Head 155 — GOVERNMENT SECRETARIAT: INNOVATION AND TECHNOLOGY COMMISSION

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

Estimate 2023–24 ..... **$833.4m**

Establishment ceiling 2023–24 (notional annual mid-point salary value) representing an estimated 313 non-directorate posts as at 31 March 2023 rising by 14 posts to 327 posts as at 31 March 2024..... **$252.9m**

In addition, there will be an estimated ten directorate posts as at 31 March 2023 and as at 31 March 2024.

Commitment balance..... **$516.6m**

Controlling Officer's Report

Programmes

Programme (1) Support for Research and Development **Programme (2) Promotion of Technological Entrepreneurship** **Programme (3) Planning for Innovation and Technology Development** **Programme (4) Infrastructural Support**	These programmes contribute to Policy Area 17: Information Technology and Broadcasting (Secretary for Innovation, Technology and Industry).
Programme (5) Quality Support	This programme contributes to Policy Area 15: Health (Secretary for Health) and Policy Area 17: Information Technology and Broadcasting (Secretary for Innovation, Technology and Industry).
Programme (6) 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 Innovation, Technology and Industry).

Detail

Programme (1): Support for Research and Development

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	**2023–24 (Estimate)**
Financial provision ($m)γ	80.1	87.8	93.6 (+6.6%)	**104.7** (+11.9%) (or +19.2% on 2022–23 Original)

γ For comparison purpose, the figures include relevant provisions for the staff cost which have been transferred from the former Head 55 — Government Secretariat: Commerce and Economic Development Bureau (Communications and Creative Industries Branch) and Head 181 — Trade and Industry Department due to re-organisation of the Government Secretariat with effect from 1 July 2022.

Aim

2 The aim is to promote and support applied research and development (R&D) activities which can contribute to innovation and technology (I&T) 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 R&D results to companies in the relevant industry. The Guangdong-Hong Kong Technology Cooperation Funding Scheme (TCFS) supports applied R&D projects which will facilitate R&D collaboration between organisations in Hong Kong and Guangdong/Shenzhen. The Mainland-Hong Kong Joint Funding Scheme (MHKJFS), introduced in April 2019, supports and encourages R&D collaboration between Hong Kong and the Mainland. The Partnership Research Programme (PRP), which merged the University-Industry Collaboration Programme (UICP) and the collaborative stream of the ITSP in January 2019, supports R&D projects undertaken by local universities and other public research institutions in collaboration with local companies. The Midstream Research Programme for Universities (MRP) supporting institutions funded by the University Grants Committee to carry out more theme-based mid-stream research in key technology areas was subsumed under ITSP, and the new round of applications for ITSP (Mid-stream, theme-based) was invited in February 2022. The Public Sector Trial Scheme (PSTS) supports the production of prototypes/samples and/or conducting of trials in the public sector to promote the realisation and commercialisation of local R&D results. 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.

4 Five R&D centres were established by April 2006 to drive and co-ordinate R&D efforts in five focus areas, namely nanotechnology and advanced materials, textiles and clothing, automotive platforms and application 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, are funded mainly by the ITF.

5 Funding assistance is provided for State Key Laboratories in Hong Kong and Hong Kong Branches of Chinese National Engineering Research Centres to enhance their research capabilities. Financial support is also provided for designated universities to enhance their technology transfer capabilities.

6 Under the R&D Cash Rebate Scheme, companies participating in ITF-funded R&D projects or conducting R&D projects in partnership with designated local public research institutes enjoy a cash rebate of 40 per cent on their investments.

7 To assist more local technology companies in realising and commercialising their R&D outcomes and encourage public sector organisations to utilise more local R&D outcomes, the scope of funding of the PSTS has been extended to cover all technology companies conducting R&D activities in Hong Kong since March 2020. Furthermore, to combat the Coronavirus Disease 2019 (COVID-19) epidemic, a special call for projects under the PSTS was launched between March and April 2020 to support application of homegrown technologies for the prevention and control of the epidemic.

8 Companies can claim enhanced tax deduction for expenditure on qualifying R&D activities incurred on or after 1 April 2018. The Commissioner for Innovation and Technology is responsible for designating qualified local research institutions as "designated local research institution" (DLRI) under the Inland Revenue Ordinance (Cap. 112).

9 The Commission launched the Innovation Hub@HK in August 2022 with the aim of showcasing the R&D outcomes of universities and research institutes of Hong Kong. The website provides a one-stop platform to connect universities, research institutes and the industry to facilitate commercialisation and technology transfer of R&D outcomes.

10 The performance under this programme is indicated by the extent to which the applied R&D activities receiving funding support are of relevance to the industry and the extent to which the R&D centres accomplish their research programmes effectively. Performance indicators in respect of the ITSP, TCFS, MHKJFS, PRP, PSTS, UICP, MRP, PAG, R&D centres and R&D Cash Rebate Scheme are as follows:

Indicators

	2021 (Actual)	2022 (Actual)	**2023 (Estimate)**
ITSPΨ			
applications received and processed	366	405¶	**417¶**
projects funded and being monitored	292	257	**256**
TCFSΨ			
applications received and processed	229	0Δ	**193**
projects funded and being monitored	58	80	**109**
MHKJFSΨ			
applications received and processed	130	163	**122**
projects funded and being monitored	38	66	**91**
PRPΨ			
applications received and processed	57	53	**56**
projects funded and being monitored	103	141	**170**

	2021 (Actual)	2022 (Actual)	**2023 (Estimate)**
UICP			
applications received and processed^	N.A.	N.A.	**N.A.**
projects funded and being monitored	49	32	**21**
MRP			
applications received and processed¶	71	N.A.	**N.A.**
projects funded and being monitored	57	58	**50**
PSTS#			
applications received and processed	37	37	**29**
projects funded and being monitored	110	95	**82**
PAG			
applications received and processed	146	143	**146**
projects funded	113	113	**113**
R&D centres' projectsΦ			
Automotive Platforms and Application Systems R&D Centre			
new projects	23	18ρ	**22**
projects funded and being monitored	81	87	**88**
R&D Centre for information and communications technologies			
new projects	39	43	**43**
projects funded and being monitored	134	147	**119**
Logistics and Supply Chain MultiTech R&D Centre			
new projects	19δ	26	**26**
projects funded and being monitored	78	78	**86**
Nano and Advanced Materials Institute			
new projects	52	38ρ	**52**
projects funded and being monitored	143	151	**195**
Hong Kong Research Institute of Textiles and Apparel			
new projects	20	18ρ	**29**
projects funded and being monitored	71	69	**86**
R&D Cash Rebate Scheme			
applications received and processed	369	306‡	**350**
applications approved	368	269‡	**363**

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

¶ MRP has been subsumed under ITSP. Applications for ITSP (Mid-stream, theme-based) have been included under the indicator "ITSP" from 2022 onwards.

Δ At the request of the Department of Science and Technology of Guangdong Province, the application period of 2022 TCFS has been postponed.

^ UICP ceased to accept new applications from April 2019 onwards.

The figures include PSTS applications/projects in relation to completed ITF-funded R&D projects, incubatees and tenants of the Hong Kong Science and Technology Parks Corporation (HKSTPC) and Cyberport, and other technology companies conducting R&D activities in Hong Kong. They do not include applications submitted or projects undertaken by the five R&D centres, which are reported under the indicator "R&D centres' projects".

Φ All projects (including ITSP, TCFS, MHKJFS, PRP and PSTS projects) undertaken by R&D centres are included.

ρ The uncertain global business environment due to the negative impact brought by COVID-19 epidemic hindered local companies' investment in R&D, resulting in fewer new projects in 2022.

δ The Centre was preoccupied with initiatives which applied technology to combat the COVID-19 epidemic.

‡ The negative impact of COVID-19 epidemic on local business operations and R&D activities have resulted in a decline in the number of applications received.

Matters Requiring Special Attention in 2023–24

11 During 2023–24, the Commission will continue to:

- administer the various funding programmes and monitor progress of the funded projects;
- support the activities of the five R&D centres with emphasis on commercialisation and technology transfer of funded projects;
- 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 institutes;

- process applications for designation as DLRIs; and
- promote the Innovation Hub@HK, enhance the website with more functions and enrich its contents with more R&D outcomes.

Programme (2): Promotion of Technological Entrepreneurship

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	**2023–24 (Estimate)**
Financial provision ($m)	23.0	25.6	26.8 (+4.7%)	**37.5** (+39.9%) (or +46.5% on 2022–23 Original)

Aim

12 The aim is to promote technological entrepreneurship in Hong Kong and provide essential support to technology-based entrepreneurial activities and technology R&D in the private sector.

Brief Description

13 To encourage more private sector investment in R&D, the Commission launched in April 2015 the Enterprise Support Scheme (ESS) under the ITF to replace the Small Entrepreneur Research Assistance Programme (SERAP). The ESS provides funding support to companies of all sizes incorporated in Hong Kong to carry out R&D. The Applied Research Fund (ARF) which provides funding to technology companies in Hong Kong at the venture capital stage has been operating in a winding down mode since 2005 upon review.

14 The Commission administers the Technology Start-up Support Scheme for Universities (TSSSU). The TSSSU provides funding to six local universities to support their teams to start technology businesses and commercialise their R&D results. In addition, the Commission works closely with the HKSTPC which operates various incubation and acceleration programmes as well as its Corporate Venture Fund to provide funding and other support for technology start-ups in their different stages of operation.

15 To stimulate private sector investments in I&T start-ups in Hong Kong, the Commission administers the Innovation and Technology Venture Fund (ITVF) to co-invest with venture capital funds selected as co-investment partners (CPs) in eligible local I&T start-ups.

16 To incentivise collaboration among industry, academic and research sectors to further promote the transformation of R&D outcomes "from 1 to N" and the industry development, the Commission plans to launch a new "Research, Academic and Industry Sectors One-plus Scheme" (RAISe+ Scheme) in 2023 to fund, on a matching basis, university research teams with potential to become I&T start-ups.

17 During 2022–23, the Commission:

- administered the ESS and the TSSSU;
- monitored progress of the funded projects under the ESS and the SERAP;
- administered the ITVF, including the appointment of new CPs; and
- monitored the residual work relating to the ARF and the SERAP.

18 The key performance indicators are:

Indicators

	2021 (Actual)	2022 (Actual)	**2023 (Estimate)**
SERAPμ			
projects being monitored	23	9	**9**
ESS			
applications received and processed	77	89	**93**
projects funded and being monitored	113	118	**118**

μ Applications for SERAP were closed on 28 April 2015.

Matters Requiring Special Attention in 2023–24

19 During 2023–24, the Commission will:

- take forward the RAISe+ Scheme;
- continue to administer the ESS and the TSSSU, including the enhancement measure under TSSSU to provide matching funds to those start-ups which have secured private investment;
- continue to monitor progress of the funded projects under the ESS; and
- continue to administer the ITVF, including the appointment of new CPs.

Programme (3): Planning for Innovation and Technology Development

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	**2023–24 (Estimate)**
Financial provision ($m)γ	104.5	186.0	88.8 (–52.3%)	**129.3** (+45.6%) (or –30.5% on 2022–23 Original)

γ For comparison purpose, the figures include relevant provisions for the staff cost which have been transferred from the former Head 55 — Government Secretariat: Commerce and Economic Development Bureau (Communications and Creative Industries Branch) and Head 181 — Trade and Industry Department due to re-organisation of the Government Secretariat with effect from 1 July 2022.

Aim

20 The aim is to support the formulation and co-ordination of I&T policies, enhance public awareness of I&T and promote technology adoption.

Brief Description

21 The Commission supports technology co-operation with the Mainland and overseas economies, and participates in relevant regional and international activities which help promote I&T.

22 To enhance public awareness and understanding of the importance of I&T, the Commission organises promotional events locally and administers the General Support Programme (GSP) under the ITF to fund projects such as seminars, exhibitions, promotion of popular science and technology competitions for students which help foster an I&T culture in the community.

23 To enhance the long-term competitiveness of local enterprises, the Commission administers the Technology Voucher Programme (TVP), which aims to subsidise local non-listed enterprises and organisations in using technological services and/or solutions to improve productivity, upgrade or transform their business processes.

24 To promote re-industrialisation in Hong Kong, the Commission administers the Re-industrialisation Funding Scheme (RFS) which aims to subsidise manufacturers, on a matching basis, to set up new smart production lines in Hong Kong.

25 The Innovation and Technology Fund for Better Living (FBL), launched by the former Innovation and Technology Bureau in May 2017 and transferred to the ITF in June 2021, aims to fund I&T projects which will make people's daily life more convenient, comfortable and safer, or address the needs of specific community groups.

26 The Commission also administers four programmes to pool together and nurture technology talents:

- Launched in July 2020, the Research Talent Hub (RTH) merged the former Researcher Programme and Postdoctoral Hub to provide financial support for eligible organisations/companies to engage research talents to carry out R&D work. It aims to provide opportunities for graduates from tertiary institutions to acquire research and industrial experience, stimulate the interest of graduates in applied R&D activities and help nurture a larger pool of research talents;
- the STEM Internship Scheme subsidises university students in Science, Technology, Engineering and Mathematics (STEM) disciplines to gain I&T-related work experience through participation in short-term full-time internships, so as to enlarge the local I&T talent pool;
- the Technology Talent Admission Scheme (TechTAS) provides a fast-track arrangement for eligible companies to admit overseas and Mainland technology talent to undertake R&D work for them in Hong Kong; and
- the Reindustrialisation and Technology Training Programme (RTTP) subsidises local companies to train their staff in advanced technologies.

27 During 2022–23, 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-Pearl River Delta Joint Conference on Regional Co-operation in Science and Technology, and the Guangdong/Hong Kong Expert Group on Co-operation in Technology and Innovation;
- organised exhibitions and workshops as well as sponsored competitions to promote I&T to different sectors of the community through the GSP;
- sponsored and supported the Innovation and Technology Scholarship to nurture young talents to become future leaders in I&T;
- administered the TVP to support enterprises to improve productivity;
- completed the implementation of the Distance Business Programme under the Anti-epidemic Fund to support enterprises to continue business and provide services during the epidemic through adoption of IT solutions;
- administered the STEM Internship Scheme to provide allowance to STEM students studying in universities funded by the University Grants Committee to undertake short-term full-time internships in I&T-related work;
- organised the World Artificial Intelligence Conference – Hong Kong Branch in September 2022;
- organised the nine-day InnoCarnival in October 2022;
- organised the nine-day City I&T Grand Challenge: The Showcase in October 2022 to demonstrate the prototypes developed by 25 winning teams in the tertiary institute/university and open groups through real-life scenarios;
- organised the Global I&T Summit in December 2022 for international academics, scientific researchers, industry leaders and I&T entrepreneurs to exchange insights on I&T developments and opportunities; and
- enhanced the TechTAS in December 2022 by lifting the local employment requirement, extending the quota validity period to two years and expanding the coverage to more emerging technology areas.

28 The key performance indicators are:

Indicators

	2021 (Actual)	2022 (Actual)	**2023 (Estimate)**
GSP			
applications received and processed	59	72	**76**
projects funded and being monitored	147	188	**228**
FBL			
applications received and processed	55	40	**48**
projects funded and being monitored	38	41	**45**
RTH			
applications received and processed	2 253	2 454	**2 791**
research talent positions funded	3 789	3 937	**4 582**
RTTP			
applications received and processed	2 345	3 295ε	**4 119ε**
trainings funded	6 228	12 316ε	**18 474ε**
TVP			
applications received and processed	5 421	10 732Θ	**10 200**
projects funded and being monitored	6 039	17 927Θ	**26 757**
RFS			
applications received and processed	18	20	**25**
projects funded and being monitored	8	22	**43**

ε The number of applications received and processed and trainings funded under RTTP increased significantly in view of the increase in registration of online trainings. Online trainings provided flexibility for trainees and incentivised companies to encourage more employees to attend trainings.

Θ The figures increased significantly in 2022 as a result of the enhancement measures introduced in 2020 and the heightened awareness of the need for digital transformation under the new normal of the COVID-19 epidemic.

Matters Requiring Special Attention in 2023–24

29 During 2023–24, the Commission will continue to:

- administer the RTH, STEM Internship Scheme and TechTAS, including enhancing the subsidy level of RTH and expanding the coverage of the STEM Internship Scheme;
- strengthen technology co-operation with the Mainland under established new co-operation mechanisms;
- administer the GSP, TVP, RFS, FBL and RTTP, and monitor progress of the funded projects;
- promote an I&T culture and popular science to the general public and nurture more young innovators, such as by organising the second City I&T Grand Challenge;
- nominate entries for the State Science and Technology Awards upon the invitation of the National Office for Science and Technology Awards; and
- organise promotional and educational activities to enhance public awareness of I&T development.

Programme (4): Infrastructural Support

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	**2023–24 (Estimate)**
Financial provision ($m)	57.2	59.3	59.2 (–0.2%)	**65.3** (+10.3%) (or +10.1% on 2022–23 Original)

Aim

30 The aim is to develop world-class support infrastructure to facilitate technological upgrading and development of the I&T industry and to promote I&T.

Brief Description

31 The Commission achieves the aim through planning, supporting and overseeing technological infrastructural projects; and actively participating in the formulation and implementation of policies by other government bureaux and departments which impinge on I&T development in Hong Kong. The Commission works closely with relevant organisations such as the HKSTPC, the Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI) and the Hong Kong Productivity Council (HKPC) in the process.

32 During 2022–23, the Commission:

- worked closely with the HKSTPC on various major initiatives, including the first batch of works of Stage 2 of the Science Park Expansion Programme, the Advanced Manufacturing Centre in Tseung Kwan O InnoPark, the Microelectronics Centre in Yuen Long InnoPark and the Shenzhen Branch of Hong Kong Science Park;
- organised the InnoHK Launch Ceremony in May 2022 to mark the flagship I&T initiative of the Hong Kong Special Administrative Region Government;
- worked closely with the Hong Kong-Shenzhen Innovation and Technology Park Limited (HSITPL), a wholly-owned subsidiary of the HKSTPC, on the development of the Hong Kong-Shenzhen Innovation and Technology Park (HSITP) in the Lok Ma Chau Loop;
- worked closely with the ASTRI in strengthening its institutional and research capabilities; and
- monitored the delivery of value-added support services to the advanced manufacturing and related service industries by the HKPC.

Matters Requiring Special Attention in 2023–24

33 During 2023–24, the Commission will continue to:

- oversee the work of 28 InnoHK laboratories in two research clusters, namely Health@InnoHK and AIR@InnoHK, to promote global research collaboration in Hong Kong;
- work closely with the HKSTPC on its various initiatives, including the first batch of works of Stage 2 of the Science Park Expansion Programme, the Microelectronics Centre, the proposed second Advanced Manufacturing Centre and the proposed new InnoCell near Science Park; and
- work closely with the HSITPL on the implementation of Batch 1 and the planning of the other batches of the HSITP development.

Programme (5): Quality Support

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	**2023–24 (Estimate)**
Financial provision ($m)	138.3	140.3	140.6 (+0.2%)	**130.2** (–7.4%) (or –7.2% on 2022–23 Original)

Aim

34 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 (T&C) sector in Hong Kong.

Brief Description

35 The Commission achieves this aim through the operation of the Standards and Calibration Laboratory (SCL), the Hong Kong Accreditation Service (HKAS), the Secretariat of the Hong Kong Council for Testing and Certification (HKCTC) and the provision of standard-related services.

36 SCL is the official custodian of physical measurement reference standards. Through participation in Mutual Recognition Arrangement (MRA) drawn up by the International Committee for Weights and Measures (CIPM), SCL's calibration certificates are accepted worldwide.

37 Through the MRAs signed with international and regional organisations of accreditation bodies, the endorsed test reports and accredited certificates issued by organisations accredited by the HKAS 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) are recognised worldwide.

38 During 2022–23,

- SCL provided calibration services traceable to the International System of Units and proficiency testing services, and participated in the following international metrology activities to substantiate its CIPM MRA claims for worldwide recognition:
  - participation in the inter-laboratory comparisons of measurement standards;
  - participation in the peer reviews of the capabilities and quality systems of other CIPM MRA partners;
  - publication of its technical achievements at international conferences and journals;
  - participation in the 27th meeting of the General Conference on Weights and Measures; and
  - participation in the 38th General Assembly and related meetings of the Asia Pacific Metrology Programme (APMP);
- HKAS provided accreditation services to laboratories, certification bodies and inspection bodies according to international standards and participated in international and regional accreditation co-operation bodies, namely the Asia Pacific Accreditation Cooperation (APAC), the International Laboratory Accreditation Cooperation (ILAC) and the International Accreditation Forum (IAF), to maintain its MRA status for worldwide recognition of endorsed reports and certificates issued by HKAS accredited organisations;
- HKAS provided standards sales and technical enquiry services as well as participated in international and regional fora, including the Asia-Pacific Economic Cooperation (APEC) Sub-Committee on Standards and Conformance, the International Organization for Standardization (ISO) and Pacific Area Standards Congress (PASC), on standards and conformance matters; and
- the Secretariat of the HKCTC continued to provide support to the HKCTC in implementing measures to support the development of the T&C sector, and launched the T&C Sector Job Creation Scheme to encourage private T&C organisations to cultivate the T&C talent pool by creating new jobs.

39 The key performance measures for the SCL, HKAS and standard-related services are:

Targets

	Target	2021 (Actual)	2022 (Actual)	**2023 (Plan)**
processing of quotation for calibration services within two working days (%)	97	100	99	**97**
calibration of equipment within 13 working days (%)	95	99	98	**95**
processing of technical enquiries on product standards within one working day (%)	95	99	100	**95**
processing of quotations on standards within one working day (%)	100	97	100	**100**
processing of orders for licensed reproduction of standards within two working days (%)	100	93	97#	**100**
issue of letter for confirming accreditation assessments within four working days (%)	90	96	93	**90**
publishing updated information of accredited organisations on website within four working days (%)	90	96	95	**90**

\# The special work arrangements due to the fifth wave of COVID-19 epidemic has affected the actual performance in 2022.

Indicators

	2021 (Actual)	2022 (Actual)	**2023 (Estimate)**
SCL			
calibrations and proficiency tests performed◊	1 410	1 552	**1 200ε**
revenue generated ($)	5,023,708	5,954,774	**4,400,000ε**
SCL's overseas CIPM MRA partners (cumulative)ϕ	103	101	**101**
Standard-related services			
technical enquiries received	285	253‡	**290**
sales of standards			
enquiries received	100	104	**100**
quotations given	345	293Ψ	**300**
orders placed	72	80	**80**
revenue generated ($)	46,865	30,385Ψ	**31,000**
HOKLAS			
accredited laboratories (cumulative)	238	241ρ	**243**
newly accredited laboratories	18	8	**8**
assessments, re-assessments and surveillance visits conducted	378	349§	**350**
overseas laboratory accreditation schemes entered into MRA with the HOKLAS (cumulative)	101	107	**108**
HKCAS			
accredited certification bodies (cumulative)	26	26	**27**
newly accredited certification bodies	2	0	**1**
assessments, re-assessments and surveillance visits conducted	91	74§	**75**
overseas certification bodies accreditation schemes entered into MRA with the HKCAS (cumulative)	76	82	**83**

	2021 (Actual)	2022 (Actual)	**2023 (Estimate)**
HKIAS			
accredited inspection bodies (cumulative)	23	23λ	**24**
newly accredited inspection bodies	1	1	**1**
assessments, re-assessments and surveillance visits conducted	30	30	**30**
overseas inspection bodies accreditation schemes entered into MRA with the HKIAS (cumulative)	82	85	**86**

◊ Revised description of the previous indicator "calibrations performed" as from 2022.
ε The calibrations and revenue in 2023 are expected to return to normal level. The respective figures in 2021 and 2022 were higher than usual owing to the surge in demands from the local and overseas users as a result of COVID-19 epidemic.
ϕ This indicator provides information on the extent of international recognition of SCL's measurement standards and calibration certificates. These figures include all CIPM MRA partners, which comprise overseas national metrology institutes and four international organisations, namely International Atomic Energy Agency, European Commission – Joint Research Centre, World Meteorological Organization and European Space Agency.
‡ Fewer technical enquiries received due to the fifth wave of COVID-19 epidemic in early 2022.
Ψ The number of quotations given and revenue generated in 2022 were lower than those in the previous years mainly because of the absence of major updates of popular international standards in 2022.
ρ The figure has taken into account five laboratories which ceased accreditation in 2022.
§ Fewer assessment visits were conducted in 2022 as compared to the previous year because of the fifth wave of COVID-19 epidemic in early 2022.
λ The figure has taken into account one inspection body which ceased accreditation in 2022.

Matters Requiring Special Attention in 2023–24

40 During 2023–24, the Commission will continue to:

- provide support to the HKCTC in implementing measures to support the development of the T&C sector, administering the T&C Sector Job Creation Scheme, and organising the 2023–24 T&C Manpower Development Award Scheme;
- pursue further liberalisation measures relevant to the T&C sector under the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA);
- develop plans to extend accreditation services to other areas to support industry and continue to work closely with the HKCTC to promote existing accreditation services to industry;
- provide calibration and proficiency testing services;
- participate in international metrology activities of CIPM and APMP;
- participate in APEC, ISO and PASC activities relating to standardisation;
- provide accreditation services under the HOKLAS, HKCAS and HKIAS; and
- participate in the activities of the APAC, the ILAC and the IAF to maintain the MRA status of the HKAS.

Programme (6): Subvention: Hong Kong Productivity Council, Hong Kong Applied Science and Technology Research Institute Company Limited

	2021–22 (Actual)	2022–23 (Original)	2022–23 (Revised)	**2023–24 (Estimate)**
Financial provision ($m)				
Hong Kong Productivity Council	212.2	210.1	213.0 (+1.4%)	**213.0** (—) (or +1.4% on 2022–23 Original)
Hong Kong Applied Science and Technology Research Institute Company Limited	165.9	153.6	153.6 (—)	**153.4** (–0.1%) (or –0.1% on 2022–23 Original)
Total	378.1	363.7	366.6 (+0.8%)	**366.4** (–0.1%) (or +0.7% on 2022–23 Original)

HKPC

Aim

41 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 competitiveness and sustainability.

Brief Description

42 The HKPC provides integrated support to innovative and growth-oriented Hong Kong firms across the value chain, in particular small and medium enterprises (SMEs) and start-ups, with the main geographical focus on Hong Kong and the Guangdong-Hong Kong-Macao Greater Bay Area (Greater Bay Area) in the Mainland.

43 The work of the HKPC is anchored on four programme areas of smart manufacturing technologies, SME upgrade and support, smart and digital technologies and green technologies, including:

- providing one-stop services in intelligent manufacturing and re-industrialisation to assist industries in different sectors to set up smart production lines and transform to high value-added production;
- providing integrated services for SMEs and start-ups to boost their business performance, including FutureSkills training from technological knowledge to STEM education and management to nurture future talents in innovation and technology, as well as secretariat support to government funding schemes to help SMEs upgrade and transform;
- promoting digitalisation and cyber security to assist local industries to utilise digital technologies and develop effective security strategies to transform operations and adapt to future challenges;
- providing green technology support to drive smart and green living and contribute to carbon neutrality; and
- operating the Automotive Platforms and Application Systems R&D Centre, which undertakes market-led R&D projects in collaboration with industry, universities and research institutions.

44 During 2022–23, the HKPC ran the following subsidiaries:

- the HKPC Technology (Holdings) Company Limited which functions as a vehicle for the commercialisation of patents, technologies and project deliverables of the HKPC and the Automotive Platforms and Application Systems R&D Centre; and
- the Productivity (Holdings) Limited which operates consulting firms in Shenzhen and Dongguan to strengthen the HKPC's integrated support and services for Hong Kong firms operating in the Greater Bay Area.

45 The key performance indicators for the HKPC are:

Indicators

	2021–22 (Actual)	2022–23 (Revised Estimate)	**2023–24 (Estimate)**
external income per employee ($m)	0.8	0.8	**0.8**
total income/total expenditure ratio (%)Θ	79.4	72.0	**74.0**
income from integrated service projects ($m)	487.0	483.7	**498.2**
income from fee-charging integrated learning course projects ($m)	37.6	21.8	**22.5**
no. of integrated service projects accepted	652	630	**630**
no. of people participated in fee-charging integrated learning courses	15 368	12 500	**12 875**
no. of people participated in the HKPC's seminars, workshops, conferences, exhibitions and non-fee charging training courses and study missions	26 327	24 000	**24 000**
no. of new R&D projectsβ	105	60	**80**
no. of new projects using HKPC's patents	70	30	**45**
customer satisfaction index	9.2	8.9	**8.9**

Θ Revised description of the previous indicator "overall income/expenditure ratio" as from 2022–23.
β The figures do not include projects undertaken by the Automotive Platforms and Application Systems R&D Centre, which are reported under the relevant indicators for the Centre in paragraph 10 above.

Matters Requiring Special Attention in 2023–24

46 During 2023–24, the HKPC will continue to:

- promote intelligent manufacturing and new industrialisation by operating the INC Invention Centre Hong Kong jointly established with the Fraunhofer Institute for Production Technology in October 2018 and the Hong Kong Industrial Artificial Intelligence and Robotics Centre set up with RWTH Aachen Campus in 2021 in the AIR@InnoHK research cluster;
- provide digitalisation and cyber security support for enterprises to upgrade and digitalise operation for sustainable development in the changing business environment;
- nurture future talents and promote new technology application and commercialisation through the HKPC Academy and the Inno Space;
- promote smart and green living by accelerating the adoption of green technologies and providing support to enterprises in managing their Environmental, Social, and Governance performance;
- provide integrated services to SMEs and start-ups through the SME ReachOut and SME One;
- enhance support to Hong Kong companies operating in the Greater Bay Area, through subsidiary consulting firms set up in Shenzhen and Dongguan and service platforms set up with local governments;
- implement designated government funding schemes as the secretariat for serving SMEs; and
- operate the Automotive Platforms and Application Systems R&D Centre.

ASTRI

Aim

47 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

48 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.

49 ASTRI is designated as the R&D Centre for information and communications technologies. ASTRI focuses its R&D on six core initiatives – financial technologies, re-industrialisation and intelligent manufacturing, smart city, digital health, application specific integrated circuits and metaverse. Its operating strategy is to transfer the technologies and results developed from its R&D projects to the industry. This process will elevate the technology level of Hong Kong industry and accelerate the expansion of its technology industry base to create new employment opportunities and enhance competitiveness. Over the years, ASTRI has become more customer-focused in its R&D business.

50 The key performance indicators for ASTRI are:

Indicators

	2021 (Actual)	2022 (Actual)	**2023 (Estimate)**
no. of new full projects^	24	30	**32**
no. of new seed projects¶	15	13	**11**
no. of inventions (patents) filed	34 (68)	34 (68)	**34 (68)**
no. of technology transfer	55	56	**70**
no. of clients engaged in technology transfer	36	39	**50**
no. of members joining consortia formed by ASTRI	404	405	**700Φ**
no. of technology workshops/seminars organised	39α	26Δ	**65**
no. of participants of seminars	4 408α	2 939Δ	**4 000**
amount of income from industry ($m)	91.1	120.0	**126.0**

^ Full projects are R&D projects with more than $2 million funding support from the ITF, including collaborative projects with the industry.
¶ Seed projects are feasibility studies for developing substantive R&D project proposals. The maximum ITF funding support for each of them is $2.8 million.
Φ The figure is expected to increase in light of the launch of new consortia.
α Figures in 2021 have been updated due to data revision.
Δ The fifth wave of COVID-19 epidemic in 2022 resulted in a decline in the number of workshops/seminars organised and number of participants.

Matters Requiring Special Attention in 2023–24

51 During 2023–24, the ASTRI will continue to:

- transfer technologies developed from its R&D projects to industry and commercialise project deliverables through implementing corporate-level initiatives and encouraging more collaborative projects;
- strengthen co-operation with the industry, public organisations and universities in R&D, for example, through the establishment of joint laboratories/R&D centres and alliances;
- collaborate with enterprises and research institutions in the Mainland and overseas and explore development potential in the Greater Bay Area;
- develop research capabilities in identified emerging technology areas;
- enhance institutional R&D infrastructure and research capabilities; and
- contribute to development of local high-technology human capital by recruiting local engineering graduates as research fellows under the RTH of the ITF.

ANALYSIS OF FINANCIAL PROVISION

Programme	2021–22 (Actual) ($m)	2022–23 (Original) ($m)	2022–23 (Revised) ($m)	**2023–24 (Estimate) ($m)**
(1) Support for Research and Development	80.1	87.8	93.6	**104.7**
(2) Promotion of Technological Entrepreneurship	23.0	25.6	26.8	**37.5**
(3) Planning for Innovation and Technology Development	104.5	186.0	88.8	**129.3**
(4) Infrastructural Support	57.2	59.3	59.2	**65.3**
(5) Quality Support	138.3	140.3	140.6	**130.2**
(6) Subvention: Hong Kong Productivity Council, Hong Kong Applied Science and Technology Research Institute Company Limited	378.1	363.7	366.6	**366.4**
	781.2‡	862.7‡	775.6‡ (–10.1%)	**833.4 (+7.5%)**
				(or –3.4% on 2022–23 Original)

‡ For comparison purpose, the figures have been adjusted to reflect the provisions for relevant programmes under this Head due to the re-organisation of the Government Secretariat with effect from 1 July 2022.

Analysis of Financial and Staffing Provision

Programme (1)

Provision for 2023–24 is $11.1 million (11.9%) higher than the revised estimate for 2022–23. This is mainly due to increased provision for salary and general departmental expenses.

Programme (2)

Provision for 2023–24 is $10.7 million (39.9%) higher than the revised estimate for 2022–23. This is mainly due to increased provision for salary. In addition, there will be a net increase of nine posts in 2023–24.

Programme (3)

Provision for 2023–24 is $40.5 million (45.6%) higher than the revised estimate for 2022–23. This is mainly due to increased cash flow requirements for the City I&T Grand Challenge.

Programme (4)

Provision for 2023–24 is $6.1 million (10.3%) higher than the revised estimate for 2022–23. This is mainly due to increased provision for salary. In addition, there will be a net increase of five posts in 2023–24.

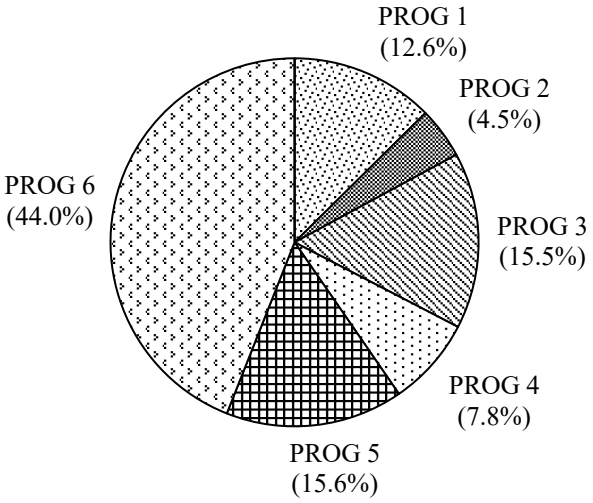
Programme (5)

Provision for 2023–24 is $10.4 million (7.4%) lower than the revised estimate for 2022–23. This is mainly due to decreased provision for procurement of equipment.

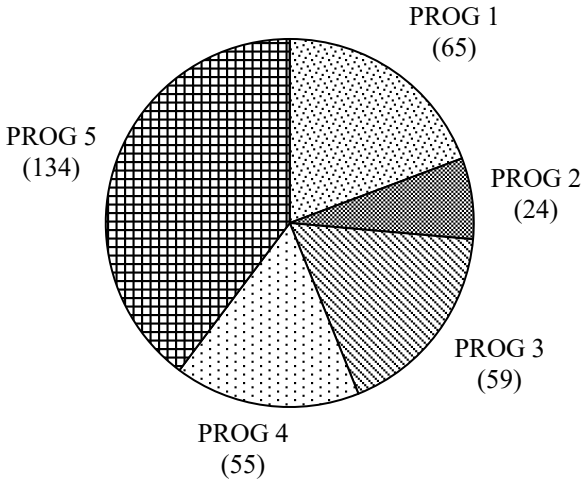
Programme (6)

Provision for 2023–24 is $0.2 million (0.1%) lower than the revised estimate for 2022–23. This is mainly due to decreased provision for the ASTRI.

Allocation of provision to programmes (2023-24)

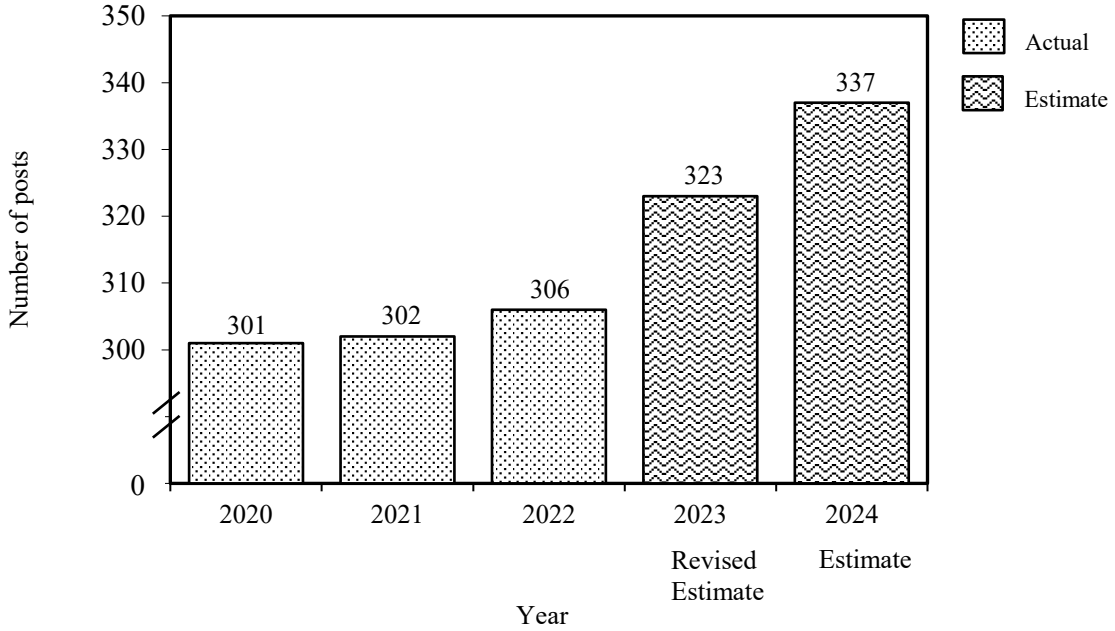


Staff by programme (as at 31 March 2024)



(No government staff under PROG 6)

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



Head 155 — GOVERNMENT SECRETARIAT: INNOVATION AND TECHNOLOGY COMMISSION

Sub-head (Code)		Actual expenditure 2021–22	Approved estimate 2022–23	Revised estimate 2022–23	**Estimate 2023–24**
		$'000	$'000	$'000	**$'000**
	Operating Account				
	Recurrent				
000	Operational expenses	733,063	730,491	757,417	**786,980**
	Total, Recurrent	733,063	730,491	757,417	**786,980**
	Non-Recurrent				
700	General non-recurrent	34,200	105,000	—	**40,000**
	Total, Non-Recurrent	34,200	105,000	—	**40,000**
	Total, Operating Account	767,263	835,491	757,417	**826,980**
	Capital Account				
	Plant, Equipment and Works				
603	Plant, vehicles and equipment	—	—	—	**2,000**
661	Minor plant, vehicles and equipment (block vote)	13,932	18,133	18,133	**4,400**
	Total, Plant, Equipment and Works	13,932	18,133	18,133	**6,400**
	Total, Capital Account	13,932	18,133	18,133	**6,400**
	Total Expenditure	781,195	853,624	775,550	**833,380**

Details of Expenditure by Subhead

The estimate of the amount required in 2023–24 for the salaries and expenses of the Innovation and Technology Commission is $833,380,000. This represents an increase of $57,830,000 over the revised estimate for 2022–23 and $52,185,000 over the actual expenditure in 2021–22.

Operating Account

Recurrent

2 Provision of $786,980,000 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 2023 will be 323 posts. It is expected that there will be a net increase of 14 posts in 2023–24. Subject to certain conditions, the controlling officer may under delegated power create or delete non-directorate posts during 2023–24, but the notional annual mid-point salary value of all such posts must not exceed $252,926,000.

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

	2021–22 (Actual) ($'000)	2022–23 (Original) ($'000)	2022–23 (Revised) ($'000)	**2023–24 (Estimate) ($'000)**
Personal Emoluments				
- Salaries	224,670	243,935	239,338	**274,682**
- Allowances	6,288	7,451	5,419	**8,229**
- Job-related allowances	1	2	2	**2**
Personnel Related Expenses				
- Mandatory Provident Fund contribution	921	707	844	**770**
- Civil Service Provident Fund contribution	17,379	20,079	20,417	**24,319**
Departmental Expenses				
- General departmental expenses	105,681	94,583	124,781	**112,610**
Subventions				
- Hong Kong Productivity Council	212,219	210,097	212,979	**212,979**
- Hong Kong Applied Science and Technology Research Institute Company Limited	165,904	153,637	153,637	**153,389**
	733,063	730,491	757,417	**786,980**

Commitments

Sub-head (Code)	Item (Code)	Ambit	Approved commitment	Accumulated expenditure to 31.3.2022	Revised estimated expenditure for 2022–23	Balance
			$'000	$'000	$'000	$'000
Operating Account						
700		*General non-recurrent*				
	802	City I&T Grand Challenge	500,000	68,400	—	431,600
			500,000	68,400	—	431,600
Capital Account						
603		*Plant, vehicles and equipment*				
	803	To set up a system for measurement of antenna parameters in the Antenna Laboratory of the Standards and Calibration Laboratory at Tseung Kwan O Joint-user Government Office Buildingδ	50,000δ	—	—	50,000
	804	To set up two deadweight type force machines, a deadweight-hydraulic integrated type force machine and a hydraulic type force machine in the Force Laboratory of the Standards and Calibration Laboratory at Tseung Kwan O Joint-user Government Office Buildingδ	35,000δ	—	—	35,000
			85,000	—	—	85,000
		Total	585,000	68,400	—	516,600

δ This is a new item, funding for which is sought in the context of the Appropriation Bill 2023.