Account commitment balance	\$25.7m

## **Controlling Officer's Report**

## **Programmes**

Programme (1) Support for Research and
Development

Programme (2) Fostering UniversityIndustry Collaboration

Programme (3) Promotion of Technological
Entrepreneurship

Programme (4) Planning for Innovation
and Technology
Development

Programme (5) Infrastructural Support

These programmes of Technology and Brundustry and Technology
Industry and I

These programmes contribute to Policy Area 17: Information Technology and Broadcasting (Secretary for Commerce, Industry and Technology).#

This programme contributes to Policy Area 15: Health (Secretary for Health, Welfare and Food) and Policy Area 17: Information Technology and Broadcasting (Secretary for Commerce, Industry and Technology).#

## Detail

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

**Programme (6) Quality Support** 

	2001–02	2002–03	2002–03	2003–04
	(Actual)	(Approved)	(Revised)	(Estimate)
Financial provision (\$m)	21.7	31.4 (+44.7%)	25.5 (-18.8%)	28.0 (+9.8%)

### 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 whose results have to be transferred to companies in the relevant industry. We also administer the Patent Application Grant (PAG) to provide funding assistance to local companies and individuals to apply for patent registration of their own inventions. In this way we help ensure that the outcome of our R&D efforts are properly protected.
- 4 With the aims to strengthen Hong Kong's research capability for technological development and to stimulate the growth of technology-based industry in Hong Kong, we have been working closely with the Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI) in building up its institutional and research capabilities to support its R&D activities, and formulating its strategic plan and business policy. ASTRI's current research areas focus on photonic technologies, internet software, wireless communications, integrated circuit design and biotechnology. In addition, we set up the Hong Kong Jockey Club Institute of Chinese Medicine Limited (HKJCICM) as a subsidiary of ASTRI in May 2001. HKJCICM acts as a focal point for action and co-ordination in our pursuit to be

<sup>#</sup> The Innovation and Technology Commission (ITC) was previously under Policy Area 6: Commerce and Industry (the then Secretary for Commerce and Industry). After re-organisation, the ITC is now under Policy Area 17: Information Technology and Broadcasting (Secretary for Commerce, Industry and Technology).

the world centre for the development of health food and pharmaceuticals based on Chinese medicine. HKJCICM has formulated its long-term business plan to support scientific and value-added development of Chinese medicine. In 2002–03, HKJCICM set its programme directions to steer Chinese medicine development embracing standardisation, technology and product development, safety appraisal and evidence-based clinical studies, and also launched its first R&D project.

- **5** During 2002–03, we continued to solicit projects with publicised themes for the ITSP. With the technology focuses and project objectives clearly set out at the outset, this approach seeks to strengthen R&D in areas where Hong Kong has the advantage, to give depth to the existing R&D programme and to enable proposal initiators to plan projects in a more focused manner. It also encourages both competition and collaboration among the universities and research institutions.
- **6** Apart from the technical monitoring of the progress of funded projects, we conduct inspection checks on the recipient organisations of the ITF in 2002–03 to ensure that public money has been properly spent. Also, development of a new computer system has commenced to enhance the existing electronic internet-based technology information system, and enable more efficient administration of the ITF.
- 7 The performance of this programme area 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 ASTRI and HKJCICM accomplish their research programmes effectively. Performance indicators in respect of the ITSP, ASTRI and PAG are as follows:

## **Indicators**

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
ITSP of the ITF			
applications received and processed	206	114	164
projects funded and being monitored	178	216	187
ASTRI Projects funded by the ITF			
projects funded†	_	4	9
PAG			
applications received and processed	165	193	193
projects funded	48	55	55

<sup>†</sup> Out of the 4 projects funded in 2002, one was completed. The remaining 3 projects will be continued in 2003, in addition to another 9 new projects.

## Matters Requiring Special Attention in 2003-04

- **8** During 2003–04, we will:
- review the implementation of the streamlined procedures in administering the ITSP and give more emphasis to the technology transfer plans of the funded projects;
- continue to conduct inspection checks on the recipient organisations;
- continue to solicit projects with publicised themes. We will embark on technology road mapping to guide the solicitation programme;
- evaluate the performance of completed ITF projects;
- continue to work closely with ASTRI in building up its research capability and developing and implementing its research projects; and
- continue to work closely with HKJCICM in refining its research agenda and developing and implementing its research projects.

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

	2001–02	2002–03	2002–03	2003–04
	(Actual)	(Approved)	(Revised)	(Estimate)
Financial provision (\$m)	5.8	8.4 (+44.8%)	6.7 (-20.2%)	7.5 (+11.9%)

### Aim

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

## **Brief Description**

- 10 We achieve 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. The objective is to stimulate private sector investment in R&D through a 50:50 matching fund arrangement to enable companies to leverage on the knowledge and resources of universities. Under this arrangement, collaboration takes three forms, namely, Teaching Company Scheme, Matching Grant for Joint Research, and Industrial Research Chair Scheme. In short, the Teaching Company Scheme supports local companies to take on graduate students from local universities to assist in proprietary R&D work. The Matching Grant for Joint Research supports R&D projects taken up jointly by private companies and universities. The applying company will cover half of the project cost and will hold the intellectual property rights arising from the project. The Industrial Research Chair Scheme supports research efforts of universities and industry in technology fields which are not yet developed in Hong Kong but for which there is good development potential.
- 11 This programme received good response in 2002–03 and we expect to receive a total of 39 applications requesting \$43 million.
  - 12 The key performance indicators are:

### **Indicators**

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
UICP of the ITF			
applications received and processed	44	34	34
projects funded and being monitored	72	97	110

## Matters Requiring Special Attention in 2003-04

13 During 2003–04, we will continue to administer the UICP and to monitor progress of the funded projects.

## **Programme (3): Promotion of Technological Entrepreneurship**

	2001–02	2002–03	2002–03	2003–04
	(Actual)	(Approved)	(Revised)	(Estimate)
Financial provision (\$m)	7.3	8.2 (+12.3%)	8.0 (-2.4%)	8.6 (+7.5%)

## Aim

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

## **Brief Description**

- 15 We provide 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 and to conduct market validation. The ARF provides funding to technology companies in Hong Kong at the venture capital stage. In addition, we work closely with the Hong Kong Science and Technology Parks Corporation (HKSTPC), which operates an incubation programme to provide technology start-ups with support on marketing, finance, technology and management in their critical initial years of operation.
  - **16** During 2002–03, we:
  - publicised widely the SERAP and its funded companies;
  - organised seminars with HKSTPC for funded companies on intellectual property protection and marketing effectiveness;
  - actively introduced SERAP companies to ARF fund managers;
  - worked closely with HKSTPC to strengthen its incubation programme, and through the programme provided more comprehensive support services to technology start-ups;
  - organised events, such as road-shows, talks at universities, to encourage technological entrepreneurship in Hong Kong;
  - closely monitored the active cases which had received assistance from the ARF before the engagement of fund managers and took remedial actions for those cases which were not performing well; and
  - reviewed the overall investment strategy of the ARF.

### 17 The key performance measures are:

### **Indicators**

	2001	2002	2003
	(Actual)	(Actual)	(Estimate)
SERAP of the ITF applications received and processed projects funded and being monitored	201	189	180
	38	29	54
ARF new projects funded	2	3	3

The performance of this programme area is also reflected in the extent to which the incubation programme is successfully run by the HKSTPC.

## Matters Requiring Special Attention in 2003-04

- **18** During 2003–04, we will:
- continue to administer the SERAP of the ITF, monitor progress of the funded projects and provide other support services; and
- continue to work closely with the venture capital firms appointed to manage the ARF to ensure effective running of the fund.

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

	2001–02	2002–03	2002–03	2003–04
	(Actual)	(Approved)	(Revised)	(Estimate)
Financial provision (\$m)	11.5	23.0 (+100.0%)	17.6 (-23.5%)	30.3 (+72.2%)

#### Aim

19 The aim is to support the Council of Advisors on Innovation and Technology (CAIT) in giving advice on innovation and technology policies and to sustain public awareness of innovation and technology.

### **Brief Description**

- 20 The CAIT is a high-level standing advisory body responsible for making recommendations to the Chief Executive on matters related to innovation and technology with a view to optimising their contributions to Hong Kong's economic development. The Commission provides secretariat support and policy input to the CAIT.
- 21 To enhance public awareness and understanding of the importance of innovation and technology, the Commission 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. The Commission also organises promotional events locally and participates actively in relevant regional activities which help promote innovation and technology.
  - **22** During 2002–03, we:
  - supported and provided input to the policy deliberations of the CAIT;
  - organised the Hong Kong Student Science Project Competition and arranged a delegation comprising the winning teams to attend the London International Youth Science Forum held in London, United Kingdom in July/August 2002:
  - participated in two categories of the State Science and Technology Awards;
  - organised a 'Hong Kong Pavilion' at the China Hi-Tech Fair 2002 to showcase the latest technological achievements of Hong Kong enterprises and the commitment of the Government to promote innovation and technology; and
  - participated actively in the Asia-Pacific Economic Cooperation (APEC) Industrial Science and Technology Working Group.
  - 23 The key performance indicators are:

### **Indicators**

	2001 (Actual)	2002 (Actual)	2003 (Estimate)
GSP of the ITF			
applications received and processed	50	28	28
projects funded and being monitored	35	41	29

## Matters Requiring Special Attention in 2003-04

- **24** During 2003–04, we will continue to:
- provide secretariat support to the CAIT;
- administer the GSP and monitor progress of the funded projects;
- organise the Hong Kong Student Science Project Competition;
- · participate in the State Science and Technology Awards;
- organise the Hong Kong Pavilion at the China Hi-Tech Fair 2003; and
- participate in meetings of the APEC Industrial Science and Technology Working Group.

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

	2001–02	2002–03	2002–03	2003–04
	(Actual)	(Approved)	(Revised)	(Estimate)
Financial provision (\$m)	25.3	17.6 (-30.4%)	17.7 (+0.6%)	15.0 (-15.3%)

#### Aim

25 The aim is to develop world-class support infrastructure to facilitate technological upgrading and development of the industry.

## **Brief Description**

26 We achieve the aim through planning, supporting and overseeing technological infrastructural projects; commissioning relevant consultancy studies; 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. We work closely with relevant industry support organisations such as the HKSTPC, the ASTRI, the HKJCICM and the Hong Kong Productivity Council (HKPC) in the process.

## 27 During 2002–03, we:

- worked closely with HKSTPC on its policy directions and development plans as well as the planning and construction of the Hong Kong Science Park (HKSP) at Pak Shek Kok of which its Phase 1 was opened in June 2002. We also reviewed the need for the fourth Industrial Estate at Tseung Kwan O, the development of which we decided not to proceed. However, the concept of land bank would be further explored under a "Hong Kong 2030" study by the Planning Department;
- worked closely with ASTRI on building up its institutional and research capabilities to support its research programmes;
- worked closely with HKJCICM on building up its institutional capabilities and developing and implementing its research programmes;
- monitored the delivery of value-added support services to the manufacturing and related service industries by HKPC;
- worked closely with HKPC to follow up on the recommendations made in the consultancy study on its public mission, role, management and operations;
- worked closely with the Hong Kong Design Centre Ltd. in setting up the Hong Kong Design Centre (HKDC) in September 2002 to promote the design industry and its competitiveness in the region as a service industry; and
- completed a consultancy study on environmental technology industry in Hong Kong.

## Matters Requiring Special Attention in 2003-04

- 28 During 2003–04, we will continue to:
- work closely with the HKSTPC on its various development and business plans;
- assist in the planning and construction of the HKSP;
- assist ASTRI in formulating its business policy, building up its institutional and research capabilities and planning for ASTRI's permanent accommodation at the HKSP;
- assist HKJCICM in building up its institutional capabilities and developing and implementing its research programmes;
- · follow up on the recommendations made in the consultancy study on HKPC; and
- assist HKDC in promoting the design industry.

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

	2001–02	2002–03	2002–03	2003–04
	(Actual)	(Approved)	(Revised)	(Estimate)
Financial provision (\$m)	63.1	67.8 (+7.4%)	63.3 (-6.6%)	67.2 (+6.2%)

#### Aim

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

## **Brief Description**

- **30** We achieve this aim through operation of the Standards and Calibration Laboratory (SCL), the Product Standards Information Bureau (PSIB), and the Hong Kong Accreditation Service (HKAS).
- 31 During 2002–03, SCL participated in five international comparison of standards projects. SCL's capabilities in the areas of dimension, mass and electromagnetic metrology have been listed in the technical schedules of the Global Mutual Recognition Arrangement operated by the International Bureau of Weights and Measures. A customer liaison group was established by SCL in 2002. 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 ISO 14000 certification, construction products inspection and traditional Chinese Medicine testing. Preparation is underway to launch the medical testing accreditation programme in 2003–04. HKAS was evaluated by the Pacific Accreditation Co-operation (PAC) in November 2002 for joining the PAC Multilateral Mutual Recognition Arrangement. PSIB represented Hong Kong, China in the APEC Sub-Committee on Standards and Conformance. PSIB's quality management system was upgraded and certified to ISO9001: 2000 in 2002.
  - 32 The key performance measures are:

## **Targets**

	Target working days	2001 (Actual)	2002 (Actual)	2003 (Plan)
processing of quotation for calibration				
services	5#	4	4	5
calibration of equipment	20	19	15	18
provision of technical advice in response				
to oral enquiries on product standards	1	1	1	1
processing of simple written enquiries on				
product standards	1	1	1	1
processing of complicated written				
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

<sup>#</sup> This target has been improved from 6 days to 5 days in 2002.

Indicators			
	2001	2002	2003
	(Actual)	(Actual)	(Estimate)
SCL			
calibrations performed	704	575	575
revenue generated (\$)	2,026,040	1,596,960	1,597,000
revenue/post (\$)	330,826	326,798	327,000
PSIB			
technical enquiries	1 133	884	900
sales and photocopying of documented standards			
enquiries	1 542	919	920
quotations given	9 331	4 146	4 150
orders placed	1 657	743	750
revenue generated (\$)	917,749	399,771	400,000
revenue/post (\$)	434,952	189,465	190,000
HOKLAS			
accredited laboratories (cumulative)	106	109	116
assessments and reassessments conducted	212	215	240
overseas laboratory accreditation schemes with mutual			
recognition arrangement with HOKLAS			
(cumulative)	41	44	46
HKCAS			
accredited certification bodies (cumulative)	6	6	7
assessments, reassessments and surveillance			
conducted	12	12	13
HKIAS			
accredited inspection bodies (cumulative)	2	5	8
assessments, reassessments and surveillance			
conducted	5	9	10

## Matters Requiring Special Attention in 2003-04

## **33** During 2003–04, we will:

- participate in activities to extend the Asia Pacific Laboratory Accreditation Co-operation Multilateral Mutual Recognition Arrangement, the International Laboratory Accreditation Co-operation Multilateral Mutual Recognition Arrangement and the Pacific Accreditation Co-operation Multilateral Mutual Recognition Arrangement to include more signatories;
- extend accreditation services to cover medical testing and indoor air quality inspection;
- participate in the activities of the Global Mutual Recognition Arrangement operated by the International Bureau of Weights and Measures, and in the activities of the Asia Pacific Metrology Programme;
- participate in six additional international comparison of standards projects;
- strengthen interactions between staff of SCL and local metrology users with the view to disseminating measurement techniques and knowledge to local industries;
- conduct a programme of visits to customers to gauge customers' needs and to offer professional advice on-site;
- participate in APEC activities in the areas of standards and conformance.

## ANALYSIS OF FINANCIAL PROVISION

Pro	gramme	2001–02 (Actual) (\$m)	2002–03 (Approved) (\$m)	2002–03 (Revised) (\$m)	2003–04 (Estimate) (\$m)
(1) (2)	Support for Research and Development Fostering University-Industry	21.7	31.4	25.5	28.0
(3)	Collaboration	5.8	8.4	6.7	7.5
(4)	Entrepreneurship	7.3	8.2	8.0	8.6
( 1)	Development	11.5	23.0	17.6	30.3
(5)	Infrastructural Support	25.3	17.6	17.7	15.0
(6)	Quality Support	63.1	67.8	63.3	67.2
		134.7	156.4 (+16.1%)	138.8 (-11.3%)	156.6 (+12.8%)

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

## Programme (1)

Provision for 2003–04 is \$2.5 million (9.8%) higher than the revised estimate for 2002–03. This is mainly due to the full-year provision for vacant posts filled in 2002–03, maintenance of a computer system, additional requirement to employ non-civil service contract technology consultants and increased cashflow requirement for conducting studies on ITF funded projects, partly offset by the full-year effect of civil service pay cut in 2002 and posts deleted in 2002–03 and reduced operating expenditure to achieve efficiency savings.

## Programme (2)

Provision for 2003–04 is \$0.8 million (11.9%) higher than the revised estimate for 2002–03. This is mainly due to the full-year provision for vacant posts filled in 2002–03, additional requirement to employ non-civil service contract technology consultants and increased cashflow requirement for conducting studies on ITF funded projects, partly offset by the full-year effect of civil service pay cut in 2002 and reduced operating expenditure to achieve efficiency savings.

## Programme (3)

Provision for 2003–04 is \$0.6 million (7.5%) higher than the revised estimate for 2002–03. This is mainly due to the full-year provision for vacant posts filled in 2002–03 and increased cashflow requirement for conducting studies on ITF funded projects.

## Programme (4)

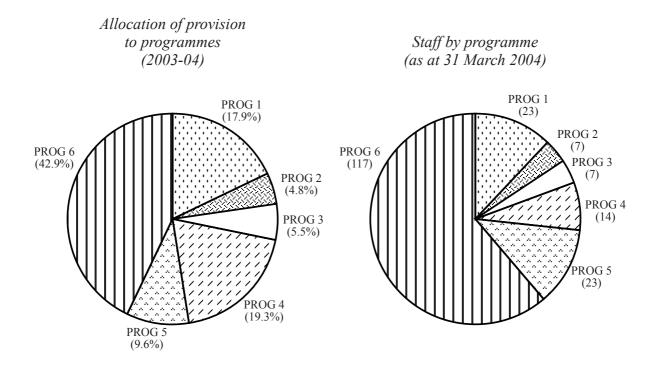
Provision for 2003–04 is \$12.7 million (72.2%) higher than the revised estimate for 2002–03. This is mainly due to the full-year provision for vacant posts filled in 2002–03 and increased cashflow requirement for technology consultancy studies and promotion events, partly offset by reduced operating expenses to achieve efficiency savings.

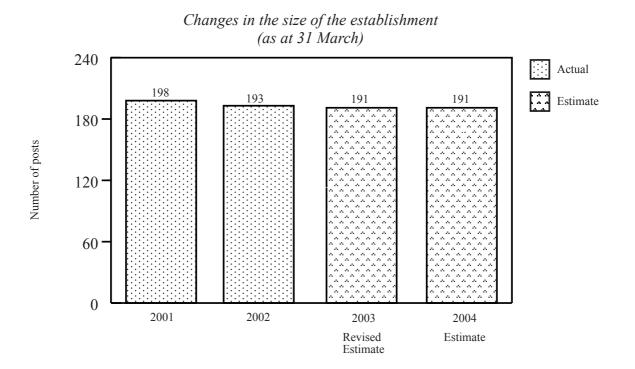
## Programme (5)

Provision for 2003–04 is \$2.7 million (15.3%) lower than the revised estimate for 2002–03. This is mainly due to the lapse of a supernumerary post, full-year effect of civil service pay cut in 2002 and completion of a consultancy study, partly offset by the full-year provision of vacant posts filled in 2002–03.

## Programme (6)

Provision for 2003–04 is \$3.9 million (6.2%) higher than the revised estimate for 2002–03. This is mainly due to the creation of one post and related expenses for extension of the HOKLAS's coverage to include medical testing laboratories in Hong Kong, full-year provision for posts created and vacant posts filled in 2002–03 and increased cashflow requirement for capital account items, partly offset by the full-year effect of civil service pay cut in 2002 and posts deleted in 2002–03 and reduced operating expenses to achieve efficiency savings.





Year

Sub- head (Code)		Actual expenditure 2001–02	Approved estimate 2002–03	Revised estimate 2002–03	Estimate 2003–04
	D	\$'000	\$'000	\$'000	\$'000
	Recurrent Account				
000 Opera	tional expenses	125,731	141,086	131,194	135,552
	Total, Recurrent Account	125,731	141,086	131,194	135,552
	Capital Account				
I —	Plant, Equipment and Works				
	vehicles and equipment	37	2,480	1,921	3,012
	e)	2,519	3,015	3,015	2,900
	Total, Plant, Equipment and Works	2,556	5,495	4,936	5,912
11	Other Non-Recurrent				
	al other non-recurrent	6,427	9,825	2,635	15,110
700 Gener					
	Total, Other Non-Recurrent	6,427	9,825	2,635	15,110
	Total, Capital Account	8,983	15,320	7,571	21,022
	Total Expenditure	134,714	156,406	138,765	156,574

## **Details of Expenditure by Subhead**

The estimate of the amount required in 2003–04 for the salaries and expenses of the Innovation and Technology Commission is \$156,574,000. This represents an increase of \$17,809,000 over the revised estimate for 2002–03 and of \$21,860,000 over actual expenditure in 2001–02.

### Recurrent Account

- **2** Provision of \$135,552,000 under *Subhead 000 Operational expenses* is for the salaries and allowances of staff of the Innovation and Technology Commission and its other operating expenses.
- **3** The establishment as at 31 March 2003 will be 190 permanent posts and one supernumerary post. It is expected that one supernumerary post will lapse and one permanent post will be created in 2003–04. Subject to certain conditions, the controlling officer may under delegated powers create or delete non-directorate posts during 2003–04, but the notional annual mid-point salary value of all such posts must not exceed \$74,662,000.
  - 4 An analysis of financial provision under Subhead 000 Operational expenses is as follows:

	2001-02	2002-03	2002-03	2003-04
	(Actual)	(Original	(Revised	(Estimate)
		Estimate)	Estimate)	
	(\$'000)	(\$'000)	(\$'000)	(\$'000)
Personal Emoluments				
- Salaries	97,975	101,803	96,670	98,238
- Allowances	3,191	2,933	2,600	1,575
- Job-related allowances	_	_	_	4
Personnel Related Expenses				
- Mandatory Provident Fund				
contribution				22
Departmental Expenses				
- General departmental expenses	24,565	36,350	31,924	35,713
	125,731	141,086	131,194	135,552

## **Capital Account**

## **Commitments**

Sub- head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2002	Revised estimated expenditure for 2002–03	Balance
			\$'000	\$'000	\$'000	\$'000
603	007 208	Plant, vehicles and equipment Automatic gauge block interferometer Equipment and associated expenses for the expansion of the laboratory accreditation scheme to cover laboratories testing concrete and	4,400	_	1,230	3,170
		concrete reinforcing steel	21,627	20,825	250	552
			26,027	20,825	1,480	3,722
700		General other 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	_	_	1,300
	005	Provision of advisory service on the procurement of IT equipment for	,			,
	006	Science Park Phase I Impact studies on Innovation and	2,190	89	780	1,321
	000	Technology Fund projects	5,000	_	_	5,000
	800	Innovation Expo 2003	10,000	_	500	9,500
			23,490	209	1,280	22,001
		Total	49,517	21,034	2,760	25,723