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《2019 年吸煙(公眾衛生)(修訂)條例草案》委員會  
主席  
郭偉強議員, JP

尊敬的主席：

就 2019 年 4 月 13 日《2019 年吸煙(公眾衛生)(修訂)條例草案》委員會公聽會提交的意見書

菲利普莫里斯亞洲有限公司 (PMAL) 謹此遞交我司對於《2019 年吸煙(公眾衛生)(修訂)條例草案》的意見。本意見書主要內容如下：

- A. 多數先進國家或地區均採用規管而非禁制另類煙草產品的政策
- B. 香港應鼓勵創新科技，而禁制政策將威脅到與科技和創新相關的投資
- C. 我們已經在 44 個國家或地區銷售的加熱煙草產品("HNB")相關的資料
- D. 在 2018 年施政報告後，與另類煙草產品相關的重大獨立研究和科學證據
- E. 規管政策比禁制政策優勝之處

**撮要**

一個平衡且合乎比例的另類煙草產品規管框架最能符合本港的利益，因為該框架將容許香港恰當地規管該些產品的入口、宣傳和銷售，從而在保障未成年非吸煙人士的同時，仍然容許不戒煙的吸煙人士轉用一種國際間政府和權威機構均視為較低害的產品。

英國、歐盟、美國、加拿大、紐西蘭等地均採用規管的手法作為他們控煙政策的一部分，以容許吸煙的國民轉用另類煙草產品。在經濟合作暨發展組織 36 個成員國當中，現時只有澳洲、墨西哥和土耳其三國禁止另類煙草產品。



## PHILIP MORRIS ASIA LIMITED

現時，菲利普莫里斯國際(PMI)正在 44 個國家及地區提供吸煙人士一系列的另類煙草產品，包括 HNB 及電子煙。我們嚴謹的科學證據支持 IQOS (我們的 HNB 產品)所產生的有害物質較傳統香煙低約 95%的結論。超過 20 個來自世界各地的獨立專家團隊或機構，例如德國聯邦風險評估研究所(BfR)、英國毒性委員會(COT)、美國食品及藥品監督管理局(FDA)等，均已驗證相類結論。

所有有關將另類煙草產品合法化會導致未成年人開始使用煙草產品的聲稱都與本年 2 月英格蘭公共衛生署(PHE)所發表的電子煙研究報告的結論有所衝突：

- “最少一週內使用一次電子煙的非吸煙青年人的比例維持在極低水平(在 2018 年，該比例僅佔 11-18 歲人士的 0.2%).”<sup>1</sup>

戒煙是對吸煙人士的最佳方法。今日，香港有超過 60 萬吸煙人士，而事實是即便政府已經推行最好的規管、教育及其他相關的政策，很大多數的吸煙人士仍然選擇吸煙。因此，問題是：倘若香港政府執行全禁政策，這些吸煙人士將會有何選擇？我們認為嚴謹的規管政策，包括嚴謹地執法防止未成年人接觸煙草產品，會是一個能更有效地協助本港吸煙人士和公眾健康的方法。

### A. 多數先進國家或地區均採用規管而非禁制另類煙草產品的政策

PMI的IQOS 加熱煙產品在44個國家或地區接受規管並能合法銷售，例如英國、法國、德國、日本、南韓、馬來西亞、南非、加拿大、俄羅斯及新西蘭等。我們估計該些國家或地區約有660萬消費者不再吸食傳統香煙，並已完全轉用IQOS。在這44個國家或地區中，有34個是《世界衛生組織煙草控制框架公約》簽署方。該34個國家或地區的政策以規管而非禁制加熱煙產品，完全符合《公約》中並不反對規管的政策方針。舉例而言，新西蘭政府在2018年11月23日修改其《無煙環境法》，採用與風險掛勾的方式規管另類煙草產品。新西蘭衛生部的監管影響聲明中指出要「找出平衡支持吸煙人士轉用較低害產品，以及保護兒童及青少年免受任何與煙草有關的負面影響的做法」，並認同「改善規管無煙產品及電子煙產品……將有助達致2025年無煙目標」。<sup>2</sup>

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<sup>1</sup> See page 52 at

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/781748/Vaping\\_in\\_England\\_an\\_evidence\\_update\\_February\\_2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/781748/Vaping_in_England_an_evidence_update_February_2019.pdf)

<sup>2</sup> <https://www.health.govt.nz/system/files/documents/pages/ris-regulation-of-e-cigarettes-and-emerging-tobacco-and-nicotine-delivery-products-nov17.pdf>



## PHILIP MORRIS ASIA LIMITED

英國下議院科學與科技委員會於2018年8月發表報告，呼籲政府控煙時應採納減害原則。2018年12月，英國衛生部接納該國會報告的七項建議，其中一項為追求一個更「與風險掛勾的規管框架，使規管措施，宣傳規則和稅率均反映電子煙及煙草產品的相對風險。」<sup>3</sup>

由上可見，一個全面的規管方針較全禁政策更可取，因為前者在防止未成年人接觸煙草產品的同時，容許吸煙人士盡快轉用較低害的產品。

### **B. 香港應鼓勵創新科技，而禁制政策將威脅到與科技和創新相關的投資**

草案中的禁制建議壓制了創新低害產品的研發，不單與政府鼓勵創新科技的政策有所衝突，亦對創新產業和創新人才構成打擊。

2018年7月，PMAL在香港開設科研中心（“E-Hub”），以支持全球對於減害產品（“RRPs”）的需求。僅在2018年，E-Hub便已經聘請約60名員工，並經過香港的物流公司從珠海運來，經香港的港口、機場及物流設施轉口到世界約40個國家，總值約6億美元的貨物。全面禁止HNB入口將對我們的員工的就業構成問題，並可能使有意在香港投資的創科公司卻步。請見附件中，我司致勞工及福利局局長羅致光博士的信函，以作參考之用。

### **C. 我們已經在44個國家或地區銷售的加熱煙草產品（“HNB”）相關的資料**

我們的HNB產品*IQOS*是一款能通過將特製煙草棒（*Heatstick*）加熱至不超過攝氏350度的情況下，產生含尼古丁的氣霧的產品。*IQOS*利用加熱而非燃燒的辦法，產生的氣霧遠較香煙煙霧所含的有害物質為低。

#### **產品概述**

*IQOS* 產品概述如下：

<sup>3</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/762847/government-response-to-science-and-technology-committee-s-report-on-e-cig.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/762847/government-response-to-science-and-technology-committee-s-report-on-e-cig.pdf)



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圖 1 IQOS 系統的三個主要部件

如上圖所示，IQOS 系統包括三個主要部件：

- 充電器為加熱器於每次使用完畢後充電；
- 加熱器利用電子加熱裝置，將插入的煙草棒加熱；及
- 煙草棒含有經特別處理的煙草及濾嘴，只能透過加熱器使用。煙草棒含有數個與香煙不同的部分。

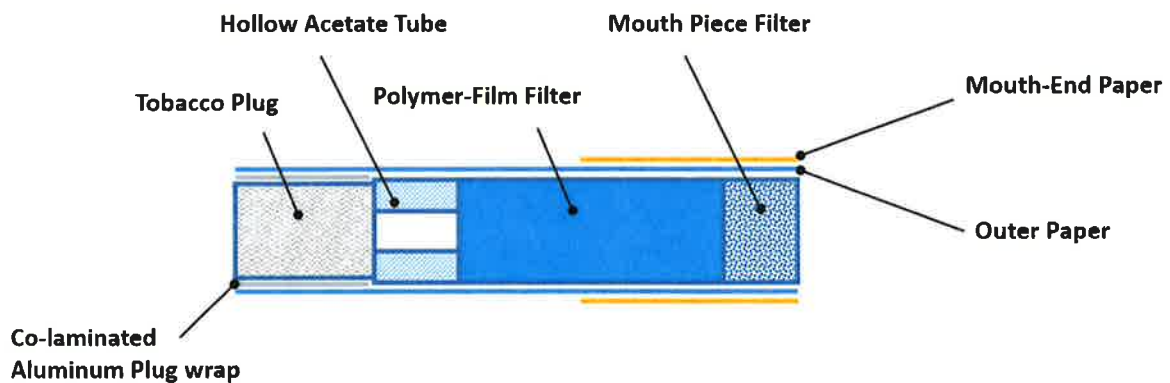


圖 2 顯示煙草棒主要部分的橫切面圖



## PHILIP MORRIS ASIA LIMITED

### 煙草棒部件

**Tobacco plug** 由煙草製成。該些煙草經細心處理，以確保它們有一個統一的質地，以便捲起。整個過程的目的在於最大限度地保證煙草的均一性。Tobacco plug 經特別設計，以確保其只用於加熱而非燃燒。加熱時，水及甘油蒸發後重新凝固為細少水滴，並產生肉眼可見的氣霧。

**Co-laminated aluminum plug wrap** 防止 tobacco plug 燃燒，因此煙草棒並不能被燃燒後吸食。

**Hollow acetate tube** 以醋酸纖維素及塑料製作，並以無透孔的紙張包裹。Hollow acetate tube 防止 tobacco plug 被推入煙草棒內。

**Polymer-film filter** 由無透孔紙張包裹的聚合物薄片製作而成。蒸發的化合物會在這裡冷卻，以獲得可接受的氣霧溫度。

**Mouth piece filter** 以醋酸纖維素及塑料製作，並以無透孔的紙張包裹。它是一個能提供足夠堅固度的濾片，使其能被使用者用嘴唇含著。

**Outer paper** 包裹煙草棒的成份。

**Mouth-end paper** 確保使用者的嘴唇不會黏住煙草棒的 mouth piece filter。

### D. 在 2018 年施政報告後，與另類煙草產品相關的重大獨立研究和科學證據

2018年施政報告後，不少新的獨立研究及外國政府的政策建議出爐(詳見附表A)。這些研究結果及政策建議均支持規管而非禁制的政策，例如：

- (A) 英國衛生部接納下議院科學及科技委員會的建議，於控煙政策中加入「保護年輕人和非吸煙人士，並同時給予吸煙人士獲得較低害產品的途徑」的減害原則<sup>4</sup>；
- (B) 馬來西亞政府容許HNB入口及銷售；
- (C) 新西蘭正在開始引入以風險為依歸的規管另類煙草產品的政策；
- (D) 英格蘭公共衛生署的2019年報告重申電子煙遠較傳統香煙的危害為低的結論；

<sup>4</sup> See Recommendation 7 at

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/762847/government-response-to-science-and-technology-committee\\_s-report-on-e-cig.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/762847/government-response-to-science-and-technology-committee_s-report-on-e-cig.pdf)



PHILIP MORRIS  
ASIA LIMITED

- (E) 澳洲墨爾本大學的一項研究的結論指出，新西蘭將電子煙合法化的政策將為該國國民的壽命增加236,000年；
- (F) 一名獨立的美國密西根州大學教授指出，容許吸煙人士轉用電子煙的好處將大於未成年非吸煙者開始使用煙草產品所帶來的風險；
- (G) 一篇刊於新英格蘭醫學期刊的研究文章指出，電子煙在幫助吸煙人士戒煙的作用上，很可能較傳統尼古丁戒煙療法有效一倍；
- (H) 英國政府資助的國家健康研究院 (NIHR) 的研究發現電子煙並不會在未成年人之間造成吸煙行為重新平常化(renormalisation)：“分析指出並無足夠證據顯示在2011至2015年電子煙使用量急增和受到有限規管的期間，吸煙行為在未成年人之間有重新平常化的跡象。”<sup>5</sup>

至今為止，超過20份針對IQOS的獨立研究報告均支持我們的研究結論，又或對之有正面的評論。附表B詳列該些獨立第三方就IQOS進行的研究及評估報告，供各委員參考。以下是數個例子－

- (A) 美國FDA東南煙草實驗室進行的研究，結果亦包含於2018年1月24-25日FDA煙草產品科學委員會 (TPSAC) 的參考文件當中：研究支持IQOS減少使用時所產生的有害物質 (與傳統香煙相比，丙烯醛和苯並芘的份量減少超過90%，甲醛減少超過80%)
- (B) 英國毒性委員會(COT)於2017年12月公佈的研究結果指出：「雖然並非完全無害，但完全轉用加熱煙草產品的吸煙人士所面對的健康風險有可能減少。」
- (C) 2018年2月6日英格蘭公共衛生署公佈的研究結果指出：「與香煙相比，加熱煙草產品可能令使用者和旁邊的人接觸較低份量的懸浮粒子及有害或可能有害物質。減害的幅度在各研究中有所不同」。
- (D) 2017年9月14日，日本國立保健醫療科學院的研究指出「IQOS的氣霧中有害化合物遠較傳統香煙的煙霧為少。」

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<sup>5</sup> Hallingberg B, Maynard OM, Bauld L, et al

Have e-cigarettes renormalised or displaced youth smoking? Results of a segmented regression analysis of repeated cross sectional survey data in England, Scotland and Wales

Tobacco Control Published Online First: 01 April 2019. doi: 10.1136/tobaccocontrol-2018-054584



## PHILIP MORRIS ASIA LIMITED

- (E) 2018年德國聯邦風險評估研究所(BfR)的研究指出：「與傳統香煙的煙霧比較，加熱煙所釋放的氣霧中的主要致癌物質顯著減少；利用標準的科學儀器可以獲得準確及可複製的數據，對於評估對人體健康影響的工作有所幫助。」
- (F) 2017年12月12日由俄國政府委託全俄羅斯科學研究院的研究結果顯示：「氣霧從這些新技術所含的有害物質的水平確實比傳統香煙的有害物質水平低至少90%以上。」
- (G) 2018年1月8日，中國國家煙草質量監督及檢測中心(CNTQSTC)的研究指出：「對比傳統香煙，IQOS釋放的有害或可能有害物質較低，而癩、胺及NAB，減幅均超過90%。」

PMI已經對IQOS進行有系統，及全面的科學評估，例如氣霧化學及物理、試管內、試管外、系統毒理學、臨床研究，以及售前售後就消費者認知、行為及實際使用IQOS的情況等。

我們樂意與外界及各位委員分享我們的科研成果。該些成果均顯示 IQOS 氣霧中含有的有害物質較香煙為少。因此，整體的研究證據均顯示使用 IQOS 的風險以推論到所導致的疾病風險都較吸食傳統香煙少<sup>6</sup>。

### E. 規管政策比禁制政策優勝之處

能夠完全避免與吸煙有關的健康風險的最佳方法是戒煙。然而，對於不戒煙的吸煙人士來說，規管另類煙草產品能夠給他們另一個較低害的選擇。

不少權威機構和公共衛生專家均認知到另類煙草產品較吸食傳統香煙的害處為低。英國衛生部和新西蘭衛生部等監管部門均鼓勵不戒煙的成年吸煙人士完全轉用較低害的產品<sup>7</sup>。今日，數以百萬計的吸煙人士已經放棄傳統香煙，完全轉用另類煙草產品，包括我們估算的，超過 660 萬已經完全轉用 HNB 的人士。監管機構應容許另類煙草產品合法銷售，以容許吸煙人士有一個公開、透明而又受監管保障的渠道獲得該些產品。此做法將使吸煙人士可以合法地作出對他們健康更好的選擇。

<sup>6</sup> Philip Morris Products S.A., Tobacco Heating System (IQOS) Briefing Document, December 2017.

<https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM593108.pdf>

<sup>7</sup> See New Zealand Ministry of Health, Vaping and smokeless tobacco, 12 September 2018, available at <https://www.health.govt.nz/our-work/preventative-health-wellness/tobacco-control/vaping-and-smokeless-tobacco>; See UK Department of Health, Towards a smoke-free generation: a tobacco control plan for England, 18 July 2017, available at <https://www.gov.uk/government/publications/towards-a-smoke-free-generation-tobacco-control-plan-for-england>.



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我們支持政府禁止未成年人接觸任何煙草產品，並會全力與政府合作保護未成年人免受煙草危害。有效並全面的規管並不會削弱該政策目標。政府可以禁止未成年人接觸任何類別的煙草產品的同時，給予成年吸煙人士機會轉用經科學驗證的低害產品。

在無合情合理的規管的情況下，草案只會使吸煙率維持在現有水平，甚至增加吸煙率。禁制香煙的替代品將使吸煙人士在別無選擇的情況下繼續吸食傳統香煙。政府雖然應該對於科學上未有完整結論的事宜有所顧慮，但亦應該認可大量證實例如電子煙、HNB、無煙煙草產品等遠較傳統香煙害處為低的另類煙草產品。若香港禁絕較低害產品，卻又容許更加大害的香煙合法售賣，將是一件令人遺憾的事。

\* \* \* \* \*

我們樂意就此事宜提供進一步資料，並向各委員對此議題的關注致謝。

香港及澳門對外事務部主管

蕭婉芹 謹啟

2019 年 4 月 8 日



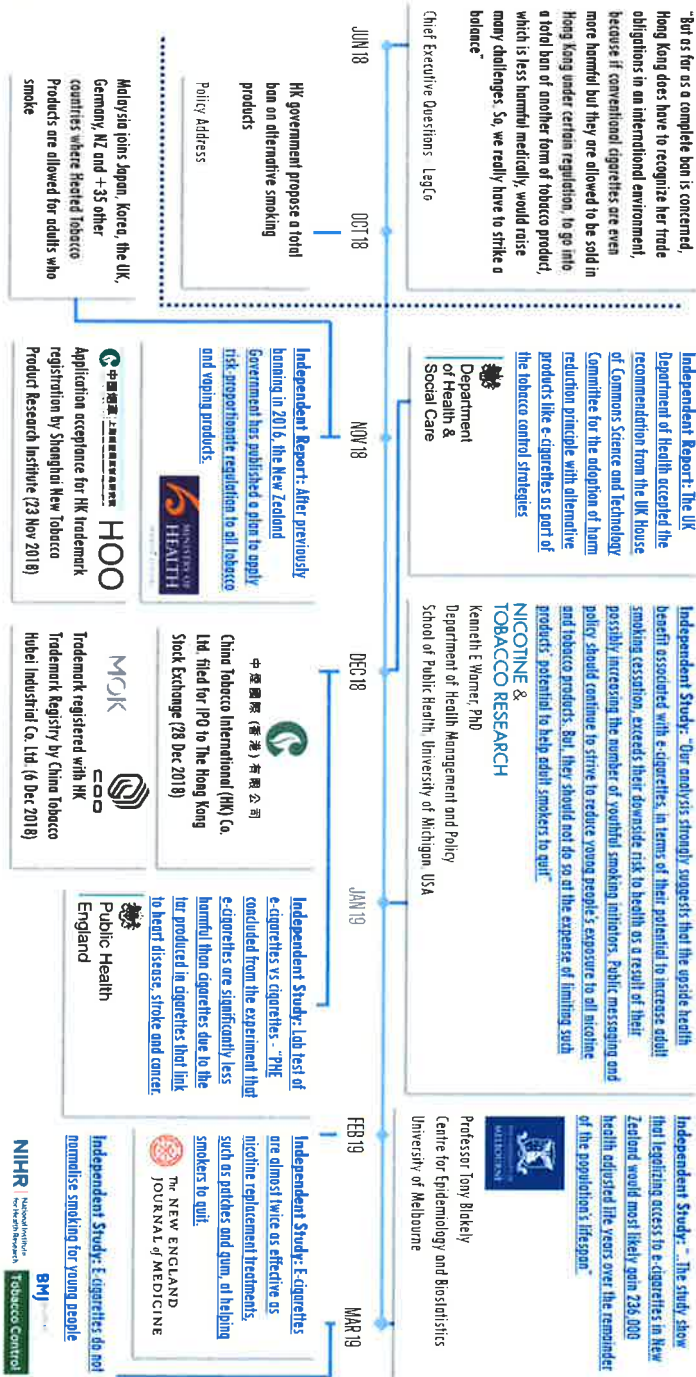


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### Annex A

#### Significant Independent Research after the Policy Address



### Annex B



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### Third-party studies and assessments of HNB

Study	Conclusion	Type of Study
Aerosol Chemistry		
Nicotine Delivery to the Aerosol		
Farsalinos et al., Nicotine Delivery to the Aerosol of a Heat-Not-Burn Tobacco Product: Comparison With a Tobacco Cigarette and E-Cigarettes, Nicotine & Tobacco Research, 16 June 2017, <a href="#">here</a> .	<i>"The HnB product delivers nicotine to the aerosol at levels higher than ECs but lower than a tobacco cigarette when tested using Health Canada Intense puffing regime. No change in HnB nicotine delivery was observed at prolonged puff duration with the same puff volume, unlike ECs which deliver more nicotine with longer puff duration."</i>	Independent study.
Formation		
Li et al., Chemical Analysis and Simulated Pyrolysis of Tobacco Heating System 2.2 Compared to Conventional Cigarettes, Nicotine & Tobacco Research, 8 January 2018, <a href="#">here</a> .	<i>"THS 2.2 resulted in lower HPHC levels compared to 3R4F. Except for carbonyls, ammonia, and NAB, the reduction rate is more than 90%."</i>	Independent study.
Bekki et al., Comparison of Chemicals in Mainstream Smoke in Heat-not-burn Tobacco and Combustion Cigarettes, National Institute of Public Health (Japan), September 2017, <a href="#">here</a> .	<i>"The concentration levels of hazardous compounds in the mainstream smoke of IQOS are much lower than those in conventional combustion cigarettes."</i>	Independent study.
Farsalinos, Toxicant exposure: Heated tobacco products vs. e-cigarettes, Presentation at Global Forum on Nicotine 2017, 16 June 2017, <a href="#">here</a> .	<i>"Significantly lower toxic emissions than smoking, but higher than new-generation e-cigarettes."</i>	Independent study and comparison of results with PMI data.
Mallock et al. (German Federal Risk Assessment Institute (BfR)), Levels of selected analytes in the emissions of "heat not burn" tobacco products that are relevant to assess human health risks, Archives of Toxicology, 5 May 2018, <a href="#">here</a> .	<i>"We show that nicotine yield is comparable to typical combustible cigarettes, and observe substantially reduced levels of aldehydes (approximately 80–95%) and VOCs (approximately 97–99%). Emissions of TPM and nicotine were found to be inconsistent during the smoking procedure. Our study confirms that levels of major carcinogens are markedly reduced in the emissions of the analyzed HNB product in relation to the conventional tobacco cigarettes and that monitoring these emissions using standardized machine smoking procedures generates reliable and reproducible data which provide a useful basis to assess exposure and human health risks." BfR also "confirm[ed] absolute values for selected toxicants in the emissions of [IQOS] that are in agreement with data published by the manufacturer."</i>	Independent study and comparison of results with PMI data.



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US FDA's Southeast Tobacco Laboratory (STL), October 2017, <a href="#">here</a> .	<i>"Preliminary assessment of the data indicates that the levels of acrolein, formaldehyde, and benzo[a]pyrene in the IQOS aerosol measured by STL are higher than the values reported by the applicant, however, these three HPHCs are still significantly lower than the levels in the mainstream smoke of the reference cigarette 3R4F. Greater than 90% reduction was observed from acrolein and benzo[a]pyrene, and greater than 80% reduction was observed for formaldehyde in the aerosol compared to 3R4F. The levels of tar and nicotine determined by STL were similar to the levels reported by the applicant. Finally, levels of ammonia, NNN, and NNK in the HeatSticks tobacco filler measured by STL were similar to the levels reported by the applicant. [...] The independent testing performed by STL confirmed the lower levels of selected HPHCs in the aerosol from the HeatSticks compared to mainstream cigarette smoke."</i>	Independent study and comparison of results with PMI data.
Setyan, A., et al. (Swiss EMPA Institute), Physico-chemical characterization of particles and volatile organic compounds emitted by electronic cigarettes and heat-not-burn products, compared to a reference tobacco cigarette, 2018, Abstract ( <a href="#">here</a> )	<i>"Particles emitted by all the products were totally dominated by submicron particles. However, those emitted by the conventional cigarette were slightly larger than those from the Puritane [e-cigarettes] and IQOS (mode at 220 nm for 3R4F, vs. 150 nm for Puritane and IQOS... VOCs concentrations were 6 times higher than with the conventional cigarette than with the Puritane and IQOS... A wide range of mono-aromatic (mainly benzene-and furan-derivatives) and oxygenated compounds were identified in gaseous emissions of the conventional cigarette. Most of these compounds were also present in the IQOS, but in much lower concentrations. ..."</i>	Independent study.
The All-Russia Scientific Research Institute for Tobacco and Tobacco Products (study conducted by request of Russian Government) ( <a href="#">here</a> )	<i>"The research results showed that the content of toxic components in the vapour from the novel technology is, indeed, 90 or more percent less than in that from the other products tested." (unofficial translation).</i>	Independent study.
Talih, S., et al., Is IQOS designed to convert combustible cigarette users? Investigation of Free-Base and Total Nicotine, and Reactive Oxygen Species, Poster 5-118 at SRNT 2018	<i>"ROS [reactive oxygen species] levels were lower in the IQOS aerosol relative to the cigarette."</i>	Independent study.



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<p>Dutch National Institute for Public Health and the Environment (RIVM), IQOS Factsheet, 15 May 2018 (<a href="#">Factsheet (Dutch)</a>; <a href="#">Factsheet English; Summary (English)</a>)</p>	<p><i>"The use of heatsticks with the IQOS is harmful to health, but probably less harmful than smoking tobacco cigarettes."</i> (Summary)</p> <p><i>"Obviously, the fewer harmful substances a person is exposed to, the less harmful it is for the health. A lower amount of substances in the emissions from heated tobacco than in a tobacco cigarette does not mean that the product is proportionately less harmful, however. The quantity of a substance that is inhaled only determines part of the harmful effect."</i> (Factsheet)</p> <p><i>"The research referred to in the scientific literature were mainly carried out by or on behalf of the producer, Philip Morris. The quantities measured by RIVM in the emissions are similar to these quantities."</i> (Factsheet)</p> <p><i>"The substances that the RIVM measured are comparable to those contained in the data from Philip Morris."</i> (Factsheet)</p> <p><i>"The emissions created when heating and burning tobacco clearly differ in composition. This is because the temperature of a lit cigarette, at least 600 - 700 degrees, is much higher than the temperature reached in a device that heats tobacco (up to 300 degrees). Which substances are formed depends on the temperature."</i> (Factsheet)</p> <p><i>"With heated tobacco, the way of smoking and the temperature do not appear to influence the amount of nicotine contained in the emissions. With an equal number of puffs, the amount of nicotine contained in the emissions is the same for various types of tobacco and with the different ways of smoking."</i> (Factsheet)</p>	<p>Independent study and comparison of results with PMI data.</p>
Indoor Air Quality and Risk to Bystanders		
<p>Protano, C., et al., Second-hand smoke exposure generated by new electronic devices (IQOS and e-cigs) and traditional cigarettes: submicron particle behavior</p>	<p><i>"During smoking, SMPs released by traditional and hand-rolled cigarettes and deposited in the respiratory tract of a passively exposed subject are four-times higher than those released by electronic</i></p>	<p>Independent study.</p>



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in human respiratory system, Ann Ig, 2016 ( <a href="#">here</a> )	<i>and heat-not-burn devices. After smoking, SMPs generated by traditional and hand-rolled cigarettes remain high until the end of the experiment (about six times higher than background) while, for electronic and heat-not-burn devices, SMPs values return immediately very similar to background..."</i>	
Ruprecht, A.A., et al., Environmental pollution and emission factors of electronic cigarettes, heat-not-burn tobacco products, and conventional cigarettes, Aerosol Science and Technology, 21 March 2017, ( <a href="#">here</a> )	<i>"While polycyclic aromatic hydrocarbons (PAHs) were mostly non-detectable in the IQOS smoke, certain n-alkanes, organic acids (such as suberic acid, azelaic acid, and n-alkanoic acids with carbon numbers between 10 and 19) as well as levoglucosan were still emitted in substantial levels from IQOS (up to 2–6 mg/h during a regular smoking regimen). Metal emissions were reduced in IQOS smoke compared to both electronic cigarettes and conventional cigarettes and were mostly similar to the background levels. Another important finding is the presence of carcinogenic aldehyde compounds, including formaldehyde, acetaldehyde, and acrolein, in IQOS smoke, although the levels were substantially lower compared to conventional cigarettes"</i>	Independent study.
Prodanchuk et al., Potential risk assessment of the electrically heated tobacco system (EHTS) use, Modern Problems of Toxicology Food and Chemical Safety, October 2017, <a href="#">here</a> .	<i>"Recognized reduced risk potential for active and passive smokers' health while using EHTSs in comparison with conventional filtered cigarette smoking is based in reduced level of air pollution in the room, where these products were used."</i>	Independent study.
Toxicity		
Leigh et al., Cytotoxic Effects Of A Tobacco Heat-Not-Burn System On Human Bronchial Epithelial Cells, Abstract presented at SRNT 2018, <a href="#">here</a> .	<i>"Using limited cytotoxic measures, the IQOS system showed significantly reduced cytotoxicity as compared to combustible tobacco cigarettes. While more comprehensive testing is needed to determine long term effects of inhaling aerosol from HnB products, this new product may be a potential harm reduction tool for smokers unwilling to quit smoking or smokers not interested in switching to e-cigarettes."</i>	Independent study.
Reduced Exposure		



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Kazan Federal University (study conducted by request of Russian Government) ( <a href="#">here</a> ) (unpublished). Results published in a comment to FDA <a href="#">here</a> . Press release, 7 May 2018, <a href="#">here</a> .	<i>"Results of the study in humans demonstrate that the impact of tobacco smoke HPHCs is reduced almost to the level of smoking abstinence when using THS. At the same time, THS has moderately good flavor, sensation, perception and the level of nicotine intake. Based on the study data, no signs of possible new or increased risks related to THS in comparison to CC use by adult smokers were discovered. Thus, this product can be considered as a CC substitution for the nicotine-dependent adult smokers. After a full transition from cigarettes to THS this product would potentially help to reduce the risks of smoking-related diseases."</i>	Independent study.
Gale et al., Changes in Biomarkers of Exposure on Switching from a Conventional Cigarette to Tobacco Heating Products: A Randomised, Controlled Study in Healthy Japanese Subjects, BAT, Poster 5-1888 at SRNT 2018, <a href="#">here</a> .	<i>"This clinical study demonstrated that when smokers switched from smoking combustible cigarettes to using tobacco heating products (glo or IQOS), their exposure to smoke toxicants was significantly decreased. In many cases, this was to the same extent as that seen when subjects quit smoking completely."</i>	Independent study.
Tobacco Products Scientific Advisory Committee (TPSAC), 25 January 2018, <a href="#">here</a> .	TPSAC agreed, by a vote of 8-1, that <i>"Scientific studies have shown that switching completely from cigarettes to the IQOS system significantly reduces your body's exposure to harmful or potentially harmful chemicals."</i>	Conclusion based on review of PMI and FDA data.
Reduced Risk		
UK Committee on Toxicity, Toxicological evaluation of heat-not-burn products, 12 December 2017, <a href="#">here</a> .	<i>"[I]t is likely that there is a reduction in risk, though not to zero, to health for smokers who switch completely to heat-not-burn tobacco products."</i>	Independent study.
PHE, Evidence review of e-cigarettes and heated tobacco products 2018, 6 February 2018, <a href="#">here</a> .	<i>"The available evidence suggests that heated tobacco products may be considerably less harmful than tobacco cigarettes and more harmful than EC."</i>	Review of the literature/evidence.
Stephens, Comparing the cancer potencies of emissions from vapourised nicotine products including e-cigarettes with those of tobacco smoke, Tobacco Control, 4 August 2017, <a href="#">here</a> .	<i>"The cancer potencies of the HnB prototype device that heated various tobacco blends lie between one and two orders of magnitude less than tobacco smoke but higher than the preponderance of EC emissions"</i>	Study <i>"us[es] published chemical analyses of emissions and their associated inhalation unit risks."</i>
Kvasha, Evaluation of electronic nicotine delivery system (ENDS) effects on cardiovascular disease risk, based on	<i>"Thus, it was outlined in our work, that switching to electronic nicotine delivery systems, both tobacco and liquid-based, and nicotine delivery with the</i>	Independent study.





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endothelium function as factor of its determination, Ukrainian Health, 8 July 2017, <a href="#">here</a> .	<i>elimination of the harmful effects of cigarette smoke prevents impairment of oxygen transport function of the blood, injury of the vascular endothelium and development of proatherogenic alterations in lipid metabolism and blood lipoproteins. In case of dual use, their shielding effect occurs in its reduced form."</i>	
Intended and Unintended Use		
Tabuchi et al., Awareness and use of electronic cigarettes and heat-not-burn tobacco products in Japan, Addiction, 14 November 2015, <a href="#">here</a> .	<i>"Approximately half the respondents in a Japanese internet survey were aware of e-cigarettes and heat-not-burn tobacco products, 6.6% had ever used. More than 70% of ever users used non-nicotine e-cigarettes, the sale of which is not legally prohibited, even to minors, in Japan, and 33% of them used nicotine e-cigarettes; 3.5% of never smoking men and 1.3% of never smoking women had ever used e-cigarettes. Corresponding figures for use in the last 30 days were 0.6% and 0.3%, predominantly non-nicotine e-cigarettes."</i>	Analysis of internet survey results.







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12<sup>th</sup> March, 2019

Dr. Law Chi-kwong, GBS, JP,  
Secretary for Labour and Welfare  
Labour and Welfare Bureau  
10/F, West Wing  
Central Government Offices  
2 Tim Mei Avenue  
Tamar, Hong Kong

Dear Secretary Law,

We are writing to you about an urgent issue of concern regarding the recently introduced Smoking (Public Health) Amendment Bill 2019 <https://www.legco.gov.hk/yr18-19/english/bills/b201902151.pdf> ("Amendment Bill").

In July 2018, Philip Morris Asia Limited opened its Electronic Hub ("E-Hub") in Hong Kong to support the demand, growth and increased complexity of our reduced risk products ("RRPs"<sup>1</sup>).

Our E-Hub at One Island South in Wong Chuk Hang created many new jobs here in Hong Kong. It currently houses 62 local talents, with more planned for this year. These jobs include Electronic Product Development and Engineering, Quality Assurance, Procurement and Supply Chain professionals to complement the extraordinary growth in the demand for our RRP's globally and our electronic manufacturing services provider based in Zhuhai, China.

In 2018 alone, we have products valued at around USD 600 million shipped out from Zhuhai and exported to +40 countries globally via Hong Kong ports and airport facilities using Hong Kong-based logistics service providers, and we've spent close to USD 6 million in logistics service fees. Our presence therefore also creates job opportunities in logistics and transport sectors in Hong Kong.

We have also invested in a world class battery testing laboratory at our E-Hub to conduct tests to ensure safety, reliability, and performance of our products as well as for research and development of our next generation RRP's.

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<sup>1</sup> RRP's is the term PMI uses to refer to products with the potential to reduce individual risk and population harm in comparison to smoking cigarettes. PMI's RRP's are in various stages of development and commercialization, and we are conducting extensive and rigorous scientific studies to determine whether we can support claims for such products of reduced exposure to harmful and potentially harmful constituents in smoke, and ultimately claims of reduced disease risk, when compared to smoking cigarettes. Before making any such claims, we will rigorously evaluate the full set of data from the relevant scientific studies to determine whether they substantiate reduced exposure or risk. Any such claims may also be subject to government review and approval, as is the case in the U.S. today.

Page 2

12<sup>th</sup> March 2019

Dr. Law Chi-kwong, GBS, JP  
Labour and Welfare Bureau

We have chosen Hong Kong as our base because of its strategic position as a major international trading and logistics hub, rich talent pool, political stability, business friendly environment, and its drive to attracting foreign investment. In addition, the Government's approach to Innovation & Technology (I&T) is refreshing and we have answered the call to do more I&T and create more job opportunities for Hong Kong.

We appreciated the Government's legislative proposal put forward in June 2018 and the follow-up statement in July 2018 in which the Chief Executive and the Food & Health Bureau stated the Government would regulate rather than ban new alternative tobacco products like Heat not Burn and E-cigarettes.

We are therefore very disappointed to learn about the introduction of the Amendment Bill to ban the import, manufacture, sale, distribution and advertisement of alternative smoking products.

Obviously, this has great impact on, first and foremost, our employees and also our investment in the E-Hub for the testing, research and development purposes. The E-hub not only provides jobs to local talent but also fosters growth of knowledge in innovative technologies. In addition, it will impact our future plans in Hong Kong as our import and export hub to the rest of the world.

We are showing our commitment to a smoke free future and to Hong Kong by increasing our efforts to design better alternatives to cigarette smoking for adults who choose to continue to smoke so we can one day stop selling cigarettes, the most harmful form of tobacco use. We hope the Hong Kong Government empathizes with this goal and will reconsider the ban on alternative tobacco products and favour regulation on such products instead.

I would be more than happy to meet with you to discuss this situation and our plans for the future, and invite you to our E-Hub so you and your team can witness for yourselves what we're doing here for the betterment of Hong Kong.

I have also attached a letter we sent to Chief Secretary Mathew Cheung recently on our approach to Diversity and Inclusion and our employment practices, which I feel you would be interested in.

I look forward to hearing from you.

Yours Sincerely,



Brett Cooper  
General Manager, Hong Kong & Macau  
Philip Morris Asia Limited

Enc.

Cc: Hon. Matthew Cheung Kin-chung, GBM, GBS, JP – Chief Secretary for Administration  
Hon. Paul Chan Mo-po, GBM, GBS, MH, JP – Financial Secretary  
Hon. Joseph Chan Ho-lim, JP – Under Secretary for Financial Services & the Treasury