

Research and  
Knowledge Transfer •  
研究與知識轉移



# RESEARCH AND KNOWLEDGE TRANSFER

## 研究與知識轉移

The UGC supports academic research activities through the allocation of the Block Grant, funding research postgraduate places and competitive research funding schemes. Through financial incentives and promoting the sharing of best practices among universities and with overseas counterparts, the UGC also encourages universities to strengthen and broaden their endeavours in transferring knowledge, technology and other forms of research outputs into real socio-economic benefits with wider impacts.

While the RGC is responsible for the assessment and monitoring of research grant projects under various funding schemes, the UGC established a Research Group (RG) to advise on the strategy to promote research excellence and review the research assessment and funding methodology. With the objective of driving excellence, the RG examines issues such as the distribution of research funding and research postgraduate student places so as to encourage research while keeping an appropriate balance with teaching, and the maintenance and promotion of role differentiation, as well as the best and most effective way of research resources allocation. The UGC also set up the Research Assessment Exercise (RAE) Group under the RG to oversee the planning and implementation of the RAE 2020. The RGC has continued its efforts in taking the research results to the community by organising lectures and regularly share the research findings with the community in our publications.

### UGC Funding Support

#### (a) Research Endowment Fund

The \$18 billion Research Endowment Fund (REF) was established in February 2009 after approval by the Legislative Council. The Fund has been set up as a trust under the Permanent Secretary for Education Incorporated. An injection of \$5 billion into the REF was proposed in the Policy Address delivered by the Chief Executive in October 2011 and approved by the Legislative Council in January 2012. A further injection of \$3 billion into the REF was proposed in the Policy Address delivered by the Chief Executive in October 2017 and approved by the Legislative Council in January 2018, increasing the total amount to \$26 billion. The investment income of at least \$16 billion replaces the recurrent subvention originally allocated to the RGC as Earmarked Research Grant, thus providing greater funding stability and certainty. The income of up to \$4 billion

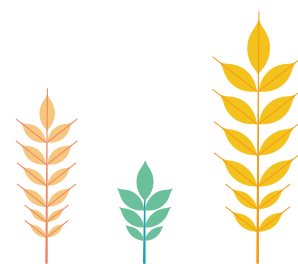
教資會積極為學術研究提供各項支援，包括提供整體補助金、資助研究院研究課程學額，以及推行以競逐方式分配資源的研究資助計劃。此外，教資會給予大學額外撥款，鼓勵他們與本地其他院校及海外院校分享良好做法，藉此推動大學進一步加強知識轉移的工作及擴大知識轉移的學術範疇，使知識、技術及其他形式的研究成果能轉化為實質的社會經濟效益，帶來更廣泛的影響，惠及社羣。

研資局負責評審及監察各資助計劃的研究資助項目。教資會成立的研究小組則負責就推動卓越研究的策略提供意見，以及就研究評審和撥款方法進行檢討。為推動研究工作達至卓越水平，研究小組積極探討不同議題，包括分配研究撥款及研究院研究課程學額，以鼓勵院校加強研究工作，同時兼顧教學以取得適當平衡；維持及推動角色分工；以及制訂最佳和有效的方法分配研究資源等。教資會亦於研究小組下設立研究評審工作小組，監督 2020 年研究評審工作的規劃和執行工作。研資局繼續向市民宣揚學者的研究成果，藉舉辦公眾講座和出版通訊，讓大眾了解學者的研究成果。

### 教資會提供的資助

#### (a) 研究基金

立法會通過撥款 180 億元設立研究基金後，政府隨即於 2009 年 2 月以信託基金形式在教育局常任秘書長法團下成立該基金。行政長官在 2011 年 10 月發表的《施政報告》中，提出向研究基金注資 50 億元，而立法會於 2012 年 1 月通過有關撥款。行政長官在 2017 年 10 月發表的《施政報告》中，提出向研究基金再注資 30 億元，而立法會於 2018 年 1 月通過有關撥款，令基金的總注資額增加至 260 億元。至少 160 億元本金的投資收益，取代原本撥予研資



supports the Theme-based Research Scheme, thus allowing the universities to work on research proposals on themes of a more long-term nature and strategically beneficial to the development of Hong Kong. The investment income of \$3 billion funds research of the local self-financing degree sector on a competitive basis. The investment income of another \$3 billion finances the Tuition Waiver for Local Research Postgraduate (RPg) Students.

The Task Force on Review of Research Policy and Funding recommended doubling the overall competitive research funding, including making substantial injection into the REF to sustain research funding, and rationalising the use of different pots of endowment of the REF for more effective deployment of funding. The Government accepted the recommendation and announced in the 2018 Policy Address its commitment to inject \$20 billion into the REF. Subject to the funding approval by the Finance Committee of the Legislative Council, the \$20-billion injection will be in place shortly afterwards. As it would take at least one year to generate investment income from the new injection, it is expected that the RGC funding will be substantially increased in 2021/22 the earliest, with the investment income generated from the injection to be used for (i) sustaining the level of research funding; (ii) providing funding for the Research Impact Fund (RIF) launched by the RGC to render continued funding support for impactful research; and (iii) providing additional funding for collaborative research funding schemes to encourage cross-institutional/cross-disciplinary projects.

#### ► Earmarked Research Grant

There are six funding schemes under the RGC Earmarked Research Grant: the General Research Fund (GRF), the Early Career Scheme (ECS), the Collaborative Research Fund (CRF), the Joint Research Schemes (JRS), the Humanities and Social Sciences Prestigious Fellowship Scheme (HSPFS) and the Postgraduate Students Conference/Seminar Grants (PSCSG). For 2018/19, the RGC distributed \$836.80 million for the Earmarked Research Grant in the form of research project grants, for which the amount was more or less the same comparing with 2017/18.

Details of all funding schemes administered by the RGC can be found on the RGC website ([www.ugc.edu.hk/eng/rgc](http://www.ugc.edu.hk/eng/rgc)) and in its Annual Report.

局作為研究用途補助金的經常資助金，以提供更穩定明確的資助；不多於 40 億元本金的投資收益，則會用來資助主題研究計劃，讓各大學進行年期長並在策略上有利香港發展的主題研究；30 億元本金的投資收益，會以競逐形式資助本地自資學位界別的研究；另外 30 億元本金的投資收益，則會用於資助本地研究生學費豁免計劃。

檢討研究政策及資助專責小組建議倍增整體供競逐的研究撥款，包括向研究基金大幅注資，使研究撥款得以持續，並理順研究基金內各類款項的運用限制，俾能更有效地調配撥款。政府接納這項建議，並在《2018 年施政報告》中宣布承諾向研究基金注資 200 億元。獲立法會財務委員會批准撥款後，預計該筆 200 億元的注資可在稍後注入研究基金。由於新注入資金需時最少一年才能產生投資收益，預計研資局的撥款最早可在 2021/22 學年大幅增加，而從注資所賺取的投資收益會用於：(i) 維持研究撥款水平；(ii) 為研資局推出的研究影響基金提供撥款，以便持續資助具影響力的研究；以及 (iii) 為研資局的協作研究撥款計劃提供額外撥款，以鼓勵跨院校 / 跨學科協作。

#### ► 研究用途補助金

研資局透過研究用途補助金分配撥款的計劃有六項，分別為優配研究金、傑出青年學者計劃、協作研究金、合作研究計劃、人文學及社會科學傑出學者計劃，以及研究生會議 / 研討會補助金。2018/19 學年，研資局透過研究用途補助金計劃的形式，發放 8.368 億元，金額與 2017/18 學年相若。

所有由研資局管理的研究資助計劃，詳見研資局網站 ([www.ugc.edu.hk/big5/rgc/](http://www.ugc.edu.hk/big5/rgc/)) 和該局年報。



### ► Theme-based Research Scheme

The objective of the scheme is to focus academic research efforts of the UGC-funded universities on themes of strategic importance to the long-term development of Hong Kong. In 2009, the Education Bureau (EDB) established the Steering Committee for Research Themes (SCRT) to advise the Government on the selection of themes. The RGC was tasked to advise the Government on the selection of grand challenge topics under each of the themes. EDB retired the SCRT in June 2017 and invited the RGC to take up the former's function with effect from 1 July 2017. In November 2017, the new Steering Committee on Research Themes and Topics (SCRTT) was set up under the RGC to take up the new responsibility. Decisions regarding research themes and grand challenge topics continue to rest with the Government.

The current four themes under the Theme-based Research Scheme are:

*Theme 1: "Promoting Good Health"*

*Theme 2: "Developing a Sustainable Environment"*

*Theme 3: "Enhancing Hong Kong's Strategic Position as a Regional and International Business Centre"*

*Theme 4: "Advancing Emerging Research and Innovations Important to Hong Kong"*

After a comprehensive review in 2018, the SCRTT recommended adding three new grand challenge topics, namely "Food Production and Food Security", "Financial Technologies (FinTech) and Regulatory Technologies (RegTech)" and "Artificial Intelligence", under Theme 2, Theme 3 and Theme 4 respectively. The Government accepted the recommendations and the three new grand challenge topics will be implemented in the 2019/20 exercise.

In 2018/19, the RGC distributed \$180 million under the Theme-based Research Scheme.

### ► Competitive Research Funding Schemes for the Self-financing Degree Sector

There are three competitive research funding schemes for the local self-financing degree sector, namely the Faculty Development Scheme, the Inter-Institutional Development Scheme and the Institutional Development Scheme to enhance the academic and research development of the sector. In 2018/19, the RGC distributed \$37.68 million under the three schemes.

### ► 主題研究計劃

主題研究計劃的目的是集中教資會資助大學的學術研究力量，就對香港長遠發展具策略重要性的主題進行研究。在 2009 年，教育局設立研究主題督導委員會，就挑選研究主題向政府提供意見。研資局則負責向政府就各主題下的具挑戰性題目提供意見。教育局於 2017 年 6 月解散研究主題督導委員會，並邀請研資局由 2017 年 7 月 1 日起負起該委員會的職能。2017 年 11 月，研資局成立新的研究主題及題目督導委員會，肩負該項新職責。研究主題和具挑戰性題目仍然需由政府批准。

現時計劃的四個主題為：

*主題 1：促進健康*

*主題 2：建設可持續發展的環境*

*主題 3：加強香港作為地區及國際商業中心的策略地位*

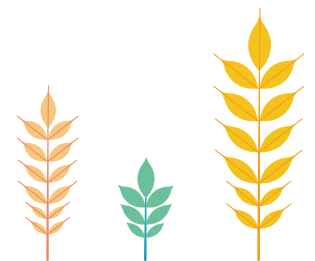
*主題 4：促進對香港起重要作用的新興研究及創新項目*

在 2018 年進行全面檢討後，研究主題及題目督導委員會建議在主題 2、主題 3 及主題 4 下加入三個新的具挑戰性題目，分別是「食物生產及食物安全」、「金融科技及監管科技」及「人工智能」。政府接納建議，而該三個新的具挑戰性題目將在 2019/20 學年的計劃中推出。

在 2018/19 學年，研資局透過主題研究計劃發放了 1.8 億元。

### ► 本地自資學位界別競逐研究資助計劃

研資局為本地自資學位界別設立三項競逐研究資助計劃，分別為教員發展計劃、跨院校發展計劃及院校發展計劃，以加強界別的學術及研究發展。在 2018/19 學年，研資局透過該三項計劃發放了 3,768 萬元。



► Tuition Waiver for Local Research Postgraduate (RPg)

Students

The objective of the scheme is to incentivise more local students to join UGC-funded RPg programmes so as to build up a pool of local research talents to sustain Hong Kong's competitiveness and propel the development of our higher education sector. The scheme provides non-means-tested tuition waiver to all eligible local students enrolled in UGC-funded RPg programmes. The entire tuition fee of eligible students is waived, and there is no cap on the number of recipients of the waiver. The scheme commences from the 2018/19 academic year, i.e. with effect from 1 July 2018. In the first year, about 2 000 students benefited from the scheme and the total tuition waived was about \$74 million.

**(b) Departmental Research Expenditure of UGC-funded Universities 2017/18**

The UGC-funded universities continue to pursue excellent research. Their reported aggregate departmental expenditure on research in 2017/18 amounted to HK\$10,837 million, representing 43% of the total expenditure in the academic departments of the universities, and 0.4% of Hong Kong GDP. The UGC and the RGC funding, in the form of Block Grants and competitive research grants respectively, constituted the bulk of research funding for the universities. The two sources of funding made up about 73% of the total research expenditure in 2017/18 with the following breakdown at Table 1.

► 本地研究生學費豁免計劃

本地研究生學費豁免計劃的目的，是鼓勵更多本地學生報讀教資會資助的研究院研究課程，從而培育本地研究專才，以維持香港的競爭力，並推動本港高等教育界別的发展。本計劃為所有修讀教資會資助研究院研究課程的合資格本地學生提供免入息審查的學費豁免。合資格學生獲豁免繳交全部學費，而受惠人數不設上限。計劃由2018/19學年（即由2018年7月1日起）開始推行，首年的受惠學生約2 000人，豁免的學費總額約為7,400萬元。

**(b) 2017/18 學年教資會資助大學的部門研究開支**

教資會資助大學繼續從事卓越研究工作。2017/18學年，各大學的部門研究總開支達108.37億港元，佔大學學術部門總開支的43%，相當於本地生產總值的0.4%。教資會及研資局分別以整體補助金及具競逐性研究補助金形式提供的資助，是各大學主要的研究經費。2017/18學年，該兩種資助來源約佔研究總開支的73%，分項數字載於下面表一。



**Table 1** Departmental Research Expenditure of UGC-funded Universities 2017/18  
**表一** 2017/18 學年教資會資助大學的部門研究開支

SOURCE OF FUNDING 資助來源	Amount (HK\$m) 金額(百萬港元)
UGC 教資會	6,848.6
RGC 研資局	1,045.9
Other Government Funds 政府其他資助計劃	906.9
HK Private Funds 香港私人資金	1,789.7
Non-HK Funds 香港以外的資金	246.0
<b>Total 總額</b>	<b>10,837.1</b> (Up 5.5% compared with 2016/17) (較2016/17學年增加5.5%)
Ratio of expenditure on research to Hong Kong's GDP 研究開支佔本地生產總值的比率	0.40%

Notes:

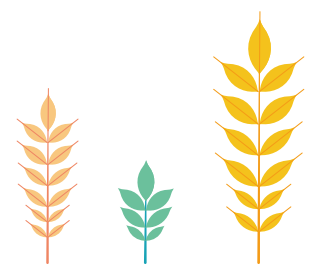
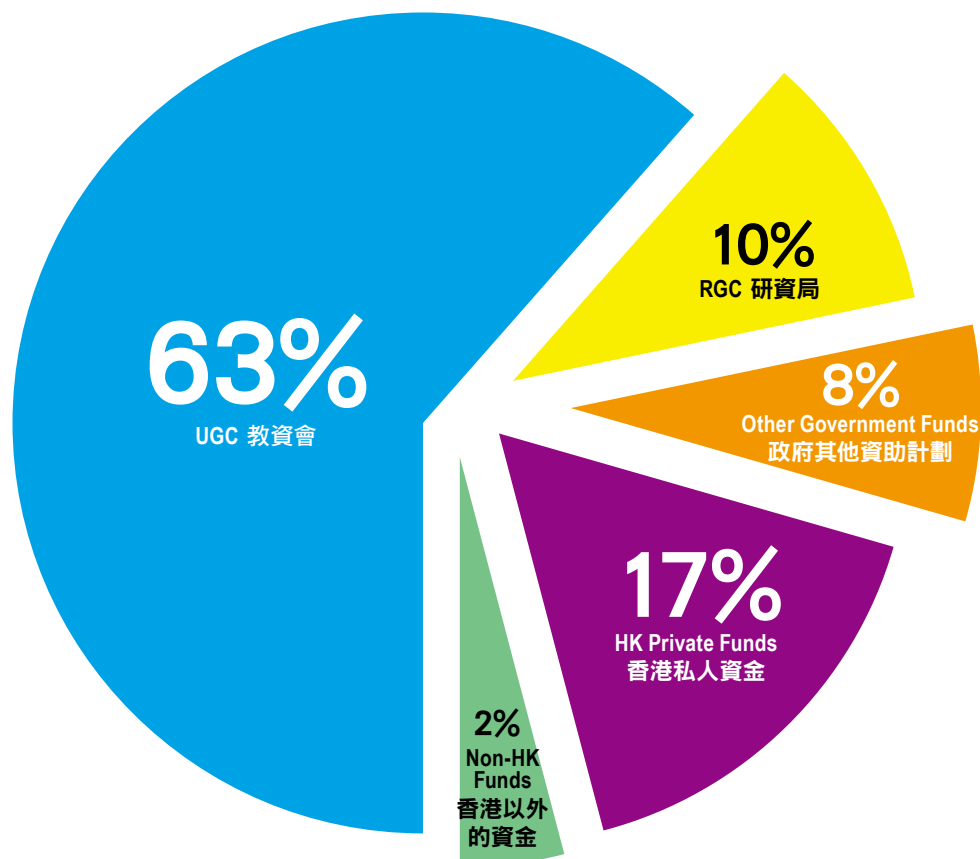
Figures do not add up to the total due to rounding.

The amount of research expenditure by academic departments is affected by how a university apportions its departmental expenditure between teaching and research as well as how it apportions total expenditure between academic departments and central activities.

註：

由於四捨五入，數字的總和可能與實際的總計略有出入。

大學如何劃分教學和研究兩者的部門開支，以及如何劃分學術部門和中央活動兩者的總開支，皆影響學術部門的研究開支額。



## Policy Issues

### (a) Greater Competitiveness on Allocation of Research Resource

As elucidated in the "Aspirations for the Higher Education System in Hong Kong" report, the UGC has introduced greater competitiveness in allocating research funding and research postgraduate places in order to promote research excellence in the UGC-funded universities, enabling all our universities to compete with the best in the world. The funding arrangement of using universities' achievement in the RGC's Earmarked Research Grant to determine the distribution of part of the R-portion of the Block Grant has been implemented starting from 2012/13. The mechanism serves as a proxy reference, an indicator, for the allocation of the R-portion. Over a period of five years starting from 2012/13, an increasing portion of the 5 595 research postgraduate places had been allocated through six competitive methods, and 50% of such places had been competitively allocated by 2016/17.

In implementing its plan to enhance competitiveness in allocating research funding, the UGC noted stakeholders' concern about the need to support humanities and social sciences (HSS) projects. The UGC has taken measures to strengthen research in such disciplines, including ring-fencing 18% of the competitive element in the R-portion of the Block Grant for HSS research, so that each HSS project may receive an HSS premium if there is a balance after paying the Principal Investigator (PI)'s costs and non-PI costs to HSS projects; allocating the remaining 82% of the competitive part in such a way that 50% are disbursed as PI's costs and 50% as non-PI costs, to the advantage of HSS projects which receive smaller grants on average; providing additional annual funding of \$20 million to the RGC for HSS research, in particular to recognise the greater need of HSS projects for PI's time (in the form of teaching relief); and setting up the Humanities and Social Sciences Prestigious Fellowship Scheme.

### (b) Research Assessment Exercise

The Research Assessment Exercise (RAE) is part of the UGC's commitment to assessing the research performance of UGC-funded universities, and is intended to drive excellence and encourage world-class research. The RAE 2020 is the sixth such exercise conducted by the UGC since 1993. It

## 政策事項

### (a) 提高研究資源分配的競逐程度

一如《展望香港高等教育體系》報告所述，教資會已在分配研究撥款及研究院研究課程學額方面，引入更多競逐元素，以推動資助大學進行卓越研究，與世界頂尖學府並駕齊驅。有關資助安排根據各大學申請研資局研究用途補助金的結果，分配部分整體補助金研究用途撥款予院校，由 2012/13 學年起實施，作為分配研究用途撥款的參考指標。由 2012/13 學年開始，5 595 個研究院研究課程學額中，透過六個競逐方法分配的比例分五年逐步增加，到 2016/17 學年有 50% 的學額以競逐方式分配。

教資會在推行計劃以增加研究撥款分配的競逐元素時，注意到持份者對人文學及社會科學的研究項目支援需要的關注。因此，教資會已採取多項措施，推動人文學及社會科學的研究，包括在整體補助金研究用途撥款中競逐性質的部分，預留 18% 予人文學及社會科學研究，在分配首席研究員的開支和非首席研究員的開支予有關項目而仍有餘額的情況下，為每個人文學及社會科學的研究項目提供額外資助。至於其餘的 82%，一半作為首席研究員的開支，另一半用作非首席研究員的開支，此舉有利於人文學及社會科學的研究項目，因為有關項目所得的撥款平均較少。又鑑於人文學及社會科學研究一般需要首席研究員投放較多時間，每年增撥 2,000 萬元予研資局，以聘請替假教師的形式讓有關學者騰出時間進行研究。另外，研資局亦設立了人文學及社會科學傑出學者計劃。

### (b) 研究評審工作

研究評審工作是教資會評核各資助大學研究表現的其中一環，旨在推動學者追求卓越，進行世界級的研究。2020 年研究評審工作是教資會自 1993 年以來第六次安排此項工作。研究評



will assess research outputs, impact and environment, using international benchmarks to delineate universities' areas of relative strengths and identify areas and opportunities for development. The preparation of the RAE 2020 is in progress. After consultation with the universities, the UGC published the four canonical procedural guidelines for the exercise: the Framework, the Guidance Notes, the General Panel Guidelines and the Panel-specific Guidelines on Assessment Criteria and Working Methods. In the past year, as part of our continuing engagement efforts, a three-day meeting cum open forum for setting the panel-specific guidelines on assessment criteria and working methods as well as a workshop on impact submissions were organised to facilitate universities in the preparation of impact submissions. More details of the events are included in the Activities Highlights section of this report.

## Research Funding Schemes Administered by the RGC

### (a) UGC-funded sector

Apart from the Block Grants allocated by the UGC, the funding schemes administered by the RGC together represent the largest single source of funding for academic research in Hong Kong's higher education. These funding schemes are managed by the RGC based on competition and peer review. With the transfer of administration of the Areas of Excellence Scheme to the RGC in February 2012, the one-off Joint Laboratory Funding Scheme in 2018, and the launch of the Research Impact Fund in January 2018, the annual research funding available to the RGC amounted to about \$1.4 billion in 2018/19, as follows:

審工作會採用國際基準，就各大學研究的成果、影響和環境方面作評估，以勾劃各大學的相對優勢，並就可發展的相關領域和機遇給予意見。2020年研究評審工作正在籌備中。經諮詢各大學後，教資會公布了評審工作的四份主要文件：框架、指引、評審小組一般工作指引，以及個別評審小組評審標準及工作模式指引。去年，教資會繼續廣納意見，舉辦為期三天的會議暨公開論壇，以制定個別評審小組的評審標準及工作模式指引，又舉辦研究影響項目工作坊，以協助各大學籌劃提交研究影響項目。有關這些活動的更多詳情，載於本報告的年度回顧部分。

## 研資局管理的研究資助計劃

### (a) 教資會資助界別

研資局管理的多項研究資助計劃是教資會整體補助金之外，支持香港高等教育學術研究的最大單一撥款來源。研資局透過學者評審機制，以競逐方式發放撥款予申請院校。隨着教資會於2012年2月把卓越學科領域計劃交由研資局管理、於2018年設立一次性聯合實驗室資助計劃，以及研究影響基金於2018年1月推出，研資局在2018/19學年可用的年度撥款總額約為14億元，細分如下：

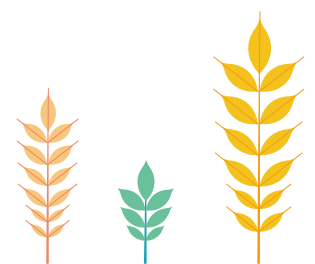
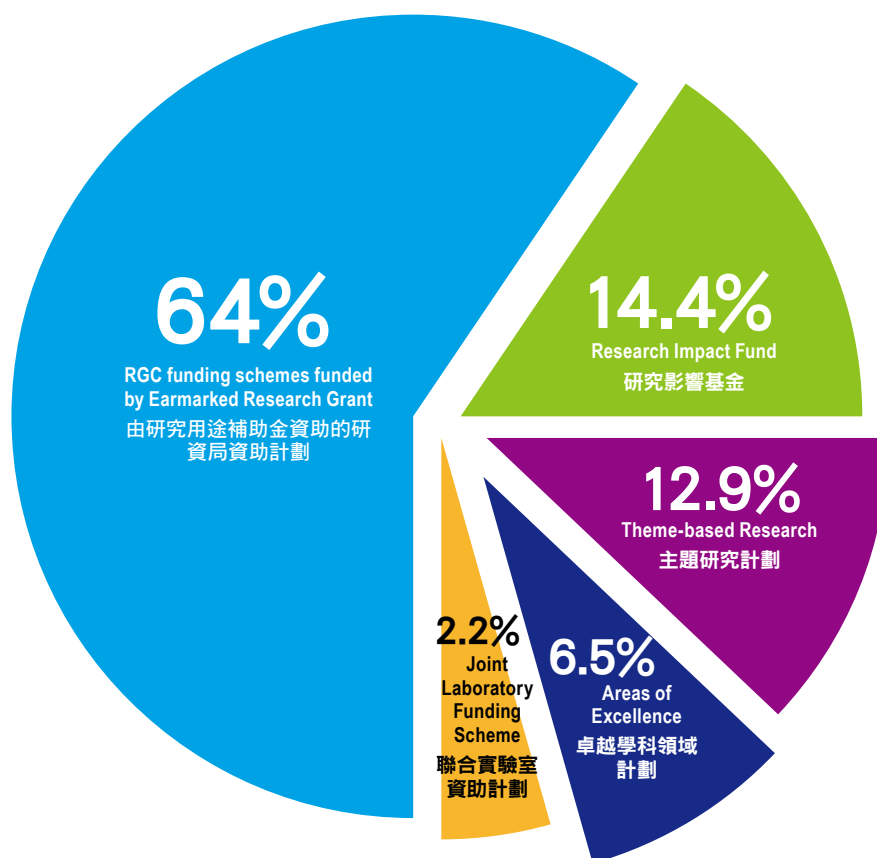




Table 2 RGC's Research Funding Scheme  
表二 研資局的研究資助計劃

RESEARCH FUNDING SCHEMES 研究資助計劃	Amount Available (HK\$m) 可用金額(百萬港元)
RGC funding schemes funded by Earmarked Research Grant 由研究用途補助金資助的研資局資助計劃	890.6
Research Impact Fund 研究影響基金	200.0(註)
Theme-based Research Scheme 主題研究計劃	180.0
Areas of Excellence Scheme 卓越學科領域計劃	90.0
Joint Laboratory Funding Scheme 聯合實驗室資助計劃	30.0
Total 總額	1,390.6

Note:  
this represents funding for the whole 2016–19 triennium.  
註：  
數字為 2016–19 三年期的可用金額。



### ► individual Research Projects

#### (i) General Research Fund

The objective of General Research Fund is to support basic and applied academic research projects through competitive bids. All proposals received under this funding scheme are subject to a rigorous peer review process via five subject panels supported by the RGC's international network of external reviewers. The average funding per project in 2018/19 was about \$0.60 million.

#### (ii) Early Career Scheme

The Early Career Scheme is intended to nurture junior academics and prepare them for a career in education and research. Applicants should be within three years of their first full time academic job as an Assistant Professor or career equivalent involving teaching and research duties and in substantiation track/tenure track position. The average funding per project in 2018/19 was about \$0.57 million.

### ► Group Research Projects

#### (i) Theme-based Research Scheme

The objective of this scheme is to focus academic research efforts of the UGC-funded universities on themes of strategic importance to the long-term development of Hong Kong. The duration of project is up to five years. Five projects were funded under the scheme in 2018/19 and RGC's funding support per project ranged from \$18.59 million to \$47.22 million.

#### (ii) Areas of Excellence Scheme

The Areas of Excellence Scheme seeks to build upon Hong Kong's existing research strengths and develop them into areas of excellence. The duration of project is up to eight years. Applications are called for biennially. Three projects were funded under the scheme in 2018/19 and RGC's funding support per project ranged from \$69.62 million to \$73.79 million.

#### (iii) Collaborative Research Fund

The Collaborative Research Fund (CRF) is provided to the UGC-funded universities for the procurement of major research facilities and/or equipment or library collections to support collaborative research, or group research activities that operate across disciplines and/or normal institutional boundaries. The funding support per project in 2018/19 ranged from \$2.17 million to \$8.65 million, for the duration of three years.

### ► 個別研究項目

#### (i) 優配研究金

優配研究金旨在透過競逐撥款形式資助基礎及應用學術研究項目。在此資助計劃下，所有收到的建議書均須經過由國際外部評審員參與的五個學科小組的嚴格學者評審。2018/19 學年，平均每項項目獲撥款約 60 萬元。

#### (ii) 傑出青年學者計劃

傑出青年學者計劃旨在培育新進學者，幫助他們為日後的教學及研究事業作好準備。申請人須為首次從事全職學術工作，任職少於三年，受聘為實任制或終身聘任制的助理教授或同等職位，職務涵蓋教學及研究工作。2018/19 學年，平均每項項目獲撥款約 57 萬元。

### ► 集體研究項目

#### (i) 主題研究計劃

主題研究計劃的目的是集中教資會資助大學的學術研究力量，就對香港長遠發展具策略重要性的主題進行研究，項目的研究期最長為五年。2018/19 學年，共有五個項目在本計劃下獲撥款 1,859 萬至 4,722 萬元不等。

#### (ii) 卓越學科領域計劃

卓越學科領域計劃旨在鞏固及發揮香港在研究方面的現有優勢，使其發展為卓越學科領域，研究項目的年期最長為八年，每隔兩年接受申請一次。在 2018/19 學年，共有三個項目在本計劃下獲撥款 6,962 萬至 7,379 萬元不等。

#### (iii) 協作研究金

協作研究金向教資會資助大學提供資助，購置大型研究設備、儀器或圖書館資料以進行協作研究，或讓大學進行跨學科及 / 或跨院校而具合作性的集體研究工作。2018/19 學年，每個項目獲撥款 217 萬至 865 萬元不等，項目的研究期為三年。



(iv) Research Impact Fund

The Research Impact Fund (RIF) encourages UGC-funded universities to conduct more impactful and translational research projects to deliver benefits for the wider community, and to engage in more collaborative efforts with stakeholders outside academia. Researchers are required to submit a “Pathways to Impact” statement to elaborate on the potential impact of the research project on society. 30 projects were funded in the last exercise (i.e. 2018/19) and the average funding per project provided by RGC was about 6.43 million.

(v) Joint Laboratory Funding Scheme

To inject further impetus into our research community and encourage local talents to collaborate with the Mainland and participate in major research projects, the UGC decided in September 2018 to set up a one-off Joint Laboratory Funding Scheme (JLFS) to provide funding support to the eligible joint laboratories between the Chinese Academy of Sciences and the Hong Kong universities. The scheme aims to enhance the research infrastructure of the joint laboratories in Hong Kong so as to better equip them to conduct impactful research. The duration of project is up to two years. The scheme was launched in December 2018 and is administered by the RGC. The funding results will be announced in June 2019.

► Joint Research Schemes

In 2018/19 academic year, there were a total of six Joint Research Schemes launched with five countries/regions in forms of project grants, travel/conference grants as well as fellowships. The funding per project ranged from \$0.03 million to \$3 million for the duration of 6 to 56 months.

(i) Project Grants

- National Natural Science Foundation of China (NSFC) / RGC Joint Research Scheme
- The French National Research Agency (Agence Nationale de la Recherche, ANR) / RGC Joint Research Scheme
- European Union (EU)–Hong Kong Research and Innovation Cooperation Co-funding Mechanism by the RGC

(ii) Travel/Conference Grants

- Germany / Hong Kong Joint Research Scheme
- PROCORE–France / Hong Kong Joint Research Scheme

(iv) 研究影響基金

研究影響基金旨在鼓勵教資會資助大學進行更多具影響力及可轉化作應用的研究項目，惠益社會，並推動與學術界以外的持份者加強合作。

研究人員須提交「影響途徑」陳述，說明研究項目對社會可帶來的影響。在上一輪計劃（即 2018/19 學年）共有 30 個項目獲得撥款，平均每個項目獲撥款約 643 萬元。

(v) 聯合實驗室資助計劃

教資會於 2018 年 9 月決定設立一次性的聯合實驗室資助計劃，向合資格的中國科學院與本港大學聯合實驗室提供資助，為本港研究界注入更多動力，並鼓勵本地人才與內地合作和參與大型研究項目。本計劃旨在提升聯合實驗室的研究基礎設施，以進行具影響力的研究，研究項目的年期最長為兩年。計劃於 2018 年 12 月推出，由研資局負責管理。撥款結果將於 2019 年 6 月公布。

► 合作研究計劃

2018/19 學年，研資局以項目補助金、旅費 / 會議補助金及研究獎助金形式，與五個國家 / 地區推出共六項合作研究計劃。每個項目獲撥款 3 萬至 300 萬元不等，為期 6 至 56 個月。

(i) 項目補助金

- 國家自然科學基金委員會及香港研究資助局聯合科研資助基金
- 法國國家科研署與研資局合作研究計劃
- 歐洲聯盟（歐盟）與香港研究資助局研究及創新合作計劃



(iii) Fellowship

- Fulbright – RGC Hong Kong Senior Research Scholar / Research Scholar Award Programmes

► Fellowship Schemes

(i) Humanities and Social Sciences Prestigious Fellowship Scheme

The Humanities and Social Sciences Prestigious Fellowship Scheme aims at granting extended time-off and supporting funds to the outstanding investigators under the Humanities and Social Sciences Panel to enable them to focus on research work and writing. The fellowship provides resources for the employment of relief teachers, as well as the costs of travel, subsistence and dissemination of outputs. The average funding per project in 2018/19 was about \$0.65 million.

(ii) Hong Kong PhD Fellowship Scheme

The objective of the Hong Kong PhD Fellowship Scheme is to attract the best and brightest students in the world, irrespective of their country of origin and cultural background, to pursue their PhD studies and research in the UGC-funded universities. It helps Hong Kong excel at research and widen our pool of talent and contacts. It also furthers internationalisation of the higher education sector. The Fellowship provides a monthly stipend of \$25,100, and conference and research-related travel allowance of \$12,600 per year for the awardees for a period of three years. In 2018/19, the scheme awarded 231 top students from 46 countries/regions.

**(b) Local Self-financing Degree Sector**

► Faculty Development Scheme

The Faculty Development Scheme aims at developing the research capability of individual academic staff in the local self-financing degree-awarding institutions so that they can transfer their research experiences and new knowledge into teaching and learning. The average funding per project in 2018/19 was about \$0.68 million.

► Inter-Institutional Development Scheme

The Inter-Institutional Development Scheme aims at enhancing academics' research capability in the local self-financing degree-awarding institutions, and keeping them

(ii) 旅費 / 會議補助金

- 德國與香港合作研究計劃
- 法國與香港合作研究計劃

(iii) 獎學金

- 研資局 – 富布萊特 ( 香港 ) 學人計劃

► 學者獎勵計劃

(i) 人文學及社會科學傑出學者計劃

人文學及社會科學傑出學者計劃旨在表揚傑出的人文學和社會科學學者，給予學者延長補假和所需撥款，使他們能夠專注於研究工作和寫作。計劃不單提供資源聘請替假教師，還包括旅費、生活津貼及發表研究結果的費用。2018/19 學年，平均每個項目獲撥款約 65 萬元。

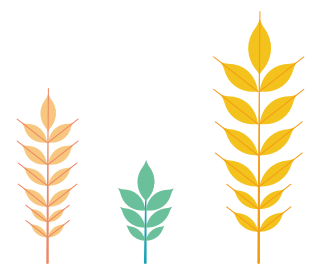
(ii) 香港博士研究生獎學金計劃

香港博士研究生獎學金計劃的目的，是吸引世界各地最優秀的尖子研究生（不論國籍和文化背景）來港修讀教資會資助博士研究生課程及進行研究。本計劃推動本港研究工作更上層樓，擴大本地人才庫及聯絡網，進一步促進本地高等教育院校國際化。獎學金計劃為獲獎的博士研究生提供每月津貼 25,100 元，以及每年的會議及研究活動交通津貼 12,600 元，為期三年。2018/19 學年，本計劃頒發獎學金予來自全球 46 個國家及地區共 231 位優秀學生。

**(b) 本地自資學位界別**

► 教員發展計劃

教員發展計劃旨在協助頒授本地自資學位院校的個別教學人員發展研究能力，使他們能將研究經驗和新知識轉移至教與學的層面。2018/19 學年，平均每個項目獲撥款約 68 萬元。



abreast of new developments and challenging research topics in relevant fields, through organisation of workshops or short courses on an institutional or joint-institutional basis. The average funding per project in 2018/19 was about \$0.44 million.

#### ► Institutional Development Scheme

The Institutional Development Scheme aims at building up the research capacity of local self-financing degree-awarding institutions in their strategic areas through the provision of physical research facilities, infrastructure and other kinds of supports. The average funding per project in 2018/19 was about \$4.12 million.

After a comprehensive review in 2018, the RGC decided to expand the scope of the Institutional Development Scheme and to branch out the scheme into two grants, i.e. the "Research Infrastructure Grant" and the "Collaborative Research Grant". Starting from 2019/20, the existing mode of operation of the Institutional Development Scheme will continue in the form of the Research Infrastructure Grant; and the new Collaborative Research Grant will be launched to encourage and support collaborative research involving two or more local self-financing degree-awarding institutions and / or group research activities that operate across disciplines within an institution.

## Knowledge Transfer

As an extension of universities' teaching and research activities, knowledge transfer (KT) has become the third core function of Hong Kong's universities. The UGC strongly believes that the transfer of knowledge between universities and the society would help bring about socio-economic impact and improvements to the wider community. This in turn would also help enrich universities' research mission, thereby enhancing the international competitiveness of the local higher education sector.

The UGC recognises that UGC-funded universities have different strategies and encourages KT activities which commensurate with their diverse institutional roles, missions and strengths. We are encouraged to note that over the years, KT activities have taken roots in multiple disciplines, including health sciences, arts and humanities, social

#### ► 跨院校發展計劃

跨院校發展計劃旨在提升頒授本地自資學位院校教學人員的研究能力，透過由個別院校舉辦或院校合辦的工作坊或短期課程，使他們能在各自的專研範疇掌握最新的發展和充滿挑戰的研究專題。2018/19 學年，平均每個項目獲撥款約 44 萬元。

#### ► 院校發展計劃

院校發展計劃旨在透過提供實體研究設備、研究基礎設施及其他形式的支援，建立頒授本地自資學位院校在其策略發展範疇的研究能力。2018/19 學年，平均每個項目獲撥款約 412 萬元。

在 2018 年進行全面檢討後，研資局決定擴大院校發展計劃的範疇，把計劃分為兩筆撥款，即「研究基礎設施撥款」和「協作研究撥款」。由 2019/20 學年起，研究基礎設施撥款會沿用院校發展計劃的現行運作模式。至於新設立的協作研究撥款，則旨在鼓勵和支持涉及兩間或以上頒授本地自資學位院校及 / 或個別院校內不同學科的合作研究。

## 知識轉移

大學既然從事教學與研究，自然會更進一步，進行知識轉移。知識轉移已成為香港各大學的第三項核心功能。教資會深信，大學在社會上進行知識轉移，不但有利民生經濟，而且惠益社會，更有助充實大學的研究政策方針，從而提升本地高等教育界在國際間的競爭力。

教資會認同並鼓勵教資會資助大學按他們不同的角色、宗旨及優勢，採取不同策略，進行各種知識轉移活動。經過多年努力，教資會喜見知識轉移已在多個學科扎根，包括衛生科學、文科、人文學、社會科學、商學與經濟、建築、



sciences, business and economics, architecture, city planning and the environment, science and technology as well as engineering. KT has been embedded in universities' strategies and operations in response to, the constantly changing environment.

Since 2009/10, the UGC has introduced an additional stream of recurrent funding earmarked for the universities to strengthen and broaden KT. After adjusting for inflation, the funding amounted to \$62.5 million per year in the 2016–19 triennium. Universities have made use of the funding to conduct a wide range of KT activities, for example engaging in consultancy, researches, spin out companies and licensing. They have also engaged in Continuing Professional Development courses directed at business and social enterprises. Universities have also employed mechanisms to support KT in the arts, humanities and social sciences in particular, including the setting up of websites for dissemination of knowledge, organisation of seminars, workshops, conferences, exhibitions and other public events.

Much of the UGC funding was for building universities' capacity for KT. All universities have either established or reinforced their KT offices for better institution-wide coordination and promotion. There has also been increased recognition of the importance of promoting entrepreneurship as an integral element of KT efforts. It is hoped that the promotion of entrepreneurship would resonate with the new 4-year academic structure with more opportunities for students to work with start-ups and more networks to link undergraduate and postgraduate students, researchers, alumni, faculty members and other staff.

### Follow up on the 2017 Policy Address

The 2017 Policy Address announced by the former Chief Executive on 18 January 2017 contained a number of initiatives to promote the development of innovation and technology in Hong Kong. As one of the initiatives, the UGC-funded universities were invited to refine their KT triennial plan for 2016–19 triennium to set out how they would strengthen the role of their KT offices in coordinating and commercialising research outputs. Universities were also requested to identify a number of new initiatives with specific deliverables to illustrate their commitment to furthering their contribution to Hong Kong's economic and/or societal well-

城市規劃與環境、科學與科技，以及工程學科。大學亦因應不斷轉變的環境將知識轉移融入其策略及運作中。

自 2009/10 學年起，教資會每年為大學撥備額外經常補助金，供大學鞏固並深化其知識轉移工作。因應通脹作調整後，補助金在 2016–19 三年期為每年 6,250 萬元。各大學善用資助進行不同形式的知識轉移活動，例如參與顧問工作、研究，又或成立公司，以特許方式讓其他人應用其研究成果。大學也以商業或社會企業為對象，開設持續專業發展課程。大學也採用其他多種方法進行知識轉移，特別是在文科、人文學及社會科學等領域，包括設立網站傳播知識，以及舉辦研討會、工作坊、會議、展覽和其他公眾活動。

教資會提供的資助，主要旨在鞏固大學的知識轉移能力。各大學已成立或擴充負責知識轉移的部門，從而改善跨大學整體的協調及加強推廣。此外，大學越發明白，在知識轉移方面，推廣企業精神是關鍵的一環。教資會希望在四年制新學制下，學生會有更多機會參與新創辦公司的工作，培養企業精神，並期望學士學位課程學生可與研究生、研究人員、校友、教學人員及其他員工建立聯繫網絡。

### 跟進《2017 年施政報告》

前行政長官於 2017 年 1 月 18 日公布的《2017 年施政報告》載有多項促進香港創新與科技發展的措施。其中一項措施邀請了各教資會資助大學優化其 2016–19 三年期知識轉移計劃，以加強其知識轉移辦公室在統籌及把科研成果轉化為商品方面的角色。除了知識轉移辦公室之外，各大學亦須提出一系列能促進香港經濟及 / 或社會大眾福祉的實質措施。各大學經修訂的 2016–19 知識轉移三年期計劃亦交予創新及



being. Their refined 2016–19 triennium KT plans were also shared with the Innovation and Technology Bureau (ITB) for support through Technology Start-up Support Scheme for Universities (TSSSU) and the Midstream Research Programme for Universities which encourage universities to focus more on midstream research for further downstream research or development of new products or services, as well as promoting “reindustrialisation”.

科技局參考。創新及科技局負責管理多項不同的計劃，其中包括「大學科技初創企業資助計劃」與「院校中游研發計劃」，兩者均旨在鼓勵各大學着重中游研究，以推動下游研究或發展新產品和服務，並提倡再工業化。



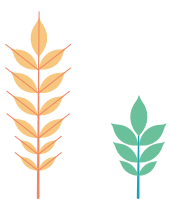
The “Unified Gymnastics for All Program” is a sports–education collaboration between HKBU, Special Olympics Hong Kong and local schools. It provides a platform for Hong Kong students with and without intellectual disabilities to learn basic gymnastic movements together. Being an exemplar of how to foster social inclusion through sports education, the project is awarded the HKBU Knowledge Transfer Award 2018 to recognise its societal impact.

「融合普及體操計劃」是一個由浸大、香港特殊奧運會和本地學校合辦的運動教育協作項目，旨在提供平台，讓香港的主流學生和智障學生一同學習基本體操運動。此項目透過運動教育促進社會共融，堪作典範，獲浸大頒發 2018 年知識轉移獎，以表揚其為社會帶來的效益。



The Defocus Incorporated Multiple Segments (DIMS) spectacle lens invented by PolyU’s research team is found to have effectively slowed down or even completely halted myopic progression in children. The DIMS lens makes use of the natural homeostatic mechanism whereby the eyeball adapts and shapes itself to receive focused images. The lens provides clear vision and myopic defocus simultaneously for the wearer at all viewing distances. With its innovativeness and potential societal impact, the DIMS lens has won the overall Grand Prize, Grand Award and Gold Medal with the Congratulations of Jury at the 46<sup>th</sup> International Exhibition of Inventions of Geneva in 2018.

由理大研究團隊發明的「多區正向光學離焦」(DIMS) 眼鏡鏡片，證實能有效減慢甚至完全防止兒童近視加深。鏡片利用眼睛的自然回饋機制，使眼球適應和改變大小以接收聚焦影像。配戴者觀看不同距離的景物時，鏡片可同時提供清晰的視野及近視離焦功能。DIMS 眼鏡鏡片是一項創新發明，對社會可能有重大影響，在 2018 年的第四十六屆日內瓦國際發明展獲得全場總冠軍、特別大獎及評判特別嘉許金獎。



## Task Force on Review of Research Policy and Funding

The Task Force on Review of Research Policy and Funding (TFRPF), established under the UGC and led by Professor Tsui Lap-chee, conducted a holistic review on the research support strategy, the level of research funding and the funding allocation mechanism for the higher education sector in Hong Kong. The TFRPF published an interim report and consulted the sector's views on its review findings and preliminary recommendations in June 2018. The TFRPF completed its review and submitted the final report to the Government in September 2018, putting forth seven recommendations as follows:

- (i) increasing research funding substantially;
- (ii) setting up a Research Matching Grant Scheme (RMGS);
- (iii) introducing three new fellowship schemes for researchers;
- (iv) augmenting support for research infrastructure by a review of the RGC's mode of operations and enhancing the effectiveness of the UGC's Research Portion grant;
- (v) streamlining and rationalising the existing three collaborative research funding schemes under the RGC;
- (vi) setting up an internal government liaison group for enhancing and improving the coordination among different funding bodies; and
- (vii) adopting a common researcher identity for grants applications.

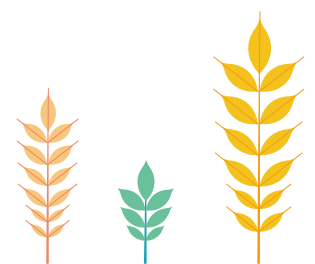
The Government announced in the 2018 Policy Address its full acceptance of the recommendations made by the TFRPF, and highlighted its commitment of injecting \$20 billion into the REF, launching a \$3-billion RMGS and introducing three new regular RGC research fellowship schemes. The UGC has been proceeding with full swing to take forward the TFRPF's recommendations, in particular the prioritised initiatives as highlighted in the 2018 Policy Address.

## 檢討研究政策及資助專責小組

由教資會成立並由徐立之教授領導的檢討研究政策及資助專責小組（專責小組）全面檢視了香港高等教育界研究工作的支援策略，以及研究撥款的水平和分配機制。專責小組於 2018 年 6 月公布中期報告，並就檢討結果及初步建議徵詢高等教育界的意見。專責小組於 2018 年 9 月完成檢討工作，並將最終檢討報告提交政府，提出以下七項建議：

- (i) 大幅增加研究撥款；
- (ii) 設立研究配對補助金計劃；
- (iii) 為研究人員增設三項傑出學者計劃；
- (iv) 透過檢討研資局的運作模式和提高教資會研究用途撥款的成效，加強對研究基礎設施的支援；
- (v) 簡化和理順研資局現有三項協作研究撥款計劃；
- (vi) 在政府內部成立聯絡小組，加強和改善不同資助機構之間的協調；以及
- (vii) 在研究撥款申請中使用通用的研究人員標識。

政府在《2018 年施政報告》中宣布全面接納專責小組的建議，並特別提到會向研究基金注資 200 億元、設立 30 億元的研究配對補助金計劃，以及在研資局下增設三項恆常的傑出學者計劃。教資會全力跟進相關工作以落實建議，並會着力優先推展《2018 年施政報告》特別提到的舉措。





Upon consultation, the Panel on Education of the Legislative Council supported the proposals on injection cum rationalisation of the REF and the launching of the RMGS. Arrangement has then been made to submit the proposals to the Finance Committee (FC) of the Legislative Council for approval of the required funding (i.e. \$20 billion for the REF injection and \$3 billion for launching the RMGS). Subject to the approval by the FC, the rationalisation of REF endowment will take effect and the REF injection will be placed with the Hong Kong Monetary Authority to generate investment income to boost the REF disbursement budget. The RMGS, aiming to allow the sector to diversify research funding sources and incentivise more contribution and collaboration from the private sector, will be launched following the FC's approval of the funding and to run for three years.

As funding for the new fellowship schemes has been secured, the RGC will introduce the three new fellowship schemes, namely RGC Postdoctoral Fellowship Scheme, RGC Research Fellow Scheme and RGC Senior Research Fellow Scheme, in the 2019/20 academic year with debut call for nominations commencing from August / September 2019. The three new fellowship schemes will be run on a regular basis thereafter.

## Review of the RGC

The review of the RGC is conducted in two phases. The Phase I Review examined macro issues such as the portfolio balance of RGC administered research funding schemes, the RGC's structure and good practice in overseas funding agencies.

The Phase II Review, focusing more on operational issues such as application and assessment process, is overseen by the RGC. The RGC reports the progress regularly to the UGC. A working group has been set up and an external consultant has been engaged to support the Phase II Review which commenced in late February 2018. From June to September 2018, the consultant of the Phase II Review conducted 19 interviews and focus group meetings, and collected and analyzed over 5,000 written responses and comments from the stakeholders, including Heads of Universities / Institutions, front-line

經諮詢後，我們獲取立法會教育事務委員會通過支持向研究基金注資、理順研究基金內不同款項的運用限制及設立研究配對補助金計劃，並已安排向立法會財務委員會（財委會）申請審批撥款（即注資研究基金的 200 億元及推展研究配對補助金計劃所需的 30 億元）。待財委會批准注資後，我們會尋求香港金融管理局安排存入該 200 億元，以獲取投資收入，增大研究基金的撥款預算，理順研究基金內不同款項運用限制的安排亦隨即生效。研究配對補助金計劃旨在讓高等教育界的研究經費來源更趨多元化，及積極推動私營機構提供研發開支和協作。於財委會批准撥款後，為期三年的研究配對補助金計劃便可隨即開展。

由於推展三項全新傑出學者計劃所需的經常開支已於早前獲批，研資局將於 2019/20 學年首度推行此三項計劃。三項計劃分別為研資局博士後獎學金計劃、研資局研究學者計劃及研資局高級研究學者計劃，將於 2019 年 8 月或 9 月開始接受首輪提名，其後每年恒常由研資局推行。

## 研資局檢討

研資局的檢討工作分兩個階段進行，第一階段涵蓋宏觀事宜，例如研資局研究資助計劃的組合分配、研資局的架構、以及海外研究資助機構的良好做法。

研資局負責推行第二階段檢討，集中探討運作事宜如申請及審批程序等，並定期向教資會匯報進度。研資局成立了一個工作小組，並委聘外部顧問，協助工作小組在 2018 年 2 月底展開第二階段檢討工作。2018 年 6 月至 9 月期間，負責第二階段檢討工作的顧問進行了 19 次面談及聚焦小組會議，從大學 / 院校校長、前線研究人員、研資局 / 研資局委員會 / 研資局小組成員、外部評審員、研究課程研究生、研究行政人員等持份者收集到五千多份書面回應及意見，並加以分析。檢



researchers, RGC council / committee / panel members, external reviewers, research postgraduate students and research administrators. The Phase II Review is expected to be completed in 2019. The outcome of the RGC Review will assist the RGC to further streamline its operation and enhance its efficiency and effectiveness in competitive research funding.

## Review of Research Portion

The Research element, i.e. the R-portion, is disbursed to the universities as 23% of the Block Grant as infrastructure funding for staffing and facilities (e.g. accommodation and equipment) necessary to carry out research, and to fund a certain level of research. To promote research excellence, the funding of the R-portion is driven by two engines: the results of the RAE and the universities' success in obtaining peer-reviewed RGC Earmarked Research Grants (ERG).

Prior to 2012/13, allocation of the R-portion was driven by the universities' performance in the RAE. After a review on the then RAE mechanism, there was general agreement that the arrangement of allocating the R-portion solely on the basis of the RAE did not sufficiently capture vitality in the system as the RAE is conducted only once every six years. It was therefore suggested that the percentage informed by the RGC ERG would be ultimately increased from 0% to 50% of the R-portion over a period of nine years from 2012/13 to 2020/21. In 2017, in response to the stakeholders' views expressed in the Review of the RGC (Phase I) that the competitive allocation mechanism had amplified some institutional behaviours, the UGC approved the interim arrangement to "freeze" the percentage of the competitive part of the R-portion at the 2016/17 level, i.e. 26%, since 2017/18 pending a further R-portion Review. For the 2019–22 triennium, the existing arrangements have remained unchanged with the current percentages of the R-portion informed by RAE and RGC ERG at 74% and 26% respectively.

In January 2019, the Working Group on the Review of R-portion was established to take forward the Review of the R-portion with the purview to consider the purposes of funding, coverage of various drivers and their weighting in the calculation methodology, and the importance of promoting research excellence in Hong Kong.

討工作預計於 2019 年完成。研資局檢討的結果將有助研資局進一步完善其運作，並提升運用競逐性研究撥款的效率及效益。

## 檢討研究用途撥款

研究用途撥款是教資會發放予大學的基礎設施撥款，佔整體補助金 23%，以聘請研究所需的職員、提供所需設施（例如辦公地方及設備），以及資助一定程度的研究活動。為推動研究工作達至卓越水平，研究用途撥款主要由兩方面釐定：一方面根據研究評審工作的結果，另一方面參考各大學申請研資局經學者評審的研究用途補助金的結果。

早於 2012/13 以前，研究用途撥款的分配是由大學在研究評審工作中的表現所計算的。因該評審工作僅每六年進行一次，在檢討當時的研究評審工作機制後，普遍認為僅僅基於研究評審工作的結果分配研究用途撥款的安排沒有充分地反映大學研究方面的發展。因此，教資會建議在 2012/13 至 2020/21 學年的九年間將研資局研究用途補助金所佔的百分比由 0% 逐漸增加至 50%。鑑於有持份者在研資局檢討（第一階段）中表示，競爭性分配機制加劇了某些院校行為，教資會遂於 2017 年通過臨時安排，由 2017/18 學年起，把研究用途撥款以競逐形式分配的部分所佔百分比「凍結」在 2016/17 學年的水平（即 26%），直至進一步檢討研究用途撥款。至於 2019–22 三年期的撥款安排，教資會會沿用現有安排。現時根據研究評審工作的結果和研資局研究用途補助金申請結果分配的研究用途撥款百分比，分別維持在 74% 和 26%。

檢討研究用途撥款工作小組於 2019 年 1 月成立，負責進行研究用途撥款的檢討工作。有關檢討會考慮資助的目的、計算機制中覆蓋的研究資助項目及個別項目的比重、對促進香港研究工作卓越發展的重要性等。

