

**For information
on 17 July 2007**

Legislative Council Panel on Commerce and Industry

Strategic Framework for Innovation and Technology Development
Progress Report on Research and Development Centres

Background

At the Panel meeting held on 21 November 2006, Members were informed of the establishment of the five Research and Development (R&D) Centres (Paper ref: CB(1)278/06-07(03)). The Administration undertook to report to the Panel the income and expenditure of the R&D Centres for Members' information. This paper seeks to update Members of the progress achieved by the R&D Centres since their establishment in April 2006 to June 2007.

Progress

R&D programme

2. The R&D projects processed by the Centres as at end June 2007 are summarized in the following table:

Table 1: R&D Projects of Centres as at end June 2007

	Type of Projects	Number Endorsed by CIT	Approved Project Cost	Approved ITF Funding
R&D Centre for Nanotechnology and Advanced Materials (NAMI)	• Platform	1	\$4.0 m	\$3.3 m
	• Collaboration	5	\$8.1 m	\$5.2 m
	• Contract research	2 ⁽¹⁾	\$0.7 m	- ⁽²⁾
R&D Centre for Textiles and Apparel (RITA)	• Platform	10	\$40.5 m	\$35.6 m

	Type of Projects	Number Endorsed by CIT	Approved Project Cost	Approved ITF Funding
R&D Centre for Logistics and Supply Chain Management Enabling Technologies (LSCM)	• Platform	6	\$37.6 m	\$32.8 m
R&D Centre for Automotive Parts and Accessory Systems (APAS)	• Platform	4	\$13.4 m	\$11.4 m
R&D Centre for Information and Communications Technologies (ICT)	• Platform • Contract service	27 ⁽³⁾ 24 ⁽¹⁾	\$177.9 m \$6.2 m ⁽⁴⁾	\$164.0 m - ⁽²⁾

⁽¹⁾ Contract research and contract service projects are not required to be endorsed by the Commissioner for Innovation and Technology (CIT). This figure represents the number of such projects endorsed by the Centre.

⁽²⁾ Contract research and contract service projects are wholly funded by the industry.

⁽³⁾ Apart from the 27 projects approved by ITC from April 2006 to June 2007, there are also 16 on-going projects undertaken before the establishment of the ICT R&D Centre.

⁽⁴⁾ The amount shows the contractual amount of the contract service but not the budget of the contracts.

3. The R&D projects cover a variety of areas under the respective technology focus of the Centres. With respect to the platform projects, most of the Centres are able to secure the industry to contribute 10% of the total project cost. As for the collaboration projects, industry contribution to the total project cost is more than 30%. Contract research and contract service projects are wholly funded by the industry. The level of industry contribution for the R&D projects may serve as an indicator of the level of industry support for the projects, as well as the potential of the Centres for meeting the expectation of generating up to 40% of R&D expenditure from industry contribution when they ramp up to the fifth year of operation in 2010/11.

Promotion and marketing

4. Under the market-driven approach, the Centres have continued to establish network with the industry, universities, research institutes and industry support organizations in Hong Kong, the PRD region and other parts of the world. Such engagement efforts are essential in facilitating the Centres to understand the practical needs of the market and formulate R&D projects to address the identified needs. Through liaison with the universities and the industry, the Centres may also explore potential R&D partners in undertaking collaboration and other projects.

Administration

5. On operation and general administration, the Centres have generally completed the setting up of the office and recruitment of staff. They have also established corporate policies and guidelines as well as R&D project vetting mechanism and procedures. The governing guidelines and procedures will be subject to continual refinement in the light of operational experience.

6. The expenditure on the operation of the Centres is set out in the following table.

Table 2: Estimated and actual expenditure on operation
(for the financial years 2006/07 and 2007/08)

	Estimated expenditure for FY2006/07	Actual expenditure for FY2006/07	Estimated expenditure for FY2007/08
NAMI	\$12.9 m	\$10.4 m	\$14.6 m
RITA	\$10.8 m	\$5.7 m	\$11.8 m
LSCM	\$14.9 m	\$8.0 m	\$21.2 m
APAS	\$27.4 m	\$12.7 m	\$24.1 m
ICT	\$111.7 m	\$105.6 m	\$111.7 m

7. As shown in Table 2 above, there is under-expenditure of the operation cost of the Centres in general for financial year 2006/07. This is mainly attributable to the lead time taken to set up the Centres.

8. Due to the relatively short history of the Centres which have just started their operation, the financial return for their first year of operation is not significant. Nevertheless, each of the Centres has since established the groundwork necessary for the furtherance of its objectives in, for example, providing a focal point for conducting applied R&D for application in the relevant industries.

Reports

9. A report on each of the R&D Centres with regard to its R&D programmes, promotion and marketing activities, administration and future work is in the following Annex:

- (a) R&D Centre for Nanotechnology and Advanced Materials (NAMI) at **Annex I**;
- (b) R&D Centre for Textiles and Apparel (RITA) at **Annex II**;
- (c) R&D Centre for Logistics and Supply Chain Management Enabling Technologies (LSCM) at **Annex III**;
- (d) R&D Centre for Automotive Parts and Accessory Systems (APAS) at **Annex IV**; and
- (e) R&D Centre for Information and Communications Technologies (ICT) at **Annex V**.

Innovation and Technology Commission
July 2007

**Report of the R&D Centre on
Nanotechnology and Advanced Materials (NAMI)
(for the period April 2006 to June 2007)**

Centre Operation and General Administration

During the period, NAMI was actively engaged in formulating a detailed plan of the Centre's operation and R&D programme for 2006/07 and 2007/08, which included institutional setup matters, e.g. company establishment, recruitment of centre staff, drawing up of office procedures and corporate governance, as well as undertaking promotional activities to build up connections and network.

2. Key centre staff including the Chief Executive Officer (CEO), two Chief Technology Officers (CTO) and four Managers for project coordination, technical support and business development have been appointed.

R&D Programme

3. NAMI has drawn up a technology plan laying down its vision and focus on market segments for its R&D projects in the first year. Project solicitation plan, vetting criteria and procedures, monitoring and working schedules were also prepared. The Centre plans to undertake not more than 39 R&D projects by end of March 2008 under the five main technology areas, namely nanomaterials (functionalization and applications); nanotechnology enabled nano-optoelectronics; nano-structured/textured material applications; advanced materials for interconnection, packaging and thermal management; and forming of advanced materials.

4. NAMI has conducted two rounds of project solicitation. The first round started on 8 September 2006 and ended on 16 October 2006. During the period, NAMI received 13 project proposals where 10 are industry-led projects and 3 are technology platform projects, amongst which different local universities would be involved. The vetting was completed in late January 2007. The Centre has endorsed eight projects and seven of them were submitted to the Innovation and Technology Commission (ITC) from January to

June 2007 for approval. Out of the seven, six projects were approved by ITC at a total funding amount of \$8.5 million and one project is being considered. Details of the approved projects are:

	Project Title	Project Duration (months)	Organization
1	Functional Nanocoating for Energy Saving Applications	12	A private company
2	Industrialisation of Liquid TiO ₂ Hydrosol Production and Extensive Applications for Indoor Air Purification	12	Hong Kong Polytechnic University
3	Demonstration Line for the Production of Low-cost Humidity Sensor	12	Hong Kong University of Science and Technology
4	Industrial Scale Sonochemical Fabrication of Mesoporous Photocatalysts	27	Chinese University of Hong Kong
5	LED Arrays on Silicon Substrates by Flip-chip Technology	24	Hong Kong University of Science and Technology
6	Nano-enabled hot-dip Galvanizing Process	24	NAMI

The second round of project solicitation started on 20 April 2007 and ended on 30 June 2007 where 25 proposals/indications of intention to submit full proposals involving a total project cost of \$257 million had been received.

Promotional Activities

5. To promote NAMI's work and solicit industry support, NAMI has set up a corporate website (www.nami.org.hk) and participated in/ co-organised various promotional activities in Hong Kong and overseas including international conferences and roadshows to introduce its work, research outputs and deliverables, establish network and seek collaborations. These activities have generated positive responses from the industry and research institutes and the Centre has received many enquiries on possible collaboration and membership applications. Major activities include:

- (a) Symposium for R&D Project Solicitation on 16 August 2006 – it

aimed to introduce NAMI's vision, research focus areas, IP policy and arrangement, application and vetting procedures of R&D proposals. The symposium was well attended by representatives from the industry, universities and research institutes;

- (b) 2006 International Conference on Nanotechnology and Advanced Materials (2006 ICNAM) and its concurrent events, the Nanotechnology Commercialisation Forum 2006 (NCF 2006) and the third Asia Nano Forum Summit (ANFoS 2006) – These events were held on 1-3 November 2006 in the Hong Kong Convention and Exhibition Centre and The Hong Kong University of Science and Technology.

The 2006 ICNAM was jointly organised by the NAMI, the Hong Kong Productivity Council, the Federation of Hong Kong Machinery and Metal Industries and the HKUST. The ICNAM aimed to upgrade knowledge related to nanotechnology and advanced materials and to provide a platform for technology exchanges and commercialization. Prominent figures like Prof Klaus von Klitzing, the 1985 Winner of Nobel Prize in Physics, was one of the keynote speakers of the event.

ANFoS 2006 was the major activity of Asia Nano Forum (ANF) which is a collaborative research network on nanotechnology within the 13 Asia Pacific economies. Hong Kong was the hosting economy for ANFoS 2006 and NAMI was the principal organizer.

Primarily organized by NAMI, the NCF 2006 aimed to create business connections between the industry and the financiers. Industrialists and experts from various disciplines were invited to share their experience in commercialising R&D into successful products and businesses; and

- (c) Industry forum on 25 May 2007 – it focused on metal treatment and energy where experts and enterprises were invited to share the latest developments of related technologies and products. The Forum provided an opportunity for business matching and triggered new ideas of industry-led R&D projects.

6. NAMI has also made numerous visits to and presentations at trade associations and individual companies to introduce nanotechnology and advanced materials that might be of interest to various industrial sectors of Hong Kong. The response has been very positive, resulting in large number of visits by industrialists and investors to NAMI for detailed discussions. A number of such discussions have led to product concepts that were of commercial potential. Meanwhile, the Consortium on NanoTechnology and Advanced Materials setup by the Centre has recruited 67 members from various industrial sectors and research institutions. Five companies have also engaged the testing and consultancy services provided by the Centre.

Future Activities

7. The Centre will focus its efforts on the R&D programme including the implementation of the approved R&D projects and conducting further rounds of project solicitation if necessary. NAMI will also seek active industry collaboration on establishing a demonstration production line for high performance display panels.

8. The Centre will conduct regular reviews to improve the Centre's operation and corporate governance. A Corporate Governance Manual has been prepared and is being finalized.

9. NAMI will continue its promotion efforts. It plans to participate in various exhibitions and forums in 2007/08, including the International Conference on Nanoscience and Technology in Beijing in June 2007, the Innovation Expo in September 2007, as well as the Asia Nano Forum in December 2007. The Centre will continue to visit industry associations to invite more industry participation in R&D projects.

10. A list of major corporate activities undertaken/planned by the Centre in 2006/07 and 2007/08 is at Appendix I.

Appendix I to Annex I

**Major corporate activities undertaken/planned by the Centre
in 2006/07 and 2007/08**

2006/07

Date	Events/Activities
20 Apr 2006	Launching Ceremony of Hong Kong R&D Centres organized by ITC
29-30 May & 8-9 Jun 2006	Participated in the PRD Roadshows in 4 cities organized by ITC and the Guangdong Provincial Department of Science and Technology
17-19 Jun 2006	Participated in the Fujian Technology and Projects Fair, China
19-21 Jun 2006	Participated in the International Symposium on Nanotechnology in Environmental Protection and Pollution (ISNEPP 2006) as speaker and exhibitor
26-30 Jun 2006	Joined the Venture Forum 2006 cum visits in the United States led by ITC together with other R&D Centres
16 Aug 2006	Organised the Symposium for R&D Project Solicitation
12-17 Oct 2006	Participated in the China Hi-Tech Fair 2006, Shenzhen, China as exhibitor
24 Oct 2006	Meeting with the Chief Executive of the HKSAR together with other R&D Centres
1-3 Nov 2006	Co-organised the 2006 International Conference on Nanotechnology and Advanced Materials, concurrently held with the Nanotechnology Commercialisation Forum 2006 and the Third Asia Nano Forum Summit
9-13 Nov 2006	Participated in the Innovation Festival 2006 (Youth Innovation Exhibition) as exhibitor
29 Nov – 1 Dec 2006	Participated in the Innovation & Design Expo 2006 as exhibitor
15 Dec 2006	Received a delegation of the Shanghai Municipal Government
2006/2007	Visits and meetings with trade associations of different industries
2006/2007	Published and maintained NAMI industrial consortium website, newsletters, etc.

Date	Events/Activities
2006/2007	Expanded the NAMI website to include a database of technical updates, business opportunities, education and promotional materials like presentation slides, e-version of brochures and posters etc.

2007/08

23 May 2007	Received delegations from the industry and academia of Guangdong Province and Jiangxi Province
25 May 2007	Organized the Metal Treatment and Energy Forum
1-4 Jun 2007	Participation in the International Conference on Nanoscience and Technology in Beijing, China as exhibitor
Aug 2007	Organize the Moulding and Plastics industries workshop
	Visit to Shenzhen Textile Industry Association
Sept 2007	Participation in the Innovation Expo 2007 as exhibitor
Oct 2007	Participation in the China Hi-Tech Fair 2007 in Shenzhen, China as exhibitor
Dec 2007	Co-organizer of the Asia Nano Forum, Federation of Hong Kong Machinery and Metal Industries Conference 2007
	Participation in the Innovation and Design Expo as exhibitor
2007/08	Visits and meetings with trade associations of different industry sectors

**Report of
The Hong Kong Research Institute of Textiles and Apparel (HKRITA)
(for the period April 2006 to June 2007)**

A summary on HKRITA's R&D programmes, promotion and marketing activities, administration and future work is as follows:-

1. R&D Activities

(a) Project Summary

During the report period, HKRITA issued the first tranche call for R&D projects under four main technology areas (namely (1) new materials and textiles and apparel products, (2) advanced textiles and clothing production technology, (3) innovative design & evaluation technologies, and (4) enhanced industrial systems & infrastructure). The 10 R&D projects are:

	Project Title	Project Duration (months)	Organisation
1	Biofunctional Material and Application	12	Hong Kong Polytechnic University (PolyU)
2	Advanced Clothing Functional Design CAD Technologies	12	PolyU
3	Development of an Innovative Finishing System for Wet Processing of Garments and Accessories	12	Hong Kong Productivity Council (HKPC)
4	Advanced Textile and Garment Manufacturing Process Technology	18	PolyU
5	Development of a Laboratory-Scale Electrochemical Mercerization and Bleaching System for Technological Evaluation	12	HKPC
6	Finer Nu-Torque Cotton Yarn Production	18	PolyU

	Project Title	Project Duration (months)	Organisation
7	Development of Fabric Structure Analysis and Appearance Evaluation System	21	PolyU
8	Advanced Functional Surface Treatment Technology for Textile Materials	18	PolyU
9	Imaging Colour Measurement (ICM) System for Textile and Garment Industry	18	Zhejiang University & PolyU
10	Development of Shape Memory Knitted Fabrics/Garments	24	PolyU

(b) Extension Services

The R&D team has commenced to provide extension services including technical consultancy, project matching and R&D programmes to assist the textiles and apparel industry:

Technical Consultancy

Over the past few months, HKRITA has responded by enquires from the industry relating to:

- Problem solving
- Technology upgrading
- New product/process/service development
- Brand development in relation to design, quality and technology
- Establishment of in-house R & D operations

Some of the technical issues raised have been resolved by the R & D team. In addition, enquiries covering more complex technical issues have been referred to relevant research organisations, some of which should result in project applications for funding.

Project Matching

Local research institutions/organizations have begun to seek HKRITA's advice on the feasibility and marketability of certain project ideas. Our role would be to ascertain whether such proposals would assist in solving

practical problems faced by the industry and, if so, provide a “project matching service” by identifying industry partners who would support from such research.

Project matching service provided to the industry in 2006/2007:

Date	Research Area	Organisation Matched
29 Nov 2006	Production Documentation System to SMEs	HKPC
05 Dec 2006	Textile and Garment Communication System	PolyU
14 Dec 2006	Functional Uniform	PolyU
18 Dec 2006	Six Sigma Application on Textiles and Clothing Industries	Clothing Industry Training Authority (CITA)

Matching of technical support service provided to local textile and clothing companies in 2006/2007:

Date	Technical Support Services	Technical Support Service Providers
22 Jun 2006	Nano-technology for Bed Clothes	PolyU
01 Jul 2006	Pilling of Wool/Cashmere Sweater	HKPC
17 Nov 2006	Welding Technology	PolyU
08 Dec 2006	Self-cleaning Function Application to School Uniform	PolyU
16 Feb 2007	Sample Dyeing of Specialty Fibres	HKPC
16 Feb 2007	Smart Colour Simulation System	HKPC
02 Mar 2007	Sweater Automation, Energy Saving and Training	HKPC

R&D Programmes

HKRITA believes that periodic seminars and lectures / training programmes would benefit the industry. This would help to keep practitioners abreast of the latest developments in the industry. Subjects could, inter alia, cover:

- Textiles and clothing technology
- Project management
- Technology management

Academic staff from universities and outside experts will be invited to lead seminars and training programmes. Hopefully, this in turn would arouse participants' interest in utilising our technical consultancy service and also result in new R & D projects being generated.

A technology symposium on "New Ideas, New Opportunities" was held on 19-20 April 2007. The Symposium attracted 406 attendees. Over 92% of participants came from various industrial sectors including the buying office, trading, textiles and apparel manufacturing, garment machinery and testing laboratories. The rest were from research institutes and the universities, as well as the other R&D Centres and government representatives.

Other R&D Activities

Project meetings and visits engaged in 2006/2007:

Date	Meetings / Visits	Organisation
12 Jun 2006	Meeting with Consultant, Manufacturing Technology	HKPC
10 Jul 2006	Meeting with Director of Fibrous Materials Research Centre	Drexel University, USA
11 Jul 2006	Meeting with Operation Director	Eleksen
12 Jul 2006	Meeting with Chair Prof in Fashion Design	PolyU
13 Jul 2006	Meeting with Customer Services Team	HKTDC
19 Jul 2006	Meeting	City Y & Fong's
20 Jul 2006	Project Exploratory Meeting	A-Fortune Company
21 Jul 2006	General Management Team Meeting	Textiles Association of Bleaching, Dyeing, Printing & Finishing (BDPF)
26 Jul 2006	Project Meeting	HKPC
26 Jul 2006	Meeting	US National Science Foundation Centre
8 Aug 2006	Meeting with Programme Leader, MA/MSc Design & Manufacture	De Montfort University, Leicester, Bedford, UK

Date	Meetings / Visits	Organisation
8 Aug 2006	Meeting	Great Enterprise (Global) Ltd
9 Aug 2006	Meeting	M Magtague Group
9 Aug 2006	Meeting	Kowloon Chamber of Commerce
11 Aug 2006	Meeting with Faculty of Textile Science and Technology	Shinshu University, Japan
21 Aug 2006	Meeting with Science Advisor of ITC, HKSAR Government	ITC, HKSAR Government
25 Aug 2006	Meeting with Chief Administrator	Glorious Sun Enterprises Ltd.
18 Sep 2006	Visited by Head of School of Textiles & Design	Heriot Watt University UK
3 Nov 2006	Project exploratory meeting on technological cooperation between Shenzhen and Hong Kong	HKTDC
17 Nov 2006	Technical enquiry meeting	Common Rich Technology Ltd. And Hyosung (HK) Ltd.
8 Dec 2006	Meeting with Director	Ka Wah Light Industry Ltd.
27 Dec 2006	Meeting with Managing Director	Polliam Trading Corporation Limited
10 Jan 2007	Meeting	KARL MAYER (H.K.) Limited / KARL MAYER Textilmaschinenfabrik GmbH
17 Jan 2007	Meeting	Hong Kong Apparel Society, Institute of Textiles and Clothing of PolyU, Messe Frankfurt
29 Jan 2007	Meeting with Global Design & Development Director	Arena Sportswear Company
6 Feb 2007	Meeting	Procter & Gamble

Seminars and other activities attended:

Date	Subject Title
29 May – 09 Jun 2006	Guangdong-Hong Kong R&D Innovation and Technology Collaborations Joint Roadshows in Guangzhou, Foshan, Shenzhen, Dongguan
23 Jun 2006	HKTDC's Garment Advisory Committee Meeting
23 Jun 2006	HKGCC's Industry and Technology Committee Meeting
26 Jun 2006	Seminar for Professors from Rajamangala University, Bangkok, Thailand
7 Aug 2006	R & D Project Applications
16-18 Oct 2006	The Sixth International Thermal Manikin and Modeling Meeting
21 Oct 2006	Seminar at Glorious Sun Holding Ltd.
01-03 Nov 2006	2006 International Conference on Nano Technology and Advanced Materials
29 Nov – 01 Dec 2006	Innovation & Design Expo
01 Dec 2006	Innovation Festival 06 – Closing cum Award Presentation Ceremony for My Favourite Inventions for Quality Living Competition
15-18 Jan 2007	Hong Kong Fashion Week for Fall / Winter 2007
27 Jan 2007	Seminar on <i>The Latest Breakthrough in Technology for Textile Dyeing and Finishing</i> (HKRITA is one of the supporting organisations)
08-09 Mar 2007	Visit to Guangdong Province, China organized by ITC (to build up network with the mainland textile industry)
28-31 Mar 2007	The 8 th China (Dongguan) International Textile Industry Fair

R&D Activities planned to be held in 2007/2008

- i) Four local study visits;
- ii) Two overseas study visits;
- iii) Four conferences;
- iv) Six seminars; and
- v) Two workshops.

2. Promotion and Marketing Activities

(a) Interviews with media and press were arranged to promote the research projects of HKRITA

Newspapers/ publications	Subject	Published
Sing Tao Newspaper	理大納米發光布可製屏幕	21 Aug 2006
Career Times	World-class Research for the Textile Industry	24 Nov 2006
Yellow Page, PCCW	HKRITA Opens a New Chapter for the Textiles and Apparel Industry	Jan 2007 Issue
Textiles and Clothing, HKPC	香港製衣業發展回顧及前瞻	Feb 2007 Issue
South China Morning Post	Interstoff Supplement: Re-branded Event Focuses on Latest Trends in Industry	7 Mar 2007

(b) Advertisements were placed in apparel publications and magazines to increase the awareness of HKRITA in the industry

Newspapers/ publications	Subject	Issued
Technical Usage Textiles (TUT)	Hong Kong R&D Moves Forward	No.59, 2006
Textiles and Clothing, HKPC	香港研發中心正式成立	Vol.18, No.3, Jun 2006
Fashion Maker	Advertisement: The Hong Kong Research Institute of Textiles and Apparel	Oct 2006
Hong Kong Entrepreneur	拓展嶄新科技 創造商業成果	Oct 2006
SME Newsletter “Pulse”	研發展商機	8 th Issue, Nov 2006
WFM	Advertisement: The Hong Kong Research Institute of Textiles and Apparel	No.14, S/S 2007
Textiles and Clothing, HKPC	推動科研發展有助業界提高產品附加值	Vol.19, No.1, Feb 2007
Fashion Maker	Advertisement: The Hong Kong Research Institute of Textiles and Apparel	Mar 2007

A press release on HKRITA’s first technology symposium, “Technology Symposium for Textiles and Apparel: New Ideas and New Opportunities”,

was issued on 20 March 2007.

Promotion materials including corporate brochures, corporate posters and pamphlets on R & D extension services were produced.

(c) Website

HKRITA launched its website on 1 August 2006. The contents, inter alia, cover our mission and vision statements, the four technology focus areas for R&D projects, corporate news and membership schemes. The website is updated regularly to provide the industry with the latest information of HKRITA's corporate events and activities.

The Chinese version of HKRITA website was launched on 31 December 2006. In addition, the website will also be expanded to include a R&D project database.

(d) E-Newsletter

Three issues of HKRITA e-Newsletter were released on 30 September 2006, 1 January 2007 and 1 April 2007. The e-Newsletters provided news, reports and events about HKRITA, with the latest information on our activities. The online e-newsletter is issued quarterly to keep HKRITA members and business contacts abreast of our latest developments.

A new section for technology features has been launched in the e-Newsletter to arouse the industry's interest in new technologies.

(e) Other major initiatives/activities are tabled as below:

Publicity events and other programmes from April 2006 to March 2007

Date	Events	Venue
Local		
20 Apr 2006	Launching Ceremony of the R&D Centres	HKCEC, Hong Kong
3 May 2006	World of Trims Exhibition organised by Apparelkey	PolyU, Hong Kong
22 Jun 2006	FHKI Member Casual Lunch Gathering	Hong Kong

Date	Events	Venue
23 Jun 2006	HKGCC Industry and Technology Committee Meeting	Hong Kong
23 Jun 2006	HKTDC's Garment Advisory Committee Meeting	HKTDC, Hong Kong
11-14 Jul 2006	Fashion Week Spring/Summer 2007	HKCEC, Hong Kong
4 Aug 2006	Luncheon organised by Textile Council	Hong Kong
4-6 Oct 2006	Interstoff Asia Autumn	Hong Kong
16-8 Oct 2006	The Sixth International Thermal Manikin & Modelling Meeting	PolyU, Hong Kong
10-13 Nov 2006	Innovation Festival 2006: Youth Innovation Exhibition	Hong Kong Science Museum, Hong Kong
29 Nov – 1 Dec 2006	Innovation and Design Expo	HKCEC, Hong Kong
15-18 Jan 2007	Hong Kong Fashion Week for Fall / Winter	HKCEC, Hong Kong
27 Jan 2007	Seminar on the Latest Breakthrough in Technology for Textile Dyeing and Finishing	Clothing Industry Training Authority, Hong Kong
<u>Overseas</u>		
7 Apr 2006	The 8 th China Venture Capital Forum	Shenzhen, China
29-30 May 2006 8-9 Jun 2006	Road-shows organised by the ITC	Guangzhou and Foshan, Shenzhen and Dongguan, China
6-10 Jun 2006	2006 Pan PRD Trade Fair – HK Pavilion organised by HKTDC	Yunnan, China
19-23 Jun 2006	IFFTI Annual Conference	North Carolina State University, Raleigh, United State
28-29 Jun 2006	The Venture Forum	Silicon Valley, USA
18 Jul 2006	Forum on the Applications of Advanced Technology on Textiles and Apparel	Shenzhen Virtual University Park, China
12-17 Oct 2006	China Hi-Tech Fair	Shenzhen, China
8-9 Mar 2007	Visit to Guangdong Province, China	Guangdong, China
28-31 Mar 2007	The 8th China (Dongguan) International Textile Industry Fair	Dongguan, China

Delegation visits to HKRITA from April 2006 to March 2007

Date	Delegates/visitors	No of visitors
26 Apr 2006	Delegation from Fujian 福建省經濟貿易委員會	6
2 Jun 2006	Prof Trevor Little, Head of Textile Department, North Caroline State University, USA	1
30 Jun 2006	Delegation from Fountain Set (Holdings) Limited	30
6 Jul 2006	Delegation from Fo Shan Garment / Clothing Associations	30
28 Aug 2006	Delegation from Savantas Policy Institute	4
14 Sep 2006	Dr Liren Wang and a delegate from Zhejiang University City College	2
18 Sep 2006	Prof Roger H Wardman, Head of School of Textiles & Design, Heriot Watt University, UK	1
16 Oct 2006	Delegation from Cotton Incorporated	3
3 Nov 2006	Assistant Executive Director Mr Raymond Yip and other senior staffs from HKTDC	6
21 Nov 2006	Dr Ma Lian, Manager, BASF (China) Co., Ltd.	1
9 Dec 2006	Delegation from Hong Kong Public Relations Professionals' Association	25
27 Dec 2006	Polliam Trading Corporation Limited	3
10 Jan 2007	KARL MAYER (H.K.) Limited/ KARL MAYER Textilmaschinenfabrik GmbH	4
11 Jan 2007	DowChem	5
23 Jan 2007	Consul General of the Islamic Republic of Pakistan	1
25 Jan 2007	Mr Wilson Fung, CEO and senior staffs of HKPC	3
29 Jan 2007	Delegates from Arena Sportswear Company	4
6 Feb 2007	Mr Nodie Washington, Mr Nasser Fredj and Dr Jiping Wang from P&G	2
12 Feb 2007	Mr Yosikazu Yamasaki 山崎義一, Head of Osaka Office, Japanese Fiber Society and Dr Kanji Kajiwara 梶原莞爾, Faculty of Home Economics, Otsuma Women's University	2

The promotion and marketing activities planned to be held in 2007/2008:

- i) The planned publicity events for promoting HKRITA and its R&D projects are tabulated as below:

Date	Local Events	Venue
Apr 2007	Technology Symposium	PolyU

Date	Local Events	Venue
Jul 2007	Hong Kong Fashion Week S/S	HKCEC
TBA	China Innovation Achievements Expo	TBC
Oct 2007	Innovation Festival	TBC
Oct 2007	Interstoff Asia Essentials	HKCEC
Nov / Dec 2007	Innovation and Design Expo	TBC
Jan 2008	Hong Kong Fashion Week F/W	HKCEC
Jan - Mar, 2008	HKRITA Annual Conference	TBC
As required	Technology Seminars / Workshops	PolyU

Date	Overseas Events	Venue
May 2007	Visit to Cooperative Research Centres in Australia	Australia
Sep 2007	ITMA Germany	Munich, Germany
Oct 2007	China Hi-Tech Fair 2007	Shenzhen, China

- ii) Interviews with media and press will be arranged to promote the R & D projects of HKRITA.
- iii) Promotional material will be produced for research projects.
- iv) HKRITA articles/advertisements will be placed in popular textiles and apparel publications including Textile and Clothing (HKPC), Textile Asia, Fashion Maker, Fashion Technology Magazine etc., in order to increase the awareness of HKRITA in the industry.

3. Corporate Services

(a) Human Resources

Recruitment of Senior Staff

Since its establishment in April 2006, HKRITA has appointed senior staff to fill the following positions:

- i) Chief Executive Officer
- ii) Director, Research and Development
- iii) Manager, Corporate Services

The Centre has no plan to recruit tier 1 or tier 2 staff in the financial year 2007/08.

Eight members of supporting staff for research and development, corporate

services and marketing functions have been recruited. The HKRITA Secretariat now has a total establishment of 11 members.

(b) Other Major Corporate Initiatives/Activities

Renovation of the HKRITA office was completed by end August 2006 with a net office area of 139 square metres (1,514 sq ft) located at R906-07, Shirley Chan Building, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong.

The Secretariat has worked out the terms of office rental and the service agreements with PolyU.

The Corporate Governance Manual which lays down detailed guidelines on the control and management of HKRITA was endorsed by the Board at its first meeting on 15 June 2006.

HKRITA has appointed, following the procurement procedures laid down in the Corporate Governance Manual, (1) KPMG as HKRITA's auditor for the financial year 2006/2007 and (2) Simmons & Simmons as HKRITA's legal advisor to provide professional services on project contracts and related issues for a term of two years.

**Report of the R&D Centre on
Logistics and Supply Chain Management Enabling Technologies
(for the period April 2006 to June 2007)**

1) R&D Activities

A. R&D Project Solicitation

LSCM has received 17 applications from the 1st call of application and six R&D projects have been approved by ITC with a total ITF funding of HK\$32.8M. All the projects are expected to commence soon. Details of the approved projects are:

	Project Title	Duration (months)	Organization
1	Integrated passive UHF RFID tags and readers	18	Hong Kong University of Science and Technology
2	Study the Design Challenges of 90nm Technology UHF RFID Tag IC	18	Chinese University of Hong Kong
3	An eLogistics Appliance with Data Exchange & Conversion Technologies for Infrastructure Connectivity	18	The University of Hong Kong
4	RFID Benchmarking: Methodology and Practice	18	Hong Kong University of Science and Technology
5	RFID-based Interoperable Gateway for Logistics Service Platforms (RIG)	16	LSCM
6	RFID Enabling Technologies for Retail & Industry	12	The University of Hong Kong

B. General R&D Activities

LSCM has organized a few technology exchange forums in Hong Kong and PRD region to collect views from industries and academia. We will continue to solicit the industry views and map into the Centre's technology roadmap to ensure our R&D directions and strategies are synchronize with the market needs.

2) Centre Operations

A. Recruitment of Staff

The Centre has 14 employees on board as of May 2007.

B. Centre Office

The Centre is planning to move to HKU Cyberport campus from the main campus of the University of Hong Kong during Q3/Q4 of the year.

3) Major business development and activities

LSCM has reached two MOUs with CITA RFID China Alliance and Shanghai Integrated Circuits Research Centre in order to promote and implement RFID technologies and application systems in PRD region. And the Centre will continue in building up closer relationships and collaborations with relevant industry players in PRD region.

The Centre has co-organized a technology forum on November 28, 2006 with GDRC in Guangzhou. Both OGCIO of HKSAR and the Department of Information Industry of Guangdong Province were the core sponsors of the event in addition to the industry players from Guangdong and Hong Kong.

The Shanghai Vice Mayor, Ms Yan Juanqi, led a delegation consists of officials from the Shanghai Municipal People's Government to visit the Centre on December 16, 2006. And the delegation expressed great interest in our foundation projects.

During May 10 to 12, 2007, Centre has organized a Hong Kong Pavilion in the "RFID Summit" in Beijing together with China RFID Alliance. And three of our industry members displayed their technologies inside the Pavilion. During the event, Centre also co-organized an industry exchange forum for our Hong Kong delegates to meet with relevant officials and industries.

4) Industry Program

The Centre has an industry membership program with three types of membership as below in November 2006. And so far, we have recruited

around 150 members for all types of membership.

Class	Description
Individual	Individual participates as an ordinary member.
Company / Institute	Company/institute participates as an ordinary member, e.g. small or medium sized enterprise, venture capitalist, R&D organizations and universities.
Technology / Solution Provider	Companies that provide solutions and technologies to end-user companies. They will have preference to participate / speak / sponsor / co-organize in Centre's events.

**Report of the R&D Centre on
Automotive Parts and Accessory Systems
(for the period April 2006 to June 2007)**

Since its inception in April 2006, the Centre has made considerable progress in leveraging on the research capabilities of the local universities and other research institutions, building up a worldwide business network, and in promoting market-led R&D programmes on automotive parts and accessories in Hong Kong. In consultation with the Board of Directors and a small group of international honorary advisors, the Centre has recently redefined its vision, mission and strategic objectives (**Appendix I**) in coping with the latest market developments of the auto industry.

R&D Programmes

2. By end-March 2007, through proactive marketing efforts, the Centre has solicited 23 R&D project proposals with varying degree of industry participation. These project proposals fall in either of the four pre-determined focus technology areas, namely: electronic and software; safety systems; hybrid, electric drives and environment; and new materials and processes. Of these, four platform projects have been approved by ITC, involving total funding support of \$11.4M. Agreement in principle has also been given by ITC for another four project proposals, including three collaborative projects and one platform project. Details of the four approved projects are as follows:

	Project Title	Duration (months)	Organization(s)
1	Battery-less Tire Pressure Monitoring System	12	Chinese University of Hong Kong and Hong Kong Productivity Council
2	Low Cost Direct Drive for Electric Vehicles	18	Hong Kong Polytechnic University
3	Powder Metal Forming Technology for High Temperature Light Weight Aluminium Titanium Alloys	18	City University of Hong Kong

	Project Title	Duration (months)	Organization(s)
4	Development of Microcellular Goam Injection Moulding Technology incorporated with the Co-injection Technology for Producing High Quality and Value-added Plastic Automotive Parts	18	Hong Kong Productivity Council

3. In tandem with the R&D programme, the testing and certification laboratory of the Centre will commence operation in October 2007, providing specialty testing and verification facilities for R&D projects.

4. In late June 2007, the Centre has launched another round of project invitation. It will also reach out to the original equipment manufacturers and automotive parts suppliers in Hong Kong and the Mainland. In this connection, the Centre will find out their technology needs, and offer to cooperate to resolve their problems through contract research and collaborative R&D projects. Such modality of cooperation would help a better chance of success in the commercialization of the research outcomes.

Promotion and Networking Activities

5. The Centre has established a wide business network covering the automotive parts manufacturers and related industry groups of the Mainland, making every visit and networking events to publicize the Centre's work and related R&D opportunities. The Centre has organized technical seminars, workshops and road shows, and participated in major conferences, exhibitions and forums held locally or overseas. It has also established a close working relationship with the local universities and other primary R&D organizations in Hong Kong. A list of publicity and promotional activities undertaken by the Centre during the period April 2006 and June 2007 is at **Appendix II**.

6. The Centre has also launched a Members Club, and recruited 249 individual and corporate members in 2006/07. Among these members, 168 are from the industry, and 81 from education and research institutions. The Centre publicizes the latest activities on its website (<http://www.apas.hk>), through which Members can access to useful industry information, industry reports, standards and engineering specifications of major global automotive makers, etc.

Centre Operation and General Administration

7. The Centre maintains a structure comprising 13 staff members. Headed by a Chief Executive Officer, the ten professional and technical staff is involved in business development and commercialization, research and technology, and quality and compliance services respectively. The CEO is assisted by three general staff in the day-to-day administration of the Centre. The Hong Kong Productivity Council (HKPC) as the host organization continues to provide finance, human resources, administration and information technology support to the Centre.

8. The operational expenditure of the Centre in fiscal year 2006/07 amounted to \$12.7M, as against the original estimate of \$27.4M. The under spending is largely attributed to the prolonged process in staff recruitment and deferred procurement of testing equipment.

9. The Centre management takes a serious view of good corporate governance. In 2006/07, modeling on HKPC's administrative manuals and procedures, the Centre has developed a set of comprehensive Operational Manual of his own for use in day-to-day operation. The manuals were endorsed by the Board of Directors.

Future Activities

10. The Centre is working on a long term business plan and a sustainable business model, with the bulk of future income generated by the Centre including income derived from the commercialization of the research outcome. The Centre will enhance its networking with the auto industry and the academia, and continue to promote its role and activities, as well as its R&D capabilities and related facilities. It has also planned to enhance its corporate image through a number of networking and promotional activities, including seminars, workshops, etc at Appendix III in Hong Kong, the Pearl River Delta region, and in other parts of Mainland China.

11. The Centre attaches great importance to the Members Club which is a fermenting ground for potential industry partners or sponsors in R&D projects. The Centre will strengthen its services for Members Club in 2007/08 and gears up its membership drive to recruit new members from various industry sectors.

12. The Centre is deliberating on detailed arrangements for establishing its own dedicated technology team to strengthen its in-house research capabilities in specific technology areas, and to support the Centre's R&D projects.

Appendix I to Annex IV

**Vision, Mission & Strategic Objectives of
the R&D Centre on Automotive Parts and Accessory Systems**

Vision

To become a world-class automotive parts R&D centre and assist Hong Kong foundation enterprises to enter in the automotive industry

Mission

- Develop R&D competencies in the core focus areas
- Establish related network in China and overseas
- Collaborate with, China and overseas R&D partners
- Promote R&D services and expand the user base

Strategic Objectives

- Assist local enterprises to enter automotive parts industry
- Pro-actively identify market needs including after-market and Original Equipment Manufacturing (OEM) business
- Build core competencies including collaborating with outside experts and partners on R&D programmes
- Commercialize R&D results and engage in related R&D and technical activities in order to achieve financially self-sustainable in long-term

Appendix II to Annex IV

**Completed Publicity and Promotional Activities
of the R&D Centre on Automotive Parts and Accessory Systems
(April 2006 – June 2007)**

Date	Events
8-11 April 2006	Hong Kong International Auto Parts Fair Seminar
20 April	Opening of R & D Centres
7-11 May	2006 長江經濟帶生產力發展(南京)論壇暨南京汽車經貿合作考察
15-16 May	2006 International Conference for Asia Pacific Automotive Industry
15-17 May	2006 International Auto Parts & Accessories Fair
29-30 May	Roadshows in Guangzhou & Foshan
30 May	CEO as guest speaker in Trade Development Council Dinner in Guangzhou
7 June	武漢市科技局代表團探訪汽車零部件研發中心
8-9 June	Roadshows in Shenzhen and Dongguan
16 June	Shandong Delegation visit to APAS R & D Centre
23 June	香港汽車設計及汽車新材料高端研討會
28-29 June	Venture Forum 2006 in San Jose, U.S.A.
14 July	CEO as guest speaker of Federation of Hong Kong Industries Casual Lunch
17 July	Project Solicitation Workshop organized by the Centre
14-17 August	CEO's visit Norsatar Automotive Holdings in Anhui, Shenyang and Beijing
3-5 September	CEO participated in Automotive Parts Study mission to Changchun
21 September	Visit by Shenzhen Deputy Mayor
22 September	Project Collaboration Workshop organized by the Centre
9 October	'From Series HEV to Fuel Cell Electric Vehicles' Seminar organized by the Centre
10 October	Visit to Institute of Vocational Education (Lee Wai Lee Campus)
12-17 October	China Hi-tech Fair 2006
16 October	CEO's visit to Guangzhou Honda and Guangzhou Electric Apparatus Institute with delegates of AutoCRC from Australia
17 October	CEO's visit to PolyU and IVE(Lee Wai Lee) with delegates of AutoCRC from Australia
24 October	Presentation at Chief Executive's visit to ITC
27 October	CEO being guest speaker at the dinner hosted by the America Hong Kong Electronics Association
10-13 November	Youth Innovation Exhibition 2006

Date	Events
14 November	Technical Seminar on Application of High Efficiency Electric Motor in Hybrid or Pure Electric Vehicle
18-25 November	CEO's visit to 2006 Beijing International Automotive Industry Exhibition (Auto China 2006), Norstar Holdings, Great Wall Motor Visit to Shanghai Automotive Industry Corporation (Group), Shanghai General Motors Co. Ltd., Shanghai Delphi, Viseton Corporation
29 November – 1 December	Participation in the Innovation and Design Expo
12-13 January 2007	江門市與日本零部件商合作簽約會
1-3 February	Visit to Norstar Auto Industrial Holdings in Hefei
7 March	FAW Group visit R & D Centre
9-11 March	Visit to Auto Maintexpo China
15 March	Delegation from Jianmen visit R & D Centre
23 March	Traders Meet with Auto Parts Industry Seminar and Exhibition
28 March	TDC Electronics/Electrical Appliances Industries Advisory Committee meeting
28 March	'Intellectual Property' Breakfast Seminar organized by the Centre
28-30 March	Visit to Key Safety Systems, Delphi, Maple Automobile, TRW in Shanghai
22 April	Visit to Shanghai Auto Show and business partners like SAIC, Shanghai Jiaotong University and Key Safety
28 April 2007	CEO speaking in Hong Kong International Auto Parts Fair Seminar
28 Apr – 1 May	Participation in Hong Kong International Auto Parts Fair
30 April	Meeting with Hubei Technology Delegation to promote the Centre
3 May	Participation in 'Networking with Technology based Company' event organised by InvestHK
14 May	Director speaking in 'Seminar on Hybrid and Electric Drive Technologies for Automobile'
14 May	Meeting with U.K. delegation in British Consulate General to promote the Centre
15 May	Visit to Chery, JAC and Nanjing University of Science and Technology
30 May – 2 June	Visit to Wuhan auto parts manufacturers
15-17 June	Participation in Changchun Optoelectronic Exhibition
15 June	Visit from Shanghai Auto Industry Corporation Motor with discussion of potential R & D projects

Date	Events
20 June	Visit to Guangzhou Auto Group (parts division) to discuss potential R & D projects
20 June	Visit to Sun Yat-Sun University to discuss electric vehicle development
25 June	'Project Partnership Workshop 2007' organized by the Centre
26 -30 June	CEO's visit to Jilin with TDC Delegation to promote the Centre
28 June	'Power Electronic and Tubular Hydroforming' Seminar organized by the Centre
29 June – 2 July	Participation in Changchun International Auto Parts Exhibition

Appendix III to Annex IV

**Planned Publicity and Promotional Activities of
the R&D Centre on Automotive Parts and Accessory Systems
(July – December 2007)**

Date	Events
28-31 August	2007 華南國際汽車電子展覽會 to promote the Centre to PRD companies
14-19 September	Innovation Expo 2007
26-28 September	Visit to Auto Parts Shanghai 2007
12-17 October	Participation in China Hi-Tech Fair 2007
5-7 December	Participation in Automechanika Shanghai to promote the Centre
Mid-December	Project Progress Report Seminar organized by the Centre

**Report of the R&D Centre on
Information and Communications Technologies (ICT)
(for the period April 2006 to June 2007)**

Activities over the period

R&D Projects

Before the establishment of the ICT R&D Centre, ASTRI was undertaking 16 on-going projects. Since April 2006, ASTRI has 27 projects approved by ITC. Details of the 27 projects are as follow -

<u>Project Title</u>	<u>Duration (months)</u>
• Advanced Broadband Wireless Technologies Platform	17
• Customizable Element Management System (EMS) for Wireless Networks	17
• LED for General Lighting - Area Light Source (Phase 1)	6
• Wireless Personal Area Networking and Streaming Media Access Control	18
• High Definition TV Technologies Applied Research Platform	24
• Portable Dual Mode Wireless and Broadcast Multimedia Platform (Phase 1)	6
• Smart Optical Sensors	18
• Advanced Indoor MIMO Platform	18
• Multi-Media Platform for Algorithm & Application Development (MMP-EMU) (Phase-1)	9
• AMS IC Design Platform for Integrated CCD Image Sensor Processing	18
• Power Management Integrated Circuits for Portable Consumer Electronics	12
• Digital Living Platform Full Project	12
• High Dynamic Range (HDR) Display System - Using Active-Dynamic LED Backlight	17
• Digital Living Platform Seed Project	6
• Low-Cost Solution for High-Performance and High-Density Packaging	6
• Digital Multimedia Broadcast Terrestrial (DMB-T) Television Baseband Demodulator Development	6
• Digital Multimedia Broadcast Terrestrial (DMB-T) Television RF Tuner Development	6

• Embedded Peer-to-Peer Media Distribution Technology	6
• Next Generation Anode Material for Lithium Ion Batteries (LIB) (carbon matrix embedded metal phosphide nano-composite)	6
• Networked TV Usability and Interoperability Technology	6
• Cost-effective packaging solutions for Automotive Electronics	6
• Feasibility Study of New GaN Thin Film LED Technology	6
• Recordable Electrical Memory / Single Address with Multiple data storage	6
• Cost Effective Fabrication for Antenna and RF Module	6
• Cache-Facilitated Media Delivery Technology	5.5
• Surface Mount RF Switches for Reconfigurable Antennas	6
• Anti-shaking Compact Camera Module for Cellular Phone Applications	6

Technology Transfer and Industry Contribution

2. The number of annual technology transfers from ASTRI to the industry has grown from a total of 2 in 2003/04 to 33 in 2006/2007. For the period from April 2006 to June 2007, ASTRI transferred 43 technologies to the industry, details of which are at [Appendix I](#).

Patent

3. Patent reflects innovation and inventiveness. They also serve as a basis for transferring technologies. The number of patents filed by ASTRI has increased more than fourfold from 14 in 2004/05 to 68 in 2006/07. For the period from April 2006 to June 2007, ASTRI filed 75 patent applications.

Collaboration with Universities

4. Since April 2006, ASTRI has engaged the Hong Kong University of Science and Technology (HKUST), Chinese University of Hong Kong and the Hong Kong Polytechnic University in a number of projects in the areas of internal antenna design, light emitting diode backlight unit, high definition TV technologies, etc.

Mainland Partnership

5. To promote its technologies, ASTRI has held 28 seminars and forums in the Mainland since April 2006. It has also participated in technology

standard bodies for strategic placement of its intellectual properties, such as the China Communications Standards Association (CCSA) and Intelligent Grouping and Resources Sharing (IGRS).

Promotional and Networking Activities

6. ASTRI has organized many dissemination and publicity events encompassing press conferences, international conferences and expositions, seminars and technology forums in the Mainland, Hong Kong, Taiwan, U.S. and Germany, media interviews, publications and TV productions, VIP visits and laboratory tours. As an initiative to raise the awareness and visibility of ASTRI in the international technology arena, and to enhance Hong Kong's position as one of the global leaders in communications and wireless services, ASTRI co-chaired and co-organized the Wireless Communications and Networking Conference (WCNC) 2007 – one of the world's foremost international technical conferences for engineers and researchers at the forefront of development and deployment of wireless technologies in Hong Kong from 11-15 March 2007. A list of the activities held since April 2006 is shown in Appendix II.

Future Activities

Projects

7. As at end June 2007, a total of 32 projects endorsed by the Technology Review Panel (TR Panel) of ASTRI have been submitted to ITC for funding approval. In the coming months, ASTRI has 3 projects pending in-house evaluation and another 4 projects are ready for consideration by the TR Panel.

Technology Transfer

8. ASTRI aims to transfer 40 technologies to the industry in 2007/08, which is a 21% growth over its achievement of 33 technology transfers in 2006/07.

Patent

9. ASTRI is currently drafting 21 patent applications. The target for 2007/08 is 71 applications.

Collaboration with Universities

10. We will continue collaborating with local universities closely in future projects. In the upcoming Low Cost High Density Packaging Project, ASTRI will collaborate with HKUST, Chinese University of Hong Kong, City University of Hong Kong and Hong Kong Polytechnic University.

Mainland Partnership

11. Eight technology forums and exhibitions are planned to be held in the Mainland, including Beijing, Shanghai, Qingdao and Shenzhen, in the 2007/08. ASTRI will continue to liaise with provincial and municipal Science and Technology Agencies as well as various high-tech Science Parks and secure their assistance in its promotional activities.

Promotional and Networking Activities

12. In the coming months, ASTRI plans to hold a series of conferences, seminars, technology forums and media interviews in Hong Kong, the Mainland and overseas, details of which are also listed at Appendix II.

Appendix I to Annex V

**R&D Centre on Information and Communications Technologies
List of Technology Transfers from April 2006 to June 2007**

1. WiFi Access Point and related technologies to a HK based WiFi equipment design house
2. Active-dynamic LED backlight module and driving algorithm to a LED packaging company in HK
3. VoIP phone feature enhancement for a HK company
4. H.264 IP Set Top Box to an Australia listed consumer electronic design company
5. H.264 Home Media Centre to a HK company
6. H.264 Home Media Centre to an Australia listed consumer electronic design company
7. Licensing of 8-bit MCU platform to a China company
8. Power IC packaging design and analysis to a leading Taiwan manufacturer of LEDs, including lamps, displays and infrared products
9. Laminate substrate based SIP to one of the world's leading magnetics companies based in HK
10. Licensing of H.264 IP Set Top Box to a HK based manufacturer
11. H.264 Real Time Surveillance recorder software to a leading acoustic products manufacturer in Taiwan
12. Low Drop Regulator IC to HK based IC design house
13. SIP based WiFi VoIP Phone to a leading HK manufacturer of consumer electronic products
14. Wireless Video Adapter to a market leader for tablet DVD player products based in HK
15. Si Wafer Fabrication for an Ireland company
16. Image Signal Processing Integrated Circuit Design to a HK based IC development house
17. Step-UP DC/DC converter IC to a HK based IC design house
18. H.264 Real Time Surveillance recorder software to a leading acoustic products manufacturer in Taiwan
19. Smart Optical Sensor Technology to the world's largest supplier of integrated assembly and packaging solutions based in HK
20. Contract service: VoIP phone feature enhancement from a HK company

21. Contract service: VoIP phone feature enhancement from a HK company
22. H.264 IP Set Top Box Design technology licensing to a HK company
23. LEDs for General Lighting to a HK company
24. Contract service: fab 4"/200um ceramic submount with TiW/Au coating for an Ireland company
25. Contract service: Assembly of VCSEL chips on TO-headers for an Ireland company
26. Contract service: Assembly Design Rules for a USA company
27. Contract service and licensing of camera with auto focus capability implemented for a HK company
28. Licensing of Multimedia CODECs, drivers, and software for PMP with digital TV capability for a HK company
29. VoIP phone feature enhancement for a Hong Kong company
30. Contract service: Integration of digital right management into HMC platform for an Australian company
31. Contract service: To provide consultation for smart antenna and miniature antenna design for a HK company
32. Development of incorporate REME/SAM material into URT circuit design of using TFT transistor gate to a Taiwan company
33. License of optimized structure design with Air Solid Heat Exchange Enhancement coating and capability of mass fabrication to a Taiwan company
34. Package design for optical transmitter & receiver to a US company
35. API development for HMC platform to a HK company
36. WiFi phone features enhancement to a HK company
37. MMP-EMU emulation platform boards to a China company
38. Consultancy services to develop Chinese AVS 1.0 audio and video decoder solution to a China company
39. Antenna design service to a USA company
40. SIP phone features enhancement to a HK company
41. Contract service to provide a bridge solution between UWB MII and 1394 interface with UWB module for a HK company
42. Licensing of WiMax base station to a HK company
43. Contract service to develop technology for 47" active-dynamic LED backlight and real time control module for a China company.

Appendix II to Annex V

**R&D Centre on Information and Communications Technologies
Publicity Events from April 2006 to June 2007**

Date	Activities
I. Press Releases (Already Issued: 11)	
19 Jun 06	ASTRI reconfirms Cadence as Key EDA Solutions Provider
20 Jul 06	CEVA & ASTRI Form Partnership to develop New-generation Multimedia Solutions for Hong Kong & Greater China
12 Oct 06	ACTO and ASTRI showcase Digital HD Projector Technology
17 Oct 06	ASTRI and IGRS demonstrate Home Media TV Streaming Over Wimedia UWB Technology
21 Oct 06	ASTRI announces appointment of new Board
2-3 Nov 06	ASTRI co-organizes 2006 China Radio Applications & Management Conference 2006, Nanjing
25 Nov 06	ASTRI Technology Forum on Multimedia Digital Home in Mianyang, Sichuan, China on 25 November 2006 (Chinese Version Only)
26 Nov 06	ASTRI and JadeTech Showcase UWB Wireless Communications Technology for IP Phone
12 Feb 07	ASTRI selects Boingo Embedded Toolkit To Enable Wi-Fi Roaming on Wireless VoIP Design
19 Mar 07	ASTRI announces appointment of new Director
17 May 07	ASTRI and ACTO showcases World's First UWB (Ultra Wide-Band) High Definition Video Ultra Big Screen Projector TV
II. International Conference/Exposition (Already Held: 26 Planning/Upcoming: 6)	
29 May 06	Joint R&D Centres Roadshow in PRD, Guangzhou, China
30 May 06	Joint R&D Centres Roadshow in PRD, Foshan, China
8 Jun 06	Joint R&D Centres Roadshow in PRD, Shenzhen, China
6-8 Jun 06	Society for Information Display (SID) 2006 International Symposium, Seminar and Exhibition in San Francisco, US
9 Jun 06	Joint R&D Centres Roadshow in PRD, Dongguan, China
18-20 Jun 06	China (Fujian) Technology & Projects Fair 2006, Fujian, China
28-29 Jun 06	The Venture Forum 2006 by Larta Institute, San Jose, USA
27-28 Aug 06	The "7th International Conference on Electronics Packaging Technology & International Courses on Advanced Packaging Technology", Shanghai, China
6-8 Sep 06	4 th IC China 2006, Suzhou, China
12-17 Oct 06	The 8 th China Hi-Tech Fair, Shenzhen, China

Date	Activities
18-20 Oct 06	Flat Panel Display (FPD) International 2006, Yokohama, Japan
2-3 Nov 06	ASTRI co-hosted 2006 China Radio Application & Management Conference, Nanjing, China
23-26 Nov 06	Asia Electronics Exhibition in Shanghai and China Electronics Fair, Shanghai, China
29 Nov-1 Dec 06	Innovation & Design Expo, HK
4-8 Dec 06	International Telecommunication Union (ITU) Telecom Word 2006, HK
5-6 Dec 06	ASTRI's Vice President as Speaker for "NextGens Technologies" in Seattle, USA
8-11 Jan 07	Consumer Electronics Show (CES) 2007 (demo and/or support customer demo of HMC, demo P2P HMC), Las Vegas, USA
11-15 Mar 07	Institute of Electrical and Electronics Engineers (IEEE) Wireless Communications & Networking Conference (WCNC 2007), HK
13-15 Mar 07	Asia Display 2007, Shanghai, China
13-15 Mar 07	2007 Taipei Summit, Asia-Pacific Conference and Exhibition, Taipei, Taiwan
15-21 Mar 07	CeBIT 2007 (support customer demo), Hannover, Germany
27-29 Mar 07	HKTDC AUS Roadshow – "Hong Kong – Shenzhen: Your Partners for Success in China"
24-29 May 07	10 th China Beijing International Hi-Tech Expo, Beijing, China
10-15 Jun 07	IEEE Antenna and Propagation Conference 2007, USA
13-16 Jun 07	Display Taiwan 2007, Taipei, Taiwan
18-20 Jun 07	China (Fujian) Technology & Projects Fair, Fujian, China
*Upcoming Activities (6)	
15-17 Aug 07	The "8 th International Conference on Electronics Packaging Technology & International Courses on Advanced Packaging Technology (ICEPT) 2007", Shanghai, China
28-30 Aug 07	IC China 2007, Shenzhen, China
Aug 07	2007 China International Digital Media Broadcasting Forum and Expo, Beijing, China
14-18 Sep 07	Innovation Festival & Innovation Expo 2007, HK
12-17 Oct 07	China Hi-Tech Fair, Shenzhen, China
24-26 Oct 07	Flat Panel Display (FPD) International 2007, Yokohama, Japan
III. Seminars/Technology Forums (Already Held: 60 Planned/Upcoming: 24)	
9 Apr 06	ASTRI's Vice President as speaker for Hong Kong International Auto Parts Fair 2006, HK
20 Apr 06	Concurrent Seminar at R&D Centre Launching Ceremony, HK (ASTRI's Chairman and Chief Executive Officer as speakers)

Date	Activities
21 Apr 06	ASTRI Seminar – Product-Oriented Advanced Packaging Design, HK
18 May 06	ASTRI hosted a seminar entitled “Liquid Crystal Devices for Displays and Photonics”. Prof. Vladimir G. Chigrinov of Hong Kong University of Science & Technology was invited as guest speaker, HK
18 May 06	ASTRI’s Chief Financial Officer as speaker for Causal Lunch Gathering – Federation of HK Industries, HK
19 May 06	ASTRI Seminar – Hardware/Software/Tools Co-design to IC-design – A case study: Java Accelerator, HK
25 May 06	ASTRI’s Chief Executive Officer as speaker for Chengdu Hi-Tech Seminar, China
12 Jun 06	ASTRI Technology Forum – Challenges of Mixed-signal Design and Verification Methodologies, HK
13 Jun 06	ASTRI’s Vice President as speaker for Semiconductor Intellectual Properties Workshop, HK
16 Jun 06	ASTRI co-organized a seminar entitled “Sensing the Marine Environment Workshop” with City University of Hong Kong, HK
16 Jun 06	ASTRI Seminar – Grab Your Opportunity, Make It a Success, HK
26 Jun 06	Workshop on Application of Light Emitting Diode (LED) in General Lighting, HK
6 Jul 06	Symposium on WiMedia Ultra Wideband (UWB), Suzhou, China
12 Jul 06	ASTRI Technology Forum - IC Designs : Low-power Multimedia SoC Design Platform – Opportunity, Technology & Case Studies, HK
12 Jul 06	ASTRI Technology Forum – Semiconductor & IC Designs Ecosystem Gathering in Science Park, HK
12-14 Jul 06	The 3rd China Solid State Lighting Conference (SSL), Shenzhen, China
21 Jul 06	ASTRI Seminar – Smart Sensors for Measuring Traffic Performance, HK
27 Jul 06	Flomerics User Gathering 2006, HK
18 Aug 06	ASTRI Technology Forum: Low-power IC Design Technologies for Analog and Digital SoC Implementations, HK
18 Aug 06	ASTRI Seminar – How to Utilize the World’s Largest Technology Library, HK
24 Aug 06	ASTRI’s Chief Executive Officer as speaker for Hong Kong Electronic Industries Association’s Luncheon, HK
24 Aug 06	Product-Oriented Microelectronics Packaging & Interconnect: Designs, Analyses, Reliability & Applications, HK
15 Sep 06	ASTRI Technology Forum - Light Emitting Diode (LED) Device, Shenzhen, China

Date	Activities
15 Sep 06	ASTRI Seminar – Multimedia Streaming Technology, HK
27 Sep 06	ASTRI Technology Forum - Digital Living, Marching into the Digital Intelligent Consumer Electronics Age, HK
11 Oct 06	ASTRI's Vice President as panel speaker for International Coalition of Optoelectronics Industry Associations (ICOIA) Seminar, HK
12-13 Oct 06	15 th Wireless and Optical Communications Conference (WOCC), Hangzhou, China
20 Oct 06	ASTRI Seminar – Ultra Wideband MAC Technologies for Wireless Video Streaming Applications, HK
23 Oct 06	Texas Instruments Developer Conference, Shenzhen, China
26-27 Oct 06	Hong Kong Technology and Engineering Development Forum (ASTRI's Chairman as co-chair and Chief Executive Officer as panelist), HK
10 Nov 06	The Intellectual Property Conference 2006, HK
17 Nov 06	ASTRI Seminar – China Digital Terrestrial TV Broadcast Standard Introduction and Baseband Technology, HK
24 Nov 06	ASTRI Technology Forum – Workshop on LED Applications in Information Displays, HK
25 Nov 06	ASTRI Technology Forum – Multimedia Digital Family in Mianyang, Sichuan, China
14 Dec 06	ASTRI Technology Forum – Networked Consumer Electronics in the Digital Home, HK
15 Dec 06	ASTRI Seminar – Introduction to ASTRI Internal Antenna Design Centre – Internal Antenna Survey, HK
19 Jan 07	ASTRI Seminar – High Dynamic Range (HDR) Display Using Active Dynamic LED Backlight, HK
25 Jan 07	ASTRI Technology Forum – Antenna Design Seminar, HK
8 Feb 07	ASTRI Technology Forum on Digital TV SoC Design Technology in Chengdu, China
9 Feb 07	ASTRI Technology Forum – Thermal Management with Advanced Materials and Structures, HK
15 Feb 07	ASTRI Seminar – CMOS Technology Platform for Wireless RFIC Design and Implementation, HK
5-6 Mar 07	International IC – China 2007, Shenzhen, China
6-7 Mar 07	ASTRI Technology Forum on Communications Technologies co-hosted with IGRS, Shenzhen, China
7 Mar 07	ASTRI Technology Forum - Digital Living with WiFi and VoIP, HK
8 Mar 07	ASTRI Technology Forum – ASTRI WPAN Symposium 2007, HK
9 Mar 07	ASTRI Technology Forum – IC Designs in Huizhou, China

Date	Activities
10 Mar 07	ASTRI Technology Forum – Capabilities, Demands and Opportunities of Microelectronics Packaging in the Greater China Region & Design for Manufacturability for Microelectronics Packaging, Changshu, China
16 Mar 07	ASTRI Technology Forum – MIMO Technologies, HK
22 Mar 07	ASTRI co-organized Polymer Optical Fibre Seminar 2007, HK
23 Mar 07	ASTRI Seminar – “Innovation Seminar - Transforming Productivity from Product-Oriented Manufacturing to Service-Centric Business Innovation”, HK
26 Mar 07	ASTRI Technology Forum – WiMAX Seminar, HK
28 Mar 07	ASTRI Technology Forum – HD Technologies for Digital Living, HK
29 Mar 07	ASTRI Technology Forum on “Portable Analog & Mixed Signal Technologies”, HK
19 Apr 07	ASTRI Technology Forum – Qingdao, China
24 Apr 07	ASTRI Seminar – From Invention to Commercialization: Industrial Applications of Advanced Nano-materials, HK
30 Apr 07	ASTRI’s speaker for “2007 International Conference for Asia Pacific Automotive Industry”, HK
18 May 07	ASTRI Seminar – Client-side WiFi Hotspot Access Technology (CHAT), HK
21 May 07	Forum on “Joining Hands in Building an Innovative Nation”, HK
14 Jun 07	ASTRI Technology Forum – Portable Multimedia Technologies for Mobile TV, HK
15 Jun 07	ASTRI Seminar – An Overview of the 7 Habits of Highly Effective People with an Introduction to the 8 th Habit, HK
* Upcoming Activities (24)	
16 Jul 07	ASTRI Technology Forum – Thermal Design Solution for LED Lighting Application, HK
Jul 07	ASTRI Technology Forum on Photonics, Qingdao, China
Jul 07	ASTRI Seminar, HK
Aug 07	Industry and University Consultation Forums, HK
Aug 07	ASTRI Seminar, HK
Aug 07	ASTRI Technology Forum – Embedded Software Development, HK
Sep 07	Industry and University Consultation Forums, Shenzhen, China
Sep 07	ASTRI Seminar, HK
Sep 07	ASTRI Technology Forum – Low Power IC Design, HK
Oct 07	ASTRI Technology Forum on Device Technologies, China
Oct 07	ASTRI Seminar, HK
Nov 07	ASTRI Seminar, HK

Date	Activities
Nov 07	ASTRI Technology Forum: Challenges and Solutions on Nanometer IC Design (China or HK)
Nov 07/Jan 08	ASTRI Technology Forum – Multimedia Platform, HK
Nov 07/Jan 08	ASTRI Technology Forum – Low Power IC Design, HK
Dec 07	ASTRI Seminar, HK
Jan 08	ASTRI Technology Forum: Next Generation Li-ion Battery Electrode Materials (Hong Kong or China)
Jan 08	ASTRI Seminar, HK
Feb 08	ASTRI Seminar, HK
Feb 08	ASTRI Technology Forum – Mobility Multimedia Communication, HK
Feb 08	ASTRI Technology Forum – Advanced Technologies on Low Power IC Design, HK
Feb 08	ASTRI Technology Forum – Thermal Management with Advanced Materials and Structures, China
Mar 08	ASTRI Seminar, HK
Mar 08	ASTRI Technology Forum – Virtual Home Lifestyle, HK
IV. Media Interview/Publication/TV Production (Published: 16)	
Jun 06 Issue	Contribute an article introducing “HK R&D Centre for ICT” for “Capital Entrepreneur”
Jun 06 Issue	ASTRI on “LEDs Magazine” – an International publication to report ASTRI’s participation in Society for Information Display (SID) 2006 International Symposium in San Francisco, USA
July 06 Issue	Interview by “Electronics Bulletin” with ASTRI’s Vice President – Mr. Raymond Chiu on 23 May, 06
Sep 06 Issue	Interview by “Electronics Bulletin” with ASTRI’s Vice President – Dr. Tom Chung on 3 Aug, 06
Published on 29 Sep 06	ASTRI’s Chief Executive Officer was interviewed by South China Morning Post on 11 Sep, 06, and the article was published in the “Engineering & Technology Supplement”
Nov 06 Issue	Contribute an article introducing “HK R&D Centre for ICT” for Hong Kong Chinese Manufacturers' Association's monthly magazine – “HK Entrepreneur”
22 Nov 06	Interview with ASTRI’s Chief Executive Officer by Hong Kong Polytechnic University and Hong Kong Trade Development Council
1 Dec 06	HKSAR 10 th Anniversary Commemorative Book – ASTRI is being highlighted in the chapter on “Science, Innovation & Technology”
22 Dec 06	Filming by RTHK for “Innovation and Technology”, a TV documentary series sponsored by ITC

Date	Activities
Jan 07	Interview by “China Electronic Market” (Vol. 2. 2007) with ASTRI’s Vice President & R&D Director – Mr. Peter Diu
Published on 16 Mar 07	Interview by “Career Times – IT & Engineering Supplement” with ASTRI’s Vice President & Group Director – Dr. Chih-lin I on 28 Feb, 07
Published on 11 Jun 07	Interview by “Hong Kong Economic Times” with ASTRI’s Chairman – Dr. Allan Wong on 6 Jun, 07
Published on 11 Jun 07	Interview by “Ming Pao” with ASTRI’s Chairman – Dr. Allan Wong on 6 Jun, 07
12 Jun 07	Interview by “Commercial Daily” with ASTRI’s Vice President and Group Director – Dr. Shen-Chang Chao
18 Jun 07	Interview by “Television Broadcasts Limited” with ASTRI’s Chairman – Dr. Allan Wong
Published on 20 Jun 07	Interview by “South China Morning Post” with ASTRI’s Chairman – Dr. Allan Wong on 18 Jun, 07
V. VIP Visit/Laboratory Tour (Already Held: 62)	
19 Apr 06	Shang Yong, Vice Minister of Ministry of Science & Technology
21 Apr 06	Ministry of Information Industry
26 Apr 06	Fujian Economic & Trade Commission
18 May 06	Chongqing Science and Technology Commission
23 May 06	Shenzhen CXO Club
26 May 06	Optoelectronics Industry of Xiamen
12 Jun 06	Government of Alberta, Canada
3 Jul 06	Gold Peak Industries (Holdings) Limited
6 Jul 06	University of Cambridge - Department of Manufacturing Engineering (MET II)
10 Jul 06	Hong Kong Science Student Project Competition 2006’s winning teams
19 Jul 06	Shenzhen Virtual University
21 Jul 06	Ms. Regina Ip - Savantas Policy Institute
24 Jul 06	Sichuan Changhong Electric Company Limited
24 Jul 06	Taiwan Teco Corporation
1 Aug 06	Dongguan – Science & Technology Bureau delegation
1 Aug 06	Wenzhou delegation – entrepreneurs from high-tech manufacturing business sector of Zhejiang Wenzhou
31 Aug 06	The Economic Analysis and Business Facilitation Unit (EABFU), Financial Secretary's Office, HKSARG
1 Sep 06	Swedish Innovation delegation
21 Sep 06	Shenzhen delegation – Led by Vice Mayor Mr. Liu Yingli, Shenzhen Municipal People’s Government
25 Sep 06	Beijing delegation

Date	Activities
27 Sep 06	Kunshan – Science & Technology Bureau delegation
27 Sep 06	Suzhou delegation
29 Sep 06	Hei Long Jiang delegation
11 Oct 06	Hong Kong Trade Development Council Electronics/Electrical Appliances Industries Advisory Committee
13 Oct 06	Tsinghua University delegation
13 Oct 06	Xiamen - Science & Technology Bureau delegation
16 Oct 06	Chile Electronics Partnership Mission
19 Oct 06	Fujian - Science & Technology Bureau delegation
23 Oct 06	Israel Technion Institute of Management's visit (TIM)
24 Oct 06	The Chief Executive of HKSAR Government, Mr. Donald Tsang's visit
26 Oct 06	U.S. Chinese Institute of Engineers
7 Nov 06	Science Park Association Denmark
9 Nov 06	Hei Long Jiang – Science & Technology Bureau delegation
10 Nov 06	Shanghai SVA delegation
23 Nov 06	Dr. Shih, Taiwan (Former President of ITRI)
1 Dec 06	Suzhou delegation
4 Dec 06	Kunshan delegation
7 Dec 06	TR Labs, Canadian delegation
13 Dec 06	Mr. Peter Wong (CEO of Hutchison Global Communications Ltd.)
13 Dec 06	Yangtze University delegation, Huibei
14 Dec 06	Shanghai Vice Mayor delegation
19 Dec 06	Dr. Mike Chang (Vice President of SAE Magnetics HK Ltd.)
19 Dec 06	NSTDA delegation, Thailand
20 Dec 06	Industry Strategy Symposium Hong Kong delegation
23 Jan 07	Professor Ma Songde's visit (Former Vice-Minister, The Ministry of Science and Technology of the People's Republic of China and Honorary Professor of the Faculty of Engineering, Chinese University of Hong Kong)
31 Jan 07	Chairman of Swedish's Öresund Innovation
31 Jan 07	Wong's International (Holdings) Ltd.
1 Feb 07	Mr. Wilson Fung (Executive Director of Hong Kong Productivity Council)
2 Mar 07	Suzhou delegation
6 Mar 07	Switzerland Delegation
7 Mar 07	China FAW Group Corporation
8 Mar 07	TEKEL delegation, Finland

Date	Activities
13 Mar 07	NTP delegation, Taiwan (WCNC)
22 Mar 07	Vice Governor of Jilin Province (Mr. Jiao Zhengzhong)
30 Mar 07	Shenzhen Institute of Advanced Technology Chinese Academy of Sciences (SIAT) delegation
11 Apr 07	Malaysian Delegation
17 Apr 07	Federation of Hong Kong Business Associations Worldwide
9 May 07	University for Texas in Dallas (MBA Students)
17 May 07	Chinese Academy of Science
22 May 07	Chinese Technology Delegation
23 May 07	Department of Science & Technology of Guangdong Province
20 Jun 07	UK Trade & Investment
VI. Others (Already Held: 4)	
31 Jul – 17 Aug 06, 14 Oct 06	ASTRI Junior Fellowship – a 15-day internship program plus other publicity activities
22 Nov 06	HKICT Awards 2006 Presentation Ceremony
29 Nov – 1 Dec 06	Technology Advisory Committee (TAC) Annual Meeting (4-Day)
1 Feb 07	The Opening Ceremony of Supply Chain Innovation Centre