

For discussion on
13 June 2005

**Legislative Council Panel
on Information Technology and Broadcasting**

**Strategy for Promoting the Development of
the Digital Entertainment Industry in Hong Kong**

PURPOSE

This paper outlines the strategy and programme of initiatives for promoting the development of the digital entertainment industry in Hong Kong.

BACKGROUND

2. Digital entertainment generally refers to animations, electronic games, edutainment software, digital effects used in films, videos, and television programmes, as well as other digital multimedia content produced with digital technologies for consumption as entertainment. It is a new, evolving industry worldwide, cross-cutting various service and production sectors, cross-breeding new and conventional media.

3. In March 2002, a Working Group on Digital Entertainment was set up under the former Information Infrastructure Advisory Committee to consider how best to facilitate and support the development of the digital entertainment industry in Hong Kong. The Working Group published a report in September 2003 recommending a package of measures covering infrastructure, human capital, intellectual property (IP) protection, research and development (R&D), and marketing and promotion. Digital entertainment was subsequently identified as one of the focus areas for technological development in the updated Digital 21 Strategy published in March 2004. The Government has since 2003 implemented or sponsored a wide range of initiatives to promote the development of the industry (details at Annex A).

INDUSTRY PROFILE

4. In 2004, there were a total of 208 digital entertainment companies in Hong Kong - 80 in computer animation production, 75 in game software development and 53 in digital effects. These companies together employed about 2 800 people.

5. The Government commissioned the Hong Kong Productivity Council (HKPC) to conduct a survey¹ in March/April 2004 to examine the business profile of the local digital entertainment industry and the support it required. The main findings are as follows:

- (a) digital entertainment is a relatively young industry in Hong Kong - 45.6% of the respondents started their business in the last three years;
- (b) it comprises predominantly small and medium-sized enterprises (SMEs) - 64.9% had fewer than 10 employees, 31.6% had 10-49 employees and only 3.5 % had 50 or more employees;
- (c) it has an educated work force - 51.5% of the local employees were university graduates, and another 36.9% were educated up to post-secondary level;
- (d) its primary market is in the Greater China region – top five markets being Hong Kong (82.5% of respondents served this market), the Mainland (38.6%), Taiwan (31.6%), USA (21.1%) and Singapore (12.3%); and
- (e) most companies surveyed were optimistic about the future - 75% of the respondents expected an increase in revenue in 2004, and 40% indicated that they would employ more people in the next 12 months.

¹ Questionnaires had been sent to 208 companies in HKPC's database. 57 questionnaires were completed through face-to-face and telephone interviews, representing a response rate of 27.4%.

MARKET ANALYSIS

Opportunities

6. In recent years, **digital effects** have become an integral part of filmmaking. International blockbusters such as the “Harry Potter” series, “Lord of the Rings” trilogy, “The Day After Tomorrow” and “Spider-man 2” are richly imbued with digital effects. 3D **animation feature films** such as “Shrek 2”, “Finding Nemo” and “The Incredibles” are among the top 10 films in terms of worldwide box office revenues.

7. The global market for **games** is also growing fast. According to a study by Research and Markets, the worldwide market for video games and interactive entertainment is forecast to grow from US\$23.2 billion in 2003 to US\$33.4 billion in 2008. The IDC also forecast that the Mainland online game market would experience a compound annual growth rate (CAGR) of 39% from US\$159.6 million in 2003 to US\$822.9 million in 2008, making the Mainland the fastest growing online game market in the world.

8. As compared to our competitors in the region, the digital entertainment industry in Hong Kong possesses the following strengths:

- (a) a long history and strong foundation as a creative entertainment hub (e.g. films, television, pop music, comics, etc);
- (b) a good supply of creative talents capable of producing entertaining content and proficient in using the latest technologies and tools to produce world-class content (e.g. award-winning digital effects in “Kung Fu Hustle” and “Shaolin Soccer” and animation productions such as “My Life as McDull”);
- (c) free flow of information and strong international connections; and
- (d) comprehensive legal framework and effective enforcement actions to protect the IP rights of companies and individuals (which remains a major concern for foreign companies investing in the Mainland).

Challenges

9. Notwithstanding the abundant market opportunities and the strengths of our local industry, Hong Kong companies face enormous challenges when

competing with their counterparts from South Korea, Taiwan and even the Mainland for the global/Mainland market. Insofar as games are concerned, NASDAQ-listed Mainland companies like Shanda and NetEase can amass huge amount of capital to support their R&D projects and sales and marketing campaigns. They are also more familiar with the culture, government regulations and business practices, and possess wider distribution networks on the Mainland than Hong Kong companies.

10. Apart from facing fierce competition from neighbouring economies, our digital entertainment companies also have difficulties in raising funds or securing loans to finance their productions. Very few local investors are willing to support the local SMEs since it is difficult to predict the market response to their productions and hence the return. Local banks are also relatively unfamiliar with the industry and reluctant to make loans available at favourable terms. For companies focusing on digital effects in films, the substantial reduction in the number of local film productions and the outsourcing of post-production of film projects to other regions such as Thailand are posing a major threat to their business.

11. Furthermore, although Hong Kong has a good supply of creative talents and skilled technical staff, a critical mass of producers and project managers with sufficient experience in supervising the creative and production processes has not yet been created. This is critical to developing Hong Kong as the centre for high value-added creative processes, while overseeing the more labour-intensive production processes in the Mainland.

STRATEGY AND INITIATIVES

12. Most of the more advanced economies in the Asia-Pacific region, including South Korea, Japan, Taiwan, Singapore and Thailand, are devoting substantial resources and efforts to nurturing their digital entertainment industry. In Hong Kong, the Office of Government Chief Information Officer (OGCIO) is tasked to promote the further development of the digital entertainment industry. We constantly review and update our strategy and programme of initiatives to ensure that they meet the rapidly changing technological and business landscapes of the digital entertainment industry. In 2005/06, the Government will adopt a five-pronged strategy for supporting the digital entertainment industry.

(a) Consolidating the services/resources support for the industry

13. A wide variety of resources/services are provided by different industry support organizations (e.g. the HKPC, Cyberport and Hong Kong Trade Development Council (HKTDC)) and educational institutions in Hong Kong to support the digital entertainment industry. However, many local companies, which are mostly SMEs, still find it difficult to source and access the services/resources made available by these bodies. They also lack the connections to initiate collaborative projects with potential local and overseas partners.

14. To address this problem, the OGCIO and the Cyberport have recently sponsored the establishment of a **one-stop Digital Entertainment Industry Support Centre** (DEISC) and an online industry portal. The DEISC, operated by the HKPC and opened in May 2005, provides the following services to the industry -

- (a) help local companies source and access the services/resources provided by the Government and industry supporting organizations (e.g. new technology/tools, government funding schemes, subsidies for participating in international marketing events, etc.);
- (b) collect, consolidate and convey feedback from local companies to the Government and industry support organizations/academia so that the latter can update/refine their existing programmes or introduce new initiatives to meet the needs of the industry;
- (c) promote sharing of information, technology and tools as well as networking among local companies through the online industry portal and regular industry networking events;
- (d) promote inter-company collaboration on R&D/business/marketing projects (e.g. among local companies and between local companies and Mainland/overseas companies), cross-media projects (e.g. across the platforms of the Internet, television and mobile network) and cross-industry projects (e.g. games, movies, toys and gift items based on the same IP); and

- (e) help SMEs obtain professional services (e.g. export credit insurance, legal and accounting services) and provide advice on the drafting of business plans, funding proposals and marketing materials, etc.

(b) Nurturing promising enterprises and professional talents

15. From the experience of South Korea and Taiwan, nurturing promising enterprises and professional talents is instrumental to building up a critical mass in the digital entertainment industry and sustaining its growth. The Government has thus proposed to fund the establishment of a **Digital Entertainment Incubation cum Training Centre** at the Cyberport. Local companies with innovative and viable business models may apply for admission to the **incubation programme**, and the Centre will provide office space, access to the facilities of the Digital Media Centre, business development advice, legal services and marketing support to the incubatees at discount rates. Up to 45 companies may be selected to take part in the programme in the first three years. Moreover, the Centre will provide technical and business-related **training** for not just incubatees but also other digital entertainment professionals. It will also run an **internship programme** to enable graduates from the relevant disciplines to gain practical working experience through attachment to local companies.

16. The Innovation and Technology Commission (ITC) will seek the approval of the Finance Committee (FC) in June 2005 for funding the establishment and first three years' operation of the Centre under the Innovation and Technology Fund (ITF). Subject to FC's approval, the Cyberport aims to open the Centre before end 2005. As an interim measure, the OGCIO has launched a **pilot internship programme** for local graduates in May 2005. Local companies have been invited to offer internship places for about 20 interns, each of whom will receive a monthly allowance of HK\$4,000 from the Government for a maximum of 12 months.

(c) Facilitating entry into the Mainland

17. The Government will work with relevant organizations and the Digital Entertainment Industry Support Centre to facilitate the entry of local companies into the Mainland market through –

- (a) keeping the local industry up-to-date on relevant Mainland policies and industry support initiatives;

- (b) encouraging and assisting Hong Kong companies to take part in the Chinese Online Games Publishing Scheme (中國民族網絡遊戲出版工程)², under which the Mainland Government will provide assistance to selected games to ensure their successful publication on the Mainland;
- (c) helping Hong Kong companies to establish contacts with Mainland game developers, publishers and operators and organizing business-matching meetings for them;
- (d) building cooperative relationships between Cyberport and the online games and animation development bases being established on the Mainland; and
- (e) pursuing further liberalization of the Mainland market for the industry under the CEPA.

(d) Promoting excellence of the industry

18. The Hong Kong Pavilions set up at major international trade events, such as the Electronic Entertainment Expo (E3) in Los Angeles, the International Film and Programme Market for Television, Video, Cable and Satellite (MIPCOM) in Cannes and ChinaJoy in Beijing and Shanghai have raised the international awareness of Hong Kong productions. To play up the strengths and uniqueness of Hong Kong's productions from others, starting from the E3 held in 2004, we had adopted a theme (e.g. "Kung Fu") for the Hong Kong Pavilion and succeeded in attracting wide industry and media interest. This shows that a focused or theme-based approach will be more effective in drawing attention of the media and potential clients/partners. We will continue to promote award-winning and outstanding Hong Kong productions at the international trade events so as to build a distinguishable brand name for our industry.

19. Locally, the OGCIO and the Cyberport will co-organize the first **Cyberport Games Marathon** in July 2005 to promote high quality and healthy locally produced games to the community. The OGCIO is also exploring the

² The Scheme aims to promote the development of online games by Chinese companies on the Mainland and in the Hong Kong, Macau and Taiwan regions. The target is to have 100 online games developed by Chinese companies publish on the Mainland over the next five years. Any Chinese companies in the said regions may apply for their online games under development to be considered by an expert panel for admission into the Scheme.

possibility of organizing screening sessions to introduce locally produced animations to television stations in Hong Kong.

(e) Attracting investment for the industry

20. Progressive efforts are being made by the Government (e.g. through Invest Hong Kong) and the relevant organizations (e.g. Cyberport) with a view to attracting and securing new investments in the local digital entertainment industry. In parallel, we are actively exploring opportunities for local companies to pitch their projects to potential investors or venture capitalists. In this regard, the OGCIO plans to co-organize the second Venture Capital Forum with the Cyberport in late 2005. We will also work with HKTDC to give ‘animations’ a stronger focus at the next Hong Kong International Film & TV Market (FILMART) and Hong Kong-Asia Film Financing Forum (HAF) in 2006.

21. Major digital entertainment-related events planned for 2005/06 are listed at Annex B.

WAY FORWARD

22. The Government has spared no efforts to support the development of the digital entertainment industry in Hong Kong through enhancing its capability and competitiveness and opening up new markets. Having put in place the necessary hardware and software to support digital entertainment productions in 2004, our focus for 2005/06 is on nurturing professional talents, fostering the growth of promising start-up companies, providing one-stop access to the resources/services available, and facilitating entry into the Mainland/overseas markets for the industry. We will review the effectiveness of these initiatives and keep Members informed of our work on a regular basis .

**Office of the Government Chief Information Officer
Commerce, Industry and Technology Bureau
June 2005**

**Initiatives Implemented or Being Implemented to Support
the Development of the Digital Entertainment Industry in Hong Kong**

Since 2003, the Government as a whole has implemented a wide range of initiatives to spearhead and support the growth of the local digital entertainment industry. These initiatives can be grouped into five main areas, namely infrastructure & business environment, research & development, skills & technology upgrading, business & market opportunities, and investment & financing.

(a) Infrastructure and Business Environment

- (i) The **Digital Media Centre** (DMC) at Cyberport was opened in March 2004. Part of its initial set-up and operating costs came from the Innovation and Technology Fund (ITF). The Centre provides high-end production and post-production facilities at affordable costs to the industry (especially SMEs), thereby reducing their initial investment in the expensive equipment and enhancing the quality of their productions. Facilities available for rental include motion capture and 3D scanning systems, audio and video editing suites, a virtual set studio and a render farm. The Government has recently provided further sponsorship to the DMC for acquiring an **Arrilaser** film recorder, which is much needed by the local film industry but not yet available in Hong Kong. The Arrilaser service has been launched in May 2005.
- (ii) An **iResource Centre** was established in the Cyberport in May 2004 to provide access to a wide range of multimedia resources and information services, including a digital content library with 9,000 publications and 125,000 sound tracks, market information and online database. It also hosts a game testing zone, which supports R&D by the local game industry. Moreover, the Centre has received a grant from the ITF for a project to develop a **unified digital asset management platform** for the creative industries in Hong Kong. The project will be completed in February 2006. The establishment of such a platform will strengthen Hong Kong's position as a centre for the creation, management and distribution of digital content.
- (iii) The **Hong Kong Wireless Development Centre** (HKWDC), which opened in Cyberport in December 2003, provides a central testing platform, marketing and technical support for development of wireless

applications, including mobile games. The Centre is run by the Hong Kong Wireless Technology Industry Association (WTIA) with funding support from the ITF. Separately, the OGCIO co-sponsors a “**Cyberport 3G Community**” project launched by the WTIA to help train developers of 3G applications, including games, in Hong Kong. The project will last 18 months from October 2004.

- (iv) The law enforcement agencies in Hong Kong have been taking rigorous enforcement actions against copyright piracy and trademark counterfeiting activities through, e.g., the Anti-Piracy Reward Scheme. The Government has recently concluded a public consultation exercise seeking public views on, among other things, how to strengthen existing controls over the circumvention of technological devices or means employed to prevent or restrict unauthorized access to copyright works, including console games.

(b) Research & Development

- (v) Under the theme of “**media technologies for digital entertainment**”, the Innovation and Technology Commission (ITC) approved seven applications under the Innovation and Technology Support Programme (ITSP) in September 2003.¹ Some of the approved projects which focus on the development of multi-players online mobile game engine and enabling tools for the design and development of Chinese style game characters are highly relevant and beneficial to game development in Hong Kong. The research projects are expected to be completed in mid to late 2005.
- (vi) To shorten the development cycle of online games, CITB has sponsored the HKPC to develop a **game design engine**, in collaboration with a leading local online game company, for sharing by the local game industry free of charge. The engine will be available by mid-2005.
- (vii) The Hong Kong Polytechnic University (PolyU) developed a 3D multiplayer game engine, Lucid Platform 1.0, under one of the approved project under the SME Development Fund which was completed and introduced to the local game industry at the end of April 2005.

¹ One of the projects recently withdrew from the ITSP, thus leaving six active projects under the theme.

(c) Development of Talents & Upgrading of Skills

- (viii) Students of the first three-year higher diploma **course on multimedia web development and digital entertainment** organized by the Hong Kong Institute of Vocational Education (IVE) will complete their studies in June 2005, thereby providing the much needed manpower for the industry. In addition, IVE launched a new four-year programme on computer game and animation in September 2004. This programme adopts a multiple entry and exit arrangement to provide maximum flexibility for prospective students of different educational attainment. Besides IVE, the Multimedia Innovation Centre of the PolyU and the School of Creative Media of the City University of Hong Kong (CityU) offer programmes related to the production of animation, special effects and games at the undergraduate and postgraduate levels.
- (ix) To widen our students' international exposure and enable them to obtain first hand experience in the latest technology, CITB sponsored the HKPC to run an **overseas internship programme**. The programme supported 10 local students to attend internship in digital entertainment companies in India for six weeks in 2004. Another group of four students will attend internship in the UK in the summer of 2005.
- (x) To nurture local talents in Xbox games development, the OGCIO has sponsored the **Xbox Games Incubation Programme**, which was launched in collaboration with Microsoft and Cyberport in October 2004. Participants of the programme would develop their own Xbox titles using the facilities of the Xbox Games Incubation Centre at Cyberport under the guidance of a professional game producer. They are expected to graduate from the programme in early 2006.
- (xi) To meet the need of the local game industry for expertise in game production and level design, an intensive training course for **“Game Producer & Level Designer”** was co-organised by HKPC and IVE in August 2004.
- (xii) The **Film Development Fund**, which operated for five years from April 1999 to March 2004, had sponsored eight projects in relation to digital technology and animation training. A total of 749 participants attended the relevant courses. In addition, CITB has earmarked another HK\$2.4 million to sponsor digital technology training in 2004/05 to 2006/07. Five projects were funded in 2004/05, and a total of 975 participants attended the relevant courses/workshops.

- (xiii) The **SME Training Fund** has approved 281 applications up to 31 March 2005 for training and skills upgrading of the digital entertainment industry, involving about HK\$1.24 million.
- (xiv) To give recognition to professional excellence and outstanding local productions, the Government has been supporting the organization of the **Hong Kong Digital Entertainment Excellence Awards** since 2003.
- (xv) To promote professional exchange, the Cyberport has organized two **Digital Entertainment Leadership Forums** since 2004. Experts from Hong Kong and around the world shared their experience and insights into the latest developments. The second Forum was held in March 2005, being one of the eight major events under the Entertainment Expo Hong Kong.

(d) Business and Market Opportunities

- (xvi) The Government partnered with the HKTDC, HKPC, InvestHK, Hong Kong Economic and Trade Offices and the industry associations concerned (e.g. the Hong Kong Digital Entertainment Association and the China Game Publishers' Association (Hong Kong Chapter)) to promote the industry overseas and on the Mainland. For instance, **Hong Kong Pavilions** were set up at various overseas trade shows, including the Tokyo Game Show, the Electronic Entertainment Expo (E3) held in Los Angeles, the International Film and Programme Market for Television, Video, Cable and Satellite (MIPCOM) held in Cannes and ChinaJoy, the major Mainland game show, held in Beijing and Shanghai. Locally, a **Digital Entertainment Pavilion** was set up at the past two FIIMART held in 2004 and 2005. The SME Development Fund provided a total of HK\$2.36 million and the OGCIO provided a total of HK\$1.35 million for such marketing activities.
- (xvii) The **SME Marketing Fund** has approved 133 applications up to 31 March 2005, involving over HK\$1.47 million, to support the local SMEs in promoting their products and services on the Mainland and overseas.
- (xviii) The HKTDC and HKPC have from time to time invited relevant **Mainland** officials to brief the local industry on the latest developments in game publication policy and industry support initiatives on the Mainland. For instance, Mr. Kou Xiaowei, Deputy Director from the Audiovisual-Electronic & Internet Publishing Department of the General

Administration of Press and Publication (GAPP) attended a seminar in Hong Kong in December 2004 to brief our game industry on the imported games vetting criteria of GAPP and details of the Chinese Online Games Publishing Scheme (中國民族網絡遊戲出版工程).

- (xix) The Government also sought to facilitate the entrance of local digital entertainment companies into the Mainland market through the Mainland and Hong Kong Closer Economic Partnership Arrangement (**CEPA**). Under CEPA II, Hong Kong service suppliers are allowed to set up Internet culture business units on the Mainland with the Mainland party holding majority shareholding with effect from 1 January 2005. The Internet culture business units can import and host online games developed in Hong Kong. This would give Hong Kong companies the opportunity to participate directly in serving the Mainland online game market. The animation industry, on the other hand, benefits from the liberalization measures under CEPA I and II offered to the film and television industries with regard to access to the Mainland market.
- (xx) To encourage the industry to seize cross-media business opportunities arising from media convergence (films, computer animation, entertainment software and merchandises), the first and second **Symposiums on Cross-Media and Cross-Business Development** were held in September 2003 and March 2005 respectively.

(e) Investment & Financing

- (xxi) In response to the request from local digital entertainment companies for assistance in finding investors, the Cyberport organized the first **Cyberport Venture Capital Forum** in December 2004. Top international venture capitalists and their investees shared with the local industry their experience in selecting investees and securing venture capital investment.
- (xxii) 65 digital entertainment related applications, involving over HK\$17.5 million, have been approved under the **SME Loan Guarantee Scheme** up to 31 March 2005, which assists SMEs to obtain loan guarantee for working capital, business installations and equipment.

Annex B

Major Digital Entertainment Related Events in 2005/06

Month	Activities
May 2005	<ul style="list-style-type: none">• Arrilaser service available at the Digital Media Centre in Cyberport (10 May)• Opening of the Digital Entertainment Industry Support Centre (11 May)• Hong Kong Pavilion at E3 in Los Angeles (18-20 May)• Meeting of the heads of French and Asian animation schools in Hong Kong¹ and a Greater China Forum on Digital Entertainment and Multimedia Collaboration attended by representatives of local and Mainland educational institutions² (25-28 May)• Launching of the pilot local internship programme
July 2005	<ul style="list-style-type: none">• Cyberport Games Marathon (1-10 July)• Trade Mission to Shanghai and Hong Kong Pavilion at ChinaJoy (20-23 July)
October 2005	<ul style="list-style-type: none">• Hong Kong Pavilion at MIPCOM (17-21 October) (tbc)
December 2005	<ul style="list-style-type: none">• 2nd Cyberport Venture Capital Forum (tbc)
End 2005	<ul style="list-style-type: none">• Opening of the Digital Entertainment Incubation cum Training Centre (tbc)
January 2006	<ul style="list-style-type: none">• Hong Kong delegation to attend the Second China Game Industry Annual Conference
March / April 2006	<ul style="list-style-type: none">• Entertainment Expo Hong Kong 2006<ul style="list-style-type: none">– Digital Entertainment Pavilion at FILMART and Hong Kong-Asia Film Financing Forum 2006 (with emphasis on animations)– Digital Entertainment Leadership Forum 2006 (tbc)

OGCIO June 2005

¹ The meeting is co-organized by the Hong Kong Polytechnic University (PolyU), the French Consulate General in Hong Kong and the Asia-Pacific Institute for Broadcasting Development.

² The Forum is organised by PolyU and sponsored by OGCI O.