2015 年
香港創新活動統計
Hong Kong
Innovation Activities Statistics 2015

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緒言
Introduction

1. 創新是推動經濟增長及發展的主要動力。創新活動不單包括研究及發展（研發）活動，亦涉及產品和程序創新的活動，以及機構組織與市場推廣的創新活動。這些活動有助機構提升其競爭力和業務表現。政府統計處為評估本港創新活動的發展情況而編製各類統計指標。在各類關於創新活動的統計指標當中，有關研發的統計數字是其中一項至為重要的指標。在本刊物中，研發統計數字涵蓋三個機構類別，即工商機構、高等教育機構及政府機構。技術創新及非技術創新活動的統計數字則主要涉及工商機構。

1. Innovation is a key impetus to economic growth and development. Innovation activities include not only research and development (R&D) but also product and process innovation as well as organisational and marketing innovation which help enhance competitiveness and business performance. The Census and Statistics Department (C&SD) has been compiling various statistical indicators for gauging the development of innovation activities in Hong Kong. Of the various categories of statistical indicators relating to innovation, statistics on R&D are among the most important ones. In this publication, R&D statistics cover three institutional sectors, viz. business, higher education and government sectors, while statistics on technological and non-technological innovation activities mainly relate to the business sector.

2. 工商機構的研發和各類創新活動統計數字是透過「創新活動統計調查」（政府統計處自 2001 年統計年度起就有關課題進行專項統計調查）搜集得來的資料編製而成。高等教育機構的研發統計數字則根據大學教育資助委員會的行政記錄整理而成，而政府機構的研發統計數字則根據從各政府決策局、部門和半政府機構(包括公共科技支援機構）搜集而來的資料編製而成。

2. R&D and various innovation activities statistics for the business sector are compiled from data collected through the Survey of Innovation Activities (SIA), which is a dedicated survey on this subject conducted by the C&SD since the reference year of 2001. R&D statistics for the higher education sector are based on administrative data provided by the University Grants Committee, while those for the government sector are based on data collected from various government bureaux, departments and quasi-government organisations (including public technology support organisations).

3. 本刊物的第 1 章描述 2015 年本港研發活動的整體情況，並分別就工商機構、高等教育機構和政府機構的研發活動進行詳細分析。在工商機構方面，刊載了研發活動開支、研發人員及研發活動的特色（例如：與其他機構進行研發活動的協作安排以及研發活動的資金來源）的詳細統計數字。第 2 及第 3 章分別集中描述 2015 年工商機構的技術創新活動與非技術創新活動的情況。第 4 章描述香港特別行政區政府對本港研發及創新活動的支援，當中有關應用研發及創新活動的資料由創新科技署提供。有關的統計方法、概念及定義和資料來源的詳情載於附錄甲及乙。

3. Chapter 1 of this publication provides an overall picture of R&D activities in Hong Kong in 2015, with elaborated analyses for R&D activities in the business, higher education and government sectors. For the business sector, detailed statistics of R&D expenditure, R&D personnel and R&D characteristics such as collaboration arrangements on R&D activities and sources of funds for R&D activities are published. Chapters 2 and 3 focus on technological innovation (TI) activities and non-technological innovation (non-TI) activities in the business sector respectively in 2015. Chapter 4 portrays the support provided by the Government of the Hong Kong Special Administrative Region (HKSAR) in promoting R&D and innovation activities in Hong Kong. The information presented in this Chapter on applied R&D and innovation activities is furnished by the Innovation and Technology Commission. Details of the methodology, concepts and definitions as well as data sources are given in Appendices A and B.

4. 政府統計處自2008年統計年度起編製這本刊物，所發布的研發和創新活動統計數字與過往透過《工商業創新活動按年統計調查報告》內所載數字的涵蓋範圍相若，並加入了高等教育機構和政府機構的研發統計數字，以更全面展示本港研發及創新活動的情況 。而《工商業創新活動按年統計調查報告》自2008年統計年度起已停止出版。

4. This publication, introduced since the reference year of 2008, has the same coverage of R&D and innovation activities statistics as those previously published through the *Report on Annual Survey of Innovation Activities in the Business Sector* (which had been discontinued as from the reference year of 2008), plus R&D statistics for the higher education and government sectors. It provides a more complete picture of the R&D and innovation activities in Hong Kong.

5. 「創新活動統計調查」採用「香港標準行業分類」進行樣本抽選、數據搜集及發布統計調查結果。這個行業分類是以聯合國的「國際標準產業分類」為藍本，配合本地情況作出編訂，從而反映本港經濟結構。

5. The Hong Kong Standard Industrial Classification (HSIC) has been adopted in the SIA for sample selection, data collection and dissemination of survey results. The HSIC is devised by using the United Nations' International Standard Industrial Classification as the framework, with local adaptation, to reflect the structure of the Hong Kong economy.

6. 「創新活動統計調查」已於2009年統計年度起開始採用「香港標準行業分類2.0版」。為維持「香港標準行業分類2.0版」實施前及實施後數據的連貫性和可比性，政府統計處已按「香港標準行業分類2.0版」重新編製回溯至2005年的工商機構的研發及技術創新活動的主要統計數字。本報告內的行業分類及所有數字均以「香港標準行業分類2.0版」為依據。

6. HSIC Version 2.0 has been adopted in the SIA starting from the reference year of 2009. To maintain data continuity and comparability before and after implementation of HSIC Version 2.0, the C&SD has re-compiled key statistics on R&D and TI activities in the business sector dating back to 2005 in accordance with HSIC Version 2.0. The industrial classification and all figures given in this publication are based on HSIC Version 2.0.

7. 就機構規模進行工商機構的研發及創新活動的分析時，機構按其就業人數分為小型、中型及大型三個類別，詳情如下：

7. For the analysis of R&D and innovation activities in the business sector by size of establishments presented in this publication, establishments are categorised into small, medium and large according to the number of persons engaged as follows:

機構規模 Size of establishment / 行業組別 Industry grouping	就業人數 No. of persons engaged		
	小型 Small	中型 Medium	大型 Large
製造業 Manufacturing	< 10	10 - 99	≥ 100
非製造業 Non-manufacturing	< 10	10 - 49	≥ 50

8. 由於四捨五入關係，個別數字或百分比之和可能不等於其總數。

8. Figures or percentages of components may not add up to the respective totals owing to rounding.

9. 本刊物所載列的研發開支相對本地生產總值的比率是根據2016年11月發布的本地生產總值數字計算。

9. In this publication, the ratio of R&D expenditure to Gross Domestic Product (GDP) is calculated based on the latest GDP series released in November 2016.

10. 本刊內各代號的含意如下：

10. The following symbols are used throughout this publication :

N.A.	不適用
§	金額數值少於5萬港元或百分比少於0.05%
@	數字在日後會作出修訂
*	修訂數字
***	由於要為個別機構的資料保密，故此在有需要的情況下，有關個別項目的數字不在統計表內顯示。而為免從總數減去餘數後能得出該未顯示數字的數值，另一數字亦同時不會顯示。未有顯示的數字會以'***'表示，但其數值則已包括在較闊分類層面的總數內。

N.A.	Not applicable
§	Dollar values less than HK$50,000 or percentages less than 0.05%
@	Figures are subject to revision later on
*	Revised figures
***	In order to preserve the confidentiality of information relating to individual establishments, figures of relevant individual items are suppressed where necessary. An additional cell is also suppressed to prevent the deduction of a suppressed cell from the total. Where data suppression has been effected, '***' is shown. The suppressed statistics are, nevertheless, included in the respective totals at some broader levels of classification.

大綱
Synopsis

1. 一個經濟體的創新和科技能力是提升其競爭力的必需元素，而研究及發展（研發）是推動技術進步的一種主要動力。根據經濟合作與發展組織所倡議的國際性定義，研發活動是指在有系統的基礎上進行具創造性的工作，目的是為增進知識以發明或改進產品、程序或其相關的用途。研發活動通常都帶有相當程度的新穎或創新元素，並可於自然科學、工程及科技、醫療及衛生科學、社會科學和人文科學等範疇進行。

1. Capabilities in innovation and technology are essential elements to enhance an economy's competitiveness while research and development (R&D) is a key impetus for technological advancement. In following the international definition promulgated by the Organisation for Economic Cooperation and Development (OECD), R&D activities refer to the creative work undertaken on a systematic basis so as to increase the stock of knowledge for devising new or improved products/processes/applications. R&D activities usually carry an appreciable element of novelty or innovation that can be conducted in such fields as natural sciences, engineering and technology, medical and health sciences, social sciences and humanities.

2. 在 2015 年，本地研發總開支〔即工商機構、高等教育機構及政府機構（包括公共科技支援機構）在本地所進行的內部研發活動的開支總額〕達 182.71 億港元，較 2014 年上升 9%。而本地生產總值在同期錄得 6%(1) 的增長，因此本地研發總開支相對本地生產總值的比率由 2014 年的 0.74%微升至 2015 年的 0.76%。（表 1.1）

2. In 2015, the gross domestic expenditure on R&D (GERD) of Hong Kong [i.e. total expenditure on in-house R&D activities performed locally in the business sector, higher education sector and government sector (including public technology support organisations)] amounted to HK$18,271 million, representing an increase of 9% when compared with 2014. The Gross Domestic Product (GDP)(1) grew at 6% during the same period. Thus, the GERD as a ratio to the GDP marginally increased from 0.74% in 2014 to 0.76% in 2015. (Table 1.1)

3. 工商機構的內部研發開支（包括研發活動所涉及的勞工成本、其他的經常開支和資本開支）由 2014 年的 74.37 億港元上升至 2015 年的 79.94 億港元，增幅為 7%。（表 1.2）

3. Expenditure on in-house R&D (including all the labour cost, other current expenditure and capital expenditure on R&D activities) in the business sector increased by 7% from HK$7,437 million in 2014 to HK$7,994 million in 2015. (Table 1.2)

(1) 以開支面編製並以當時市價計算的 2014 及 2015 年本地生產總值分別為 22,582 億港元及 23,971 億港元。數字是 2016 年 11 月發表的最新數據，並在日後會作出修訂。

(1) The expenditure-based GDP estimates at current market prices for 2014 and 2015 are HK$2,258.2 billion and HK$2,397.1 billion respectively. The figures are the latest data released in November 2016 and are subject to revision later on.

4. 近年來，高等教育機構的內部研發開支一直有上升的趨勢。在 2015 年，高等教育機構的內部研發開支達 95.51 億港元，較 2014 年上升 11%。在 2015 年，政府機構（主要是公共科技支援機構）的內部研發開支達 7.26 億港元，較 2014 年上升 10%。（表 1.1）

4. Expenditure on in-house R&D in the higher education sector has been on a rising trend in recent years. In 2015, expenditure on in-house R&D in the higher education sector reached HK$9,551 million, up by 11% when compared with 2014. Expenditure on in-house R&D in the government sector (mainly public technology support organisations) amounted to HK$726 million in 2015, up by 10% when compared with 2014. (Table 1.1)

5. 另一項反映投放在研發活動內資源規模的指標是「研發人員」。這指標量度本港機構進行研發活動的人力資源。「研發人員」是指直接從事研發活動的人員，包括研究員、技術員及其他輔助人員。為了反映投放予研發活動的實際人力資源，研發人員的數字是以「相當於全日制的人數」計算，並根據有關統計年度內已投放在研發活動的工作年總數作估算。

5. Another input indicator of R&D activities is R&D personnel which measures the manpower resources deployed to R&D activities performed by undertakings in Hong Kong. R&D personnel refer to persons directly engaged in R&D activities, covering researchers, technicians and other supporting staff. In order to depict the actual amount of manpower resources deployed to R&D activities, figures on R&D personnel are expressed in full-time equivalent (FTE), which is estimated on the basis of the total number of person-years devoted to R&D activities during the reference year.

6. 在 2015 年，研發人員總數（以相當於全日制的人數計算）為 28 165 人，而 2014 年的相應人數為 27 378 人。大部分的研發人員就業於高等教育機構和工商機構，他們分別佔 2015 年研發人員總數的 54%和 43%。（表 1.1 及 1.4）

6. In 2015, there were a total of 28 165 R&D personnel (in FTE), compared with 27 378 (in FTE) in 2014. Most of them were engaged in the higher education and business sectors, which accounted for 54% and 43% respectively of the total number of R&D personnel in 2015. (Tables 1.1 and 1.4)

7. 創新並非局限於技術的開發和使用。工商機構亦可以透過實施嶄新或經顯著改良的程序和變動組織架構、機構管理以及市場推廣策略，以提升其競爭力及業務表現。

7. Innovation is not entirely about the development and use of technology. Business establishments can also enhance competitiveness and business performance through implementation of new or significantly improved processes and changes to organisations, workplace management and marketing strategy.

8. 根據經濟合作與發展組織發表的國際性指引，創新活動可分為技術創新活動及非技術創新活動。前者包括研發和產品或程序創新的活動。後者則包括工商機構的組織架構及市場推廣策略的重要轉變。

8. Following the international guidelines promulgated by OECD, innovation activities are further classified into technological innovation (TI) and non-technological innovation (non-TI) activities. The former comprises R&D and product or process innovation whereas the latter includes important changes in organisational structures and marketing strategies of business establishments.

9. 在 2015 年，約 3%的工商機構曾進行技術創新活動。工商業技術創新活動的開支總額為 174.96 億港元，較 2014 年上升 3%。（表 2.1）

9. In 2015, about 3% of the business establishments had undertaken TI activities. Business expenditure on TI activities amounted to HK$17,496 million, representing an increase of 3% when compared with 2014. (Table 2.1)

10. 在 2015 年，約 9%的工商機構曾進行組織創新或市場推廣創新的活動。（表 3.1）

10. In 2015, around 9% of the business establishments had undertaken organisational or marketing innovation activities. (Table 3.1)

2012 年至 2015 年的研發開支及研發人員數目
R&D expenditure and number of R&D personnel, 2012 to 2015

研發開支（百萬港元） **Expenditure on R&D (HK$ million)**	**2012**	**2013**	**2014**	**2015**
本地研發總開支 **Gross domestic expenditure on R&D** =[a]+[b]+[c]	**14,816** **(+6%)** **[0.73%]**	**15,613** **(+5%)** **[0.73%]**	**16,727** **(+7%)** **[0.74%]@**	**18,271** **(+9%)** **[0.76%]@**
[a] *工商機構* *Business sector*	6,647 (+7%) [0.33%]	7,017 (+6%) [0.33%]	7,437 (+6%) [0.33%]@	7,994 (+7%) [0.33%]@
[b] *高等教育機構* *Higher education sector*	7,576 (+6%) [0.37%]	7,984 (+5%) [0.37%]	8,632 (+8%) [0.38%]@	9,551 (+11%) [0.40%]@
[c] *政府機構* *Government sector*	592 (-0.6%) [0.03%]	612 (+3%) [0.03%]	658 (+8%) [0.03%]@	726 (+10%) [0.03%]@
研發人員數目（相當於全日制的人數計算） **Number of R&D personnel (in full-time equivalent)**				
整體研發人員數目 **Overall R&D personnel** =[d]+[e]+[f]	**25 264** **(+3%)**	**26 045** **(+3%)**	**27 378** **(+5%)**	**28 165** **(+3%)**
[d] *工商機構* *Business sector*	11 385 (+3%)	11 443 (+0.5%)	12 146 (+6%)	12 217 (+0.6%)
[e] *高等教育機構* *Higher education sector*	13 247 (+4%)	14 013 (+6%)	14 584 (+4%)	15 247 (+5%)
[f] *政府機構* *Government sector*	633 (+4%)	588 (-7%)	648 (+10%)	701 (+8%)

註釋 ： 圓括號內數字為按年變動百分率。

方括號內數字代表研發開支相對本地生產總值的比率。

Notes : Figures in round brackets refer to percentage changes over preceding year.

Figures in square brackets represent the ratios to GDP.

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List of Statistical Tables and Charts

1 研究及發展活動
1 Research and Development Activities

研究及發展（研發）活動的整體情況

1.1 在 2015 年，本地研發總開支〔即工商機構、高等教育機構及政府機構（包括公共科技支援機構）在本地所進行的內部研發活動的開支總額〕達 182.71 億港元，較 2014 年上升 9%。而本地生產總值在同期錄得 6% 的增長，因此本地研發總開支相對本地生產總值的比率由 2014 年的 0.74% 微升至 2015 年的 0.76%。（表 1.1）

1.2 工商機構的內部研發開支（包括研發活動所涉及的勞工成本、其他的經常開支和資本開支）由 2014 年的 74.37 億港元上升至 2015 年的 79.94 億港元，增幅為 7%。按研發開支類別分析，工商機構的內部研發總開支中絕大部分為經常開支，佔工商機構的內部研發總開支 88%，輕微低於 2014 年的相應比例（91%）。（表 1.2）

1.3 近年來，高等教育機構的內部研發開支一直有上升的趨勢。在 2015 年，高等教育機構的內部研發開支達 95.51 億港元，較 2014 年上升 11%。政府機構（主要是公共科技支援機構）在 2015 年的內部研發開支達 7.26 億港元，較 2014 年上升 10%。（表 1.1）

Overall research and development (R&D) activities

1.1 In 2015, the gross domestic expenditure on R&D (GERD) of Hong Kong [i.e. total expenditure on in-house R&D activities performed locally in the business sector, higher education sector and government sector (including public technology support organisations)] amounted to HK$18,271 million, representing an increase of 9% when compared with 2014. The Gross Domestic Product (GDP) grew at 6% during the same period. Thus, the GERD as a ratio to the GDP marginally increased from 0.74% in 2014 to 0.76% in 2015. (Table 1.1)

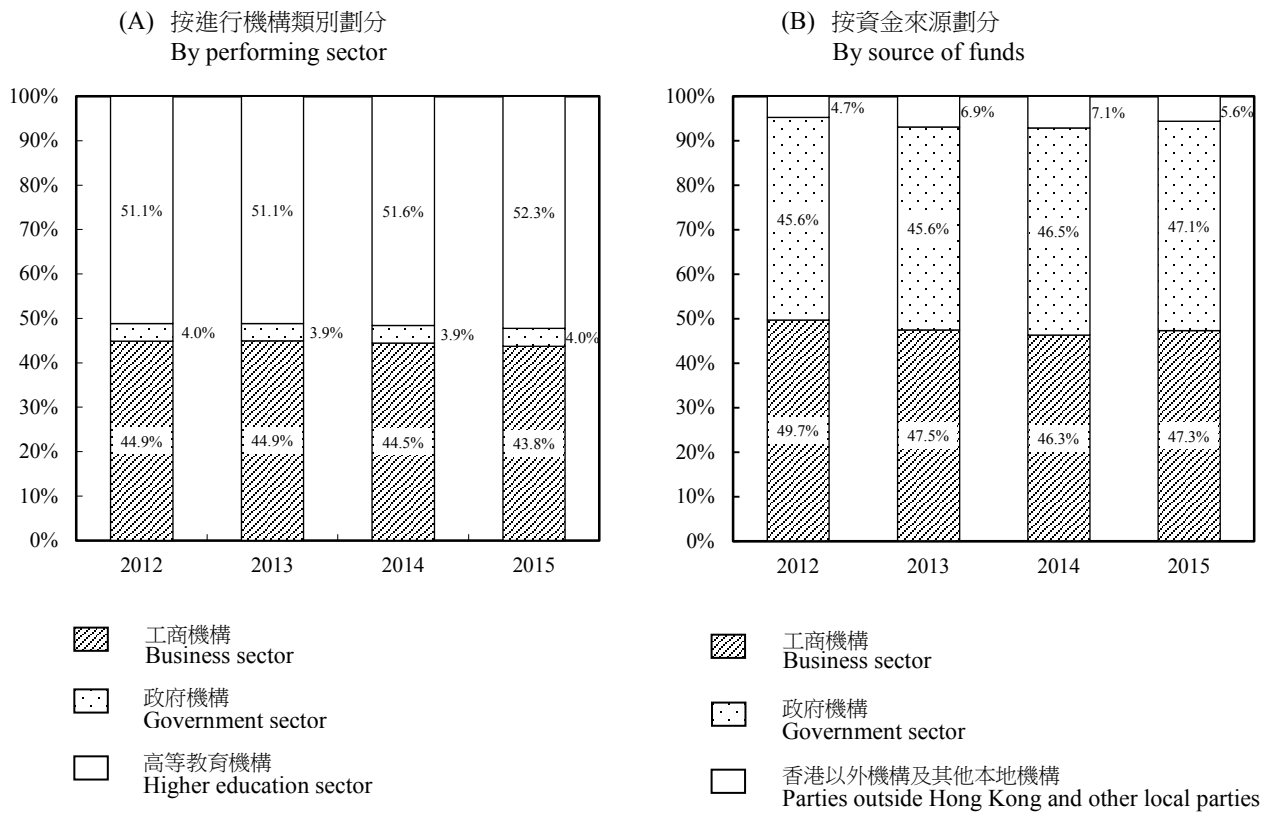
1.2 Expenditure on in-house R&D (including all the labour cost, other current expenditure and capital expenditure for R&D activities) performed in the business sector grew by 7% from HK$7,437 million in 2014 to HK$7,994 million in 2015. Analysed by type of expenditure, the current expenditure incurred in the business in-house R&D activities accounted for a predominant share of 88% of the total business expenditure on in-house R&D, slightly lower than the corresponding proportion in 2014 (91%). (Table 1.2)

1.3 Expenditure on in-house R&D in the higher education sector has been on a rising trend in recent years. In 2015, expenditure on in-house R&D in the higher education sector reached HK$9,551 million, up by 11% when compared with 2014. Expenditure on in-house R&D performed in the government sector (mainly public technology support organisations) amounted to HK$726 million in 2015, up by 10% when compared with 2014. (Table 1.1)

1.4 本刊物中，研發活動的統計數字主要按進行研發的機構類別作出分析，而研發活動是指機構為本身及／或為其他機構進行的內部研發活動（在以下段落簡稱為「研發活動」，另有註明除外）。在 2015 年，工商機構、高等教育機構和政府機構的研發活動開支分別佔本地研發總開支的 44%、52%和 4%。雖然政府機構（主要是公共科技支援機構）所進行的研發活動佔本地研發總開支的比重相對較小，須注意的是，政府一直以來透過提供研究設備、基礎建設和資金援助，致力推動工商機構及高等教育機構在研發、提升科技以及創新等方面的發展。按資金來源分析，在 2015 年的本地研發總開支中，政府提供了 86.02 億港元，佔研發總開支的 47%。（圖 1.1，表 1.1 及 1.3）

1.4 In this publication, R&D statistics are mainly analysed by the performing sector, and refer to R&D activities performed in-house for own establishments and/or for other organisations (hereafter referred to as "R&D activities" in the ensuing paragraphs for simplicity, unless otherwise specified). Expenditure on R&D activities performed in the business, higher education and government sectors constituted 44%, 52% and 4% respectively of total GERD in 2015. While R&D activities performed in the government sector (mainly public technology support organisations) represented a relatively small share of total GERD, it should be noted that the Government had been playing an instrumental role in facilitating R&D, technology upgrading and innovation through the provision of research facilities, infrastructure as well as funding support to business establishments and higher education institutions. Analysed by source of funds, R&D expenditure financed by the Government amounted to HK$8,602 million or 47% of the total GERD in 2015. (Chart 1.1, Tables 1.1 and 1.3)

圖 1.1 2012 年至 2015 年本地研發總開支分布
Chart 1.1 Distribution of gross domestic expenditure on R&D, 2012 to 2015



按職業類別劃分的研發人員

1.5 除研發活動開支外，另一項反映內部研發投入的重要指標，是研發人員數目。研發人員的人數主要以「相當於全日制的人數」來計算，並根據有關統計年度內已投放在研發活動的工作年總數作估算。

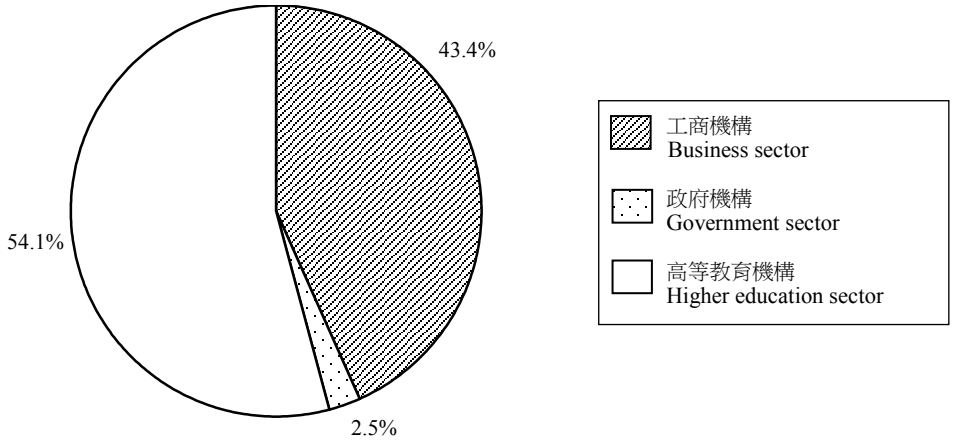
1.6 在 2015 年，研發人員總數（以相當於全日制的人數計算）為 28 165 人，較 2014 年上升 3%。大部分的研發人員就業於高等教育機構(1)和工商機構，他們分別佔 2015 年研發人員總數的 54%和 43%。按職業類別分析，2015 年大部分研發人員是研究員（84%），其次是技術員（10%）及其他輔助人員（6%）。（圖 1.2 及 1.3，表 1.1 及 1.4）

R&D personnel by type of occupation

1.5 In addition to the expenditure on R&D activities, another important indicator to reflect the input into in-house R&D is the number of R&D personnel. The number of R&D personnel is mainly measured in terms of full-time equivalent (FTE), which is estimated on the basis of the total number of person-years deployed to in-house R&D activities during the reference year.

1.6 A total of 28 165 R&D personnel (in FTE) were recorded in 2015, up by 3% when compared with 2014. Most of them were engaged in the higher education(1) and business sectors, which accounted for 54% and 43% respectively of the total number of R&D personnel in 2015. Analysed by type of occupation, most of the R&D personnel in 2015 were researchers (84%), followed by technicians (10%) and other supporting staff (6%). (Charts 1.2 and 1.3, Tables 1.1 and 1.4)

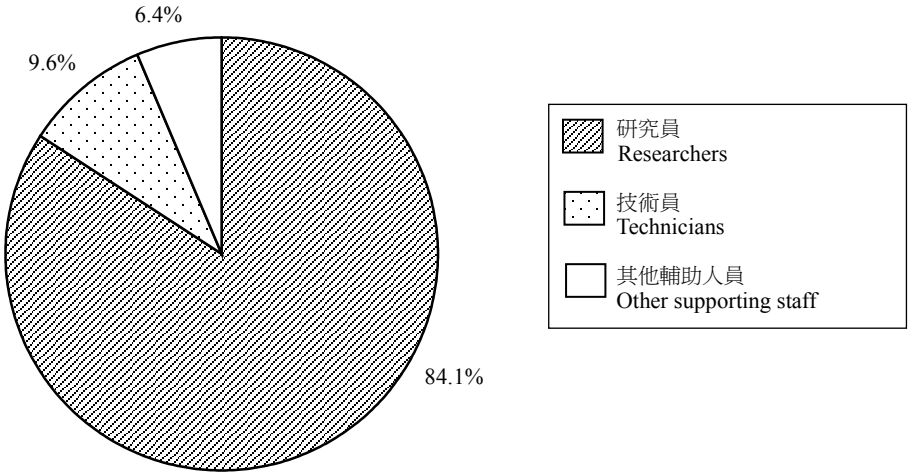
圖 1.2 按進行機構類別劃分的 2015 年研發人員（相當於全日制的人數）分布
Chart 1.2 Distribution of R&D personnel (in FTE) by performing sector in 2015



(1) 高等教育機構的研發人員數字包括大學教育資助委員會資助的高等教育院校在有關學年的「與研究有關的人員」及全日制「研究課程研究生」數目。「與研究有關的人員」是指 80% 或以上的工作時間是用於進行與研究有關工作的人員。

(1) Figures on R&D personnel in the higher education sector cover the number of "research related staff" and full-time "research postgraduate students" in the respective academic year of the higher education institutions funded by University Grants Committee. "Research related staff" refer to staff having deployed 80% or more of their time to research related activities.

圖 1.3 按職業類別劃分的 2015 年研發人員（相當於全日制的人數）分布
Chart 1.3 Distribution of R&D personnel (in FTE) by type of occupation in 2015



工商機構的研發活動

1.7 工商機構為本港研發活動的重要進行者。2015 年工商機構用於內部研發活動的總開支為 79.94 億港元，較 2014 年的 74.37 億港元上升 7%。工商機構的研發開支相對本地生產總值的比率，在 2015 年為 0.33%，與 2014 年相同。（表 1.1）

1.8 按選定行業組別分析，進出口貿易、批發及零售業以及住宿及膳食服務業的內部研發開支佔所有選定行業的內部研發活動開支總額的 37%，在各選定行業組別中所佔的比重最大。其次是資訊及通訊業（33%）。（圖 1.4，表 1.5）

1.9 在 2015 年所有曾進行研發活動（包括內部研發活動及／或外判研發活動）的工商機構當中，大型機構佔 7%，但其內部研發開支佔整體內部研發開支總額的 49%。中型和小型機構分別佔整體內部研發開支總額的 29% 和 22%。（圖 1.4，表 1.5）

R&D activities in the business sector

1.7 The local businesses constitute an important R&D performing sector in Hong Kong. The total expenditure on in-house R&D activities in the business sector amounted to HK$7,994 million in 2015, 7% higher than 2014 (HK$7,437 million). The ratio of business R&D expenditure to GDP was 0.33% in 2015, same as the ratio in 2014. (Table 1.1)

1.8 Analysed by selected industry grouping, the import/export, wholesale and retail trades, and accommodation and food services sectors accounted for the largest share of 37% of the total expenditure on in-house R&D activities. It was followed by the information and communications sector (33%). (Chart 1.4, Table 1.5)

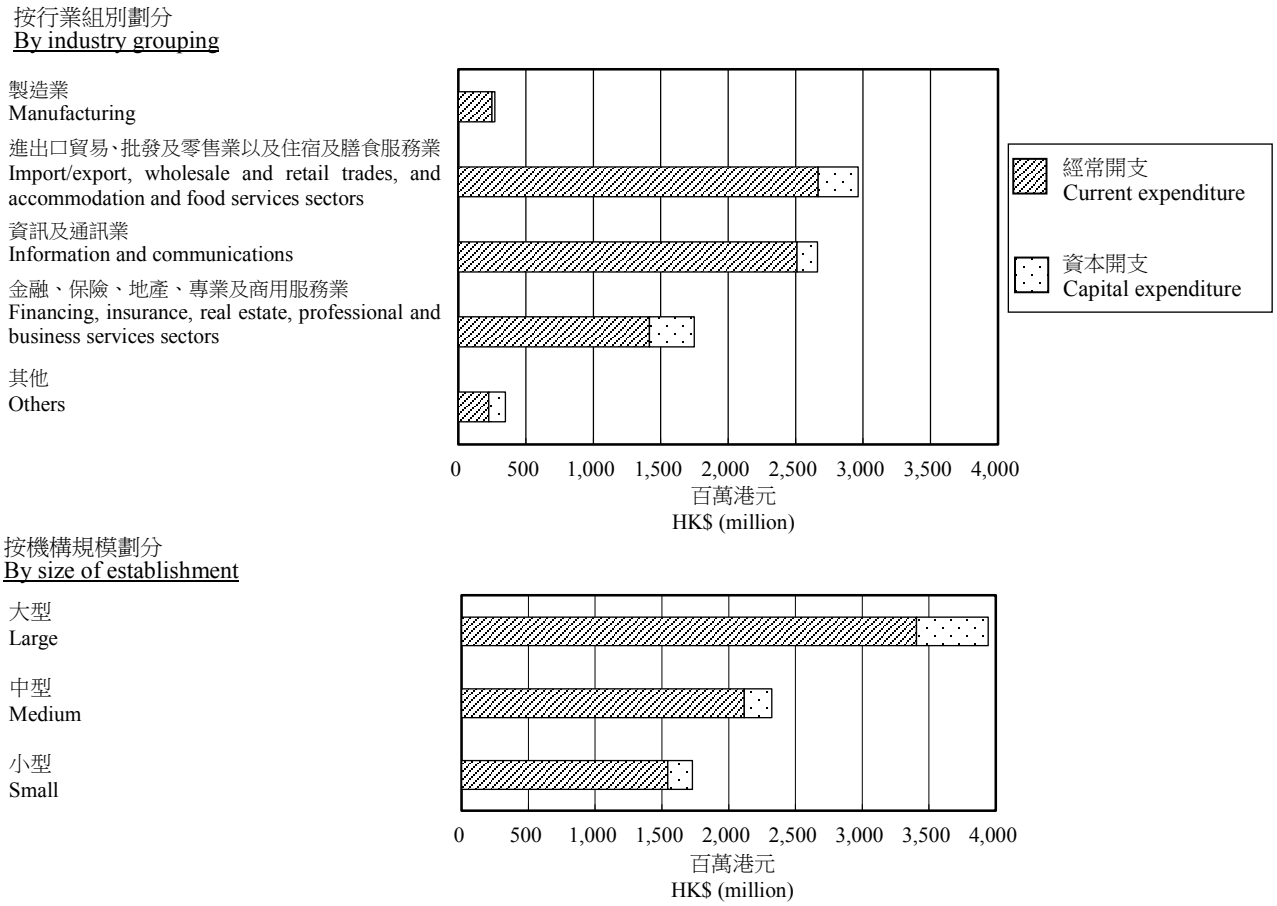
1.9 Large establishments constituted 7% of the total number of business establishments which had undertaken R&D activities (including both in-house R&D and/or contracted-out R&D activities) in 2015. However, they accounted for 49% of total in-house R&D expenditure. Medium and small establishments accounted for 29% and 22% of total in-house R&D expenditure respectively. (Chart 1.4, Table 1.5)

1.10 按研發開支類別分析，經常開支（70.66 億港元）和資本開支（9.28 億港元）分別佔工商機構的內部研發活動開支的 88% 和 12%。由於研發資本開支主要包括在該統計年度內購買供研發之用的固定資產，屬非經常性質，所以它在內部研發開支總額中，所佔的比重較經常開支相對為小。（圖 1.4，表 1.6）

1.10 Analysed by type of R&D expenditure, the proportions of current expenditure (HK$7,066 million) and capital expenditure (HK$928 million) for in-house R&D activities in the business sector were 88% and 12% respectively. Since R&D capital expenditure was not recurrent in nature and it covered mainly acquisitions of fixed assets for R&D during the reference year, its share in total in-house R&D expenditure tended to be smaller relative to the current expenditure. (Chart 1.4, Table 1.6)

圖 1.4 按研發開支類別（即經常和資本開支）及選定行業組別／機構規模劃分的 2015 年工商機構的內部研發活動總開支

Chart 1.4 Total expenditure on in-house R&D activities in the business sector in 2015 by type of R&D expenditure (i.e. current and capital expenditure) by selected industry grouping/size of establishment



按研究類別劃分的內部研發總開支

1.11 工商機構的內部研發總開支主要涉及商業應用有關的研究工作。就 2015 年的內部研發總開支而言，當中最大部分是用於實驗發展（74%），其次是應用研究（25%）和基礎研究（2%）。（圖 1.5(i)及 1.5(ii)，表 1.7）

Total in-house R&D expenditure by type of research

1.11 In-house R&D expenditure in the business sector was mainly targeted to research related to businesses. Of the total in-house R&D expenditure incurred in 2015, the largest share went to experimental development (74%), followed by applied research (25%) and basic research (2%). (Charts 1.5(i) and 1.5(ii), Table 1.7)

圖 1.5(i) 按研究類別劃分的 **2015** 年工商機構的內部研發活動總開支分布

Chart 1.5(i) **Distribution of total expenditure on in-house R&D activities in the business sector in 2015 by type of research**

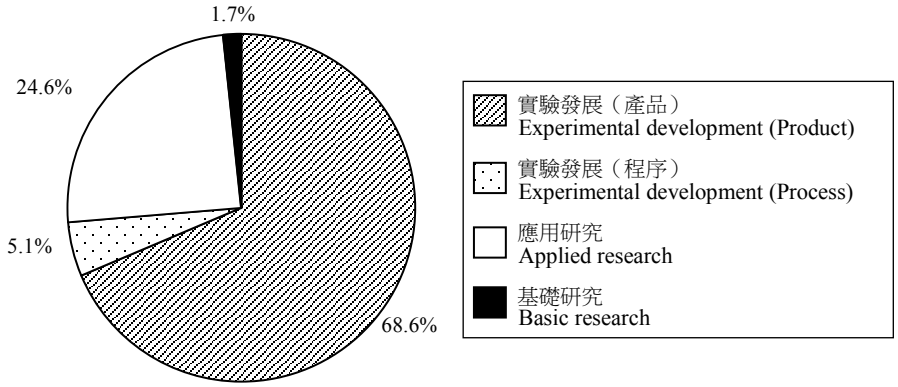
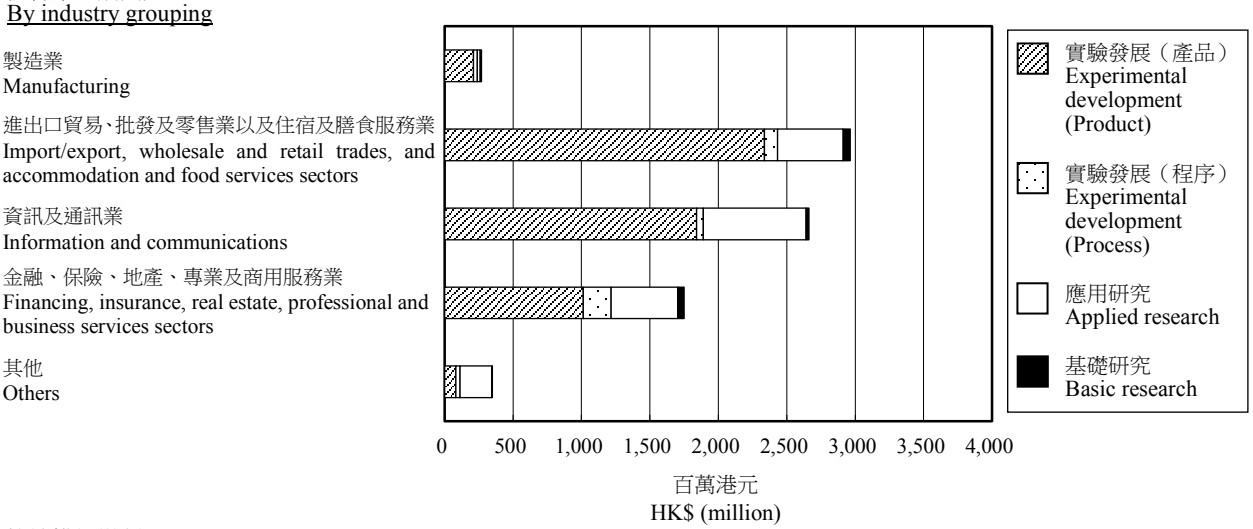


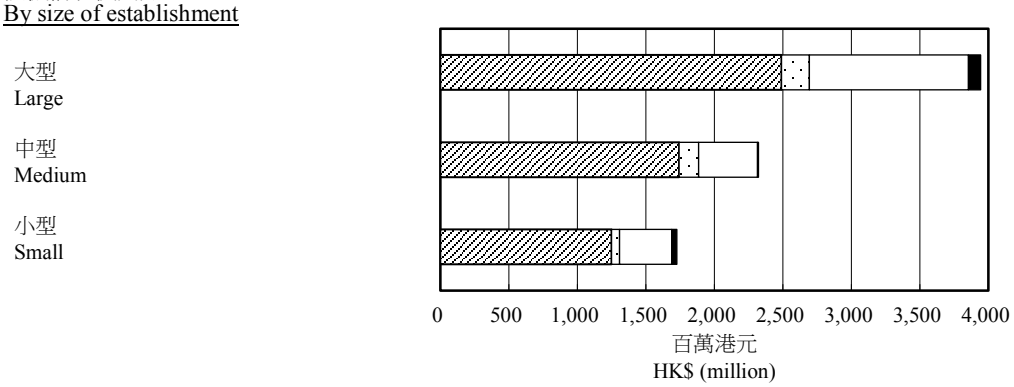
圖 1.5(ii) 按研究類別及選定行業組別／機構規模劃分的 **2015** 年工商機構的內部研發活動總開支

Chart 1.5(ii) **Total expenditure on in-house R&D activities in the business sector in 2015 by type of research by selected industry grouping/size of establishment**

按行業組別劃分
By industry grouping



按機構規模劃分
By size of establishment



按研發活動範疇劃分的內部研發總開支

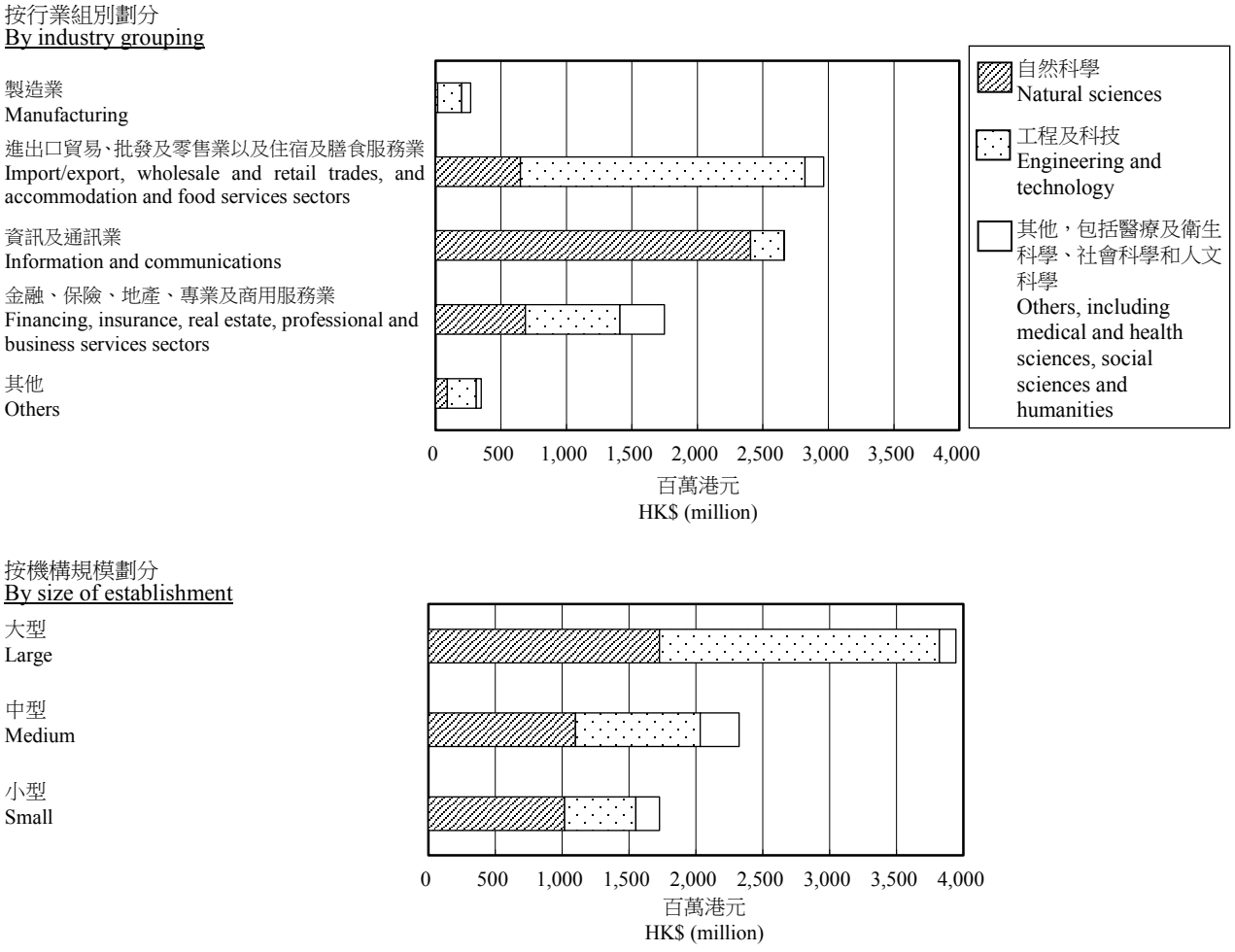
1.12 按研發活動範疇分析，大部分的內部研發活動總開支是用於自然科學（48%）和工程及科技（44%）。其他範疇（包括醫療及衛生科學、社會科學和人文科學）的研發總開支只佔小部分（7%）。（圖 1.6，表 1.8）

Total in-house R&D expenditure by field of R&D activity

1.12 Analysed by field of R&D activity, a predominant portion of total expenditure on in-house R&D activities was directed to the fields of natural sciences (48%), and engineering and technology (44%). Only a small portion of total R&D expenditure was related to other fields (including medical and health sciences, social sciences and humanities) (7%). (Chart 1.6, Table 1.8)

圖 1.6 按研發活動範疇及選定行業組別／機構規模劃分的 2015 年工商機構的內部研發活動總開支

Chart 1.6 Total expenditure on in-house R&D activities in the business sector in 2015 by field of R&D activity by selected industry grouping/size of establishment



按科技領域劃分的內部研發總開支

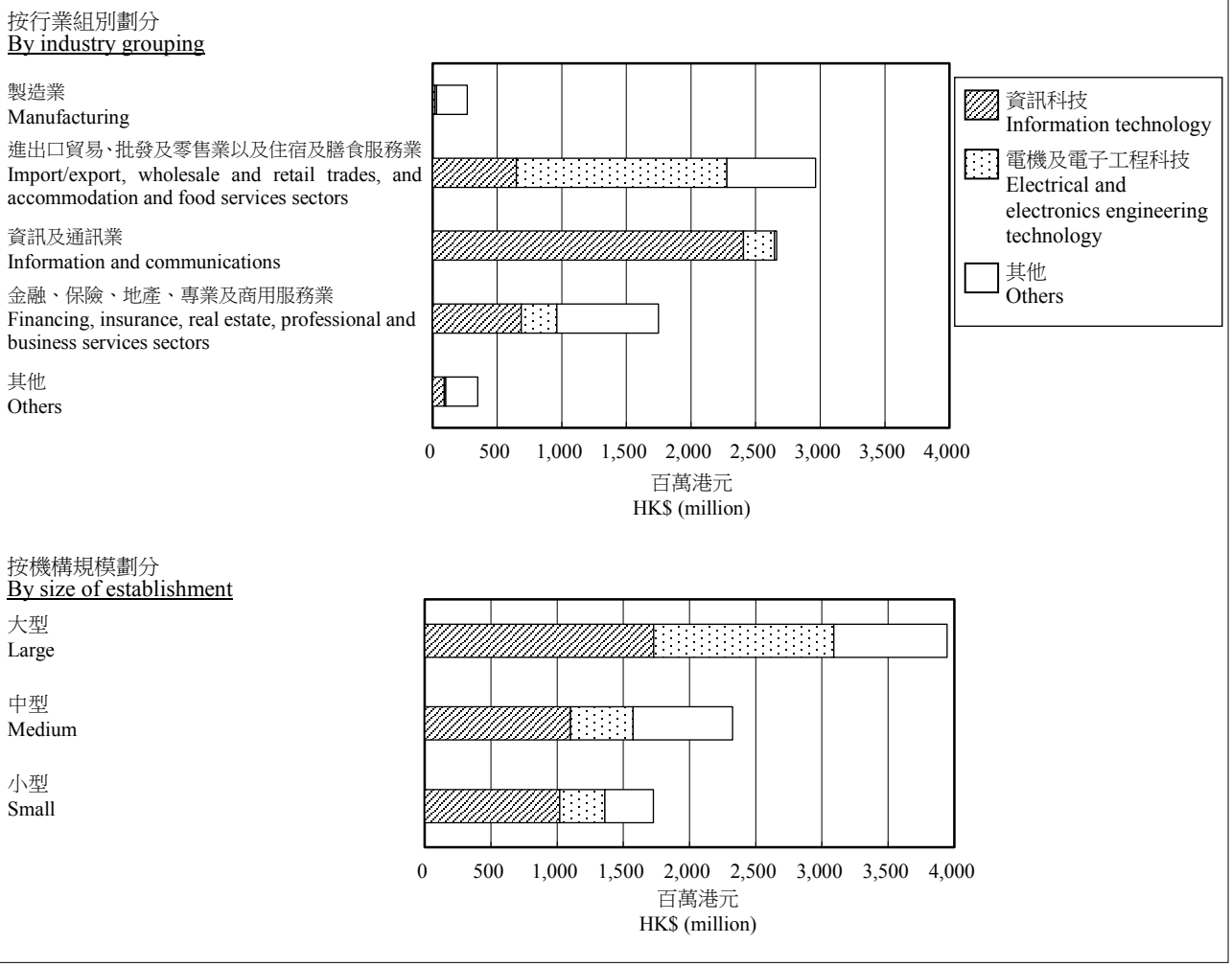
1.13 工商機構的內部研發活動主要集中於資訊科技及工程科技領域。資訊科技和電機及電子工程科技分別佔內部研發活動總開支的 48%及 27%。（圖 1.7，表 1.9）

Total in-house R&D expenditure by technology area

1.13 In-house R&D activities in the business sector were mainly focused on the areas of information technology and engineering technology. Information technology, and electrical and electronics engineering technology accounted for 48% and 27% of total expenditure on in-house R&D activities respectively. (Chart 1.7, Table 1.9)

圖 1.7 按科技領域及選定行業組別／機構規模劃分的 2015 年工商機構的內部研發活動總開支

Chart 1.7 Total expenditure on in-house R&D activities in the business sector in 2015 by technology area by selected industry grouping/size of establishment



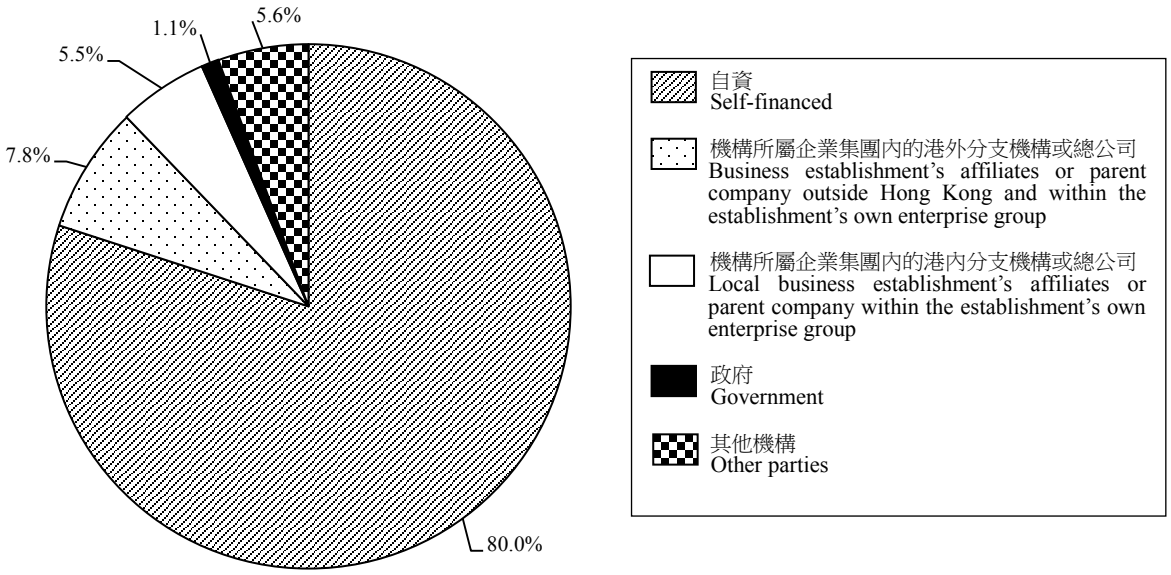
內部研發活動的資金來源

1.14 就工商機構的內部研發活動總開支而言，大約 90% 的資金來自本港。大部分的內部研發開支（80%）由進行研發活動的機構自行出資。其次是機構所屬企業集團內的本港或港外分支機構或總公司（13%）。（圖 1.8，表 1.10）

Source of funds for in-house R&D activities

1.14 Around 90% of the total expenditure on in-house R&D activities in the business sector was supported by local source of funds. Most of the in-house R&D expenditure (80%) were financed by the performing business establishments themselves, followed by business establishment's affiliates or parent company (both in and outside Hong Kong) within the establishment's own enterprise group (13%). (Chart 1.8, Table 1.10)

圖 1.8 按資金來源劃分的 2015 年工商機構的內部研發活動總開支分布
Chart 1.8 Distribution of total expenditure on in-house R&D activities in the business sector in 2015 by source of funds



按職業類別劃分的研發人員

1.15 工商機構的內部研發人員總數（以相當於全日制的人數計算）為 12 217 人，當中 74%是研究員／科學家／工程師，17%是技術員，其餘 9% 是其他輔助人員。（圖 1.9(i)及 1.9(ii)，表 1.11）

R&D personnel by type of occupation

1.15 The number of in-house R&D personnel in the business sector (in FTE) stood at 12 217, of which 74% were researchers/scientists/engineers, 17% were technicians and the remaining 9% were other supporting staff. (Charts 1.9(i) and 1.9(ii), Table 1.11)

圖 1.9(i) 按職業類別劃分的 **2015** 年工商機構的研發人員數目（相當於全日制的人數）分布

Chart 1.9(i) Distribution of R&D personnel (in FTE) in the business sector in 2015 by type of occupation

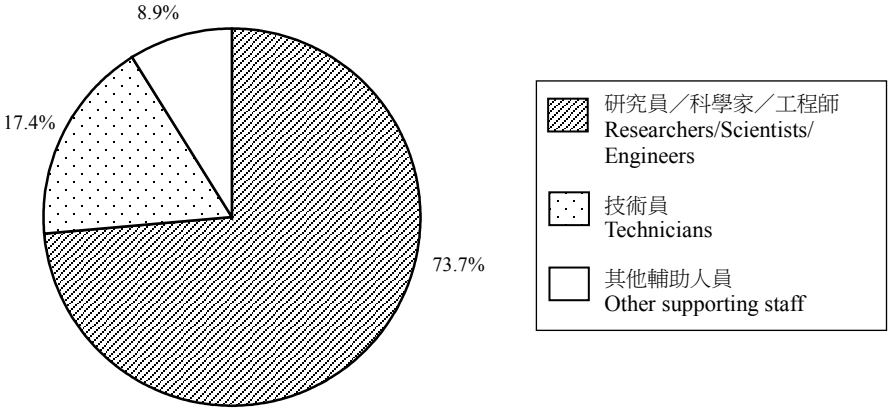
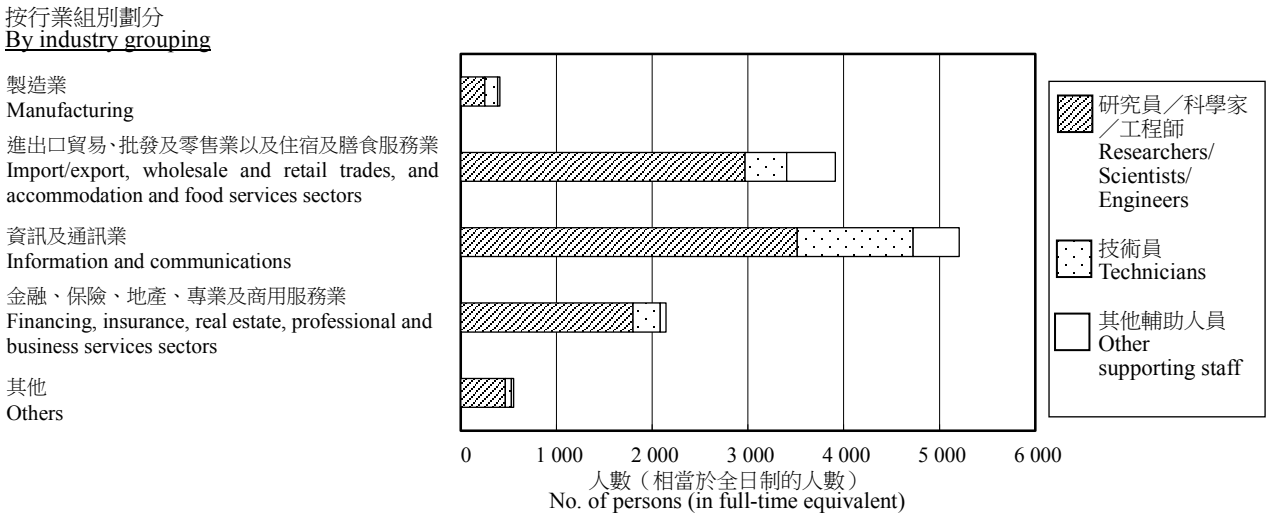
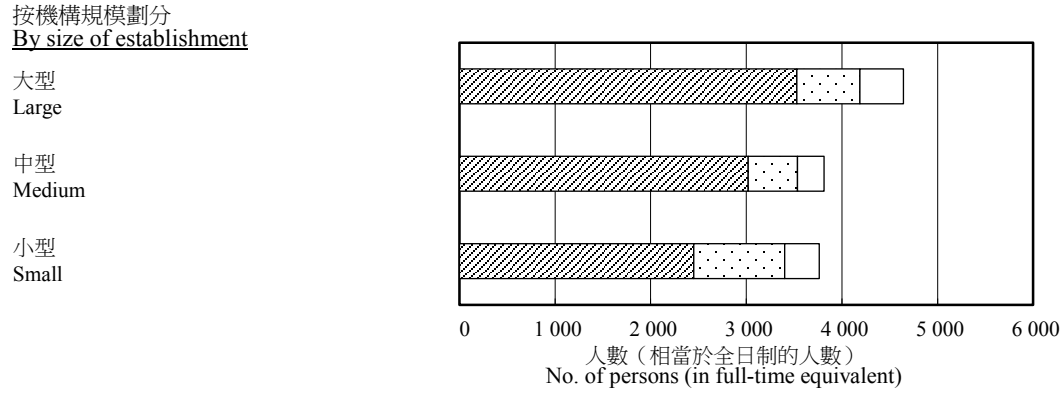


圖 1.9(ii) 按職業類別及選定行業組別／機構規模劃分的 **2015** 年工商機構的研發人員數目（相當於全日制的人數）

Chart 1.9(ii) R&D personnel (in FTE) in the business sector in 2015 by type of occupation by selected industry grouping/size of establishment





按教育程度劃分的研發人員

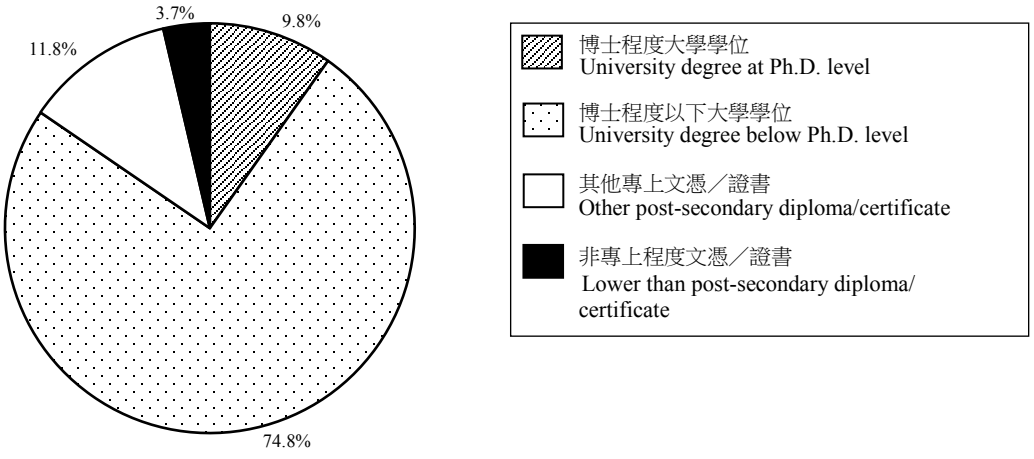
1.16 大部分研發人員具有大學學位或以上程度。2015 年的 12 217 名研發人員（相當於全日制的人數）當中，10% 達博士程度，75% 擁有博士程度以下大學學位。（圖 1.10，表 1.12）

R&D personnel by level of education

1.16 The majority of the R&D personnel held university degree or above qualifications. Of the 12 217 R&D personnel (in FTE) in 2015, 10% attained Ph.D. level and 75% were holders of university degree below Ph.D. level. (Chart 1.10, Table 1.12)

圖 1.10 按教育程度劃分的 2015 年工商機構的研發人員數目（相當於全日制的人數）分布

Chart 1.10 Distribution of R&D personnel (in FTE) in the business sector in 2015 by level of education



外判研發活動

1.17 除內部研發活動開支的資料外，有關外判予其他機構進行研發活動的開支數字，亦有助更全面分析工商機構於研發活動的整體投資。

Contracted-out R&D activities

1.17 Apart from the information on expenditure on in-house R&D activities, statistics pertaining to expenditure on R&D activities contracted out to other organisations are also useful in providing a more comprehensive analysis on businesses' total investment in R&D activities.

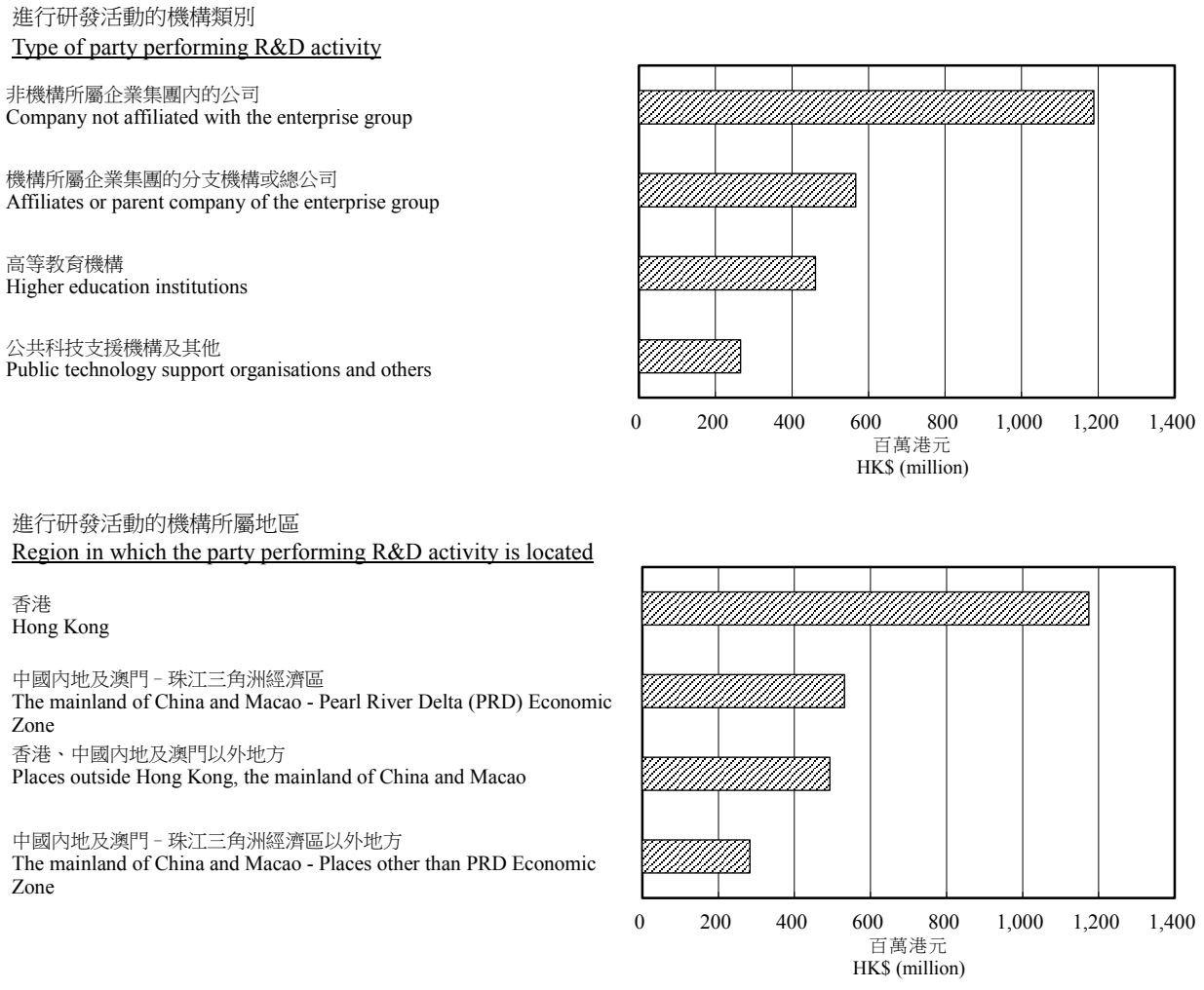
1.18 在 2015 年，工商機構用於外判研發活動的資金共 24.83 億港元。當中，外判予香港以外機構的研發開支為 13.08 億港元（佔外判研發開支總額的 53%），而進行機構主要是在中國內地的機構。另一方面，外判予本港機構的研發開支為 11.74 億港元（47%）。（圖 1.11，表 1.13 及 1.15）

1.18 In 2015, a total of HK$2,483 million was spent on contracted-out R&D activities in the business sector. Business expenditure on R&D contracted out to parties outside Hong Kong amounted to HK$1,308 million (53% of the total expenditure on contracted-out R&D), with the performing parties mainly located in the mainland of China. On the other hand, expenditure on R&D contracted out to local parties amounted to HK$1,174 million (47%). (Chart 1.11, Tables 1.13 and 1.15)

1.19 按進行研發活動的機構類別分析，外判的研發工作主要由非機構所屬企業集團內的公司所進行，佔外判研發開支總額的 48%。其次是機構所屬企業集團的分支機構或總公司（23%）及高等教育機構（19%）。（圖 1.11，表 1.14）

1.19 Analysed by type of performing party, contracted-out R&D projects were mainly undertaken by companies not affiliated with the enterprise group concerned, which accounted for 48% of the total expenditure on contracted-out R&D activities. It was followed by affiliates or parent company of the enterprise group (23%) and higher education institutions (19%). (Chart 1.11, Table 1.14)

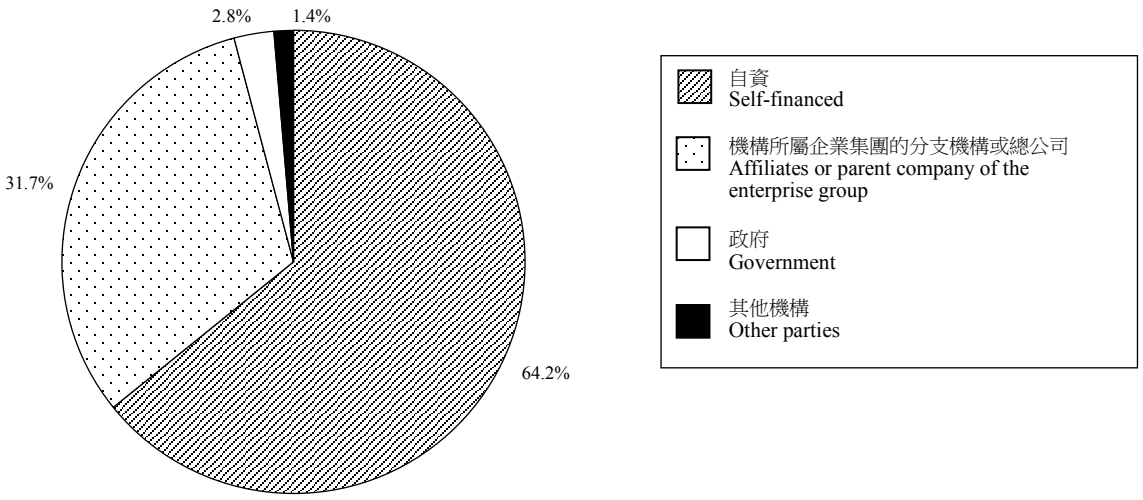
圖 1.11 按進行機構的類別／所屬地區劃分的 2015 年工商機構的外判研發活動總開支
Chart 1.11 Total expenditure on contracted-out R&D activities in the business sector in 2015 by type of performing party/region in which the party performing R&D activity is located



1.20 按外判研發活動開支的資金來源分析，64%資金來自機構本身。其次分別為機構所屬企業集團的分支機構或總公司（32%）及政府（例如創新及科技基金）（3%）。（圖 1.12，表 1.16）

1.20 Analysed by source of funds for contracted-out R&D activities, 64% of the funds came from the establishments themselves. It was followed by affiliates or parent company of the enterprise group (32%) and Government (e.g. Innovation and Technology Fund) (3%). (Chart 1.12, Table 1.16)

圖 1.12 按資金來源劃分的 2015 年工商機構的外判研發活動總開支分布
Chart 1.12 Distribution of total expenditure on contracted-out R&D activities in the business sector in 2015 by source of funds



研發活動的協作安排

1.21 在 2015 年曾進行研發活動（包括內部研發活動及／或外判研發活動）的工商機構當中，11%（425 間）表示有就研發活動和其他機構訂立協作安排。按協作夥伴的類別分析，該 425 間機構當中，有 49% 與機構所屬企業集團的分支機構或總公司有協作安排，35% 則與非機構所屬企業集團內的公司有協作安排。（圖 1.13，表 1.17）

Collaboration arrangements on R&D activities

1.21 Some 11% (425) of the business establishments which undertook R&D activities (including both in-house R&D and/or contracted-out R&D activities) in 2015 reported that they had collaboration arrangements on R&D activities with other parties. Analysed by type of collaboration partner, 49% of these 425 establishments had collaboration arrangements with affiliates or parent company of the enterprise group, and 35% had collaboration arrangements with company not affiliated with the enterprise group. (Chart 1.13, Table 1.17)

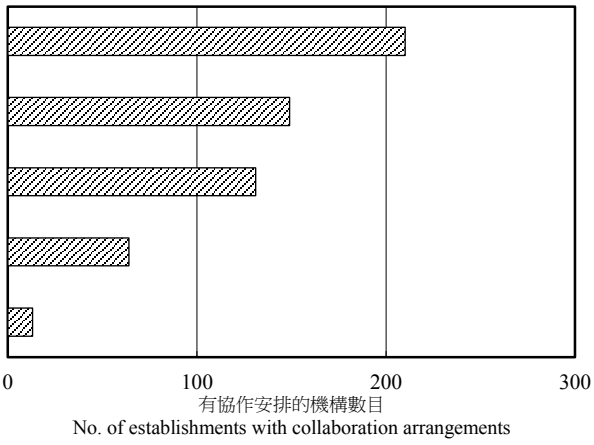
1.22 在有研發活動協作安排的機構中，28%的協作夥伴是在珠江三角洲經濟區。這顯示出香港的工商機構與位於中國內地珠江三角洲經濟區的機構有緊密的研發活動協作安排。（圖 1.13，表 1.18）

1.22 Among the establishments with collaboration arrangements on R&D activities, 28% had collaboration with organisations in the Pearl River Delta (PRD) Economic Zone. This indicated that there were close ties of collaboration on R&D activities between Hong Kong businesses and organisations located in the PRD Economic Zone of the mainland of China. (Chart 1.13, Table 1.18)

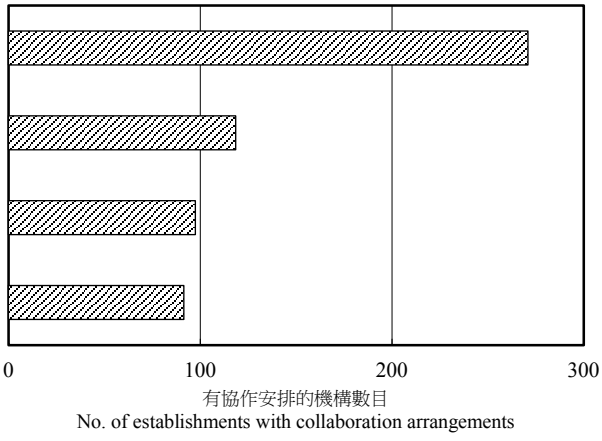
圖 1.13 按協作機構的類別及所屬地區劃分的 2015 年有研發活動和其他機構訂立協作安排的工商機構數目

Chart 1.13 Number of business establishments with collaboration arrangements on R&D activities with other organisations in 2015 by type of collaborating organisation and region in which the collaborating organisation is located

協作機構類別
Type of collaborating organisation



協作機構所屬地區
Region in which the collaborating organisation is located



高等教育機構的研發活動

1.23 近年來，高等教育機構[(2)]不斷加強研發的活動。高等教育機構在 2015 年用於研發方面的開支為 95.51 億港元，較 2014 年度的開支上升了 11%，高等教育機構的研發開支相對 2015 年本地生產總值的比率為 0.40%。（表 1.1）

1.24 在 2015 年高等教育機構的研發活動開支總額當中，經常開支佔很大比重，達 93%，資本開支則佔 7%。（表 1.2）

按職業類別劃分的研發人員

1.25 在 2015 年高等教育機構的研發人員數目（相當於全日制的人數）為 15 247 人。按職業類別分析，2015 年大部分研發人員是研究員（93%），其次是其他輔助人員（4%）及技術員（3%）。（圖 1.14，表 1.1 及 1.4）

R&D activities in the higher education sector

1.23 The higher education sector[(2)] has been stepping up its effort in undertaking R&D activities in recent years. The R&D expenditure in the higher education sector amounted to HK$9,551 million in 2015, 11% higher than the corresponding expenditure in 2014. This represented a ratio of 0.40% to GDP in 2015. (Table 1.1)

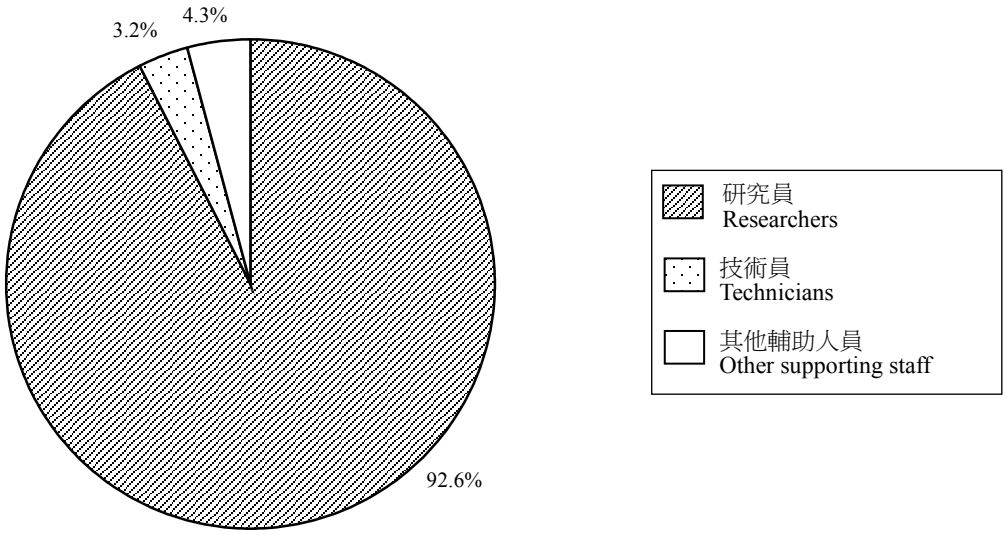
1.24 Current expenditure incurred in R&D activities in the higher education sector constituted a predominant share of 93% of total expenditure on R&D in this sector in 2015, while capital expenditure accounted for 7%. (Table 1.2)

R&D personnel by type of occupation

1.25 The number of R&D personnel (in FTE) in the higher education sector reached 15 247 in 2015. Analysed by type of occupation, most of the R&D personnel in 2015 were researchers (93%), followed by other supporting staff (4%) and technicians (3%). (Chart 1.14, Tables 1.1 and 1.4)

圖 1.14 按職業類別劃分的 2015 年高等教育機構研發人員數目（相當於全日制的人數）分布

Chart 1.14 Distribution of R&D personnel (in FTE) in the higher education sector in 2015 by type of occupation



(2) 數字包括大學教育資助委員會資助的高等教育院校在有關學年的資料。高等教育機構的學年由每年的 7 月至翌年的 6 月。

(2) Figures refer to data in the respective academic year of the higher education institutions funded by the University Grants Committee. The academic year of the higher education sector starts in July of a year and ends in June of the following year.

政府機構的研發活動

1.26 政府的主要角色並非作為研發進行者，而是透過提供資金援助及科技基礎設施，致力提升香港的科技與創新水平。

1.27 政府機構在 2015 年的研發開支達 7.26 億港元，較 2014 年度的開支上升了 10% 。而政府機構的研發開支相對 2015 年本地生產總值的比率為 0.03%。（表 1.1）

1.28 按研發活動開支類別分析，經常開支和資本開支分別佔政府機構的研發開支總額的 93% 和 7%。（表 1.2）

按職業類別劃分的研發人員

1.29 政府機構的研發人員數目（相當於全日制的人數）由 2014 年的 648 人上升至 2015 年的 701 人。在 2015 年，研究員、技術員和其他輔助人員的分布分別為 80%、12% 和 8%。（圖 1.15，表 1.1 及 1.4）

R&D activities in the government sector

1.26 While not being a major performer of R&D, the Government is playing a facilitating role in driving the economy's technology and innovation upgrading, through provision of funding support and technological infrastructure.

1.27 The R&D expenditure in the government sector amounted to HK$726 million in 2015, which was 10% higher than the corresponding expenditure in 2014. This was equivalent to a ratio of 0.03% to GDP in 2015. (Table 1.1)

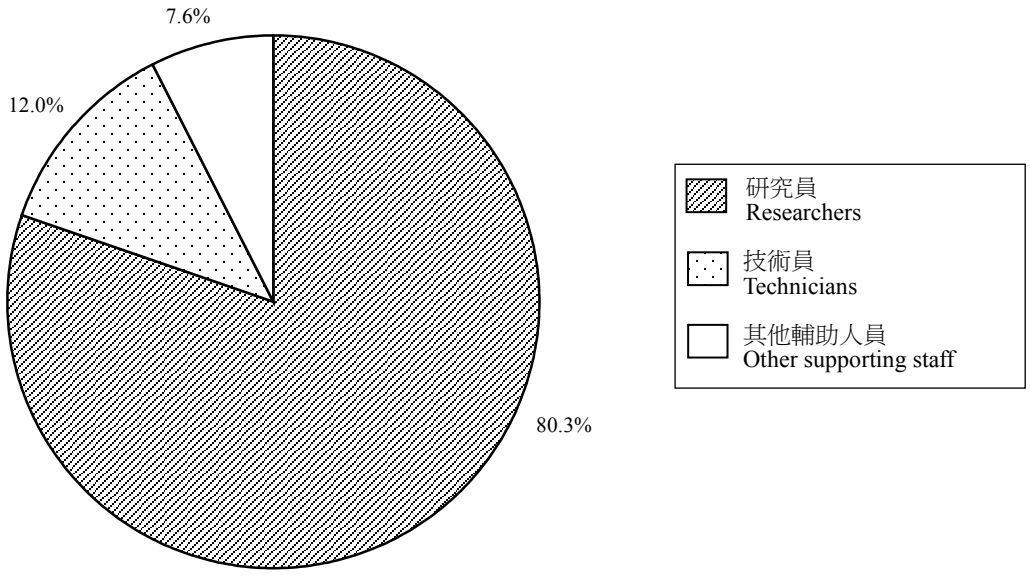
1.28 Analysed by type of R&D expenditure, the proportions of current expenditure and capital expenditure in the government sector were 93% and 7% of the total expenditure on R&D in this sector respectively. (Table 1.2)

R&D personnel by type of occupation

1.29 The number of R&D personnel (in FTE) in the government sector increased from 648 in 2014 to 701 in 2015. The distribution of researchers, technicians and other supporting staff was 80%, 12% and 8% respectively in 2015. (Chart 1.15, Tables 1.1 and 1.4)

圖 1.15 按職業類別劃分的 2015 年政府機構研發人員數目（相當於全日制的人數）分布

Chart 1.15 Distribution of R&D personnel (in FTE) in the government sector in 2015 by type of occupation



2 工商機構的技術創新活動 Technological Innovation Activities in the Business Sector

工商機構進行技術創新活動的普及情況（包括產品及程序創新）

2.1 創新活動在知識型經濟中扮演著一個重要的角色。除進行研究及發展（研發）活動外，一間機構可從事一些與研發無直接關係但對其創新活動和業務表現有所貢獻的其他技術創新活動（例如把研發成果商品化）。

2.2 約3%的工商機構在2015年曾進行一類或以上的技術創新活動。在2015年，從事資訊及通訊業的機構較普遍進行技術創新活動（佔該行業所有機構的23%）。（圖2.1，表2.1）

2.3 技術創新活動的普及程度在不同規模的機構略有差別。大型機構較中小型機構傾向於進行技術創新活動，大型機構當中有10%曾進行技術創新活動，而中型和小型機構的相應數字分別為6%和2%。（表2.1）

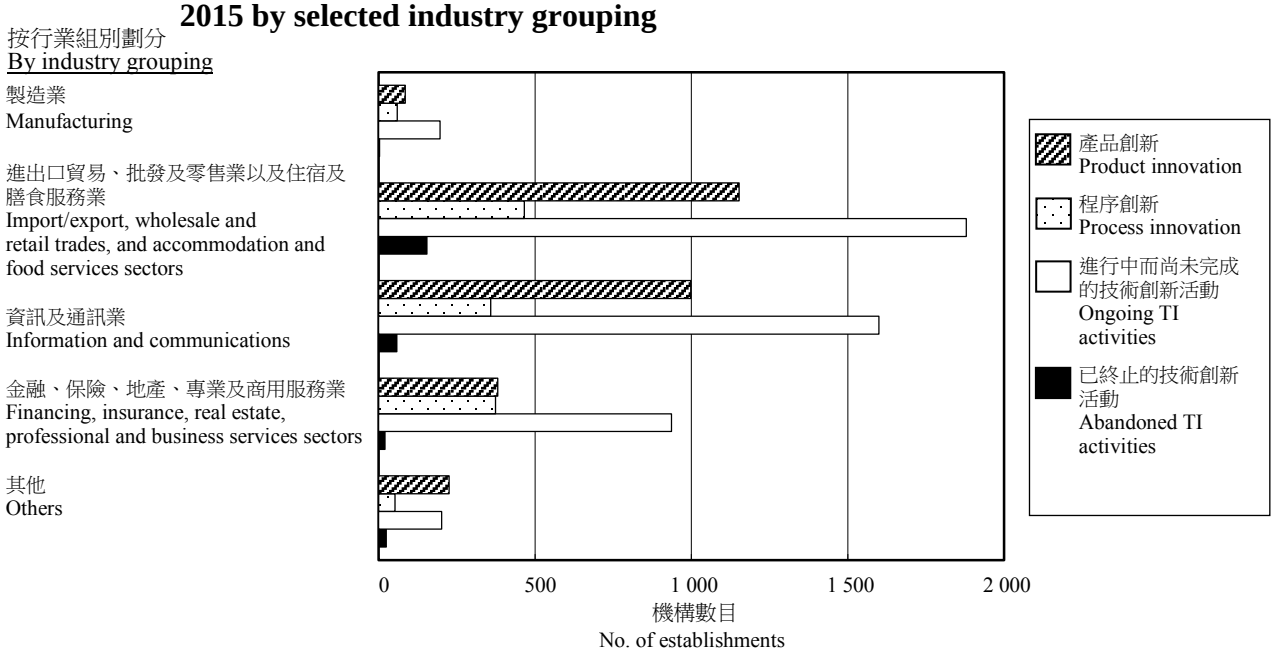
Diffusion of technological innovation (TI) activities in the business sector (including product and process innovation)

2.1 Innovation activities play an important role in a knowledge-based economy. Apart from conducting research and development (R&D) activities, an establishment may also undertake other TI activities not directly related to R&D (e.g. commercialisation of R&D output) and yet contribute to the innovation activity and the business performance of the establishment.

2.2 About 3% of business establishments had undertaken one or more types of TI activities in 2015. TI activities were more prevalent among establishments engaging in the information and communications sector (23% of total establishments in the sector) in 2015. (Chart 2.1, Table 2.1)

2.3 The levels of diffusion of TI activities among establishments of different sizes were different. Large establishments had a higher propensity to undertake TI activities than medium and small establishments. About 10% of large establishments were involved in TI activities, as compared with 6% and 2% among medium and small establishments respectively. (Table 2.1)

圖 2.1 按選定行業組別劃分在 2015 年有進行技術創新活動的工商機構分布
Chart 2.1 Distribution of business establishments having undertaken TI activities in 2015 by selected industry grouping



產品創新

2.4 約 1% 的工商機構曾於 2015 年在市場上推出一種或以上技術嶄新或經顯著改良的產品（貨品或服務）。這些機構平均每間推出 1.9 項技術嶄新或經顯著改良的產品。（表 2.1、2.2 及 2.3）

2.5 在 2015 年曾進行產品創新的工商機構當中，約 76%是自行開發有關產品，以及 9% 的機構則與其他機構合作開發有關產品。整體而言，2015 年在市場上推出的創新產品所帶來的業務收入佔有關機構的業務收入總額的 5%。（表 2.3）

2.6 另外，約 0.6% 的工商機構表示曾在 2015 年推出不僅對有關機構而且對市場均是技術嶄新或經顯著改良的產品（貨品或服務）。（表 2.2）

程序創新

2.7 約有 0.5%的工商機構在 2015 年進行程序創新。各行業組別中，資訊及通訊業中進行程序創新的機構比率較高（3%）。此外，大型機構進行程序創新的比率（3%）較中型（1%）及小型機構為高（0.3%）。（表 2.1 及 2.4）

2.8 在 2015 年，約 66% 有進行程序創新的工商機構表示，有關程序由機構自行開發，以及有 6% 的機構表示有關程序由機構本身與其他機構合作開發。曾進行程序創新的機構在 2015 年平均每間實施 1.6 項程序創新項目。（表 2.5）

Product innovation

2.4 About 1% of the business establishments had introduced to the market one or more technologically new or significantly improved products (goods or services) in 2015. The average number of technologically new or significantly improved products introduced to the market by each of these establishments was 1.9. (Tables 2.1, 2.2 and 2.3)

2.5 For business establishments having undertaken product innovation in 2015, about 76% of them developed the products by themselves, and 9% cooperated with other parties in developing the products. Overall, the innovative products introduced to the market in 2015 contributed 5% to the total business receipts of establishments having undertaken product innovation in 2015. (Table 2.3)

2.6 Furthermore, about 0.6% of the business establishments were involved in the introduction of technologically new or significantly improved products (goods or services) not only new to the establishment but also new to the market in 2015. (Table 2.2)

Process innovation

2.7 About 0.5% of the business establishments undertook process innovation in 2015. Among various industry groupings, the information and communications sector had a higher proportion of establishments (3%) undertaking process innovation. Besides, the proportion of establishments undertaking process innovation was higher in large establishments (3%) than in medium (1%) and small establishments (0.3%). (Tables 2.1 and 2.4)

2.8 Around 66% of the business establishments with process innovation in 2015 indicated that the processes were developed by the establishments themselves, and 6% indicated that the processes were developed by the establishments in cooperation with other parties. On average, the number of process innovation implemented by each of the establishments having undertaken process innovation was 1.6 in 2015. (Table 2.5)

2.9 在 2015 年曾進行程序創新的工商機構中，72%表示在技術嶄新或經顯著改良的程序全面實施後在不同程度上有助減低經營成本。（表 2.6）

2.9 Among those business establishments having undertaken process innovation in 2015, 72% indicated that the innovation would help lower their operating costs to different extent after the full implementation of the technologically new or significantly improved process. (Table 2.6)

技術創新活動的開支

Expenditure on TI activities

2.10 在 2015 年，工商業技術創新活動的投資總額為 174.96 億港元。對技術創新活動投資最多的行業組別是進出口貿易、批發及零售業以及住宿及膳食服務業，佔技術創新活動開支總額的 37%。其次是資訊及通訊業，以及金融、保險、地產、專業及商用服務業（分別佔 25%和 23%）。（表 2.1 及 2.7）

2.10 The total amount invested in TI activities in the business sector in 2015 was HK$17,496 million. The import/export, wholesale and retail trades, and accommodation and food services sectors spent most on TI activities, constituting 37% of the total TI expenditure. It was followed by the information and communications sector; and financing, insurance, real estate, professional and business services sectors (25% and 23% respectively). (Tables 2.1 and 2.7)

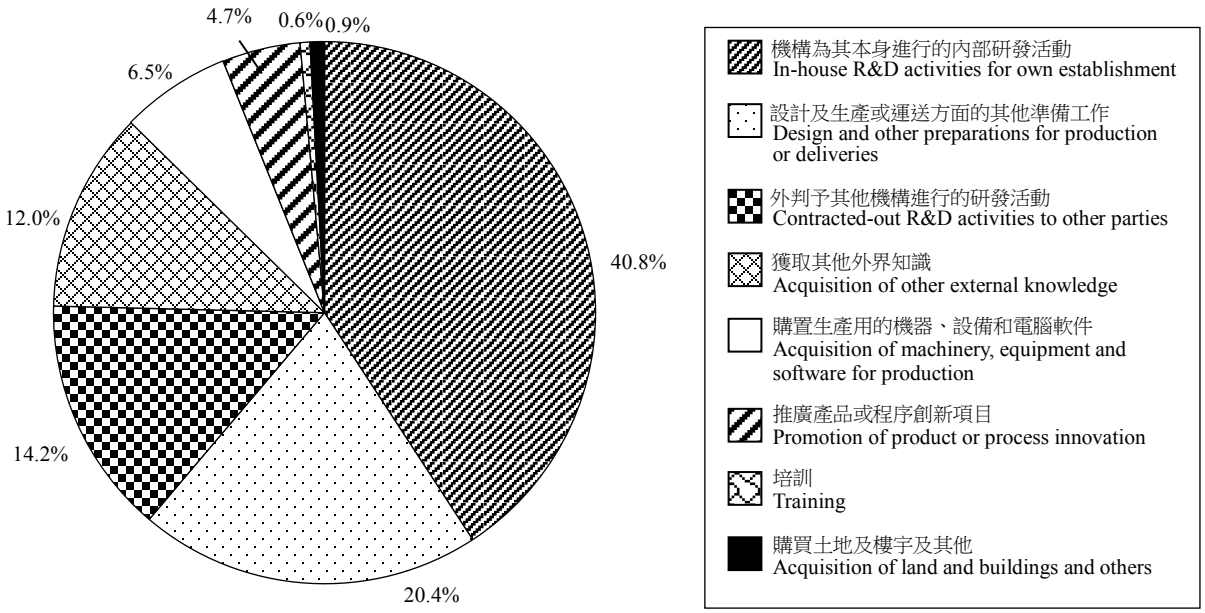
2.11 一般而言，大型機構比中小型機構傾向於用較多資金來進行技術創新活動。以機構數目而言，大、中及小型機構分別佔在 2015 年曾進行技術創新的機構的 8%、25%和 67%。然而，它們佔技術創新開支總額的百分比卻分別是 53%、22%和 25%。（表 2.1 及 2.7）

2.11 In general, large establishments tended to invest more in TI activities than small to medium sized establishments. While large, medium and small establishments respectively constituted 8%, 25% and 67% of the establishments that had undertaken TI activities in 2015, their shares in total TI expenditure were 53%, 22% and 25% respectively. (Tables 2.1 and 2.7)

2.12 按技術創新活動開支類別分析，頗大部分的技術創新活動開支是用於機構本身的內部研發活動（41%），其次是設計及生產或運送方面的其他準備工作（20%），以及外判予其他機構進行研發活動（14%）。（圖 2.2，表 2.7）

2.12 Analysed by type of TI expenditure, a fairly large portion of TI expenditure was spent on in-house R&D activities for own establishment (41%), followed by design and other preparations for production or deliveries (20%), and contracted-out R&D activities to other parties (14%). (Chart 2.2, Table 2.7)

圖 2.2 按技術創新活動類別劃分的 2015 年工商機構的技術創新活動總開支分布
Chart 2.2 Distribution of total expenditure on TI activities in the business sector in 2015 by type of TI activity



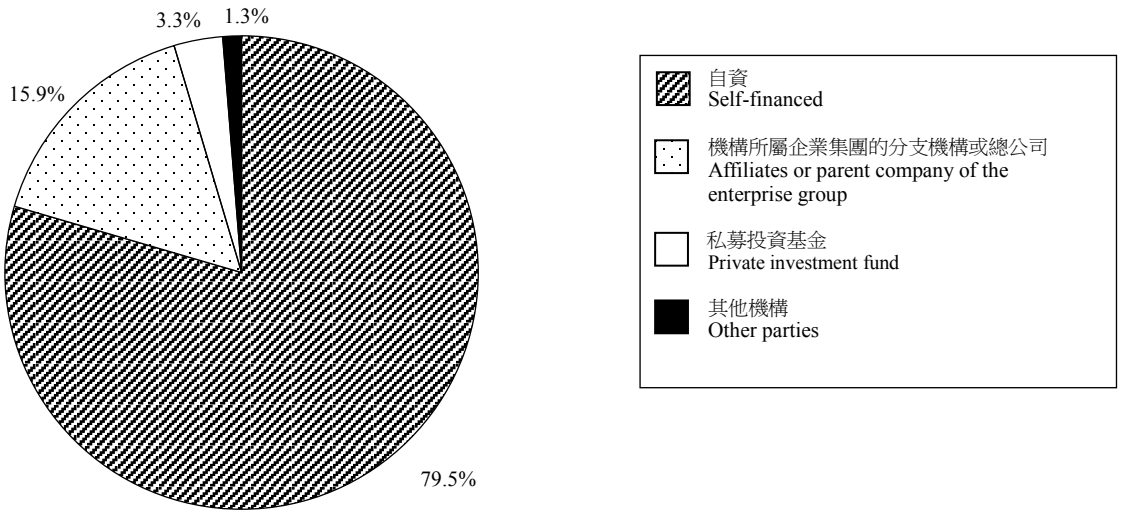
技術創新活動的資金來源

2.13 按資金來源分析，80% 的技術創新活動的開支由機構本身出資。第二大資金來源則是機構所屬企業集團的分支機構或總公司（16%的技術創新開支）。（圖 2.3，表 2.8）

Source of funds for TI activities

2.13 Analysed by source of funds, 80% of the TI expenditure was financed by the establishments themselves. The second major funding source came from affiliates or parent company of the enterprise group (16% of TI expenditure). (Chart 2.3, Table 2.8)

圖 2.3 按資金來源劃分的 2015 年工商機構的技術創新活動總開支分布
Chart 2.3 Distribution of total expenditure on TI activities in the business sector in 2015 by source of funds



技術創新活動的特色

技術創新活動的影響

2.14 整體而言，在 2015 年曾進行技術創新活動的工商機構中有頗大比例均報稱有關活動對其機構有正面的影響，而在產品及符合行業規例／標準方面的影響尤為顯著。技術創新活動對機構產生的影響（以獲機構評為高影響程度的百分比計算）是：

(a) 對產品的影響（例如：擴大了產品（貨品或服務）的範圍或市場佔有率；改善了產品的質素等）（15%）

(b) 符合了行業規例或標準（15%）

(c) 對生產或業務程序的影響（例如：改善了生產靈活性；提高了生產量；減低了每件產品的生產成本等）（9%）

(d) 減低對環境的影響，或對健康及安全方面有所改善（7%）

（圖 2.4，表 2.9）

Characteristics of TI activities

Impact of TI activities

2.14 Overall speaking, a good proportion of the business establishments having undertaken TI activities in 2015 reported that there was positive impact of undertaking TI activities. The more significant positive effects were related to the products and compliance with industry regulations/standards. The effects of TI activities on the establishments (in terms of the percentage of establishments with high rating on such aspects) were:

(a) Product oriented effects (e.g. increased range of products (goods or services) or market share; improved quality of products, etc.) (15%)

(b) Met industry regulations or standards (15%)

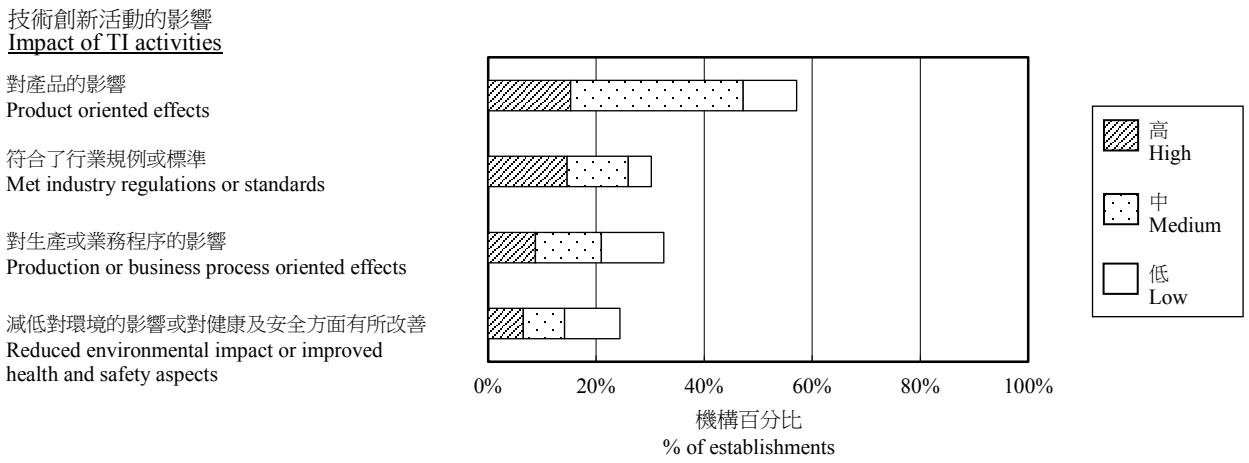
(c) Production or business process oriented effects (e.g. improved production flexibility; increased production capacity; reduced production cost per unit, etc.) (9%)

(d) Reduced environmental impact or improved health and safety aspects (7%)

(Chart 2.4, Table 2.9)

圖 2.4 在 2015 年有進行技術創新活動的工商機構評估其技術創新活動對企業的影響

Chart 2.4 Impact of TI activities on businesses for business establishments having undertaken TI activities in 2015



認為相關影響不適用的機構百分比沒有在圖中展示。
The % of establishments that considered the effect irrelevant is not presented in the chart.

技術創新活動的協作安排

2.15 在 2015 年，約 15%（1 093 間）有進行技術創新活動的工商機構報稱有就技術創新活動和其他機構訂立協作安排。按協作機構所屬地區分析，有 71% 與香港的機構訂立協作安排，而 43%與香港、中國內地及澳門以外地方的機構訂立協作安排。（圖 2.5，表 2.11）

2.16 至於協作機構的類別，58%與機構所屬企業集團的分支機構或總公司有協作安排，其次是非機構所屬企業集團內的公司（34%）。（圖 2.5，表 2.10）

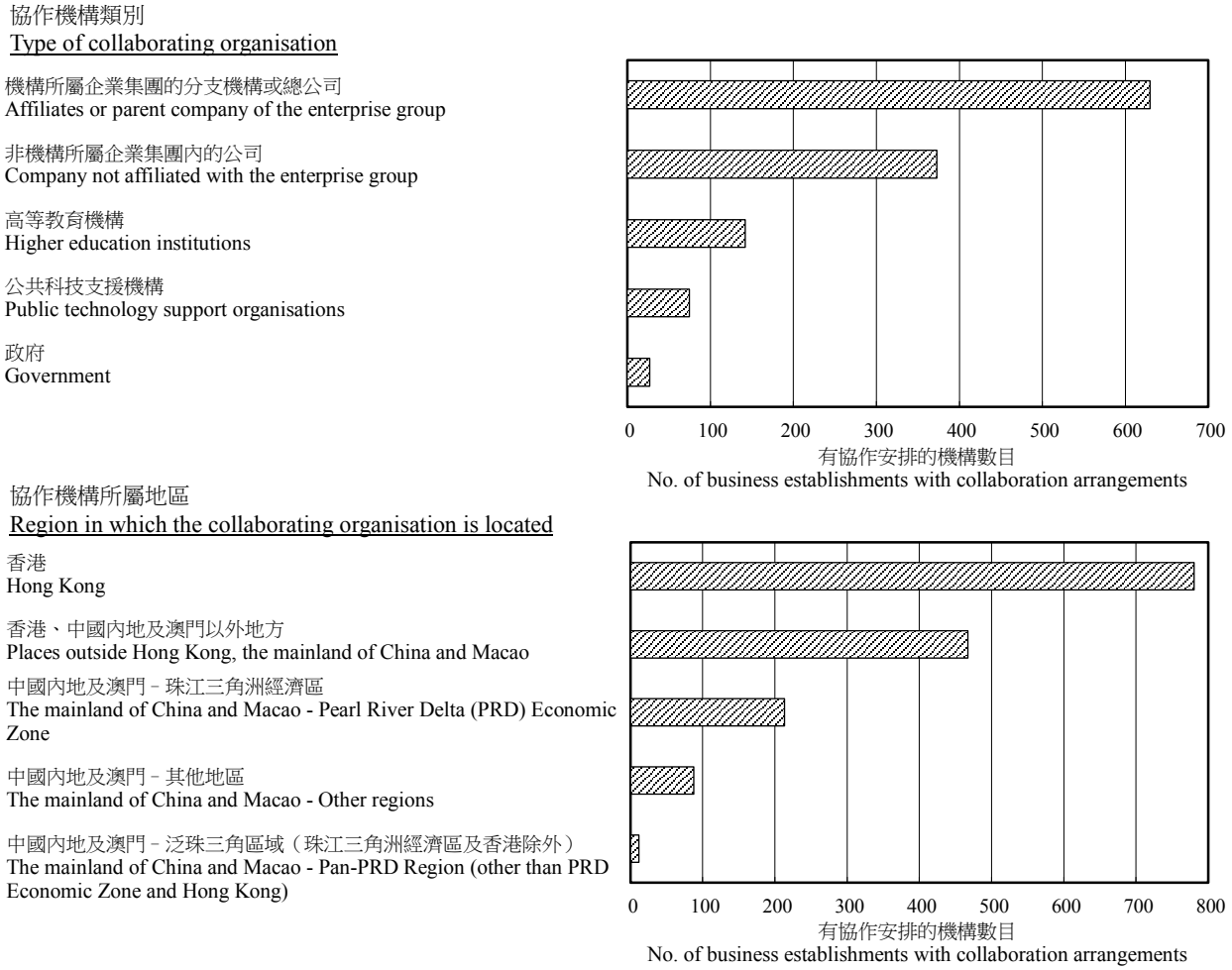
Collaboration arrangements on TI activities

2.15 About 15% (1 093) of the business establishments with TI activities in 2015 reported to have collaboration arrangements on TI activities with other organisations. Analysed by the location of the collaborating organisations, 71% co-operated with organisations in Hong Kong, and 43% with organisations in places outside Hong Kong, the mainland of China and Macao. (Chart 2.5, Table 2.11)

2.16 As regards the type of collaborating organisations, 58% were with the affiliates or parent company of the enterprise group. It was followed by company not affiliated with the enterprise group (34%) (Chart 2.5, Table 2.10)

圖 2.5 按協作機構的類別及所屬地區劃分的 2015 年有就技術創新活動和其他機構訂立協作安排的工商機構數目

Chart 2.5 Number of business establishments with collaboration arrangements on TI activities with other organisations in 2015 by type of collaborating organisation and region in which the collaborating organisation is located



阻礙技術創新的因素

2.17 在 2015 年沒有進行技術創新活動的工商機構中，他們的最主要原因是「由於市場或行業情況，因此暫無需要」（93%）。（表 2.12）

2.18 對於在 2015 年有進行技術創新活動的工商機構來說，阻礙技術創新活動的最重要因素（以獲機構評為高影響程度的百分比計算）是「機構內部或所屬企業集團缺乏資金」（29%）。其次是「創新成本太高」（26%）及「缺乏合資格科技人員」（22%）。（表 2.13）

仍在進行而尚未完成或已終止的技術創新活動

2.19 約 2% 的工商機構在 2015 年有仍在進行中的技術創新活動，當中大型機構的相應比率最高（7%）。另一方面，極小部分的機構（0.1%）在 2015 年曾終止已開展的技術創新活動。（表 2.1、2.14 及 2.15）

Barriers to TI

2.17 Among those business establishments which had not undertaken TI activities in 2015, the major reason was "no need due to market or business conditions" (93%). (Table 2.12)

2.18 As for those business establishments which had undertaken TI activities in 2015, the most important factors (in terms of the percentage of establishments with high rating on the degree of impact of the factor) that inhibited their TI activities was "lack of funds within the establishment or enterprise group" (29%). This was followed by "innovation costs too high" (26%) and "lack of qualified science and technology personnel" (22%). (Table 2.13)

TI activities ongoing but not yet completed or TI activities abandoned

2.19 Around 2% of the business establishments had ongoing TI activities in 2015. Large establishments registered the highest percentage of establishments with ongoing TI activities (7%). On the other hand, only a meagre 0.1% of the establishments had abandoned their TI activities in 2015. (Tables 2.1, 2.14 and 2.15)

3 工商機構的非技術創新活動 Non-technological Innovation Activities in the Business Sector

工商機構進行非技術創新活動的普及情況（包括組織及市場推廣創新）

3.1 除技術創新活動外，一間機構亦可以從事與技術沒有直接關係的非技術創新活動，包括組織及市場推廣創新活動，以助提升其競爭力及業務表現。

3.2 組織創新是指一間工商機構在業務模式、工作架構或對外關係上實施嶄新的組織方法。市場推廣創新是指一間工商機構實行一種嶄新的市場推廣概念或策略，而這些新概念或策略與該機構現行的市場推廣方法截然不同，亦未嘗在該機構內採用。

3.3 在 2015 年，約 9%的工商機構曾進行組織或市場推廣創新活動。香港的工商機構一向以迅速適應外在環境轉變見稱，故此工商機構進行非技術創新活動的比率普遍遠較技術創新活動的比率為高的情況是在預期之內。（表 3.1）

3.4 在 2015 年，進行組織或市場推廣創新活動最多的行業組別是資訊及通訊業（14%），其次是製造業（12%）。按機構規模分析，大型及中型機構相對較熱衷於進行非技術創新活動，比率分別為 14%及 15%，而小型機構的比率則為 8%。（圖 3.1，表 3.1）

Diffusion of non-technological innovation (non-TI) activities in the business sector (including organisational and marketing innovation)

3.1 Apart from technological innovation (TI) activities, an establishment may engage in non-TI activities, comprising organisational and marketing innovation, that are not directly associated with technology but may help enhance its competitiveness and business performance.

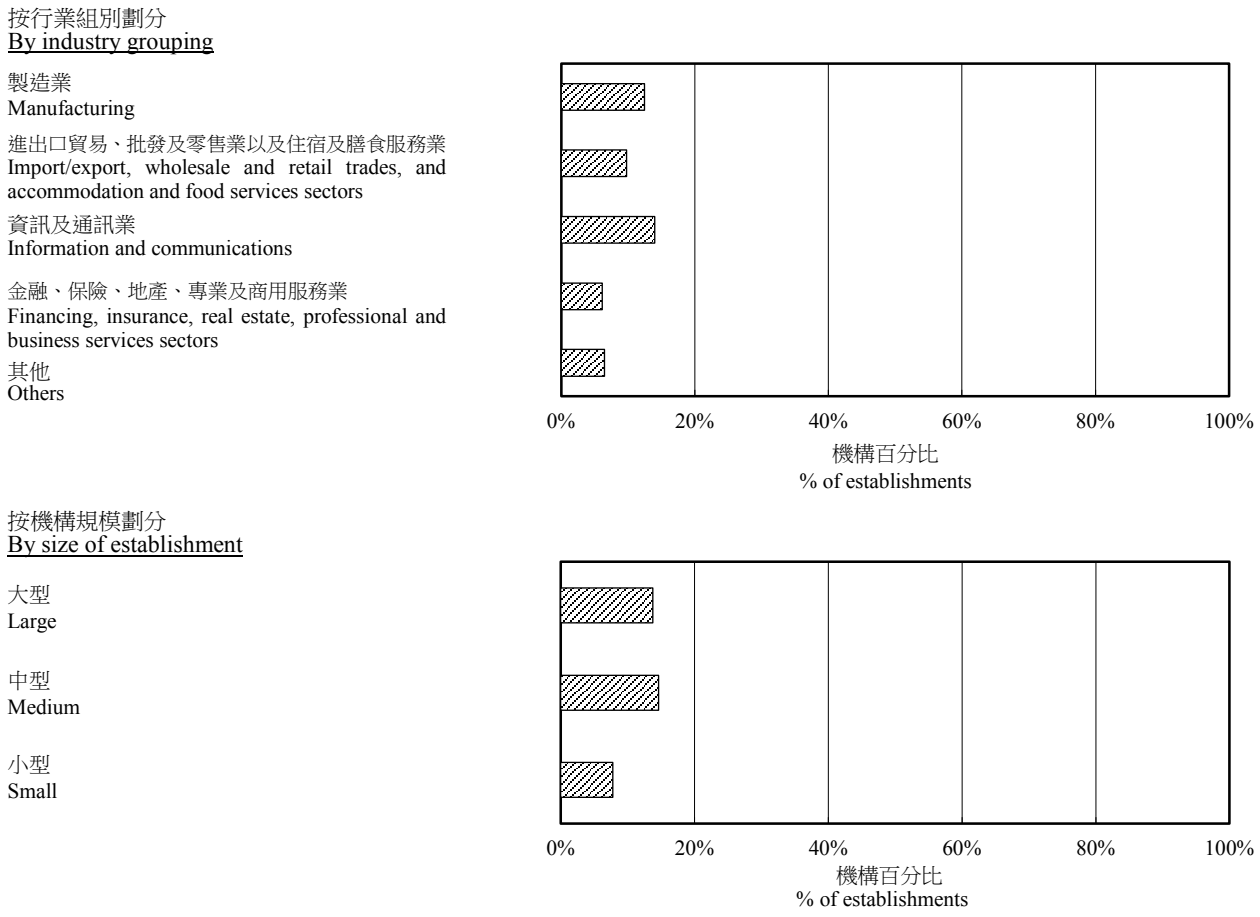
3.2 Organisational innovation refers to the implementation of a new organisational method in a business establishment's business practices, workplace organisation or external relations that has not been previously used. As regards marketing innovation, it refers to the implementation of a new marketing concept or strategy which differs significantly from the existing marketing methods of a business establishment and has not been used before.

3.3 In 2015, about 9% of the business establishments had undertaken organisational or marketing innovation. The much higher diffusion rate of non-TI activities as compared with TI activities in the business sector is expected, given that the business establishments in Hong Kong are renowned for their quick adaptation to the changes in the external environment. (Table 3.1)

3.4 The industry grouping with the highest propensity to undertake organisational or marketing innovation activities was the information and communications sector (14%) in 2015, followed by the manufacturing sector (12%). Analysed by size of establishment, large (14%) and medium (15%) establishments were more keen to undertake non-TI activities than small establishments (8%). (Chart 3.1, Table 3.1)

圖 3.1　按在 2015 年是否有進行組織創新或市場推廣創新活動及選定行業組別／機構規模劃分的工商機構分布

Chart 3.1　Distribution of business establishments by whether having undertaken organisational or marketing innovation activities in 2015 by selected industry grouping/size of establishment



組織創新

3.5　約4%的工商機構在2015年曾進行組織創新活動。大型及中型機構較小型機構傾向於進行組織創新活動。大型及中型機構曾進行組織創新活動的比率分別為 7%和 9%，而小型機構的相應數字為 3%。（表 3.1）

3.6　就組織創新類別而言，在曾進行組織創新的機構中，58%採用新方法以建立與其他公司或公營機構的業務關係、52%採用新業務模式以訂定營運的程序及 49%採用新方法以釐定員工的工作責任及決策權。（表 3.2）

Organisational innovation

3.5　About 4% of the business establishments reported to have undertaken organisational innovation activities in 2015. Large and medium establishments had a higher propensity to undertake organisational innovation activities than small establishments. About 7% of large and 9% of medium establishments were involved in the organisational innovation activities, as compared with 3% in small establishments. (Table 3.1)

3.6　As regards the type of organisational innovation, among the business establishments having undertaken organisational innovation, 58% adopted new methods of organising external relations with other firms or public institutions, 52% adopted new business practices for organising procedures, and 49% adopted new methods of organising work responsibilities and decision-making. (Table 3.2)

3.7 曾進行組織創新的工商機構中，約 43% 表示「改善貨品或服務質素」是進行有關創新項目的重要目的。此外，有 29% 表示「減少每件產品的成本」是進行有關組織創新項目的重要目的，亦有相同比例（29%）表示「改善工商機構內部溝通或共享資訊的渠道，以及加強與其他工商機構的聯繫」是重要的目的。（表 3.3）

3.7 Around 43% of the business establishments that had undertaken organisational innovation considered that the objective of "improved quality of goods or services" was highly important for undertaking such innovation. Besides, 29% indicated that "reduced costs per unit output" was a highly important objective and the same proportion (29%) considered that the objective of "improved communication or information sharing within the business establishment or with other business establishments or institutions" was highly important. (Table 3.3)

市場推廣創新

3.8 約 7% 的工商機構在 2015 年曾進行市場推廣創新活動。大型及中型機構較小型機構傾向於進行市場推廣創新活動。大型及中型機構當中分別有 8% 及 10% 曾進行市場推廣創新活動，而小型機構的相應數字為 6%。（表 3.1）

Marketing innovation

3.8 About 7% of the business establishments reported to have undertaken marketing innovation activities in 2015. Large and medium establishments had a higher propensity to implement marketing innovation activities than small establishments. About 8% of large and 10% of medium establishments were involved in the marketing innovation activities, as compared with 6% in small establishments. (Table 3.1)

3.9 曾進行市場推廣創新項目的機構中，61% 採用新媒體或技術以推廣產品。（表 3.4）

3.9 Among the business establishments having undertaken marketing innovation, 61% had adopted new media or techniques for product promotion. (Table 3.4)

3.10 曾進行市場推廣創新的工商機構中，約 42%表示「為產品開拓新客源」是進行有關創新項目的重要目的。此外，有 34% 表示「擴大或維持市場佔有率」是進行有關市場推廣創新項目的重要目的。（表 3.5）

3.10 About 42% of the business establishments having undertaken marketing innovation considered that the objective of "introduce products to new customer groups" was highly important for undertaking such innovation. Besides, 34% indicated that "increase or maintain market share" was a highly important objective. (Table 3.5)

工商機構進行創新活動的整體情況

3.11 創新並非全然局限於技術的開發或使用。工商機構有時會改變業務策略，並往往結合技術改革，藉以增加競爭力。從較宏觀的角度把技術創新、組織創新及市場推廣創新活動整體計算，約 10% 的工商機構在 2015 年曾進行創新活動。（圖 3.2，表 3.6）

Overall innovation activities in the business sector

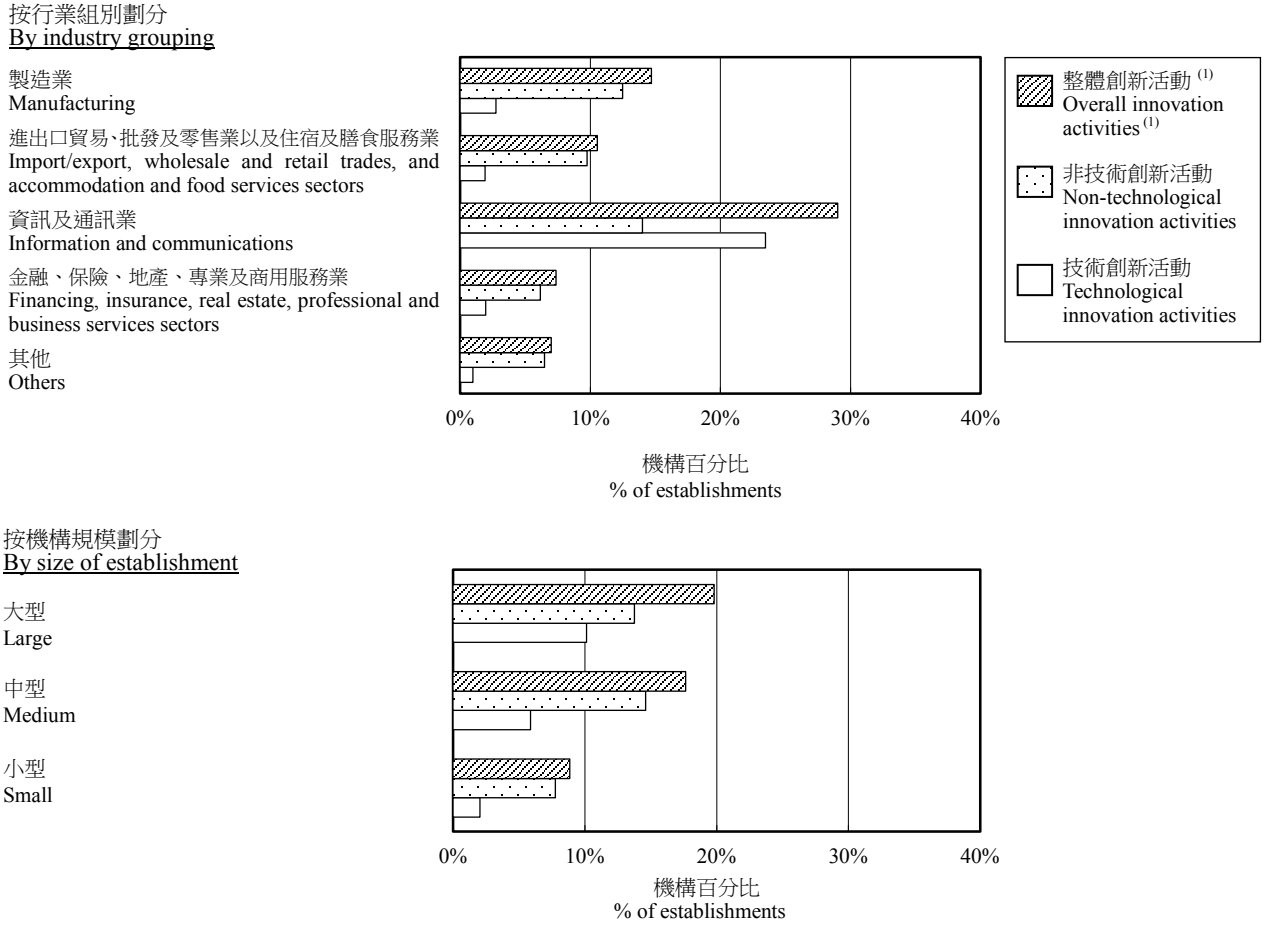
3.11 Innovation is not necessarily confined to development or use of technology. Business establishments may change their business strategies to make themselves more competitive, often in conjunction with technological change. From a wider perspective by taking TI, organisational innovation and marketing innovation activities as a whole, some 10% of establishments had undertaken innovation activities in 2015. (Chart 3.2, Table 3.6)

3.12 按行業組別分析，以整體創新活動計算，在 2015 年，資訊及通訊業機構進行創新活動的百分比最高，達 29%。此外，大型機構進行創新活動的比率較高（20%）。（圖 3.2，表 3.6）

3.12 Analysed by industry grouping, and measured in terms of overall innovation activities, the information and communications sector had the highest percentage of establishments having undertaken innovation activities in 2015, at 29%. Besides, the proportion undertaking innovation activities was higher for large establishments (20%). (Chart 3.2, Table 3.6)

圖 3.2 按在 2015 年是否有進行技術或非技術創新活動、選定行業組別／機構規模及創新活動類別劃分的工商機構分布

Chart 3.2 Distribution of business establishments by whether having undertaken technological or non-technological innovation activities in 2015 by selected industry grouping/size of establishment by type of innovation activity



註釋: (1) 數字代表有進行技術或非技術創新活動或兩者皆有進行的機構的百分比。
Note: (1) The figures refer to the % of establishments that had undertaken technological or non-technological innovation activities or both.

4 政府對研究及發展活動與創新活動的支援 Government's Support for Research and Development Activities and Innovation Activities

4.1 發展科學與科技是取得技術突破的關鍵，亦有助促進經濟增長及改善生活質素。香港特別行政區政府一直不斷投放資源支援各類科研工作，包括為卓越科學領域打穩根基的基礎研究，以至切合工商界需要的應用研究及發展（研發）及創新活動。

4.1 Development in science and technology is a key to technological breakthroughs. It also fuels economic growth and improves quality of life. The Government of Hong Kong Special Administrative Region (HKSAR) has made continued investments in supporting the whole spectrum of research capabilities, from basic research for building the foundation for scientific excellence, to applied research and development (R&D) and innovation activities with close interface with the needs of the business community.

基礎研究

4.2 基礎研究主要由大學教育資助委員會（教資會）資助的院校負責進行。於 2015/16 財政年度，各院校匯報的研究開支總額達 95.51 億港元。這筆研究經費主要來自教資會和研究資助局（研資局）提供的補助金，以及政府及其相關機構所提供的資助。政府的撥款承擔額自 2004/05 年度起不斷增加。在 2015/16 年度，各院校的研究總開支中約有 83%（即 79.43 億港元）由政府資助，較上年度增加 11%。

Basic research

4.2 Basic research is principally undertaken by the University Grants Committee (UGC)-funded institutions. The aggregate research expenditure in the financial year 2015/16 reported by the institutions amounted to HK$9,551 million. Of this amount, the grants from UGC and Research Grants Council (RGC) together with other financial support from the Government and Government-related organisations constituted the bulk of research expenditure for the institutions. Funding commitment from the Government has been on the rising trend since 2004/05. In 2015/16, about 83% of the total research expenditure of the institutions came from the Government which amounted to HK$7,943 million representing 11% growth over the previous year.

按資金來源劃分的 2011/12 年度至 2015/16 年度教資會資助院校的研究開支

Research expenditure of UGC-funded institutions by source of funds, 2011/12 to 2015/16

資金來源（百萬港元） Source of funds (HK$ million)	2011/12	2012/13	2013/14	2014/15	2015/16
香港特區政府 HKSAR Government	5,916.2 (83%)	6,192.1 (82%)	6,558.9 (82%)	7,186.2 (83%)	7,943.0 (83%)
教資會 UGC	4,754.0 (66%)	4,962.0 (65%)	5,175.2 (65%)	5,618.2 (65%)	6,146.9 (64%)
研資局 RGC	660.4 (9%)	702.1 (9%)	755.9 (9%)	843.4 (10%)	945.2 (10%)
政府及其相關機構 Government & Government-related organisations	501.8 (7%)	528.0 (7%)	627.7 (8%)	724.5 (8%)	851.0 (9%)
香港私人資金 Hong Kong private	1,099.0 (15%)	1,216.0 (16%)	1,253.3 (16%)	1,256.2 (15%)	1,418.5 (15%)
香港以外 Non-Hong Kong	139.6 (2%)	168.2 (2%)	172.0 (2%)	189.4 (2%)	189.3 (2%)
總計 **Total**	**7,154.9** **(100%)**	**7,576.3** **(100%)**	**7,984.2** **(100%)**	**8,631.8** **(100%)**	**9,550.8** **(100%)**

註釋：括號內的數字顯示金額佔該年度總額的百分比。

數字只包括教資會資助的高等教育院校。這些院校的財政年度由每年 7 月至翌年 6 月。

Notes : Figures in brackets represent the percentages in respect of total in the respective year.

Figures cover only the UGC-funded higher education institutions. The financial year of these institutions starts in July of a year and ends in June of the following year.

應用研發及創新活動

4.3 政府致力推動創新及科技的發展，目標是締造一個充滿活力的生態系統，讓官、產、學、研各界別，能在具備優越軟硬件支援的有利環境下合作。

4.4 在硬件方面，香港科學園（科學園）和數碼港是主要的科技基礎設施，為以科技為本的公司提供一站式的基礎設施支援服務。

4.5 科學園共分三期發展。第 1 期造價達 29.07 億港元，由政府全資興建，於 2004 年完成。第 2 期造價 39.14 億港元，當中約 62%（即 24.35 億港元）由政府以注資方式支付，餘額由政府貸款及香港科技園公司（科技園公司）出資支付，第 2 期於 2008 年大致完成。第 3 期預算造價達 48.78 億港元，當中約 30%（即 14.63 億港元）由政府以注資方式支付，餘額由政府貸款、政府提供擔保的商業貸款及科技園公司內部資源支付。第 3 期於 2011 年動工，首三幢大樓已於 2014 年 3 月落成，餘下兩幢大樓亦已於 2016 年 4 月竣工。第 3 期全面落成後，科學園總樓面面積已增至 330 000 平方米。截至 2016 年 3 月，科學園的整體租用率為 86.5%，約有 600 家夥伴企業進駐，提供約 13 000 個就業機會。

Applied R&D and innovation activities

4.3 The Government attaches great importance in promoting innovation and technology development. The goal is to create a vibrant ecosystem for all key players including the Government, industry, academic and research sectors to collaborate in a favourable environment with excellent software and hardware support.

4.4 On the hardware front, the Hong Kong Science Park (Science Park) and the Cyberport are the major technology infrastructure. They provide a one-stop infrastructural support services to technology-based companies.

4.5 Science Park was developed in three phases. Phase 1, with a development cost of HK$2,907 million and fully financed by the Government, was completed in 2004. For Phase 2, the development cost was HK$3,914 million and about 62% (HK$2,435 million) was financed by the Government in the form of equity injection. The rest was financed by Government loan and the Hong Kong Science and Technology Parks Corporation (HKSTPC). It was largely completed in 2008. The estimated development cost of Phase 3 was HK$4,878 million, of which about 30% (HK$1,463 million) was financed by the Government in the form of equity injection. The rest was financed by Government loan, commercial loan guaranteed by the Government and internal resources of HKSTPC. The development of Phase 3 commenced in 2011. The first three buildings were completed in March 2014, while the remaining two buildings were also completed in April 2016. Upon full completion of Phase 3, the gross floor area of Science Park has increased to 330 000 square metres. The overall occupancy rate of Science Park was 86.5% as at March 2016. There were about 600 partner companies, providing about 13 000 job opportunities.

4.6 政府採用公私營合作模式發展數碼港計劃。該計劃包括數碼港部分及附屬的住宅發展部分。政府就數碼港計劃負責撥地，以及提供道路、污水處理等基本的基礎設施。政府在整項計劃上的出資額相等於 79.3 億港元，包括提供基本基礎設施的成本約 11 億港元。數碼港部分已於 2004 年完成，包括四座寫字樓、一家酒店和一個商場。四座寫字樓共提供 94 700 平方米的辦公空間，截至 2016 年 3 月，寫字樓租用率為 89.9%，共有 406 個租戶，它們共聘用約 5 100 人。

4.6 The Government developed the Cyberport Project under a public-private partnership model. The Cyberport Project comprises a Cyberport Portion and an ancillary Residential Portion. The Government is to contribute the land and provide the basic infrastructure, such as roads and sewage treatment, for the Cyberport Project. The capital contribution by the Government is equivalent to HK$7.93 billion, including the estimated cost of HK$1.1 billion for the basic infrastructure. The Cyberport Portion was completed in 2004. It has four office buildings, a hotel and an arcade. Four office buildings provide a total of 94 700 square metres office space. As of March 2016, the occupancy rate of the office buildings was 89.9%. There were 406 tenants, employing a total of around 5 100 people.

4.7 從事應用研發的公營機構在創新的生態體系中發揮重要角色。政府在 2015-16 財政年度撥出 4.69 億港元資助這些機構營運，以期提升工商界在創新及科技方面的能力。

4.7 Public funded organisations engaged in applied R&D have played an important role in the innovation ecosystem. In the financial year 2015-16, the Government committed a sum of HK$469 million to support their operations aiming to enhance the innovation and technological capability of the business community.

4.8 在軟件方面，創新及科技基金於 2015-16 財政年度撥款共 8.08 億港元，資助 1 719 個應用研發項目，包括進行中的項目及於該年度獲批的項目。立法會財務委員會在 2015 年 2 月批准向創新及科技基金注資 50 億港元，以及將投資研發現金回贈計劃納入基金之內，從而為創新及科技發展提供長遠及全面的支援。

4.8 On the software side, the Innovation and Technology Fund (ITF) committed a total of HK$808 million in the financial year 2015-16 to fund 1 719 applied R&D projects including the ongoing projects plus those that were approved in the report period. In February 2015, the Legislative Council (LegCo) Finance Committee approved the injection of HK$5 billion into the ITF and subsumed the R&D Cash Rebate Scheme under the ITF in order to provide sustained and comprehensive support for innovation and technology development.

4.9 為鼓勵私營機構增加對研發活動的投資，以及與指定本地公營科研機構[(1)]加強合作，政府於 2010 年 4 月推出投資研發現金回贈計劃。在該計劃下，獲創新及科技基金資助或與指定本地公營科研機構合作進行應用研發項目的企業，可就合資格的研發開支享有現金回贈。自 2016 年 2 月起，合資格研發開支的現金回贈水平已增加至 40%。於 2015-16 財政年度，該計劃共批出 244 宗申請，涉及現金回贈總額超過 5,400 萬港元。

4.9 To encourage more private sector investment in R&D activities and collaboration with designated local public research institutions[(1)], the R&D Cash Rebate Scheme was launched by the Government in April 2010 under which enterprises conducting applied R&D projects with the support of the ITF or in partnership with designated local public research institutions would enjoy a cash rebate for the qualified R&D expenditure. Since February 2016, the level of cash rebate for qualified R&D expenditure has been increased to 40%. In the financial year 2015-16, the Scheme approved 244 applications, with a sum of cash rebate amounted to over HK$54 million.

4.10 國家重點實驗室夥伴實驗室（夥伴實驗室）是在特定科技範疇有卓越研究表現的本地實驗室，獲國家科學技術部（科技部）認可為內地相應國家重點實驗室的研發夥伴。這些夥伴實驗室擔當着高水平研發、匯聚及培育優秀研究人員以及促進交流的角色。本港現時共有 16 間夥伴實驗室。創新及科技基金批出撥款承擔額共 8,000 萬港元，以資助夥伴實驗室於 2015-16 財政年度的研發相關開支。

4.10 A Partner State Key Laboratory (PSKL) is a laboratory in Hong Kong recognised by the Ministry of Science and Technology (MOST) as an R&D partner of a corresponding Mainland's State Key Laboratory (SKL) for its research excellence in a particular technology area. PSKLs serve as a base for conducting quality R&D, congregating and nurturing outstanding researchers, as well as facilitating exchanges. There are currently 16 PSKLs in Hong Kong. The ITF committed a total of HK$80 million to support R&D related expenditure incurred by the PSKLs in the financial year 2015-16.

(1) **指定本地公營科研機構**包括：

(a) 本地大學：
- 香港中文大學
- 香港城市大學
- 香港浸會大學
- 香港理工大學
- 香港科技大學
- 香港大學

(b) 創新及科技基金下成立的研發中心：
- 香港汽車零部件研發中心
- 香港物流及供應鏈管理應用技術研發中心
- 香港紡織及成衣研發中心有限公司
- 納米及先進材料研發院有限公司
- 香港應用科技研究院有限公司（香港資訊及通訊技術研發中心）

(c) 香港生產力促進局

(d) 職業訓練局

(e) 香港生物科技研究院

(1) **Designated local public research institutions** include:

(a) Local universities:
- The Chinese University of Hong Kong
- City University of Hong Kong
- Hong Kong Baptist University
- The Hong Kong Polytechnic University
- The Hong Kong University of Science and Technology
- The University of Hong Kong

(b) R&D Centres set up under the ITF:
- Automotive Parts and Accessory Systems R&D Centre
- Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies
- The Hong Kong Research Institute of Textiles and Apparel Limited
- Nano and Advanced Materials Institute Limited
- Hong Kong Applied Science and Technology Research Institute Company Limited (Hong Kong R&D Centre for Information and Communications Technologies)

(c) Hong Kong Productivity Council

(d) Vocational Training Council

(e) Hong Kong Institute of Biotechnology

4.11 國家工程技術研究中心由科技部負責管理，是推動內地基礎及應用科技研發的重要措施。獲科技部批准成為國家工程技術研究中心的科研機構，具有雄厚的研發實力，在內地以至國際上都在其專注的技術領域佔據領先地位。本港現時共有六間國家工程技術研究中心香港分中心(香港分中心)，當中五間是在 2015 年 10 月獲批成立。創新及科技基金批出撥款承擔額共 1,750 萬港元，以資助香港分中心於 2015-16 財政年度的研發相關開支。

4.11 Chinese National Engineering Research Centre(s) (CNERC(s)) are under the auspices of MOST and serve as a major initiative in driving basic as well as applied technological R&D in the Mainland. Research institutions approved by MOST as CNERCs have strong R&D capabilities and enjoy leading positions in their chosen areas of expertise both in the Mainland and internationally. There are currently six Hong Kong Branches of CNERCs, five of which were approved to be set up in October 2015. The ITF committed a total of HK$17.5 million to support R&D related expenditure incurred by the Hong Kong Branches of CNERCs in the financial year 2015-16.

4.12 本港的大專院校仍然是推動研發成果商品化的重要對象。六所本地大學(2)已各自成立技術轉移處，從事技術轉移工作。為提升它們的能力，政府自 2013-14 年度起透過創新及科技基金，向每所大學提供每年最高 400 萬港元的資助。立法會工商事務委員會在 2016 年 1 月支持政府繼續向本地大學的技術轉移處提供資助，為期三年（即直至 2018-19 年度為止）。創新及科技基金批出撥款承擔額共 2,400 萬港元，以資助各技術轉移處於 2015-16 財政年度的技術轉移相關開支。

4.12 Tertiary institutions in Hong Kong remain to be important targets for promoting commercialisation of R&D results. Six local universities(2) have set up their Technology Transfer Offices (TTOs) to engage in technology transfer activity. To enhance their capabilities, the Government provides an annual funding of up to HK$4 million to each university through the ITF from 2013-14 onwards. In January 2016, the LegCo Panel on Commerce and Industry supported the Government to continue the funding support to TTOs of local universities for another three years up to 2018-19. The ITF committed a total of HK$24 million to technology transfer related expenditure incurred by the TTOs in the financial year 2015-16.

4.13 政府向六所本地大學(2)推出大學科技初創企業資助計劃，鼓勵大學團隊成立科技初創企業，把研發成果從大學校園引進到實際應用。每所大學每年將可獲最高 400 萬港元的資助，初步為期三年（即 2014-15 年度至 2016-17 年度）。在 2015-16 年度，該計劃共資助 66 間科技初創企業，所涉的撥款承擔額約 2,260 萬港元。

4.13 The Technology Start-up Support Scheme for Universities (TSSSU) was launched by the Government to encourage the teams of six local universities(2) to start technology businesses, realise R&D results and bring them to practical use. Each university receives an annual funding of up to HK$4 million initially for three years from 2014-15 to 2016-17. In the financial year 2015-16, 66 technology start-ups got confirmation of the TSSSU funding. A total amount of approximately HK$22.6 million was committed.

(2) 這些大學包括香港城市大學、香港浸會大學、香港中文大學、香港理工大學、香港科技大學及香港大學。

(2) These universities are City University of Hong Kong, Hong Kong Baptist University, The Chinese University of Hong Kong, The Hong Kong Polytechnic University, The Hong Kong University of Science and Technology and The University of Hong Kong.

4.14 政府於 2015 年 4 月在創新及科技基金下推出企業支援計劃，為本地私營機構提供財政支援，以供它們進行內部研發項目。在香港註冊的公司，不論其規模大小，均可提交申請。在該計劃下，每個獲批項目的資助以等額出資方式批出，資助上限為 1,000 萬港元。

4.14 The Enterprise Support Scheme (ESS) was launched under the ITF in April 2015 by the Government to provide financial support for local companies in the private sector to undertake in-house R&D projects. Hong Kong registered companies, regardless of their sizes, can apply. Under the ESS, funding of up to HK$10 million for each approved project will be provided on a dollar-for-dollar matching basis.

4.15 政府支援及不時舉辦推廣活動，以推動和鼓勵業界以至社會大眾及年輕一代等各界別，更多參與研發及創新活動。在 2015-16 財政年度，創新科技署撥出約 6,200 萬港元進行這些推廣及宣傳活動。

4.15 The Government supports and organises promotional activities to facilitate and encourage more participation in R&D and innovation activities by various sectors from the industry to the general community and young generation. In the financial year 2015-16, the Innovation and Technology Commission (ITC) committed some HK$62 million to these promotional and publicity activities.

4.16 創新科技署在 2015-16 財政年度，批出撥款承擔額共 14.4 億港元，用以為應用研發及創新活動提供支援。

4.16 ITC's commitment in supporting applied R&D and innovation activities amounted to a sum of HK$1,440 million in the financial year 2015-16.

創新科技署用以推動應用研發及創新活動的撥款承擔額
ITC funding commitment to fostering applied R&D and innovation activities

創新科技署的撥款承擔額（百萬港元） ITC funding commitment (HK$ million)	2011-12	2012-13	2013-14	2014-15	2015-16
應用研發項目（進行中及獲批項目的數目）(3) Applied R&D projects (no. of ongoing and approved projects) (3)	551.9 (1 117)	550.5 (1 192)	647.3 (1 298)	722.3 (1 547)	808.4 (1 719)
公營科技支援機構的營運 Operation of public technology support organisations	403.6	425.0	421.2	441.6	469.1
投資研發現金回贈計劃（獲批准申請宗數） R&D Cash Rebate Scheme (no. of approved applications)	11.4 (174)	24.1 (191)	30.0 (227)	43.9 (255)	54.2 (244)
技術轉移及科技創業 Technology Transfer and Technopreneurship	–	–	19.4	41.1	46.5
推廣及宣傳 Promotion and publicity	57.6	50.9	54.9	58.6	61.5
總計(3) **Total (3)**	**1,024.5**	**1,050.5**	**1,172.8**	**1,307.5**	**1,439.7**

註釋: (3) 2014-15 年度的數字已經修訂。
括號內的數字顯示該年度進行中及獲批研發項目的數目。

Notes : (3) Figures for the period 2014-15 have been revised.
Figures in brackets represent the number of research projects that were ongoing plus those that were approved in the report period.

表 1.1 按進行機構類別劃分的本地研究及發展（研發）總開支及研發人員的統計數字

Table 1.1 Statistics on gross domestic expenditure on research and development (R&D) and R&D personnel by performing sector

	年度 Year	本地研發總開支（百萬港元） Gross domestic expenditure on R&D (HK$ million)			研發人員數目（相當於全日制的人數） No. of R&D personnel (in full-time equivalent)	
機構類別 Sector						
工商機構 Business	2012	6,647.4	*(44.9%)*	*[0.33%]*	11 385	*(45.1%)*
	2013	7,017.4	*(44.9%)*	*[0.33%]*	11 443	*(43.9%)*
	2014	7,437.5	*(44.5%)*	*[0.33%]* @	12 146	*(44.4%)*
	2015	7,993.7	*(43.8%)*	*[0.33%]* @	12 217	*(43.4%)*
高等教育機構 Higher education	2012	7,576.3	*(51.1%)*	*[0.37%]*	13 247	*(52.4%)*
	2013	7,984.2	*(51.1%)*	*[0.37%]*	14 013	*(53.8%)*
	2014	8,631.8	*(51.6%)*	*[0.38%]* @	14 584	*(53.3%)*
	2015	9,550.8	*(52.3%)*	*[0.40%]* @	15 247	*(54.1%)*
政府機構 Government	2012	592.5	*(4.0%)*	*[0.03%]*	633	*(2.5%)*
	2013	611.6	*(3.9%)*	*[0.03%]*	588	*(2.3%)*
	2014	658.0	*(3.9%)*	*[0.03%]* @	648	*(2.4%)*
	2015	726.2	*(4.0%)*	*[0.03%]* @	701	*(2.5%)*
總計 Total	**2012**	**14,816.2**	***(100.0%)***	***[0.73%]***	**25 264**	***(100.0%)***
	2013	**15,613.3**	***(100.0%)***	***[0.73%]***	**26 045**	***(100.0%)***
	2014	**16,727.3**	***(100.0%)***	***[0.74%]*** @	**27 378**	***(100.0%)***
	2015	**18,270.7**	***(100.0%)***	***[0.76%]*** @	**28 165**	***(100.0%)***

註釋： 圓括號內數字顯示佔總計的百分比。

方括號內數字顯示研發開支相對本地生產總值的比率。本地生產總值是根據2016年11月11日發表，以開支面編製的以當時市價計算的本地生產總值估算。

Notes: Figures in round brackets represent the percentages in respect of total.

Figures in square brackets represent the ratios to Gross Domestic Product (GDP). The GDP estimates are based on expenditure-based GDP estimates at current market prices released on 11 November 2016.

表 1.2　按進行機構類別及研發開支類別（即經常和資本開支）劃分的本地研發總開支

Table 1.2　Gross domestic expenditure on R&D by performing sector by type of R&D expenditure (i.e. current and capital expenditure)

（百萬港元）
(HK$ million)

	年度 Year	經常開支 Current expenditure		資本開支 Capital expenditure		總計 Total	
機構類別 Sector							
工商機構 Business	2012	5,860.9	*(88.2%)*	786.5	*(11.8%)*	6,647.4	*(100.0%)*
	2013	6,358.5	*(90.6%)*	658.9	*(9.4%)*	7,017.4	*(100.0%)*
	2014	6,766.0	*(91.0%)*	671.5	*(9.0%)*	7,437.5	*(100.0%)*
	2015	7,065.9	*(88.4%)*	927.8	*(11.6%)*	7,993.7	*(100.0%)*
高等教育機構 Higher education	2012	7,239.4	*(95.6%)*	336.9	*(4.4%)*	7,576.3	*(100.0%)*
	2013	7,629.5	*(95.6%)*	354.8	*(4.4%)*	7,984.2	*(100.0%)*
	2014	8,207.0	*(95.1%)*	424.9	*(4.9%)*	8,631.8	*(100.0%)*
	2015	8,886.1	*(93.0%)*	664.6	*(7.0%)*	9,550.8	*(100.0%)*
政府機構 Government	2012	564.0	*(95.2%)*	28.5	*(4.8%)*	592.5	*(100.0%)*
	2013	571.4	*(93.4%)*	40.2	*(6.6%)*	611.6	*(100.0%)*
	2014	613.6	*(93.3%)*	44.4	*(6.7%)*	658.0	*(100.0%)*
	2015	678.2	*(93.4%)*	48.0	*(6.6%)*	726.2	*(100.0%)*
總計 Total	**2012**	**13,664.4**	***(92.2%)***	**1,151.8**	***(7.8%)***	**14,816.2**	***(100.0%)***
	2013	**14,559.3**	***(93.2%)***	**1,053.9**	***(6.8%)***	**15,613.3**	***(100.0%)***
	2014	**15,586.5**	***(93.2%)***	**1,140.7**	***(6.8%)***	**16,727.3**	***(100.0%)***
	2015	**16,630.3**	***(91.0%)***	**1,640.4**	***(9.0%)***	**18,270.7**	***(100.0%)***

註釋： 括號內數字顯示佔總計的百分比。

Note: Figures in brackets represent the percentages in respect of total.

表 1.3　按資金來源劃分的本地研發總開支
Table 1.3　Gross domestic expenditure on R&D by source of funds

資金來源 Source of funds	本地研發總開支（百萬港元） Gross domestic expenditure on R&D (HK$ million) 2012	2013	2014	2015
本地機構 **Local parties**				
工商機構 Business	7,358.1 *(49.7%)*	7,413.2 *(47.5%)*	7,747.3 *(46.3%)*	8,642.0 *(47.3%)*
政府機構 Government	6,756.5 *(45.6%)*	7,121.0 *(45.6%)*	7,785.8 *(46.5%)*	8,601.8 *(47.1%)*
高等教育機構 Higher education	2.3 *(§)*	2.6 *(§)*	8.0 *(§)*	3.9 *(§)*
其他 Others	9.9 *(0.1%)*	15.8 *(0.1%)*	13.3 *(0.1%)*	16.1 *(0.1%)*
香港以外機構 **Parties outside Hong Kong**	689.5 *(4.7%)*	1,060.6 *(6.8%)*	1,173.0 *(7.0%)*	1,007.0 *(5.5%)*
總計 **Total**	**14,816.2** ***(100.0%)***	**15,613.3** ***(100.0%)***	**16,727.3** ***(100.0%)***	**18,270.7** ***(100.0%)***

註釋： 括號內數字顯示佔總計的百分比。

Note: Figures in brackets represent the percentages in respect of total.

表 1.4　按進行機構類別及職業類別劃分的研發人員數目（相當於全日制的人數）

Table 1.4　Number of R&D personnel (in full-time equivalent) by performing sector by type of occupation

		職業類別 Type of occupation							
	年度 Year	研究員 Researchers		技術員 Technicians		其他輔助人員 Other supporting staff		總計 Total	
機構類別 Sector									
工商機構 Business	2012	8 316	*(73.0%)*	2 296	*(20.2%)*	773	*(6.8%)*	11 385	*(100.0%)*
	2013	8 962	*(78.3%)*	1 571	*(13.7%)*	910	*(8.0%)*	11 443	*(100.0%)*
	2014	9 738	*(80.2%)*	1 487	*(12.2%)*	921	*(7.6%)*	12 146	*(100.0%)*
	2015	9 000	*(73.7%)*	2 125	*(17.4%)*	1 092	*(8.9%)*	12 217	*(100.0%)*
高等教育機構 Higher education	2012	12 377	*(93.4%)*	424	*(3.2%)*	446	*(3.4%)*	13 247	*(100.0%)*
	2013	13 011	*(92.9%)*	447	*(3.2%)*	554	*(4.0%)*	14 013	*(100.0%)*
	2014	13 575	*(93.1%)*	417	*(2.9%)*	593	*(4.1%)*	14 584	*(100.0%)*
	2015	14 112	*(92.6%)*	482	*(3.2%)*	653	*(4.3%)*	15 247	*(100.0%)*
政府機構 Government	2012	543	*(85.9%)*	59	*(9.4%)*	30	*(4.7%)*	633	*(100.0%)*
	2013	493	*(83.7%)*	62	*(10.5%)*	34	*(5.8%)*	588	*(100.0%)*
	2014	519	*(80.0%)*	81	*(12.5%)*	48	*(7.5%)*	648	*(100.0%)*
	2015	563	*(80.3%)*	84	*(12.0%)*	53	*(7.6%)*	701	*(100.0%)*
總計 Total	**2012**	**21 236**	***(84.1%)***	**2 779**	***(11.0%)***	**1 249**	***(4.9%)***	**25 264**	***(100.0%)***
	2013	**22 466**	***(86.3%)***	**2 080**	***(8.0%)***	**1 499**	***(5.8%)***	**26 045**	***(100.0%)***
	2014	**23 831**	***(87.0%)***	**1 985**	***(7.2%)***	**1 563**	***(5.7%)***	**27 378**	***(100.0%)***
	2015	**23 675**	***(84.1%)***	**2 692**	***(9.6%)***	**1 799**	***(6.4%)***	**28 165**	***(100.0%)***

註釋： 括號內數字顯示佔總計的百分比。

Note: Figures in brackets represent the percentages in respect of total.

表 1.5 按選定行業組別／機構規模劃分的2014及2015年工商機構的研發活動主要統計數字

Table 1.5 Key statistics on R&D activities in the business sector in 2014 and 2015 by selected industry grouping/size of establishment

	年度 Year	機構數目 總計 Total no. of establishments	有進行研發活動的機構數目[1] No. of establishments having undertaken R&D activities[1]		內部研發活動總開支[2]（百萬港元） Total expenditure on in-house R&D activities[2] (HK$ million)		研發人員數目（相當於全日制的人數） No. of R&D personnel (in full-time equivalent)	
按行業組別劃分 By industry grouping								
製造業	2014	7 699	195	*(5.0%)*	254.0	*(3.4%)*	355	*(2.9%)*
Manufacturing	2015	9 166	150	*(3.9%)*	269.9	*(3.4%)*	407	*(3.3%)*
進出口貿易、批發及零售業以及住宿及膳食服務業	2014	147 904	1 671	*(43.1%)*	2,821.5	*(37.9%)*	3 769	*(31.0%)*
Import/export, wholesale and retail trades, and accommodation and food services sectors	2015	149 982	1 789	*(46.1%)*	2,963.9	*(37.1%)*	3 911	*(32.0%)*
資訊及通訊業	2014	11 492	1 030	*(26.6%)*	2,445.5	*(32.9%)*	5 212	*(42.9%)*
Information and communications	2015	10 625	1 074	*(27.7%)*	2,662.3	*(33.3%)*	5 206	*(42.6%)*
金融、保險、地產、專業及商用服務業	2014	67 754	761	*(19.6%)*	1,624.4	*(21.8%)*	2 506	*(20.6%)*
Financing, insurance, real estate, professional and business services sectors	2015	66 823	679	*(17.5%)*	1,748.8	*(21.9%)*	2 143	*(17.5%)*
其他	2014	40 818	220	*(5.7%)*	292.0	*(3.9%)*	303	*(2.5%)*
Others	2015	42 915	193	*(5.0%)*	348.8	*(4.4%)*	551	*(4.5%)*
總計	**2014**	**275 667**	**3 878**	***(100.0%)***	**7,437.5**	***(100.0%)***	**12 146**	***(100.0%)***
Total	**2015**	**279 511**	**3 885**	***(100.0%)***	**7,993.7**	***(100.0%)***	**12 217**	***(100.0%)***
按機構規模劃分 By size of establishment								
大型	2014	6 225	387	*(10.0%)*	3,516.8	*(47.3%)*	4 771	*(39.3%)*
Large	2015	5 922	280	*(7.2%)*	3,943.5	*(49.3%)*	4 642	*(38.0%)*
中型	2014	26 754	877	*(22.6%)*	2,351.2	*(31.6%)*	3 939	*(32.4%)*
Medium	2015	31 169	947	*(24.4%)*	2,323.5	*(29.1%)*	3 812	*(31.2%)*
小型	2014	242 687	2 614	*(67.4%)*	1,569.5	*(21.1%)*	3 437	*(28.3%)*
Small	2015	242 420	2 658	*(68.4%)*	1,726.8	*(21.6%)*	3 763	*(30.8%)*
總計	**2014**	**275 667**	**3 878**	***(100.0%)***	**7,437.5**	***(100.0%)***	**12 146**	***(100.0%)***
Total	**2015**	**279 511**	**3 885**	***(100.0%)***	**7,993.7**	***(100.0%)***	**12 217**	***(100.0%)***

註釋： (1) 數字包括從事內部研發活動的機構及把研發活動外判的機構。

(2) 數字包括本地機構為本身及／或為其他機構進行的內部研發活動開支。

Notes: (1) Figures include establishments with in-house R&D activities and establishments with R&D activities contracted-out to other parties.

(2) Figures include expenditure on in-house R&D activities conducted by a local party for itself and/or for other organisations.

表 1.6 按研發開支類別（即經常和資本開支）及選定行業組別／機構規模劃分的2015年工商機構的內部研發活動總開支

Table 1.6 Total expenditure on in-house R&D activities in the business sector in 2015 by type of R&D expenditure (i.e. current and capital expenditure) by selected industry grouping/size of establishment

（百萬港元）
(HK$ million)

	內部研發活動經常開支 Current expenditure on in-house R&D activities	內部研發活動資本開支 Capital expenditure on in-house R&D activities	內部研發活動總開支[1] Total expenditure on in-house R&D activities[1]
按行業組別劃分 By industry grouping			
製造業 Manufacturing	249.0 *(92.2%)*	20.9 *(7.8%)*	269.9 *(100.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	2,666.1 *(90.0%)*	297.9 *(10.0%)*	2,963.9 *(100.0%)*
資訊及通訊業 Information and communications	2,509.1 *(94.2%)*	153.2 *(5.8%)*	2,662.3 *(100.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	1,415.6 *(81.0%)*	333.1 *(19.0%)*	1,748.8 *(100.0%)*
其他 Others	226.2 *(64.8%)*	122.6 *(35.2%)*	348.8 *(100.0%)*
總計 Total	**7,065.9 *(88.4%)***	**927.8 *(11.6%)***	**7,993.7 *(100.0%)***
按機構規模劃分 By size of establishment			
大型 Large	3,406.5 *(86.4%)*	537.0 *(13.6%)*	3,943.5 *(100.0%)*
中型 Medium	2,115.5 *(91.0%)*	208.0 *(9.0%)*	2,323.5 *(100.0%)*
小型 Small	1,544.0 *(89.4%)*	182.8 *(10.6%)*	1,726.8 *(100.0%)*
總計 Total	**7,065.9 *(88.4%)***	**927.8 *(11.6%)***	**7,993.7 *(100.0%)***

註釋： (1) 數字包括本地機構為本身及／或為其他機構進行的內部研發活動開支。

Note: (1) Figures include expenditure on in-house R&D activities conducted by a local party for itself and/or for other organisations.

表 1.7　按研究類別及選定行業組別／機構規模劃分的2015年工商機構的內部研發活動總開支

Table 1.7　Total expenditure on in-house R&D activities in the business sector in 2015 by type of research by selected industry grouping/size of establishment

（百萬港元）
(HK$ million)

	研究類別 Type of research				
			實驗發展 Experimental development		
	基礎研究 Basic research	應用研究 Applied research	產品發展 Product development	程序發展 Process development	總計[(1)] Total[(1)]
按行業組別劃分					
By industry grouping					
製造業	10.7	20.4	211.4	27.4	269.9
Manufacturing	*(4.0%)*	*(7.6%)*	*(78.3%)*	*(10.1%)*	*(100.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業	52.8	477.6	2,337.1	96.5	2,963.9
Import/export, wholesale and retail trades, and accommodation and food services sectors	*(1.8%)*	*(16.1%)*	*(78.8%)*	*(3.3%)*	*(100.0%)*
資訊及通訊業	22.1	751.1	1,841.9	47.2	2,662.3
Information and communications	*(0.8%)*	*(28.2%)*	*(69.2%)*	*(1.8%)*	*(100.0%)*
金融、保險、地產、專業及商用服務業	44.6	488.5	1,014.1	201.5	1,748.8
Financing, insurance, real estate, professional and business services sectors	*(2.6%)*	*(27.9%)*	*(58.0%)*	*(11.5%)*	*(100.0%)*
其他	3.3	232.7	81.4	31.4	348.8
Others	*(0.9%)*	*(66.7%)*	*(23.3%)*	*(9.0%)*	*(100.0%)*
總計	**133.5**	**1,970.4**	**5,485.9**	**403.9**	**7,993.7**
Total	***(1.7%)***	***(24.6%)***	***(68.6%)***	***(5.1%)***	***(100.0%)***
按機構規模劃分					
By size of establishment					
大型	88.9	1,161.2	2,491.6	201.7	3,943.5
Large	*(2.3%)*	*(29.4%)*	*(63.2%)*	*(5.1%)*	*(100.0%)*
中型	8.5	428.4	1,743.2	143.3	2,323.5
Medium	*(0.4%)*	*(18.4%)*	*(75.0%)*	*(6.2%)*	*(100.0%)*
小型	36.1	380.8	1,251.0	58.9	1,726.8
Small	*(2.1%)*	*(22.1%)*	*(72.4%)*	*(3.4%)*	*(100.0%)*
總計	**133.5**	**1,970.4**	**5,485.9**	**403.9**	**7,993.7**
Total	***(1.7%)***	***(24.6%)***	***(68.6%)***	***(5.1%)***	***(100.0%)***

註釋： (1) 數字包括本地機構為本身及／或為其他機構進行的內部研發活動開支。

Note: (1) Figures include expenditure on in-house R&D activities conducted by a local party for itself and/or for other organisations.

表 1.8　按研發活動範疇及選定行業組別／機構規模劃分的2015年工商機構的內部研發活動總開支

Table 1.8　Total expenditure on in-house R&D activities in the business sector in 2015 by field of R&D activity by selected industry grouping/size of establishment

（百萬港元）
(HK$ million)

	研發活動範疇 Field of R&D activity					
	自然科學及工程科技 Natural sciences and engineering technology			社會科學及人文科學 Social sciences and humanities		
	自然科學 Natural sciences	工程及科技 Engineering and technology	醫療及衛生科學 Medical and health sciences	社會科學 Social sciences	人文科學 Humanities	總計[(1)] Total [(1)]
按行業組別劃分 By industry grouping						
製造業 Manufacturing	16.2 *(6.0%)*	183.8 *(68.1%)*	***	***	***	269.9 *(100.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	648.2 *(21.9%)*	2,174.1 *(73.4%)*	***	***	***	2,963.9 *(100.0%)*
資訊及通訊業 Information and communications	2,406.1 *(90.4%)*	255.8 *(9.6%)*	***	***	***	2,662.3 *(100.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	686.8 *(39.3%)*	722.6 *(41.3%)*	327.1 *(18.7%)*	12.1 *(0.7%)*	0.2 *(§)*	1,748.8 *(100.0%)*
其他 Others	91.3 *(26.2%)*	219.2 *(62.8%)*	34.0 *(9.7%)*	***	***	348.8 *(100.0%)*
總計 Total	**3,848.6** ***(48.1%)***	**3,555.5** ***(44.5%)***	**573.1** ***(7.2%)***	**14.5** ***(0.2%)***	**2.1** ***(§)***	**7,993.7** ***(100.0%)***
按機構規模劃分 By size of establishment						
大型 Large	1,728.3 *(43.8%)*	2,092.0 *(53.0%)*	107.2 *(2.7%)*	14.0 *(0.4%)*	2.0 *(§)*	3,943.5 *(100.0%)*
中型 Medium	1,101.0 *(47.4%)*	931.3 *(40.1%)*	***	***	***	2,323.5 *(100.0%)*
小型 Small	1,019.2 *(59.0%)*	532.2 *(30.8%)*	***	***	***	1,726.8 *(100.0%)*
總計 Total	**3,848.6** ***(48.1%)***	**3,555.5** ***(44.5%)***	**573.1** ***(7.2%)***	**14.5** ***(0.2%)***	**2.1** ***(§)***	**7,993.7** ***(100.0%)***

註釋： (1) 數字包括本地機構為本身及／或為其他機構進行的內部研發活動開支。

Note: (1) Figures include expenditure on in-house R&D activities conducted by a local party for itself and/or for other organisations.

表 1.9　按科技領域及選定行業組別／機構規模劃分的2015年工商機構的內部研發活動總開支

Table 1.9　Total expenditure on in-house R&D activities in the business sector in 2015 by technology area by selected industry grouping/size of establishment

（百萬港元）
(HK$ million)

	科技領域 Technology area							
	資訊科技 Information technology							
	資訊系統及科技 Information system and technology	電腦硬件科技 Computer hardware technology	電腦軟件科技 Computer software technology	通訊科技 Communication technology	其他 Others	小計 Subtotal	生物科技 Bio-technology	中藥 Chinese medicine
按行業組別劃分 By industry grouping								
製造業 Manufacturing	***	13.4 *(5.0%)*	2.7 *(1.0%)*	***	***	16.2 *(6.0%)*	56.0 *(20.7%)*	14.0 *(5.2%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	154.5 *(5.2%)*	132.5 *(4.5%)*	133.4 *(4.5%)*	226.6 *(7.6%)*	1.2 *(§)*	648.2 *(21.9%)*	128.8 *(4.3%)*	***
資訊及通訊業 Information and communications	640.2 *(24.0%)*	133.2 *(5.0%)*	1,498.9 *(56.3%)*	132.5 *(5.0%)*	1.2 *(§)*	2,406.1 *(90.4%)*	0.4 *(§)*	***
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	428.4 *(24.5%)*	34.9 *(2.0%)*	154.1 *(8.8%)*	***	***	686.8 *(39.3%)*	324.6 *(18.6%)*	0.2 *(§)*
其他 Others	***	0.3 *(0.1%)*	38.5 *(11.1%)*	***	***	91.3 *(26.2%)*	32.4 *(9.3%)*	1.6 *(0.5%)*
總計 Total	**1,262.3** ***(15.8%)***	**314.4** ***(3.9%)***	**1,827.5** ***(22.9%)***	**441.8** ***(5.5%)***	**2.5** ***(§)***	**3,848.6** ***(48.1%)***	**542.1** ***(6.8%)***	**28.7** ***(0.4%)***
按機構規模劃分 By size of establishment								
大型 Large	833.6 *(21.1%)*	***	682.5 *(17.3%)*	116.2 *(2.9%)*	***	1,728.3 *(43.8%)*	93.5 *(2.4%)*	13.6 *(0.3%)*
中型 Medium	315.6 *(13.6%)*	***	523.6 *(22.5%)*	161.5 *(7.0%)*	***	1,101.0 *(47.4%)*	285.3 *(12.3%)*	***
小型 Small	113.1 *(6.5%)*	119.4 *(6.9%)*	621.3 *(36.0%)*	164.1 *(9.5%)*	1.3 *(0.1%)*	1,019.2 *(59.0%)*	163.2 *(9.5%)*	***
總計 Total	**1,262.3** ***(15.8%)***	**314.4** ***(3.9%)***	**1,827.5** ***(22.9%)***	**441.8** ***(5.5%)***	**2.5** ***(§)***	**3,848.6** ***(48.1%)***	**542.1** ***(6.8%)***	**28.7** ***(0.4%)***

（待續）
(to be cont'd)

表 1.9 （續） 按科技領域及選定行業組別／機構規模劃分的2015年工商機構的內部研發活動總開支

Table 1.9 (cont'd) Total expenditure on in-house R&D activities in the business sector in 2015 by technology area by selected industry grouping/size of establishment

（百萬港元）
(HK$ million)

	科技領域 Technology area								
	電機及電子工程科技[1] Electrical and electronics engineering technology[1]	製造科技 Manufacturing technology	納米科技 Nano-technology	先進材料科技 Advanced materials technology	環保科技 Environmental technology	社會科學 Social sciences	人文科學 Humanities	其他 Others	總計[2] Total [2]
按行業組別劃分 By industry grouping									
製造業 Manufacturing	14.6 *(5.4%)*	114.8 *(42.5%)*	5.7 *(2.1%)*	44.5 *(16.5%)*	***	***	***	***	269.9 *(100.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	1,630.2 *(55.0%)*	348.5 *(11.8%)*	8.1 *(0.3%)*	144.4 *(4.9%)*	41.5 *(1.4%)*	***	***	1.3 *(§)*	2,963.9 *(100.0%)*
資訊及通訊業 Information and communications	241.0 *(9.1%)*	10.3 *(0.4%)*	0.4 *(§)*	0.1 *(§)*	***	***	***	***	2,662.3 *(100.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	275.7 *(15.8%)*	144.4 *(8.3%)*	104.3 *(6.0%)*	145.6 *(8.3%)*	26.4 *(1.5%)*	***	***	28.6 *(1.6%)*	1,748.8 *(100.0%)*
其他 Others	12.0 *(3.5%)*	4.2 *(1.2%)*	2.1 *(0.6%)*	25.7 *(7.4%)*	19.4 *(5.6%)*	2.4 *(0.7%)*	2.0 *(0.6%)*	155.7 *(44.6%)*	348.8 *(100.0%)*
總計 Total	**2,173.5 *(27.2%)***	**622.2 *(7.8%)***	**120.6 *(1.5%)***	**360.3 *(4.5%)***	**95.6 *(1.2%)***	**14.5 *(0.2%)***	**2.1 *(§)***	**185.6 *(2.3%)***	**7,993.7 *(100.0%)***
按機構規模劃分 By size of establishment									
大型 Large	1,360.5 *(34.5%)*	301.3 *(7.6%)*	98.6 *(2.5%)*	147.8 *(3.7%)*	18.8 *(0.5%)*	14.0 *(0.4%)*	2.0 *(§)*	164.9 *(4.2%)*	3,943.5 *(100.0%)*
中型 Medium	472.4 *(20.3%)*	238.1 *(10.2%)*	14.3 *(0.6%)*	179.2 *(7.7%)*	11.5 *(0.5%)*	***	***	15.8 *(0.7%)*	2,323.5 *(100.0%)*
小型 Small	340.6 *(19.7%)*	82.8 *(4.8%)*	7.8 *(0.5%)*	33.3 *(1.9%)*	65.2 *(3.8%)*	***	***	4.8 *(0.3%)*	1,726.8 *(100.0%)*
總計 Total	**2,173.5 *(27.2%)***	**622.2 *(7.8%)***	**120.6 *(1.5%)***	**360.3 *(4.5%)***	**95.6 *(1.2%)***	**14.5 *(0.2%)***	**2.1 *(§)***	**185.6 *(2.3%)***	**7,993.7 *(100.0%)***

註釋： (1) 電機及電子工程科技若涉及電腦硬件（如集成電路）則包括在電腦硬件科技領域；若涉及通訊科技則包括在通訊科技領域。

(2) 數字包括本地機構為本身及／或為其他機構進行的內部研發活動開支。

Notes: (1) Electrical and electronics engineering technology associated with computer hardware (such as integrated circuits) was included in the area of computer hardware technology; while that associated with communication technology was included in the area of communication technology.

(2) Figures include expenditure on in-house R&D activities conducted by a local party for itself and/or for other organisations.

表 1.10　按資金來源及機構規模劃分的2015年工商機構的內部研發活動總開支

Table 1.10 Total expenditure on in-house R&D activities in the business sector in 2015 by source of funds by size of establishment

（百萬港元）
(HK$ million)

	資金來源 Source of funds									
	本地機構 Local parties						香港以外機構 Parties outside Hong Kong			
	自資 Self-financed	政府（例如創新及科技基金） Government (e.g. Innovation and Technology Fund)	高等教育機構 Higher education institutions	私募投資基金（例如創業基金等） Private investment fund (e.g. venture capital, etc.)	機構所屬企業集團的分支機構或總公司 Affiliates or parent company of the enterprise group	非機構所屬企業集團內的公司 Company not affiliated with the enterprise group	私募投資基金（例如創業基金等） Private investment fund (e.g. venture capital, etc.)	機構所屬企業集團的分支機構或總公司 Affiliates or parent company of the enterprise group	非機構所屬企業集團內的公司 Company not affiliated with the enterprise group	總計[(1)] Total[(1)]
按機構規模劃分 By size of establishment										
大型 Large	3,472.8 *(88.1%)*	12.3 *(0.3%)*	***	***	158.1 *(4.0%)*	***	***	300.0 *(7.6%)*	***	3,943.5 *(100.0%)*
中型 Medium	1,945.9 *(83.8%)*	19.5 *(0.8%)*	***	***	149.9 *(6.5%)*	***	***	179.2 *(7.7%)*	***	2,323.5 *(100.0%)*
小型 Small	976.0 *(56.5%)*	54.0 *(3.1%)*	1.6 *(0.1%)*	274.8 *(15.9%)*	135.0 *(7.8%)*	0.5 *(§)*	133.5 *(7.7%)*	145.1 *(8.4%)*	6.2 *(0.4%)*	1,726.8 *(100.0%)*
總計 Total	**6,394.7** ***(80.0%)***	**85.9** ***(1.1%)***	**2.7** ***(§)***	**283.8** ***(3.6%)***	**443.1** ***(5.5%)***	**2.4** ***(§)***	**148.3** ***(1.9%)***	**624.3** ***(7.8%)***	**8.5** ***(0.1%)***	**7,993.7** ***(100.0%)***

註釋： (1) 數字包括本地機構為本身及／或為其他機構進行的內部研發活動開支。

Note: (1) Figures include expenditure on in-house R&D activities conducted by a local party for itself and/or for other organisations.

表 1.11　按職業類別及選定行業組別／機構規模劃分的2015年工商機構的研發人員數目（人數和相當於全日制的人數）

Table 1.11 R&D personnel (in headcount and full-time equivalent) in the business sector in 2015 by type of occupation by selected industry grouping/size of establishment

	職業類別 Type of occupation							
	研究員／科學家／工程師 Researchers/Scientists/Engineers		技術員 Technicians		其他輔助人員 Other supporting staff		總計 Total	
	人數 Headcount	相當於全日制的人數 Full-time equivalent	人數 Headcount	相當於全日制的人數 Full-time equivalent	人數 Headcount	相當於全日制的人數 Full-time equivalent	人數 Headcount	相當於全日制的人數 Full-time equivalent
按行業組別劃分 By industry grouping								
製造業 Manufacturing	291 *(56.4%)*	251 *(61.6%)*	198 *(38.5%)*	135 *(33.1%)*	26 *(5.0%)*	22 *(5.3%)*	515 *(100.0%)*	407 *(100.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	4 008 *(72.2%)*	2 970 *(75.9%)*	878 *(15.8%)*	433 *(11.1%)*	665 *(12.0%)*	508 *(13.0%)*	5 551 *(100.0%)*	3 911 *(100.0%)*
資訊及通訊業 Information and communications	4 180 *(66.1%)*	3 515 *(67.5%)*	1 495 *(23.7%)*	1 208 *(23.2%)*	647 *(10.2%)*	482 *(9.3%)*	6 322 *(100.0%)*	5 206 *(100.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	2 768 *(81.2%)*	1 799 *(83.9%)*	515 *(15.1%)*	285 *(13.3%)*	125 *(3.7%)*	59 *(2.7%)*	3 408 *(100.0%)*	2 143 *(100.0%)*
其他 Others	553 *(76.2%)*	465 *(84.5%)*	115 *(15.9%)*	64 *(11.6%)*	58 *(7.9%)*	22 *(3.9%)*	726 *(100.0%)*	551 *(100.0%)*
總計 Total	**11 799** ***(71.4%)***	**9 000** ***(73.7%)***	**3 202** ***(19.4%)***	**2 125** ***(17.4%)***	**1 520** ***(9.2%)***	**1 092** ***(8.9%)***	**16 522** ***(100.0%)***	**12 217** ***(100.0%)***
按機構規模劃分 By size of establishment								
大型 Large	4 206 *(75.5%)*	3 528 *(76.0%)*	846 *(15.2%)*	659 *(14.2%)*	518 *(9.3%)*	456 *(9.8%)*	5 570 *(100.0%)*	4 642 *(100.0%)*
中型 Medium	4 171 *(79.4%)*	3 021 *(79.2%)*	686 *(13.1%)*	515 *(13.5%)*	397 *(7.5%)*	276 *(7.2%)*	5 253 *(100.0%)*	3 812 *(100.0%)*
小型 Small	3 422 *(60.1%)*	2 452 *(65.1%)*	1 670 *(29.3%)*	950 *(25.3%)*	606 *(10.6%)*	361 *(9.6%)*	5 698 *(100.0%)*	3 763 *(100.0%)*
總計 Total	**11 799** ***(71.4%)***	**9 000** ***(73.7%)***	**3 202** ***(19.4%)***	**2 125** ***(17.4%)***	**1 520** ***(9.2%)***	**1 092** ***(8.9%)***	**16 522** ***(100.0%)***	**12 217** ***(100.0%)***

表 1.12　按教育程度及選定行業組別／機構規模劃分的2015年工商機構的研發人員數目（人數和相當於全日制的人數）

Table 1.12 R&D personnel (in headcount and full-time equivalent) in the business sector in 2015 by level of education by selected industry grouping/size of establishment

	教育程度 Level of education									
	博士程度大學學位 University degree at Ph.D. level		博士程度以下大學學位 University degree below Ph.D. level		其他專上文憑／證書 Other post-secondary diploma/certificate		非專上程度文憑／證書 Lower than post-secondary diploma/certificate		總計 Total	
	人數 Headcount	相當於全日制的人數 Full-time equivalent	人數 Headcount	相當於全日制的人數 Full-time equivalent	人數 Headcount	相當於全日制的人數 Full-time equivalent	人數 Headcount	相當於全日制的人數 Full-time equivalent	人數 Headcount	相當於全日制的人數 Full-time equivalent
按行業組別劃分 By industry grouping										
製造業	19	14	276	241	69	62	151	89	515	407
Manufacturing	*(3.7%)*	*(3.5%)*	*(53.6%)*	*(59.2%)*	*(13.4%)*	*(15.3%)*	*(29.3%)*	*(22.0%)*	*(100.0%)*	*(100.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業	679	503	3 417	2 500	1 188	673	267	235	5 551	3 911
Import/export, wholesale and retail trades, and accommodation and food services sectors	*(12.2%)*	*(12.9%)*	*(61.5%)*	*(63.9%)*	*(21.4%)*	*(17.2%)*	*(4.8%)*	*(6.0%)*	*(100.0%)*	*(100.0%)*
資訊及通訊業	537	366	4 963	4 193	738	566	84	80	6 322	5 206
Information and communications	*(8.5%)*	*(7.0%)*	*(78.5%)*	*(80.6%)*	*(11.7%)*	*(10.9%)*	*(1.3%)*	*(1.5%)*	*(100.0%)*	*(100.0%)*
金融、保險、地產、專業及商用服務業	418	240	2 817	1 772	136	99	37	32	3 408	2 143
Financing, insurance, real estate, professional and business services sectors	*(12.3%)*	*(11.2%)*	*(82.7%)*	*(82.7%)*	*(4.0%)*	*(4.6%)*	*(1.1%)*	*(1.5%)*	*(100.0%)*	*(100.0%)*
其他	82	72	550	427	77	42	16	9	726	551
Others	*(11.4%)*	*(13.1%)*	*(75.9%)*	*(77.5%)*	*(10.6%)*	*(7.7%)*	*(2.2%)*	*(1.7%)*	*(100.0%)*	*(100.0%)*
總計	**1 736**	**1 196**	**12 023**	**9 133**	**2 208**	**1 442**	**554**	**446**	**16 522**	**12 217**
Total	***(10.5%)***	***(9.8%)***	***(72.8%)***	***(74.8%)***	***(13.4%)***	***(11.8%)***	***(3.4%)***	***(3.7%)***	***(100.0%)***	***(100.0%)***
按機構規模劃分 By size of establishment										
大型	313	195	4 381	3 697	491	439	385	312	5 570	4 642
Large	*(5.6%)*	*(4.2%)*	*(78.7%)*	*(79.6%)*	*(8.8%)*	*(9.5%)*	*(6.9%)*	*(6.7%)*	*(100.0%)*	*(100.0%)*
中型	591	419	3 996	2 811	568	513	98	69	5 253	3 812
Medium	*(11.3%)*	*(11.0%)*	*(76.1%)*	*(73.7%)*	*(10.8%)*	*(13.5%)*	*(1.9%)*	*(1.8%)*	*(100.0%)*	*(100.0%)*
小型	831	582	3 646	2 626	1 149	490	72	65	5 698	3 763
Small	*(14.6%)*	*(15.5%)*	*(64.0%)*	*(69.8%)*	*(20.2%)*	*(13.0%)*	*(1.3%)*	*(1.7%)*	*(100.0%)*	*(100.0%)*
總計	**1 736**	**1 196**	**12 023**	**9 133**	**2 208**	**1 442**	**554**	**446**	**16 522**	**12 217**
Total	***(10.5%)***	***(9.8%)***	***(72.8%)***	***(74.8%)***	***(13.4%)***	***(11.8%)***	***(3.4%)***	***(3.7%)***	***(100.0%)***	***(100.0%)***

表 1.13　按外判機構類別及選定行業組別／機構規模劃分的2015年工商機構的外判研發活動總開支

Table 1.13 Total expenditure on contracted-out R&D activities in the business sector in 2015 by type of contracted-out party by selected industry grouping/size of establishment

（百萬港元）
(HK$ million)

	外判予本地機構的研發活動開支 Expenditure on contracted-out R&D activities to local parties	外判予香港以外機構的研發活動開支 Expenditure on contracted-out R&D activities to parties outside Hong Kong	外判研發活動總開支 Total expenditure on contracted-out R&D activities
按行業組別劃分 **By industry grouping**			
製造業 Manufacturing	15.2 *(14.9%)*	86.6 *(85.1%)*	101.7 *(100.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	440.5 *(38.8%)*	694.3 *(61.2%)*	1,134.9 *(100.0%)*
資訊及通訊業 Information and communications	23.7 *(9.4%)*	229.3 *(90.6%)*	253.1 *(100.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	327.1 *(56.0%)*	256.8 *(44.0%)*	583.9 *(100.0%)*
其他 Others	368.0 *(89.9%)*	41.3 *(10.1%)*	409.3 *(100.0%)*
總計 **Total**	**1,174.5** ***(47.3%)***	**1,308.4** ***(52.7%)***	**2,482.9** ***(100.0%)***
按機構規模劃分 **By size of establishment**			
大型 Large	893.4 *(72.5%)*	338.2 *(27.5%)*	1,231.6 *(100.0%)*
中型 Medium	80.6 *(25.5%)*	235.5 *(74.5%)*	316.1 *(100.0%)*
小型 Small	200.5 *(21.4%)*	734.8 *(78.6%)*	935.3 *(100.0%)*
總計 **Total**	**1,174.5** ***(47.3%)***	**1,308.4** ***(52.7%)***	**2,482.9** ***(100.0%)***

表 1.14　按進行研發活動的機構類別劃分的2015年工商機構外判研發活動予其他機構的總開支

Table 1.14 Total expenditure on contracted-out R&D activities in the business sector in 2015 by type of performing party

（百萬港元）
(HK$ million)

進行研發活動的機構類別 Type of party performing the R&D activity	外判研發活動總開支 Total expenditure on contracted-out R&D activities	
公共科技支援機構(1) Public technology support organisations(1)	265.5	*(10.7%)*
高等教育機構 Higher education institutions	461.7	*(18.6%)*
機構所屬企業集團的分支機構或總公司 Affiliates or parent company of the enterprise group	566.8	*(22.8%)*
非機構所屬企業集團內的公司 Company not affiliated with the enterprise group	1,188.8	*(47.9%)*
其他 Others	0.1	*(§)*
總計 **Total**	**2,482.9**	***(100.0%)***

註釋：(1) 例子包括香港生產力促進局、香港應用科技研究院有限公司及由政府資助的研發中心。

括號內數字顯示佔外判研發活動予其他機構的開支總計的百分比。

Notes: (1) Examples are Hong Kong Productivity Council, Hong Kong Applied Science and Technology Research Institute Company Limited and Government-funded R&D Centres.

Figures in brackets represent the percentages in respect of total expenditure for the R&D activities contracted-out to other organisations.

表 1.15　按進行研發活動的機構所屬地區劃分的2015年工商機構外判研發活動予其他機構的總開支

Table 1.15 Total expenditure on contracted-out R&D activities in the business sector in 2015 by region in which the performing party is located

（百萬港元）
(HK$ million)

進行研發活動的機構所屬地區 Region in which the party performing the R&D activitiy is located	外判研發活動總開支 Total expenditure on contracted-out R&D activities	
香港 Hong Kong	1,174.5	*(47.3%)*
中國內地及澳門 The mainland of China and Macao	815.0	*(32.8%)*
珠江三角洲經濟區(1) Pearl River Delta (PRD) Economic Zone(1)	532.0	*(21.4%)*
泛珠三角區域(2)（珠江三角洲經濟區及香港除外） Pan-PRD Region(2) (other than PRD Economic Zone and Hong Kong)	41.9	*(1.7%)*
其他地區 Other regions	241.1	*(9.7%)*
香港、中國內地及澳門以外地方 Places outside Hong Kong, the mainland of China and Macao	493.4	*(19.9%)*
總計 **Total**	**2,482.9**	***(100.0%)***

註釋：(1) 珠江三角洲經濟區包括13個市及縣（區）；分別是廣州、深圳、珠海、佛山、江門、東莞、中山、惠州市區、惠東縣、博羅縣、肇慶市區、高要市和四會市。

(2) 泛珠三角區域包括福建省、江西省、湖南省、廣東省、廣西壯族自治區、海南省、四川省、貴州省、雲南省等9個省／區，以及香港和澳門特別行政區。表中此組別的數字並不包括珠江三角洲經濟區及香港的機構。

括號內數字顯示佔外判研發活動予其他機構的開支總計的百分比。

Notes: (1) The PRD Economic Zone covers urban area of 13 cities and counties (district) including Guangzhou, Shenzhen, Zhuhai, Foshan, Jiangmen, Dongguan, Zhongshan, Huizhou urban district, Huidong County, Boluo County, Zhaoqing urban district, Gaoyao and Sihui.

(2) The Pan-PRD Region covers 9 provinces/regions (including Fujian, Jiangxi, Hunan, Guangdong, Guangxi Zhuang Autonomous Region, Hainan, Sichuan, Guizhou, Yunnan) as well as Hong Kong and Macao Special Administrative Regions. Organisations in PRD Economic Zone and Hong Kong are excluded from this category in the table.

Figures in brackets represent the percentages in respect of total expenditure for the R&D activities contracted-out to other organisations.

表 1.16　按資金來源劃分的2015年工商機構的外判研發活動總開支

Table 1.16 Total expenditure on contracted-out R&D activities in the business sector in 2015 by source of funds

（百萬港元）
(HK$ million)

	外判研發活動總開支 Total expenditure on contracted-out R&D activities	
自資 Self-financed	1,593.8	*(64.2%)*
政府（例如創新及科技基金） Government (e.g. Innovation and Technology Fund)	68.9	*(2.8%)*
高等教育機構 Higher education institutions	***	
私募投資基金（例如創業基金等） Private investment fund (e.g. venture capital, etc.)	17.3	*(0.7%)*
機構所屬企業集團的分支機構或總公司 Affiliates or parent company of the enterprise group	786.4	*(31.7%)*
非機構所屬企業集團內的公司 Company not affiliated with the enterprise group	14.2	*(0.6%)*
其他 Others	***	
總計 Total	**2,482.9**	***(100.0%)***

註釋： 括號內數字顯示佔外判研發活動予其他機構的開支總計的百分比。

Note: Figures in brackets represent the percentages in respect of total expenditure for the R&D activities contracted-out to other organisations.

表 1.17 按是否有研發活動和其他機構訂立協作安排或協作機構的類別劃分的在2015年有進行研發活動的工商機構[(1)]分布

Table 1.17 Distribution of business establishments having undertaken R&D activities[(1)] in 2015 by whether having collaboration arrangements on R&D activities with other organisations or type of collaborating organisation

是否有研發活動和其他機構訂立協作安排或協作機構類別[(2)] Whether having collaboration arrangements on R&D activities with other organisations or type of collaborating organisation[(2)]			機構數目 No. of establishments	
有研發活動和其他機構訂立協作安排 Having collaboration arrangements on R&D activities with other organisations	***425***	***[10.9%]***		
政府 Government			13	*(3.0%)*
公共科技支援機構[(3)] Public technology support organisations[(3)]			64	*(15.1%)*
高等教育機構 Higher education institutions			131	*(30.8%)*
機構所屬企業集團的分支機構或總公司 Affiliates or parent company of the enterprise group			210	*(49.5%)*
非機構所屬企業集團內的公司 Company not affiliated with the enterprise group			149	*(35.2%)*
沒有研發活動和其他機構訂立協作安排 Not having collaboration arrangements on R&D activities with other organisations	***3 460***	***[89.1%]***		
總計 Total	***3 885***	***[100.0%]***		

註釋： (1) 數字包括從事內部研發活動的機構及把研發活動外判的機構。

(2) 可涉及多於一個機構類別。

(3) 例子包括香港生產力促進局、香港應用科技研究院有限公司及由政府資助的研發中心。

方括號內數字顯示佔有進行研發活動的機構數目總計的百分比。

圓括號內數字顯示佔有研發活動和其他機構訂立協作安排的機構數目總計的百分比。

Notes: (1) Figures include establishments with in-house R&D activities and establishments with R&D activities contracted-out to other parties.

(2) May involve more than one type of organisation.

(3) Examples are Hong Kong Productivity Council, Hong Kong Applied Science and Technology Research Institute Company Limited and Government-funded R&D Centres.

Figures in square brackets represent the percentages in respect of total no. of establishments having undertaken R&D activities.

Figures in round brackets represent the percentages in respect of total no. of establishments having collaboration arrangements on R&D activities with other organisations.

表 1.18 按是否有研發活動和其他機構訂立協作安排或協作機構的所屬地區劃分的在2015年有進行研發活動的工商機構[(1)]分布

Table 1.18 Distribution of business establishments having undertaken R&D activities[(1)] in 2015 by whether having collaboration arrangements on R&D activities with other organisations or region in which the collaborating organisation is located

是否有研發活動和其他機構訂立協作安排或協作機構所屬地區[(2)] Whether having collaboration arrangements on R&D activities with other organisations or region in which the collaborating organisation is located[(2)]			機構數目 No. of establishments	
有研發活動和其他機構訂立協作安排 Having collaboration arrangements on R&D activities with other organisations	***425***	***[10.9%]***		
香港 Hong Kong			271	*(63.8%)*
中國內地及澳門 The mainland of China and Macao				
珠江三角洲經濟區[(3)] Pearl River Delta (PRD) Economic Zone[(3)]			119	*(27.9%)*
泛珠三角區域[(4)]（珠江三角洲經濟區及香港除外） Pan-PRD Region[(4)] other than PRD Economic Zone and Hong Kong			9	*(2.2%)*
其他地區 Other regions			82	*(19.4%)*
香港、中國內地及澳門以外地方 Places outside Hong Kong, the mainland of China and Macao			98	*(23.0%)*
沒有研發活動和其他機構訂立協作安排 Not having collaboration arrangements on R&D activities with other organisations	***3 460***	***[89.1%]***		
總計 Total	***3 885***	***[100.0%]***		

註釋： (1) 數字包括從事內部研發活動的機構及把研發活動外判的機構。

(2) 可涉及多於一個地點。

(3) 珠江三角洲經濟區包括13個市及縣（區）；分別是廣州、深圳、珠海、佛山、江門、東莞、中山、惠州市區、惠東縣、博羅縣、肇慶市區、高要市和四會市。

(4) 泛珠三角區域包括福建省、江西省、湖南省、廣東省、廣西壯族自治區、海南省、四川省、貴州省、雲南省等9個省／區，以及香港和澳門特別行政區。表中此組別的數字並不包括珠江三角洲經濟區及香港的機構。

方括號內數字顯示佔有進行研發活動的機構數目總計的百分比。

圓括號內數字顯示佔有研發活動和其他機構訂立協作安排的機構數目總計的百分比。

Notes: (1) Figures include establishments with in-house R&D activities and establishments with R&D activities contracted-out to other parties.

(2) May involve more than one location.

(3) The PRD Economic Zone covers urban area of 13 cities and counties (district) including Guangzhou, Shenzhen, Zhuhai, Foshan, Jiangmen, Dongguan, Zhongshan, Huizhou urban district, Huidong County, Boluo County, Zhaoqing urban district, Gaoyao and Sihui.

(4) The Pan-PRD Region covers 9 provinces/regions (including Fujian, Jiangxi, Hunan, Guangdong, Guangxi Zhuang Autonomous Region, Hainan, Sichuan, Guizhou, Yunnan) as well as Hong Kong and Macao Special Administrative Regions. Organisations in PRD Economic Zone and Hong Kong are excluded from this category in the table.

Figures in square brackets represent the percentages in respect of total no. of establishments having undertaken R&D activities.

Figures in round brackets represent the percentages in respect of total no. of establishments having collaboration arrangements on R&D activities with other organisations.

表 2.1 按選定行業組別／機構規模劃分的2014及2015年工商機構的技術創新活動主要統計數字

Table 2.1 Key statistics on technological innovation (TI) activities in the business sector in 2014 and 2015 by selected industry grouping/size of establishment

	年度 Year	機構數目總計 Total no. of establish-ments	有進行技術創新活動的機構數目[(1)] No. of establishments having undertaken TI activities[(1)]		有進行產品創新的機構數目 No. of establishments having undertaken product innovation		有進行程序創新的機構數目 No. of establishments having undertaken process innovation		有進行中而尚未完成的技術創新活動的機構數目 No. of establishments having undertaken ongoing TI activities		有已終止的技術創新活動的機構數目 No. of establishments having undertaken abandoned TI activities		技術創新活動開支（百萬港元） TI expenditure (HK$ million)	
按行業組別劃分 By industry grouping														
製造業	2014	7 699	430	*(5.6%)*	41	*(0.5%)*	236	*(3.1%)*	250	*(3.3%)*	8	*(0.1%)*	508.3	*[3.0%]*
Manufacturing	2015	9 166	252	*(2.8%)*	85	*(0.9%)*	59	*(0.6%)*	196	*(2.1%)*	***		637.9	*[3.6%]*
進出口貿易、批發及零售業以及住宿及膳食服務業	2014	147 904	2 468	*(1.7%)*	1 089	*(0.7%)*	65	*(§)*	1 559	*(1.1%)*	157	*(0.1%)*	5,619.2	*[33.0%]*
Import/export, wholesale and retail trades, and accommodation and food services sectors	2015	149 982	2 865	*(1.9%)*	1 152	*(0.8%)*	465	*(0.3%)*	1 879	*(1.3%)*	154	*(0.1%)*	6,540.3	*[37.4%]*
資訊及通訊業	2014	11 492	2 328	*(20.3%)*	1 115	*(9.7%)*	148	*(1.3%)*	1 452	*(12.6%)*	120	*(1.0%)*	5,599.9	*[32.9%]*
Information and communications	2015	10 625	2 492	*(23.5%)*	998	*(9.4%)*	358	*(3.4%)*	1 599	*(15.1%)*	58	*(0.5%)*	4,389.1	*[25.1%]*
金融、保險、地產、專業及商用服務業	2014	67 754	947	*(1.4%)*	562	*(0.8%)*	174	*(0.3%)*	713	*(1.1%)*	44	*(0.1%)*	3,875.6	*[22.8%]*
Financing, insurance, real estate, professional and business services sectors	2015	66 823	1 313	*(2.0%)*	380	*(0.6%)*	373	*(0.6%)*	936	*(1.4%)*	***		4,087.9	*[23.4%]*
其他	2014	40 818	649	*(1.6%)*	278	*(0.7%)*	280	*(0.7%)*	351	*(0.9%)*	39	*(0.1%)*	1,414.7	*[8.3%]*
Others	2015	42 915	422	*(1.0%)*	225	*(0.5%)*	52	*(0.1%)*	201	*(0.5%)*	25	*(0.1%)*	1,840.9	*[10.5%]*
總計	**2014**	**275 667**	**6 821**	***(2.5%)***	**3 086**	***(1.1%)***	**903**	***(0.3%)***	**4 324**	***(1.6%)***	**369**	***(0.1%)***	**17,017.7**	*[100.0%]*
Total	**2015**	**279 511**	**7 344**	***(2.6%)***	**2 840**	***(1.0%)***	**1 307**	***(0.5%)***	**4 812**	***(1.7%)***	**259**	***(0.1%)***	**17,496.1**	*[100.0%]*
按機構規模劃分 By size of establishment														
大型	2014	6 225	601	*(9.6%)*	318	*(5.1%)*	162	*(2.6%)*	341	*(5.5%)*	29	*(0.5%)*	8,969.4	*[52.7%]*
Large	2015	5 922	599	*(10.1%)*	270	*(4.6%)*	188	*(3.2%)*	389	*(6.6%)*	34	*(0.6%)*	9,202.6	*[52.6%]*
中型	2014	26 754	1 612	*(6.0%)*	760	*(2.8%)*	298	*(1.1%)*	1 004	*(3.8%)*	69	*(0.3%)*	4,420.0	*[26.0%]*
Medium	2015	31 169	1 830	*(5.9%)*	722	*(2.3%)*	437	*(1.4%)*	1 155	*(3.7%)*	85	*(0.3%)*	3,891.0	*[22.2%]*
小型	2014	242 687	4 609	*(1.9%)*	2 008	*(0.8%)*	443	*(0.2%)*	2 978	*(1.2%)*	271	*(0.1%)*	3,628.3	*[21.3%]*
Small	2015	242 420	4 914	*(2.0%)*	1 848	*(0.8%)*	682	*(0.3%)*	3 267	*(1.3%)*	140	*(0.1%)*	4,402.5	*[25.2%]*
總計	**2014**	**275 667**	**6 821**	***(2.5%)***	**3 086**	***(1.1%)***	**903**	***(0.3%)***	**4 324**	***(1.6%)***	**369**	***(0.1%)***	**17,017.7**	*[100.0%]*
Total	**2015**	**279 511**	**7 344**	***(2.6%)***	**2 840**	***(1.0%)***	**1 307**	***(0.5%)***	**4 812**	***(1.7%)***	**259**	***(0.1%)***	**17,496.1**	***[100.0%]***

註釋： (1) 數字顯示在該統計年有參與技術創新活動的機構，不論其為產品創新、程序創新、進行中而尚未完成的技術創新活動或已終止的技術創新活動。

圓括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有機構的百分比。

方括號內數字顯示佔技術創新活動開支總計的百分比。

Notes: (1) The figures refer to establishments that had been engaged in TI activities in respective reference years, whether they be product innovation, process innovation, ongoing TI activities or abandoned TI activities.

Figures in round brackets represent the percentages in respect of all establishments in the respective industry grouping/size of establishment group.

Figures in square brackets represent the percentages in respect of total TI expenditure.

表 2.2 按在2015年是否有進行產品創新／推出對市場來說是嶄新的創新產品及選定行業組別／機構規模劃分的工商機構分布

Table 2.2 Distribution of business establishments by whether having undertaken product innovation/product innovation new to the market in 2015 by selected industry grouping/size of establishment

	機構數目總計 Total no. of establishments	有進行產品創新的機構數目 No. of establishments having undertaken product innovation		有推出對市場來說是嶄新的創新產品的機構數目 No. of establishments having undertaken product innovation new to the market	
按行業組別劃分 By industry grouping					
製造業 Manufacturing	9 166	85	(0.9%)	50	(0.5%)
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	149 982	1 152	(0.8%)	941	(0.6%)
資訊及通訊業 Information and communications	10 625	998	(9.4%)	427	(4.0%)
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	66 823	380	(0.6%)	162	(0.2%)
其他 Others	42 915	225	(0.5%)	55	(0.1%)
總計 Total	**279 511**	**2 840**	**(1.0%)**	**1 634**	**(0.6%)**
按機構規模劃分 By size of establishment					
大型 Large	5 922	270	(4.6%)	122	(2.1%)
中型 Medium	31 169	722	(2.3%)	496	(1.6%)
小型 Small	242 420	1 848	(0.8%)	1 016	(0.4%)
總計 Total	**279 511**	**2 840**	**(1.0%)**	**1 634**	**(0.6%)**

註釋： 括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有機構的百分比。

Note: Figures in brackets represent the percentages in respect of all establishments in the respective industry grouping/size of establishment group.

表 2.3 按選定行業組別／機構規模劃分的在2015年有進行產品創新的工商機構在發展產品創新的機構類別、產品創新數目和產品創新的收入佔業務收入總額[1]百分比方面的概況

Table 2.3 Profile of business establishments having undertaken product innovation in 2015 in terms of development party, number of product innovation and percentage contribution of product innovation to total business receipts[1] by selected industry grouping/size of establishment

		發展產品創新的機構類別[2] Party for developing product innovation[2]							
		機構本身 The establishment itself		機構與其他機構合作 Establishment in cooperation with other parties		其他機構 Other parties			
	有進行產品創新的機構數目 No. of establishments having undertaken product innovation	機構數目 No. of establishments	產品創新數目 No. of product innovation	機構數目 No. of establishments	產品創新數目 No. of product innovation	機構數目 No. of establishments	產品創新數目 No. of product innovation	產品創新總數 Total no. of product innovation	產品創新的收入佔業務收入總額[1]百分比 % contribution of product innovation to total business receipts[1]
按行業組別劃分 By industry grouping									
製造業 Manufacturing	85	55 *(64.7%)*	70	***	***	***	***	622	5.4%
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	1 152	748 *(64.9%)*	1 358	100 *(8.7%)*	229	317 *(27.5%)*	624	2 212	9.6%
資訊及通訊業 Information and communications	998	925 *(92.7%)*	1 490	122 *(12.2%)*	136	35 *(3.5%)*	60	1 686	9.9%
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services	380	354 *(93.1%)*	605	***	***	***	***	691	2.0%
其他 Others	225	65 *(28.7%)*	120	8 *(3.6%)*	22	161 *(71.8%)*	162	305	6.2%
總計 Total	**2 840**	**2 147** ***(75.6%)***	**3 642**	**258** ***(9.1%)***	**463**	**555** ***(19.5%)***	**1 410**	**5 515**	**4.8%**

（待續）
(to be cont'd)

表 2.3 （續） 按選定行業組別／機構規模劃分的在2015年有進行產品創新的工商機構在發展產品創新的機構類別、產品創新數目和產品創新的收入佔業務收入總額[1]百分比方面的概況

Table 2.3 (cont'd) Profile of business establishments having undertaken product innovation in 2015 in terms of development party, number of product innovation and percentage contribution of product innovation to total business receipts[1] by selected industry grouping/size of establishment

		發展產品創新的機構類別[2] Party for developing product innovation[2]							
		機構本身 The establishment itself		機構與其他機構合作 Establishment in cooperation with other parties		其他機構 Other parties			
	有進行產品創新的機構數目 No. of establishments having undertaken product innovation	機構數目 No. of establishments	產品創新數目 No. of product innovation	機構數目 No. of establishments	產品創新數目 No. of product innovation	機構數目 No. of establishments	產品創新數目 No. of product innovation	產品創新總數 Total no. of product innovation	產品創新的收入佔業務收入總額[1]百分比 % contribution of product innovation to total business receipts[1]
按機構規模劃分 By size of establishment									
大型 Large	270	220 *(81.6%)*	570	37 *(13.8%)*	55	29 *(10.8%)*	37	662	3.7%
中型 Medium	722	639 *(88.6%)*	1 147	36 *(5.0%)*	108	69 *(9.5%)*	612	1 867	11.3%
小型 Small	1 848	1 287 *(69.6%)*	1 925	185 *(10.0%)*	300	457 *(24.7%)*	762	2 986	32.2%
總計 Total	**2 840**	**2 147** ***(75.6%)***	**3 642**	**258** ***(9.1%)***	**463**	**555** ***(19.5%)***	**1 410**	**5 515**	**4.8%**

註釋： (1) 有進行產品創新的機構的業務收入總額。

(2) 可涉及多於一個類別。

括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有有進行產品創新的機構的百分比。

Notes: (1) Total business receipts for establishments undertaking product innovation.

(2) May involve more than one category.

Figures in brackets represent the percentages in respect of total no. of establishments having undertaken product innovation in the respective industry grouping/size of establishment group.

表 2.4 按在2015年是否有進行程序創新及選定行業組別／機構規模劃分的工商機構分布

Table 2.4 Distribution of business establishments by whether having undertaken process innovation in 2015 by selected industry grouping/size of establishment

	機構數目 總計 Total no. of establishments	有進行程序創新的機構數目 No. of establishments having undertaken process innovation	
按行業組別劃分 By industry grouping			
製造業 Manufacturing	9 166	59	*(0.6%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	149 982	465	*(0.3%)*
資訊及通訊業 Information and communications	10 625	358	*(3.4%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	66 823	373	*(0.6%)*
其他 Others	42 915	52	*(0.1%)*
總計 Total	**279 511**	**1 307**	***(0.5%)***
按機構規模劃分 By size of establishment			
大型 Large	5 922	188	*(3.2%)*
中型 Medium	31 169	437	*(1.4%)*
小型 Small	242 420	682	*(0.3%)*
總計 Total	**279 511**	**1 307**	***(0.5%)***

註釋： 括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有機構的百分比。

Note: Figures in brackets represent the percentages in respect of all establishments in the respective industry grouping/size of establishment group.

表 2.5 按選定行業組別／機構規模劃分的在2015年有進行程序創新的工商機構在發展程序創新的機構類別和程序創新數目方面的概況

Table 2.5 Profile of business establishments having undertaken process innovation in 2015 in terms of development party and number of process innovation by selected industry grouping/size of establishment

		發展程序創新的機構類別[1] Party for developing process innovation[1]						
		機構本身 The establishment itself		機構與其他機構合作 Establishment in cooperation with other parties		其他機構 Other parties		
	有進行程序創新的機構數目 No. of establishments having undertaken process innovation	機構數目 No. of establishments	程序創新數目 No. of process innovation	機構數目 No. of establishments	程序創新數目 No. of process innovation	機構數目 No. of establishments	程序創新數目 No. of process innovation	程序創新總數 Total no. of process innovation
按行業組別劃分 By industry grouping								
製造業 Manufacturing	59	23 *(38.2%)*	69	***	***	***	***	129
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	465	340 *(73.0%)*	382	33 *(7.1%)*	39	100 *(21.5%)*	101	522
資訊及通訊業 Information and communications	358	340 *(95.1%)*	340	11 *(3.1%)*	25	21 *(5.9%)*	21	387
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	373	140 *(37.7%)*	248	21 *(5.6%)*	37	234 *(62.9%)*	397	683
其他 Others	52	17 *(33.3%)*	261	***	***	***	***	313
總計 Total	**1 307**	**860** ***(65.8%)***	**1 300**	**74** ***(5.7%)***	**123**	**423** ***(32.3%)***	**611**	**2 034**
按機構規模劃分 By size of establishment								
大型 Large	188	96 *(51.0%)*	432	17 *(8.8%)*	33	88 *(46.8%)*	112	577
中型 Medium	437	92 *(21.0%)*	151	45 *(10.2%)*	61	324 *(74.1%)*	487	699
小型 Small	682	672 *(98.6%)*	716	13 *(1.9%)*	29	11 *(1.6%)*	12	757
總計 Total	**1 307**	**860** ***(65.8%)***	**1 300**	**74** ***(5.7%)***	**123**	**423** ***(32.3%)***	**611**	**2 034**

註釋：(1) 可涉及多於一個類別。
括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有有進行程序創新的機構的百分比。

Notes: (1) May involve more than one category.
Figures in brackets represent the percentages in respect of total no. of establishments having undertaken process innovation in the respective industry grouping/size of establishment group.

表 2.6 按在程序創新全面實施後節省的成本開支百分比及選定行業組別／機構規模劃分的在2015年有進行程序創新的工商機構分布

Table 2.6 Distribution of business establishments having undertaken process innovation in 2015 by percentage of cost saving after full implementation of process innovation by selected industry grouping/size of establishment

	有進行程序創新的機構數目 No. of establishments having undertaken process innovation	節省的成本開支（以佔每件產品或每項服務的平均成本的百分比計算） Cost saving (as a percentage of average cost per unit of output produced or per unit of service provided)			
		少於5% Less than 5%	5%至少於20% 5% to less than 20%	20%或以上 20% or above	與節省成本無關 Not related to cost saving
按行業組別劃分 By industry grouping					
製造業 Manufacturing	59	15 *(26.2%)*	***	***	40 *(67.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	465	13 *(2.9%)*	35 *(7.5%)*	252 *(54.2%)*	165 *(35.4%)*
資訊及通訊業 Information and communications	358	296 *(82.7%)*	***	***	34 *(9.5%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	373	18 *(4.8%)*	212 *(56.9%)*	44 *(11.8%)*	99 *(26.5%)*
其他 Others	52	11 *(21.7%)*	***	***	34 *(64.6%)*
總計 Total	**1 307**	**354 *(27.1%)***	**279 *(21.4%)***	**303 *(23.2%)***	**371 *(28.4%)***
按機構規模劃分 By size of establishment					
大型 Large	188	***	16 *(8.2%)*	***	117 *(62.3%)*
中型 Medium	437	***	253 *(58.0%)*	***	170 *(39.0%)*
小型 Small	682	292 *(42.9%)*	11 *(1.5%)*	296 *(43.3%)*	84 *(12.3%)*
總計 Total	**1 307**	**354 *(27.1%)***	**279 *(21.4%)***	**303 *(23.2%)***	**371 *(28.4%)***

註釋： 括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有有進行程序創新的機構的百分比。

Note: Figures in brackets represent the percentages in respect of total no. of establishments having undertaken process innovation in the respective industry grouping/size of establishment group.

表 2.7 按技術創新活動類別及選定行業組別／機構規模劃分的2015年工商機構的技術創新活動總開支

Table 2.7 Total expenditure on TI activities in the business sector in 2015 by type of TI activity by selected industry grouping/size of establishment

（百萬港元）
(HK$ million)

	技術創新活動類別 Type of TI activity								
	機構為其本身進行的內部研發活動 In-house R&D activities for own establishment	外判予其他機構進行的研發活動 Contracted-out R&D activities to other parties	購置生產用的機器、設備和電腦軟件 Acquisition of machinery, equipment and software for production	獲取其他外界知識 Acquisition of other external knowledge	培訓 Training	推廣產品或程序創新項目 Promotion of product or process innovation	設計及生產或運送方面的其他準備工作 Design and other preparations for production or deliveries	購買土地及樓宇及其他 Acquisition of land and buildings and others	技術創新活動開支總額 Total TI expenditure
按行業組別劃分 By industry grouping									
製造業 Manufacturing	260.1 *(40.8%)*	101.7 *(16.0%)*	63.5 *(9.9%)*	51.7 *(8.1%)*	1.8 *(0.3%)*	8.4 *(1.3%)*	145.9 *(22.9%)*	4.7 *(0.7%)*	637.9 *(100.0%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	2,800.5 *(42.8%)*	1,134.9 *(17.4%)*	439.8 *(6.7%)*	421.0 *(6.4%)*	38.1 *(0.6%)*	364.8 *(5.6%)*	1,310.6 *(20.0%)*	30.6 *(0.5%)*	6,540.3 *(100.0%)*
資訊及通訊業 Information and communications	2,391.9 *(54.5%)*	253.1 *(5.8%)*	128.4 *(2.9%)*	48.5 *(1.1%)*	37.3 *(0.8%)*	236.1 *(5.4%)*	1,211.5 *(27.6%)*	82.3 *(1.9%)*	4,389.1 *(100.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	1,339.8 *(32.8%)*	583.9 *(14.3%)*	275.1 *(6.7%)*	873.3 *(21.4%)*	17.0 *(0.4%)*	173.9 *(4.3%)*	805.7 *(19.7%)*	19.2 *(0.5%)*	4,087.9 *(100.0%)*
其他 Others	345.1 *(18.7%)*	409.3 *(22.2%)*	238.8 *(13.0%)*	698.9 *(38.0%)*	8.2 *(0.4%)*	30.9 *(1.7%)*	96.3 *(5.2%)*	13.5 *(0.7%)*	1,840.9 *(100.0%)*
總計 Total	**7,137.3** ***(40.8%)***	**2,482.9** ***(14.2%)***	**1,145.6** ***(6.5%)***	**2,093.3** ***(12.0%)***	**102.3** ***(0.6%)***	**814.2** ***(4.7%)***	**3,570.0** ***(20.4%)***	**150.3** ***(0.9%)***	**17,496.1** ***(100.0%)***
按機構規模劃分 By size of establishment									
大型 Large	3,641.0 *(39.6%)*	1,231.6 *(13.4%)*	602.2 *(6.5%)*	1,888.8 *(20.5%)*	45.8 *(0.5%)*	437.6 *(4.8%)*	1,255.3 *(13.6%)*	100.3 *(1.1%)*	9,202.6 *(100.0%)*
中型 Medium	1,946.6 *(50.0%)*	316.1 *(8.1%)*	245.8 *(6.3%)*	60.8 *(1.6%)*	42.4 *(1.1%)*	193.0 *(5.0%)*	1,066.2 *(27.4%)*	20.2 *(0.5%)*	3,891.0 *(100.0%)*
小型 Small	1,549.8 *(35.2%)*	935.3 *(21.2%)*	297.6 *(6.8%)*	143.8 *(3.3%)*	14.1 *(0.3%)*	183.6 *(4.2%)*	1,248.5 *(28.4%)*	29.8 *(0.7%)*	4,402.5 *(100.0%)*
總計 Total	**7,137.3** ***(40.8%)***	**2,482.9** ***(14.2%)***	**1,145.6** ***(6.5%)***	**2,093.3** ***(12.0%)***	**102.3** ***(0.6%)***	**814.2** ***(4.7%)***	**3,570.0** ***(20.4%)***	**150.3** ***(0.9%)***	**17,496.1** ***(100.0%)***

註釋： 括號內數字顯示在個別行業組別／機構規模的組別中佔該組別的技術創新活動開支總計的百分比。

Note: Figures in brackets represent the percentages in respect of total TI expenditure in the respective industry grouping/size of establishment group.

表 2.8　按資金來源劃分的2015年工商機構的技術創新活動總開支

Table 2.8　Total expenditure on TI activities in the business sector in 2015 by source of funds

（百萬港元）
(HK$ million)

	技術創新活動總開支 Total expenditure on TI activities	
自資 Self-financed	13,913.1	*(79.5%)*
政府（例如創新及科技基金） Government (e.g. Innovation and Technology Fund)	179.9	*(1.0%)*
高等教育機構 Higher education institutions	4.7	*(§)*
私募投資基金（例如創業基金等） Private investment fund (e.g. venture capital, etc.)	582.9	*(3.3%)*
機構所屬企業集團的分支機構或總公司 Affiliates or parent company of the enterprise group	2,777.7	*(15.9%)*
非機構所屬企業集團的公司 Company not affiliated with the enterprise group	29.0	*(0.2%)*
其他 Others	8.8	*(0.1%)*
總計 Total	**17,496.1**	***(100.0%)***

註釋： 括號內數字顯示佔技術創新活動開支總計的百分比。

Note: Figures in brackets represent the percentages in respect of total TI expenditure.

表 2.9 按技術創新活動對企業的影響程度劃分的在2015年有進行技術創新活動的工商機構分布

Table 2.9 Distribution of business establishments having undertaken TI activities in 2015 by degree of impact of TI activities on businesses

	影響程度 Degree of impact				
	高 High	中 Medium	低 Low	不適用 Not applicable	總計 Total
對產品的影響（例如：擴大了產品（貨品或服務）的範圍或市場佔有率；改善了產品的質素等） Product oriented effects (e.g. increased range of products (goods or services) or market share; improved quality of products, etc.)	1 124 *(15.3%)*	2 346 *(31.9%)*	728 *(9.9%)*	3 146 *(42.8%)*	7 344 *(100.0%)*
對生產或業務程序的影響（例如：改善了生產靈活性；提高了生產量；減低了每件產品的生產成本等） Production or business process oriented effects (e.g. improved production flexibility; increased production capacity; reduced production cost per unit, etc.)	644 *(8.8%)*	899 *(12.2%)*	850 *(11.6%)*	4 951 *(67.4%)*	7 344 *(100.0%)*
減低對環境的影響，或對健康及安全方面有所改善 Reduced environmental impact or improved health and safety aspects	481 *(6.6%)*	560 *(7.6%)*	751 *(10.2%)*	5 551 *(75.6%)*	7 344 *(100.0%)*
符合了行業規例或標準 Met industry regulations or standards	1 078 *(14.7%)*	831 *(11.3%)*	312 *(4.3%)*	5 123 *(69.8%)*	7 344 *(100.0%)*

表 2.10 按是否有就技術創新活動和其他機構訂立協作安排或協作機構的類別劃分的在2015年有進行技術創新活動的工商機構分布

Table 2.10 Distribution of business establishments having undertaken TI activities in 2015 by whether having collaboration arrangements on TI activities with other organisations or type of collaborating organisation

是否有就技術創新活動和其他機構訂立協作安排或協作機構類別[1] Whether having collaboration arrangements on TI activities with other organisations or type of collaborating organisation[1]			機構數目 No. of establishments	
有就技術創新活動和其他機構訂立協作安排 Having collaboration arrangements on TI activities with other organisations	***1 093***	***[14.9%]***		
政府 Government			27	*(2.5%)*
公共科技支援機構[2] Public technology support organisations[2]			75	*(6.9%)*
高等教育機構 Higher education institutions			142	*(13.0%)*
機構所屬企業集團的分支機構或總公司 Affiliates or parent company of the enterprise group			630	*(57.7%)*
非機構所屬企業集團內的公司 Company not affiliated with the enterprise group			373	*(34.1%)*
沒有就技術創新活動和其他機構訂立協作安排 Not having collaboration arrangements on TI activities with other organisations	***6 250***	***[85.1%]***		
總計 Total	***7 344***	***[100.0%]***		

註釋： (1) 可涉及多於一個機構類別。

(2) 例子包括香港生產力促進局、香港應用科技研究院有限公司及由政府資助的研發中心。

方括號內數字顯示佔有進行技術創新活動的機構數目總計的百分比。

圓括號內數字顯示佔有就技術創新活動和其他機構訂立協作安排的機構數目總計的百分比。

Notes: (1) May involve more than one type of organisation.

(2) Examples are Hong Kong Productivity Council, Hong Kong Applied Science and Technology Research Institute Company Limited and Government-funded R&D Centres.

Figures in square brackets represent the percentages in respect of total no. of establishments having undertaken TI activities.

Figures in round brackets represent the percentages in respect of total no. of establishments having collaboration arrangements on TI activities with other organisations.

表 2.11 按是否有就技術創新活動和其他機構訂立協作安排或協作機構的所屬地區劃分的在2015年有進行技術創新活動的工商機構分布

Table 2.11 Distribution of business establishments having undertaken TI activities in 2015 by whether having collaboration arrangements on TI activities with other organisations or region in which the collaborating organisation is located

是否有就技術創新活動和其他機構訂立協作安排或協作機構所屬地區[1] Whether having collaboration arrangements on TI activities with other organisations or region in which the collaborating organisation is located[1]			機構數目 No. of establishments	
有就技術創新活動和其他機構訂立協作安排 Having collaboration arrangements on TI activities with other organisations	***1 093***	***[14.9%]***		
香港 Hong Kong			780	*(71.3%)*
中國內地及澳門 The mainland of China and Macao				
珠江三角洲經濟區[2] Pearl River Delta (PRD) Economic Zone[2]			213	*(19.5%)*
泛珠三角區域[3] (珠江三角洲經濟區及香港除外) Pan-PRD Region[3] (other than PRD Economic Zone and Hong Kong)			12	*(1.1%)*
其他地區 Other regions			88	*(8.0%)*
香港、中國內地及澳門以外地方 Places outside Hong Kong, the mainland of China and Macao			467	*(42.7%)*
沒有就技術創新活動和其他機構訂立協作安排 Not having collaboration arrangements on TI activities with other organisations	***6 250***	***[85.1%]***		
總計 Total	***7 344***	***[100.0%]***		

註釋： (1) 可涉及多於一個地點。

(2) 珠江三角洲經濟區包括13個市及縣（區）；分別是廣州、深圳、珠海、佛山、江門、東莞、中山、惠州市區、惠東縣、博羅縣、肇慶市區、高要市和四會市。

(3) 泛珠三角區域包括福建省、江西省、湖南省、廣東省、廣西壯族自治區、海南省、四川省、貴州省、雲南省等9個省／區，以及香港和澳門特別行政區。表中此組別的數字並不包括珠江三角洲經濟區及香港的機構。

方括號內數字顯示佔有進行技術創新活動的機構數目總計的百分比。

圓括號內數字顯示佔有就技術創新活動和其他機構訂立協作安排的機構數目總計的百分比。

Notes: (1) May involve more than one location.

(2) The PRD Economic Zone covers urban area of 13 cities and counties (district) including Guangzhou, Shenzhen, Zhuhai, Foshan, Jiangmen, Dongguan, Zhongshan, Huizhou urban district, Huidong County, Boluo County, Zhaoqing urban district, Gaoyao and Sihui.

(3) The Pan-PRD Region covers 9 provinces/regions (including Fujian, Jiangxi, Hunan, Guangdong, Guangxi Zhuang Autonomous Region, Hainan, Sichuan, Guizhou, Yunnan) as well as Hong Kong and Macao Special Administrative Regions. Organisations in PRD Economic Zone and Hong Kong are excluded from this category in the table.

Figures in square brackets represent the percentages in respect of total no. of establishments having undertaken TI activities.

Figures in round brackets represent the percentages in respect of total no. of establishments having collaboration arrangements on TI activities with other organisations.

表 2.12　按在2015年沒有進行技術創新活動的原因及選定行業組別／機構規模劃分的工商機構分布

Table 2.12 Distribution of business establishments by reason for not having undertaken TI activities in 2015 by selected industry grouping/size of establishment

	沒有進行技術創新活動的機構數目 No. of establishments not having undertaken TI activities	沒有進行技術創新活動的原因[1] Reason[1] for not having undertaken TI activities: 由於以前曾有進行技術創新活動，因此暫無需要 No need due to prior TI activities	由於市場或行業情況，因此暫無需要 No need due to market or business conditions	由於技術創新活動由公司所屬企業集團的分支機構或總公司所進行，因此暫無需要 No need as TI activities were performed by affiliates or parent company of the enterprise group	由於有阻礙技術創新活動的因素 No need due to existence of barriers to TI activities
按行業組別劃分 By industry grouping					
製造業 Manufacturing	8 914	273 *(3.1%)*	8 549 *(95.9%)*	79 *(0.9%)*	1 737 *(19.5%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	147 117	4 485 *(3.0%)*	135 307 *(92.0%)*	7 080 *(4.8%)*	24 826 *(16.9%)*
資訊及通訊業 Information and communications	8 133	604 *(7.4%)*	6 593 *(81.1%)*	545 *(6.7%)*	1 738 *(21.4%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	65 510	920 *(1.4%)*	62 129 *(94.8%)*	2 539 *(3.9%)*	6 010 *(9.2%)*
其他 Others	42 493	900 *(2.1%)*	40 719 *(95.8%)*	715 *(1.7%)*	5 358 *(12.6%)*
總計 Total	**272 167**	**7 181** ***(2.6%)***	**253 297** ***(93.1%)***	**10 958** ***(4.0%)***	**39 669** ***(14.6%)***
按機構規模劃分 By size of establishment					
大型 Large	5 323	216 *(4.1%)*	4 407 *(82.8%)*	966 *(18.1%)*	403 *(7.6%)*
中型 Medium	29 339	1 185 *(4.0%)*	26 589 *(90.6%)*	2 088 *(7.1%)*	2 867 *(9.8%)*
小型 Small	237 506	5 781 *(2.4%)*	222 301 *(93.6%)*	7 904 *(3.3%)*	36 399 *(15.3%)*
總計 Total	**272 167**	**7 181** ***(2.6%)***	**253 297** ***(93.1%)***	**10 958** ***(4.0%)***	**39 669** ***(14.6%)***

註釋： (1) 可涉及多於一個原因。

括號內數字顯示在個別行業組別／機構規模的組別中佔該組別沒有進行技術創新活動的機構的百分比。

Notes: (1) May involve more than one reason.

Figures in brackets represent the percentages in respect of total no. of establishments not having undertaken TI activities in the respective industry grouping/size of establishment group.

表 2.13　按阻礙技術創新活動的因素劃分的在2015年有進行技術創新活動的工商機構分布

Table 2.13 Distribution of business establishments having undertaken TI activities in 2015 by factor hampering TI activities

阻礙技術創新活動的因素 Factor hampering TI activities	影響程度 Degree of impact 高 High	中 Medium	低 Low	不適用 Not applicable	總計 Total
經濟因素 **Economic factors**					
預期的經濟風險太高 Excessive perceived economic risks	1 046 *(14.2%)*	1 487 *(20.2%)*	1 194 *(16.3%)*	3 617 *(49.3%)*	7 344 *(100.0%)*
創新成本太高 Innovation costs too high	1 907 *(26.0%)*	1 329 *(18.1%)*	650 *(8.9%)*	3 458 *(47.1%)*	7 344 *(100.0%)*
機構內部或所屬企業集團缺乏資金 Lack of funds within the establishment or enterprise group	2 095 *(28.5%)*	1 080 *(14.7%)*	393 *(5.4%)*	3 776 *(51.4%)*	7 344 *(100.0%)*
缺乏機構或所屬企業集團以外的資金 Lack of finance from sources outside the establishment or enterprise group	1 225 *(16.7%)*	976 *(13.3%)*	459 *(6.3%)*	4 683 *(63.8%)*	7 344 *(100.0%)*
機構內部因素 **Internal factors**					
員工對變革的態度 Attitude of staff towards change	560 *(7.6%)*	923 *(12.6%)*	865 *(11.8%)*	4 996 *(68.0%)*	7 344 *(100.0%)*
組織架構未能配合變動 Inadaptability of organisational structure to change	489 *(6.7%)*	679 *(9.2%)*	1 107 *(15.1%)*	5 069 *(69.0%)*	7 344 *(100.0%)*
市場因素 **Market factors**					
顧客對創新產品或服務的需求不明確 Uncertain demand for innovation goods or services	1 392 *(19.0%)*	1 393 *(19.0%)*	896 *(12.2%)*	3 663 *(49.9%)*	7 344 *(100.0%)*
被行內一間或數間機構佔了市場絕對優勢[(1)] Market dominance[(1)] by one or a few establishments in the industry sector	853 *(11.6%)*	996 *(13.6%)*	1 296 *(17.6%)*	4 199 *(57.2%)*	7 344 *(100.0%)*

（待續）
(to be cont'd)

表 2.13 （續） 按阻礙技術創新活動的因素劃分的在2015年有進行技術創新活動的工商機構分布

Table 2.13 (cont'd) Distribution of business establishments having undertaken TI activities in 2015 by factor hampering TI activities

阻礙技術創新活動的因素 Factor hampering TI activities	影響程度 Degree of impact 高 High	中 Medium	低 Low	不適用 Not applicable	總計 Total
知識因素 **Knowledge factors**					
缺乏外界技術支援服務 Lack of external technical support services	912 *(12.4%)*	1 008 *(13.7%)*	1 151 *(15.7%)*	4 272 *(58.2%)*	7 344 *(100.0%)*
缺乏合資格科技人員 Lack of qualified science and technology personnel	1 644 *(22.4%)*	917 *(12.5%)*	1 138 *(15.5%)*	3 645 *(49.6%)*	7 344 *(100.0%)*
缺乏所需技術資訊 Lack of information on required technology	650 *(8.9%)*	904 *(12.3%)*	1 185 *(16.1%)*	4 604 *(62.7%)*	7 344 *(100.0%)*
缺乏市場資訊 Lack of information on markets	863 *(11.8%)*	879 *(12.0%)*	1 216 *(16.6%)*	4 385 *(59.7%)*	7 344 *(100.0%)*
尋找創新項目的協作夥伴時遇上困難 Difficulty in finding collaboration partners for the innovation	752 *(10.2%)*	1 287 *(17.5%)*	1 248 *(17.0%)*	4 057 *(55.2%)*	7 344 *(100.0%)*
其他因素 **Other factors**					
知識產權的保護和執法成效不大 Ineffective intellectual property protection and enforcement	828 *(11.3%)*	692 *(9.4%)*	1 143 *(15.6%)*	4 682 *(63.7%)*	7 344 *(100.0%)*
政府規定的法規或標準的靈活性不足 Insufficient flexibility of regulations or standards set out by the Government	734 *(10.0%)*	1 408 *(19.2%)*	763 *(10.4%)*	4 438 *(60.4%)*	7 344 *(100.0%)*

註釋：(1) 市場絕對優勢是指超過一半的市場總銷售額由一間或數間公司所佔有的情況。

Note: (1) Market dominance refers to a situation where more than half of the total sales volume in the market is accounted for by a single or a few leading firms.

表 2.14 按在2015年是否有進行中而尚未完成的技術創新活動及選定行業組別／機構規模劃分的工商機構分布

Table 2.14 Distribution of business establishments by whether having undertaken ongoing TI activities in 2015 by selected industry grouping/size of establishment

	機構數目 總計 Total no. of establishments	有進行中而尚未完成的技術創新活動的機構數目 No. of establishments having undertaken ongoing TI activities	
按行業組別劃分 **By industry grouping**			
製造業 Manufacturing	9 166	196	*(2.1%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	149 982	1 879	*(1.3%)*
資訊及通訊業 Information and communications	10 625	1 599	*(15.1%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	66 823	936	*(1.4%)*
其他 Others	42 915	201	*(0.5%)*
總計 **Total**	**279 511**	**4 812**	***(1.7%)***
按機構規模劃分 **By size of establishment**			
大型 Large	5 922	389	*(6.6%)*
中型 Medium	31 169	1 155	*(3.7%)*
小型 Small	242 420	3 267	*(1.3%)*
總計 **Total**	**279 511**	**4 812**	***(1.7%)***

註釋： 括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有機構的百分比。

Note: Figures in brackets represent the percentages in respect of all establishments in the respective industry grouping/size of establishment group.

表 2.15 按在2015年是否有已終止的技術創新活動及選定行業組別／機構規模劃分的工商機構分布

Table 2.15 Distribution of business establishments by whether having undertaken abandoned TI activities in 2015 by selected industry grouping/size of establishment

	機構數目 總計 Total no. of establishments	有已終止的技術創新活動的機構數目 No. of establishments having undertaken abandoned TI activities	
按行業組別劃分 **By industry grouping**			
製造業 Manufacturing	9 166	***	
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	149 982	154	*(0.1%)*
資訊及通訊業 Information and communications	10 625	58	*(0.5%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	66 823	***	
其他 Others	42 915	25	*(0.1%)*
總計 **Total**	**279 511**	**259**	***(0.1%)***
按機構規模劃分 **By size of establishment**			
大型 Large	5 922	34	*(0.6%)*
中型 Medium	31 169	85	*(0.3%)*
小型 Small	242 420	140	*(0.1%)*
總計 **Total**	**279 511**	**259**	***(0.1%)***

註釋： 括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有機構的百分比。

Note: Figures in brackets represent the percentages in respect of all establishments in the respective industry grouping/size of establishment group.

表 3.1 按在2015年是否有進行組織創新或市場推廣創新及選定行業組別／機構規模劃分的工商機構分布

Table 3.1 Distribution of business establishments by whether having undertaken organisational or marketing innovation in 2015 by selected industry grouping/size of establishment

	機構數目總計 Total no. of establishments	有進行組織創新的機構數目 No. of establishments having undertaken organisational innovation	有進行市場推廣創新的機構數目 No. of establishments having undertaken marketing innovation	有進行組織創新或市場推廣創新的機構數目 No. of establishments having undertaken organisational or marketing innovation
按行業組別劃分 By industry grouping				
製造業 Manufacturing	9 166	951 *(10.4%)*	1 080 *(11.8%)*	1 146 *(12.5%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	149 982	4 975 *(3.3%)*	12 291 *(8.2%)*	14 652 *(9.8%)*
資訊及通訊業 Information and communications	10 625	553 *(5.2%)*	1 352 *(12.7%)*	1 488 *(14.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	66 823	2 641 *(4.0%)*	2 519 *(3.8%)*	4 119 *(6.2%)*
其他 Others	42 915	1 990 *(4.6%)*	1 267 *(3.0%)*	2 788 *(6.5%)*
總計 Total	**279 511**	**11 109** ***(4.0%)***	**18 510** ***(6.6%)***	**24 192** ***(8.7%)***
按機構規模劃分 By size of establishment				
大型 Large	5 922	410 *(6.9%)*	500 *(8.4%)*	815 *(13.8%)*
中型 Medium	31 169	2 901 *(9.3%)*	3 014 *(9.7%)*	4 553 *(14.6%)*
小型 Small	242 420	7 799 *(3.2%)*	14 996 *(6.2%)*	18 824 *(7.8%)*
總計 Total	**279 511**	**11 109** ***(4.0%)***	**18 510** ***(6.6%)***	**24 192** ***(8.7%)***

註釋： 括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有機構的百分比。

Note: Figures in brackets represent the percentages in respect of all establishments in the respective industry grouping/size of establishment group.

表 3.2 按在2015年所進行組織創新類別及選定行業組別／機構規模劃分的工商機構分布

Table 3.2 Distribution of business establishments by type of organisational innovation undertaken in 2015 by selected industry grouping/size of establishment

		按進行組織創新類別[(1)]劃分的機構數目 No. of establishments by type of organisational innovation undertaken[(1)]		
	有進行組織創新的機構數目 No. of establishments having undertaken organisational innovation	新業務模式以訂定營運的程序 New business practices for organising procedures	新方法以釐定員工的工作責任及決策權 New methods of organising work responsibilities and decision-making	新方法以建立與其他公司或公營機構的業務關係 New methods of organising external relations with other firms or public institutions
按行業組別劃分 By industry grouping				
製造業 Manufacturing	951	453 *(47.6%)*	415 *(43.7%)*	534 *(56.1%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	4 975	3 258 *(65.5%)*	3 259 *(65.5%)*	2 419 *(48.6%)*
資訊及通訊業 Information and communications	553	169 *(30.6%)*	399 *(72.0%)*	418 *(75.5%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	2 641	1 400 *(53.0%)*	851 *(32.2%)*	1 628 *(61.7%)*
其他 Others	1 990	545 *(27.4%)*	568 *(28.5%)*	1 453 *(73.0%)*
總計 Total	**11 109**	**5 824 *(52.4%)***	**5 491 *(49.4%)***	**6 451 *(58.1%)***
按機構規模劃分 By size of establishment				
大型 Large	410	200 *(48.8%)*	275 *(67.3%)*	125 *(30.6%)*
中型 Medium	2 901	1 890 *(65.2%)*	1 952 *(67.3%)*	1 142 *(39.4%)*
小型 Small	7 799	3 734 *(47.9%)*	3 264 *(41.9%)*	5 184 *(66.5%)*
總計 Total	**11 109**	**5 824 *(52.4%)***	**5 491 *(49.4%)***	**6 451 *(58.1%)***

註釋： (1) 可涉及多於一個類別。

括號內數字顯示在個別行業組別／機構規模的組別中佔該組別有進行組織創新的機構的百分比。

Notes: (1) May involve more than one category.

Figures in brackets represent the percentages in respect of total no. of establishments having undertaken organisational innovation in the respective industry grouping/size of establishment group.

表 3.3 按在2015年進行組織創新的主要目的劃分的工商機構分布

Table 3.3 Distribution of business establishments by major objective of undertaking organisational innovation in 2015

進行組織創新的主要目的 Major objectives of undertaking organisational innovation	重要程度 Degree of importance 高 High	中 Medium	低 Low	不適用 Not applicable	總計 Total
縮減回應顧客或供應商訴求所需的時間 Reduced time to respond to customer or supplier needs	2 770 *(24.9%)*	3 674 *(33.1%)*	983 *(8.8%)*	3 683 *(33.2%)*	11 109 *(100.0%)*
改善開發嶄新產品或程序的能力 Improved ability to develop new products or processes	2 921 *(26.3%)*	2 172 *(19.5%)*	908 *(8.2%)*	5 109 *(46.0%)*	11 109 *(100.0%)*
改善貨品或服務質素 Improved quality of goods or services	4 831 *(43.5%)*	3 186 *(28.7%)*	692 *(6.2%)*	2 400 *(21.6%)*	11 109 *(100.0%)*
減少每件產品的成本 Reduced costs per unit output	3 266 *(29.4%)*	3 013 *(27.1%)*	1 499 *(13.5%)*	3 332 *(30.0%)*	11 109 *(100.0%)*
改善工商機構內部溝通或共享資訊的渠道，以及加強與其他工商機構的聯繫 Improved communication or information sharing within the business establishment or with other business establishments or institutions	3 262 *(29.4%)*	4 078 *(36.7%)*	1 474 *(13.3%)*	2 295 *(20.7%)*	11 109 *(100.0%)*

註釋： 括號內數字顯示佔進行組織創新的機構總計的百分比。

Note: Figures in brackets represent the percentages in respect of total no. of establishments having undertaken organisational innovation.

表 3.4 按在2015年所進行市場推廣創新類別及選定行業組別／機構規模劃分的工商機構分布

Table 3.4 Distribution of business establishments by type of marketing innovation undertaken in 2015 by selected industry grouping/size of establishment

		按進行市場推廣創新類別[(1)]劃分的機構數目 No. of establishments by type of marketing innovation undertaken[(1)]			
	有進行市場推廣創新的機構數目 No. of establishments having undertaken marketing innovation	重大改變產品在美觀或包裝上的設計 Significant changes to the aesthetic design or packaging of product	採用新媒體或技術以推廣產品 New media or techniques for product promotion	採用新方法以展銷產品 New methods for product placement or sales channels	以新方法為貨品或服務訂價 New methods of pricing goods or services
按行業組別劃分 By industry grouping					
製造業 Manufacturing	1 080	606 *(56.1%)*	188 *(17.4%)*	629 *(58.2%)*	492 *(45.6%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	12 291	4 606 *(37.5%)*	7 219 *(58.7%)*	4 655 *(37.9%)*	6 283 *(51.1%)*
資訊及通訊業 Information and communications	1 352	644 *(47.6%)*	1 030 *(76.2%)*	370 *(27.4%)*	406 *(30.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	2 519	246 *(9.8%)*	1 770 *(70.3%)*	558 *(22.1%)*	997 *(39.6%)*
其他 Others	1 267	218 *(17.2%)*	1 046 *(82.6%)*	129 *(10.1%)*	488 *(38.5%)*
總計 Total	**18 510**	**6 319 *(34.1%)***	**11 254 *(60.8%)***	**6 340 *(34.3%)***	**8 666 *(46.8%)***
按機構規模劃分 By size of establishment					
大型 Large	500	89 *(17.8%)*	446 *(89.2%)*	113 *(22.5%)*	91 *(18.1%)*
中型 Medium	3 014	840 *(27.9%)*	1 580 *(52.4%)*	901 *(29.9%)*	1 094 *(36.3%)*
小型 Small	14 996	5 390 *(35.9%)*	9 228 *(61.5%)*	5 326 *(35.5%)*	7 481 *(49.9%)*
總計 Total	**18 510**	**6 319 *(34.1%)***	**11 254 *(60.8%)***	**6 340 *(34.3%)***	**8 666 *(46.8%)***

註釋： (1) 可涉及多於一個類別。

括號內數字顯示在個別行業組別／機構規模的組別中佔該組別有進行市場推廣創新的機構的百分比。

Notes: (1) May involve more than one category.

Figures in brackets represent the percentages in respect of total no. of establishments having undertaken marketing innovation in the respective industry grouping/size of establishment group.

表 3.5　按在2015年進行市場推廣創新的主要目的劃分的工商機構分布

Table 3.5　Distribution of business establishments by major objective of undertaking marketing innovation in 2015

進行市場推廣創新的主要目的 Major objectives of undertaking marketing innovation	重要程度 Degree of importance				
	高 High	中 Medium	低 Low	不適用 Not applicable	總計 Total
擴大或維持市場佔有率 Increase or maintain market share	6 262 *(33.8%)*	5 830 *(31.5%)*	5 108 *(27.6%)*	1 310 *(7.1%)*	18 510 *(100.0%)*
為產品開拓新客源 Introduce products to new customer groups	7 716 *(41.7%)*	7 631 *(41.2%)*	1 768 *(9.6%)*	1 395 *(7.5%)*	18 510 *(100.0%)*
為產品開拓新的地區市場 Introduce products to new geographic markets	4 973 *(26.9%)*	4 411 *(23.8%)*	4 170 *(22.5%)*	4 956 *(26.8%)*	18 510 *(100.0%)*

註釋： 括號內數字顯示佔有進行市場推廣創新的機構總計的百分比。

Note: Figures in brackets represent the percentages in respect of total no. of establishments having undertaken marketing innovation.

表 3.6 按在2015年是否有進行技術或非技術創新活動、選定行業組別／機構規模及創新活動類別劃分的工商機構分布

Table 3.6 Distribution of business establishments by whether having undertaken technological or non-technological innovation activities in 2015 by selected industry grouping/size of establishment by type of innovation activity

	機構數目總計 Total no. of establishments	有進行技術創新活動的機構數目 No. of establishments having undertaken technological innovation	有進行非技術創新的機構數目[1] No. of establishments having undertaken non-technological innovation[1]	有進行創新活動的機構數目[2] No. of establishments having undertaken innovation[2]
按行業組別劃分 By industry grouping				
製造業 Manufacturing	9 166	252 *(2.8%)*	1 146 *(12.5%)*	1 348 *(14.7%)*
進出口貿易、批發及零售業以及住宿及膳食服務業 Import/export, wholesale and retail trades, and accommodation and food services sectors	149 982	2 865 *(1.9%)*	14 652 *(9.8%)*	15 810 *(10.5%)*
資訊及通訊業 Information and communications	10 625	2 492 *(23.5%)*	1 488 *(14.0%)*	3 084 *(29.0%)*
金融、保險、地產、專業及商用服務業 Financing, insurance, real estate, professional and business services sectors	66 823	1 313 *(2.0%)*	4 119 *(6.2%)*	4 927 *(7.4%)*
其他 Others	42 915	422 *(1.0%)*	2 788 *(6.5%)*	3 000 *(7.0%)*
總計 Total	**279 511**	**7 344 *(2.6%)***	**24 192 *(8.7%)***	**28 170 *(10.1%)***
按機構規模劃分 By size of establishment				
大型 Large	5 922	599 *(10.1%)*	815 *(13.8%)*	1 174 *(19.8%)*
中型 Medium	31 169	1 830 *(5.9%)*	4 553 *(14.6%)*	5 501 *(17.7%)*
小型 Small	242 420	4 914 *(2.0%)*	18 824 *(7.8%)*	21 495 *(8.9%)*
總計 Total	**279 511**	**7 344 *(2.6%)***	**24 192 *(8.7%)***	**28 170 *(10.1%)***

註釋：(1) 數字顯示有進行組織創新或市場推廣創新活動或兩者皆有進行的機構。

(2) 數字顯示有進行技術或非技術創新活動或兩者皆有進行的機構。

括號內數字顯示在個別行業組別／機構規模的組別中佔該組別所有機構的百分比。

Notes: (1) The figures refer to establishments that had undertaken organisational innovation or marketing innovation activities or both.

(2) The figures refer to establishments that had undertaken technological innovation or non-technological innovation activities or both.

Figures in brackets represent the percentages in respect of all establishments in the respective industry grouping/size of establishment group.

附錄甲：用語及定義
Appendix A : Terms and Definitions

先進材料科技 涵蓋創造新物料的技術，以及為配合特定用途調校物料的性質而控制物料的成分或結構的程序。

Advanced materials technology covers techniques to create new materials, processes to control the composition or structure of material with a view to tailoring its properties to a specific application**.**

應用研究 是為了獲得新知識而進行的研究，但主要是為一特定實際目標或目的而進行。

Applied research is original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective.

基礎研究 是主要為了獲取有關一些現象和客觀事實的基本原理的新知識而進行的實驗性或理論性工作，而並沒有預設任何特定應用範圍或用途。

Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view.

生物科技 是指將科技應用於生物及其有關部分、產品及模型，以改變生物或非生物的物料，從中得出知識，開發服務及產品。

Biotechnology is defined as the application of science and technology to living organisms as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, services and goods.

生物科技以下列七個範疇為基礎（僅供說明，並不代表全部範疇）：

- 脫氧核糖核酸 DNA／核糖核酸 RNA：基因組學；藥物遺傳學；基因探針；遺傳工程；DNA／RNA 的測序／合成／擴增；基因表達圖譜；反義技術的應用。
- 蛋白質及其他分子：蛋白質及肽（包括大分子荷爾蒙）的測序／合成／工程；改善大分子藥物傳遞的方法；蛋白質組學；蛋白質的分離與純化；信息傳遞；細胞受體的識別。
- 細胞及組織的培養與工程學：細胞／組織培養；組織工程學（包括組織支架和生物醫學工程）；細胞融合；疫苗／免疫力增強劑；胚胎操作技術。
- 生物科技製程技術：利用生物反應器發酵；生物製程；生物溶濾法；生物製漿法；生物漂白法；生物脫硫法；生物修復法及生物過濾法。
- 基因及 RNA 載體：基因治療法；病毒載體。
- 生物信息學：建立基因組和蛋白質序列資料庫；建立複雜生物程序模型，包括系統生物學。
- 納米生物技術：運用納米／微製造技術的工具和程序製造儀器以研究生物系統及應用於藥物傳遞和診斷等方面。

It is based on the following seven categories (indicative, not exhaustive):

- DNA/RNA: genomics; pharmaco-genetics; gene probes; genetic engineering, DNA/RNA sequencing/synthesis/amplification; genetic expression profiling, and use of antisense technology.
- proteins and other molecules: sequencing/synthesis/ engineering of proteins and peptides (including large molecule hormones); improved delivery methods for large molecule drugs; proteomics; protein isolation and purification, signaling, identification of cell receptors.
- cell and tissue culture and engineering: cell/tissue culture; tissue engineering (including tissue scaffolds and biomedical engineering), cellular fusion, vaccine/immune stimulants, embryo manipulation.
- process biotechnologies techniques: fermentation using bioreactors, bioprocessing, bioleaching, biopulping, biobleaching, biodesulphurisation, bioremediation and biofiltration.
- gene and RNA vectors: gene therapy, viral vectors.
- bioinformatics: construction of database on genomes, protein sequences; modelling complex biological processes, including systems biology.
- nanobiotechnology: applies the tools and processes of nano/microfabrication to build devices for studying biosystems and applications in drug delivery, diagnostics etc.

工商機構 *包括：*

– 其主要活動為生產貨品或服務（高等教育除外），並以相當價錢賣給市民的工商機構、團體和機構；以及

– 主要為上述機構服務的私人非牟利機構，例如：商會或行業組織。

Business establishments *include:*

– establishments, organisations, and institutions whose primary activity is the production of goods or services (other than higher education) for sale to the general public at an economically significant price; and

– private non-profit institutions mainly serving them, e.g. chambers of commerce, trade associations.

內部研發活動的資本開支 *包括：*

– 購買土地及樓宇 *包括：*
用於購買用地（例如：實驗場地、實驗室和小型實驗工廠）以及購買或興建樓宇的實際開支，包括大規模的土地及樓宇改善、改裝和維修工程作研發用途。

– 購置機器及設備 *包括：*
為進行研發活動而購買的主要儀器、設備及電腦軟件。

– 其他資本開支 *包括：*
購買傢俬及裝置、運輸工具等。

但資本資產的折舊不包括在內。

Capital expenditure for in-house R&D activities *include:*

– acquisition of land and buildings *include:*
actual expenditure on land acquired (e.g. testing grounds, sites for laboratories and pilot plants) and buildings purchased or constructed, including major improvements, modifications, and repair made to land and buildings for conducting R&D activities.

– acquisition of machinery and equipment *include:*
major instruments, equipment and software acquired for use in the performance of R&D activities.

– other capital expenditure *includes:*
acquisition of furniture and fixtures, transport equipment etc.

However, depreciation of capital assets should be excluded.

中藥 包括開發中成藥及中藥材的技術。

Chinese medicine includes the techniques related to the development of both proprietary Chinese medicines and Chinese herbal medicines.

研發活動的協作安排 是指一間公司與其他機構皆***積極合作參與的研發項目***，但雙方不一定產生商業利益。積極參與包括撥款資助研發項目、在該項目中貢獻知識和技術專門技能，以及為該項目訂立目標和方向。外判工作不被視為一種協作安排。

Collaboration arrangements on R&D activities refer to ***active and joint participation*** with other organisation(s) on conducting ***R&D*** which do not necessarily bring along commercial benefit to either parties. Active participation involves contribution of project funding, knowledge and technology know-how plus project goals and direction setting. Exclude pure contracting out of work with no active collaboration.

技術創新活動的協作安排 是指一間公司與其他機構皆***積極合作參與的產品創新或程序創新項目***，但雙方不一定產生商業利益。積極參與包括撥款資助產品創新或程序創新項目、在該項目中貢獻知識和技術專門技能，以及為該項目訂立目標和方向。外判工作不被視為一種協作安排。

Collaboration arrangements on technological innovation (TI) activities refer to ***active and joint participation*** with other organisation(s) on conducting ***product innovations or process innovations*** which do not necessarily bring along commercial benefit to either parties. Active participation involves contribution of project funding, knowledge and technology know-how plus project goals and direction setting. Exclude pure contracting out of work with no active collaboration.

通訊科技 包括天線技術；光學及光子系統；數碼系統；無線電通訊及其他廣播；微波技術；以及其他通訊技術，如電腦通訊網絡；寬頻網絡技術；調解器技術；以及衞星通訊。

Communication technology includes antenna technology; optical and photonic systems; digital systems; radio communication and broadcasting n.e.c.; microwave technology; and other communication technologies such as computer communication networks; broadband network technology; modem technology; and satellite communications.

電腦硬件科技 包括運算及邏輯結構；記憶體結構；輸入、輸出及數據通訊；邏輯設計；集成電路；以及其他電腦硬件。

Computer hardware technology covers arithmetic and logic structures; memory structures; input, output and data communications; logic design; integrated circuits; and other computer hardware n.e.c.

電腦軟件科技 包括程式編寫技術；軟件工程學；電腦語言；操作系統；以及其他電腦軟件。

Computer software technology covers programming techniques; software engineering; computer languages; operating systems; and computer software n.e.c.

外判研發活動 指在一間機構以外透過合約安排由其他組織或個人進行的研發活動。

Contracted-out R&D activities refer to R&D performed by other organisations or individuals outside an establishment under a contractual arrangement.

內部研發活動的經常開支 *包括：*

- 僱員薪酬（*包括*研發僱員的工資和薪金；非現金的研發僱員福利開支和僱主為研發僱員支付的社會保障開支；以及向研發僱員派發以股份為基礎的支出（指向僱員派發按股本結算及按現金結算的以股份為基礎的支出））；
- 為進行研發活動所購買的物料及所需用品的費用；
- 維修保養（不包括大修及大規模翻新工程的費用）；以及
- 其他經常開支（*包括*支援一間機構研發的非資本成本（例如：水、電和燃料費、書籍、期刊、參考資料、小型樣板的成本）；行政及其他雜項成本（例如：租金、差餉、電訊費用）；以及間接服務方面的開支，不論有關服務在有關機構內提供或向外界供應商租用或購買（例如：保安、貯物、樓宇和設備的使用、電腦服務以及印刷研發報告））。

Current expenditure for in-house R&D activities *include:*

- Compensation of employees (*including* wages and salaries of R&D employees; payments in kind (e.g. provision of accommodation) and employee's social security expenditure of R&D employees; and share-based payments granted to R&D employees (refer to equity-settled and cash-settled share-based payments granted to employees));
- Acquisition of materials and suppliers cost for the R&D activities;
- Repair and maintenance costs (excluding capital repairs and major renovations); and
- Other current expenditure (*including* non-capital cost to support R&D performed by an establishment (e.g. water, electricity and fuel costs, books, journals, reference materials, cost of small prototypes); administrative and other overhead costs (e.g. rents and rates, telecommunications fee); and expenditure on indirect services, whether carried out within the establishment or hired or purchased from outside suppliers (e.g. security; storage; the use of buildings and equipment; computer services; and printing of R&D reports)).

直接參與研發活動的直屬僱員 是指受僱於一間機構，於統計期內在其正常工作時間內從事研發活動或為研發計劃提供直接輔助服務的僱員。

Direct employees engaged in R&D activities refer to those employees who had been employed by an establishment and had spent some of their normal working hours on conducting R&D activities, or providing direct support services to R&D projects during the reference period.

不包括：

– 為研發計劃提供間接輔助服務的僱員，例如：在中央電腦部門、中央財務及人事部門的僱員以及保安、清潔及保養人員。

Exclude:

– employees providing indirect support services to the R&D project, e.g. employees in central computer department, central finance and personnel departments, and security, cleaning and maintenance personnel.

電機及電子工程科技 包括電機工程(一般）及電子工程。電機工程是一門有關各種形式的電力的實際應用，包括電子方面的應用工程。電子工程則是一門關於電磁譜的應用，以及如集成電路、晶體管及真空管等電子器件的應用。

Electrical and electronics engineering technology covers electrical engineering (general); and electronics engineering. Electrical engineering is the branch of engineering concerned with the practical applications of electricity in all its forms, including those of the field of electronics. Electronics engineering is that branch of electrical engineering concerned with the uses of the electromagnetic spectrum and with the application of such electronic devices as integrated circuits, transistors, and vacuum tubes.

不包括：

- 已列在電腦硬件科技領域之內，與電腦硬件（如集成電路）有關的電機或電子工程科技。

- 已列在通訊科技領域之內，與通訊科技有關的電機或電子工程科技。

Exclude:

- electrical or electronics engineering technology associated with computer hardware (such as integrated circuits) which is included in the area of computer hardware technology.
- electrical or electronics engineering technology associated with communication technology which is included in the area of communication technology.

工程及科技 包括土木工程、電機工程、電子學以及其他工程學（例如化學工程、機械工程、冶金學及材料工程、紡織技術和其他有關學科）。

Engineering and technology cover civil engineering; electrical engineering; electronics; and other engineering sciences (such as chemical, mechanical, metallurgical and materials engineering, textile technology, other allied subjects).

企業集團 由連鎖的***直接企業投資者*** 和***分支公司*** 組成。***分支公司*** 包括企業集團內任何公司轄下各分公司、附屬公司及聯營公司，或企業集團有參與權益的公司。***分公司***是指由母公司全權擁有的非法人公司；並與母公司有同一法律身份。***附屬公司***是指任何被其他公司持有50% 以上股權的公司。***聯營公司***是指被另一公司持有 20% 至 50% 股份的公司。如某公司是另一公司的分支公司，則後者是前者的***直接企業投資者。***

An **enterprise group** is made up of a chain of ***direct enterprise investors*** and ***affiliated companies.*** ***Affiliated companies*** include branches, subsidiaries and associates of any company in an enterprise group, or establishments in which a company in an enterprise group has a participating interest. ***Branches*** refer to unincorporated companies which are wholly owned by a parent company, and have the same legal identity as the parent. ***Subsidiary*** refers to any company where over 50% of its equity is being held by another company. ***Associate*** is a company the equity of which is between 20% and 50% owned by another company. A company is the ***direct enterprise investor*** of another company if the latter is an affiliated company of the former.

環保科技 的範疇涉及引用技術及程序以控制污染（例如：空氣污染管制、廢物管理、資源循環再造－包括收集、分類和處理可循環再用的物料）；利用較少污染及損耗資源的方法提供服務和產品（例如：利用混合動力引擎或生化燃料以進行綠色運輸）；以及更有效率的方式善用資源（例如：供水處理程序、節能技術）。

Environmental technology encompass technologies and processes to manage pollution (e.g. air pollution control, waste management, recycling – including collection, separation and treatment for reuse); less polluting and less resource-intensive services and goods (e.g. clean transport making use of hybrid engines or biofuels); and ways to manage resources more efficiently (e.g. water supply treatment, energy-saving technologies).

進行研發活動的機構 *包括*（i）曾為本身及／或其他機構進行內部研發活動的機構；及（ii）透過外判形式進行研發活動的機構。

Establishments undertaking R&D activities *include* (i) the establishments having conducted in-house R&D activities for own use and/or for other organisations; and (ii) those having undertaken R&D activities through contracting-out arrangement.

技術創新活動的開支 *應包括下列開支項目*：

- 機構為其本身進行的內部研發活動；
- 外判予其他機構進行研發活動；
- 購買土地及樓宇；
- 購置生產用的機器、設備和電腦軟件（包括特別為發展技術嶄新或經顯著改良產品（貨品或服務）及／或程序而購置的具改良性能的機器、電腦硬件及軟件）；
- 獲取其他外界知識（包括向其他方面購買專利權和非專利發明、專門技能和其他類別的知識，以便用於一間機構的技術嶄新或經顯著改良產品（貨品或服務）及／或程序）；
- 推廣產品或程序創新項目（即直接為了向市場推廣一間機構的技術嶄新或經顯著改良產品（貨品或服務）及／或程序的內部和對外市場推廣活動。有關活動可包括初步市場研究、市場測試和宣傳，但不包括例行市場推廣活動）；
- 培訓（即為一間機構人員而設的內部或由外界提供的培訓，直接目的是發展及／或推出技術嶄新或經顯著改良的產品（貨品或服務）及／或程序）；以及
- 設計及生產或運送方面的其他準備工作（即為推出技術嶄新或經顯著改良的產品（貨品或服務）及／或程序而實施的程序和所作的技術準備，而有關工作並不納入其他類別之內）。

Expenditure on TI activity should *include the expenditure on the following items*:

- In-house R&D activities for own establishment;
- Contracted-out R&D activities to other parties;
- Acquisition of land and buildings;
- Acquisition of machinery, equipment and software for production (including machinery and computer hardware and software with improved technological performance specifically purchased to implement technologically new or significantly improved products (goods or services) and/or processes);
- Acquisition of other external knowledge (including purchase of rights to use patents and non-patented inventions, know-how, and other types of knowledge from others for use in an establishment's technologically new or significantly improved products (goods or services) and/or processes);
- Promotion of product or process innovation (i.e. internal or external marketing activities directly aimed at the market introduction of an establishment's technologically new or significantly improved products (goods or services) and/or processes. It may include preliminary market research, market tests and launch advertising, but exclude routine marketing activities.);
- Training (i.e. internal or external training for an establishment's personnel directly aimed at the development and/or introduction of technologically new or significantly improved products (goods or services) and/or processes); and
- Design and other preparations for production or deliveries (i.e. procedures and technical preparations to realise the actual implementation of technologically new or significantly improved products (goods or services) and/or process not covered elsewhere).

實驗發展 是運用來自研究和實習經驗的現有知識進行的有系統工作。其目的是生產新物料、產品和器材；實施新程序、系統和服務；或為現時的產品、工序或服務作重大改良。

Experimental development is systematic work, drawing on existing knowledge gained from research and practical experience, that is directed to producing new materials, products and devices; to installing new processes, systems and services; or to improving substantially those already produced or installed.

研發活動範疇 有助一間機構根據研究的領域，即在哪方面進行研究，劃分研發資源的分配。研發活動的範疇可分為五大類別：自然科學、工程及科技、醫療及衞生科學、社會科學和人文科學。

Field of R&D activity allows an organisation to classify their R&D resource allocation according to the area of research i.e. what area of research is being performed. Five major fields of R&D activity are natural sciences, engineering and technology, medical and health sciences, social sciences and humanities.

本地研究及發展（研發）總開支 是指在某段期間在一個國家或地區內進行的內部研發開支總額，包括由境外機構資助在該國家或地區內進行的研發活動，但不包括支付給境外機構進行的研發活動的開支。根據上述定義，本地研發總開支是全面計算一個國家或地區的研發活動的量數，涵蓋下列機構類別的研發開支：

(a) 工商機構
(b) 高等教育機構
(c) 政府機構

Gross domestic expenditure on research and development (GERD) is the total in-house R&D expenditure performed within a country or territory during a given period. It includes R&D activities performed within a country or territory and funded from abroad but excludes payments made abroad for R&D activities. As implied by its definition, GERD is a comprehensive measure of R&D activities in a country or territory and it covers the following sectoral R&D expenditure:

(a) Business sector
(b) Higher education sector
(c) Government sector

高等教育機構 *包括：*

– 大學和其他專上教育機構，不論其資金來源或法律身分；以及

– 與大學或高等教育機構有關或受其直接控制或管理的研究機構、實驗所和診所。

Higher education institutions *comprise:*

– universities and other institutions of post-secondary education regardless of their source of finance or legal status; and
– research institutes, experimental stations and clinics operating under the direct control of or administered by or associated with universities or higher education institutions.

人文科學 包括歷史、語言文學和其他人文科學（例如哲學、藝術、音樂學、神學）。

Humanities cover history; languages and literature; and other humanities (such as philosophy, arts, musicology, theology).

資訊系統及科技 包括資訊系統的組織；資訊系統管理；人工智能及專家系統；並行處理及體系結構；電腦圖像；影像處理；語音辨識；認知科學；以及其他資訊科技領域，如資料貯存及檢索、數據保安。

Information system and technology cover information system organisation; information system management; artificial intelligence and expert systems; parallel processing and architecture; computer graphics; image processing; speech recognition; cognitive science; and other areas of information technologies such as information storage and retrieval, and data security.

機構內部研發活動 是指由一間機構的直屬僱員在機構內進行的研發活動，而不論資金的來源。

In-house R&D activities refer to R&D activities performed within an establishment by direct employees of the establishment regardless of the source of funds.

研發活動可於自然科學、工程及科技、醫療及衛生科學、社會科學和人文科學等領域進行。

包括：
- 基礎研究（即沒有預設任何特定應用範圍或用途而進行的實驗性或理論性工作）；
- 應用研究（即主要為達到一特定實際目標或目的而進行的研究）；以及
- 為開發新儀器、產品或程序而進行的實驗發展工作。

不包括：
- 科學和技術服務（例如：提供科學或技術資料、一般性資料搜集）；
- 市場研究；以及
- 與專利及牌照有關的活動 （例如: 買賣或申請專利權）。

R&D activities can be conducted in such areas as natural sciences, engineering and technology, medical and health sciences, social sciences and humanities.

Include:
- basic research (i.e. experimental or theoretical work undertaken without any particular application or use in view);
- applied research (i.e. research directed primarily towards a specific practical aim or objective); and
- experimental development work leading to new devices, products or processes.

Exclude:
- scientific and technical services (e.g. scientific and technical information, general-purpose data collection);
- marketing research; and
- activities relating to patents and licenses (e.g. purchase of patents or filling patent applications).

製造科技 包括機械人、機械操作系統及機電一體化；靈活的製造系統；電腦輔助設計及電腦輔助生產；操控工程；焊接技術；紡織品生產程序及技術；包裝、貯存及運輸；以及生產的安全和品質。

Manufacturing technology covers robots, robotic systems and mechatronics; flexible manufacturing systems; computer-aided design (CAD) and computer-aided manufacture (CAM); control engineering; welding technology; textile manufacturing process and technologies; packing, storage and transportation; and safety and quality in manufacturing.

市場推廣創新 是指一間機構實行一種嶄新的市場推廣概念或策略，而這些新概念或策略與該機構現行的市場推廣方法***截然不同***，亦未嘗在該機構內採用。市場推廣創新涉及顯著改變產品的設計、包裝、陳列方式、推廣或訂價。不包括季節性、定期及常規的市場推廣方式的轉變。

Marketing innovation is the implementation of a new marketing concept or strategy that ***differs significantly*** from an establishment's existing marketing methods and has not been used before. It requires significant changes in product design or packaging, product placement, product promotion or pricing. Exclude seasonal, regular and other routine changes in marketing methods.

醫療及衛生科學 包括基本醫學、臨床醫學及衛生科學。

Medical and health sciences cover basic medicine; clinical medicine and health sciences.

納米科技 指通過把物質控制在 1 至 100 毫微米的尺度之下（1 毫微米 = 10^{-9} 米），開發實用的物料、器材及系統，並且探索物質在同一尺度之下出現的新性質和現象。

Nanotechnology is the development of functional materials, devices and systems through control of matter at the scale of 1 to 100 nanometers (1 nanometer = 10^{-9} meter), and the exploitation of novel properties and phenomena at the same scale.

自然科學 包括數學及電腦學、物理學、化學、地球科學及有關的環境科學、生物科學以及農業科學。

Natural sciences cover mathematics and computer sciences; physical sciences; chemical sciences; earth and related environmental sciences; biological sciences and agricultural sciences.

組織創新 是指一間機構在業務模式(包括知識管理)、工作架構或對外關係上實施***嶄新的組織方法***。組織創新必需是機構管理層的策略決定。不包括合併或收購。

Organisational innovation is the implementation of a ***new organisational method*** in an establishment's business practices (including knowledge management), workplace organisation or external relations that has not been previously used by the establishment. It must be the result of strategic decisions taken by management. Exclude mergers or acquisitions.

其他輔助人員 是指工作與研發活動有直接關係的人員，他們通常是研發部門或組別的人員，或研發計劃小組的人員。

包括：
- 文員、秘書、行政人員、以及各類技術、半技術、非技術工人和其他輔助人員。

不包括：
- 只參與一般管理工作如保安、看更和維修人員。

Other supporting staff refer to persons whose work is directly associated with the performance of R&D activities. They are usually staff of a R&D department or unit or staff of a R&D project team.

Include:
- clerical, secretarial and administrative personnel; skilled, semi-skilled and unskilled workers in various trades and all other auxiliary personnel.

Exclude:
- security, janitorial and maintenance personnel engaged in general housekeeping activities.

就業人數 包括在職東主、在職合夥人、無酬家屬幫工以及在機構內每日工作不少於一小時的僱員。

Persons engaged include working proprietors, active partners, unpaid family workers and all employees of an establishment who worked at least for one hour a day in the establishment.

程序開發 指開發新的或經顯著改良的生產方法或提供服務和運送產品的方法。

Process development refers to development of new or significantly improved production methods, or methods of supplying services and of delivering products.

程序創新 是指一間公司在公司內推行***嶄新或經顯著改良***的生產程序、分銷方法或支援服務或貨品的工序。程序創新不局限於該公司在業界內首先採用的嶄新程序，亦包括該公司新實施在業界內既有的營運程序。程序創新的開發可由該公司或其他機構進行。

例子：
- 添置新的或經改良的生產技術，例如可調節工序的自動設備或即時感應器；
- 印刷工序數碼化；
- 與網站有關的服務和電子商貿（但只提供資料而不設網上服務的除外）；
- 電腦輔助設計；
- 實施電子銷售點終端設備；
- 條碼系統；
- 光學數據處理；
- 企業資源策劃系統；
- 客戶關係管理系統；
- 智能卡系統；

Process innovation is the implementation of a ***new or significantly improved*** production process, distribution method, or support activity for the services or goods of a firm. Process innovations must be new to the firm, but they do not need to be new to the industry. Process innovations could have been originally developed by the firm or by other parties.

Examples:
- installation of new or improved manufacturing technology, such as automation equipment or real-time sensors that can adjust processes;
- digitisation of printing processes;
- web-related services and e-commerce (but exclude those only creating an information site without on-line services);
- Computer Aided Design;
- introduction of Electronic Point of Sale equipment;
- barcode systems;
- optical processing of data;
- Enterprise Resources Planning Systems;
- Customer Relationship Management Systems;
- Smart Card System;

– 運輸設備的全球定位追蹤系統；

– 引進自動語音回應系統；以及

– 新的或顯著改良的電腦網絡。

不包括：

– 純粹在組織架構上的改革（例如：重組架構、知識管理、分銷安排）；以及
– 生產、業務、物流處理或控制程序的輕微或例行改變。

– Global Positioning Systems (GPS) tracking system for transport equipment;

– introduction of automated voice-response system; and
– new or significantly improved computer networks.

Exclude:

– purely organisational innovation (e.g. restructuring of organisation, knowledge management, sub-contracting); and
– minor or routine changes to production, business, logistics or control processes.

產品開發 指開發新產品，而新產品的表現特徵、特性或使用的材料和組件顯著地有別於現有產品；或顯著加強或改善現有產品。

Product development refers to the development of new products whose performance characteristics, attributes or use of materials and components differs significantly from existing products; or significant enhancement or upgrading of an existing product.

產品創新 是指一間公司在市場上推出一個***嶄新或經顯著改良***的產品（服務或貨品），這些產品在其功能、應用方面、部件或子系統上皆大為優化。產品創新不局限於該公司在市場上首先推出的嶄新產品，亦包括那些由該公司推出但市場上已有相近產品的新產品。產品創新的開發可由該公司或其他機構進行。

Product innovation is the market introduction of a ***new or significantly improved*** product (service or goods) with respect to its capabilities, user friendliness, components, or sub-systems. Product innovations must be new to the firm, but they do not need to be new to the market. Product innovations could have been originally developed by the firm or by other parties.

例子：

– 改用經改良性質的物料（例如：透氣的紡織品、輕巧但堅固的合成物、環保的塑膠）；
– 顯著節約能源的產品（例如：省電燈泡）；
– 以寬頻在互聯網上播放自選視訊；
– 一項新的銀行服務（例如：流動理財服務）；以及
– 一個新的多媒體套裝軟件。

Examples:

– change of materials with improved characteristics (e.g. breathable textiles, light but strong composites, environmentally friendly plastics);
– products with significantly reduced energy consumption (e.g. energy efficient light bulbs);
– video on demand via broadband Internet;
– a new banking service (e.g. mobile banking); and
– a new multimedia software package.

不包括：

– 純粹在外觀上改變或只涉及輕微修改的公司現有產品；以及

– 純粹交易或售賣全部由其他機構生產和發展的嶄新或經顯著改良的產品。

Exclude:

– changes to the firm's existing products which are purely aesthetic appearance or which only involve minor modifications; and
– pure trading or selling of new or significantly improved products wholly produced and developed by other establishments.

公共科技支援機構 包括下列機構：

– 香港生產力促進局（汽車零部件研究及發展中心）；

Public technology support organisations include the following:

– Hong Kong Productivity Council (Automotive Parts and Accessory Systems R&D Centre);

– 香港應用科技研究院有限公司（香港資訊及通訊技術研發中心）；
– 香港物流及供應鏈管理應用技術研發中心；
– 香港紡織及成衣研發中心有限公司；以及
– 納米及先進材料研發院有限公司

– Hong Kong Applied Science and Technology Research Institute Company Limited (Hong Kong R&D Centre for Information and Communications Technologies);
– Hong Kong R&D Centre for Logistics and Supply Chain Management Enabling Technologies;
– The Hong Kong Research Institute of Textiles and Apparel Limited; and
– Nano and Advanced Materials Institute Limited

這些公共機構參與研究、開發和技術轉移的活動，並由香港特別行政區政府資助部分或全部經費。

These public organisations engaged in research, development and technology transfer activities. They are partly or wholly financed by the HKSAR Government.

研發活動 是指在有系統的基礎上進行***具創造性的工作***。這些工作的目的是為增進知識以發明或改進產品、程序或其相關的用途。

R&D activities refer to ***creative work*** undertaken on a systematic basis so as to increase the stock of knowledge for devising new or improved products/processes/applications.

研發活動和類似活動的分別，是前者帶有相當的新穎或創新元素，以及能夠解決科學及／或技術方面的疑難，即擁有有關方面的常識和技術的人也不知如何解決的問題。

The way to distinguish R&D from similar activities is the presence of an appreciable element of novelty or innovation and the resolution of scientific and/or technological uncertainty, i.e. when the solution to a problem is not readily apparent to someone familiar with the stock of commonly used knowledge and techniques in the area concerned.

為機構本身進行的研發活動 指為機構本身而在機構內進行的內部研發活動。

R&D activities conducted for own use refer to in-house R&D performed within an establishment for the interest of the establishment itself.

為其他機構進行的研發活動 指一間機構為其他機構進行的內部研發活動，該等活動是在機構內進行，並可能不收取費用或按訂立合約進行。

R&D activities conducted for other organisations refer to in-house R&D performed within an establishment for other organisations, either free or under a contractual arrangement.

研究員／科學家／工程師 是指曾接受科學或技術訓練（一般指完成包括自然科學、工程及科技、醫療及衛生科學、社會科學和人文科學等領域的專上教育），並有參與研發活動的專業工作的人員，以及監督研發活動的行政人員及其他高層人員。

Researchers/Scientists/Engineers refer to persons with scientific or technological training (usually with completion of post-secondary education in such areas as natural sciences, engineering and technology, medical and health sciences, social sciences and humanities) who are engaged in professional work of R&D activities; and administrators and other high-level personnel who direct R&D activities.

社會科學 包括心理學、經濟學、教育學和其他社會科學（例如工商管理、法律、政治學、社會學）。

Social sciences cover psychology; economics; educational sciences; and other social sciences (such as business management, law, political sciences, sociology).

資金來源 指一間機構進行研發、產品或程序創新項目時所應用資金的來源。在歸類某筆資金來源時，須符合兩個條件：

Source of funds refers to the source from which an organisation has received funds for the performance of R&D, product or process innovation. For the source of funds to be correctly identified, two criteria must be fulfilled:

– 當中必須涉及該筆資金的直接轉移；以及
– 有關資金轉移的***目的***必須為在收取資金的機構內進行研發、產品或程序創新項目，並***實際***用於有關活動。

– there must be a direct transfer of the funds; and
– the transfer must be both ***intended*** and ***used*** for the performance of R&D, product or process innovation in the receiving organisation.

資金的轉移可以用合約、撥款或捐款形式進行。須歸還的貸款***不算***是轉移。除非資金來源符合上述條件，否則有關研發、產品或程序創新項目的資金應視為***自資***。

The transfers of funds may take the form of contracts, grants or donations. Loans to be repaid are ***not*** considered transfers. Unless a source fulfilling the above criteria can be identified, funding for supporting R&D, product or process innovation should be considered as ***self-financed***.

技術員是指參與研發活動的技術工作，並曾接受科技方面的職業或專業訓練及達一定水平的人員。技術員通常是在研究員／科學家／工程師督導下，透過應用概念和運作方法，執行研發工作中的科學及技術任務。

Technicians refer to persons engaged in that capacity in R&D activities who have received vocational or technical training in a branch of knowledge or technology of a specified standard. They participate in R&D by performing scientific and technical tasks involving the application of concepts and operational methods, and usually work under the supervision of researchers/scientists/engineers.

技術創新是指一間機構在市場上推出一個技術嶄新或經顯著改良的產品（貨品或服務），或在機構內部實施一個技術嶄新或經顯著改良的程序。有關創新可以是源自新的技術發展、現有技術的重新結合或機構所汲取的其他知識的運用。技術創新包括任何內部或外判研發活動。

Technological innovation (TI) refers to the introduction of a technologically new or significantly improved product (goods or service) to the market or implementation of a technologically new or significantly improved process within an establishment. The innovation is based on the results of new technological developments, new combinations of existing technology or utilisation of other knowledge acquired by the establishment. TI activities cover any in-house or contracted-out R&D activities.

業務總收入一般指透過售賣貨品和服務獲得的收入。並包括：

– 出租機器和設備的收入；
– 銀行存款的利息；
– 出租／分租土地和樓宇的收入；
– 投資證券、債券、股票所賺取的利息及股息；
– 買賣金融資產的收入／虧損；以及
– 從其他來源獲得的收入，如離岸貿易而得的毛利總額（即銷貨價值減去貨品成本）及佣金。

Total business receipts in general refer to income received through sales of goods and services. Include also:

– receipts from rental of machinery and equipment;
– interest from deposit in bank;
– rental income from letting/subletting land and premises;
– interest and dividend received from investment in securities, bonds, stocks and shares;
– gain/loss from trading of financial assets; and
– income from other sources, e.g. gross profit (i.e. sales of goods less costs of goods sold) and commissions realised from offshore trading.

附錄乙：資料來源
Appendix B : Data Sources

工商機構的研究及發展（研發）及創新活動

1. 政府統計處透過進行「**創新活動統計調查**」，向工商機構搜集有關研發和創新活動的數據。本處在 2002 年首次進行該項統計調查，目的是協助確定本港的技術水平。在設計此項統計調查時，已參考了由經濟合作與發展組織制定的國際標準，以及工商界及商會的意見。有關這項統計調查的詳情如下。

有關法例

2. 這項統計調查是根據《普查及統計條例》（香港法例第 316 章）第三部進行，並已在香港特別行政區政府憲報於 2002 年 11 月 29 日所刊登的 2002 年第 183 號法律公告上宣布作為一項強制性統計調查。條例規定，政府統計處必須對所有搜集得來可分辨個別機構的資料嚴加保密及只作統計用途，日後只發表整體性的資料，而不會顯示個別機構的資料。

統計調查涵蓋範圍

3. 這項統計調查以政府統計處備存的機構記錄庫為抽樣框。此記錄庫是根據稅務局商業登記署的資料更新。這項統計調查涵蓋下列行業組別的機構：

涵蓋的行業組別

製造業
電力及燃氣業
建造業（只包括就業人數 10 人或以上的機構）
進出口貿易、批發及零售業以及住宿及膳食服務業
運輸、倉庫及速遞服務業
資訊及通訊業
金融、保險、地產、專業及商用服務業
個人、社會及康樂活動服務業

Research and development (R&D) and innovation activities in the business sector

1. The Census and Statistics Department (C&SD) collected data relating to R&D and innovation activities in the business sector through the **Survey of Innovation Activities**. The survey was first conducted by the Department in 2002 to help ascertain the level of technological sophistication of the economy. In designing the survey, reference has been made to relevant international standards promulgated by the Organisation for Economic Cooperation and Development and views of the business sector and trade associations. Details of the survey are given below.

Legislation

2. The survey is conducted under Part III of the Census and Statistics Ordinance (Chapter 316 of the Laws of Hong Kong). It was notified as a mandatory statistical survey in Legal Notice 183 of 2002 in the Government of the HKSAR Gazette of 29 November 2002. The Ordinance stipulates that all collected information which may enable identification of individual establishments should be kept in strict confidence and be used solely for statistical purposes. Only aggregate information, which does not reveal details of individual establishments, will be released.

Survey coverage

3. The sampling frame for the survey is the Central Register of Establishments, which is a comprehensive register maintained by C&SD and updated by reference to records of the Business Registration Office of the Inland Revenue Department. The survey covers establishments engaged in the following industry groupings:

Industry groupings covered

Manufacturing
Electricity and gas
Construction (establishments with 10 or more persons engaged)
Import and export, wholesale and retail trades, and accommodation and food services
Transport, storage and courier services
Information and communications
Financing, insurance, real estate, professional and business services
Personal, social and recreational services

4. 為提高成本效益和運作效率，一些經濟貢獻相對較小，以及預期較少投入研發／創新活動的行業及／或機構類別（例如農業及漁業、採礦及採石業、就業人數不足 10 人的建造業機構、的士、公共小巴和個人服務業），並沒有包括在本統計調查的範圍內。

4. In regard to cost effectiveness and operational considerations, some industries and/or some categories of establishments (e.g. agriculture and fishing; mining and quarrying; construction establishments each with less than 10 persons engaged; taxis; public light buses; personal services) with relatively smaller economic contribution and presumably not so involved in R&D/innovation activities are not covered in this survey.

統計期

5. 這項統計調查搜集 2015 年或在 2015 年 1 月 1 日至 2016 年 3 月 31 日期間任何連續 12 個月的數據，視乎個別機構的會計慣例而定。至於在上述期間開業或停業的機構，所搜集的資料是指該等機構在有關會計年度內有經營業務期間的數據。

Survey reference period

5. Data collected in the survey referred to the calendar year 2015, or any consecutive 12-month period between 1 January 2015 and 31 March 2016 according to the accounting practices of individual establishments. For establishments which commenced or ceased operation within their respective accounting period defined above, data collected were for that part of the period during which the establishments were in operation.

樣本設計

6. 這項統計調查的抽樣框是先以行業組別分層，然後再按就業人數分層。被識別為可能會進行研發和／或創新活動的機構，全納入統計調查的樣本內。這些機構包括在政府統計處以往進行的統計調查中報稱有進行研發活動的機構，和透過各種渠道如剪報、網上搜尋以及諮詢政府部門、工商機構、高等教育機構和商會後確定的機構。至於其他機構，則經科學方法抽選樣本。獲選作為統計調查對象的機構共 6 366 間。根據統計調查結果估計，在統計調查涵蓋範圍內的機構總數約為 279 511 間。

Sample design

6. The sampling frame for the survey was stratified by industry group and, within each industry group, by employment size. Establishments identified as potential R&D and/or innovation performers were fully covered. These included establishments with reported R&D activities in previous C&SD's surveys and those identified through various channels such as newspaper cuttings, web search, and consultations with government departments, business establishments, higher education institutions and trade associations. As for the other establishments, a scientific sample was drawn. Altogether 6 366 establishments were selected for enumeration. The total number of establishments falling within the scope of the survey was estimated to be 279 511 based on the results of the survey.

數據搜集

7. 數據搜集工作在 2016 年 2 月開始。統計調查問卷及註釋均郵寄予被抽選的機構。此外，本處亦製備問卷的電子版本，以供索取應用。外勤人員在有需要時探訪或致電受訪者協助其填報問卷，或核實已填妥問卷內的資料。截至資料搜集期完結時，成功訪問的機構有 5 139 間，未有回應的有 118 間，未能接觸或在統計期內沒有營業的有 1 109 間。

估值的可靠性

8. 這項統計調查的結果受抽樣誤差和非抽樣誤差的影響。本刊所載的估值是根據一個特定樣本所得的資料編製。以同樣的抽樣方式，可抽選出許多大小相同的樣本，而是項統計調查的樣本為眾多樣本的其中之一。由於每次抽選的樣本都有所不同，因此不同樣本得出的估值亦互有差異。抽樣誤差是計算這些差異的統計數量，可用以量度從一個特定樣本所得的估值，在估計總體數據方面的精確程度。

9. 本刊在評估各種變數估值的精確程度時，採用了離中系數。離中系數為一統計量數，顯示估計數值的相對精確性。離中系數的計算方法，是將估值的抽樣誤差除以估值本身的數值，再以百分比表示。離中系數越低，估計數值越精確。

10. 統計變數的 95% 置信區間的上下限分別在樣本估計值之上及之下相距兩個標準誤差。若以同樣方法抽取同樣大小的樣本，每個樣本計算其置信區間，可預期當中有百分之九十五的置信區間將包含變數的實際值。

Data collection

7. Data collection work started in February 2016. Survey questionnaires together with the explanatory notes were mailed to the selected establishments. Electronic template of the questionnaire was also available for use upon request. Field officers of the Department visited/telephoned respondents to assist them in completing the questionnaires if necessary, or to verify the information in the completed questionnaires. By the end of the data collection period, 5 139 establishments were successfully enumerated, 118 failed to respond, and 1 109 could not be located or were found to be inactive in the survey reference period.

Reliability of the estimates

8. Results of the survey are subject to sampling and non-sampling errors. The estimates contained in this publication are based on information obtained from a particular sample, which is one of many samples that could be selected using the same sampling design. Estimates derived from different samples may differ from each other. Sampling error is a measure of these variations and is thus a measure of the precision of an estimate derived from the particular sample in estimating the population parameter to be measured.

9. For assessing the precision of the estimates for various variables in this publication, the coefficient of variation (CV) is used. The CV is a statistical measure to indicate the relative precision of an estimate. The CV is obtained by expressing the sampling error of an estimate as a percentage of the value of estimate itself. The smaller the CV, the more precise is the value of the estimate.

10. A 95% confidence interval (CI) for a statistical variable is bounded by upper and lower limits which are two standard errors respectively above and below the sample estimate. If similar confidence intervals are constructed for different samples of the same size selected using the same sampling method, one would expect that 95% of them will cover the true value of the variable.

11. 本刊所載列的主要變數估值的離中系數及統計變數的 95% 置信區間如下：

11. The CV and 95% CI of the estimates of the key variables in this publication are given below :

變數 Variable	估值 Estimate	離中系數 CV	95% 置信區間 95% CI
有進行研發活動的機構（包括從事內部研發活動的機構及把研發活動外判的機構）的百分比 Percentage of establishments having undertaken R&D activities (including establishments with in-house R&D activities and establishments with R&D activities contracted-out to other parties)	1.4%	8.1%	1.2% – 1.6%
有進行技術創新活動的機構的百分比 Percentage of establishments having undertaken TI activities	2.6%	6.7%	2.3% – 3.0%
有進行組織創新活動的機構的百分比 Percentage of establishments having undertaken organisational innovation activities	4.0%	11.3%	3.1% – 4.9%
有進行市場推廣創新活動的機構的百分比 Percentage of establishments having undertaken marketing innovation activities	6.6%	9.2%	5.4% – 7.8%
內部研發活動開支（十億港元） Expenditure on in-house R&D activities (HK$ billion)	7.99	4.8%	7.24 – 8.75
技術創新活動開支（十億港元） Expenditure on TI activities (HK$ billion)	17.50	3.0%	16.47 – 18.53

高等教育及政府機構的研發活動

12. 政府統計處自 2000 年開始搜集高等教育機構和政府機構的研發資料。高等教育機構的研發資料涉及大學教育資助委員會資助的高等教育院校，而有關的統計數字是根據大學教育資助委員會的統計記錄整理而成。

13. 至於政府機構，本處在 2016 年 5 月中把供自行填報的統計表格以電郵方式送遞至所有政府決策局、部門和半政府機構（包括公共科技支援機構）以搜集資料。有需要時，本處職員會致電有關機構跟進以核實搜集得來的資料。

R&D activities in the higher education and government sectors

12. The C&SD has started to collect R&D data for the higher education and government sectors since 2000. R&D data on the higher education sector are confined to the higher education institutes funded by University Grants Committee (UGC). The relevant statistics are compiled based on the statistical records obtainable from UGC.

13. Regarding the government sector, electronic template of a self-administered statistical return was sent by email to all government bureaux, departments and quasi-government organisations (including public technology support organisations) in mid-May 2016 for data collection. Verification of data collected had been made through telephone follow-ups if necessary.

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