

Innovation and Technology Policy Research Collaboration Scheme Policy Recommendations for the Northern Metropolis

1. Building a University Town in the Northern Metropolis

Hong Kong faces a shortage of science, technology, engineering and mathematics (STEM) talent, with an estimated gap of more than 200,000 professionals by 2030. Local universities have limited space to expand teaching and research due to acute land constraints. The development of the Northern Metropolis presents a strategic opportunity to address these challenges by creating a well-designed university town that can effectively concentrate intellectual capital and infrastructure, thereby fostering collaboration and innovation.

Policy recommendations:

1) Initiate the early planning process for the university town in the Northern Metropolis

- Establish dedicated offices to collect suggestions and coordinate the development.
- Align with the key industries in the Northern Metropolis to facilitate the provision of essential talent and technical support.
- Encourage universities to propose development plans based on their strengths and needs.

2) Optimise resource allocation for sustainable development

- Align the scale with available funding to ensure sustainability.
- Schedule its development in phases to gradually achieve desired scale and aggregation effects.
- Coordinate the distribution of the university town with broader industrial development plans for the Northern Metropolis.

3) Promote industry-university-research cooperation and technology demonstration research

- Identify industry talent demands and cultivate urgently needed talents.
- Increase funding to incentivise university-industry collaboration and create synergies.
- Facilitate the translation of R&D achievements into marketable products.
- Establish mechanisms for fair distribution of benefits in university- industry collaboration to motivate researchers and facilitate sustainable development.

4) Simultaneously plan supporting facilities

- Establish a special group to coordinate the construction of university towns and associated supporting facilities.
- Introduce attractive policies to attract and retain top talents, addressing their essential needs such as housing, healthcare and education for children.
- Foster a sense of community and provide a fulfilling quality of life for residents.

5) Create a robust science, technology, and innovation ecosystem

- Provide financial incentives to encourage more young people to pursue STEM-related subjects.

- Streamline administrative procedures for scientific research projects, empowering researchers with greater initiative and efficiency.
- Simplify travel procedures for tech talents between the Chinese mainland and HK.

6) Promote legal safeguards and governance structures

- Provide clear legal guarantees for the development of the university town.
- Establish dedicated government bodies to coordinate and manage the development and address related issues promptly.
- Standardise the construction and operation mechanisms of the university town to ensure sustainable development.

2. Building a World-Class Innovation District in the Northern Metropolis

While Hong Kong has limited experience in developing the I&T sector, it is well positioned as a regional education and research hub with world-class universities and strong R&D capabilities. In order to establish clear competitive advantages of the Northern Metropolis, it is critical to unleash the potential of universities and other research institutions to foster university-government-industry partnership and drive I&T development.

Policy recommendations:

1) Establish university-led mega innovation hubs with shared R&D platforms

To capitalize on Hong Kong's competitive edge in R&D and to bridge the transition from research to commercialization, we propose the establishment of three to four university-led mega innovation hubs in the Northern Metropolis. This is a shared platform where universities, industries, research institutions, start-ups, and governmental entities collaboratively navigate through the R&D journey, from conceptualization to commercialization.

2) Set up state-of-the-art research infrastructure and facilities

World-class research equipment and facilities are essential for innovation districts, serving as the backbone for ground-breaking research and large-scale collaborative projects. The research underscores the indispensable role of these state-of-the-art infrastructures in attracting global talents, fostering university-industry collaboration, and amplifying the impact of research endeavours.

3) Allocate earmarked funding for I&T research and collaboration

Government funding is of critical importance in fostering innovation and technology research and collaboration, especially within the context of the mega innovation hubs and research facilities in the Northern Metropolis.

4) Create a high-level organizational authority for I&T development

Effective leadership and robust governance are paramount for the sustainable evolution of an innovation district. While the Northern Metropolis Co-ordination Office currently oversees the district's development, there is a compelling case for instituting a high-level organizational authority specifically for I&T promotion.

5) Implement creative networking programs to foster an innovative community

A thriving innovation district is characterized by its innovative culture and a cohesive sense of community. For the Northern Metropolis to truly flourish as a beacon of I&T development, fostering an inclusive and dynamic community is paramount.

6) Provide up-to-date amenities to support R&D activities and attract global talents

Innovation districts thrive when they offer state-of-the-art amenities and a conducive environment for both work and leisure. The Northern Metropolis, envisioned as a hub for R&D, should be no exception.

Relevant Policy Research Reports:

* The Policy Recommendations are derived from two policy research projects commissioned by the [Innovation and Technology Policy Research Collaboration Scheme](#) launched by The Greater Bay Area Association of Academicians.

1. The Hong Kong Polytechnic University, Policy Research Centre for Innovation and Technology. *Building a University Town in the Northern Metropolis to Promote the Development of Hong Kong's New Innovation and Technology Economy.*

2. The Hong Kong University of Science and Technology, Institute for Public Policy. *Building a World-Class Innovation District in Northern Metropolis: Policy Innovation, Institutional Design, and Capacity Building.*

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粵港澳大灣區院士聯盟
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Association of Academicians

首輪創科政策研究合作計劃 – 香港北部都會區創新科技發展的政策建議

一、在北部都會區建設大學城，推動香港創科新經濟發展

香港面臨科學、技術、工程、數學(STEM)人才短缺的問題，預計到 2030 年，技術人才的缺口將超過 20 萬。與此同時，由於土地資源嚴重緊缺，香港本地大學在拓展教學和研究方面受到了空間的限制。而《北部都會區發展規劃》為香港提供了絕佳的機會。因此，我們建議，將人力資源和基礎設施集中在一個經過規劃的大學城，從而推動各方合作，促進創科新經濟發展。具體建議如下：

- 1) 儘早規劃佈局大學城，促進北部都會區總體規劃。**為促進北部都會區的總體規劃，需要儘早規劃大學城的佈局和發展，使其與北部都會區的總體規劃相協調發展。可成立專門機構收集建議、協調大學城的規劃和建立，同時鼓勵高校根據自身優勢和需求提出發展規劃。
- 2) 優化資源配比，確保可持續發展。**為確保大學城的可持續發展，應根據可使用的資金和土地供應進行務實評估，確定大學城的建設規模和空間範圍，使資金可支持該項目持續發展，分階段地擴大規模並逐步實現聚集效應。
- 3) 促進產學研合作和技術示範研究。**為最大化發揮大學城的影響力，需要促進學術界和產業界的合作，有針對性地培養行業緊缺人才。高校可提供有針對性的課程、與企業聯合培養研究生、推動研發成果的產品轉化等。同時，應為大學與產業界合作制定合理的利益分配機制，激勵研究人員，促進合作的可持續發展等。
- 4) 同步規劃配套設施。**協調大學城與區域周邊配套設施的規劃與建設，營造社區氛圍，滿足頂尖人才對住房、交通、醫療、子女教育、文化和休閒的需求，打造舒適的生活環境，吸納並留住人才。
- 5) 打造良好的科學和創新生態。**通過教學津貼、無息貸款等經濟激勵措施吸引和鼓勵更多的年輕人學習科技創新相關科目，簡化科研項目的行政流程，提高研究人員積極性，提供人才交流和活動平台，簡化通關程序，為科技人才在內地和香港之間的通行提供便利。

6) 推動完善配套法律規範。為大學城的發展提供明確的法律保障，設立專門的政府機構協調和管理大學城的發展工作，規範大學城的建設和運作機制，以確保發展的連續性和可持續性。

二、打造北部都會區成為世界級創新區：政策創新、制度設計及能力提升

雖然香港在發展創科產業方面經驗有限，但作為重要的國際教育和研究中心，香港擁有世界一流的大學和雄厚的研發實力。為打造北部都會區獨特的競爭優勢，應重點發揮大學以及其他研究機構的潛力，促進產學研緊密合作，共同推動科技產業發展。具體建議如下：

1) 建立以大學為主導、並提供多個公共研發平台的大型創科實驗室。為充分利用香港在研發方面的競爭優勢，推動研究成果商品化進程，可在北部都會區建立由大學主導的大型創科實驗室，使大學、大型企業、研究機構、初創企業和政府部門共同參與到科技創新從概念化到商品化的過程中。

2) 建設世界一流的研究基礎設施和設備。建設世界一流的研究設備和設施，與當前創科發展趨勢同步，與全球的創科發展相接軌，以及與大灣區現有的設施佈局相配合，創建一個具有凝聚力和協同作用的基礎設施網絡。

3) 為北部都會區創科研究及合作研究設立專項基金。設立專項基金，不僅作為經濟驅動，還應發揮磁場效應吸引高質量的研發企業，資金要為研究項目的發展和產出提供保障，與實驗室和研究設施的能力有機結合，制定全面的指導方針以規定資金的分配、使用和評估，確保最大限度地發揮資金用途。

4) 成立負責北部都會區創科發展的高層級管治架構。設立一個將大學、公司、投資者和政府機構等多方利益相關者凝聚在一起的管治架構，以統一的願景和治理模式指導創科發展。主要職責包括對大型創科實驗室和研究基礎設施進行管理，嚴謹地分配資金，並精心制定政策措施。

5) 舉辦豐富多樣的人際交流活動以打造創新氛圍濃厚的新型社區。北部都會區要真正成為創科發展的核心樞紐，必須建立一個包容和充滿活力的社區，使其成為創科發展和人才成長的孵化器。例如，可以創建特定的研究協會，組織以創科為主題的公共活動和研討會，以及設立由大學主導的涵蓋不同人群的社區教育計劃。

6) 提供完善的生活及研究支持設施，配合研發活動和吸引國際人才。提供以研發為中心的便利設施，前者包括建立會議中心、展覽中心和研究支持中心等。同時制定措施，降低科研人員生活成本，如為非本地人才提供經濟適用住房和有吸引力的生活補貼等。

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此政策建議摘錄自粵港澳大灣區院士聯盟「[創科政策研究合作計畫](#)」研究成果。「創科政策研究合作計劃」旨在通過和大學及研究機構合作，對創科政策進行深入研究、為大灣區創科協同發展出謀劃策。

詳盡報告請參閱：

1. 香港理工大學科技及創新政策研究中心：《在北部都會區建設大學城，推動香港創科新經濟發展》
2. 香港科技大學公共政策研究院：《打造北部都會區成為世界級創新區：政策創新、制度設計及能力提升》

特別致謝：

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