For discussion
on 17 May 2005

Legislative Council Panel on Commerce and Industry

Implementation of New Strategic Framework for Innovation and Technology Development

PURPOSE

This paper informs Members of -

(a) the Administration's progress in setting up Research and Development Centres (R&D Centres); and

(b) the Administration's proposal to support two projects under the Innovation and Technology Fund (ITF) to pursue the focus themes of digital entertainment and mechanical watch movement.

BACKGROUND

2. At the meeting on 18 January 2005, Members were informed of the Administration's plan for the new strategic framework and the new three-tier funding model of the ITF. Under Tier 1 of the new funding model, the Administration plans to set up R&D Centres in the following nine technology focus areas :

(a) Automotive Parts and Accessory Systems;
(b) Logistics and Supply Chain Management (SCM) Enabling Technologies;
(c) Textile and Clothing;
(d) Nanotechnology and Advanced Materials;
(e) Communications Technologies;
(f) Consumer Electronics;
(g) Integrated Circuit (IC) Design;
(h) Opto-electronics; and

(i) Chinese Medicine.

3. Under Tier 2, we will support R&D projects under the focus themes.

TIER ONE - R&D CENTRES

4. In February 2005, the Administration invited those organizations which have expressed interest in hosting the R&D Centres during the consultation exercise in June 2004 to submit detailed proposals. In this regard, the Hong Kong Productivity Council (HKPC) was invited to submit a proposal for hosting the R&D Centre for Auto Parts and Accessory Systems, the Hong Kong Polytechnic University (PolyU) for the R&D Centre for Textile and Clothing, and the Hong Kong University of Science and Technology (HKUST) for the R&D Centre for Nanotechnology and Advanced Materials. For the R&D Centre on Logistics and Supply Chain Management Enabling Technologies, since more than one institution expressed interest in hosting the Centre, all interested organizations were invited to submit proposals, which would be assessed on a competitive basis. We invited the Hong Kong Applied Science and Technology Research Institute Company Limited (ASTRI) to submit a proposal on setting up an R&D Centre for Communications Technologies, Consumer Electronics, IC Design and Opto-electronics. As for Chinese Medicine, we are discussing with the industry, the academia and the Hong Kong Jockey Club Institute of Chinese Medicine Limited (HKJCICM) on the setting up of an R&D Centre for Chinese Medicine, and are considering the road map and scope for the R&D Centre before inviting proposals.

I. Assessment Criteria and Process

5. An assessment panel comprising local industrialists and experts in the relevant fields was set up to assist the Innovation and Technology Commission (ITC) in assessing the R&D Centre proposals and make recommendations to the ITC. A copy of the membership of the panel is attached at **Annex A**.

6. The assessment panel met in April 2005 to examine in detail the proposals received. Apart from assessing whether the proposals follow the

operation model and general guidelines stipulated for the R&D Centres, the panel took into account, inter alia, the following factors in assessing the proposals -

(a) the expertise and track record of the organizations involved, their contribution to the work of the R&D Centre and the quality of collaborative arrangements to achieve the intended results;

(b) the commitment and contribution from industry partners;

(c) the potential of the research direction and intended outcome to make a substantial contribution to local industrial and economic growth; and

(d) the appropriateness of the amount of funding requested from ITF.

II. Institutional Arrangements and Operation Model of R&D Centres

7. Each R&D Centre would have an initial term of operation of five years. The Centre should be set up as a separate legal entity such that the Centre could play an independent and impartial role in fostering cooperation among the R&D institutions and cooperation with industry partners. The Centre would recruit a full-time Centre Director responsible for overseeing and managing the operation of the Centre.

8. The Centre would establish a Steering Committee to give overall direction to the Centre and review performance against the roadmap and milestones of the Centre. The Steering Committee would comprise representatives from industry, academia and R&D institutions to ensure that there would be independent oversight of the Centre. In addition, the Centre would have a Technology Committee, comprising representatives from the industry and relevant experts from R&D institutions, to vet individual R&D projects to be undertaken by the R&D Centre, and to provide technology direction and technical advice to the Centre.

9. Since the main objective of the R&D Centre is to conduct industry oriented R&D, each R&D Centre is required to entice industry participation and contribution to the R&D projects undertaken by the Centre. In this

regard, an R&D Centre is required to consult the industry and develop a spectrum of industry focused R&D activities covering platform research, collaborative research and contract research so that industry partners could participate in different types of research activities at different levels.

10. In soliciting industry support, an R&D Centre would need to develop a mechanism to enable industry partners to sponsor, contribute or invest in a project at different stages in the course of carrying out the R&D projects. The participation could take different forms, including, but not limited to, one or/and more of the following -

(a) interested companies could pay a small membership fee to join the centre in order to gain access to information on project results and research outputs;

(b) interested companies could support individual R&D projects by paying part of the R&D costs of the projects and have certain rights to further participate in the project as it progresses or to make use of project deliverables;

(c) interested companies could bring background IP, which could be treated as equivalent to contribution subject to agreement with the R&D Centre on valuation; and

(d) interested companies could invite an R&D Centre to undertake contract research for them by paying full project costs.

11. Except for contract research where participating companies would own all the intellectual property rights (IPs) by paying the full cost of the research, IPs generated from the R&D projects undertaken by the R&D Centre would normally be owned by the Centre. Depending on the terms of participation, the industry partners participating in the Centre could have one or more of the following rights and benefits from the R&D projects or in other forms -

(a) having non-exclusive rights to license project IP and utilizing research output for commercial exploitation on reasonable terms to

be agreed by project participants; and

(b) sharing IP benefits in direct proportion to project contribution, provided that the project contribution exceeds the threshold (say a minimum of 5% of the project costs or a figure as determined by the Steering Committee of the R&D Centre).

12. The owner of project IP should grant licences to participants of the project on a need-to-use basis and on fair terms to be agreed by project participants.

13. Exclusive licensing is generally not encouraged for platform-type R&D projects unless at least the following terms and conditions are met -

(a) a company has contributed at least 50% of the project cost; and

(b) the exclusive licensee would have a significant presence of industry activities in Hong Kong; or

(c) the exclusive licensing arrangement was necessary to enable commercialization of the IP to form industry cluster; or

(d) the exclusive licensing arrangement could generate significant economic benefits to Hong Kong.

14. The specific terms and conditions for the assignment of exclusive licence is subject to negotiations between project participants, and the granting of exclusive licence to participating companies would be subject to the assessment and approval by the respective Steering Committee and the ITC. An exclusive licence should only be granted to the intended licensee for a defined period. If the licensee does not commercialize the IP within that period, the R&D Centre would reserve the right to grant the licence to other interested parties. Notwithstanding this, the R&D Centre should also retain a royalty-free right to use, for future research purposes only, any project IP generated from a project undertaken by the Centre, regardless of whether the IP has been granted to a company exclusively or non-exclusively.

15. Each R&D Centre is required to evaluate its performance regularly

according to a set of performance indicators. The performance indicators should include, but not limiting to -

(a) industry participation as measured by the number of companies involved in R&D projects and the level of contribution made by them;

(b) project performance as measured by whether the pre-set milestones are met timely and cost-effectively;

(c) quality of R&D programme as measured by the number of patents granted, other IPs generated, etc.;

(d) utilisation of research output as measured by the adoption of research output by the industry and the number of licensing agreements signed and consulting services offered, etc.;

(e) amount of revenue generated from R&D projects;

(f) number of researchers trained and participated in R&D projects; and

(g) overall contribution to the economy of Hong Kong.

III. Corporate Governance

16. Each R&D Centre is required to establish detailed guidelines on its corporate governance, including -

(a) the management and control of the operation of the Centre;

(b) mechanism for periodic update and review of the R&D programme;

(c) project vetting, management and administration, and review mechanism;

(d) reporting requirement, submission of annual report of the Centre and progress report of the projects to the Technology Committee

and Steering Committee; and

(e) control and auditing arrangements.

IV. Funding Arrangement

17. As far as the funding arrangement is concerned, since the new innovation and technology strategy has been designed to meet the current and future expected demands of the industry in Hong Kong and the PRD, we expect substantial commitment and support from the industry on the projects to be conducted in the R&D Centres. While the ITF would provide funding for maintaining the operation of the Centres for five years, the Centres would need to look for industry contributions to cover part of the funding required for projects to be conducted in the Centres. For platform type projects (i.e. technology that would be adopted by a wide base of companies), we would expect a contribution of not less than 10% of the project costs to be obtained from the industry before a full project will be allowed to proceed. For contract research type of projects, we would require the requesting company to fund 100% of the costs involved. For collaborative projects, the funding would be made in proportion to the share of the IP rights that would be generated as a result of the research project. In addition, as the R&D Centres ramp up their operation, we expect them to generate income from its R&D projects through commercialization of the project deliverables. The income so generated would be reserved for meeting the R&D Centre's expenditure needs in the future. According to the initial business plans of the Centres, many of them are expected to be able to have up to 40% contributions from the industry as they ramp up to the 5^{th} year of operation.

V. R&D Centre Proposals

Nanotechnology and Advanced Materials

18. HKUST's proposal aims to develop new and value-added products; improved manufacturing processes through nanotechnology; and advanced material technologies for various local industries and industries in the Pearl River Delta (PRD) region. The five-year operating cost of the proposed R&D Centre is $61.4 million. The Centre will first initiate about 44 projects related to four technology areas, namely, Nanomaterials, Nanoparticles, and

Nanotechnology Enabled Products; Nanoelectronics; Advanced Materials; and Advanced Manufacturing. In response to some advisers in their International Advisory Committee, the Centre will also provide fast response technical services particularly to SME companies, enhancing human resources in nanotechnology, and act as an information centre for latest technology development including safety and environmental regulations in the areas. The total expenditure for these R&D projects is about $350.7 million. The amount requested from the ITF to meet the five-year operating cost and the R&D project expenditure is $270 million, including the setting up of a pilot line for demonstrating display and lighting technologies[1]. The University has already secured a total cash contribution amounting to $20 million from more than 80 relevant companies.

Details of HKUST's proposal is at **Annex B**.

Textile and Clothing

19. PolyU's proposal aims to set up a leading centre of excellence in research, development and technology transfer in fashion and textile technologies. It would be a Hong Kong-wide R&D Centre to support the continual development of technologies to enhance the competitiveness of the local fashion and textile industry. The five-year operating cost of the R&D centre is $60.25 million. The Centre will initiate around 105 projects and focus on four areas, namely, new materials, textiles, and apparel products; advanced textile and clothing production technologies; product design and evaluation technologies; and enhanced industrial systems and infrastructural. The total expenditure for these R&D projects is about $360 million. The amount requested from the ITF to meet the five-year operating cost and the R&D project expenditure is $275 million.[2] PolyU has already secured a total cash contribution of over $ 61 million from the textile and clothing industry.

Details of PolyU's proposal is at **Annex C**.

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[1] The operating cost includes where appropriate the salaries of the Centre Director, other core administrative staff and the marketing and research team, the administrative overheads and other general expenses in operating the Centre. As regards the R&D project expenditure, the items to be funded will follow the existing guidelines on funding from the ITF, including the salaries of research staff employed for conducting the project, equipment and consumables specifically purchased for the project, etc.

[2] ditto

Auto Parts and Accessory Systems

20. HKPC's proposal aims to provide an establishment to undertake market led R&D projects as well as to commercialize the R&D results with the collaboration of industry, universities and technology institutes in the area of auto parts and accessory systems. The Centre would assist the industry to develop competitive new products and technologies to capture market opportunities and enhance the capabilities of industry in market intelligence, management, product design, quality standards and technical skills for meeting international requirements. The five-year operating cost of the Centre is $60 million. It would initiate about 110 projects falling under five technology areas, i.e. electronic software, safety, environmental, advanced materials manufacturing and advanced propulsion. The total expenditure for these R&D projects is about $441 million. Separately, testing facilities for auto parts and accessory systems would need to be established in Hong Kong in order to provide support for the products developed from these projects. In this regard, the total amount requested from the ITF to meet the five-year operating cost, the R&D project expenditure and the cost for installation and upgrading of existing testing facilities in the local universities is $349.9 million.[3]

Details of HKPC's proposal is at **Annex D.**

Logistics and Supply Chain Management Enabling Technologies

21. We have received two submissions. One is a joint submission by HKU, CUHK and HKUST. The proposal aims to establish a Logistics and Supply Chain Management (LSCM) Enabling Technologies R&D Centre to foster the development of core competencies in applied R&D in logistics and supply chain related technologies, with initial focus on RFID, and to facilitate the adoption of these technologies by industries in Hong Kong and Mainland. The five-year operating cost of the R&D Centre is $52.17 million. The Centre targets to conduct about 80 projects in 5 years and will initiate

[3] The operating cost includes where appropriate the salaries of the Centre Director, other core administrative staff and the marketing and research team, the administrative overheads and other general expenses in operating the Centre. As regards the R&D project expenditure, the items to be funded will follow the existing guidelines on funding from the ITF, including the salaries of research staff employed for conducting the project, equipment and consumables specifically purchased for the project, etc.

projects in three major technology areas, namely, (1) RFID tag and reader technologies; (2) networking and infrastructure technologies; and (3) applications and decision support technologies. The total expenditure for these R&D projects is about $419 million. The amount requested from the ITF to meet the five-year operating cost and the R&D project expenditure is $306.9 million.[4]

Details of HKU, CUHK and HKUST's joint submission is at **Annex E**.

22. Another proposal is submitted by PolyU. The proposal aims to set up an RFID automation centre which focuses on the development of specific RFID systems for use in counterfeit, physical asset management, smart warehouse, work-in-process automation, and knowledge-based point-of-sales for different industrial sectors. The five-year operating cost of the proposed Centre is $12.7 million. The Centre targets to conduct 16 projects in 5 years and will initiate projects in four major technology areas, namely, (1) tag and reader technologies; (2) infrastructure; (3) counterfeit/ asset management/ commercial application; and (4) manufacturing automation.

Details of PolyU's proposal is at **Annex F**.

ASTRI's R&D Centre Proposal

23. ASTRI's proposal covers four technology focus areas, i.e. Communications Technologies, Consumer Electronics, IC design and Opto-electronics.

24. On communications technologies, the proposal aims to provide world-class innovative and competitive wireless communications technologies addressing the needs of industries in Hong Kong, the PRD Region, and the Greater China region. The Centre will initiate projects in four key focus areas, namely, advanced personal and home networking technologies; broadband wireless access mobile platforms; cellular

[4] The operating cost includes where appropriate the salaries of the Centre Director, other core administrative staff and the marketing and research team, the administrative overheads and other general expenses in operating the Centre. As regards the R&D project expenditure, the items to be funded will follow the existing guidelines on funding from the ITF, including the salaries of research staff employed for conducting the project, equipment and consumables specifically purchased for the project, etc.

communications solutions and applications; and digital TV broadcast technologies and applications.

25. On consumer electronics, the proposal aims to enable Hong Kong to become the innovation and design hub for consumer electronics in the Greater China region. The Centre will focus on providing key technologies and platforms to enable innovative product development. It will also provide infrastructure to support product realization, facilities and tools for standards compliance and testing, technical training and market intelligence. Five major technology areas have been identified for R&D: digital broadcasting technology, home media technology, portable media technology, multimedia communications technology and pervasive service technology.

26. On IC design, the proposal aims to build up advanced IC design expertise in Hong Kong and to disseminate these technologies to companies in Hong Kong, the PRD and the Greater China region. The R&D programme will focus on developing application specific IP cores, nurturing local IC design expertise, and building up local IC design infrastructure and standard-knowledge bases. Four focus areas have been identified for development: lower power design, analog and mixed signal design and integration, embedded software, and integration and test.

27. On opto-electronics, the proposal aims to stimulate the growth in the germinating opto-electronics industry in Hong Kong and PRD. The R&D programme will focus on the development of core photonics technologies and consumer opto-electronics. Five core technology platforms have been identified for development: polymer optical fiber, opto-electronics IC, optical devices, opto-electronic packaging and sensor technology.

28. Since ASTRI itself is an applied research institution and the organization and management infrastructure is already in place, the Institute does not propose to establish separate legal entities for operating the above four R&D programmes. In order to create better synergy and coordination among the four technology areas to avoid overlapping, ASTRI would establish a single R&D Centre for Information and Communications Technologies (ICT) covering these four R&D programmes. The Centre would be subsumed as a unit within ASTRI and ASTRI's CEO would also be

responsible for overseeing and managing the operation of the Centre. Otherwise, the operation of ASTRI's R&D Centre for ICT is similar to those proposed by other institutions and it is in line with the operation model and general guidelines stipulated for the Centres.

29. The five-year operating cost of ASTRI's R&D Centre is $292.9 million. The total expenditure for the R&D projects covering the above four areas is about $1,799.3 million, and the amount requested from the ITF to meet the five-year operating cost and the R&D project expenditure is $1,700 million.[5]

Details of ASTRI's proposal is at **Annex G**.

VI. Recommendations made by the Assessment Panel

30. Having thoroughly examined the R&D Centre proposals submitted by interested organizations, the panel has supported the setting up of the following R&D Centres -

(a) establishment of an R&D Centre for nanotechnology and advanced materials hosted by HKUST at a maximum ITF funding of $270 million;

(b) establishment of an R&D Centre for textile and clothing hosted by PolyU at a maximum ITF funding of $275 million;

(c) establishment of an R&D Centre for automotive parts and accessory system hosted by HKPC at a maximum of ITF funding of $349.9 million;

(d) establishment of an R&D Centre for logistics and supply chain management enabling technologies co-hosted by HKU, CUHK and HKUST at a maximum ITF funding of $307 million. However,

[5] The operating cost includes where appropriate the salaries of the Centre Director, other core administrative staff and the marketing and research team, the administrative overheads and other general expenses in operating the Centre. As regards the R&D project expenditure, the items to be funded will follow the existing guidelines on funding from the ITF, including the salaries of research staff employed for conducting the project, equipment and consumables specifically purchased for the project, etc.

they should liaise with PolyU to consider how some of the latter's proposed projects could be subsumed into the R&D programme of the proposed Centre; and

(e) establishment of an R&D Centre for ICT at ASTRI covering R&D programmes on Communications Technologies, Consumer Electronics, Integrated Circuit Design and Opto-electronics at a maximum ITF funding of $1,700 million.

31. The above ITF funding support for each Centre covers both the operating cost and part of the R&D project expenditure for the initial five years.

VII. Corporate Governance and Control Mechanism

32. The Administration attaches a lot of importance to the corporate governance and control mechanism of each R&D Centre. At the institutional level, the composition and appointment of the Steering Committee and Technology Committee would need to be accepted by the Administration in order to ensure that there would be independent oversight of the Centre. The Commissioner for Innovation and Technology or his representative would be represented at the Steering Committee and Technology Committee of each R&D Centre.

33. Each R&D Centre is required to establish detailed guidelines on its corporate governance as set out in paragraph 16 above. The guidelines would need to be endorsed by the Centre's Steering Committee and approved by the Administration.

34. The Administration would monitor and control all the R&D Centres at two levels. For the five-year operating cost of the R&D Centres, all R&D Centres are required to conduct regular annual reviews, which critically assess the performance of the R&D Centre as a whole against its milestones as stated in the R&D Centre proposal during the five-year funding period. Each Centre is required to submit annual reports during the five-year period describing the operation and achievement of the Centre. In addition, each R&D Centre is required to submit quarterly financial statement to the Administration reporting on the income and expenditure of the Centre and the

cashflow requirements. ITF grants will be disbursed by instalments on a quarterly basis, and the disbursement will be contingent upon acceptance of the quarterly financial statement and the annual report by the Administration.

35. To ensure that the ITF fund has been fully and properly applied to the operation of the Centre, each R&D Centre is required to submit annual and final audited accounts for the operation of the Centre audited by an independent auditor.

36. For the funding of individual R&D projects, the R&D Centre would need to submit each and every project which requires funding support from the ITF to the the Administration for approval. The Administration would take into account the recommendation of the Technology Committee of the R&D Centre and the amount of contribution from the industry to the project in considering whether to approve a project. Once an R&D project is approved, each R&D Centre will be required to submit half-yearly progress reports to the Administration for each R&D project supported by ITF funding. The project progress report will describe the progress against its milestones stated in the project proposal. The progress report will first be reviewed by the Technology Committee of each R&D Centre and is required to be endorsed by the Committee before submitting to the Administration. ITF grants will be disbursed by instalments, and the disbursement will be contingent upon acceptance of the progress report by the Administration. The Administration has the right to terminate the funding of the project at any time if the project lacks on-going industry support or lacks progress in a material way or there is evidence that the chance of completing the project in accordance with the approved project proposal is low.

37. Similarly, an R&D Centre will be required to submit annual and final audited accounts for each R&D project carried out by the Centre audited by an independent auditor.

38. The Administration would report on the operation and performance of the R&D Centres to the LegCo Panel on Commerce and Industry annually in order to ensure transparency and public accountability.

VIII. Major Reviews and Exit Strategy

39. Apart from conducting regular annual reviews on the performance of the Centres and project review of individual R&D projects, all R&D Centres are required to conduct two major reviews, one in the second year and the other in the fourth year. The first major review will critically examine, inter alia, -

(a) whether the R&D programme and direction could actually meet the industry demand as reflected by the industry contribution and participation; and

(b) whether the planned R&D programme would need to be adjusted to ensure that adequate industry contribution and income could be generated to sustain the programme for the whole five-year period.

40. The results of the review would provide input to the Administration to decide whether the R&D Centre should continue to exist and receive funding support from the ITF.

41. The second major review will critically examine, inter alia, -

(a) whether the R&D Centre would likely meet the objectives and target set at the beginning of its operation;

(b) whether it is necessary for the Centre to continue to operate after the five-year funding period;

(c) the funding source of the Centre beyond the five-year funding period if the Centre continues to operate; and

(d) the plan to wind down the Centre if it ceases operation.

42. If the Centre ceases operation after the five year funding period, all the residual funds and surplus income generated from the ITF funding during the five-year project period will be returned to the Government.

TIER TWO - FOCUS THEMES

43. In February 2005, we also invited applications under the following two focus themes - digital entertainment and mechanical watch movements. These proposals were examined and assessed in accordance with the existing mechanism for ITF applications.

I. Digital Entertainment

44. The Hong Kong Cyberport Management Company Limited (Cyberport) has submitted a proposal on the establishment of an incubation-cum-training Centre at Cyberport to support high-growth start-up companies in innovative digital entertainment development in Hong Kong.

45. The incubation cum training centre aims to nurture up to 45 local companies to develop digital entertainment products and services, with initial focus on game development. Incubatees will be provided with rent free office space, equipment and advanced digital media production facilities at favorable terms, and other support in business development, promotion & marketing, partnership matching, technology & entrepreneurship training at subsidized rate. The expertise and facilities of the Digital Media Centre and the iResource Centre at Cyberport will be leveraged to enhance the incubatees' capability in developing digital entertainment products and services. An amount of $30.77 million is sought from the ITF to support the setting up and operation of the Centre for a period of 40 months.

Details of Cyberport's proposal are at **Annex H**.

46. The ITF Assessment Panel has considered the proposal and acknowledged that digital entertainment is an industry where Hong Kong has an enormous potential to develop. The panel advised that Cyberport's proposal should be able to help cultivating an environment for start-ups and training more professionals in the digital entertainment industry.

II. Mechanical Watch Movements

47. CUHK has submitted a proposal "Development of technologies and facilities to design and build mechanical watch movements" under this focus

theme.

48. CUHK's proposal aims to develop the associated design method, materials selection, and manufacturing technologies in the fabrication of the mechanical watch movement in Hong Kong. With industry participation and collaboration with the R&D partners, the project would develop the required technology platform in fabricating a three-hands mechanical watch movement in Hong Kong, with quality comparable to a Swiss product. A pilot production facility would also be established to demonstrate the developed technologies for technology transfer and the production of the prototypes. The total cost of implementing the project is $64 million. CUHK will contribute an in-kind sponsorship of $4 million while the watch industry will sponsor $6 million to support the project. An amount of $54 million is sought from the ITF.

Details of CUHK's proposal are at **Annex I**.

49. The ITF Assessment Panel has considered the proposal and advised that with the capability in manufacturing watch movement locally, manufacturers could be benefited from a more reliable local source of supply for their products, which is at present being dominated by the Swiss and Japanese suppliers. The proposal is well structured and should meet the needs of the industry. If successful, local watch manufacturers would set up a mechanical movement production line in Hong Kong and this would bring in new investment and job opportunity.

III. Review and Control Mechanism

50. The review and control mechanism for the two projects supported under the focus themes will follow the established mechanism of the ITF. The applicant will be required to submit half-yearly progress reports to the Administration. The project progress report will describe the progress against its milestones stated in the project proposal. ITF grants will be disbursed by instalments, and the disbursement will be contingent upon acceptance of the progress report by the Administration. The Administration has the right to terminate the funding of the project at any time if the project lacks on-going industry support or lacks progress in a material way or there is evidence that the chance of completing the project in

accordance with the approved project proposal is low.

51. To ensure that the R&D project funds have been fully and properly applied to the approved project, Cyberport and CUHK will be required to submit annual and final audited accounts for the two projects audited by an independent auditor.

WAY FORWARD

52. Since the amount of funds now requested from the ITF for setting up individual R&D Centres and supporting the two projects under the focus themes set out in paragraphs 30, 45 and 48 above exceeds $15 million each, i.e. the funding ceiling delegated to the Commissioner for Innovation and Technology to authorize expenditure under the ITF, we shall seek the Finance Committee's approval for the proposals.

53. Subject to Members' comments, we will seek the approval of the Finance Committee in June 2005.

Commerce, Industry and Technology Bureau
9 May 2005

Annex A

Membership List of the Assessment Panel
for the R&D Centre Proposals and the Focus Themes
研發中心及專題項目評審委員會名單

Chairman 主席	Mr Anthony S K Wong, JP Commissioner for Innovation and Technology	王錫基先生 創新科技署署長
Members 委員	Dr K B Chan Managing Director Surface Mount Technology (Holdings) Ltd	陳其鑣博士 新進科技集團有限公司 主席兼董事總經理
	Mr Felix Chung Director Chungweiming Knitting Factory Limited	鍾國斌先生 鍾偉明織造廠有限公司 董事
	Mr George Chung, JP Chairman & Chief Executive Officer Standard Telecommunications Limited	龔念祖先生 標準電訊有限公司 主席
	The Hon Jeffrey Lam, SBS, JP Managing Director Forward Winsome Industries Limited	林健鋒議員 永和實業有限公司 董事長
	Mr Stephen Lau, JP Chairman EDS Electronic Data Systems (HK) Ltd	劉嘉敏先生 電子資訊系統有限公司 主席
	Mr Joseph Lee, BBS, JP Managing Director Wofoo Plastics Limited	李宗德先生 和富塑膠有限公司 行政總裁
	Mr Henry Kwong-han Leung President Paragon Enterprise Ltd	梁廣恆先生 譽翹有限公司 總裁
	Dr York Liao, SBS, JP Managing Director Winbridge Company Ltd	廖約克博士 Winbridge Co Ltd 董事總經理
	Dr T L Ng, BBS, JP Managing Director Operations Global Lighting Products Energizer Company Inc	伍達倫博士 勁量有限公司 董事總經理

Annex B

HKUST's Proposal
R&D Centre: Nanotechnology and Advanced Materials

1. Project Title

Nano and Advanced Materials Incorporated (NAMI)

2. Objectives

To establish an R&D Centre in partnership with industries and other research institutions for developing core competence in critical areas of nanotechnology and advanced materials that can lead to potentially new commercial products, processes, and enhance existing foundation industries in Hong Kong and the PRD region.

3. Institutional arrangement

The Centre will be established as a non-profit limited company, wholly owned by HKUST, guaranteed with a Board of Directors comprised of the President and three Vice Presidents of HKUST. There will be a Steering Committee and Technology Committee with the following proposed composition:

(a) a Steering Committee consisting of some representatives from industry, government, other research institutions, HKUST as well as some professional representatives with financial and legal background, Centre CEO (Ex-Officio); and

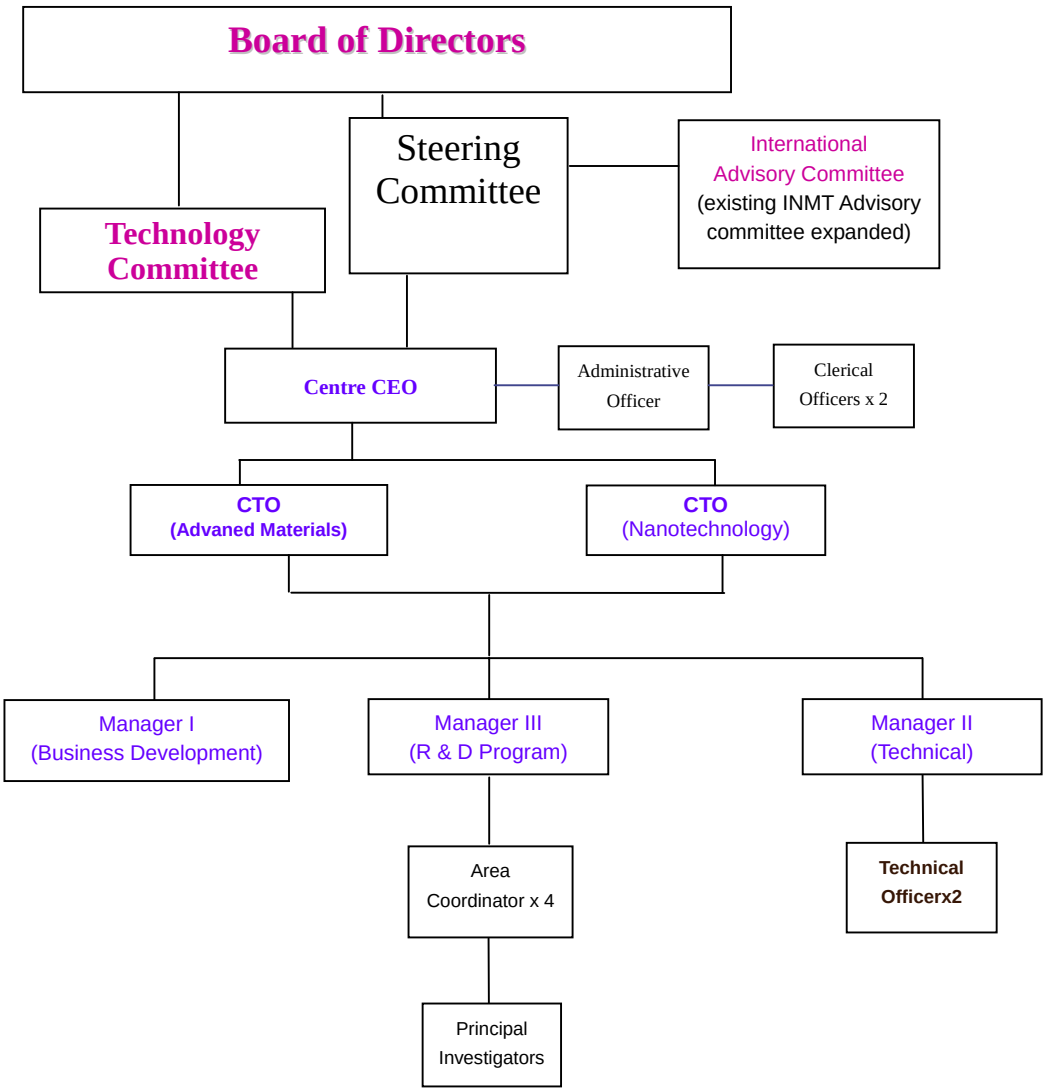
(b) a Technology Committee with a member of Steering Committee to chair and consisting of some Steering Committee members with technology background; industry and university representatives with technical expertise; representatives from industry and HKUST; overseas experts; Centre CEO (Ex-Officio).

The existing International Advisory Committee of HKUST's Institute of Nanotechnology and Materials (e.g. Neal Lane and Claude Weisbuch) will be

retained to provide advice to the Steering Committee.

4. Organization chart

There will be six key Centre staff including one Centre CEO, one Chief Technology Officer for nanotechnology, one Chief Technology Officer for advanced materials, three managers for project coordination, technical support, and business development respectively.



5. R&D programme

The Centre targets to conduct initially a total of approximately 44 projects in four core technology areas, namely -

(a) Nanomaterials and Nano Enabled Products;
(b) Nanoelectronics: display and lighting;
(c) Advanced Materials: electronic packaging and assembly; and
(d) Advanced Manufacturing: technologies for advanced forming, surface treatment and environmental sustainability.

6. Collaboration parties

HKU, CUHK, CityU, HKSTP and HKPC will participate in individual R&D projects as well as in the Steering Committee and the Technology Committee. Other industry partners will participate in the Steering Committee and Technology Committee. They may also join as sponsors, form consortium, collaboration, contract research and participate in individual projects.

7. IP arrangement

It is proposed that for industry contribution of less than 50% of the project cost, a non-exclusive right to use result may be granted, and for industry contribution of 50% or more of the project cost, an exclusive right to use results on a case by case basis.

8. Proposed Budget

	2005-06 $'000	2006-07 $'000	2007-08 $'000	2008-09 $'000	2009-10 $'000	Total $'000
5-Year Centre Operating Cost						
Staff	7,172.5	7,188.2	7,387.6	7,597.0	7,816.8	37,162
Equipment and other capital cost	2,169.6	1,069.6	1,069.6	1,069.6	1,069.6	6,448
Other direct costs	3,558.0	3,558.0	3,558.0	3,558.0	3,558.0	17,790
Sub-total (a)	**12,900.1**	**11,815.8**	**12,015.2**	**12,224.6**	**12,444.4**	**61,400**
R&D Project Costs						
R&D Expenditure						
Staff	26,088.1	30,436.1	26,088.1	18,479.1	6,522.0	107,613.5
Equipment	9,486.6	11,067.7	9,486.6	6,719.7	2,371.6	39,132.2
Other direct costs	12,508.2	14,484.6	12,508.2	9,049.6	3,614.6	52,165.2
Sub-total (b)	**48,083.0**	**55,988.4**	**48,083.0**	**34,248.3**	**12,508.2**	**198,910.9**
Pilot Line for Display						
Pilot line	0	124,000.0	0	0	0	124,000.0
Other direct costs	0	7,600.0	20,200.0	0	0	27,800.0
Sub-total (c)	**0**	**131,600.0**	**20,200.0**	**0**	**0**	**151,800.0**
Income						
Contribution from relevant Industries	5,533.8	98,636.3	23,234.4	6,363.1	1,993.3	135,760.9
Income generated from R&D Projects	0	560.0	1,300.0	1,740.0	2,750.0	6,350.0
Sub-total (d)	**5,533.8**	**99,196.3**	**24,534.4**	**8,103.1**	**4,743.3**	**142,110.9**
Total amount to be funded from ITF for the whole Centre [(a) + (b) + (c) - (d)]	**55,449.3**	**100,207.8**	**55763.8**	**38,369.8**	**20,209.3**	**270,000.0**

Annex C

PolyU's Proposal
R&D Centre: Textile and Clothing

1. Project Title

Hong Kong Research Institute of Textiles and Apparel (HKRITA)

2. Objectives

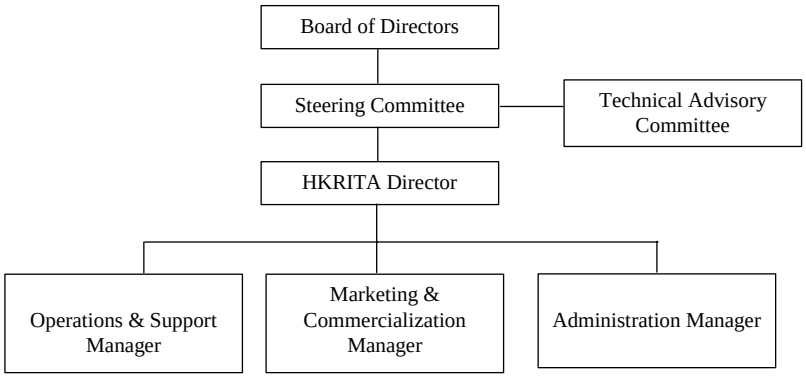
HKRITA aims to set up a leading centre of excellence in research, development and technology transfer in fashion and textile technologies. It would be a Hong Kong-wide R & D Centre to support the continual development of technologies to enhance the competitiveness of the fashion and textile industry as to increase the Hong Kong economic development.

3. Institutional Arrangements

It would be set up as an independent non profit distributing company directly owned by the PolyU. The Board of Directors will consist of up to 5 Members from the PolyU. The Steering Committee (SC), which is to set the direction and strategy of the Centre, will consist of representatives from academic institutions, industry, associations, industrial supporting organizations, and the Government. The Technology Advisory Committee (TAC), which is to provide advice on technological development, technology road maps and strategies and to vet the projects submitted, will also consist of representatives from academic institutions, industry, associations, industrial supporting organizations, and the Government.

4. Organizational Chart

The Centre will consist of 4 key Centre staff including 1 Centre Director, 1 Marketing and Commercialization Manager, 1 Administration Manager and 1 Operations & Support Manager. The Centre also has supporting staff of 6 for the 1st year and 16 for the 5th year.



5. R&D Programme

28 projects will be commenced initially. As a whole, the Centre will carry out about 105 projects in 5 years under 4 technology focus areas, i.e. new materials, textiles, and apparel products; advanced textile and clothing production technologies; product design and evaluation technologies; and enhanced industrial systems and infrastructure.

6. Collaboration Parties

Many organizations have expressed interests to participate in the Centre's operation. In summary, this includes 5 local research institutions; over 28 industry partners; 11 industrial supporting organizations, trade and professional bodies; 11 overseas/Mainland research institutions; and 3 Mainland professional bodies. Collaboration projects are basically classified under 4 categories of platform technologies; special advanced technologies; short term projects and contract research.

7. IP Arrangement

Industry contribution of less than 50% of total project cost would have non-exclusive right to use project results whereas projects with industry contribution of up to 50% or more of total project cost would have exclusive right to use project results and to discuss on a case by case basis.

The Centre preferred to have IP under single ownership. Separately, the level of benefits to be shared by a sponsor of an R & D project should be in proportional

to its contribution.

8. Proposed Budget

	2005-06 $'000	2006-07 $'000	2007-08 $'000	2008-09 $'000	2009-10 $'000	Total $'000
5-Year Centre Operating Cost						
Staff	6,500	7,000	7,800	8,600	9,600	39,500
Equipment and other capital cost	1,500	0	750	0	0	2,250
Other direct costs	2,800	3,100	3,900	4,150	4,550	18,500
Sub-total (a)	**10,800**	**10,100**	**12,450**	**12,750**	**14,150**	**60,250**
R&D Project Costs						
R&D Expenditure						
Platform Tech	14,000	14,000	17,000	17,000	17,000	79,000
Special Advanced Tech	40,000	40,000	42,000	45,000	45,000	212,000
Collaborative Projects	12,000	12,000	15,000	15,000	15,000	69,000
Sub-total (b)	**66,000**	**66,000**	**74,000**	**77,000**	**77,000**	**360,000**
Income						
Contribution from relevant Industries	21,500	21,500	23,500	23,500	24,500	114,500
Income generated from R&D Projects	1,500	2,750	5,000	8,500	13,000	30,750
Sub-total (c)	**23,000**	**24,250**	**28,500**	**32,000**	**37,500**	**145,250**
Total amount to be funded from ITF for the whole Centre [(a) + (b) - (c)]	**53,800**	**51,850**	**57,950**	**57,750**	**53,650**	**275,000**

Annex D

HKPC's Proposal
R&D Centre: Automotive Parts and Accessory Systems

1. Project title

Automotive Parts and Accessory Systems R&D Centre

2. Objectives

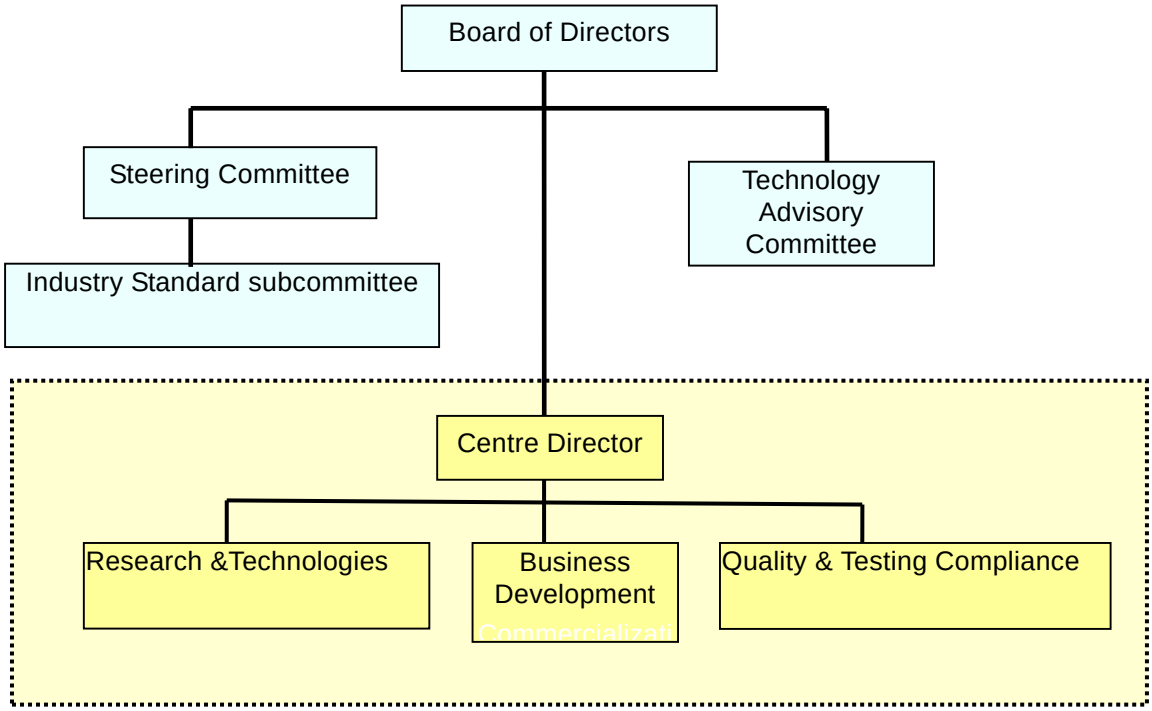
The objective of the Automotive Parts and Accessory Systems (APAS) R&D Centre is to provide a physical establishment to undertake market led R&D programmes as well as commercialising the R&D results with collaboration of industry, universities and technology institutes for the development of APAS industry. The Centre will provide support with an aim of enhancing the capabilities and competitiveness of industry including market intelligence, management, product design, quality standards and technical skills for meeting international requirements.

3. Institutional arrangement

The Centre is proposed to be a non-profit distributing limited Company directly managed by HKPC. It would consist of a Board of Directors (5 Members from HKPC and the R & D Centre Director), a Steering Committee (SC), a Technology Advisory Committee (TAC) and Industry Standards Sub-committee (ISS). The members of these committees would be invited from academic and research institutions, industry associations, financial and legal professionals and the government, technology experts according to the needs of the Committees. The SC would formulate policies in support of the strategies set out by the Board of Directors and the TAC is responsible in reviewing the projects submitted and making the recommendations. The ISS is to advise on industry standard matters.

4. Organization chart

There would be 5 Key Centre Staff, including 1 Centre Director, 2 Principal Engineers, 2 Senior Engineers and 8 other supporting staff. The organizations chart is as below:



5. R&D programme

In the five year period, about 110 projects of different nature would be carried out. They are basically under five technology areas: Electronic software, Safety, Environment, Advanced materials manufacturing and Advanced propulsion. These 110 projects would cover short term, medium term and long term projects under the nature of platform, collaboration and contract research categories.

6. Collaboration parties

The R & D Centre would implement projects in collaboration with 8 major local research institutions (HKUST, PolyU, CityU, CUHK, IVE, ASTRI, HKU and HKSTP), 6 HK industry Associations (Auto Parts, Foundry, Metal

Finishing, Plastic Machinery, Optoelectronics & Screw and Fastener) and 7 Mainland technology partners.

7. IP arrangement

The IP arrangement would vary with the types of collaboration and projects (consortium, collaboration, sponsored projects and contract research). As proposed, IP under single ownership is preferred. As a general guide, the level of benefits received would be proportional to the contribution. If industry contribution is less than 50%, the industry would have a non-exclusive right to use project results. In case of industry contribution is more than 50%, exclusive right to use results would be discussed on a case by case basis.

8. Proposed Budget

	2005-06 $'000	2006-07 $'000	2007-08 $'000	2008-09 $'000	2009-10 $'000	Total $'000
5-Year Centre Operating Cost						
Staff	8,100	8,900	8,900	8,400	9,400	43,700
Equipment and other capital cost	3,400	600	400	300	300	5,000
Other direct costs	3,080	3,080	3,280	3,380	3,480	16,300
Sub-total (a)	**14,580**	**12,580**	**12,580**	**12,080**	**13,180**	**65,000**
R&D Project Costs						
R&D Expenditure						
Platform Tech	16,800	29,400	21,000	12,600	4,200	84,000
Auto Parts	31,500	84,000	105,000	84,000	52,500	357,000
Sub-total (b)	**48,300**	**113,400**	**126,000**	**96,600**	**56,700**	**441,000**
Automotive Parts Testing and Certification Facilities ***(c)***	**8,000**	**12,000**	**8,000**	**5,000**	**2,000**	**35,000**
Income						
Contribution from relevant Industries ***(d)***	**18,270**	**46,410**	**55,650**	**43,890**	**26,880**	**191,100**
Total amount to be funded from ITF for the whole Centre [(a) + (b) + (c) - (d)]	**52,610**	**91,570**	**90,930**	**69,790**	**45,000**	**349,900**

Annex E

HKU, CUHK and HKUST's Proposal
R&D Centre: Logistics and Supply Chain Management Enabling Technologies

1. Project Title

Logistics and Supply Chain Management Enabling Technologies R&D Centre

2. Objectives

The goal is to establish the Logistics and Supply Chain Management Enabling Technology Centre to foster the development of core competencies in applied R&D in logistics and supply chain related technologies, with initial focus on RFID, and to facilitate adoption of these technologies by industries in Hong Kong and China to enhance their competitiveness.

3. Institutional Arrangement

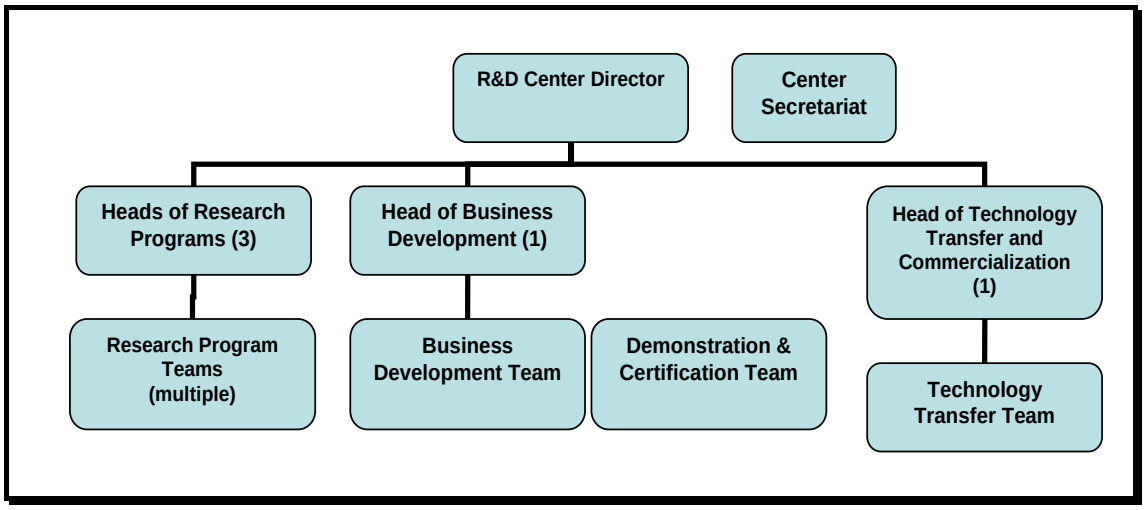
The Centre will be a non-profit limited company by guarantee with a Board of Directors (three members - one from each university on an equal share basis). There will be a Steering Committee and Technology Committee with the following proposed composition:

(a) a Steering Committee consisting of a maximum of 15 members with representatives from Government, host universities, strategy partners, direct relevant industry & other sectors; on personal capacity; Centre director (Ex-Officio); and

(b) a Technology Committee with a member of steering committee to chair and consisting of other steering committee members with technology background; representatives from industry and trade organizations, universities and other institutions, ITC and Government; technology experts by invitation; Centre director (Ex-Officio).

4. Organization Chart

There will be six key Centre staff including one Centre director, three associate directors, one technology transfer manager, and one business development manager. The total full-strength headcount will amount to fourteen in the 4th year.



5. R&D Programme

The Centre will be executed in three phases, namely, incubation phase (15 months), development phase (24 months), and maturity phase (21 months).

The Centre targets to conduct a total of 80 projects in 5 years in three major technology areas, namely -

(a) RFID tag and reader technologies;
(b) networking and infrastructure technologies; and
(c) applications and decision support technologies.

6. Collaboration Parties

The Centre has engaged three strategic partners:

(a) Hong Kong Article Numbering Association on standardization and compliance;
(b) Hong Kong Productivity Council on industrial liaison and training; and
(c) Hong Kong Science and Technology Parks on demonstration and certification centre.

Other industry partners will participate in the steering committee and/or technology committee. They may also join as sponsors, form consortium, collaboration and contract research.

7. IP Arrangement

It is proposed that for industry contribution of less than 50% of the project cost, a non-exclusive right to use result may be granted, and a right to own IP will be eligible by paying the Centre 180% of the project cost.

For industry contribution of 50% or more of the project cost, an exclusive right to use results may be granted for five years, and a right to own IP will be eligible by paying the Centre 130% of the project cost.

8. Proposed Budget

	2005-06 $'000	2006-07 $'000	2007-08 $'000	2008-09 $'000	2009-10 $'000	Total $'000
5-Year Centre Operating Cost						
Staff	3,890	6,170	6,170	6,620	6,620	29,470
Equipment and other capital cost	2,000	2,500	2,000	1,000	500	8,000
Other direct costs	1,820	3,150	3,150	3,290	3,290	14,700
Sub-total (a)	**7,710**	**11,820**	**11,320**	**10,910**	**10,410**	**52,170**
R&D Project Costs						
R&D Expenditure						
Stage 1	24,000	28,000	30,000	10,000	0	92,000
Stage 2	0	40,500	81,000	81,000	40,500	243,000
Stage 3	0	0	0	42,000	42,000	84,000
Sub-total (b)	**24,000**	**68,500**	**111,000**	**133,000**	**82,500**	**419,000**
Income						
Contribution from relevant Industries	2,400	19,810	37,020	52,870	34,650	146,750
Income generated from R&D Projects	180	510	3,510	5,660	7,660	17,520
Sub-total (c)	**2,580**	**20,320**	**40,530**	**58,530**	**42,310**	**164,270**
Total amount to be funded from ITF for the whole Centre [(a) + (b) - (c)]	**29,130**	**60,000**	**81,790**	**85,380**	**50,600**	**306,900**

Annex F

PolyU's Proposal
R&D Centre: Logistics and Supply Chain Management
Enabling Technologies

1. Project Title

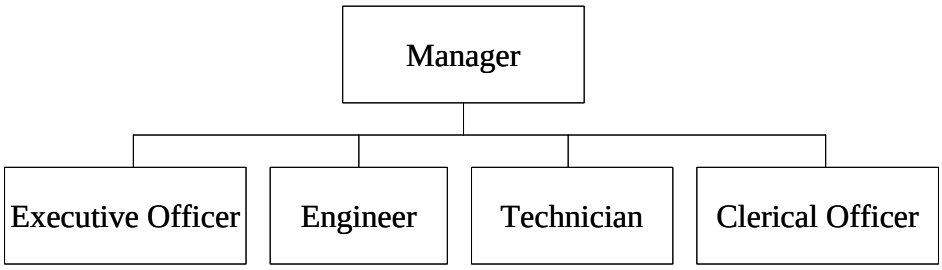
Expression of Interest in the Establishment of an RFID Automation Centre for Logistics and Supply Chain Management Enabling Technologies

2. Objectives

The goal is to set up an RFID automation centre which focuses on the development of specific RFID systems for use in counterfeit, physical asset management, smart warehouse, work-in-process automation, and knowledge-based point-of-sales for different industrial sectors.

3. Organization Chart

There will be four key Centre staff including one manager, one executive officer, one engineer and one technician.



4. R&D Programme

The Centre targets to conduct a total of 16 projects in 5 years in four technology areas, namely -

(a) tag and reader technologies;
(b) infrastructure;

(c) counterfeit/ asset management/ commercial application; and
(d) manufacturing automation.

A floor of 350 sq. meters (to be charged to the project) will be made available in the Hung Hom campus of the university.

5. Proposed Budget

	$'000
Expenditure	
(a) Operating cost	12,700
(b) Project cost and Other Support Programme cost	47,900
Sub-total	**60,600**
Income	
(a) Industry Sponsorship/Contribution	0
(b) Income Generated	0
Sub-total	**0**
Total amount requested from ITF	**60,600**

Annex G

ASTRI's Proposal
R&D Centre: Information and Communications Technologies

1. Project Title

Establishment of an Information and Communications Technologies R&D Centre to implement R&D Programmes on

i) Communications Technologies,
ii) Consumer Electronics,
iii) Integrated Circuit Design,
iv) Opto-electronics

2. Objectives

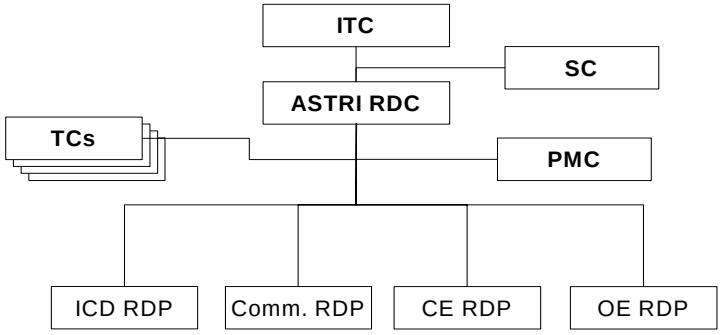
By hosting the R&D Centre, ASTRI aims to make the Centre the de-facto hub for Hong Kong and PRD-based companies to conduct R&D activities in the respective focused areas above. ASTRI will formulate R&D Centre's activities and services with the intention of bringing strategic "applications" that are transferable to the local industry to enhance their competitiveness. In order to ensure quality project management in the R&D Centre, bringing to it high efficiency with low cost, ASTRI would provide the Centre with ASTRI's centralized project management support in the economical, transparent and accountable manners.

3. Institutional Arrangement

The Centre will come under ASTRI and no separate companies will be formed. ASTRI's CEO will serve as the director of the R&D Centre. A Steering Committee (SC) which consists of ASTRI's Board members, industrialists, academics and stakeholders will oversee the overall planning, operations and performance of the Centre. Under each of the 4 R&D programmes, there will be a Technology Committee (TC) to oversee the R&D directions and feasibility of the projects, to conduct reviews and evaluations of project proposals and periodic monitoring of project performance. The TC is made up of members from ITC, ASTRI, industries and academia.

4. Organization Chart

For each R&D programme, there will be a Centre Coordinator. The projects under each R&D programme will be led by R&D Vice-Presidents. Since ASTRI has already had a management infrastructure, the R&D Centre will be supported by the existing ASTRI headquarter in the form of a Project Management Centre (PMC). It will be staffed with existing ASTRI headquarter personnel to support all project management activities from strategic planning, market intelligence, IP management to technology dissemination.



Legend:
ITC: Innovation and Technology Commission
SC: Steering Committee
PMC: Project Management Center
ICD: IC Design
CE: Consumer Electronics
RDC: R&D Center
RDP: R&D Program
TC: Technology Committee
Comm.: Communications
OE: Optoelectronics

5. R&D Programme

There are four R&D Programmes : Communications Technologies, Consumer Electronics, IC Design and Opto-electronics.

For Communications Technologies, the focus is on personal and home networking, broadband wireless access mobile platforms, cellular communications, digital TV broadcast.

For Consumer Electronics, the focus is on home media networking, portable media, multimedia communication, pervasive services, digital broadcasting. Technologies to be developed include wireless/broadband, digitization, 3C convergence/Triple Play, miniaturization/mobility, etc.

For IC Design, the focus is on H.264 video compression, Java computing, data converter codec, AMS cell library, RF architecture, bio-medical, digital TV receiver, and for advanced IPs and ICs for consumer, telecommunications and other applications. Technologies to be developed include power management, analog/mixed-signals, embedded software, integration and testing.

For Opto-electronics, the focus is on low-cost optical interconnect, optical transmission media, novel transmission device, optical sensor and solid state lighting. Core technologies to be developed include POF (Plastic Optical Fiber), OEIC (Opto-electronics IC), key optical devices, packaging and optical sensors, etc.

6. Collaboration parties

Collaboration with the Centre could be in the form of forming expert group, participating in individual projects, joining as sponsors or consortium members, contracting research work.

More specifically for Consumer Electronics, there are 7 companies interested as licensing partners, 3 as project collaborating partners, 2 as members, 5 as resource contributing partners. There is also support from 5 local universities and 4 local associations/institutes.

7. IP Arrangement

If industry contribution is less than 50% of project cost, exclusive licensing will not be allowed. However, companies would have discount on future royalty for non-exclusive licensing proportionally to their contribution. Detailed terms will be determined through business-to-business negotiations on a case-by-case basis.

8. Proposed Budget

	2005-06 $'000	2006-07 $'000	2007-08 $'000	2008-09 $'000	2009-10 $'000	Total $'000
5-Year Centre Operating Cost						
Sub-total (a)	**38,662**	**47,199**	**55,227**	**66,879**	**84,941**	**292,908**
R&D Project Costs						
R&D Expenditure						
Communications Technologies						
Staff	33,107	48,135	65,368	85,665	110,378	342,653
Equipment	8,122	9,900	10,598	10,584	9,326	48,530
Other direct costs	2,091	2,715	3,268	3,761	3,896	15,731
Sub-total (b)	**43,320**	**60,750**	**79,235**	**100,010**	**123,599**	**406,914**
Consumer Electronics						
Staff	44,413	50,486	57,993	66,360	77,833	297,085
Equipment	10,516	10,294	10,276	10,294	10,367	51,748
Other direct costs	13,293	14,758	16,748	18,961	22,086	85,846
Sub-total (c)	**68,222**	**75,538**	**85,017**	**95,615**	**110,287**	**434,679**
IC Design						
Staff	30,204	44,564	52,766	78,753	123,238	329,525
Equipment	13,249	17,590	19,968	17,510	20,644	88,961
Other direct costs	9,242	13,543	16,191	21,739	33,261	93,976
Sub-total (d)	**52,694**	**75,697**	**88,925**	**118,002**	**177,143**	**512,462**
Opto-Electronic						
Staff	18,504	26,975	36,103	46,225	54,394	182,200
Equipment	27,000	24,000	16,720	13,310	12,700	93,730
Other direct costs	27,756	26,975	33,252	37,665	43,659	169,307
Sub-total (e)	**73,260**	**77,950**	**86,075**	**97,200**	**110,752**	**445,237**
Income						
Contribution from relevant Industries	4,285	14,136	27,351	54,235	106,083	206,090
Income generated from R&D Projects	4,625	13,800	30,575	53,500	83,610	186,110
Sub-total (f)	**8,910**	**27,936**	**57,926**	**107,735**	**189,693**	**392,200**
Total amount to be funded from ITF for the whole Centre [(a) + (b) + (c) + (d) + (e) - (f)]	**267,249**	**309,198**	**336,553**	**369,972**	**417,029**	**1,700,000**

Annex H

Cyberport's Proposal
Focus Theme: Digital Entertainment Incubation cum Training Centre

1. Project Title

An Incubation-cum-training Centre supporting high-growth start-up companies in innovative digital entertainment development in Hong Kong.

2. Objective

The goal is to establish an Incubation cum Training Centre (the Centre) at Cyberport to incubate companies in the digital entertainment and digital multimedia industries, initially focusing on game development. The Centre will provide a cultivating environment for start-ups and focused professional training courses and seminars to help develop commercially viable products and services with sustainable business model in the digital entertainment industry.

3. Institutional arrangement

The Centre will be set up as a unit under Cyberport. An Advisory Committee will be set up with non-executive and executive directors drawn from academia, commercial sector and the Government to provide advice or mentorship to incubates, to review performance and to steer the overall direction of the Centre. A 12-member Vetting Committee will be established to evaluate incubation applications and to set initial checkpoints and milestones for each incubation applicant.

4. Organization chart

The Centre will comprise 4 key centre staff and 2 supporting staff. The Centre Manager will be responsible for the overall management and as a leading public spokesman. The Business Development Manager and the Training Manager will manage business related activities and run the Digital Entertainment Academy respectively. One Technical Support Engineer will provide technical support to

incubatees.

5. Programme and Support

This 40 months project comprises two core programmes, namely, Incubation Programme and Digital Entertainment Academy.

(a) Incubation Programme - The Centre targets to support up to 45 digital entertainment or media start-ups for a period up to 2 years with rent free office space, equipment and advanced digital media production facilities at favorable terms; and

(b) Digital Entertainment Academy - The Academy will offer the following:

  (i) professional training series on technologies and business development,

  (ii) SME circle workshop and visionary seminar to share business insights and to develop visionary strategies,

  (iii) Youth Creativity Training to provide exposure on technical skill development and industry knowledge on digital entertainment tailored for young adults from the age of 10 to 17 to help foster early creative thinking and development, and

  (iv) Web based training courses targeted for professional skill enhancements of latest production tools and techniques.

6. Collaboration parties

The possible collaboration includes:

(a) academic and industry partners to run the Digital Entertainment Academy on training programmes;

(b) partners such as InvestHK, HKTDC and Canada’s TRLabs will collaborate in marketing and promotional activities; and

(c) game development bases in Mainland China and Canada, in particularly in the on-line game and new media areas.

7. Proposed Budget

	2005-06 $'000	2006-07 $'000	2007-08 $'000	2008-09 $'000	Total $'000
Centre Operating Cost					
Staff	640	1,920	1,920	1,920	6,400
Equipment	1,475	0	0	0	1,475
Other direct costs	0	20	20	20	60
Sub-total (a)	**2,115**	**1,940**	**1,940**	**1,940**	**7,935**
Programme Costs					
Incubation	4,705	2,371	2,371	2,371	11,818
Training	0	3,960	3,960	3,960	11,880
Sub-total (b)	**4,705**	**6,331**	**6,331**	**6,331**	**23,698**
Income					
Sponsorship from Industry	0	556	0	0	556
Other Income	0	100	100	100	300
Sub-total (c)	**0**	**656**	**100**	**100**	**856**
Total amount to be funded from ITF for the whole Centre [(a) + (b) - (c)]	**6,820**	**7,615**	**8,171**	**8,171**	**30,777**

Annex I

CUHK's Proposal
Focus Theme: Mechanical Watch Movements

1. Project title

Develop Technologies and Facilities to Design and Build Mechanical Watch Movements

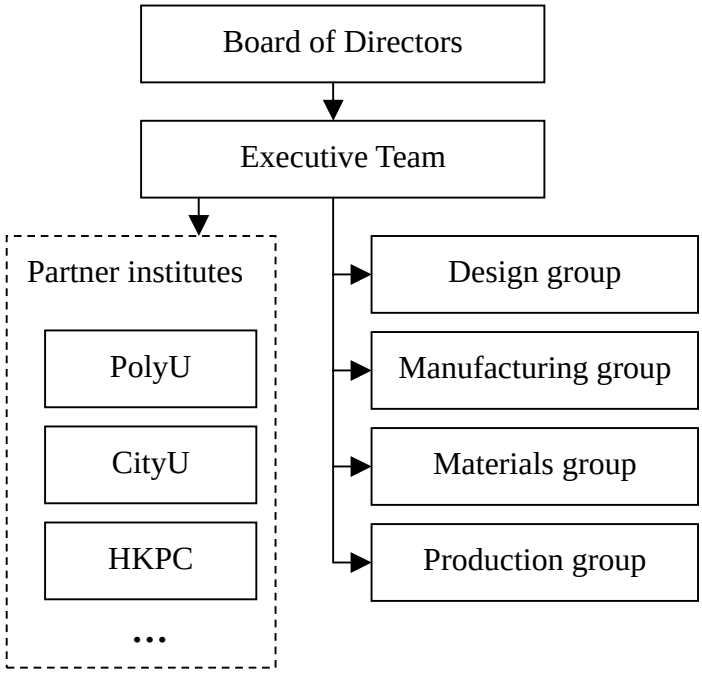
2. Objectives

The proposal aims to develop the associated design method, material selection, and manufacturing technologies in the fabrication of the mechanical watch movement in Hong Kong. With industry's participation and collaboration with the R&D partners, the project would develop the required technology platform in fabricating a three-hand mechanical watch movement in Hong Kong, with quality comparable to the Swiss product. A pilot production facility would also be established to demonstrate the developed technologies for technology transfer and the production of the prototypes. In addition, this would train up a group of highly skilled engineers and technicians for the precision industry.

3. Institutional arrangement

A Centre will be set up under the management of CUHK for project implementation. The Board of Directors of the Centre consists of 11 members (6 from industry, 2 from CUHK, 1 from collaborating R&D organizations, 1 from ITC and 1 independent). Directly under the Board is the Executive Team with 4 Technical Groups (design, manufacturing, materials, and production).

4. Organisation chart



The key staff of the Centre include one Centre Director, three research assistant professors and two local/overseas experts. There are 32 other supporting staffsfrom local research institutes in implementing different projects under their respective R&D schedule.

5. R&D programme

The R&D programme involves 25 proposed projects to be carried out in three years by CUHK and its collaborating R&D partners. The programme is broadly divided into three phases with phase I projects focus on design, material and manufacturing technology development, phase II projects focus on manufacturing technology and resources development and phase III focus on new technology exploration.

As an important part of the programme, pilot production facilities will be established to produce 20 complete three-hand mechanical watch movements in the first year, 200 in the second year and then 500 in the third year.

6. Collaboration parties

CUHK has received collaboration support from the City University of Hong Kong (CityU), the Polytechnic University (PolyU), and the Hong Kong Productivity Council (HKPC). The Hong Kong Watch Manufacturers Association Limited (HKWMA), the Federation of Hong Kong Watch Trade and Industries Ltd. (FHKWTI) and the Watch and Clock Council of the Federation of Hong Kong Industries (FHKI-WCC) would be the industry partners to support the implementation of the project.

7. IP Arrangement

CUHK proposed that the IP generated would be shared based on the actual works of the collaborating R&D organizations.

8. Proposed budget

	$'000
Expenditure	
Manpower (including 1 Principal Investigator, 5 Engineers, 16 Research Assistants for 3 years)	$31,686
Equipment (including 3D laser cutting machine, 3 axis CNC precision milling machine and turning machine)	$12,000
Other Direct Costs (including materials costs, tools and fixtures, testing materials)	$16,314
Sub-total (a)	**$60,000**
Amount of Sponsorship (from watch industry) (b)	**$6,000**
Net Amount requested from ITF [(a) - (b)]	**$54,000**