

By Email and Fax (2978 7569)

30 Oct 2018

Mr Desmond LAM
Clerk to Panel on Commerce and Industry
Legislative Council Complex
1 Legislative Council Road
Central
Hong Kong

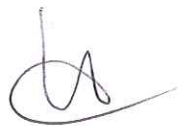
Dear Mr Lam,

**Panel on Commerce and Industry
Meeting on 19 June 2018**

**Progress Report on
Research and Development Centres in 2017-18**

At the meeting held on 19 June 2018, the Administration was requested by Members to provide supplementary information relating to the R&D Centres. We are pleased to provide the information as enclosed for Members' reference.

Yours sincerely,



(Bryan Ha)

for Commissioner for Innovation and Technology

Encl.

cc ITB (Attn: Mr Ricky CHONG)
ITC (Attn: Ms Jo WONG)

+Panel on Commerce and Industry Meeting on 19 June 2018
Follow-up Action

With respect to the progress report on Research and Development Centres in 2017-18, the Administration's supplementary information is as follows -

(a) The annual commercialisation income of R&D results of the five R&D Centres¹ in the past three years, with a breakdown by income from local and non-local enterprises

Commercialisation Income of R&D Centres						
(\$ million)						
R&D Centres	2015-16		2016-17		2017-18	
	Local	Non-local	Local	Non-local	Local	Non-local
ASTRI	12.02	8.04	19.83	9.44	17.32	10.91
	20.06		29.27		28.23	
NAMI	5.17	0.69	15.38	0.47	12.55	1.5
	5.86		15.85		14.05	
LSCM	0.43	0	0.97	0	4.27	0
	0.43		0.97		4.27	
HKRITA	0.88	0.17	0.69	0.2	1.01	0.23
	1.05		0.89		1.24	
APAS	0.57	0.18	1.43	0.14	0.74	0.45
	0.75		1.57		1.19	
Total	19.07	9.08	38.30	10.25	35.89	13.09
	28.15		48.55		48.98	

¹ Hong Kong Applied Science and Technology Research Institute (ASTRI), Nano and Advanced Materials Institute (NAMI), Logistics and Supply Chain MultiTech R&D Centre (LSCM), Hong Kong Research Institute of Textiles and Apparel (HKRITA) and Automotive Parts and Accessory Systems R&D Centre (APAS).

(b) The R&D projects of the five R&D Centres with participation of enterprises/institutions from overseas or the Mainland in the past three years, with examples on the relevant R&D outcomes

Number of on-going R&D projects involving non-local enterprises/institutions			
R&D Centres	As at 31 Mar 2016	As at 31 Mar 2017	As at 31 Mar 2018
ASTRI	18	20	28
NAMI	9	5	6
LSCM	6	8	6
HKRITA	15	15	18
APAS	15	17	14
Total	63	65	72

Examples of R&D outcomes arising from these projects are –

- (i) As a partner of Intel’s Network Builders programme, **ASTRI** has developed a virtual Small Cell Gateway and a virtualised Evolved Packet Core, leveraging Intel’s Open Network Platform Server to give Mobile Network Operators a flexible and high-performance tool to build dense small cell networks;
- (ii) **NAMI** has developed a lithium-ion battery system for next generation electric vehicle and power applications in collaboration with an enterprise from the Mainland. The technology has been commercialised and licensed to a local company;
- (iii) **LSCM** has collaborated with the University of Hong Kong and two Mainland enterprises to develop a total e-commerce logistic management system for logistics and industrial parks. The system improves assets management and resource synchronisation by using a cloud platform, thereby enhancing the operation efficiency of logistics parks;

- (iv) **HKRITA** started partnering with the H&M Foundation in September 2016 to spearhead a series of research projects. HKRITA has successfully developed a hydrothermal process and a biological process to fully separate and recycle cotton and polyester blends. The recovered polyester material can be reused directly, leading to a major breakthrough in attaining a closed loop for textiles. Both technologies won the gold medals in the 46th International Exhibition of Inventions of Geneva in 2018. The above hydrothermal process has been put on trial in the factory of a local textile enterprise in Tai Po, which has earlier adopted HKRITA's textile recycling technology and set up its production line to upcycle textile wastes; and

- (v) **APAS** collaborated with the Fraunhofer Institute of Germany, on a project which fabricates high-strength and lightweight automotive parts. Fraunhofer Institute provided the technical expertise in laser heating technology.