

For meeting on
18 December 2001

Legislative Council Panel on Commerce and Industry

Promoting Technological Entrepreneurship

PURPOSE

This paper informs Members of Government's efforts in promoting technological entrepreneurship.

BACKGROUND

2. In order to promote and nurture the development of an innovation and technology based industry in Hong Kong, the Government provides various funding and services support to encourage technological entrepreneurs to start their own businesses, and help the growth of these businesses. The support services provide the incentive for the technological talents in Hong Kong to capitalise on their talents and entrepreneurship spirit to set up technological companies.

3. Such technological start-up companies would be able to contribute to the creation of jobs and business opportunities in the technological arena, and also help to foster the technological culture in business.

STRATEGY

4. The common challenges facing technology start-ups are the lack of funding and commercial skills, and the high risk nature of research and development work before commercialisation, which makes it difficult to obtain funding from the capital market.

5. The Government's strategy is to provide funding and business support to such technological start-ups. We provide seed money and incubation services, through the Small Entrepreneur Research Assistance Programme (SERAP) under

the Innovation and Technology Fund (ITF)¹ and the Hong Kong Science and Technology Parks Corporation (HKSTPC), for start-up companies to carry out research and development work as well as for early market validation. As these companies grow, we provide them with venture capital, through the Applied Research Fund (ARF)², in order to enable them to enter into the next stage of full commercialisation. Details of our support and the initial successes so far are set out below.

SPECIFIC SUPPORT

Funding and Incubation Service for Technology Start-ups

(i) Funding Support

6. The Innovation and Technology Commission (the Commission) administers a funding programme called the SERAP under the \$5 billion Innovation and Technology Fund. It provides up to \$2 million seed money on a dollar-for-dollar matching basis for quality technological companies to embark on research and development work that will enable them to prepare prototypes for their products/services as well as to test the market for initial acceptance. Applications are assessed against the innovative and technological content and their reasonable commercial potential. Projects funded will be carried out in two phases. Phase I is a trial period of no longer than six months. In order to ensure the quality of the funded projects, we will critically assess all funded projects after their initial six months or so, before they proceed to Phase II. We will terminate a project if it proves to be unsuccessful technologically or commercially.

7. Apart from funding support, SERAP provides coaching and other support services to funded companies to help the companies to grow and seek follow-on investors. Seminars, investment forums and discussion sessions are organised to help the companies in business development, management competence, marketing, matching and networking with investors and well-established enterprises. A recent investment forum for the SERAP companies held in the Innovation Expo in November 2001 was well received by potential investors.

¹ We gave Members an update on the SERAP under ITF in November 2000 vide LC Paper No: CB(1)151/00-01(02).

² We gave Members an update on ARF in July 2001 vide LC Paper No: CB(1)1834/00-01.

8. The results and achievements of the SERAP programme since its launch in November 1999 are summarised below -

- (a) we have received a total of 372 applications in the past two years. With the growing popularity of the programme, we have witnessed a 25% increase in the number of applications this year. As at end November 2001, a total of 68 projects, with a committed amount of about \$105 million, have been approved. At present, 37 projects out of the 68 have been allowed to proceed to Phase II after a critical review of the progress. The sectoral distribution of these funded projects is shown in **Annex A**;
- (b) the 68 SERAP-funded companies have already resulted in the creation of about 520 jobs, most of which are at professional rank such as engineers;
- (c) due to the dollar-for-dollar matching requirement, the SERAP funding has stimulated an equivalent amount of private sector investments from the technological start-ups. Besides, other investors have made follow-on investments into four SERAP funded companies as a vote for confidence in the commercial potential of these companies. As most of the SERAP projects are still progressing, it is hoped that more follow-on investments will be generated in future; and
- (d) we have seen very encouraging results in some of the funded companies. For example, one company had only four employees with a business turnover of about \$2 million per year when it made an application to SERAP in early 2000. With SERAP funding support and the company's initial success, it has attracted follow-on investments by two venture capital firms. The company now has more than 50 employees and the business turnover is expected to reach \$80 million in March 2002. It is also preparing for an initial public offering in the first quarter of 2002. Separately, three SERAP companies won the Hong Kong Awards for Industry this year.

(ii) Incubation Support

9. HKSTPC, with Government support, provides incubation support for technology companies in their initial three years. HKSTPC provides not only fully-serviced accommodation at an affordable rental, but also value-adding services in order to help these companies in their operation and growth. Such

value-adding services include management training courses, customised marketing services, business matching, professional services such as legal and financial advice, as well as identification of follow-on investors.

10. The results and achievements of the incubation programme since its inception in 1993 are summarised below -

- (a) The incubation programme has supported 131 companies in the past nine years. The survival rate³ of these incubatees is 90%, which is slightly higher than the industry norm of 87%. The companies have on average grown by three times in company size and business turnover after the incubation period of three years. The sectoral distribution of the current incubatees is shown in **Annex B**;
- (b) the incubation programme is helping to create knowledge-intensive jobs in the incubatees. Of the existing 60 incubatees, a total of 340 jobs have been created; and
- (c) some of the incubatees have achieved proven success. For example, one company has been listed on the Growth Enterprise Market (GEM). Another company became the first company outside the USA to have won the 2000 Incubator Graduate of the Year Award from the National Business Incubation Association USA.

Venture Capital for Technology Companies

11. When technology start-up companies have survived their critical stages of development in the first two to three years, they would need further funding, usually from venture capital, to proceed to the next stage of growth and business development. The \$750 million ARF is a venture capital fund set up by the Government in March 1993 to help such technology companies with commercial potential.

12. Since we engaged professional venture capital firms to be the fund managers for the ARF in November 1998, the support provided by the Government to such high-tech companies is similar to that provided by venture capital firms. The government, through the fund managers, normally takes equity into a company and joins the board of directors in the company. The fund manager gives much professional support to the investee companies such as

³ The survival rate is measured in terms of those incubatees which are still in existence after the incubation period of 3 years.

close commercial guidance, identification of business partners, identification of additional investors, as well as any other support needed for the investee companies to grow and expand.

13. Through the fund managers, ARF has so far provided support to 18 companies involving a total amount of \$306 million. This has spawned private sector investment of more than twice of that amount totalling \$658 million. One of our investee companies is preparing for listing on GEM in early 2002. Some of the other investee companies have managed to obtain further round of financing despite the very difficult economic environment.

Synergy between SERAP, Incubation Programme and ARF

14. As the target companies for the SERAP funding programme and incubation programme are similar, the Commission has formed a strategic alliance with HKSTPC in supporting these companies. Companies funded by SERAP, after the critical re-assessment during the course of the project mentioned in paragraph (6) above, are invited to join the incubation programme so that a high-tech company is given comprehensive support ranging from seed money, accommodation to incubation services. Some bulk discounts on professional services obtained by HKSTPC are also extended to SERAP companies. Where possible, the coaching and publicity activities for the two programmes are organised together.

15. Successful HKSTPC incubatees and SERAP companies with good commercial potential may be considered for ARF funding to help finance their growth and expansion. For example, three successful HKSTPC incubatees have obtained further funding support from the ARF.

FOSTERING A CULTURE OF TECHNO-ENTREPRENEURSHIP

16. The Commission is committed to fostering an innovation and technology culture in the community, and promoting techno-entrepreneurship. We organise bi-annually a large-scale Innovation Expo to sustain public awareness and interest in innovation and technology. HKSTPC and SERAP frequently organise events to publicise the success stories of HKSTPC's incubatees and SERAP funded companies. Both HKSTPC and SERAP have been outreaching to university students to promote technology entrepreneurship. These promotional activities stimulate potential entrepreneurs to start their businesses or make use of the various government support schemes for technology start-ups.

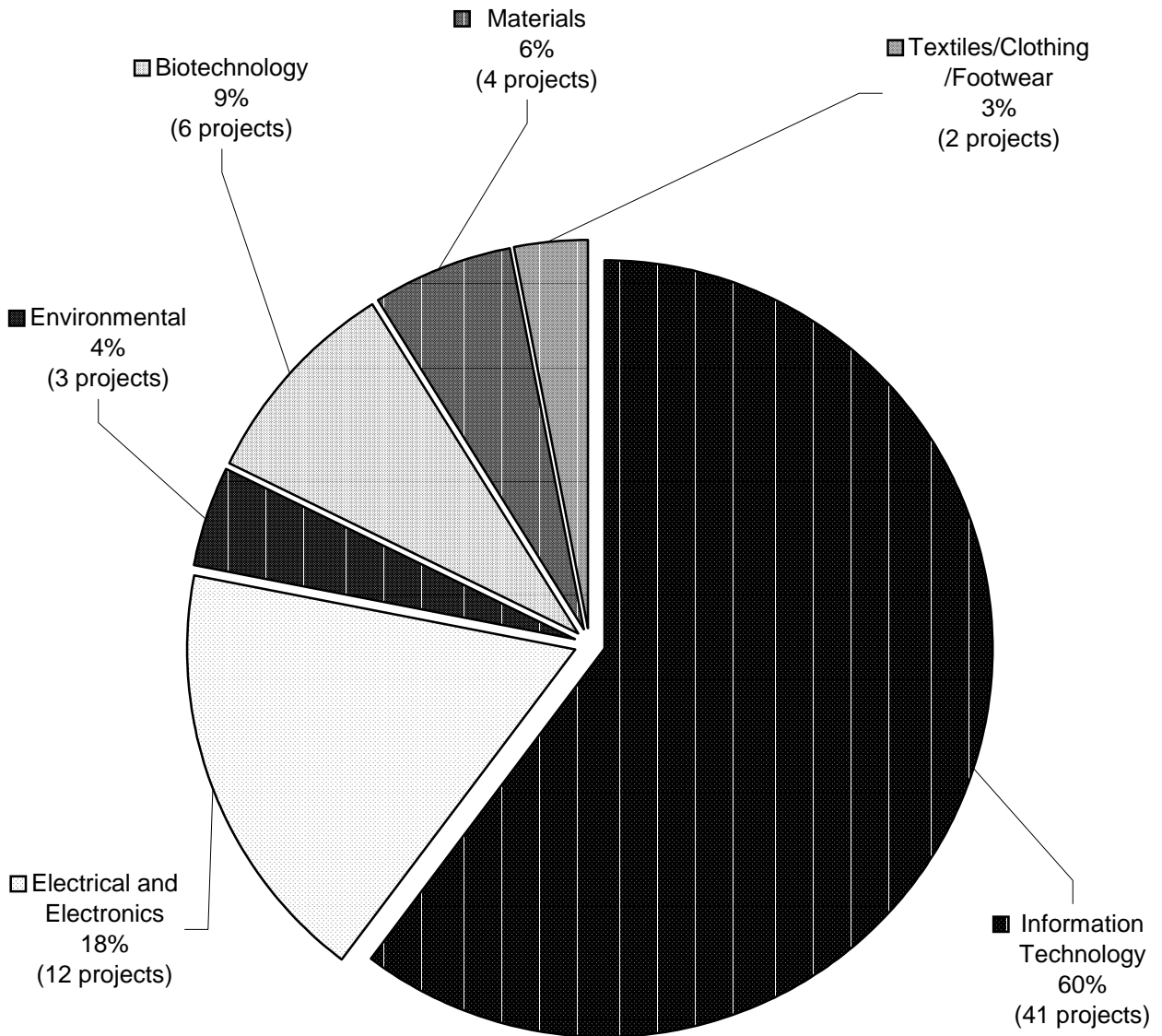
FUTURE PLANS

17. HKSTPC is expanding the incubation programme in full swing by offering more attractive rental and a wider range of value-adding services. Since the launch of the expansion plan in September 2001, the number of incubatees has dramatically been increased from 23 in August 2001 to 60 in November. It aims at reaching 100 incubatees in the middle of 2002. Due to the space constraint in the incubation centre in Kowloon Tong, HKSTPC is considering establishing additional incubation centres outside its existing premises and linking with the universities through a distributed model. Through the nurturing of more incubatees and creation of clusters of technology start-ups, we hope to broaden the technology industry base in Hong Kong.

ADVICE SOUGHT

18. Members are invited to note the content of this paper.

Sectoral Distribution of SERAP Approved Projects (As at 30 November 2001)



Sectoral Distribution of Companies currently under the Incubation Programme (As at 30 November 2001)

