Executive Summary

1.1. Background

Historically, Science and Technology Parks have typically evolved around tertiary educational institutions or other research organizations. The role of science and technology parks has been to:

- Recruit and co-locate new and established knowledge-based companies;
- Promote innovation based on "smart" technologies;
- Provide an interface or shared research environment for research organizations and private industry; and
- Leverage local knowledge resources to enhance a region's economic base.

The United States and select countries in Europe were the first to set up dedicated science parks during the sixties. Many of these parks were set up to cater to knowledge or technology-intensive sectors like engineering, chemicals, and electronics. In Asia, the phenomena of setting up dedicated parks to enable knowledge sharing started in the early seventies in several countries. Japan and Korea took the lead, focusing on basic research and development activities conducted by government research and development institutes, and universities. It was only in the late seventies and early eighties that the non-government sector started setting up operations in such parks to avail the benefits of government supported R&D. In the late nineties, developing countries increasingly started to establish similar parks as a preferred tool for promoting their information technology (IT) industry. Given that these countries were often constrained by severe infrastructure limitations, it was easier to provide state-of-the-art physical, communication, and social infrastructure within a designated area to enable IT companies to operate.

1.2. IT Parks: What Has Worked and What Has Not

The first step in this assessment was to identify five countries for analysis, from which a total of six IT Parks were selected to get a representative sample covering both (i) successful and not-so-successful IT Parks , and (ii) IT goods as well as IT and BPO (Business Process Outsourcing) services. Our analysis has been based on the CLIP framework, the individual components of which have been detailed below:

- Capital attempts to assess i) Investment, ownership, and management issues of the IT Park in terms of how it has been funded, role of the government and the private sector; ii) Mix of anchor occupants and early stage companies in the park and iii) Provision of business incubation services by the park management and availability of private equity/venture capital and other means of financing;
- Linkages include i) Nature of products and services offered by key occupants and their fit with the target markets; ii) Assessment of forward and backward linkages of key occupants of the park; iii) Relationships between key occupants and resource organizations such as academic institutions and R&D centers, given the nature of products and services offered by key occupants; and iv) Value-added services offered such as market access, business planning and operational support, and developing appropriate linkages within and outside the park;
- Infrastructure addresses i) Availability and relative cost of land/space; ii) Quality of physical infrastructure including connectivity and urban infrastructure.; iii) Nature of social infrastructure like recreational facilities, and remoteness; iv) Political stability and law & order and v) Intra-park, domestic and international data & voice connectivity;

- People issues in terms of i) Quality of educational institutes; ii) Annual employee salaries & benefit levels and iii) Availability of people both in terms of numbers and skill-sets.

Based on our assessment of the six IT Parks in three developing and two developed countries, the critical business success factors for setting up IT Parks based on the CLIP framework of analysis have been identified below:

1.2.1. Capital

- While IT Parks may be owned by either the government, private sector or both, it is essential that they are managed by the private sector, given its operational flexibilities and ease of decision-making as compared to the rules and regulations that government entities must adhere to.
- The success of an IT Park in attracting IT companies to occupy space/facilities within the park is largely dependent on the reputation and credibility of the anchor tenant. Though the IT Park developers have to offer various concessions and incentives in terms of subsidized rates, usage fees, and preferential treatment, having a globally reputed IT company as anchor tenant results in other smaller players. This is because these smaller players are attracted to the park with the knowledge that the IT Park must have world class infrastructure and facilities to be able to attract an IT player of repute as an anchor tenant. IT Parks like Hitec City India and Singapore Science Park have been able to market the park to occupants based on the fact that reputed organizations like Microsoft, Oracle Corporation, and DNV were already present in the park as anchor tenants.
- Angel investment, venture capital, and private equity have been identified as key enablers, specifically for development of start-ups and small and medium enterprises. Consequently, in countries like Korea and China where the presence of global angel investors/venture capital/private equity funds is limited, IT parks like Teadok Valley and Zhongguancun Science Park (ZSP) have set up their own dedicated venture capital funds, usually administered by government agencies/bodies. In addition, most successful parks have business incubation centers for supporting start-ups and small companies. However, irrespective of the venture capital/private equity setup of the individual park, infusing the requisite depth to the venture capital/private equity market at the national level is also essential, as it enables transfer and sharing of good practice. Singapore, India and China represent some of the countries which have been able to achieve a degree of success in this area.
- IT Parks offering incubation services help nurture entrepreneurship and development of the SME sector in the local economy. The IT Parks gain when these operations scale up to become regular occupants. An example is ZSP in China, which offers specialized incubator services for overseas Chinese IT professionals seeking to return to China. These services have resulted in over 450 startup entities.

1.2.2. Linkages

Close working relationships with academic institutions like universities, colleges, and R&D institutes, are essential for IT parks like Taedok Valley, Singapore Science Park and ZSP, where the primary focus of some key occupants is on technology innovation in the areas of EDP equipment, telecommunications, integrated circuits and electronic components. The nature of requirements require leveraging of specialized R&D infrastructure for basic and applied research, and prototyping which are usually available with prominent academic and R&D institutes. Consequently, many of these IT parks have attempted to facilitate linkages between these institutions and industry players by co-locating them. For example, KAIST and ETRI are located within Taedok Valley. Quinghua University, Beijing University, and the Chinese Academy of Science are occupants of ZSP, and institutes like the Centre of Wireless Communication and the Institute of Microelectronics are located within the Singapore Science Park.

On the other hand, such linkages are usually not as critical in IT & BPO Services where innovation requirements are usually based on service delivery around existing software and hardware products, and most market leaders possess the requisite competencies in-house.

However, for both the above categories of companies, availability of quality manpower resources is key to success and hence dictates the performance of the IT Park. Consequently, many of the IT parks have been set up in close proximity with prominent academic institutions, centers of learning. In addition, factors

like existing infrastructure and amenities, and employment regulations play a key role in attracting the right competencies from other locations.

1.2.3. Infrastructure

It is clear from the case studies that physical infrastructure is important. Examples of this infrastructure include roads, urban infrastructure, social amenities for recreation and sports, proximity to airports, virtual infrastructure in terms of state-of-art data, and voice connectivity. While they may not serve as competitive differentiators as far as IT Parks are concerned, they are absolutely essential prerequisites. In fact, weaknesses in this area have been identified as one of the primary reasons for the underperformance of the IT Park at Hubli, India.

1.2.4. People

Availability of qualified and skilled manpower is essential to the success of any IT Park in attracting IT players as occupants. IT Parks, especially in developing countries like India, China and Malaysia have the capacity to generate employment for the educated population in the local economy, leveraging the low cost of skilled human resources as compared to developed countries.

Other key lessons emerging from the case studies are as follows:

Having the right product-services mix is critical

Most of the parks that have not underperformed have by and large focused on products and services in which their countries of operation have a competitive edge. Thus, Hitec City in India is focused primarily on IT and BPO services, while ZSP in China is focused on EDP and office equipment, software (China-centric in the form of word processor and digital publishing), and IT services. Similarly, most of the ventures in Taedok Valley have basic and advanced telecommunication as their primary focus. The only exception is Cyberjaya in Malaysia, which appears to have IT and BPO services as the primary revenue earners for its occupants. This is contrary to Malaysia's traditional strength in assembling EDP and office equipment. Malaysia's annual IT and BPO services exports during 2004 were estimated at USD 120 million and USD 40 million respectively—significantly lower than market leaders like India, Ireland, and Canada. The average salary levels in Malaysia are also more than twice those of India and China, although they are around 30% of near-shore locations like Ireland. Given that the revenues are primarily being driven by captive shared services and data centers of global companies, this seems to be a conscious strategy of leveraging its not-so-distant location and cost advantages vis-à-vis primary outsourcing customers in the United States and Europe.

A supportive and proactive government is key

Each of the case studies underlines the importance of the role of government in the development of successful IT parks. The extent of government involvement has varied in individual countries, with some acting as investors and promoters and playing a key role in managing the parks (for example, in countries like Korea and China), in addition to playing their traditional roles of regulators and facilitators. On the other hand, countries like Singapore have gradually moved to a model wherein development and management of IT parks are primarily carried out by the private sector, with the government ensuring a conducive policy environment. The relatively late entrants like India, Malaysia, and even some of the more recent parks in China like the Dalian IT Park are based on this model. Some countries, like Korea, are gradually moving to a model where the private sector, including foreign investors, are likely to play a major role in the promotion and management of IT parks. Nevertheless, the government is expected to continue to play a key role in terms of formulation of appropriate policies for:

- encouraging innovation through financial and non-financial measures, including protection of intellectual property;
- promoting investments through appropriate financial & tax incentives, together with efficient and user friendly processes for implementing the policies; and
- facilitating capacity building by encouraging mobility of skills, appropriate employment policies, and extending financial support to select capacity building initiatives.

Examples include the Malaysian and Indian governments, both of which have adapted the single window mechanism for providing requisite approvals to IT sector companies through the Multimedia Development Corporation and STPI respectively.

A vibrant and pro-active IT park management team represents an added advantage

In addition to having the right infrastructure and linkages, the relative performance of an IT park is also dependent on the competence and level of initiative of its management team. Consequently, parks promoted and managed by groups/companies with requisite expertise have been found to outperform others. For example, the extensive marketing initiative launched by the private sector promoters L&T Infocity was one reason that Phase I of Hitec City was fully booked within the first four months of construction. The initiative of the management team emerges as a key differentiator not only at the time of marketing the park but also during subsequent operation, particularly for start-ups and smaller companies that are at times dependent on them for the required market and financing linkages. To this end, some IT park management companies like Ascendas have established relationships with organizations specializing in services such as business planning and market assessment and offer these services to occupants. It has also been observed that the private sector inevitably has an advantage on this front, as it has requisite practices in place to reward (or penalize) the respective management teams depending on their performance, unlike governments in most developing countries where performance-based management is still in its initial stages.

1.3. IT Sector Polices and their Impact

As in most other sectors, government policies and interventions have played a key role in the development of the IT sector in individual economies. The role of government has also evolved over time depending on the level of maturity of the sector. While government institutions/organizations in many countries have played a direct role in facilitating development of the sector in the initial stages, the government has shifted to a facilitation role once the sector has attained critical mass, with much of the subsequent growth initiatives being led by the private sector.

1.3.1. Policy Good Practice

An analysis of the regulatory and policy regimes in different countries reveals that most countries have followed a consistent approach to policy interventions for the development of the IT sector. However, the level of direct government involvement varies across individual economies, with some governments adopting a facilitative approach and others opting for direct interventions. For example, while the Government of India has primarily depended on private sector venture capital/private equity investments, China has opted for government-sponsored venture capital funds. Key trends in policy developments that appear to have an impact on the performance of the IT sector as well as policy initiatives that facilitated the growth of IT sectors in general and IT parks in particular, all based on the case studies are discussed below:

Adopting a holistic approach to policy development is key

As development of the IT sector and IT parks is dependent on a number of other sectors like telecommunications, roads, airports, venture capital/private equity, and capital markets, most successful countries have put in place suitable policies for improving efficiencies and service levels in these sectors. Thus, countries like Singapore were some of the earliest to put in place requisite policies for facilitating competition and private sector participation in telecommunications and infrastructure, ensuring effective regulation and development of the financial services sector, including capital markets. Even India, which is categorized as a developing country, has a policy regime that supports private sector participation and competition in most of the supporting sectors, in addition to a well regulated and vibrant financial services sector. On the other hand, countries like China have yet to achieve the same level of maturity in their financial services sector and hence have to depend on government-sponsored venture capital funds for supporting IT sector development.

Efficient institutional and implementation mechanisms are critical

While most countries have adopted regulations in line with established good practice, establishing the proper institutional mechanisms are integral to effective implementation. Most countries have attempted to achieve this by constituting nodal organizations within government for providing "single window services." For example, most of the incentives offered to the IT sector and IT parks in Malaysia are administered through the Multimedia Development Corporation. In India, most of the benefits and concessions are offered through the

Software Technology Parks of India, which has offices throughout the country.

The developer of an IT park requires various clearances for constructing buildings and related facilities in the IT park. Such clearances include building plan sanctioning, fire services clearances, sewerage and drainage clearances, and environmental related clearances. A one-stop clearance agency helps the developer get these IT park-related clearances faster, which helps them reduce time and thus enables reduction in project costs. For example, in Hyderabad, APIIC acts as the single point clearance agency for building and related construction of Hitec Park. Developers have significantly gained from this arrangement.

Intellectual property protection policies represent another case in point. While most countries like China and India have amended their Copyright Acts in line with TRIPS and have also set up dedicated Copyright Tribunals for adjudication, litigants have the option of approaching the existing judicial system as a final recourse. With the existing legal system in both these countries being considered relatively less efficient, value added intellectual property related IT activities such as new technology development have taken a backseat compared to other countries like Singapore and Korea, which have a faster process and a more streamlined judiciary.

Focused policies for IT park development are critical for "developing" ICT economies

Leveraging IT Parks for IT sector development becomes critical in economies like China and India which lag behind developed countries in key ICT indicators. With development of the IT sector being closely linked with "support" sectors like telecommunications and physical infrastructure, it is easier to provide these support services in geographically concentrated zones/areas. Consequently, many of these countries have adopted policies for encouraging development of IT Parks. An example of such a policy is the Information Technology Special Economic Zone (SEZ) policy in India, which offers a number of fiscal and other benefits to companies located in approved IT Parks. On the other hand, countries like Singapore, where the requisite support in terms of world class telecommunication and physical infrastructure is available throughout the country, have adopted policy regimes that are applicable to all companies in the IT sector, not just to those located in a designated IT park.

Encouraging private sector participation is critical

Almost all countries have adopted a variety of policy mechanisms for encouraging private sector investment, not only in the IT sector, but in developing "support" sectors such as financial services, telecommunications, and physical infrastructure development. Other than a few niche areas such as specific research and development initiatives where government organizations have played a direct role, the government's role in most countries has been that of a facilitator. While in some countries this represents a conscious decision on the part of the government, in others it has also been driven to an extent by existing budgetary/fiscal constraints.

Many of the parks studied were developed through public-private partnerships. Such policies have benefited both the private sector as well as government. For example, in case of Cyber Towers, the Hyderabad state government contributed by providing land, and the private player was responsible for developing the land and constructing the building. Acquiring vast plots of continuous land would have been very difficult and time consuming for the private sector. However, with the government acquiring land through legislative means, the private sector developers were able to ensure that the related facilities were constructed in a record time of 18 months.

Flexible land-use policies providing the developers more choice

Flexible land use polices permit the developer to bundle IT office space construction with construction of other facilities such as shopping complexes, hotels, eateries, and housing complexes. Such bundling makes the project financially more attractive, given that the returns from the commercial/residential end use are typically higher. For example, in CFZ, Malaysia, 500 hectares of land has been zoned as commercial use. In Hitec City, Hyderabad, 40% of the net developable/usable area can be used for housing, a club house, recreational center, shopping center, a school, and other support activities.

Linking incentives/subsidies with identified strengths/core competencies of domestic companies

In developing countries like India and Malaysia, most IT and ITES companies are export oriented, with

the major markets being the United States and Europe. It may be observed that governments in these countries offer a number of fiscal incentives on export income/profit. On the other hand in countries like Singapore, where the target market segment for most IT companies is high-technology, research-intensive products, the subsidies and incentives offered by government agencies are linked to R&D spending. Adopting fiscal policies to suit the strengths and markets of indigenous companies is an effective policy measure to promote the domestic industry.

Effective coordination with other ministries/ departments

It is important to understand that the presence of good policies alone does not suffice. It is equally important that these policies get efficiently implemented. For proper implementation of policies, it is important that there is effective coordination among various government ministries, agencies and departments. Countries have taken different strategies to enable such coordination. In developed countries like Singapore, proper coordination between various departments and ministries administrating the subsides and incentives has been ensured through efficient e-Governance systems. In developing countries like India and Malaysia, a dedicated government agency has been created to administer the subsidies and incentives. For example, in Andhra Pradesh, India, incentives are administered through a high level coordination committee called Consultative Committee on IT Industry, which includes members from various government departments (such as Information Technology and. Communication, Labor Department, Municipal Affairs Department, and Land Department.), utilities (electricity, water supply) and industry associations (such as HYSEA and NASSCOM). This committee is responsible for granting various provincial/state subsidies, resolving implementation issues and prescribing guidelines for industry growth.

Having the right policy mix is essential for maximizing spillover benefits

As has been established through the IT Park case studies, successful development of an IT Park inevitably leads to significant spill-over benefits in terms of other economic activities such as real estate development and vibrant retail, hospitality, and financial services sectors. Many governments have attempted to maximize these spill-over benefits through a suit of policies such as allowing flexible land use, encouraging private sector investments in these sectors for faster development, and motivating IT sector participation in capital markets. Thus, while India provides additional flexibilities to IT & BPO companies for listing on premium stock exchanges in terms of a lower paid-up share capital vis-à-vis companies in other sectors, almost all the IT Parks covered in the study allow mixed land use with a specified proportion of the total land area earmarked for business end use, commercial end use, and residential purposes. It is essential for incorporating such flexibilities to existing policies or promulgating new policies with these flexibilities to maximize economic development.

Fostering efficient linkages with other economies is essential

All successful countries are observed to have policy and regulatory regimes that encourage trade and investment linkages with other economies. Such linkages are usually facilitated through a variety of policy instruments such as liberal foreign direct investment (FDI) guidelines, non-restrictive visa/ work permit procedures, unrestricted trade in goods and services, and double taxation avoidance agreements. However, the level of maturity of the individual policies varies, with countries like Singapore adopting a relatively lower duty structure for imports across sectors, while others like India offering a concessional duty structure for all capital goods imports specifically for the IT sector.

Additional flexibilities exist for policy formulation in a federal structure of government

In countries like China, India, and Korea, which follow a federated structure with both central (federal) and state (provincial/local) governments, governments have attempted to differentiate themselves by providing additional benefits/ concessions to IT/IT park companies. For example, in India, a number of state governments offer additional flexibilities/benefits, such as subsidies on capital investments and interest payments and offering discounted land prices linked to employment generation. In Korea too, much of the policymaking has gradually shifted from the federal to the provincial governments. Such initiatives have led to differential development of the IT sector in different geographic regions within the same country, with local governments attempting to differentiate themselves through additional benefits/ concessions and investor-friendly implementation mechanisms.

For countries aspiring to offer offshore BPO services, formulation of a data protection act is a necessity

In view of the recent breaches in security in various BPO organizations, enactment of a data protection law has become a necessity. This has gained further importance with the data protection directive issued by the European Union (EU), which constitutes one of the biggest markets for providing offshore BPO services. Based on this directive, the United Kingdom has already enacted its 'Data Protection Act'. The EU directive and enactment of Data Protection laws by member countries imply that only countries having data protection laws in line with the EU directives will be favored for off-shoring BPO services from EU member countries. Some countries attempting to emerge as offshore BPO destinations have already formulated policies addressing this issue. In the Philippines, for example, the Department of Trade and Industry has issued "Guidelines for the Protection of Personal Data in Information and Communications System in the Private Sector". The guidelines also provide for an independent third party, namely, Data Protection Certifier, duly accredited by the government, to certify the privacy program of a company and thereafter to monitor and oversee its implementation and enforcement.

1.3.2. Policy Prioritization

It is evident that governments need to undertake a number of policy interventions to develop the country's IT sector. The government's role in facilitating the growth of the IT sector is primarily through developing holistic IT strategies linked to the core competencies of the particular country, such as innovation through R&D activities and low-cost skilled manpower. The country's IT sector growth strategy would require policy enablers, who would form the basis for formulation of specific policy initiatives. Given that implementation of an IT strategy is crucial to economic growth, especially for developing countries, some policy initiatives may have short term implications, like attracting IT players to the country. Other policies have long term implications, like ensuring sustainability of the IT sector. Policies that can be implemented in the short term have an immediate beneficial impact for the sector or "quick wins." The impact of policies typically aimed at sustaining the sector are seen over the long and medium term like for a non-English speaking country to ensure English speaking IT skilled manpower for the IT sector may take 5–10 years to be effective after implementing the policy initiatives through the school system. Quick wins, although being far from comprehensive solutions in themselves, act as building blocks to a sustainable IT sector development.

1.3.2.1 Short-term Policies

Some of the key priority short term policies are highlighted below:

Provide fiscal incentives to encourage private sector participation

Government needs to provide fiscal incentives to encourage private sector participation in the IT industry. These incentives could be in form of tax exemptions. For example, in India, IT and ITES companies are provided with 100% exemption on profits from export of computer software until 2010. They could also cover areas such as customs benefits, subsidies for employment generation, and equity support for start ups. However, it is also critical that governments not just focus on providing such incentives to the IT companies, but also to support sectors like physical infrastructure development (transportation, telecommunications and real estate). For example, the government of Singapore removed restrictions on telecom licenses to introduce and encourage full competition in the telecom sector. Similarly, in India, the National Telecom Policy of 1999 opened up the telecommunications sector to private players. A number of private sector telecom operators started operations as a result, leading to immediate improvement in the country's communication infrastructure and customer service delivery due to increased competition.

Establish an effective implementation mechanism – single-window nodal agency

Effective implementation of incentive policies is one of the most important factors attracting private sector investment. The establishment of proper institutional mechanisms are integral to effective implementation, with most governments preferring to set up single-window/one-stop services. Such nodal agencies provide a one stop servicing facility for developers of IT parks as well as the occupants/residents of such parks. An example of such single-window/one-stop service nodal agency is Multimedia Development Corporation in CFZ, Malaysia, which is the single point of contact for park occupants for obtaining requisite government approvals and facilitating business linkages with the government.

Create a coordinating committee that fosters linkages with various government ministries/ departments/agencies

It has been observed that developing an IT park requires the involvement of various government ministries, departments, and agencies. It would be beneficial if a coordinating body comprising members from various government departments (like Information Technology & Communication, Labor, Municipal Affairs, and Land) and utilities (such as electricity and water), be formed. Such a coordinating body could be charged with approving an IT Park developers' plans, acquisition of land, and issues relating to utilities & supporting infrastructure. This will also ensure a fast track clearance and approval process. An example of such a committee is the "Consultative Committee on IT Industry" in Andhra Pradesh, which is empowered to grant various provincial/state subsidies, and to resolve implementation issues.

Promote/Facilitate creation of an industry body specifically for promoting and development of IT sector

Steps should be undertaken by the government to facilitate/promote the creation of an industry body for the IT sector, which could represent the industry's interests in issues like government procurement, information security, workforce development, intellectual property protection and accounting, finance and taxation, and act as a bridge between industry and policymakers. One of the main objectives of such a body would be to maintain close interactions with the government in formulating the national policy and specific action plans for development of the IT industry. The body's mandate may also include coordinating with foreign governments, embassies, etc. to make the visa and work permit rules more industry friendly; interacting with the education ministries and universities on industry's current & future skills requirements for ensuring necessary changes in curriculum; and campaigning against and generating awareness of software piracy and copyright laws.

Such an organization also offers valuable services to its member organization in terms of encouraging them to improve quality of service, adopt modern technologies and provide innovative solutions through organizing regular interactions/IT sector seminars/meets. The existence of such an organization also provides valuable linkages between entrepreneurs, investors, organizations and individuals desiring to connect with and mutually leverage complementary skills, services, resources, contacts and talents within the country. This also provides an ideal forum for overseas and domestic companies to explore the vast potential available for Joint Ventures, Strategic Alliances, Marketing Alliances, Joint Product Development, etc. An example of such an Industry Body is NASSCOM in India.

Design flexible land use policies for attracting private real estate players

Flexible land use policies are required to attract private sector real estate players to invest in the development of IT parks, since such policies can ensure higher returns on investments for the developer. Such policies typically allow mixed land-use, i.e., residential and commercial land-use along with industrial land-use. Other means of providing incentives to developers include allowing a higher floor space ratio. The Floor Area Ratio (FAR) or Floor Space Index (FSI) is the ratio of the total floor area of buildings on a certain location to the size of the land of that location. By allowing a greater FSI, government enables the private investor to create more space that can be rented out or sold to occupants, enabling them to realize higher revenues.

1.3.2.2. Long-term Policies

In addition to the above-mentioned short term policies that can be implemented on a priority basis to kick-start the IT sector development, governments should also consider implementing policies having long-term implications for ensuring sustainability of the IT sector. These include policies to attract private sector involvement in education; foster linkages with other markets, such as the capital market, to attract private funding; promote corporate governance norms so that even if some short-term measures like fiscal incentives are removed, the continued development of the sector can be ensured. Long-term policies should be aligned to the core competencies of the country. For example, if a country's IT strategy is to focus on encouraging software development to leverage its low cost, educated manpower base, the government would need to improve the legal system to protect and promote proprietary knowledge, as this is often a company's main business asset. As such, laws relating to intellectual property, and the implementation of such laws would be critical to gaining investor confidence.

1.4. Country Case Studies

1.4.1. Country Case Study: Vietnam

Based on our assessment of the IT sector in Vietnam, the following areas represent potential opportunities that can possibly be targeted for growth.

- IT hardware assembly and re-export operations, where Vietnam benefits from a strategic geographic location, which is being leveraged by global players for serving their Asia Pacific markets. The availability of engineering graduates at annual salaries ranging between USD$6,000–$7,000 as compared to USD $9,000–$10,000 in India and China also adds to its competitive advantage. The hardware sector revenues have doubled since 2002, resulting in a CAGR of 20%. A year-on-year growth of 50% was recorded in 2005, primarily driven by growth in exports. With the expansion plans of existing players like Canon and new entrants like Intel setting up facilities in the country, it is expected that the current levels of growth through exports in this sector will continue in the near to medium term. The domestic demand for computer hardware products is also expected to grow at 15% to 18% annually, as more businesses, including the financial sector, move towards increased automation. The domestic hardware market is currently dominated by local hardware assembly operations like FPT and CMS. These local players also represent global hardware companies as resellers of the global players like Toshiba, NEC, and HP. None of the global players have manufacturing operations for serving the domestic computer hardware market. Recently Intel has made a strategic investment of over USD$36 million in FPT to take advantage of the growth in the domestic hardware market.
- Domestic IT services and software sector, driven primarily by the requirements of the financial services sector and an e-government program that is being revived by the government. Global giants like Oracle and local players like FPT have already been contracted to develop software for the World Bank-funded Treasury & Budget Management Information System by the government. Currently, the IT software/services sector, with revenues of USD$250 million in 2005, is small compared to the IT hardware sector, despite having grown at a CAGR of 29% over the past 4 years. Export revenues primarily from software development activities at USD $70 million in 2005 is largely insignificant. Exports are driven by software companies set up by overseas Vietnamese, mainly serving markets in the U. S., EU and Japan. With Vietnam obtaining WTO membership and having enacted Intellectual Property Protection laws in 2005 (applicable from July, 2006), it is expected that the domestic market for packaged software will achieve significant growth in the medium term once appropriate mechanisms to curb software piracy are implemented.
- Vietnam is well placed to offer back office transaction processing services like finance and accounting, payroll processing, insurance claim processing and other rule-based processing services to U.S and EU based organizations. There is a sizeable population of overseas Vietnamese in these countries, coupled with a favorable time zone difference. However, to effectively develop this sector, Vietnam will have to overcome the twin issues of i) ensuring an adequate supply of skilled manpower and ii) improving quality and reducing cost of international data and voice connectivity. Consequently, this segment of the market is likely to develop over the medium term with adequate government support.

1.4.1.1 Role of IT Parks and Proposed Business Models

Based on our assessment of Vietnam's IT sector and potential growth opportunities, we have attempted to present our assessment of the critical business enablers for developing sustainable IT parks in Vietnam. Our assessment is based on case studies of IT parks in other countries, including Vietnam, as well as the ground realities in Vietnam.

The generic, critical business enablers that are likely to feature in the expectations of all categories of IT companies have been highlighted below.

- Location of the park in an area that permits it to leverage the existing urban and social infrastructure of the two key cities, namely, Hanoi and Ho Chi Minh City (HCMC), as availability of skilled human resources is expected to be a problem in any other region.
- Simplified policy implementation mechanisms in terms of single-window facilities to provide operating licenses, sanction building plans, tax

and customs duty registrations, etc. These facilities would significantly reduce the time needed for setting up new/expansion operations.
- High quality physical connectivity and infrastructure in terms of air (both international and domestic), road and rail connectivity; a combination of multi-tenant buildings with contemporary facilities and build to suit options; adequate road and other surface transport connectivity with the adjoining city; intra-park roads, sewerage, electricity, etc.
- Lease or sale of land for built to suit facilities at rates lower than those prevailing in the adjoining city.
- State-of-art virtual connectivity in terms of data and voice infrastructure, including international connectivity.

Most of the foreign-invested IT hardware assembling units (e.g., Nidec, Canon) already operate out of industrial parks with the park management ensuring provision of basic facilities like quality uninterrupted power supply, water and sewerage treatment, telecommunication facilities, and single-window clearance facilities covering import and export processing formalities. Intel has announced plans to set up its proposed unit in the Saigon Hi Tech Park. However, domestic IT companies generally operate out of offices located in the cities of HCMC and Hanoi, due to the proximity to their clients as well as employees. With these cities offering the same telecommunication infrastructure as the IT parks, these companies do not have much motivation to relocate to IT parks, except those companies having expansion plans. It is expected that in the long term, IT parks will be required in Vietnam for accommodating global IT services players/large domestic players like FPT for setting up their software development centers and BPO facilities.

The IT Park case studies and primary interactions with various stakeholders clearly seem to demonstrate a case for management of the IT Parks to be vested with private sector players for ensuring adequate accountability and efficient service. Possibly, as has been the case in many other countries, existing facility management companies like C B Richard Ellis, and Bovis Lend Lease can be considered for this purpose. Consequently, a facilitation role is recommended for the government other than in situations where the land is owned by it. In such situations, the government can possibly pick up an equity stake in the development company, given that financial returns on IT parks have been fairly attractive.

1.4.1.2 Policy Enablers

Given that government policies play a pivotal role in the development of the IT sector, we have highlighted policy measures based on good practice adopted for implementation by many countries covered under our study, which the Government of Vietnam may consider :

Policy Good Practice for IT Sector Development

Fiscal Incentives

- Extend reduced business income tax rates of 10% for export-oriented foreign invested IT hardware units, even if they are not located in designated technology parks/special economic zones.
- Introduce specific financing schemes targeted at domestic IT services and BPO companies, possibly through state-owned banks, to help them scale up operations. The government may establish a special fund to refinance bank lending to the sector.
- Exempt business income tax or charge a reduced rate of tax on capital gains made from the sale of equity in listed domestic IT companies to encourage venture capital and private equity funds to invest in the IT sector. This is likely to enable domestic IT companies to obtain funds to scale up their operations and achieve critical business volumes to partner with global players.

Innovation Policies

- Reimburse part/full initial expenditure incurred by domestic IT companies in obtaining quality accreditation such as SEI/CMM/BS 7799 from a special fund established by the government. This scheme may be applicable to those companies obtaining quality accreditation within a specific timeframe, say within the next three years.
- Establish a dedicated tribunal for dealing with disputes relating to infringement of copyright, patents on designs for IT companies. The tribunal would ensure that cases are resolved within a specified timeframe.

Human Resource Policies

- Encourage private sector investment or public-private partnership through income tax concessions in establishing finishing schools to train final year graduate students in requisite skills required for IT services and the BPO sector.

- Establish a high-level multi-disciplinary committee to track the changing needs of the IT sector and future demand for skills; and recommend changes in the curriculum for schools, colleges, and universities. Such a committee should include members from various government departments/ ministries, such as the Ministry of Education, Ministry of Post & Telematics, Ministry of Science & Technology and industry representatives such as HCMC Computer Association and the Vietnam Software Association.

Investment Climate

- Encourage e-commerce in the country through enabling laws for establishing legal validity of electronic signatures; institutionalize the process of issue and certification of digital signatures; prevent potential abuses of computer systems for enabling e-commerce transactions in line with similar laws enacted in China, India, Malaysia, Korea, and Singapore.
- Allow foreign direct investment in the telecom sector and remove entry barriers for foreign telecom players preventing them from investing and participating in management of existing telecom companies. Special tax concessions like reduced rate of Income tax for a specified period and import duty exemptions for capital equipment may be considered for global telecom players willing to invest in telecom infrastructure required for the growth of the IT sector in the country.
- Implement a single-window mechanism for providing all benefits, concessions and permits to IT companies. This would require a single agency within government to be identified as the nodal agency, with a presence in all key cities. This agency would then process applications seamlessly in coordination with other ministries.
- Extend all the above concessions to local companies, subject to completion of listing on Vietnamese Stock Exchanges within a pre-defined period and extending additional fiscal benefits on successful listing on international stock exchanges.
- Formulate policies for attracting global venture capital and private equity funds like exemption of tax on income from investments and allowing losses to be deducted from other taxable income.
- Deepen existing capital markets through measures such as demutualization, and attracting large global financial institutions and investment banks.

Policy Good Practice for IT Park Development

Fiscal Policies

- Offer additional business income tax rate concessions/longer income tax exemption periods to IT park occupants, in line with QTSC and SHTP.
- Provide land owned by government for development and to IT park occupants at subsidized rates depending on level of employment generation.
- Support IT park developers by subsidizing rentals for plug and play infrastructure and land lease rates for an initial period (say 3 years), so that a part of these subsidies can be passed on to potential occupants, thereby creating a differentiation vis-à-vis normal office/commercial infrastructure.

Investment Climate

- Permit mixed land use in IT parks, allowing commercial and residential land use together with industrial land use, thereby improving project viability. The proportion of such land use can be fixed, say 30% of the total build-up space.
- Implement a single window mechanism for fiscal concessions and benefits, as well as all required statutory approvals, with a physical presence in the park.
- Extend all the above concessions to local companies, subject to completion of listing on Vietnamese Stock Exchange within a pre-defined period and extending additional fiscal benefits on successful listing on international stock exchanges.

1.4.2. Country Case Study: Russia

Based on our assessment of the IT sector as part of the country case study, the following areas represent potential opportunities that Russia can possibly target:

Domestic Market Opportunities

Unlike many other countries, such as Malaysia, India and China, realizations on domestic IT services in Russia are currently higher than in IT services exports. There also appears to be significant upside as far as growth in the domestic IT market is concerned, with turnover expected to increase to USD$14.32 billion by 2007 (Source: IDC Blackbook, Euromonitor). In terms of individual market segments:

- The demand for hardware is expected to increase by a CAGR of 16.7% per annum to around

USD$10.5 billion by 2007, driven by government spending and industry demand, with many of the customers being in the process of acquiring their first information systems. Based on our assessment of key trends, there appear to be significant opportunities in the semiconductor industry in the near term, driven by increasing over demand from IT hardware, telecommunications equipment and the consumer durables sector. Russia may be well placed to leverage its skilled manpower to target specific segments in this market such as fab less chip design, semiconductor packaging, assembly and testing over the near term.

- IT services, for which the market in 2005 was estimated at USD$1.39 billion, is expected to grow at around 20% per annum to reach USD$2 billion in 2007. With many of the larger companies already having implemented packaged application software (e.g., SAP, Oracle Applications), the growth in this segment is expected to be driven by packaged software implementation and system integration requirements of medium sized-firms in sectors like food, retail, and real estate. The leading packaged application vendors like SAP and Oracle are already gearing up to meet this demand by launching their small and medium enterprise and application service provider (ASP) versions.
- The packaged software applications market is also expected to increase at 20% per annum to reach USD$1.83 billion by 2007. The demand for packaged software is primarily expected from companies in high growth sectors such as oil & gas, energy, metals, communications, and retail, where there is increasing competition leading to efficiency pressures.

Export Market Opportunities

IT export revenues are expected to increase to USD$1.75 billion in 2007, translating to a CAGR of 34%. Based on our assessment, significant opportunities are expected in the following market segments.

- Leveraging the presence of existing global majors in IT and telecommunications (e.g., Intel, Sun Microsystems , Cadence Systems, Samsung) for continuing the focus on high-end development activities in the areas of system software development, and wireless technologies. Given that many of these companies are also global leaders in areas such as semiconductors and telecommunication equipment manufacturing, expansion of their activities in Russia to cover other areas represents a potential opportunity. These areas include fabless chip design for IT, telecommunication equipment and consumer durables, chip fabrication/ foundry facilities and semi-conductor packaging, assembly and testing services.
- Given that the salary costs of IT professionals in Russia are almost half that of other countries like Canada, and Ireland, and lower than in countries like the Czech Republic and Israel, which have successfully positioned themselves as near-shore destinations to countries like the U.S. and UK, there appears to be a significant opportunity for Russia to position itself in this space. The existing competencies of the human resource pool in Russia together with its geographical location are expected to serve as key competitive advantages. Representative offshore activities that can be targeted include the following:
  - Packaged application implementation and maintenance through a mix of onsite and offshore services.
  - System integration services.
  - Software application development for various industry verticals leveraging existing tools.
  - IT infrastructure maintenance and support.
  - Select knowledge process outsourcing activities like mathematical and econometric modeling for sectors like financial services.
- Unlike the high end IT services market proposed to be targeted primarily through captive development centers, the employment (and turnover) potential of this segment is expected to be significantly higher, thereby providing domestic IT services companies the opportunity to scale up rapidly.

1.4.2.1 Role of IT Parks and Proposed Business Models

Based on our assessment of Russia's IT sector and potential growth opportunities, we have attempted to present our assessment of the critical business enablers for developing sustainable IT Parks in Russia, based on the case studies of IT parks in other countries as well as ground realities in Russia. The generic critical business enablers that are likely to feature in the expectations of any IT company interested in setting up operations in an IT Park in Russia have been highlighted below:

- Location of the park in an area that permits it to leverage the existing urban and social infrastructure of the three key cities, namely, Moscow, St. Petersburg and Novosibirsk, as availability of the right quality of human resources is expected to be a problem in any other region.
- Simplified policy implementation mechanisms in terms of single window approval facilities for operating licenses; sanction of building plans; and tax and customs duty registrations to cut down significantly on the time for setting up new/expansion operations.
- High quality physical connectivity and infrastructure in terms of air (both international & domestic), road and rail connectivity, a combination of multi-tenant buildings with contemporary facilities and build-to-suit options, adequate road and other surface transport connectivity with the adjoining city, intra-park roads, sewerage, and electricity.
- Lease or sale of land for built-to-suit facilities at rates lower than those prevailing in the adjoining city.
- State-of-art virtual connectivity in terms of data and voice infrastructure, including international connectivity.

The IT Park case studies and primary interactions with various stakeholders clearly seem to demonstrate a case for management of the IT Parks to be vested with private sector players for ensuring adequate accountability and efficient service. Possibly, as has been the case in many other countries, existing facility management companies like C B Richard Ellis, and Bovis Lend Lease can be considered for this purpose.

Regarding investments into and ownership of the parks, there seem to be a number of private real estate companies like Sistema Hals, Rosevro Development, Leeds Property, and Technopolis with the requisite financial wherewithal for developing such projects. Consequently, a facilitation role is recommended for the government other than in situations where the land is owned by it. In such situations, the government can possibly pick up an equity stake in the development company, given that financial returns on IT parks have been fairly attractive.

Policy Enablers

Given that government policies play a pivotal role in the development of the IT sector, policy measures based on good practice adopted by many countries have been highlighted below:

Policy Good Practice for IT Sector Development

Fiscal Incentives

- Rationalizing customs duty on hardware vis-à-vis components, with simplification of import procedures for attracting global hardware companies.
- Providing tax breaks like exemption from export taxes for an initial period of five years for facilitating increase in exports.
- Providing specific fiscal incentives to semiconductor companies, such as:
  - Exempting raw materials, equipment imported for fabrication, assembly and testing from customs duty
  - Rationalizing VAT on all semi-conductor products to a lower percentage.
  - Allowing accelerated depreciation rate for profit tax purposes (up to two times higher than the standard statutory rates).

Innovation Policies

- Providing tax breaks to encourage investments in research & development like
  - 100% exemptions on customs duty for equipment and goods imported for research & development ;
  - 100% income tax deduction on capital expenditure with respect to scientific research;
  - a refund of any amount exceeding a certain percentage of VAT paid on sale of software products, provided it is used for R&D purposes;
- Strengthening enforcement of copyright and patent legislations through creation of a dedicated tribunal for dealing with disputes on these issues; and
- Encouraging quality accreditations (e.g., CMM5, BS7799) by providing incentives or grants for reimbursing a part of the expenditure incurred for obtaining such quality certificates or for filing patents.

Human Resource Policies

- Encouraging development of management and business aptitude in engineering and other students through establishment of finishing schools. These schools could be structured as public-private partnerships, with infrastructure being provided by government (in case of

inadequate private interest) and course development and faculty being provided by companies in the IT sector.
- Developing English-language proficiency of the human resource pool through policy interventions like introducing compulsory English education from primary level.
- Setting up committees comprising both government officials and IT industry representatives for assessing requirements for changes to existing curriculum.
- Simplifying visa and associated regulations for IT professionals from other countries traveling on business-related purposes
- Strengthening training infrastructure for meeting IT sector manpower requirements through partnerships with global IT training companies.

Investment Climate

- Implementing a single-window mechanism for providing all benefits, concessions, and permits to IT companies. This would require a single agency within government to be identified as the nodal agency, with a presence in all key cities. This agency would then process applications seamlessly in coordination with other ministries.
- Consolidating the existing policies applicable to IT companies, together with implementation mechanisms, and communicating them in a transparent manner to existing and potential IT sector investors. Possible options include online publishing on the Minsvyaz (Ministry of Information Technologies and Communications) website with links from websites of industry associations (e.g., Russoft, Ankit). Necessary processes for regular updating of these policies would also be required.
- Extending all the above concessions to local companies, subject to completion of listing on RTS within a pre-defined period and extending additional fiscal benefits on successful listing on international stock exchanges.
- Formulating policies for attracting global venture capital and private equity funds like exemption of tax on income from investments and allowing losses to be deducted from other taxable income.
- Deepening existing capital markets through measures like demutualization, attracting large global financial institutions, and investment banks.

Policy Good Practice for IT Park Development

Fiscal Incentives

- Providing fiscal incentives to potential IT Park occupants, which are at least at par with the existing incentives available to IT companies located in Special Economic Zones (Policy reference nos. 116-FZ, 117-FZ, 144-FZ, etc.), to ensure adequate attractiveness of IT Parks
- Providing land owned by government for development and to IT Park occupants at subsidized rates, depending on level of employment generation.
- Supporting IT Park developers by subsidizing rentals for plug and play infrastructure and land lease rates for an initial period (say 3 years), so that a part of these subsidies can be passed on to potential occupants, thereby creating a differentiation vis-à-vis normal office/commercial infrastructure.

Innovation Policies

- Provide incubation facilities and space with world class plug and play infrastructure within the technoparks for start-ups and small and mid-sized IT companies at subsidized rentals for the initial period.

Investment Climate

- Permitting mixed land use in IT Parks by earmarking a proportion of the total land for commercial use (say70%) and residential use (say 30%), thereby improving project viability.
- Extending special concessions to all financial entities like banks, financial institutions, venture capital and private equity funds located in the IT Park. Representative concessions/benefits include exemption of tax on income on such units for an initial period (say 5 years).
- Implementing a single window mechanism for administration of the fiscal concessions and benefits, as well as all required statutory approvals like building plan clearances, environmental clearances and fire clearances. Moreover, such single window clearance agency should be physically present in the Park.
- Extending all the above concessions to local companies, subject to completion of listing on RTS within a pre-defined period and extending additional fiscal benefits on successful listing on international stock exchanges.

1.4.3 Country Case Study: Jordan

Based on our assessment of the IT sector in Jordan, the following areas represent potential opportunities that can possibly be targeted for growth.

Domestic Market Opportunities

At present, the industry is mainly dependant on the domestic market with exports contributing only 20% of the revenues. However, the domestic market in Jordan is limited in size, having grown by only USD$260 million during FY 2001–2004. According to reports published by Int@j, the domestic IT market in Jordan is expected to grow from USD$440 million in 2004 to USD$550 million by the end of 2006. The inherent size of the local economy may not be adequate for sustaining growth of an IT sector comprising 160 companies. Despite the government being the principal domestic client for the industry, and implementing a number of e-governance projects, growth opportunities for the industry appear to be limited.

Export Market Opportunities

IT export revenues grew at a CAGR of 26% during FY 2001–FY 2004. Based on our assessment, significant opportunities are expected in the following market segments.

- Near-shore BPO service provider for countries like the U.S. and U.K., given Jordan's geographic location and with salary costs of IT professionals in the country being comparable with China, India, Philippines and Thailand and much lower than countries like Czech Republic, Hungary, and Ireland.
- Given that the salary cost of IT professionals in Jordan is lower than in other Middle East countries like Saudi Arabia (nearly USD$18,000 per annum) it can position itself as the outsourcing destination for the Middle East. Since Jordan shares a common language (Arabic) with other countries in the region, it enjoys an added advantage in providing voice based outsourcing services for the Middle East market. The outsourcing market in Saudi Arabia, which represents one of the largest countries in the region, is estimated at nearly USD$400 million and is expected to grow at 13% over 2006 to 2010. The existing competencies of the human resource pool in Jordan, together with its geographical location, are expected to serve as key competitive advantages.
- Representative outsourcing activities that can be targeted include the following:
  - Data-based outsourcing activities related to back-office operations such as accounting, payroll processing, insurance payment/claim processing, and internal audit related services. Given that the accounting policies and practices followed in Jordan are aligned to international accounting standards and Jordan already has a mature financial services sector, it may have inherent advantages in the area of finance and accounting.
  - Voice-based outsourcing activities (e.g., technical assistance centers, call centers).

1.4.3.1 Role of IT Parks and Proposed Business Models

Based on our assessment of the IT sector and ground realities in Jordan, the generic critical business enablers likely to feature in the expectations of any IT company interested in setting up operations in an IT Park have been highlighted below:

- Location of the park in an area that permits it to leverage the existing urban and social infrastructures of the capital city of Amman as availability of the right quality of human resources is expected to be a problem in any other region.
- Lease or sale of land for build-to-suit facilities at rates lower than those prevailing in the adjoining areas.
- High quality physical connectivity and infrastructure in terms of air (both international and domestic), road and rail connectivity, a combination of multi-tenant buildings with contemporary facilities and build-to-suit options, adequate road and other surface transport connectivity with the adjoining city, intra-park roads, sewerage, electricity, etc.
- State-of-the-art virtual connectivity in terms of data and voice infrastructure, including international connectivity.
- Simplified policy implementation mechanisms in terms of single window approval facilities in areas such as operating license, sanction of building plans, and tax and customs duty registrations, so as to cut down significantly on the time for setting up new/expansion operations.

The IT Park case studies and primary interactions with various stakeholders clearly seem to demonstrate a case for management of the IT Parks to be vested

with private sector players for ensuring adequate accountability and efficient service. Possibly, as has been the case in many other countries, existing facility management companies can be considered for this purpose. Good practice in other countries clearly indicate the need for management control of the park development company to vest with the private sector for higher efficiency and productivity. Consequently, a facilitation role is recommended for the government other than in situations where the land is owned by it. In such situations, the government can possibly pick up an equity stake in the development company, given that financial returns on IT parks have been fairly attractive.

1.4.3.2 Policy Enablers

Given that government policies play a pivotal role in development of the IT sector, policy measures based on good practice adopted by many countries covered under our study are highlighted below. The government of Jordan may consider these for implementation:

Policy Good Practice for IT Sector Development

Fiscal Incentives

- Allowing local IT companies duty free import of capital goods for use in IT and BPO Services exports.
- Providing fiscal incentives like import duty exemptions on capital equipment; investment subsidies to private telecom companies on investments made in augmenting international data connectivity, initially with a focus on the Middle East, followed by Europe and U.S.

Human Resource Policies

- Establishing finishing schools through public-private partnership to train students in managerial and business aptitude, with the infrastructure being provided by government and curriculum and faculty being provided by IT companies.
- Constituting a committee comprising of government officials and IT company representatives to assess the existing curriculum for specific courses, based on requirements of IT companies.
- Providing fiscal incentives like tax breaks on employee training costs to companies .
- Encouraging local universities to increase intake of students in finance and accounting, and motivating students to pursue this area through targeted financial support

Investment Climate Policies

- Implementing a single window mechanism for providing all benefits, concessions and permits to IT companies. This would require a single agency within government to be identified as the nodal agency, with a presence in all key cities, which would then process applications seamlessly in coordination with other ministries.
- Extending all the above concessions to local companies, subject to completion of listing on Amman Stock Exchange within a pre-defined period and extending additional fiscal benefits on successful listing on international stock exchanges.
- Supporting listing of IT companies on Amman Stock Exchange through measures such as lower threshold of paid up capital requirements and reimbursing initial listing fees.
- Formulating policies for attracting global venture capital and private equity funds like exemption of taxes on income from investments, and allowing losses to be deducted from other taxable income.

Policy Good Practice for IT Park Development

Fiscal Incentives

- Providing incremental fiscal incentives to potential IT Park occupants like corporate tax holidays for an initial period (say 5 years).
- Providing land owned by government for development and to IT Park occupants at subsidized rates, depending on level of employment generation.
- Supporting IT Park developers by subsidizing rentals for plug and play infrastructure and land lease rates for an initial period (say 3 years), so that a part of these subsidies can be passed on to potential occupants, thereby creating a differentiation vis-à-vis normal office/commercial infrastructure.

Innovation Policies

- Provide incubation facilities and space with world class plug and play infrastructure within the IT parks to start-ups and small and mid-sized IT companies at subsidized rentals for the initial period.

Investment Climate

- Permitting mixed land use in IT Parks by allowing a proportion of the total land for other land uses like commercial, institutional and residential, which fetches greater returns and thus improves the financial viability of the project.

- Implementing a single window mechanism for fiscal concessions and benefits, as well as all required statutory approvals, with a physical presence in the Park.
- Extending all the above concessions to local companies, subject to completion of listing on the local stock exchange within a pre-defined period and extending additional fiscal benefits on successful listing on international stock exchanges.