Attracting investment into Queensland's knowledge-intensive industries

Prepared by a Working Group of the **Smart State Council**

November 2008

Smart State Council

An initiative of the Queensland Government

Dear Premier

Please find attached the Smart State Council working group report on Attracting Investment into Queensland's knowledge-intensive industries.

The report illustrates ways in which investment can be attracted into knowledge-intensive industries by focussing on sectors or sub-sectors where our existing business strengths, research and development base or ability to build international markets give us a clear competitive advantage.

In particular, it recommends that strategic investment plans linking industry development and investment attraction be developed for each sector under the guidance of investment ambassadors drawn from the business community.

A similar arrangement is proposed for attracting venture capital.

I commend it to you.

Professor Peter Andrews
Queensland Chief Scientist and
Chair, Standing Committee
Smart State Council

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Smart State Council

The Smart State Council was established in June 2005 as a central advisory body to provide high level advice to the Queensland Government on emerging Smart State issues and trends and to propose measures to position Queensland to respond to challenges and opportunities.

The Smart State Council is chaired by the Premier of Queensland and comprises Government Ministers, the Queensland Chief Scientist and representatives from Queensland's business and research communities.

This paper was prepared by an independent working group for the Smart State Council. The views expressed in this paper are those of the group and do not represent Queensland Government policy.

Executive summary

In May 2008, a Working Group of the Smart State Council was provided with a reference by the Premier to:

- Review strategies to attract investment into Queensland's knowledge-intensive industries
- Investigate options for attracting venture capital funds/firms to address the gap in venture capital in Queensland.

Investment is vital in:

- Making Queensland industry internationally competitive
- Contributing to industry and export growth
- Facilitating access to new technologies
- Financing new innovations
- Providing opportunities for global integration and networking.

Despite the current economic situation, large companies around the world are not in poor financial shape and there are significant opportunities to attract investment to this State, both in terms of encouraging companies to locate operations here or to attract re-investment capital and other venture capital to support operations already established in the State. However, there are increased industry aspirations from a growing number of "new" countries leading to significantly increased competition from other Governments to attract investment. In addition, the current global financial crisis is causing potential investors to be more cautious in their investment decision making.

Additionally, it is difficult at present to attract investment into venture capital as investors are having to keep a significant amount in cash for redemptions and because they are over allocated in alternative assets – at least until the market becomes less volatile.

This situation of increasing competition for decreasing investment funds means that there has to be a paradigm shift in Queensland's investment attraction activities.

The greatest attraction for investment in an industry is that there is a compelling business reason for that industry to exist here. Consequently, Queensland needs to build an investment attraction approach based on its competitive advantages in terms of superior resources, the capability to provide innovative solutions to shared challenges and proximity to markets.

Consideration needs to be given to the factors that influence the location of businesses. The most important factors are market growth, market size, and access to international/regional markets. Quality of labour and access to tertiary skills is valued more highly than low cost of labour, and financial incentives are of relatively low importance as a determinant of investment.

Investment attraction is also reliant on there being an industry ecosystem within the State that is capable of absorbing and nourishing inwards investments and so a comprehensive strategic approach to investment attraction needs to align investment attraction with overall industry policy development. This needs to incorporate a range of activities, such as the promotion of technology and skills development to raise Queensland's attractiveness for investment and increase the security for the potential investor.

While the Queensland Government has identified 15 priority industry sectors in the Smart Industry Policy, these are considered to be too broad for investment attraction. The sectors need to be reviewed, based on competitive advantage, to define focus areas for investment attraction.

This review should be used to develop a series of industry strategic plans (including a venture capital plan) which set out the Queensland Government's vision for each of the sectors and these strategic plans should be supported by operational plans, which specify how the Government will implement the strategic plans. Among the operational plans there needs to be an investment plan for each sector which focuses on two to three sub-sectors as targets for investment attraction.

It is the combination of a marshalling of Government, private sector and academic/research expertise with a clear objective of growing the industry and encouraging investment that is seen as the type of model Queensland should pursue through the development of strategic plans and operational plans within the context of the Smart Industry Policy.

The Plans (both strategic and operational) should be led and co-ordinated by multi-skilled project teams in consultation with industry. The implementation of the plans is to be assisted by the creation of investment ambassadors who will be experienced high level business people, recently retired or active, who will be engaged to open doors and negotiate deals for investment attraction. A venture capital ambassador should also be created.

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1. Introduction

Almost a decade ago, the Organisation for Economic Co-operation and Development (OECD) noted that knowledge-based manufacturing industries and services are more predominant in the larger and more successful economies[1]. The Queensland Government has sustained a long term strategy to build knowledge-based or "smart" industries in Queensland and under *Toward Q2: Tomorrow's Queensland* has set a target to increase the proportion of Queensland businesses undertaking research and development or innovation by 50 percent.

This report is directed at encouraging knowledge-based or smart industries. It is acknowledged that all industries are "smart" to the extent that they are, in some part, dependent on knowledge inputs. However it is equally true that some industries, and parts of industries, are increasingly relying more on knowledge intensity than others. It is these areas of higher knowledge intensity that are of interest and, within this definition, there is scope for the Queensland Government to focus on "smart" components within traditional industries (for example gene markers for beef cattle), as well as the emerging industries of telecommunications and information technology, biotechnology, nanotechnology and so on that are more usually regarded as "smart" industries.

As has been reported in *Towards Q2: Tomorrow's Queensland*, 36 percent of Queensland's businesses were innovating in 2006-07. This was the best performance in the nation.[2]

However, the maintenance of this performance will require further investment into Queensland's knowledge-based industries as the innovations embodied in these industries are important to the continued competitiveness of the Queensland economy through:

- Contributing to export growth
- Facilitating access to new technologies
- Financing new and often risky innovations
- Providing opportunities for global integration and networking

In May 2008, a Working Group of the Smart State Council was provided with a reference by the Premier to:

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[1] *Main Trends Towards Knowledge-based Economies*, OECD, 1999, p18
[2] *Towards Q2: Tomorrow's Queensland,* Queensland Government, 2008, p9

2. Responding to Increasing Competition for Investment

The current financial crisis, which began in mid-2007, and the resulting downward forecasts in the world economic outlook, will make it more difficult for Queensland to attract investment as there will be greater competition. However, the current conditions also provide opportunities as businesses seek to diversify their investment expenditures.

Competition for investment has been increasing for sometime, as Hugh Morgan in a speech to the National Press Club in June 2005, stated, "As the pace of globalisation increases, the reality is that governments are in competition with each other. This means that the primary role of government is to establish and foster the conditions for an economy that can compete effectively with the rest of the world … aggressive global competition amongst business and economies — competition for investment and labour — is a fact of modern life. In many ways, Australia not only has to keep up but run harder than our competitors".[3]

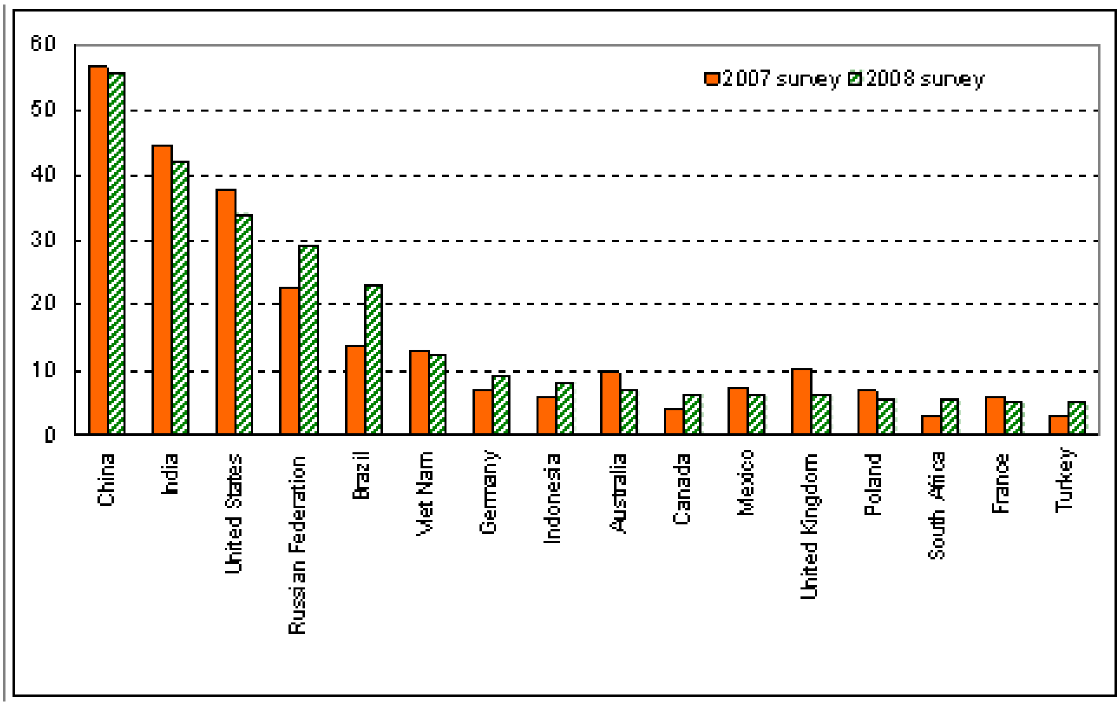
However, the current financial situation, together with the increased industry aspirations of a number of "new" countries, means that there is significantly increased competition from other governments to attract investment. The 2008 Global Location Trends report by IBM Global Business Services[4] shows that global investment activity continues to widen and that companies are now actively seeking out and finding investment opportunities in Latin America and Africa.

On 24 September 2008, the United Nations Commission of Trade and Development (UNCTAD) released its World Investment Prospects Survey 2008-2010 (WIPS) Report[5]. This is an annual survey, based on 226 responses from the world's largest multinational corporations (MNCs).

Although there will be a decline in investments, the survey found that the companies surveyed still remain positive about the future. This relatively optimistic view reflects the fact that many large companies around the world – including in the main developed countries – are not in critically poor financial shape, despite the recent decline in profits. They will continue to expand abroad and they have the internal financial resources to do so but have become more cautious due to uncertainties in their markets and restrictions on external credits.

Moreover Australia, and by extension Queensland, remains in the top 10 most attractive destinations for investment. (Graph 1)

[3] Mr Hugh Morgan AC, President, Business Council Of Australia Speech To The National Press Club "*The Business of Reform - Challenges and Opportunities for a 4th Term Howard Government*", 15 June 2005
[4] IBM Global Business Services, *Global Location Trends Annual Report* , October 2008 available at http://www-935.ibm.com/services/us/gbs/bus/pdf/gbl03005-usen-00hr.pdf
[5] United Nations Commission of Trade and Development, *World Investment Prospects Survey 2008-2010*, Geneva, 24 September 2008.



Source: WIPS 2008-2010

Graph 1: The 15 most attractive economies for the location of Foreign Direct Investment (Per cent of responses to the UNCTAD survey)

While this is good news, it should be noted that Australia has slipped slightly in the rankings from 2007, being overtaken by Germany and Indonesia. Consequently, there is a need to increase the performance of our investment attraction activities.

Investment attraction can be contextualised in terms of supply and demand. In a globalised world, prospective investors have certain demands which they require in relation to a potential location to ensure their business can function effectively and profitably there. Conversely, the potential recipient of the investment has to demonstrate to the prospective investor the business benefits of its location compared to others.

Within this context, it is argued that to be competitive, Queensland must create value for the prospective investor by defining the State's unique competitive advantages, both in terms of what the State can offer and how the potential investor can benefit from locating in Queensland.

This report identifies what is important to investors and how Queensland can focus on meeting those demands. However, it is considered that the overriding principle for the Queensland Government in terms of investment attraction must be the presentation of its competitive advantages.

Professor Michael Porter in *The Competitive Advantage of Nations* argues that "competitiveness is not merely greater efficiency based on working harder or even working smarter. It is not merely doing things better but doing better things. It requires firms with the know-how to capture greater value in the market place not just by being more efficient at what they do, but also in *choosing where to compete*"…. in other words, to focus on competitive advantage.

Competitive advantage can be derived through three main drivers, individually or in combination, as follows:

- Superior resources (natural and/or intellectual)
- Local challenges that drive innovative solutions
- Proximity to long term markets.

Queensland possesses a number of clear areas of competitive advantage including mining (particularly coal mining), beef, sugar and the tropics[6] based on the State's natural endowments and it has strongly developed industries in these areas. It is also possible to base competitive advantage on intellectual resources and skills. For example, the success of Queensland's games industry may be attributed to the skills and creativity of Queensland's games developers and the support and development provided by Queensland's universities.

Additionally, sales technique argues that to sell effectively the seller must identify the challenges (problems and opportunities) a prospect is having in their business or organisation for which the seller can provide a solution. By adopting this sales approach of using shared problems or challenges to define targets for investment promotion, there are a range of other opportunities that have a greater chance of success in attracting businesses to Queensland.

An example is water. In its response to the water crisis, Queensland has developed a level of expertise that provides a competitive advantage. In seeking solutions to problems such as these, Queensland can effectively invite investors to participate in developing innovations and solutions that they can then apply to similar problems in their own markets. The United States for instance has a major water infrastructure gap with an estimated need for a US$277 billion investment over a 20 year period.[7]

A more powerful competitive advantage can be obtained when resources and challenges intersect.

An example is the worldwide trend to urbanisation. In 2007, the number of people living in urban areas exceeded the number living in rural areas for the first time in world history. This trend is expected to increase and Queensland is conforming to this trend.

The latest Australian Bureau of Statistics figures report that the three fastest-growing Statistical Local Areas in Australia as at 30 June 2006 were in Brisbane, and the Gold Coast recording the largest population increase of all Local Government areas in Australia.[8] The latest state-wide population projections for the next 25 years estimates that the State's population will be almost 6.3 million by 2031.

The effect of this urban population growth is a range of problems such as supply of water and energy, traffic congestion and urban transport requirements as well as maintaining the health and liveability of our cities.

By comparison, the Asian urban population is expected to almost double over the next three decades[9]. Of the 10 nations with more than 100 million residents in 2000, six were in Asia. Only Japan had more

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[6] The Smart State Council report, *Opportunities in Tropical Science, Knowledge, Research and Innovation for Queensland*, April 2006 noted that "The changing international trends…. provide huge opportunities for Queensland to develop tropical knowledge industries based on its substantial tropical knowledge capacity and significant and iconic features of world standing." (p9)
http://www.smartstate.qld.gov.au/partnerships/SmartStateCouncilReportTropicalopportunities.pdf

[7] Environment Business Journal, *Review of Water & Wastewater Markets 2008*, Volume XXI, No. 9/10, 2008

[8] ABS Cat No. 3218.0, *Regional Population Growth, Australia, 2006-07*, Released 31/03/2008

[9] Graeme Hugo, *Urbanisation in Asia: An Overview*, University of Adelaide. Paper prepared for Conference on African Migration in Comparative Perspective, Johannesburg, South Africa, 4-7
June, 2003.

than one half of its population in urban areas in 2000 but by 2030 this will also be the case in China and Indonesia.

There is a clear parallel between the current population growth in Queensland and Asia. The Asian urban population will almost double in the next 30 years. Similarly, Queensland's population will almost double to 6.3 million by 2031. This will create local challenges in all the economies of the region including:

- Waste management
- Supply of water and energy
- Traffic congestion and urban transport requirements
- Maintaining the health and liveability of cities (including tropical health, design and construction of buildings for tropical conditions)
- Food supply (including the introduction of western style foods).

The Smart State Council's Report – *Smarter Services: Future Jobs and Growth for the Smart State* (the Smarter Services Report) – also addressed the matter of urban growth and recommended that the Queensland Government:

"Ensure that the development of the South East Queensland Infrastructure Plan develops iconic status for SEQ's urban environment and maximises Queensland as a leading innovator in rapid urban development solutions."[10]

Consequently, there is an opportunity to develop investment strategies for prospective investors which portray Queensland as a laboratory to develop solutions to the many urban problems such as urban transport, waste management and so on. Moreover, much of the growth will occur in tropical and sub-tropical climates presenting Queensland with further challenges and, hence, potential competitive advantages.

Finding 1

Competition internationally for investment has increased, while funds have decreased and companies have become more cautious in their investment decision making. Queensland needs to build an investment attraction approach based on its competitive advantages in terms of superior resources, the capability to provide innovative solutions to shared challenges and proximity to markets and also to recognise the opportunities arising from urbanisation.

Recommendation 1

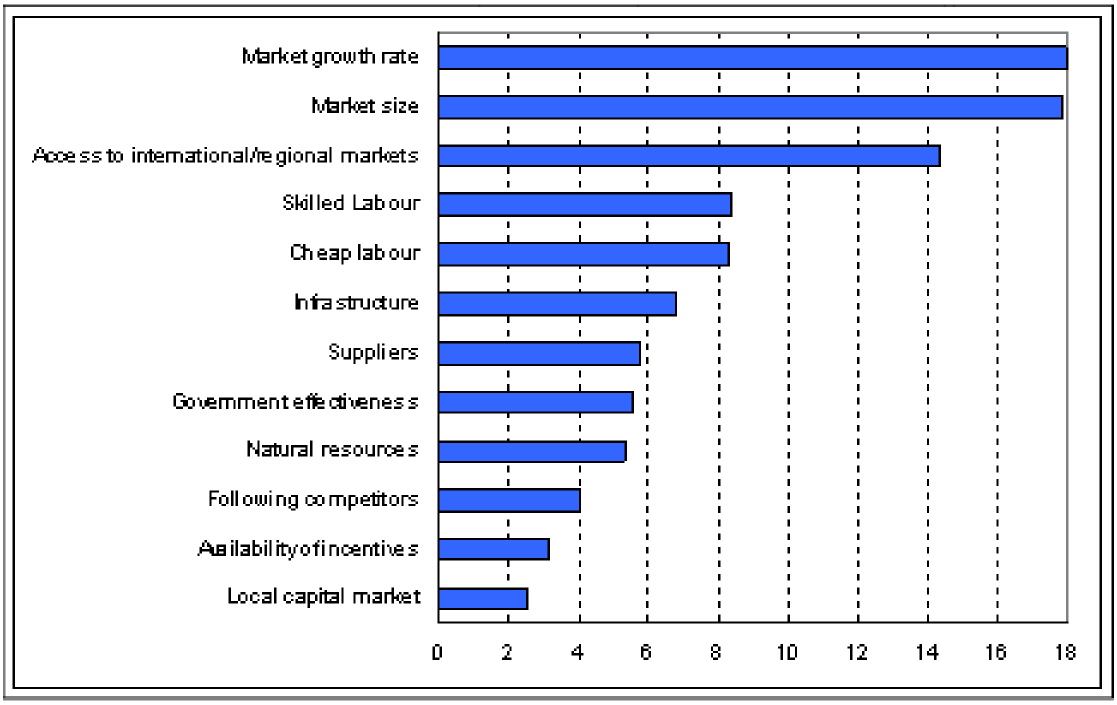
Upgrade and reshape Queensland's investment attraction efforts with a concentration on providing value to potential investors through the promotion of Queensland's competitive advantages that align with the needs of investors.

[10] Smart State Council, *Smarter Services: Future Jobs and Growth for Queensland*, November 2006 – Findings and Recommendations p5 - http://www.smartstate.qld.gov.au/resources/publications/ss_council/SmarterServicesreport.pdf

3. Investment Drivers

Improving Queensland's investment attraction efforts needs to be framed against a recognition of what is driving company decisions regarding their investments. There is a lot of literature on this subject[11], but the most recent is the September 2008 UNCTAD WIPS Report (referred to earlier).

A significant aspect of the WIPS Report is companies' responses to the question of the important criteria in choosing a location. The results are presented in Graph 2.



Source: WIPS 2008-2010

Graph 2: Location criteria in order of importance, 2008-2010 (Per cent of responses to the UNCTAD survey)

The most important factors are market growth, market size, and access to international/regional markets which together comprise over 50 per cent of the drivers for international investment. The significance of this market driver has been recognised by many other countries. Ireland, for example, has used its proximity to the European market as a basis for investment attraction. Queensland could adopt a similar strategy given its proximity to the growing Asian market. Another example of this type of strategy is Canada's Asia-Pacific Gateway and Corridor Initiative (APGCI) which is an association of public and private sector resources to take advantage of Canada's strategic location as the crossroads between the

[11] See Fallon, Grahame, "What factors attract foreign direct investment?" Teaching Business & Economics, October 2001 for a summary of the theoretical work of Stopford and Strange (1991) and Dunning (1993) and others. In summary, this work suggests that the main factors determining the location of FDI by MNCs are:

- the search for markets (following customers, suppliers or competitors abroad, seeking increased familiarity with the local business environment or reducing their costs of supplying a foreign market)
- the search for efficiency (exploiting different factor endowments, cultures, institutional arrangements, economic systems and policies and market structures)
- the search for strategic assets (enabling them to sustain and advance their international competitive advantages)

This theoretical work reinforces the findings of the WIPS Report albeit the WIPS Report is much more recent and is based on a direct survey of investors.

North American marketplace and the economies of Asia. Significantly, as shown in Graph 1, Canada has increased its position vis-à-vis Australia (and other countries) in the last year.

The Queensland Government's investment attraction approach must target the pre-eminence of the market driver.

However, it is not just the proximity to growing markets that is of significance. It is also the domestic market. Queensland is fortunate in that it has a growing population with a demand for goods and services but Government purchasing can also have a significant effect in terms of creating a local market.

For example, the decision by the Queensland Government to establish the water grid provided a major stimulus to the development of, not just the water infrastructure itself, but also the development of technologies and systems to support the grid. The use of "iconic" projects as stimulus to investment should be part of the consideration of such projects together with the opportunity to embed local companies in the projects, thus expanding and strengthening the ecosystem[12]. However, consideration of the investment pull of major projects needs to take place at the planning stage, so that investment attraction can be incorporated as an integral part of project development and contractual arrangements.

The use of 'iconic status' as a lever for development was also addressed in the Smart State Council's *Smarter Services: Future Jobs and Growth for the Smart State* Report in November 2006. This report noted that Queensland already enjoys high iconic status in several areas including mining - through continued technology leadership and tourism - through global recognition for the State's unique environment. The Smarter Services report called for the State to be seen as "an iconic, leading adopter and user of high value, knowledge intensive services." [13] This view is endorsed by this report.

The quality of business environment, which encompasses the criteria of availability of skilled labour, suppliers and adequate infrastructure, is the second most important group of factors in investment decision making. The WIPS report comments that these criteria favour investments in the more developed countries and regions, such as Australia, the European Union and the United States.

The WIPS Report also notes that the availability of cheap labour appears to be a major determinant only for a few labour-intensive manufacturing activities such as garment production. Queensland is unlikely to be competing on the basis of cost of labour but the importance of skilled labour over cheap labour is reinforced in a recent KPMG study[14] . This study found that the quality of labour was generally valued much more highly than low cost of labour.

Government effectiveness, which includes the legal environment, is the next most important factor. The regulatory environment imposed by government as a whole, together with the speed and efficiency of approvals processes is clearly an important factor. However, many of the important levers for investment are controlled at the federal level. Consequently, Queensland's effectiveness in investment attraction would be enhanced through co-operation with and the influencing of federal policies and instruments.

[12] For the purposes of this report, an industry ecosystem encompasses businesses producing products and services within the industry or sector, the application of technologies, supply chains, businesses which service the business sector such as legal experts and specialist consultants, research and development providers and schools, universities and other institutions providing skilled labour, together with the business environment created by Government in the form of regulations, purchasing requirements, taxation systems and so on. The ecosystem is also dynamic and highly reliant on interactive and interdependent relationships to create a self-sustaining community.

[13] Smart State Council, *Smarter Services: Future Jobs and Growth for the Smart State*, November 2006 – Key Findings and Recommendations p5 - http://www.smartstate.qld.gov.au/resources/publications/ss_council/SmarterServicesreport.pdf

[14] KPMG International, *Global corporate capital flows 2008/9 to 2013/14*, June 2008

In a similar vein, it is apparent that, from an international perspective, Queensland needs to participate in national activities in order to gain a stronger profile. Promotional efforts to attract investment have become the important point of competition among countries. By itself, Queensland lacks the international presence in a globalised world to be effective in promotion. Alignment with and participation in national activities where the Australian branding can be leveraged is essential with Queensland pitching its particular attractions to investors under the umbrella of a concerted Commonwealth-State approach.

Of particular significance, is the low ranking given to financial incentives.

This is not a particularly strong factor for the majority of MNCs investing overseas. Furthermore, it is suggested that companies who place a priority on this aspect are rent seeking and Queensland should not be seeking to attract companies which place a high emphasis on the provision of financial incentives. Most of the leading countries, in terms of investment attraction, place a low priority on financial incentives. Sweden, for example, states on its investment website that "*Sweden does not have a wide range of financial incentives linked to national grants and loans.*"[15]

This is not an argument for the abolition of financial incentives as a lever for attracting investment. Rather, it is a call for a balanced approach to the use of incentives within the context of the other factors listed above. From an economic policy perspective, subsidies to companies must only occur where the subsidies induce a desired action (ie to invest in Queensland). That action includes bringing forward planned activity. However, subsidising companies to do what they would have otherwise done without a change in their time frame is "industrial welfare". There is no economic argument to support such subsidies. Getting funds from the government makes them rent seekers.

An alternative and appropriate approach would be to fund companies where the proposed investment will be accelerated or induced outright by the financial assistance. This will particularly apply in the case of companies where the Government is seeking to facilitate an investment for strategic reasons, for example to address a particular problem such as the water crisis or to foster the growth of an industry, such as solar power. This is particularly applicable to knowledge intensive industries which will be required to provide the innovations to meet the challenges to be faced by Queensland in the future.

In these cases, where there is a strategic objective for the investment which overrides other considerations such as market it should be recognised that the Government will need to accept greater risk in terms of financial assistance and will also need to provide greater resources to ensure the success of the investment.

[15] http://www.isa.se/templates/Startpage____2008.aspx

Finding 2

In order to invest in Queensland, prospective investors must have a compelling business reason for the investment, particularly in the current financial climate. The most important factors in determining the location of investment are market growth, market size, and access to international/regional markets. The quality of labour is generally valued much more highly than low cost of labour and financial incentives are of low importance.

Recommendation 2

Develop investment attraction in line with Queensland's competitive advantages and the key drivers influencing business investment decisions. Additionally, the provision of financial incentives should be reviewed to recognise that strategic investments require a greater acceptance of risk and provision of resources to ensure the success of the investment, particularly in the case of knowledge-based industries.

4. Focussing on Competitive Advantage

It has been recommended that, as a principle, a focus on Queensland's competitive advantages is essential as a means for increasing investment attraction.

Moreover, an industry ecosystem within the State that is capable of absorbing and nourishing inwards investments is critical.

Such ecosystems provide the incoming firm with linkages with domestic enterprises - mainly their suppliers, access to markets, skills and resources and research and development. Similarly, the domestic Queensland ecosystem supporting and supplying the firm obtains a number of benefits including improved corporate governance, the introduction of new technology and, through their linkages with domestic enterprises, foreign-owned enterprises may share their know-how with the local business community. Foreign owned enterprises also tend to spin off trained employees and, in many cases, also managers, whose specialist skills then benefit unrelated enterprises or serve as a source of entrepreneurship in the local economy.[16]

There are many important components of the ecosystem which, through industry policy, government is able to nourish. These have a direct relationship to investment attraction.

For example, the importance of government encouragement for innovation and the development and adoption of technology is apparent in a report of a review of investment promotion incentives, published in the Economic and Political Weekly, which suggested that the host country must be capable of absorbing the new technology manifested in investment. In a similar vein, another common finding is that the greatest technological spillovers from investment occur when the technological gap between local and foreign enterprises is 'not very large'[17]. Therefore, continued promotion of technology uptake is a factor in increasing Queensland's attractiveness to investors.

Similarly, as part of the ecosystem, the Government needs to maintain measures to enhance overall human capital and technical capabilities of the domestic economy. Consequently, education and migration and skills attraction policies should also be aligned with industry and investment attraction policies. This is a feature of a number of successful countries around the world. For example, Singapore places a strong emphasis on the skills and capabilities of its population as part of its investment attraction promotion. Additionally, while promoting the talents of its own workforce it also states that:

"Our doors are open to foreign talent, too. It takes no more than two weeks to get employment passes for foreign staff. When a specialist or manager comes to Singapore for a short-term project, the approval can come in just three working days."

The need for an ecosystem applies equally to the question of venture capital.

Venture capital has been the subject of a number of reports in recent years including the Smart State Council's August 2006 Report "*Business investment in research and development in Queensland – including access to capital*" (the BERD Report)[18].

The Queensland Government is implementing a number of the recommendations of this report with mixed success. For example, in regard to business angels, the Government has facilitated the

[16] OECD, (2003) Working Papers on International Investment, Incentives-based Competition for Foreign Direct Investment: The Case of Brazil
[17] Ramkishen S Rajan, *Measures to Attract FDI: Investment Promotion, Incentives and Policy Intervention*, Economic and Political Weekly January 3, 2004
[18] Smart State Council, *Business Investment in Research and Development in Queensland – including access to capital*, April 2006

establishment of an extensive business angel network but the Government has had limited success in the recommendation to attract an international venture capital firm to locate in this State.

One of the important criteria for an overseas venture capital firm to locate an office here will be the provision of skilled employees, who can be trained in the particular processes of the incoming firm. It is not possible to train venture managers through university courses but these people need to have technical and relevant operational industry experience and could be trained in venture capital by currently operating venture firms if some assistance with salary could be given. Firms operate on a relatively tight budget and cannot afford to train staff excess to their needs.

It is considered that the approach of building local networks within and between business angels and venture capitalists needs to be continued and enhanced through activities such as co-investment so that the venture capital ecosystem is similarly enhanced to increase its attractiveness to overseas investment.

The ability to demonstrate the existence of such ecosystems is essential in attracting firms to locate in Queensland as they represent a demonstrable benefit to the business to locate in the State.

By extension, industry policy, which focuses on growing and expanding the industry base in the State, and investment attraction policy are intrinsically linked and a successful marriage of the two policy areas is essential for sustained investment attraction and growth.

The Queensland Government's industry policy is set out in the Smart Industry Policy[19], which was released in February 2006. However, a review of the Smart Industry Policy shows that the linkage between industry development and investment attraction is flimsy. This is attributed to the priority sectors identified in the document being too broadly defined to be meaningful in an investment attraction sense.

The Smart State Council's earlier report "*Smart Regions: Characteristics of Globally Successful Regions and Implications for Queensland"* (The Smart Regions Report)[20] released in April 2006, concluded, inter alia:

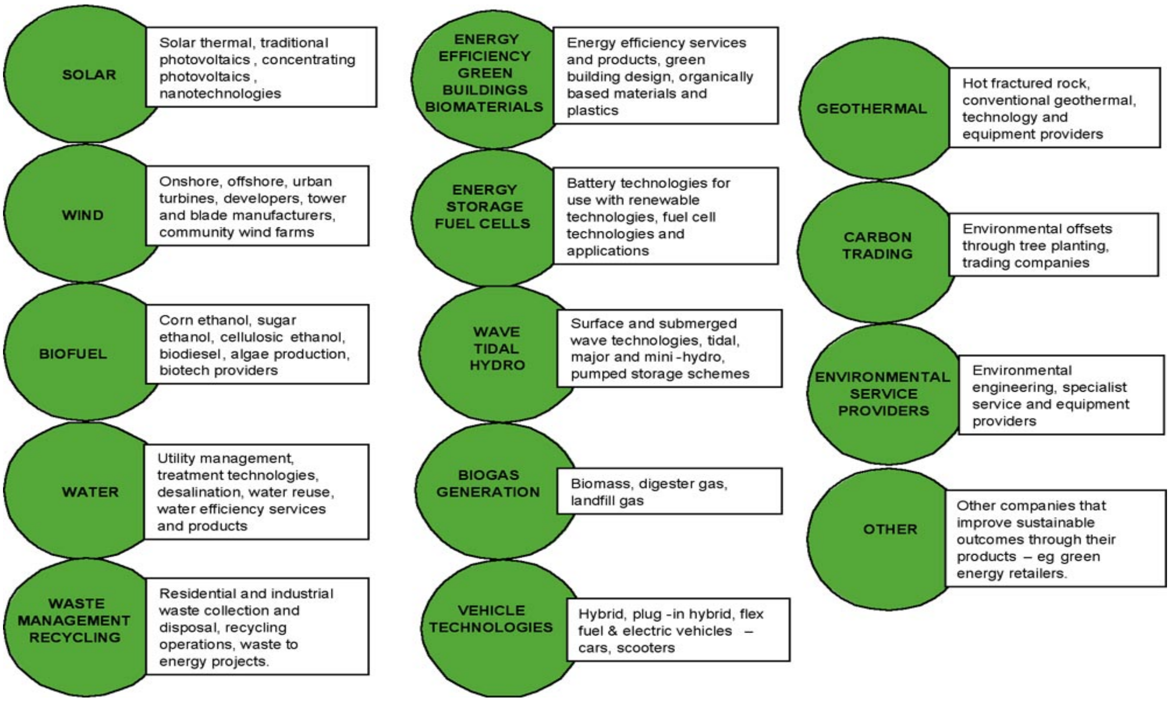
"Assessment of and response to gaps in Queensland's innovation system should be based on sectorally specific development paths rather than a one-size-fits-all approach."

[19] Queensland Government, *Smart Industry Policy and Decision Making Framework*, February 2006
[20] Smart State Council, *Smart Regions: Characteristics of globally successful regions and implications for Queensland*, April 2006 p48 - http://www.smartstate.qld.gov.au/partnerships/SmartStateCouncilReportSmartregions.pdf

The Smart Industry Policy and associated industry sector action plans were developed in response to the recommendations from the Smart Regions Report. The Smart Industry Policy identifies 15 key strategic priority industry sectors located throughout Queensland. These industries are:

- Advanced manufacturing
- Alternative fuels
- Aviation
- Biotechnology
- Creative industries
- Environmental and mining technologies and services
- Information and communication technology
- Marine industries
- Mining
- Primary industries
- Processed foods
- Therapeutic medicines and devices
- Tourism
- Water
- Wine

However, these industries are broad in nature and need to be refined further into focus areas where Queensland has a specific competitive advantage. Diagram 1 illustrates the broad nature of the priority areas by breaking one of them (environmental technology) into segments and sub-sectors. This shows that there are 14 segments within the environmental industry and numerous sub-sectors in each of those segments. Effective investment attraction needs to determine where in this segmentation Queensland has a competitive advantage. For example, in the environment industry, Queensland has no presence in vehicle technologies, but has strengths in utility management in the water segment.



Source: http://www.auscleantech.com.au/images/graph_philosophy_BIG.jpg

Diagram 1: Segmentation of the Environment Industry

Such detailed knowledge and mapping of the ecosystem for each of the priority sectors is necessary to develop specific targets for investment attraction based on an assessment of Queensland's competitive strengths cross-referenced against the locational factors described in the previous section of this report.

Such targeting is commonplace in investment agencies around the world. The investment targets of a number of countries where significant industry growth has occurred have been reviewed. These countries include:

- Canada
- Czech Republic
- Denmark
- Hong Kong
- Ireland
- Netherlands
- Scotland
- Singapore
- Sweden
- United Kingdom

In choosing their investment targets, all these countries share a high degree of focus. The following table (Table 1) shows a small sample of the level of specificity that has been adopted.

Hong Kong	Denmark
• Information Technology	• Renewable Energy
– Open Source Software	– Wind
– Advanced Wireless technologies	– Hydrogen
– Radio Frequency Identification (RFID)	
• Multimedia	• Information and Communications Technologies
– Entertainment and games software	– Wireless and mobile technology
– Computer animation and digital effects for video and films	– Acoustics
Singapore	**Scotland**
• Environment and Water	• Food and Drink
– Water treatment plants	– Beverages
– Global water R&D	– Health-enhancing foods
– Water-oriented events	– Meat products
– Waste management	– Seafood – natural
	– Salmon farming

Table 1: Selected areas of investment focus for selected countries

These samples have been chosen because they map strongly with a number of the Queensland Government's priority sectors but show how focus can be based on competitive advantage, to provide specific targets for investment attraction. Referring back to Diagram 1, for example, Singapore has chosen to focus on waste management and three water sub-sectors out of the range of sub-sectors within environmental technologies.

Competitive advantage, it has been noted, can be based on intellectual resources and skills and an illustration is Denmark's focus, within the ICT area, on acoustics. This reflects Denmark's high quality intellectual property embodied in such companies as Bang & Olufsen and Oticon. Denmark's approach to acoustics encompasses:

- Acoustic communication
- Reducing the noise load on people
- Human perception of speech and sound
- General research on hearing, hearing loss, loudness and annoyance.

Denmark has built on this intellectual property through research and education in engineering acoustics at the Technical University of Denmark. This focus has resulted in Silicon Valley based RAE Systems establishing its European headquarters in Denmark.

For RAE Systems, a longer-term perspective in choosing Denmark for its European headquarters is the opportunity to tap Denmark's scientific skill-set and special knowledge in acoustics. RAE recognises Denmark's particular strengths in Bluetooth technology, and the presence of a world leading Bluetooth cluster in Aalborg in northern Jutland provided an attractive location incentive. The company also cites the excellent foreign language skills of the Danes and strategic placement in regard to key European markets as further reasons for choosing Denmark.

Competitive advantage based on a natural resource is evident in the Scottish focus on salmon. Scottish salmon represents some 40% of all Scottish food exports and Scotland produces around 75% of EU salmon and large trout output per annum. These salmon are largely farmed (as opposed to wild caught seafood) and Scotland is marketing its expertise in fish farming and aquaculture techniques through the iconic Scottish salmon. It is also an example of a combination of established markets and a superior resource.

Reinforcing the importance of technology, it is notable that Ireland, like Queensland, has advanced manufacturing as a priority but it is the application of advanced manufacturing in the ICT, pharmaceuticals and biopharmaceuticals, medical technologies, engineering and consumer products sectors where the Irish are seeking to attract investment.

Finding 3

As a general rule, multinational corporations (MNCs) should have a natural fit into the local business community. It is therefore important to be able to demonstrate a "business community" to potential investors and effective investment attraction needs to ensure that industry ecosystems are in place to nurture, support and benefit from the investment that is attracted to the State.

This requires an effective marriage between industry development policy and investment attraction policy. However the current 15 Queensland priority industry sectors provided in the Smart Industry Policy are too broad to be effective in targeting investment attraction strategies.

Recommendation 3

The Smart Industry Policy be reviewed to define focus areas, based on competitive advantage, for investment attraction. (Areas of focus to be identified in Industry Strategic Plans – see Recommendation 4)

5. Industry Strategic Plans

The Smart Regions Report also called for the:

"….alignment of Queensland Government industry development, investment attraction, trade and innovation strategies to promote the achievement of critical mass." [21]

As noted in the previous section, each of the 15 Queensland Government priority sectors identified in the Government's Smart Industry Policy is accompanied by an industry sector action plan. However, a review of the Smart Industry Policy's industry sector action plans shows an incomplete response to investment attraction. There is much useful information in the action plans, but they need more focus and also clear points of responsibility for their implementation. More specific information is also needed in terms of how the plans are to be implemented and also overall vision and targets for each sector. As previously noted, they are also quite flimsy in relation to investment attraction and the defining of investment attraction targets. Additionally, it is unclear how they are to be monitored and evaluated.

Consequently, there is a need for these plans to be reviewed and re-aligned into more comprehensive Industry Strategic Plans in line with the recommendations of this report. The strategic and supporting operational plans will supersede the current action plans. The following model is suggested:

Smart Industry Policy

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Industry Strategic Plans for each priority industry sector encompassing an overall strategic direction for the sector and performance targets and the key drivers identified in the Smart Industry Policy, viz:

- Connecting industry with ideas
- Boosting incentives for productivity (which includes investment attraction)
- Developing skilled people
- Building markets for smart products
- Promoting an innovative business culture

→ Operational plans to provide a plan for implementing the Industry Strategic Plans keyed to each of the key drivers including an investment attraction plan.

It should be noted that investment attraction, within the current Smart Industry Policy framework, is subsumed under the driver "Boosting incentives for productivity" and is listed as such in the above diagram.

While maintaining the Smart Industry Policy to provide the overall policy direction and guidance, the current action plans need to be reviewed and recast as Industry Strategic Plans which more clearly enunciate the Government's vision and strategies for developing each sector. Subsidiary to the strategic plans, but integral to them, there should be a range of operational plans, including an investment attraction operational plan which sets out specific activities associated with the implementation of the strategic plans.

[21] Smart State Council, *Smart Regions: Characteristics of globally successful regions and implications for Queensland*, April 2006 p48

While the industry strategic plans should encompass the sector as a whole, consistent with the idea of fostering an ecosystem for each industry sector, the investment attraction strategies should focus on a maximum of two to three sub-sectors to ensure that they are sensitive to the individual characters of the priority sectors, remain manageable, and develop the competitive advantage of the sub-sectors.

The development of this hierarchy of plans needs to be undertaken jointly with industry representatives. Private sector input is important in minimising the deadweight loss (i.e. the risk of paying subsidies to investment projects that would have taken place anyway), through the insights they can bring to the way in which an industry segment operates in practical terms. They can also help to refine what Queensland's "value proposition" is to attract companies to a particular sector or segment.

Similarly, a strategic plan for venture capital should also be developed but each of the sectoral strategic plans should also incorporate a venture capital component reflecting a matrix approach to investment capital.

As a minimum, the Strategic Plans should comprise:

- Overall Strategic Direction – based on a capability analysis of the sector as a whole to determine two to three sub-sectors of competitive advantage
- Target Markets – both internal and external markets. Internal markets should include those major expenditures by Government and the private sector that are likely to act as an attractant for investment, particularly iconic projects such as the Queensland Water Grid. External markets should look at where opportunities lie in other countries with a close proximity to Queensland (or with similar problems to solve)
- Focussed products – that is what the Government will deliver to the sector to foster its development
- Research and development capability – in particular how it might be co-ordinated and leveraged to achieve industry development and investment outcomes
- Education and skills capabilities and alignment with skills development and attraction plans
- Facilities and infrastructure within Queensland to support the growth of industry – in particular the provision of infrastructure for telecommunications is likely to be of great assistance to companies in the "smart" industries
- Regulations impacting on the industry
- Investment attraction plan. This should encompass all forms of investment including business investment and private investment as discussed but also Government investment into the sector, institutional investment and intellectual property investment.

An example of a strategic plan incorporating industry development and investment from a range of players can be seen in Singapore's approach to the water industry. Singapore's present vision is to become a 'Global Hydrohub', serving three per cent of the global water market by 2015.

The water industry ecosystem is being developed in Singapore with local firms such as Hyflux, Keppel and SembCorp building water treatment plants in many overseas markets like China and the Middle East, while leading international players such as General Electric, Siemens and Black & Veatch have established global water research and development (R&D) or competence centres in Singapore.

The Environment and Water Industry Development Council (EWI) was set up under the Ministry of the Environment and Water Resources to spearhead the growth of the environment and water industry in Singapore and the Singapore Research, Innovation and Enterprise Council has announced an investment of SGD$330 million over the next five years in R&D to boost the development of the local environment and water industry.

The EWI, co-ordinates the efforts of agencies such as the Economic Development Board, Public Utilities Board, International Enterprise Singapore, the Agency for Science, Technology & Research, National Environment Agency, Nanyang Technological University and National University of Singapore, to:

- Attract more companies to locate their operations in Singapore
- Help grow local companies
- Encourage more companies and research institutes to develop cutting-edge water technology
- Further export Singapore's capabilities to growing markets especially in the Middle East and China.

The EWI also aims to make Singapore a hub for water-oriented events. The inaugural Singapore International Water Week took place in June 2008 and will continue to be held annually in Singapore. It is the combination of a marshalling of Government, private sector and academic/research expertise with a clear objective of growing the industry and encouraging investment that is seen as the type of model Queensland should pursue through the development of strategic plans and operational plans within the context of the Smart Industry Policy. To facilitate this, Queensland should explore further the structures and governance arrangements that the Singapore Government has put in place to support the Global Hydrohub concept.

The investment attraction operational plans should contain:

- Key Marketing Messages/value proposition – what does Queensland have to "sell" to potential investors in the sector
- Tactics/Steps, such as:
  - Image Building - Creating the perception of a country as an attractive site for international investment
  - Investor Facilitation and Investor Servicing - 'One-stop shop' services aimed at expediting approval processes and other forms of assistance such as help in identifying and obtaining sites
  - Investment Generation - Identification of potential investors, investor forums and seminars and individual presentations to targeted investors
  - Providing feedback - To improve the investment climate and identify the views of the private sector and liaison with the Commonwealth Government to align policy approaches and activities.
- Performance Measures
- Plans for co-ordination with other investment attraction agencies, such as Austrade.

Investment attraction strategies also need to be provided with adequate resourcing. The concern that the Government is "drip feeding" investment promotion activities has been expressed in a number of the interviews that have been conducted. Queensland is competing globally for global investment and so must allocate funding in a way that will enable it to compete on equal terms with other countries around the world.

This question of resourcing not only applies to funding but it also needs to address the recruitment of suitably qualified (senior) personnel to undertake investment attraction activities at the right level with the target companies.

The OECD[22] has noted that a number of jurisdictions appear to have a tendency to underestimate the resources needed for an efficient implementation. Many implementing authorities lack the data, the expertise, the special skills and the senior management time required by incentive programs. In particular, negotiation of incentives requires special negotiating skills and expertise in the application of particular instruments. Moreover, investors expect a speed of decision-making that exceeds normal bureaucratic standards.

In this context, the setting of targets and performance measures and the establishment of reporting frameworks is essential to ensure that the Government is maximising the return on its investment in relation to both industry development and investment attraction.

This will undoubtedly require existing industry strategies, investment attraction plans and associated resources to be reviewed, re-aligned and restructured in order to achieve the focus that is required to facilitate effective investment attraction and successfully compete against strong competition.

Finding 4

The Smart Industry Policy's industry sector action plans are an incomplete response to the needs of investment attraction.

Recommendation 4

Industry strategic plans and subsidiary operational plans should be created to replace the current industry action plans. These plans should promote industry development, provide focus for investment attraction activities and align relevant resources within Government towards investment attraction goals.

The Strategic Plans should include a venture capital plan.

Existing resources should be reviewed and re-aligned in line with the recommendations.

[22] *Incentives-based Competition for Foreign Direct Investment* OECD Working Papers On International Investment Number 2003/1, March 2003

6. Implementation

It has been argued that to improve Queensland's efforts to attract investment, it is necessary to:

- Introduce focus, based on the State's competitive advantages in relation to superior resources, innovative solutions to local challenges, proximity to markets or a combination of all three
- Identify target markets, such as the growing urban population in Asia
- Align Queensland's competitive advantages with the market demand through the development of strategic and operational plans.

However, the question remains about how this is to be done. A strategy that is not primarily based on financial incentives will require a different approach by the Queensland Government.

It is recommended that a new vehicle be developed based on the use of "Investment Ambassadors" and multi-skilled project teams to drive the strategic plans for each of the focus areas, incorporating investment attraction plans as an integral component.

6.1 Multi-skilled Project Teams

It is recommended that a series of multi-skilled project teams be established, based within the Queensland Government, to supply the industry knowledge and contacts needed to facilitate and maintain the industry strategies and to align resources in support of the investment strategies.

It is apparent that, owing to the ecosystem approach, many factors will have to be addressed by the project teams in order to integrate industry development and investment attraction strategies effectively. Consequently, the teams will need to be led by senior officers and have the capacity to address a range of matters such as:

- Market assessment
- Ability to work with education and immigration to identify and build skills
- Knowledge of government processes and responsibilities of agencies to ensure "government effectiveness"
- Knowledge of the local industry within the sector in terms of potential suppliers and "aftercare" activities
- Familiarity with financial services including venture capital.

The sector strategy should precede the investment attraction strategies and this process should be managed by the project teams. Consequently, the role of the project teams will be to:

- Develop, maintain and obtain approval for the priority sector strategy
- Prepare operational plans to realise the strategy
- Execute the operational plans and report on performance.

6.2 Investment Ambassadors

To support the project teams, it is also proposed to establish an investment ambassador program to harness experienced, high level business people, either recently retired or active, to help to attract investment into Queensland's priority sectors and venture capital market.

This program would involve the short-term engagement of business people (comprising priority sector ambassadors and one venture capital ambassador) with the specific task of attracting investment into Queensland. The individuals would be contracted, based on the degree of prominence they hold within the priority sectors, their existing overseas contacts and their intimate knowledge of the industry sector they have been engaged to support.

There is a pool of well connected, semi-retired business people in Queensland with the requisite experience and enthusiasm that could be tapped for this role. However, the appointment of the ambassadors should be through a determined selection process to ensure the right quality people are selected, based on a rigid set of roles and responsibilities. It should not be based on an acceptance of volunteers.

Many countries have effectively practised this policy of using business people to project their country's success as an investment base. Such people know the risks of doing business within the country, have faced many business challenges and understand the climate and advantages much better than anyone else. People of sufficient standing also bring with them a range of contacts and the ability to talk to CEOs on their own terms. Moreover, potential investors are more likely to believe their colleagues than the country's Government agencies.

Countries using the investment ambassador approach are as diverse as Singapore, Hong Kong, Malaysia, Sri Lanka, Victoria (Canada), Tennessee, Roscommon (funded through Enterprise Ireland) and Poland.

The ambassadors would be provided with specific targets and milestones, established through the investment attraction plans. As contracted individuals, they would receive support from the Queensland Government and relevant overseas offices. The role of the investment ambassadors would be to:

- Assist in the development of industry strategies
- Open doors and negotiate deals with senior executives in businesses targeted under the investment strategies
- Participate in investment attraction events in Australia and overseas
- Maintain regular contact with investors who have located in Queensland to support expansion and re-investment by those businesses as part of an aftercare program
- Provide feedback to the Government in regard to investment attraction activities and participate in the creation and review of the investment strategies.

While the Investment Ambassador Program will place a cost on the Queensland Government, the ambassadors will not be full time and would be appointed for a specific project. Moreover, the project teams could largely be met from a reallocation and refocussing of resources with some staff supplementation. However, by adopting an approach which emphasises Queensland's competitive advantages and industry ecosystem, it is envisaged that there will be less need for financial incentives to attract firms. Overseas experience indicates that the use of investment ambassadors represents a good return on investment in terms of a better deal flow in shorter time frames than purely Government driven investment attraction.

6.3 Venture Capital Ambassador

As previously noted, the Queensland Government is implementing a number of the recommendations of the BERD report with mixed success.

There is no doubt that the current situation in capital markets is making it increasingly difficult to raise funds in Australia. However in the United States, which has a far more mature venture capital system, there are funds that are looking to expand internationally. This presents a significant opportunity providing Queensland is nimble enough to seize it.

The current activities relating to the implementation of the BERD Report should be continued and enhanced through promotion of links between the venture capital and business angel communities (including co-investment). The recommendations of the BERD Report pertaining to training of venture capitalists also need to be implemented. It is noted that the Victorian Government has implemented two programs that are very consistent with the BERD Report recommendations and which have proven successful for Victoria. These programs are:

- Technology Transfer Internship: Increasing the rate of commercialisation of innovation by training technology transfer managers and/or leading university academics within a venture capital firm
- International Venture Capital Exchange: Increasing the skill of local venture capital managers and international investment linkages through an exchange program between leading Victorian and offshore firms.

Two venture capital firms from Victoria have had senior staff spend six months in the United States (US) and this relationship has increased the likelihood of investing together in Australian deals. Establishing relationships with US firms prepared to take on cadets/investment managers in training, could also be a prelude to a stronger future relationship and lead to the potential to set up an office here.

As noted above, it is proposed that an investment ambassador be created for venture capital with the express objective of attracting venture capital to Queensland. This ambassador should also be supported by a multi-skilled project team. Commensurate with the theme of this report, the attraction of venture capital should also be based on Queensland's competitive advantages. For example, New Zealand has managed to capture funding from Nestle into one of its venture capital firms to support investments into agricultural biotechnology. New Zealand's focus is on its strength in dairy but Queensland should be able to interest strategic investors into our areas of strength.

Consequently, the investment ambassador for venture capital and the project team will need to liaise strongly with the other investment ambassadors to identify areas of strength where a venture capital firm can contribute to the ecosystem.

Due to the maturity of the US venture capital system, the State should initially target the US for attracting a venture capital firm. However future strategies should not focus solely on the US. Europe, India and Asia all offer opportunities which can be built on the back of established trading relationships with selected countries. The current financial situation would suggest that Asia should be an early target, particularly given Queensland's proximity to Asian markets.

6.4 Associate Investment Ambassadors

It is critically important to stay abreast of international trends through market intelligence. Therefore, it is also recommended that the Investment Ambassador Program be complemented by an associate ambassador program comprising senior business people. These people, who are travelling anyway, would receive briefings and promotional materials from the Queensland Government to help to promote Queensland internationally. In addition to promoting Queensland within their sectors abroad, they would also provide business intelligence in regard to their sectors.

Additionally, it is recommended that the associate investment ambassadors could help to leverage the international agreements which the State has entered into in order to use them more effectively to encourage investment by regularly visiting the those countries and maintaining relationships.

Aftercare

Another key role of the teams and the ambassadors will be to deliver aftercare programs.

"Aftercare" is a general term covering the management of relationships with existing investors. In essence it is the investment promotion equivalent of customer care. An investor's decision to invest is not an end in itself but needs to incorporate sustained professional aftercare to enable Queensland to capitalise on the investment and maximise returns to the State. High-quality aftercare services can be used to encourage investors to re-invest or expand and to help cluster further industries.

Additionally, in business terms, conventional wisdom states that it costs five to seven times more to get a new customer than it does to sell your products to an existing customer. There are estimates that up to 70 per cent of investment is linked to the existing investment base. For Singapore, data shows that 60 per cent of investment comes from foreign companies already present in the country. In Ireland and Scotland, incremental investment by existing investors accounts for 60 per cent of the annual flow of Foreign Direct Investment (FDI).

This emphasises the need for a comprehensive aftercare program to embed the companies in Queensland by building the local business ecosystem, maintaining links with companies that have established operations in Queensland, and encouraging and supporting them to re-invest in this State.

Once the Queensland Government has successfully attracted a company it should be embedded into the local economy. This not only means that the investing company receives greater benefit from its investment through supply chains, access to skilled staff and so on, but that the company is also likely to stay in the State for an extended period of time. An important part of this is ensuring that Queensland's skills base and technological base are maintained to minimise the technological gap between local and foreign enterprises and to facilitate technology transfer.

Aftercare does not necessarily require a large amount of funding but does require significant staff time. Consequently, resource allocations need to be examined to ensure that the aftercare programs can be effectively delivered.

Finding 5

A new model will be required to develop and implement industry strategic plans and investment attraction plans.

Recommendation 5

In order to deliver investment attraction in Queensland effectively, it is recommended that:

- Multi-skilled project teams be created to focus on chosen sectors
- Industry ambassadors, including a venture capital investment ambassador, be created to leverage the goodwill of underutilised talent residing in the community
- An associate ambassador program be established comprising senior business people to complement the investment ambassadors and project teams to promote Queensland internationally
- The current activities relating to the implementation of the BERD Report should be continued and enhanced through:
    - Promotion of co-investment between business angels and venture capitalists to build the local business ecosystem
    - Creation of an Investment Cadetship Program
    - Creation of a Senior Investment Placement Program.