Smart communities:
Regional communities, knowledge clusters and growth elements

Research leader
Professor Michael J Heffran
Pro Vice-Chancellor (Engagement)
& Professor Property and Development
University of the Sunshine Coast

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Executive summary

This research, based on current literature, case study analysis and two modified value-management studies, establishes criteria and strategies for the attraction of contemporary firms and (particularly) key managers and workers into a region. Their subsequent retention and the organic growth of such enterprises and clusters over time is also considered.

The Sunshine Coast region, and particularly the Sippy Downs town centre, was identified as the focused area for these investigations.

The report needs to be read in conjunction with previous research collaborations between the State Government and USC researchers undertaken in recent years, particularly:


The matters canvassed in this research are diverse and each region has its own history, economic and community characteristics, governance and competitive advantages. It is therefore important neither to overly generalise outcomes nor to attempt to transfer the successes in one region directly into another. Certainly, one size does not fit all.

All of that notwithstanding, some strong common themes emerge from these investigations and provide a new platform for regional economic development strategies. These are as follows:

- The political, economic, social and community environments for regions such as the Sunshine Coast have fundamentally changed over recent years. That change is continuing and compounding. In that environment, traditional approaches to stimulate and direct economic activity to desirable ends similarly require rebuilding from first principles.

- Sustainable development emanates from private sector decision makers – in the form of investment and venture capital and from individuals making decisions to locate to a particular region. Therefore the primary goal of policy makers is to present an offer that is clear and concise and targets specific sectors, firms or groups. Whether a particular activity is aimed at new entries or ongoing growth strategy should effectively be the same and should be focused on creating an economic and social/community environment that is demonstrably conducive to contemporary business.

- A detailed understanding of the demography of both the existing population and of the target groups is fundamental to success. On the Sunshine Coast for example, the self-selection of baby boomers and, more recently, of younger aspirational workers and families seeking improved lifestyle represent particular opportunities and should be pursued.
• The offer and image presented by a region, such as the Sunshine Coast, needs to be holistic – not simply highlighting one or two characteristics but the entire package. Fortuitously, the Sunshine Coast has a very good offer and overall value proposition compared with competing regions, but at this time, it is ‘a story not well told’.

• All case studies investigated based their success on very long term strategies and partnerships held together by real trust and common purpose. In the first instance, this partnership was between key institutions – government, universities, business groups and the like. These partnerships presented high confidence levels and sense of direction which had invariably spilled over to the wider community. It was not simply a matter of a small or an elite section of the community being fostered and securing significant personal advantage. Rather it involved a sharing of a vision and in achievements that were relatively spread across the community.

• Another dynamic component of all of this is the extraordinary increase in importance of social capital, social media, and a range of communication and support networks that cross economic and community boundaries and also reflect the growing importance of new generations entering the workforce. As part of the holistic offer recommended above, the specific development of these, together with the embracing of innovative ICT facilities, need to be included as part of these strategies.

• In all case studies, and reinforced by literature and value management workshops undertaken as part of this research, the critical and multiple role of government and institutions was reinforced. Of particular long term importance is the role of health and education facilities and institutions not simply in their primary service functions but also in the alignment and proactive involvement of those institutions with the community. This again links with the need for real partnerships identified above.

An important catalyst can also be the relocation of certain government/institutional activities into the region.

It was further established that government alone, particularly at state and local levels, has the capacity to bring together these new concepts and advance them quickly to both short term achievements and long term goals. Overt leadership is a critical factor to success.

It is recommended that government convenes a high level conference/workshop of key stakeholders to discuss and bring forward the recommendations outlined in Section 10 of this document.

December 2011
# Table of contents

1 Introduction ................................................................................................................. 9
2 Objectives ..................................................................................................................... 11
3 Methodology .................................................................................................................. 12
4 Underlying drivers ........................................................................................................ 13
   4.1 Demography ............................................................................................................. 13
   4.2 Business change, globalisation and ICT ................................................................. 13
   4.3 Social capital ............................................................................................................ 14
   4.4 Place, built form and urbanisation ......................................................................... 14
   4.5 Regions ................................................................................................................... 15
   4.6 Institutional leverage .............................................................................................. 16
5 About the demographics now and into the future ..................................................... 17
   5.1 The historical and global context ........................................................................... 17
   5.2 Components of population demographics .......................................................... 18
   5.3 Demographic profile components (age/longevity; wealth) ............................... 19
   5.4 Migration trends ..................................................................................................... 22
   5.5 Five generations ..................................................................................................... 23
6 Economic development and the job market .................................................................. 25
7 Case studies ................................................................................................................... 30
   7.1 Portland, Oregon ‘A sense of place’ ...................................................................... 32
   7.2 Boulder, Colorado ‘The smart hippies’ ................................................................... 38
   7.3 Clemson, South Carolina ‘Welcome to Tiger Town’ ........................................... 43
   7.4 Ballarat, Victoria ‘After the gold rush’ ................................................................. 48
8 Sippy Downs Town Centre, Sunshine Coast: History and current status .................. 54
   8.1 Regional context advantages and disadvantages ............................................... 55
   8.2 Institutional drivers ................................................................................................. 59
   8.3 Sippy Downs Town Centre Site ............................................................................. 64
9 Learnings from Value Management Workshops ....................................................... 68
   9.1 A modified Value Management process .............................................................. 68
   9.2 Sippy Downs, Sunshine Coast .............................................................................. 70
   9.3 Brisbane .................................................................................................................. 73
10 A Sunshine Coast summary ......................................................................................... 76
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Drawing conclusions</td>
<td>85</td>
</tr>
<tr>
<td>12</td>
<td>Further actions</td>
<td>91</td>
</tr>
<tr>
<td>13</td>
<td>Bibliography</td>
<td>93</td>
</tr>
<tr>
<td>14</td>
<td>Appendices</td>
<td>100</td>
</tr>
<tr>
<td>14.1</td>
<td>Interview Lists</td>
<td>100</td>
</tr>
<tr>
<td>14.2</td>
<td>Questionnaire to interviewees</td>
<td>103</td>
</tr>
<tr>
<td>14.3</td>
<td>Value Management Workshop agenda, list of participants, PowerPoint presentation</td>
<td>105</td>
</tr>
<tr>
<td>15</td>
<td>About the authors</td>
<td>125</td>
</tr>
</tbody>
</table>
Table of Figures

Figure 1: Continuum of Urban Themes and Styles.................................................. 15
Figure 2: Components of a sustainable region....................................................... 16
Figure 3: World population growth over time......................................................... 17
Figure 4: Household and Family Projections, Australia, 2006 to 2031................... 20
Figure 5: Australian states and territories, share of population, 1982 and 2011 ...... 23
Figure 6: Ratio of Australians turning 65 to those turning 18, per cent ............. 26
Figure 7: Map of the United States locating case study areas.............................. 30
Figure 8: Map of the Australia locating case study area........................................... 30
Figure 9: Linkages of stakeholders, Ballarat, IBM and the Victorian Government ...... 51
Figure 10: Sippy Downs Town Centre Master Plan.................................................. 64
Figure 11: Market movements along the Sippy Downs Town Centre ............... 66
Figure 12: Hierarchy of factors important to the key worker .............................. 73

List of Tables

Table 1: The Five Generations.................................................................................. 24
Table 2: Comparative population and densities of study areas ......................... 31
Table 3: Population and selected ratios ................................................................. 54
1 Introduction

The State Government’s ‘Smart Communities’ initiative recognises the fundamental links between economic development, people and place, and the leadership required to draw those together in the contemporary, knowledge based economy.

Subsequent to commencement of that initiative, significant work had been done, and continues to be done, into knowledge cluster developments in Brisbane, on the Gold Coast and Sunshine Coast and in Townsville.

The integration of all of these components is fundamental to any economic, social and community success within a region.

Sometimes from quite small beginnings, knowledge communities and clusters establish themselves and begin to grow organically, impacting various sectors across a region far wider than even the initial sector involved. University precincts and health precincts represent cases in point.

Work on economic development, particularly in the regional context, continues to involve all three levels of government, with a much more mature and sophisticated approach evident in many areas. Likewise, the land use and built environment (‘place’ broadly defined) is beginning to have a number of manifestations – around the tertiary hospitals in Brisbane and Townsville, at the Gold Coast University Hospital and the Sippy Downs precinct.

Whilst all of these are yet to mature, they represent significant progress of which all parties – from the public to the private sector, can accept with considerable satisfaction. There is, however, some components that still appear to be under researched, without strong practical policy guidelines and adaption into the Queensland environment – both of Brisbane and regionally.

In the first instance, the true commitment of the private sector is critical. This is made attractive by regional comparative advantages, sound returns and manageable risk. Investment by the private sector is fundamental (both in terms of built assets and equity, debt or venture capital) in establishing and operating the companies in the precinct or region. Nothing is sustainable without that.

Secondly, and equally important, is the physical, social and institutional environment that will attract, hold and nurture, as well as widen and deepen, the base of key workers. Competition is now largely in sectors producing ‘weightless’ commodities and the critical challenge is how to energise those key workers to maximise output.

This in turn will provide multiplier effects on private sector profits and the optimisation of public and private sector investment. The increase in regional product will in effect translate to regional prosperity and social stability.

Such initiatives are about innovation and incremental adjustments, however significant capital investment is essential to see long term, impacting, change. As exemplified by Sippy Downs, sustainable strategies rely largely on organic growth around primarily
(normally existing) public investment and infrastructure, but all within a quite different and evolving economic, social and workforce environment.

Whilst these will have obvious local characteristics and nuances, it would be argued that the fundamental strategies for the development of resilient networks and relationships - transferable between regions, could be applied to new businesses/clusters, as well as those in transition.

This report addresses that perceived gap.
2 Objectives

The objectives of this research is to provide an evidence base for policy development and practical guidelines that can be adopted in various parts of Queensland to:

- understand the impact/importance of knowledge to the economic growth of regional communities and the role of locally grown businesses.
- explore the nature of the professional and social networks associations, goals and aspirations that will retain key employees ('leaders and knowledge workers') long term.
- understand how, once established, clusters and communities can best develop and grow.
- in the particular case of Sippy Downs, build on recently completed 'place' planning and to add to it attraction and retention strategies for key workers, with a view not simply to assist that locality, but to provide a case study for other locations.

In all of these areas, it is obvious that Queensland starts from a fairly low base compared with many other regions around the world. Nevertheless, many of those have developed such clusters and attracted those key workers over a relatively short period of time.

Like those, Queensland and its regions cannot now wait only for organic growth, but must have mechanisms to attract those key workers, clusters and innovators, and use them to seed further development.

Clearly a partnership approach is required between the various levels of government, universities, business groups and others.

This work aims to inform and assist in the development of a new and much more sophisticated network approach to regional development, properly linking teaching and learning and research with a range of stakeholders. Without the attraction and retention of key groups within the workforce, no strategy will resonate or prove sustainable in a regional development context.
3 Methodology

The methodology proposed involves three main parts.

A research base: Primarily a research base was established based on a literature review and summary of published material on the topic (noting that whilst a reasonable research base is available, this is almost exclusively international, and the translation of this into the Australian environment will be an issue and parameter).

Case studies: As a result of other research investigations, three United States case study regions were visited and analysed. These were: Portland, Oregon; Boulder, Colorado and Clemson, South Carolina. [These case studies were undertaken separately and at the expense of the University of the Sunshine Coast as a direct contribution to the project.]

These case studies were chosen on the basis of the transformational nature of their regional economies over the past decade and, with that, their need, now successfully fulfilled, to attract new types of workers, and to partner with universities and others to sustain and organically grow their communities. These characteristics fall into groupings established under the Queensland Government’s Smart Communities initiative.

An Australian case study, Ballarat, Victoria was also investigated, due to the relevance of the region to the current work. This case study city and region was visited by the researchers, with key informants from local government, academia, and business leaders interviewed, to gather their insights and perceptions on the region in its current state. A total number of 27 individuals were interviewed for these case studies.

Value Management Workshops: Based on the research base and case studies, two separate Value Management Workshops were undertaken, one on the Sunshine Coast and one in Brisbane. These workshops were facilitated and drew together people from Queensland and interstate comprising some of the most experienced academic representatives in these matters, as well as business and community representatives. A total number of 15 individuals participated in the workshops exclusive of the research team.
4 Underlying drivers

In previous reports undertaken by the research leader and as identified in a range of supplementary texts, there are a number of key drivers that produce and direct change across Australia’s national and regional economies and, in parallel, into the global environment.

Details of these are contained in references attached to this research and some are elaborated upon in Sections 5 and 6 of this work. By way of summary, however, the following observations are made regarding these underlying drivers.

4.1 Demography

There is a tendency amongst politicians, policy makers and economic development agencies to commence with observations regarding demography and the characteristics of the existing and likely future residents of a region but to fail to really understand the implications of that data and to use it as the basis for economic development strategies. Whilst these matters are complex, in every case the decision to invest or to locate are personal ones, centred on the individual and/or their family group. Consequently, an understanding and true appreciation of those influences and characteristics of existing populations and those to be attracted are critical if such policies are to prove sustainable.

In this regard too, this research would observe that too much emphasis is placed on raw numbers of regional population and population change. Of equal and arguably of greater importance, the level of participation and the productivity of workers need to be considered in assessing current performance and future prospects.

4.2 Business change, globalisation and ICT

The fundamental restructuring of Australian industry is well recognised and recorded – led by the rise of service and knowledge industries, the demise in many areas of traditional manufacturing, micro-economic reform and the deregulation of markets (particularly labour markets). The effective globalisation of world markets facilitated by near instantaneous communication has also been fundamental to that change. In SME-based economies, such as those in regional Australia, there remains an often latent opinion that localised markets are in some way immune from those prevailing forces. The continuing impact of the Global Financial Crisis (GFC) is perhaps changing that opinion but business and local communities need to be convinced of the obvious advantages that lie in the new environment. Businesses are no longer locationally bound and the obvious lifestyle advantages, with immediacy, presented by regions such as the Sunshine Coast, represent real opportunities that were previously dominated by city-based corporations. Innovation in product and service and the
combination of ICT with human endeavour represent business avenues now open to local firms equally as those located practically anywhere else on the globe.

4.3 Social capital

The intellectual property that is the basis of most leading edge company businesses aligned with the activity of individual workers and groups in the development of often weightless products. As part of this workplace dynamics the interrelationship between different generations of workers has become a new aspect of business strategies and practice.

The emergence of these trends have been reinforced by the attitude, perceptions and aspirations of new generations now entering the workforce and also because the medium used in business (the internet in its various guises) also functions as the primary communication linkage in a social and community context.

Business groups and new workers merge with ‘traditional social tribes’ largely replacing traditional ‘community’ organisations. The underlying philosophy is certainly not new, only the facilitating technologies and their applications have changed.

These observations are particularly important areas attempting to attract new enterprises and targeted workers. As in urban development, in undeveloped countries, the migrant labour is more likely to settle in a region where they can easily establish links with familiar groups and networks.

Populations particularly in Australia are traditionally migrant and transitory in nature. The development of strong social capital, hubs and networks are important. (Related to this is the mono-cultural nature of the Sunshine Coast community compared with competing regions. In the future and in a more globalised environment, such characteristics may prove detrimental to growth and remedial action needs to be considered.)

4.4 Place, built form and urbanisation

The matters of place, built form and urbanisation have been researched in previous projects between the Department and this University. Suffice to say however, that regardless of globalised markets and instantaneous communications place still matters but now in quite different ways.

Almost counter intuitively, those involved in knowledge intensive activities (those who produce largely weightless commodities) find face-to-face meeting and work both in groups/teams and in private essential in the production process.

Real property and precincts can provide an environment conducive to the creative process providing an adaptable platform for business — a physical manifestation of the style and image of the company to employees, customers, and wider community alike.
New generation firms often have a different approach to the built environment as outlined in the continuums presented by Montgomery (2008) as shown in Figure 1.

![Figure 1: Continuum of Urban Themes and Styles](source: Montgomery J 2008 unpublished)

Under these scenarios too, firms become ‘global and local’ in approach intensely involved and interested in their immediate surrounding and precincts and the facilities, amenities and comfort that comes with that. At the same time, they recognise the importance of conductivity to their markets/clients who may be anywhere in the world and demand that accordingly.

### 4.5 Regions

The advent of Keynesian economics has forced an aggregate (macro) approach which establishes the pre-eminence of ‘national’ economies. Nations and indeed (in Australia) states are political descriptions. In economic reality Australia is made up of approximately 65 quite distinct regions defined by economic, interest, geographic and natural boundaries and character and evolving over time, commonality in business and economic activity as competitive advantages are recognised and exploited. The nation, economically, is therefore the aggregation of these quite distinctive regions, and as now in national state policy, initiatives to support sustainable economic development must be based regionally, reflecting on those physical, economic, demographic and community strengths and weaknesses unique to that area.

Within that diversity, however, research would hold that there are a number of key characteristics that determine the sustainability (broadly defined) of any region. They are outlined in Figure 2 below and for the Sunshine Coast region are elaborated upon in Section 10 of this report.
Components of a contemporary region that works, grows and is ‘sustainable’ (broadly defined):

1) Accumulates core competencies
2) Attracts and holds private investment and venture capital
3) Develops social capital
4) Builds and supports strategic leadership
5) Manages and uses resources efficiently and effectively
6) Has a clear identity – ‘offer’; ‘build the brand’; single voice
7) Builds and shares market intelligence
8) Provides strategic infrastructure (prioritised on strategic needs)
9) Avoids wide disparity across region
10) Develops an (economic) risk management strategy
11) Incorporates / in-builds sustainable principles positively as part of the offer
12) Puts a sharp, contemporary edge on existing mainstream planning
13) ‘Local – global’ approach
14) Questions a strategy based on a sectoral development approach (or is the task to ‘set the generic environment’?)
15) Base it all on facts and research not ‘yesterday’s war stories’…let go!

Figure 2: Components of a sustainable region (Stimson and Mitchell 2007, modified)

4.6 Institutional leverage

Regional economies in Australia and most OECD countries are based on small to medium enterprises, which while often fast moving, innovative and entrepreneurial, are not in a position to act strategically in the wider interest of the region. Consequently, (particularly again in the Australian context) the role of the government and institutions in providing leadership and critical mass is essential. In all cases investigated, government incentive and support schemes and an increased proposition of government employees in a region were important. However in terms of economic impact and multipliers, leverage available from institutional investments is critical.

Those investments can take a number of forms – new infrastructure (water, power, ports, rail, roads or similar). However, for most regions, immediate and longer term impacts typically derive from health, services, (particularly major teaching and research hospitals) and educational institutions (particularly universities).

Securing maximum benefit from these investments however is not inevitable and will require specific initiatives from local councils and business groups to ensure access to construction and later services. For universities as well it requires a customer focussed and regional approach to ensure the current and future skills emanating from such projects are provided locally.
5 About the demographics now and into the future

Demography is the study of populations and population characteristics; charting human existence and interactions, economics, urbanisation and community. It tells a story of change and evolution.

5.1 The historical and global context

Notwithstanding the importance of technological advances, much of human history has been determined by, and still is determined by, demography. For centuries (though largely unknown to the western world at the time) the huge nations of China and India dominated and, even today, the four most populous nations – China, Indonesia, India and Brazil, make up 40 per cent of the world’s Gross Domestic Product (GDP). Even the position of the United States, as the dominant world economic power, is based not simply on its undoubted wealth and knowhow, but also on its large scale, skill base and the comparative youth of its population – all demographic characteristics (O’Sullivan 2011).

Since the time of Thomas Malthus (1766 to 1834), and reinforced by the observations of the Club of Rome (1968) and others, demographic and population growth have been considered as an inevitable threat that would result in near certain calamity. Those fears, of course, had an evidence base and theoretical underpinning current at the time. In a little more than a century, technological and scientific advances, particularly in medicine and food production, for all of their positive impacts, have also enabled the unprecedented growth of the human race, accompanied by population projections that appear to threaten both the species and the planet (see Figure 3).

![Figure 3: World population growth over time (Klemke, 2009)](image-url)
However, as if to highlight the risk in simply accepting projections, Pearce (2010), puts forward a detailed, researched view that would indicate a rapidly changing scenario whereby, come mid-century, world population growth would actually start to fall for the first time in 700 years.

Pearce’s well-founded projections – based on increasing affluence and education, improved family planning in the developing world, ageing populations in the advanced economies and in China (due to the outcomes of the one-child policy) – dramatically challenge the ‘never-ending growth’ scenario postulated over recent years.

Positively too, it would be hoped that advancement in technology, a wider appreciation of sustainability and much more urbanised communities will improve the capacity of many countries not only to sustain their populations but also to enhance overall living standards. Finally, in considering demographics in a national and regional context, the almost migratory nature of the human species needs to be recognised, with over 200 million people worldwide living in a country other than that of their birth. The current worldwide drift to urban centres and the internal migration to ‘sunbelt’ locations across much of Europe, North America and Australia provide contemporary examples.

Some seven million people have migrated to Australia since 1946 and, at a much more local level, the average mortgage in Australia lasts for only eight years – reflecting in part, the natural churn as households change, not simply in location, but also as a result of changing household demands and aspirations (ABS, 2010b, ABS, 2010).

It is critical that this overall natural, almost inherent volatility be accepted as part of the backdrop of demographic studies.

5.2 Components of population demographics

Since the 1980s, net overseas migration has overtaken natural increase as the major contributor to Australia’s population growth. For the last 25 years, Australian government immigration policy has been directed largely at increasing skilled labour supply and economic growth. While this growth accelerated to 2008, its sustainability at this level had come into question at national, state and local levels. In early 2010, the Australian Government tightened eligibility requirements for temporary entrants (OESR, 2011f).

Migration flows are highly responsive to changes in global economic conditions and immigration programs. This is already apparent in Australia where the record levels of net overseas migration recently experienced have slowed as a result of the Australian economic situation tightening and the implementation of changes to temporary entrant requirements as noted above.

Most of the growth in net overseas migration over the last ten years has been in the ‘temporary’ immigration categories. Temporary migration contributes to Australia’s population growth in the long term as well as the short term, as overseas students and
skilled temporary migrant workers obtain permanent residency during their time in Australia (Productivity Commission, 2010).

As well as the increase in numbers of net overseas migrants, Australia appears to be in the midst of a mini baby boom (ABS, 2011). If this trend continues, then population projections would need to be revised (Taylor, 2011). Nevertheless, expert statisticians do not consider that a higher birth rate and varying migration levels will change the inevitable ageing of Australia’s population (OESR, 2011a).

Not only are the nation’s birth rates increasing, but the standardised death rate is the lowest on record. In Australia, death rates have been declining over the last 20 years, and as a result life expectancy in Australia is one of the highest in the world. The latest available data from the ABS indicated that, in 2009, the standardised death rate was 5.7 deaths per 1000 people. This is a significant change when compared to data from just 20 years earlier in 1989, where the rate was 9.1 deaths per 1000 people.

As noted by Banks (in Productivity Commission 2010):

\[
\text{In sum, realistic changes in migration levels are unlikely to make a substantial difference to the age structure of Australia’s population in the future, and any effects are likely to be temporary. Realistic changes to fertility could have some effect in the long term, but the proportion of older Australians will still grow from current levels. Increased longevity (a desirable trend!) is the dominant force.}
\]

5.3 Demographic profile components (age/longevity; wealth)

5.3.1 Household structure

Household structure is changing. The dominant household type in Australia has been the traditional family structure – that is, dad, mum and the children, however the changing demographic make-up of Australia’s population will see an increase in the single person household over time. This of course has significant implications on the sort of dwelling types that may be required in the future (Barker 2011).

As illustrated in Figure 4 below, the size of Australian households has been decreasing since the early 1960s and this trend is projected to continue.
5.3.2 Household wealth

Australia is a wealthy country, however, according to the Australian Bureau of Statistics (ABS 2011a), this wealth is increasingly distributed in an uneven pattern across different sectors of society.

The wealthiest 20 per cent of households have increased their average net worth by 15 per cent since financial year 2005 to 2006 (Consumer Price Index (CPI) adjusted), while those in the lowest wealth quintile saw only a 4 per cent rise of net worth over the same timeframe (Department of the Treasury 2010).

These wealthy households had an average net worth of $2.2 million per household or 67 per cent of total household wealth, whereas the lowest quintile had an average net worth of $32 000 or 1 per cent of total household wealth (ABS 2011a).

Analysis by the Australian Bureau of Statistics (2011a) concluded, however, that high net wealth was a reflection of the fact that wealth accumulates with age, with full ownership of the family home one of the most significant assets in high net wealth households. This was further compounded by the fact that most household wealth was concentrated in metropolitan areas, where house values tended to be higher on average than those in regional or remote Australia.

Other findings in the Australian Bureau of Statistics report (2011a) included the following:

- The average wealth of an Australian household was $720 000, an increase of 14 per cent over the last four years.
- For those households with a mortgage, the average value of the home was $521 000, with the average mortgage outstanding $188 000, leaving a net home equity of $333 000 or 63.9 per cent.
- One fifth of households owned other property besides their own home, such as holiday homes or rental properties.
- Superannuation was the other main asset class and was held by three quarters of all Australian households. The average value of superannuation was $154,000; however, for half of these the value was less than $60,000.

- The wealthiest households consisted of couples in the age cohort of 55 to 64 years.

This emerging cohort of seniors will be the wealthiest generation of Australians ever encountered. Put another way, this group of Australians (aged 45 to 64 years in 2010), comprise one quarter of the population and hold half the nation’s total household wealth.

However, household wealth does not always correlate with household income, as those who have accumulated wealth over a working life will use this wealth during retirement and will consequently record a lower income. Of those households that have a low income, but high net worth, many are able to continue their consumption of goods and services at a level not possible from their income alone (ABS 2011a:11).

In 2010, the Commonwealth Bank of Australia (CBA) in its Viewpoint Report (2010) noted the following income and expenditure trends:

- The 25 to 34 year cohort had the lowest increase in spending levels at, on average, 2 per cent below the rate of inflation.

- Those people aged 35 to 44 and 45 to 54 years had the highest monthly incomes and the highest expenditure. Real income growth in these cohorts was 2.8 per cent and 3.7 per cent respectively.

- The highest level of income growth recorded was in the 55 to 64 age cohort at 6 per cent.

Projections, as previously discussed, are based on assumptions – if the assumptions change, then the future will be different. Recent trends indicate that more people are staying in the work force and putting off retirement for a variety of reasons, with the percentage of people over 55 in the paid work force rising from 24 per cent in 2000, to 34 per cent in 2010 (Department of the Treasury 2011).

Added to this, Australian Government policy is to gradually increase the age pension qualifying age to 67 for both men and women between 2017 and 2023, resulting in more people in the workforce for longer (DEEWR 2011).

### 5.3.3 Dependency ratios

Dependency ratios are seen as a proxy for the portion of a population that is composed of dependents, that is, people who are considered (for statistical analysis purposes) to be too young or too old to work. Currently (2011) in Australia those aged 15 and younger and those aged 65 or older are excluded from labour force calculations.
Dependency ratios therefore need to be analysed to understand the factors that impact upon them. A high dependency ratio can indicate a population with a large proportion of children, just as much as a population with a large proportion of retirees.

As already noted, coastal populations in Australia have significantly increased in recent decades, due to a growing emphasis on the pursuit of leisure and quality of life and the resultant aspiration to live in regions that can offer high amenity and the provision of these lifestyle factors. These regions, often termed ‘sunbelt’ regions, are also a more attainable place to live than in the past owing to the changing nature of employment and ‘work’. Australia, as with most developed nations, has undergone a change in processes of production, allowing people to move away from the old industrial centres and focus on knowledge and skills rather than labour and heavy manufacturing (Taylor 2011b).

5.4 **Migration trends**

Migration has historically played a major part in the development of Australia as a nation, and the majority of Australians are migrants or the descendants of migrants (DFAT 2008). In recent years, net overseas migration has become the largest component of national population growth (Productivity Commission 2010).

Most migrants to Australia settle first in one of the major cities – Sydney, Melbourne and Brisbane being the most popular. From there, some of them relocate to other regional destinations, although the majority choose to remain in major metropolitan areas. Most migrants to Australia are aged in the 24 to 29 year age bracket and have skilled working visas (ABS 2010b).

Within Australia, interstate migration plays an important part in the distribution of the population. As with overseas migration, those that have the highest propensity to move are aged in the 25 to 29 year age bracket (ABS 2010b).

New South Wales, Victoria and Queensland together comprised close to 80 per cent of national population growth over the years 2000 to 2010. This equates to an average of just over 250 000 extra people per year for these three states, compared to only around 70 000 per year shared between the other states and territories (OESR 2011f)

Those aged 60 to 64 also tended to move more than other age groups in the Australian population, but tended to do this within the same state (intrastate migration) (ABS 2011b).

Data released by the Department of Health and Ageing indicates that most of those people entering retirement will choose to ‘age in place’, meaning that they will continue to live in the family home. However, of those that choose to relocate, the majority will move to coastal destinations that offer a certain lifestyle amenity (DoHA 2009, Salt 2009)
5.5 Five generations

An underlying characteristic of the contemporary and future workforce is that it contains, depending on the theoretical base accepted, four or perhaps five generations of workers.

Even a generation ago, in the whole of the community, there were effectively only three generations – the young, dependent because they were pre-school, school or students, the workforce (including spouses, many of whom were engaged only in domestic duties) and, thirdly, the retirees.

This has fundamentally changed because of rapid waves of technological and social developments, together with the improved health and longevity of older community members who, for self-interest, self-fulfilment or financial needs, are likely to work longer. The five generations now often recognised by demographers are:

- traditionalists – born before 1946
- baby boomers – born between 1946 and 1964
- generation X – born between 1965 and 1976
- millennial – born between 1977 and 1997

Meister and Willyerd note that fundamental to the development of workforces at firm or regional level is the need to understand the generational balance that is emerging and needs to be maintained, the distinct characteristics of each generation, the ability to communicate effectively to secure their support within a firm or region, and to have strategies that ensure that the five groups do work constructively together, including the millennial who are yet to join the workforce at this time.

Table 1 below summarises some of the main characteristics and differences between these generations.
Table 1: The Five Generations

<table>
<thead>
<tr>
<th>Generation</th>
<th>Major Influences</th>
<th>Broad Traits</th>
<th>Defining Invention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditionalists</td>
<td>World War 2, Cold War, Korean War, rise of suburbs</td>
<td>Sacrifice, loyalty, discipline, respect for authority</td>
<td>Fax machine</td>
</tr>
<tr>
<td>Major trait: loyalty</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baby Boomers</td>
<td>Watergate, women’s rights, Woodstock, JFK assassination</td>
<td>Competitive, sandwiched generation, hard work, long hours</td>
<td>Personal computer</td>
</tr>
<tr>
<td>Major trait: competition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation X</td>
<td>MTV, AIDS, Gulf War, 1987 stock market crash, fall of Berlin Wall</td>
<td>Eclecticism, self-reliance, free agents, work/life balance, independence</td>
<td>Mobile phone</td>
</tr>
<tr>
<td>Major trait: self-reliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Millennials</td>
<td>Google, Facebook, 9/11 terrorist attacks, election of Barack Obama</td>
<td>Community service, cyber literacy, tolerance, diversity, confidence</td>
<td>Google and Facebook</td>
</tr>
<tr>
<td>Major trait: immediacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation 2020</td>
<td>Social games, Iraq War, Great Recession</td>
<td>Mobility, media savvy, life online starting in pre-school, reading books on e-readers</td>
<td>iPhone apps</td>
</tr>
<tr>
<td>Major trait: hyper connectedness</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Meister & Willyerd 2010:54-55)
6 Economic development and the job market

The Australian economy cannot and should not compete globally on a cost basis, particularly in high-volume, low-unit-price and low-value-add product.

This implies that those areas where Australia is competitive now and into the future will be those where high levels of specialist skills (supplied by a highly trained workforce) will be the common characteristic of sustainable products and sectors. On the face of it, the mining sector represents an aberration to that proposal. However, apart from the remarkable competitive advantage provided by high-quality mineral deposits and Australia’s proximity to Asian markets, the mining sector exhibits similar characteristics. Here, the labour force is again remarkably small, the sector is labour intensive – in technology, machinery and infrastructure – and the additional ‘value-add’ comes from sophisticated design, operations and process engineering and innovation that drives the unit price down in sectors where, because of domestic cost structures, such product would not always be globally competitive.

It follows that the future economic prosperity of Australia and, in turn its regions, will rely on the attraction, aggregation and sustaining of required human resources (skills and people) to provide the core economic drivers and catalysts to change as cities, regions and firms seek out new opportunities in a quite different economic and social environment.

This is not an elitist approach nor is it confined simply to small-scale, niche, ‘knowledge’ firms or sectors. Indeed that line of strategy arguably misses the fundamental and holistic change that is required across a range of sectors and stakeholders, such as education and training, shifts in widespread community change, the development of networks, regional promotion and so forth. Certainly, exemplary, leading-edge firms, new sectors and high-performing organisations and individuals will excel, but the much more generic preparation of a region to be able to quickly seize future opportunities across a range of existing and emerging firms would be the main objective.

A robust and diverse workforce will be necessary, and that issue has to be considered in both the short and long term. Some of the issues to contend with are common to practically all regions, but each region also has its own peculiar characteristics, threats and opportunities in this regard. In all cases, however, the two key strategic themes are the impact of global markets (positive and negative) and the absolute demand for an innovative approach that, given the level of continuing change, will be quite different to that of the past. It might also be suggested that overcoming the inherent conservatism of business, educators and policy makers represents a very significant initial challenge. Without a change of thinking, however, the recent, often fortuitous economic successes of the Australian economy will not be optimised and, already, the lack of cascading positive impacts to the wider economy and into social and community development must represent a worrying development.
Given Australia's volatile commodity-based economy, there will always be periods of skill shortage, often concentrated in particular regions.

There are however wider market challenges that are not necessarily the result of insufficient labour but rather (as experienced in many contemporary sectors) the limited availability of individual who possess both key discipline area skills and knowledge underlying ‘tacit’ skills and know-how required to act in the contemporary, multi-disciplinary business environment (Johnson, Manyika & Yee 2005)

These issues within Australia and its regions are, in part, the cause for the alarming fall in labour capacity and overall productivity across the country.

Problems are now compounded as, notwithstanding other labour force demand changes, the first of the baby boomers have now reached retirement age. The effects of the Global Financial Crisis (GFC) on superannuation may slow that trend but the overall shift of that largest of all generations to a different employment mode represents a fundamental change that must be addressed (see Figure 6).

![Figure 6: Ratio of Australians turning 65 to those turning 18, per cent (Deloitte Access Economics, 2011)](image)

Traditional government responses to such labour/skills shortages are unlikely to have major impacts, particularly in the short-to-medium term. In the first instance, the new demands and changes that have to be facilitated are quite different from those of the past where, for example, skills required in Australia largely related to artisan and trade skills that could be easily imported from other countries — traditionally Europe and New Zealand but in more recent times from Asia, the sub-continent and, to some extent, the Middle East. Such direct and immediate solutions are unlikely given the complex and multiple natures of the skills now required. In any case, regardless of the economic argument that would hold that approximately 180 000 new migrants are required in Australia per annum, and that, typically, these have strong economic returns to the
country, the political nature of the immigration debate is unlikely to produce economically rational outcomes, even in the longer term.

Therefore, it will be left very much to regions, their own businesses, educational institutions and economic development agencies, to provide innovative solutions that not only address the current and upcoming skills shortages in a way that is particularly relevant to that region but, in fact, if properly addressed and promoted, could of themselves become an attractor of labour to the region.

Deloitte’s (2011) report, recognising these fundamental issues, believe that they could be addressed based on the accepted theory of linking population, participation and productivity characteristics and initiatives, to help manage desirable workforce planning and outcomes.

As regards population, they observe that the gap in skilled labour that will potentially hold back the Australian economy and its regions for a decade to come will not simply be resolved by the evolution of the existing workforce. To address the upcoming highest ever ratio of job market retirements in Australia’s history, direct strategies to link undergraduates and graduates from universities and TAFEs to the workforce as soon as possible will be essential, not only matching education programs with the skills required, but also integrating workforce learning and, hopefully, adding to the retention rates of graduates in regional areas. Secondly, Deloitte’s note that the actual increase in the required skills may well come from those currently working outside traditional corporate areas or in that particular geographic location. Increasingly, the workforce may well be made up of those not only in Australia but also those offshore, where established links between the region and the providers of remote/outsourced, lower-skilled support may well assist the commercial advantages that do exist in the home region. Finally, in the general strategies pertaining to population growth, a particular region may better organise and facilitate visa applications and relocations of international employees, who would not only bring these new skills to the region, but address the serious mono-cultural characteristics in many regional areas.

As regards participation initiatives, Deloitte’s note again that a simple extension of existing trends will fail to address upcoming issues. Critical amongst those are a better recognition of the age dynamics of the workforce, now and into the future, where access to mature workers (particularly those entering the 55-70 year age group) represents a massive, untapped source of productive capacity.

Particularly, the increase in the number of females in the workforce and changing attitudes to full-time paid and voluntary work, changing family composition, social commitments and the accommodation of part-time employees, needs to be addressed in a much more sophisticated way.

Strategies that entice the required workers from other regions, either within the home state or from interstate or New Zealand, may also offer excellent, cost-effective opportunities.

Many potential workers are overlooked. These include individuals already in the region but who are underutilized, firms where skills development could be beneficial, and
workers in occupations that could be encouraged to work longer hours. Such incremental changes to the workforce represent real, low-cost and sustainable options.

Finally, as regards productivity, the current and frequent practice of redundancies and related dislocations represent a very substantial economic loss to firms, regions and the country. At times, productivity can be increased by improved systems without increasing the number of staff. Additionally, many businesses overlook the enormous potential within their own existing staff. Development and retraining programs within firms and within regions represent a quick, relatively easy and cost-effective way of increasing productivity and aligning new business output with changing opportunities.

The current situation and scenarios into the future will demand different approaches by employers and governments alike, as reinforced by Meister and Willyerd (2010), the Deloitte’s report and numerous other commentators. The new organisational environment will be one based on personalised social experience and, for all regions, must attract, develop and engage employees from all generations and all geographies.

The new organisational environment consists of:

- for the first time, four – and arguably five – generations within the workforce at the same time
- each new group entering the workforce is arguably more familiar with the technologies to be used and addresses them in a much more seamless, integrated, talent-oriented form than those who actually own the businesses and technologies
- technologies (both in a social and work context) synchronously enabling both colleague and collaborator, where success is linked to human resource and social issues. Individual groups and communities as a whole are now able to put pressure on organisations and governments to be socially and environmentally responsible.

This is very much a long-haul, inter-generational issue, at least in part forced by ageing and shrinking workforces in many OECD countries as the baby boomer generation (fully 25 per cent of the Australian workforce) move into a retirement or partial retirement phase. Now, many jobs can be done from anywhere in the world and perhaps are best located in other nations (Friedman 2008), however the nature and success of those jobs that remain are still capable of ensuring a vibrant business sector (based on specific discipline knowledge and intellectual property, combined with tacit underlying business skills and social acumen that transcend a single discipline).

Two other features linked to current demography considerations are the importance of social networks and the wider implications of a vibrant and relevant education sector.

The importance of ICT and new communication networks were established in Section 4 of this work, as the fundamental asynchronous approach to communication that flows across business and social/community environments. Successful regions in the future will particularly accommodate these new communication channels, using them in a strategic alliance rather than considering them some sort of threat or diversion.
Finally, there is a multiple role for higher education institutions in their link with target demographic groups. Not only are they the primary source of professional skills and development, they also provide important networks through alumni, provide a research facility and allow for professional upgrading and retraining. Their commercialisation facilities should also provide an important link between the academic and business sectors and the professionals within both.
7 Case studies

Regional transformation does not occur immediately or by way of changing a few variables. It is a process, nurtured with time, supported by policy, led with vision and accepted by the community.

Building on comparisons is a local economic development planning tool.

By way of illustration, four case studies were chosen to draw from the understanding gained of these regions on both how knowledge attraction initiatives had developed, and the support that the local university had provided. Three of these regions were from the US (see Figure 7) and one from Australia (see Figure 8). The key criteria in choosing these case studies was the reputation of the region in attracting 'high value' workers, and the key role the universities, in partnership with the local government, had played.

Figure 7: Map of the United States locating case study areas

Figure 8: Map of the Australia locating case study area
The discussion of the case studies is presented first with a brief description of each regional location, physical attributes, and relevant historical information that has led to the changes that have occurred over the past decade.

As mentioned in the methodology earlier, interviews were undertaken with key informants from government, academics and business leaders on how they perceived their region and to whom and how they would credit its success. The interviews were semi-structured, conducted face-to-face and lasted approximately one hour each. The interviews took place over the period June to September 2011. The questionnaire that was provided to the key informants prior to each interview is provided in Appendix 14.2.

Further desktop research was undertaken to verify some of the leads that were provided in the interviews, so as to provide a more detailed understanding on the various topics covered.

From these case studies, information was gathered on how each community took advantage of their respective strengths, built on them and created new avenues to spark changes to become the region they wanted to be.

Representatives from each region admitted that they were a work-in-progress, but that nevertheless the foundations of change had been laid. The Sunshine Coast, Sippy Downs case study, discussed in detail in Section 8, could learn from these case studies.

Table 2 below provides a quick comparison of these regions to provide the reader with some scale of the case studies discussed and some relativity compared to the Sunshine Coast region.

<table>
<thead>
<tr>
<th>Population densities, Various regions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (2010)</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Portland, Oregon</td>
</tr>
<tr>
<td>Boulder, Colorado</td>
</tr>
<tr>
<td>Clemson, South Carolina</td>
</tr>
<tr>
<td>Ballarat, Victoria</td>
</tr>
<tr>
<td>Sunshine Coast, Queensland</td>
</tr>
</tbody>
</table>

(Source: US Census Bureau 2010, OESR 2010a)
7.1 Portland, Oregon ‘A sense of place’

Portland, Oregon has often been cited in lectures, conferences and workshops by academics, planners and government agencies as a city that ‘works’ with its efficient transportation system, well laid-out city, beautiful surrounds and as a top choice for people to live and work.

This endorsement was worthy of investigation considering that the size of the population of Portland is about 500,000.

7.1.1 Local economic context

Portland is located in the north-west of the US along the Pacific Ocean coastline. It is the capital of the state of Oregon which is located between the states of California to the south and Washington to the north.

Incorporated as a city in 1851, Portland is home to 583,776 residents (US Census Bureau 2010). It was well known for its port and ship building in the early 19th century due to the city’s location and access to the Pacific Ocean through two major rivers – the Willamette and the Columbia.

Portland is well known for its strong land use planning, its public transportation facilities and networks, particularly light rail. Portland’s environmentally friendly attitude has ensured that it has been known as one of the greenest cities in the world. In 1973, the state of Oregon delineated an ‘urban growth boundary’ (UGB), limiting the development of large scale development in rural and farming land. This boundary demarcated the extent of the provision of utilities (water, sewage and telecommunications) and services (fire, police, schools and so on) to within the UGB. Very strict restrictions were also placed on what could be developed on non-agricultural land and this led to the development, and redevelopment of Portland’s urban core. The setting of the UGB was more of a political decision, rather than a technical decision, and its rigidness only became binding in the 1990s (Richardson & Gordon 2004). As a result land speculations beyond the UGB were not as low as expected. In 2007, the original legislation was revised to further accommodate within the current UGB another 50 years of growth.
Supporting the land use planning was the high level of transportation alternatives available to commuters. In 2008, more than 12 per cent of the population commuted using public transport. The most notable amongst these is the MAX (Metropolitan Area Express), a light rail system which connects the city to the suburbs. Within a designated area in downtown is a Free Rail Zone wherein commuters can ride for free on the MAX and streetcar systems. Two streets in the downtown area (Fifth and Sixth Streets) are devoted to bus and light rail transit, known as the Portland Transit Mall, where private vehicle access is limited. Currently, an aggressive expansion program is underway for the light rail system.

The adopted light rail, like most policies, has remained controversial. Transit-oriented developments (TODs) appear to have been subsidised by the Portland Government, as local developers claim that there was no market for such developments (O'Toole 2011b). Parking seemed to be a major issue. Limited car parking was provided in these TODs, so much so that the current development has experienced three successive developers going bankrupt and other investors suffering a high vacancy rate. O'Toole (2007) has provided strong documented evidence for these arguments and has criticised the failure of Portland in providing sustainable developments through the Cato Institute (O'Toole 2011, O'Toole & Cato Institute 2007).

Non-motorised movement is also highly supported in Portland. One in every 12 commuter’s bike to work – the highest ratio in any major city in the US and about 10 times the national average. Pedestrian safety over design elements and features, and the encouragement of walking to the transit station, has witnessed the ranking of Portland in 2011 to number 12 amongst the top 50 US cities in terms of walkability (Weinstein et al 2008, Walk Score 2011).

### 7.1.2 Strategic approach of Portland Development Commission

The Portland Development Commission (PDC) was created in 1958 as a semi-public agency that serves as the city’s urban renewal and economic attraction agency.

One of the commission’s well known re-development projects is the River District (Pearl District), located in the inner city of Portland. In 1998, the transformation of low rent buildings into an attractive high density neighbourhood began, eventually creating a 24-hour city environment utilised by a diverse mix of residents and business alike. The PDC works with major local developers to create large scale projects, with a mix of multi-family housing, major office facilities, retail areas and public spaces that were safe and attractive for residents, employees, and visitors. The main issue for the PDC was to preserve the traditional character of the place, its social diversity and the varied businesses that operated within.

The PDC has developed into an interesting role. The commission provides a leadership function for business retention and expansion, and a diversification of business and employment opportunities. The PDCs main task is to support specific ‘flagship’ type projects which others could refer to in the future as exemplars.
While the PDC seeks to increase economic opportunities, the agency is 97 per cent supported by urban renewal funds.

Portland's economy has long relied on the steel industry and as a shipbuilding centre similar to Seattle during World War II. Part of that industry's requirements was navigational equipment and other 'techtronics', which were manufactured and supplied to the military. This know-how led to the spinoff of *Intel* in the early 1980s, the largest semiconductor chip maker in the world.

*Intel* invested in chip making in Hillsboro, west of the Portland metropolitan area, and now home to many high technology firms. Portland then became part of the supply chain in the semiconductor industry, largely based in Silicon Valley in California, leading to the city's moniker 'Silicon Forest'.

The growth of the high technology industry saw an influx of young, creative, technology savvy individuals coming into Portland beginning in the early 1990s. At its peak, *Intel* was Portland's largest employer providing jobs for more than 15 000 people. Today, Portland is home to more than 1 200 technology companies. When the dot-com bubble burst in the late 1990s/early 2000s, a further in-migration by this creative population into Portland was experienced, due to the relatively lower cost of living compared to the neighbouring cities of San Francisco and Seattle.

Portland's growth saw it change from being parochial to developing its own identity and then as an attractor to this a creative group.

> ‘It's amazing how people in their mid-30s are coming to Portland with nothing but a car full of belongings and with the prospect of being able to establish themselves here. Others would say it is similar to Pittsburgh, Pennsylvania (because of the similarity), but Pittsburgh is now stagnant and not as edgy, or creative in character as Portland’.

PDC Senior Manager

Portland recognises that it is not set up to serve all types of people (i.e. highly paid professionals in Washington with a low personal tax). Portland is positioned for high tech manufacturing, high value adds, and R&D designs.

Portland's politics help to maintain a coalition between city and suburbs on key issues such as housing, transportation, economic development and equity among municipalities (Lang & Hornburg 1997). While Portland's urban growth strategy promotes liveability, it also promotes economic vitality.

The free market policies of the Reagan administration during the 1980s had a dramatic impact on the Oregon timber industry. It was obvious that the timber industry needed to diversify, and to encourage these companies were given tax credits and abatements to innovate into sustainable and renewable practices.

Policies to support the new direction were created for the following industries:

- renewable energy
- green buildings, and energy requirements
- clean technology
• solar
• athletic and outdoor (Columbia, Icebreaker, Nike).

It was recognised that a population of only 600,000 people was not enough for local policies to create a new market. Therefore, the policies were strategically directed towards creating a culture which embraced early adopters (i.e. those with an environmental ethos). These policies also ‘walked it’ and not only ‘talked it’ – thus the creation of Portland’s renowned lifestyle.

Portland policies and incentives also took advantage of the ‘cheaper’ lifestyle and set-up costs available in the city compared to neighbouring California. In California, these costs amount to around 25-50 per cent more.

These policies also focused on Portland’s locational advantage. Being in close proximity to Asian (Japanese, China) markets, Portland now has direct flights to the major cities of these nations, as well as into the well-known destinations favoured by this market, such as Vancouver, Washington or San Francisco.

The development of this market was supported specifically by the financial institutions of Portland, wherein they extended loans to Asian students (full fee paying students) to set up businesses, which in turn attracted further funding from their families and relatives from overseas.

Portland has positioned itself as the ‘jump off’ point to the rest of the US. In this way, investors wanting to tap into the US market can initially organise themselves in Portland, at a comparatively reasonable cost, before testing the rest of the US market.

European investment into Portland is moderate. These investments have primarily originated from Germany, Scandinavia (Denmark, Sweden), France, UK (particularly in business recruitment), Belgium and now Spain.

Economic development did not focus on clusters but rather activities. Innovation came from pilot projects, biotech industries, demonstration projects, green development projects, and numerous start-up companies from overseas who wanted to penetrate the US market.

The cluster groups were formed in ‘Centres of Excellence’ (CE) and housed in universities. These CE offer a discounted fee for service to external groups. Universities were funded by small grants and focused on R&D and the linkage of this to research and academia. Over time, the CE have become the state experts in fields such as:

• Wave energy
• Oregon’s best
• Nano technology.

The Portland Development Commission’s (PDC) role was to ‘grease the wheels’ and the commission’s strategic use of resources enabled the maximum leverage of the CE. For example, the commission focused less on incubators but more on catalyst activities, allowing industry to lead and the PDC staff following up with the ‘grunt’ work.
As far as PDC is concerned, the incubator is in the coffee shop, where wifi is free and everyone has a laptop.

The key focus for the commission now is on rural job creation.

Challenges include the influx of imports and a workforce that requires more training and education.

Aside from the new policies of government, the local community in Portland had a strong united voice on how their city and state was going to develop. Through the 1 000 Friends of Oregon, a private, non-profit organisation, works for the conservation of the State of Oregon's land and natural resources was passionately protected. The organisation was established in 1975 by Portland's then governor, Tom McCall and attorney Henry Richmond.

The strong influences of the community on how the region and its resources would be developed have seen legislative changes throughout recent years. The organisation's motto "Working Oregonians to enhance our quality of life" represents the groups influence on decisions related to transport links and planning, protection of natural resources and its use, land use, pedestrianisation of streets, air quality, objections against sprawl and protection of rural lands and many others.

7.1.3 Portland State University and its influence on the city

The influence of Portland State University (PSU) is widely felt throughout the urbanisation transformation in Portland. PSU has a 50 acre downtown campus — with the motto Let Knowledge Serve the City. The university’s central location places the students in a vibrant centre of culture, business and technology. This allows students to participate in internships and community-based projects in these fields as well as education, social services, and government.

PSU has a number of research centres and institutes. Of note is the Centre for Urban Studies, a research centre affiliated with the School of Urban Studies and Planning, part of the college of Urban and Public Affairs at Portland State University. The urban and regional planning research emphases are in urban policy analysis, which includes urban services, determinants of property value, transportation, regional development and economic analysis, geographic information systems, regional decision-making, solid waste, waste prevention, and recycling.

The discussion in this context looks at the effects of liveability on economic vitality. Urban studies professor of Portland State University, Carl Abbot, credits the tradition of progressive politics as an enabler of Portland’s unique governance over its regional growth and cautions its immediate replication in other areas (Lang & Hornburg 1997).

PSU first opened its doors as Vanport Extension Centre in 1948, moving to its current city location at South Park Blocks in 1952. PSU eventually received full university status in 1969. Today, PSU is an urban research university with student enrolments of about 30 000 students over 226 degree programs in eight schools.
Key lessons learnt:

- Long history, always aspirational ("the Garden of Eden at the end of the Oregon Trail")
- WW2 navigation was the start of technology (Intel chips)
- Fundamental importance of university – scale, interests, location, people
- Asian link versus other west coast cities (big neighbours in Seattle and California)
- Heavy concentration on tight urban frame
- Greenbelt
- Tight direction on urban growth
- Incorporating mixed use and affordability
- Use of light rail to create development lines
- Promotion of themed districts i.e. Pearl District
- Internal migration of young professionals ... and others!
7.2 Boulder, Colorado ‘The smart hippies’

Boulder, Colorado is seen as the ‘quintessential’ university town. The city is often ranked high in health, well-being, quality of life, education and art. It was intriguing to look into this area as a case study to discover the components that are behind this reputation.

7.2.1 Location and demographic context

Boulder is 40 kilometres northwest of Denver, the capital of the state of Colorado. It is located at the base of the foothills of the Rocky Mountains at an elevation of 1 655 metres above sea level.

The city is surrounded by more than 14 500 hectares of open space, purchased by local residents by fund raising through a special tax in 1967. This greenbelt belonged to the people (as compared to the state) and was used to contain urban sprawl and create areas of preservation, open space and natural conservation. It has served to enhance Boulder’s reputation for outdoor sports and recreation, such as hiking trails, biking, running and the like.

Other growth management strategies have included:

- 1959 - the ‘Blue Line’, which restricts water supply to altitudes above 1 750 metres
- 1972 - the building height restriction throughout the city to preserve residents’ views of the mountains, including those of the ‘Flatirons’ (the sedimentary rock face where the Rocky Mountains meet the Great Plains which has become the iconic symbol of Boulder)
- 1976 - a historic preservation code, among others.

In effect these policies have controlled the urban growth of Boulder city and five decades later the city has a high population density of 1 500 people/km2, not far behind the state’s capital, Denver, which registers about 1 510 people/km2.

Boulder City proper has a population close to 100 000 while the population of the Statistical Area is close to 300 000. Boulder's population is younger (median of 29 years) than that of the US (median of 35.1 years). This is due to the high proportion
of undergraduate university students which account for more than 30,000 of the population.

The city of Boulder is known for its liberal and democratic views and has often been referred to as 'The people’s republic of Boulder', maybe due to the high proportion of intellectuals in the city.

7.2.2 University of Colorado Boulder and its economic impact

In the mid-1800s, the city used to be a supply base for miners searching for gold and silver in the mountains and as such infrastructure services (railroads) and institutions (schools and hospitals) were developed to support their needs. It was a group of Boulder residents that lobbied for the University of Colorado to be located in their area in the 1860s. By 1874, Boulder had won that designation.

The University of Colorado-Boulder (CU-Boulder) is a public university and the flagship University of the State of Colorado. It is one of 34 US public institutions belonging to the prestigious Association of American Universities. The university has a tradition of academic excellence, and can boast of four Nobel laureates and more than 50 members in prestigious academic academies as past students or current/past staff (University of Colorado-Boulder 2011a).

CU-Boulder was first established in 1877 with 44 students and three teachers. Since this time the university has grown to encompass academic programs in the sciences, engineering, business, law, arts, humanities, education, music and other disciplines. The university offers 85 bachelor degrees, 70 master's degrees and 52 doctoral majors and employs just over 6,700 staff. Nearly 20 per cent (1072) of these are employed as research faculty.

The university is regarded as the pre-eminent public research university in the state of Colorado and is a Tier 1 US research institution, receiving more than US$340 million in sponsored research awards in 2009 (University of Colorado Boulder 2011).

The State of Colorado has 14 ‘four year’ colleges and universities, and over 470 institutions that provide higher education services, with a total student enrolment of around 400,000 in the state (Colorado Department of Higher Education 2007). CU-Boulder had nearly 30,000 students (FTE) enrolled in 2010, and of these, around 5,500 individuals were seeking graduate degrees (University of Colorado Boulder 2011).

The university is engaged in several ways with its community, and has as a core value commitment to put staff and student knowledge and discovery to use for the greater good. In 2007 it was one of three US universities/colleges to receive the Annual Presidential Award for general community service (University of Colorado Boulder 2011).

The Outreach and Engagement department of the university is focused upon developing partnerships with the community, schools and teachers. Through programs such as those outlined above, and a dedicated website, http://outreach.colorado.edu/, the university aims to connect various programs with those that wish to access them,
hoping to form a hub for the university’s outreach activities across Colorado and elsewhere (University of Colorado Boulder 2011b).

The university is a major economic driver for Colorado, not only as one of Boulder County’s largest employers, but also directly impacting new business development through various collaborations as outlined below:

- US$60 million generated in intellectual property revenues through technology transfer operation between 2003 and 2008 – with strong pipelines in biosciences, aerospace, renewable energy, and nanotechnology.
- Training of a highly skilled Colorado workforce, with well over 6,500 degrees awarded each year and more than a third of all the doctoral degrees earned in the state.
- A long history of successful collaboration with federal laboratories and agencies: NASA, the National Renewable Energy Laboratory (NREL), the National Institute for Standards and Technology (NIST), the National Oceanic and Atmospheric Administration (NOAA), the National Centre for Atmospheric Research (NCAR), and others, resulting in a research enterprise with sponsored research funding totalling nearly US$340 million in 2009.
- One of the most successful regions for new business development in the US, through the Leeds School of Business Deming Centre for Entrepreneurship, which provides a strong technology transfer pipeline for business start-ups and venture capital investments.

In the past five years 27 new companies, from biotechnology to renewable energy, have been formed based on CU-Boulder technologies.

(Source: University of Colorado Boulder 2011 and confirmed through interviews)

It is difficult not to cite these successes without the mention of CU-Boulder because of the very close links of the university with the city and its research community.

There are 22 science research institutes and laboratories of national significance of which 10 would be directly associated with CU-Boulder, namely:

- Alliance for Technology, Learning, & Society (ATLAS)
- Cooperative Institute for Research in Environmental Sciences (Cires)
- Institute for Behavioural Genetics (IBG)
- Institute of Arctic & Alpine Research (INstAAR)
- Institute of Behavioural Science (IBS)
- Institute of Cognitive Science (ICS)
- Joint Institute for Laboratory Astrophysics (JILA)
- Laboratory for Atmospheric & Space Physics (Lasp)
- Renewable & Sustainable Energy Institute (RASEI)
- University of Colorado Museum of Natural History.

The research institutes that are indirectly associated with the university (although at times would have joint appointments with faculty) are:
Smart communities: regional communities, knowledge clusters and growth elements

- Centre for Astrophysics and Space Astronomy (CASA)
- Geological Society of America, headquartered at 3300 Penrose Place
- National Ecological Observation Network (NEON)
- National Centre for Atmospheric Research (NCAR) / University Corporation for Atmospheric Research (UCAR)
- National Institute of Standards and Technology (NIST)
- National Oceanic and Atmospheric Administration (NOAA) Earth System Research Laboratory (ESRL)
- National Snow and Ice Data Centre (NSIDC)
- NTIA - Institute for Telecommunication Sciences Boulder
- Rocky Mountain Institute
- Southwest Research Institute Department of Space Studies
- Space Science Institute
- Space Weather Prediction Centre (SWPC).

Aside from the research institutes, the university has 69 research centres with faculty having joint appointments.

As at 2011, there were seven major employers with over 1 000 employees each in Boulder including:

- University of Colorado (7 500)
- IBM (4 500)
- Ball Aerospace & Technologies Corporation (3 000)
- National Institute of Standards and Technology and National Oceanic and Atmospheric Administration (1 700)
- Coviden, formerly Tyco Health care Group (1 700)
- City of Boulder (1 600)
- National Centre for Atmospheric Research (1 100).

Unique in Boulder is that for their population of 100 000, there are more than 100 000 jobs to match it. In fact, for the seven employers with over 1 000 employees, already 21 per cent of the workforce is accounted for! Another 22 firms could be listed that have more than 100 employees.

Students are very much involved with the research institutes and research centres through traineeships, internships and scholarships. The joint appointment of the academics in research institutes and faculty allows for close integration with the community and for the real world application of research.

The city’s engagement with these institutions and firms does not focus specifically on their economic development, but rather on a firm’s economic vitality. For the city, economic issues form only a part of its ‘Sustainability’ focus, which also includes environment preservation and social costs and benefits (basically the ‘Triple Bottom Line’ principles).
7.2.3 A unique community and its urban challenges

Boulder’s unique make-up of its community of students, researchers and scientists in beautiful surrounds is part of its history. Incredibly, more than 70 per cent of the community has a university degree. A key informant to this research attributes the Chautauqua movement as a major factor behind this culture. The Chautauqua movement began in the early 1920s and was originally an adult education movement, or lecture series, throughout the US. It brought entertainment and culture to rural and farming communities. While this movement peaked on a national scale in the 1940s, (with some political and religious influences as most movements tend to attract), the Colorado Chautauqua has remained nondenominational and mostly secular in orientation. As a result, an environment emerged where participants were encouraged to think differently, open mindedness was celebrated and new ideas were ignited.

A distinctive issue Boulder faces is the urban management of a young populace. As most of them are students, the university and the city are working very closely in addressing student issues.

The primary concern is the availability of affordable housing, with access to decent student accommodation in high demand, especially considering the transitory nature of this housing need. It has been estimated that for the 100 000 residents, more than 50 per cent would be renting their accommodation. Investment from the private and public sector through the Boulder Housing Partners and its Foundation, as well as not-for-profit organisations, assist the city in responding to the low income housing demand.

Other concerns were the social problems associated with drunkenness, public nuisance (petty theft, vandalism, etc.), drugs and engagement.

Key lessons learnt:

- Unique community
- 30 per cent student population
- Highly educated community
- Proactive professoriate
- Origins in Chautauqua
- 100 000 population AND 100 000 jobs!
- Long liberal history
- Role of various research institutes and university
- Physical environment (mountains and greenbelt)
- Leverage from existing identity such as high altitude athletes, specialised manufacturing.
7.3 Clemson, South Carolina ‘Welcome to Tiger Town’

Clemson, South Carolina was chosen as a case study because as a land grant university in the United States, their development model demonstrated an alternative pathway to institutional involvement and influence in the community and towards governance. Today, Clemson is a town of 45,000 residents, with very close links between the university and the town.

7.3.1 Location and demographic context

Clemson lies in the northwest corner in the state of South Carolina. Whereas the state economy was originally based on agriculture, it now is largely dependent on manufacturing, in particular textile and other mills, and tourism (The Columbia Encyclopedia 2008). South Carolina had a population of just over 4.5 million in 2009, or around 1.5 per cent of the total US population of 308 million (US Census Bureau 2010).

Clemson University is located in Pickens County in the northwest corner of South Carolina. Pickens County was formed in 1826, and had a population of around 120,000 in 2010. The median household income for the county was US$41,577 in 2008, around 7 per cent lower than the median income for South Carolina as a whole (US Census Bureau 2010a).

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1 A land-grant college or university is an institution that has been designated by its state legislature or Congress to receive the benefits of the Morrill Acts of 1862 and 1890. The original mission of these institutions, as set forth in the first Morrill Act, was to teach agriculture, military tactics, and the mechanical arts, as well as classical studies, so that members of the working classes could obtain a liberal, practical education. Many of these institutions are now among the ranks of the most distinguished public research institutions, and all share the same tripartite mission of Teaching, Research and Extension (Williams, R L., 1991, The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant College Movement. University Park: Pennsylvania State University Press).
7.3.2 Clemson University

Clemson University is a selective, land-grant university in a college-town setting, and one of the top US public universities. Clemson is ranked as the 23rd 'best national public university' by US News and World Report. Although one of the top tier US research universities, Clemson has maintained its small college atmosphere, with nearly half the classes having fewer than 20 students. The university believes that these small class sizes are one of the factors that contribute to their very high retention and graduation rates, among the highest in the nation among public schools (Clemson University 2011).

Clemson has a student population of around 19 000, with 80 undergraduate degrees and 110 graduate degree programs on offer. The university has five colleges:

- College of Agriculture, Forestry and Life Sciences
- College of Architecture, Arts and Humanities
- College of Business and Behavioural Science
- College of Engineering and Science
- College of Health, Education and Human Development.

The university has a vision to be one of the nation's top 20 public universities, with a published mission to establish a high seminary of learning through the historical land-grant responsibilities of teaching, research and extended public service (Clemson University 2011a).

Clemson University formally opened in July 1893 as an all male military school with 446 students. In 1955 it changed to that of 'civilian' status for students and became a co-educational institution. In 1964, the college was renamed Clemson University as the state Legislature formally recognized the school's expanded academic offerings and research pursuits (Clemson University 2011b).

7.3.3 Clemson University, Centres of Economic Excellence

The Clemson philosophy could be summed up in the words of Clemson President, Jim Baker

'Economic development is a contact sport. Innovation often occurs when people who are interested in a common topic or problem have the opportunity to meet informally'.

This philosophy is carried out in the management of Clemson's researchers, academics, and faculty.

South Carolina's Smart State Program was established in 2002 by the South Carolina General Assembly. This program invested in talent and infrastructure at South Carolina's three research universities, with the purpose of driving economic development. One of these is the Clemson University Centres of Economic Excellence. Funded by the South Carolina Education Lottery, the centre has received
Clemson University-International Centre for Automotive Research (CU-ICAR)

The most notable of these centres is the Clemson University-International Centre for Automotive Research (CU-ICAR). CU-ICAR has four research thrusts and endowed chairs to drive innovation in automotive and motorsports research. This is in direct competition with the highly unionised car industry in Detroit (the south of the US is non-unionised).

BMW has based their Information Technology Research Centre (BMW ITRC) in Clemson in their newly developed 100 hectare master-planned CU-ICAR Campus located in Greenville, along the Interstate 85 corridor. This campus began construction in 2007 and has five technology neighbourhoods, each designed uniquely to optimise an innovative and collaborative environment.

As at August 2011, the campus job population was made up of 680 persons, with 1,620 projected to be on board within the next year (2012). The total investments from public and private institutions amount to US$250 million, contained in four buildings with a total of 28,614 square metres of occupied space.

The presence of CU-ICAR has spurred developments surrounding the campus, such as:

- A 445 hectare mixed use development for a population of 10,000 residents
- A US$36 million investment by Hubbell Lighting for its corporate headquarters, including 350 new jobs
- A 20-hectare development for the St. Francis Medical System, which will create another 500 new jobs.
- Other research and economic development campuses.

Clemson University Advanced Materials Centre

Located in Anderson, this facility is anchored by the Advanced Materials Research Laboratory (AMRL). The laboratory contains one of the nation's finest electron microscope facilities, allowing researchers to examine materials at the atomic level.

Clemson University Restoration Institute

Established in 2004 to drive economic growth, and located in North Charleston, the Institute offers many opportunities for collaboration across a broad spectrum of issues such as advanced materials and materials conservation, water resources management, wind energy and biofuels. The wind turbine testing has attracted about US$100 million from federal and state funding, as well as funding from the university.

Clemson University Biomedical and Bioengineering Translational Research Facility

The facility is located at Greenville Hospital System's Patewood campus. Clemson researchers work in close proximity with researchers from Greenville Hospital System.
and the highly acclaimed Steadman Hawkins Clinic of the Carolinas, to advance knowledge in this highly complex field of medical research. While not as geographically extensive as the other research and economic development campuses, the biomedical and bioengineering translational research initiative is a microcosm of Clemson's economic development approach of public-private collaboration and innovation.

### 7.3.4 Strategic policies and programs

The foundation of the university resonates very strongly with its local community and has very strong links with the city government through its mayor. Both institutions have a high regard for each other, and many credit this to the strong relationship between the Mayor, Larry Abernathy and the University President, Jim Baker (they were classmates). Aside from their personal relationship, the Mayor is a regular lecturer at Clemson University, explaining that this is his way of keeping in touch with the majority of his electorate, easily representing around 50 per cent.

"One Clemson - The city promotes Clemson University and the Clemson University would like to see the city prosper"

Clemson University Senior Executive

This mantra is behind a joint university and city committee, composed of nine university members (five permanent and four rotating) and nine city officials. The committee meets monthly, providing a structured opportunity to plan and discuss issues expected to arise for the management and long term planning for the city. Those members of the committee that were interviewed appreciated the forum and described it as a place to cultivate relationships, where disagreements were easier to address, viewpoints were heard (rather than read in the media), and relationships and goodwill were not taken for granted.

This relationship is further supported by the International Town and Gown Association (ITGA), co-founded by the City of Clemson and Clemson University, along with five other universities and two other local governments in 2006. ITGA is an international association that promotes the relationships between universities/colleges and the communities they serve through knowledge. Aside from their website, the group also hosts webinars and an annual conference. The current Executive Director is located at Clemson University.

The university is central to the town. In fact, many would suggest that the cultural centre of the town is the university. Located in the centre of the university grounds is the Memorial Stadium which is home to the Clemson Tigers, a National Collegiate Athletic Association Division 1-A football team. This stadium can accommodate 81 500 people, twice the population of Clemson, and is the second largest stadium on the Atlantic Coast. It is also used for other purposes such as concerts.

Clemson University's long history (since 1893) has created very loyal and strong alumni. Some university traditions continue today with much enthusiasm, including Homecomings, First Friday Parade, Military heritage, and Tigerama.
This overt unity is especially evident on Fridays, where ‘casual Friday’ attire also meant that one must wear something in any shade of the university colour of orange. This ‘Solid orange’ campaign started in 2002 when Clemson fans were encouraged to wear orange every Friday to show unified support for Clemson. The central theme was honourable conduct:

"Our actions honour our university, its traditions, teams, performance, people and each other."

(Clemson University 2011a)

It was observed that this campaign encouraged the pride that the locals have for their city and their university and the spirit was indeed infectious. Specialised stores provided merchandise and other paraphernalia for sporting events, but also appropriate attire and apparel for work, and even home-ware.

Clemson City also hosts around seven football games a year. These weekend games see families opening their doors to interstate visitors as bed and breakfast guests to accommodate the huge crowds. These sporting events are so popular that Clemson Alumni have started a fund raising program, ‘IPTAY’ (I pay ten a year), for exclusive car park slots during game season.

The campus also borders the 1 400 kilometres plus shoreline of Hartwell Lake, often used for swimming, skiing and sailing. The university hosts elite rowing teams to train at Clemson during the winter months as it often snows during this time in the northern US states.

Along the main street zones and university grounds the city provides free public transportation, one of the largest covered areas in the nation, and free internet in public spaces.

Key lessons learnt:

- Semi-rural, land grant, agri-base ... Real, focused, regional commitment
- Fundamental merging of ‘town-gown’ – became the same thing
- Huge 'esprit de corp'!!!!
- Overt unity (orange Friday, 'I pay ten a year')
- Strong alumni
- University wants to get involved in Sports/rowing
- Tech park
- Mayor – VC relationship, long term relationship and built on trust
- Town revolves around university and its activities
- Challenging automotive industry (take away from Detroit)
- BMW Research Centre, PhD researchers.
7.4 Ballarat, Victoria ‘After the gold rush’

The town of Ballarat in regional Victoria provides an inspiring story of government (at all levels), university and industry collaboration for other regional centres that wish to develop the human capital of their regions.

7.4.1 Location, demographic context and economy

Ballarat is one of three key regional centres of the state of Victoria located west-north-west about 105 kilometres from the state's capital, Melbourne. It is accessible by train from Melbourne (around 90 minutes) and had a population of 96000 people in 2010.

Ballarat has had a long history as one of Victoria's boom towns, starting with the discovery of gold in 1850. Gold initially attracted around 10000 migrants from all over the world, upgrading the town's status from a station to a major settlement. Today, Ballarat City's wide main street still carries that grand architecture, and the well preserved heritage buildings remind visitors of the lifestyle, arts and culture of the gold rush period, also enjoyed today. It is no surprise that Ballarat was where the first gold stamp mill in Australia was established in 1854.

The economy of Ballarat has long evolved from the mining and agricultural days to tourism, manufacturing, retail, information and communications technology (ICT), agribusiness, health, professional services, education and building and construction.

The major employers include world class companies, such as:

- McCain Foods Australia which started in 1974 and remains headquartered in Ballarat.
- Mars Incorporated which bought the long-time food manufacturer formerly known as Masterfoods. Masterfoods opened its first confectionery factory in Ballarat in 1979 and continues to manufacture pet food, confectionery, herbs and spices, and other foods.
- FMP Group (Australia) which manufactures automotive friction material for commercial and passenger vehicles, as well as for industrial applications - they service a global market and have at least 250 employees.
- IBM Global Services which has grown from 80 employees in 1994 to 600 today.
The City of Ballarat’s investment attraction program operates as a separate unit specifically directed at investors and firm locators. Under the name ‘Business Ballarat’, businesses, entrepreneurs, investors and residents are able to navigate through information required to make fundamental decisions, and seek professional services and support to inform, support and grow their respective business concerns.

### 7.4.2 Education in Ballarat

Ballarat positions itself as the 'Learning City' and as a leader in education provision. The major institutions in the region are the University of Ballarat, the Australian Catholic University, clinical schools, UBTec and numerous high quality public and private schools.

The educational institutions are well placed to contribute to the local economy through building local workforce skills, delivering regional services and developing partnerships with industry.

Ballarat was able attract, support and nurture investment into the region by being able to offer a skilled workforce and training for specialised skills required incoming businesses. The universities are also able to support industry with research and evidenced based recommendations allowing for well supported decisions. Firms, in particular large ones, generally locate their businesses in areas that provide them a cost advantage to maximise their profits. A supportive political environment and the availability of a skilled workforce enhance this attraction.

### 7.4.3 University of Ballarat

The University of Ballarat (UB) was first established as the School of Mines and Industries in 1870, which then evolved into Ballarat College of Advanced Education. It became a dual sector² university in 1994 through the passage of an Act of the Victorian Parliament and is currently the only regional multi-sector university.

UB has six campuses. The Mt Helen, SMB and Camp Street campuses in Ballarat City, and the Horsham, Stawell and Ararat campuses in surrounding areas. Domestic and international students total around 25 000, with about 48 per cent pursuing their degree on a full-time basis (11 662). Similarly around 48 per cent are doing a higher education degree, and a large number, 25 per cent (6,174), are international students.

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² Dual sector education is a system of tertiary education that includes substantial amounts of both vocational (skills-based) and higher (academic-based) education in the same institution. (Source: Bathmaker A-M, Brooks, G, Parry, G & Smith, D 2008, "Dual-sector further and higher education: policies, organisations and students in transition"; *Research Papers in Education*, Volume 23; Issue 2)
Full time employees include academic staff (266), TAFE teaching staff (211) and general staff (560), making up a total of 1 037 (University of Ballarat 2011).

UB’s current research through the Australian Government’s Collaborative Research Networks is in collaboration with three other universities in Victoria (Deakin University, Monash University and University of Melbourne), and focuses on regional studies with three key elements, these being:

- **Element 1:** Regional Science and Technological Innovation (through information analysis and optimisation of systems and technology)
- **Element 2:** Regional Social and Educational Connectedness and Health Innovation
- **Element 3:** Regional Landscape Change.

(University of Ballarat 2011)

### 7.4.4 The IBM story

Ballarat provides a specific example of how a regional area, previously focused on manufacturing and agriculture, was transformed into a knowledge based economy – the Ballarat/IBM story is central to this narrative. Fifteen years later, we are able to witness how the joint efforts of the federal, state and local governments, the University of Ballarat and business (IBM) were able to make it happen.

The opportunity presented itself in 1993 when the Victorian Government, under Kennett, decided to outsource its information technology (IT) requirements, particularly those with large main-frame infrastructure, to regional areas within the state. A bidding process was instigated to determine the location, with three regions participating – Ballarat, Bendigo and Gippsland.

In 1994, Ballarat was awarded the contract.

Representatives of the Victorian Government have since admitted that at the time of the implementation of this strategy, there was no long term strategic plan and no business plan. The Government provided incentives to secure private investment, in this case IBM, a global technology and innovation company. IBM contracts with major government departments, large Australian companies and entrepreneurial small business, as well as exporting software, services and human capital to the Asia-Pacific region.

As mentioned earlier, the University of Ballarat follows a dual sector model wherein it provides both vocational training and education and higher degrees. The University of Ballarat was able to offer the skilled workers IBM required through its graduates. All parties involved; IBM, the University of Ballarat, the Victorian Government, the local government, plus Federal Government through the Higher Education Contribution Scheme (HECS), contributed to the success of the strategy.

Figure 9 below illustrates the relationship of all parties participating in the scheme to make it happen. As one of the interviewees claimed - ‘we all had skin in the game’.
IBM in Ballarat started with 80 employees; it now has 600. The University of Ballarat had a graduate retention rate of 10 per cent 15 years ago, now the retention rate is 90 per cent.

Everyone with ‘skin in the game’

7.4.5 University of Ballarat Technology Park

The development of technology parks attached to a university provided ideal synergies in physical location, linking well with the opportunity presented by the IBM offer.

The UB Technology Park was located close to the UB Mt. Helen campus, about 10 kilometres from the city centre of Ballart. It occupies an area of 29 hectares and currently has nine buildings with a total of 25 000 square metres of floor area and a capital value of A$65 million.

The technology park’s mission is to facilitate the development of technology based companies or companies that benefit from the technological resources of the university. While the initial focus was on information and communications technology industry sectors, other technologies now being pursued include bio-medical, bio-technical, and renewable energy technologies.

There are 30 companies currently operating from the park, contributing at least A$100 million to regional household income and A$300 million to regional outputs. The main organisations include:

- CFA Country Fire Authority
- IBM South East Asia
- IBM Regional Software Solutions Centre
Smart communities: regional communities, knowledge clusters and growth elements

- Greenhill Enterprise Centre
- Ambulance Victoria
- State Revenue Office
- Conservation Volunteers
- Global Innovation Centre
- ID Research
- Emergency Services Telecommunication.

More than 1,500 people are employed by tenants at the technology park with approximately half of those holding University of Ballarat qualifications. Recently IBM decided to expand its workforce with the construction of a new A$10 million building on the park. It is Australia’s leading regional technology park.

7.4.6 Strategic approach

Ballarat’s vision is to become acknowledged internationally for the strength and innovativeness of its ICT industry, the strategic use of ICT by lead users in the region, and the rapid diffusion and effective use of new technologies by the business community (Ballarat ICT Limited 2011).

The demands, adaptation and impact that new technology can bring to the way businesses compete and evolve was recognised by the City of Ballarat. Together with industry, government institutions and the university, the City of Ballarat has created a not-for-profit organisation to drive this innovation forward - Ballarat ICT Limited.

**Ballarat ICT Limited**

Ballarat ICT Limited pursues partnerships with governments, educational institutions, telecommunications providers, businesses and others, to ensure Ballarat achieves its strategic requirements for the delivery and maintenance of world's best ICT infrastructure. They support the ICT cluster and regional innovation with representations from large and small businesses, educational institutions and government.

The interests of almost 100 local ICT companies, employing approximately 630 people, and generating in excess of A$50 million in combined annual revenues, is represented by Ballarat ICT Limited.

**‘Earn as you learn’ Program**

Ballarat offered a cost advantage, strong linkages to students as a source of skilled labour, buildings, infrastructure and other support services. In turn, IBM provided graduates with a career path and, for some students, a subsidised learning program – 'earn as you learn'.

The 'earn as you learn' program started with just 24 students and now has 60. It provides students with a $30,000 per year scholarship, whereby students follow a structured contract to complete their tertiary study while working at IBM. The benefit for IBM is that students that decide to pursue a career within the company take only two
months to integrate into corporate life, as opposed to the usual six months for those who have not undertaken the scholarship program.

IBM focused on a specific target market to attract and retain workers in this regional location – those aged 20 to 30 (as they are typically mobile) and those aged 45 plus, the ‘tree changers’ seeking a lifestyle change.

Now, 15 years after the start-up of this partnership between numerous stakeholders, government contracts for IBM at Ballarat account for only 5 per cent of the company’s work, the remainder is for private company contracts. Perhaps one of the most interesting outcomes for IBM is its global competitiveness. It has been said that it is cheaper to secure IT services from IBM at Ballarat than it is from India!

Key lessons learnt:

- Fundamental importance of the government providing an innovative catalyst
- Already had an identity
- Underlying community strength, but under threat
- A malleable university focused on ‘skill supply’ ... not simply research.
- Capitalised on price differential and lifestyle as part of the offer
- Good primary and secondary schools and services
- True partnership (all parties with skin in the game – federal, state, local, IBM, UB)
- Jobs in IBM started with 80 people, now over 600!
- Ballarat Tech Park – more than 1 500 employees (bigger than UB).
8 Sippy Downs Town Centre, Sunshine Coast: History and current status

The focus on Sippy Downs would be better appreciated in the context of Queensland and Australia as a whole.

Record levels of population growth have occurred in Queensland over 2006 to 2010, with an average of 106 400 people per annum settling in the state. Much of this growth is a result of net high overseas migration patterns to Australia, which in turn impacts the number of new migrants choosing to live in South-East Queensland (OESR, 2011i).

Table 3: Population and selected ratios, Queensland, South-East Queensland and the Sunshine Coast

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(Source: OESR 2011) *projected

South-East Queensland (SEQ) has attracted most of Queensland's growth in the past, and this trend is projected to continue, although at a slower rate. More than 69 per cent (or 3.1 million) of Queensland's population resides in SEQ. SEQ is comprised of the five statistical divisions of Brisbane, Gold Coast, Sunshine Coast, West Moreton and Toowoomba (OESR, 2011i).
The Sunshine Coast with its population of just over 330,000 represents 11 per cent of the SEQ population (see Table 3). At the centre of the region is Australia’s newest university, the University of the Sunshine Coast (USC) which was developed on a 100-hectare greenfield site in Sippy Downs.

Today (2011) the suburb of Sippy Downs is the focus of potential growth leverage due to the following:

- USC’s growth projections indicate that the university will grow from a student population of 8,500 in 2011 to 15,000 students by 2015
- Neighbouring schools, Chancellor State College to the east and the Sienna Catholic School to the west could potentially create synergies
- Chancellor State College is known to also have expansion plans in its immediate surrounds
- The federally funded Sunshine Coast University Hospital (SCUH) has been committed to commence construction in 2013 at a cost of around $2 billion over the next four years.

8.1 Regional context advantages and disadvantages

The Sunshine Coast, located in the subtropics on the east coast of Australia in the state of Queensland, lies about 100 kilometres north of Brisbane, the state capital. The region is famous for the spectacular beauty of its highly diverse natural environment, with high-quality surfing beaches, mountainous hinterland, and high visual amenity. To date, capital investment and the provision of infrastructure lag behind that of the more widely recognised Gold Coast, 100 kilometres south of Brisbane.

Historically, the region developed as a string of coastal holiday villages serving the city of Brisbane, and was supported by rural industries such as sugar cane and small crop farming, cattle rearing (principally dairying), and timber-getting and milling. Until 1950, less than 10,000 people lived in the three small rural shires that spread over the region’s 3,100 square kilometres (Gilling 2010). Infrastructure was generally poor, particularly roads and public transport, although, the north-south Queensland railway line traversed the region.

From the 1970s the region experienced substantial waves of population growth, the first mainly due to industry restructures in the southern capitals and, later, to an influx of retiring ‘baby-boomers’ and others seeking warmer climes and a more leisurely pace of life. The region is still renowned for its relaxed lifestyle and surf culture, and as a great place to retire and an environmental refuge.

Recently, and arguably following the demographic patterns of the Gold Coast, an increasing proportion of new arrivals are ‘aspirational’, that is, families and a younger, more productive, skilled labour force seeking the improved and balanced lifestyle that the Sunshine Coast supposedly offers. These aspirations are, perhaps, ironic, given that unemployment levels in the region are above the state average and that housing
affordability — as measured by comparing the ratio of median house price to median household income — are one of the worst in Australia. This situation has resulted, in large part, from restricted land supply and delays in providing adequate infrastructure for the burgeoning population.

The issues of supply constraints caused by over regulation, resulting in rising difficulties in housing affordability are well recognised as international phenomena (Glaeser & Media 2011; Kotkin 2010). The extent to which that is a specific problem to Australia and Queensland in particular is a matter outside the scope of this work.

8.1.1 Current economic and demographic base

The regional economy has a very narrow base, with 36 per cent of the workforce employed in three key sectors: retail and services; tourism; and building and development (DEEWR 2010). These sectors, which rely heavily on either the current level of financial confidence or discretionary expenditure, are highly volatile and therefore, present further challenges.

Decline in any of the sectors often coincides with similar declines in the others, which compounds the damage to the local economy and investment. Thus, average household income remains a worrying 13 per cent below the national average (ABS 2006; OESR 2010b). Additionally, social and economic dichotomies continue to emerge. Small enclaves of extreme wealth are established in iconic areas such as Noosa in the region's north. Simultaneously, areas of economic disadvantage and social welfare dependence have emerged in the south and west of the region.

By 2031, the region's population is expected to reach around 508 200 (OESR 2011k). This level of growth and urban development has previously been experienced only by the nearby Gold Coast region. Historically, rapid growth in Australia has occurred organically around pre-existing cities, rather than throughout a whole region.

Unique and urgent problems accompany this rapid growth, especially pertaining to: managing growth and providing infrastructure; widening the economic base to provide more sustainable jobs; and protecting and sustaining the natural environment and physical amenity, which is held in very high regard within and outside the region.

The rapid population increase also presents distinctive problems for community development and cultural growth, as the diverse interests of long-term residents (including the Gubbi Gubbi traditional owners), the successive waves of new arrivals, and emerging community groups must be accommodated.

8.1.2 Infrastructure plans and programs

The following is a snapshot of major planned or ongoing projects for the region that are provided with federal, state or private sector funds.
These projects are discussed in more detail – while these opportunities present themselves to the Sunshine Coast, its integration into the wider economic framework remains unclear to the wider community.

**Sunshine Coast University Hospital and Health Precinct**

The Sunshine Coast University Hospital (SCUH) is a A$2.03 billion project located in the new 20 hectare Kawana health precinct. The public hospital will initially have 50 beds with another 738 planned to be delivered by 2031. Part of the health precinct is also a 200 bed private hospital that will be run by Ramsay Health and a A$60.8 million Skills, Academic and Research Centre that will be jointly run by Queensland Health, University of Queensland, University of the Sunshine Coast (USC) and Sunshine Coast TAFE. The total staff expected would be about 4 500 people for both the public and private hospitals.

Construction on the project is planned to commence in 2012, with a completion date in 2016. More than 11 300 jobs are expected to be created during construction.


**Kawana Town Centre**

The Kawana Town Centre, close to the location of the Sunshine Coast University Hospital, is concurrently being developed alongside the development of the Sunshine Coast University Hospital by publicly listed Stockland Development Corporation. It is planned to be the retail, business, entertainment, education and transport hub for existing suburbs and the new Birtinya and Bokarina Beach developments. The project expects to cater for 3 600 new jobs during the development phase and 5 700 jobs upon completion for the 5 000 additional residents that these developments will attract. The planned expenditure is approximately A$800 million on land development, roads, and infrastructure. The Sunshine Coast University Hospital has provided the impetus for this project.


**Palmview**

Palmview is an 850 hectare, Greenfield, master-planned community for 18 000 residents located to the south of USC. The development also includes an employment centre which is expected to create 5 500 jobs. It is owned by a private company, Investa Property Group, and is located alongside Investa's other residential development 'Bellflower'. Palmview is one of the greenfield sites that has been fast tracked by the 2007 Queensland Housing Affordability Strategy to respond to the Sunshine Coast region’s lack of affordable housing (Department of Infrastructure and Planning 2007). The Palmview structural plans have been approved by Sunshine Coast Council and the development is under way with the first lot expected to be released by 2018.

For more information:
**Caloundra South**

Caloundra South is a 2 310 hectare, Greenfield, master planned community, planned for 50 000 residents and 15 000 jobs. This is another project that has been brought forward in a similar manner to Palmview.

The project site is located at the southern end of the Caloundra urban area. There were a number of significant physical and biophysical constraints to development of the original Caloundra South Structure Plan Area. These include flooding, significant vegetation, waterways, wetlands and buffers to these areas, as well as the regional inter-urban break buffer. To expedite this process, the Queensland Government declared Caloundra South as an Urban Development Area about 12 months ago. A Development Scheme for the project was released recently (October 2011).

For more information:  

**Sunshine Coast Airport Upgrade**

The Sunshine Coast airport terminals have recently been completed at a budgeted A$ 3.6 million. The project has been judged as best major airport project of the year at the Australian Airport Association’s prestigious National Airport Industry Awards in 2011. This development is part of the Sunshine Coast Airport Master Plan 2007 to 2020. As of 2010, the annual passenger movements have increased by 9.6 per cent from the previous year to a total 965 000 passengers; by 2020, the projected passengers are expected to be as high as 2.3 million. To achieve this a new 2 450 metre east-west runway needs to be developed. This project is expected to bring in 3 000 new jobs and contribute A$1.6 billion to the local economy. The commencement of this project is scheduled for 2016.

The airport currently only links direct services to the major cities of Sydney, Melbourne and Adelaide. However, plans are being formulated to take advantage of the fly-in/fly-out mining executives and workers market to the north.

For further information:  

**Bruce Highway upgrade**

The Bruce Highway is the main highway that connects Brisbane to Cairns and its planned upgrade will enhance access to the Sunshine Coast. This plan, over a 20 year timeframe based on three major phases, includes 340-kilometres of highway duplication, bridge replacements, intersection upgrades and other safety improvements.

For the Sunshine Coast portion, this would include a 20 metre high flyover for motorists travelling north, upgrades to interchanges and intersections from Pine Rivers to Caloundra (including Roys Road and Bells Creek Road), a western service road, and a 5.2 kilometre stretch of road widening from four lanes to six lanes between Caloundra Road and Sunshine Coast Motorway, expected to improve flood immunity. An upgrade of the 13 kilometre link from Cooroy to Sankeys Road is also planned. All this will accommodate the increasing traffic requirement - growing at 3 per cent per annum.

For further information:  
Maroochydore Principal Activity Centre

The Sunshine Coast Council has recognised the need for a defined centre for the region and has recently resumed the 43-hectare Horton Park golf course in Maroochydore. The control of a large central area of land allows for maximum planning options to include transport, open space and public areas.

The Maroochydore Principal Activity Centre Structure Plan and Planning Scheme were adopted on 17 December 2010. The structure plan allows for:

- 150 000 square metres of new commercial floor space
- 65 000 square metres for retail space
- 4 000 new dwellings
- 20 hectares (40 per cent of the golf course) for public open space
- Community facilities (regional arts and entertainment centre, transit plaza, regional library, public amphitheatre, civic place and urban open space).

Further planning is ongoing with the Sunshine Coast Council focused not only on the urban development plan but also investment attraction programs for the private sector and other partnerships.


8.2 Institutional drivers

In the Sunshine Coast region, only a few organisations are large enough to have significant economic impact. The local presence of some major corporations, particularly in the development sector, is mostly concerned with product delivery. As noted previously, the balance of the business community comprises small-to-medium-sized enterprises (SMEs) within the service sector. The strategic impact of such businesses on the regional economy is clearly limited. Consequently, organisations that are mainly publicly funded have the best opportunity, particularly via coordinated action, to effect positive change and sustainable development. USC, the regional council, the health services and the regional Technical and Further Education (TAFE) College are central to this approach.

Until recently, cooperation between these organisations has been problematic, especially as the newly amalgamated regional councils struggled with the immediate issues of managing growth and providing infrastructure. Nevertheless, a more stable environment is evolving. The regional council, emerging from its internal restructuring, favours outreach and cooperation. The State Government has also provided significant infrastructure, although some would argue that this support is demonstrably inadequate in areas such as roads and public transport, for example. The following discussion gives a general overview of those groups and their current scope and interests.
8.2.1 Sunshine Coast Council

The Sunshine Coast Council (SCC) was formed in March 2008 as a result of the amalgamation of three local government shires, Caloundra, Maroochydore and Noosa. This amalgamation was part of Queensland’s state-wide local government reform which was aimed at strengthening financially weak shires, towns or cities and to take advantage of economies of scale, community of interest and financial sustainability.

Over the past three years, the SCC has been focused on aligning the policy documents of its predecessors particularly for its planning schemes which is the main tool that manages land use and development to achieve its vision. The Sunshine Coast Council has a vision “to be Australia’s most sustainable region — vibrant, green, and diverse”. The preliminary draft of this scheme has been submitted to the State Government for review.

Today, the SCC is the 4th largest council in Australia with 12 Divisions and a Mayor elected by the residents. The SCC is managed by a CEO and five senior executives that handle community services, infrastructure services, finance and business and regional strategy and planning. The 2010-2011 budget managed by this council is A$582 million for a population base of around 334,000. The budget for 2011-2012 will total A$638 million with A$189 million allocated for capital works. This would translate to 1,200 jobs for the region. The SCC is one of the biggest employers in the region with 2,800 employees throughout (SCC 2011).

8.2.2 Regional Development Authority

The Regional Development Authority (RDA) Sunshine Coast was created in 2009 under the Federal Government’s initiative to support regional areas in Australia. This program is supported through a RDA Fund of A$1 billion dollars over the next five years, with the aim of supporting locally driven initiatives, generated by local people, who would understand and value the region.

To access this fund, funding applications are guided by community needs as identified by each region’s roadmap. In the first round of applications A$150 million was distributed across Australia. The Maleny Community Centre (Sunshine Coast Hinterland) received A$1.65 million. The second round of applications, with A$200 million of funding will be available for distribution, has just closed (1 December 2011).

The RDA Sunshine Coast aims to strengthen and build the Sunshine Coast community through the following five roles:

- By consulting and engaging with the community on issues, solutions and priorities
- By promoting whole-of-government activities
- By supporting informed regional planning
By providing communities with information about government programs, services, grants and initiatives

By being important contributors to: Business growth plans & investment strategies, Environmental solutions, Social inclusion strategies

A major initiative of the RDA is the creation of the Sunshine Coast University Hospital Business and Industry Development Opportunities (SCUH BIDO) group.

8.2.3 Business and industry

The Sunshine Coast region is host to several chambers of commerce, business groups and alliances. These are:

Sunshine Coast Business Council (SCBC)

The SCBC was formed when the three local councils were amalgamated in 2008. The focus of the SCBC is to create ‘One vision - one voice’ for the business community, with a focus on preparing for the projected increase in population over the coming years.

Sunshine Coast Chambers of Commerce Alliance

The alliance of the Chambers was created to represent the local business chambers (or similar) that are established in their respective localities. The alliance includes 12 business groups, listed below:

- Caloundra Chamber
- Cleantech industries
- Coolum Business and Tourism
- Cooroy Chamber
- Kawana Waters Chamber
- Maleny and District Chamber
- Maroochydore Chamber
- Mooloolaba Chamber
- Mooloolaba Business/Tourism
- Nambour Chamber
- Noosa Chamber
- Sunshine Coast Business Women’s Network.

Other professional and industry groups that have national affiliation are also influential bodies on the Sunshine Coast. These include:

- Urban Development Industry Association
- Property Council of Australia
- Planning Institute of Australia
- Australian Property Institute
- Australian Royal Institute of Architects.
8.2.4 University and TAFE

University of the Sunshine Coast

All but two of the thirty-nine universities in Australia are publicly owned, and each was established by an act of the relevant state parliament. Operational funds are provided by the Federal Government in Canberra, and capital funds usually come from a range of (mainly) public sources through special competitive grants. The universities are academically and intellectually independent, with their own governance structures that mostly follow the English model of chancellors, university councils, vice-chancellors, academic boards and faculties. However, the heavy financial dependence on the public sector creates its own issues.

Australian universities are, however, far from heterogeneous. Eight major universities dominate research and attract about 60 per cent of the total research funding secured by all universities (Australian Trade Commission 2010). A second group of universities, mostly in the state capitals, often have a more technical background and usually mainstream learning and teaching.

Another group of about 10 regional universities are scattered across provincial areas, particularly in Queensland. These institutions, including the University of the Sunshine Coast, are quite small, due to the city centric nature of Australian population distribution patterns. These regional universities tend to cluster in the rapidly developing areas around the major cities and USC is no exception.

By comparison with their city counterparts, these small regional universities have quite limited research bases. They often specialise in external modes of teaching and learning or especially focus on attracting international students. Engaging with the local region often represents a point of difference from universities in the capital cities.

Within this context, the establishment of USC in 1996 was an audacious move with the inevitable detractors. Three large universities, each with 40 000 or more students and significant research programs, were located only 70 kilometres away in Brisbane. Indeed, one — the Queensland University of Technology — had established a university college, the forerunner to USC, at the Sippy Downs site.

The university was provided with 100 hectares of land some 10 kilometres from the (then) lineal beach front development. However, long-term regional planning, which included the university development, an adjoining town centre and a nearby master-planned community development, prioritised the surrounding location for major urban settlement.

A strategic plan is always part of the development process of any large organisation. However, USC's plan truly contained the foundation and fundamental ethos for activities well into the future. Importantly, a slightly modified version of this plan remains in place at the time of writing. The plan was built around a mission that emphasises relevance and engagement:
"... to be the major catalyst for the innovative and sustainable economic, cultural and educational advancement of the region, through the pursuit of international standards in teaching, research and engagement."

**Sunshine Coast Institute of Technical and Further Education**

The Sunshine Coast Institute of Technical and Further Education (SCIT) has five campuses located in Nambour, Maroochydore, Mooloolaba, Noosa and Caloundra. They currently have a student population of 17,000 with the most popular courses being in engineering, construction and tourism. SCIT has been awarded the Large Training Provider of the Year for 2011.

### 8.2.5 Sunshine Coast Innovation Centre

The Innovation Centre is located at the edge of the USC Campus at Sippy Downs on the Sunshine Coast. In 2008, the centre was extended to a facility of 3,000 square metres that houses a range of developing companies and related university support.

The Innovation Centre Sunshine Coast Pty Ltd (ICSC) aims to create new jobs in new industries in the Sunshine Coast region.

USC's charter was to teach, research and innovate, thereby providing a stimulus for economic development in the private and public sectors. ICSC was established in 2002 with finite support from all levels of government and operates as a controlled entity of the University of the Sunshine Coast (USC) and USC is the sole shareholder.

Initially, ICSC acted as an incubator for start-up companies. In 2011, the Innovation Centre facility includes a business incubator and accelerator which provides serviced offices, high speed fibre connections, consulting support, investment readiness and networking for both start-up and growth business. There are currently 30 private companies in the fields of integrated communications and technology, clean technology and health technology based at the centre.

To date, the Innovation Centre has hosted more than 78 businesses, created more than 350 jobs, helped raised A$23.8 million for its networks and has hosted 132 events and business development programs (reaching more than 6,000 delegates). In 2011 alone more than 54 USC students had been employed at the ICSC tenant companies and 85 USC students had been engaged with their projects.

The centre's successes were recognised in 2003 when AusIndustry and the Australian and New Zealand Association of Business Incubators awarded the Innovation Centre 'Regional Incubator of the Year'.

The Innovation Centre is also planned to serve as a hub to the Sippy Downs Smart Community (Knowledge Precinct), with a A$100 million upgrade of infrastructure currently being undertaken, including a road upgrade, bus stations, and dark fibre optic cabling.
8.3 Sippy Downs Town Centre Site

State and regional planning for growth designated the immediate environs of USC for major development, which would create Australia’s first true university town at Sippy Downs. The planning and most of the infrastructure are now in place, and the first private development projects are approved and starting construction. The university is directly involved in these development plans and liaises with both the public and private sectors. The town development provides a ‘living laboratory’ for students in disciplines that encompass the built environment, and is an important, continuing interface at academic and physical levels.

The development of a university town immediately adjacent to the northern boundary of the university formed an important part of the vision and strategic planning for USC.

Eighteen parcels of land were identified and an innovative town plan with development-controlled regulations was implemented to encourage development of industries potentially linked to the university. Commercial services and medium- to high-density residential areas were also included.

Figure 10 shows the master plan for the town centre and its relationship to the 100-hectare university Sippy Downs campus.

University towns are quite common in the United Kingdom and the United States, however no examples exist in Australia, where most universities have developed within existing urban frames. The recently developed master-planned communities at Varsity Lakes on the Gold Coast (Queensland) and Mawson Lakes in Adelaide (South Australia) both involve a university facility. Neither of these developments, however, truly integrates the university facilities with a range of university uses. Consequently,
the Sippy Downs campus and a dedicated town centre provide a unique planning opportunity.

The layout of the university campus follows the generic design principles of the University of Virginia, with an arcade of buildings stretching from the main entry across part of the high section of the 100 hectare site. The proposed town centre was designed to service the rapidly growing master-planned communities immediately to the south. Unfortunately, to date, the town centre has developed extremely slowly with the first major development only commencing in 2010.

The concept of a university town and an education precinct comprised of the university and a number of nearby schools was widely supported. However, substantial private sector investment was lacking for several reasons: difficult economic conditions; no anchor tenants; outstanding infrastructure provision; and the availability of alternative sites closer to existing major urban areas. Additionally, smaller urban developments in the vicinity may have robbed the town centre of its potential for organic growth.

The entire urban frame of Sippy Downs and the university will not be complete until the town centre is well established, a matter largely outside the university’s control. Given the importance of the development, however, USC continues to stimulate interest in the town centre by providing additional detailed research and planning. USC also strategically decided to construct new buildings closer to the site to enliven the immediate area and to improve the walking amenity between the campus and the town centre.

### 8.3.1 Issues with Sippy Downs Town Centre

Like any greenfield area, the development timeframe spans a long period of time. What complicates the development issue for this site is the numerous land owners who individually would have their own profit objectives, value for their land ownership and timing for development (if they plan to develop at all or if they are merely land banking).

Many of the current landowners have purchased their parcel at the height of the property boom (between 2002–2005) and in effect paid too much. The ‘pioneering’ status of the site without any firm tenant commitment is difficult as the landowner would have to continue land banking. The interest cost accruing, if not compensated with capital increases, diminishes any potential profit.

To add to the level of difficulty to the land owners, the currently legislated town plan for this site has been found to be overly prescriptive by prospective developers.

“The market is just not ready for a four to six level development at this stage with a high component of residential requirements – in the current foreseeable future, the market is just not there for these sites.” - Sunshine Coast Developer

The Sunshine Coast Council has in fact offered to land developers to initially provide the main infrastructure requirements to connect sewerage to the site and construct a portion of ‘A Street’, the main internal roads, which were estimated to cost approximately A$12 million dollars. It would appear that none of the land owners have
responded to the SCC offer for this work and as such this plan to move forward did not commence.

8.3.2 Interim actions undertaken with USC and others

USC has been party to several activities to instigate development to Sippy Downs. The following is the chronology of major events, studies and gatherings to promote the sites development:

- 2009: Economic study (USC–SCRC–Investa)
- 2009/11: State Government ‘Smart Communities’ initiatives
- 2010/2011: USC convened sessions with local government / developers / consultancy community
- 2010/11: Deicke Richards ‘Interface Report’
- July 2011 Sippy Downs Drive, Sippy Downs – reconstruction and intersection upgrade.


Reinforced role of Sippy Downs in Government/Council planning

Aside from the above, there are current market movements around that area that have seen land ownership move from speculators to end users (see Figure 11). Most notably is that of Woolworths, Coles Supermarket and the Department of Education and Training’s purchase of the ARIA land, to expand the requirements of Chancellor State College. Also important is the planned relocation of Queensland Fire and Rescue to adjoin the Queensland Police Outpost.

Figure 11: Market movements along the Sippy Downs Town Centre as of December 2011
8.3.3 Recommendations for USC

Many developers and interested parties have approached USC to endorse their projects. However, as USC will not overtly support commercial activities for the benefit of individuals, the activities that it can undertake are limited to the following:

- Acting as ‘good neighbour’ – information / general (but not specific) support
- Sell the researched story – ‘smart community / university town’
- Promote the physical links to the town centre across / walkways etc. (USC’s master plan review)
- Work ‘appropriately’ with SCC Council, RDA, State Government and Innovation Centre on ‘suitable investment attraction’
- ‘Encourage’ a more flexible application of development control provisions of the town plan... whilst maintaining planning integrity especially on key sites.
9 Learnings from Value Management Workshops

This section discusses the results of the Value Management (VM) workshops with two groups, one from the Sunshine Coast (Sippy Downs) and the other from Brisbane. These workshops were held from 8:00 am to 2:00 pm on 27 September and 28 September 2011 respectively.

9.1 A modified Value Management process

Why Value Management?
The workshop format chosen was that of a VM approach. Value Management is a structured, analytical process which seeks to satisfy 'customer' needs by ensuring that all necessary functions are provided at the lowest total cost, while maintaining the required levels of quality and performance - in other words, to maximise value (Institute of Value Management Australia 2011).

The VM approach has been a successful tool in Australian and New Zealand governments and business practices used in a wide range of applications such as: improving organisational performance, analysing managerial effectiveness, developing organisational structures and validating project concepts. This approach has also been successful in capturing input from representative stakeholders for issues such as: asset planning, community development, operating procedure, product development and procurement.

Governments in particular have found this management tool a powerful and creative way to focus problem solving, enable functional analysis of complex interrelationships, prioritise actions considering competing interests, improve value-for-money outcomes and maximise quality performance given the availability of resources (GAMC 2011, (Queensland Department of Public Works 2011).

The aims of the workshop
The theme of the workshop builds on the quite intense work that has been done in Queensland (Brisbane and regions) on built urban forms and design, master planned communities, work clusters around knowledge precincts / universities / health hubs etc. The problem however is that the attraction, holding, and development of workers essential to the long term survival of such precincts is still unclear. It is quite surprising there seems to be very little robust investigation and discussion on these matters, and certainly very little in Queensland.

The participants
The aim of the VM workshop was to draw from a diverse group of decision makers from Queensland and interstate. To ensure that different groups were represented individuals were chosen from the fields of education, government, business and industry, university and community.
The main criterion for their inclusion was that these individuals would have some theoretical and practical knowledge on attraction and retention of ‘knowledge workers’ drawn from their professional experience.

A list of participants for each group is provided in Appendix 14.3.

**Format and structure**

During the workshop, a PowerPoint presentation was used to guide the discussion. This is provided in Appendix.

The responses from the group were written out on the white board or butchers paper prominent to allow the participants to confer and add their comments.

In summary, the format of the workshop followed the VM process in the following sequence:

**Fundamental question**

How do we attract/hold/grow ‘key workers’ to regions?

Specifically Sunshine Coast in Queensland?

**Some base information / givens / premise**

A presentation of the findings of the case studies discussed in Section 7 (Portland, Boulder, Clemson, Ballarat).

Some ‘givens’ provided to the group were as follows:

- The economy is made up of small to medium enterprises which in part may be positive because this represents independent, entrepreneurial drive, and opportunistically responsive. On the other hand it may be adverse because usually the firms in emerging sectors such as ICT, clean technologies, professional services are small, with limited strategy, limited capital and usually in the sectors that are susceptible to economic volatility.

- There is a strong evidence of ‘knowledge clusters’, ‘spatial capital’ and ‘sense of place’ which is appreciated by the locale. However, the physical offer of the built environment is only part of the full offer..

- The future is changing due to demographic changes and globalisation of markets for goods and services which is affected by speed and development of information and communications technology and which basically affects the business structures and the way we work.

- The Sunshine Coast region is an aspirational place with its inherent attractors. It is fast growing as is one of five second-tier urbanised areas in Australia which is relatively close to a major capital city.

- The local government recognises its critical role - in coordination with other levels of government.

- There is no quick fix, the solutions are long term and will take time. However, the facts need to be faced now, with a clear message to be promoted (agreed
and supported by a majority). In this regard a progressive and evolutionary strategy needs to be undertaken with progressive targets.

- Finally, leadership needs to be addressed – who, how, what needs to be done and how this can be secured.

**Creative process (what solves the problem) lateral thinking, divergent solutions**

This is the Creative Phase – is predominantly concerned with encouraging divergent ideas, lateral thinking and brainstorming, and generating alternatives for better value solutions. A large quantity of ideas (and not solutions) should be generated without any stoppages for judgment or criticism.

**Convergence (what option is best, prioritising)**

Evaluation Phase – ideas are assessed, culled and prioritised, to identify viable alternatives which will achieve the necessary functions at lowest total cost, consistent with the required levels of quality and performance.

**Development and actions**

Development Phase – Consider the difficulties involved in implementing the developed recommendations, how they can be overcome, and recommend action by whom and by when. Be focused on the criteria for development of any new idea.

### 9.2 Sippy Downs, Sunshine Coast

The summary of the outcomes of the Sippy Downs workshop to the question: “How do we attract/hold/grow ‘key workers’ to regions? Specifically, the Sunshine Coast in Queensland?” revolved around four key themes, namely:

1. **Positioning of place:** It was acknowledged in by the group that the Sunshine Coast has the basic ingredients to offer a unique lifestyle – the good schools, proximity to the beach, good restaurants, close proximity to Brisbane. However, there are other regions in Australia that offer the same thing – what is unclear is the unique positioning that only the Sunshine Coast offers – this is not articulated well enough. The Sunshine Coast should also clearly see its role in the bigger picture of the state and how it can expand its influence beyond its political boundaries. It can be a service centre (in a wider sense) for the Gympie and Moreton regional areas.

2. **Institutional roles:** The key institutions that govern and influence the community (such as the Sunshine Coast Council, the University of the Sunshine Coast, the Sunshine Coast Business Council and the like) have important roles to play in lobbying the federal and state governments on regional issues, for infrastructure and most important in relation to the governance of the area. Other thoughts also included a review of government (state and local levels) functions with a view to shifting them to local capability (e.g. research and
services could be transferred to the region to allow self-sufficiency and increased local management).

3. Opportunities and potential:

a. **Protect what we have:** While the region’s current economy is based on cyclical or ‘good times’ industries (retail, tourism, development/construction) and the SCC is focusing on diversifying to less cyclic industries such as education and health, there is still opportunity in what we already have. For example in tourism – how are we able to still make the tourists stay ‘one more night’? In retail – how can we keep the $2 billion dollar leakage (when local residents shop in Brisbane)? The regions older demographic (who have the time to enjoy and money to spend) are not catered to as a priority client. What incentives will bring back former Sunshine Coast residents?

b. **Train and upskill for the future:** The major projects that have been identified for the region will need a skilled workforce and the local community needs to be ready to take on those jobs. Following the ‘money trail’ to identify those opportunities will lead to the types of jobs needed where career prospects can be identified and match what is needed. The growth of TAFE and the University will also need to be geared for this increase.

4. **Individual/general public/community concerns:** The involvement of the local community is critical to any plan. The community's vision needs to be articulated and the local council can provide leadership for this. A marketing campaign, branding, collective identity is timely especially for a newly amalgamated council where the label ‘Sunshine Coast’ should be more prominent than the former shire names.

The action areas that this group provided include:

1. **Real (authentic) regionalisation:** In developing this action area, the ideas revolved around the following: build regionalism, buy local, have positive campaigns, and actively sell the message. There is also a need to increase the diversity of the demographic in terms of migrants, skill base and ethnicity through tolerance and attitude. This includes considering the current make-up of the Sunshine Coast (which is a cluster of villages) and how it can be unified as one (using the analogy of a family) but at the same time maintaining individual distinctiveness. The lead on this action plan is with Sunshine Coast Council.

2. **Partnerships:** The participants appreciated that it takes private investors, public agencies, financiers both in the national / international sphere to create investment and opportunity in the region. To achieve this, it was recommended that the local council actively build partnerships, change its [not] open-for-
business culture by cutting red tape and by having a more open ‘whatever-it-takes’ attitude to get projects up and running. This means that business, community and institutions need to be able to have more input into the ‘political agenda’ to create good ideas that are supportive of the local council’s agenda and align with their plans. This also includes getting the backdrop right – which means knowing the community and its needs and getting to the grass roots level. The lead on this action plan is with Sunshine Coast Council particularly Economic Development.

3. Transformational projects: The participants were enthusiastic about the level of investments into major projects on the Sunshine Coast, particularly the Sunshine Coast University Hospital. The $2.1 billion investment in a short period of time (four years) will inevitably transform the Coast. The challenge to the community is how it can maximise the multipliers, grow the economy, leverage from this base to create more opportunity and to invest in jobs and widen the economic base. The lead on this action plan is the Regional Development Authority (Sunshine Coast), Sunshine Coast Business Council, The Alliance of Council Chambers in conjunction with the Sunshine Coast Council.

4. The university

a. Thought leadership: The participants viewed the role of the university as critical in providing thought leadership without bias and out of the political agenda. Their contribution in the form of research can be used to inform policy creation. These policies will therefore be evidenced-based, balanced and directly achieving intended outcomes. The research can also be used to inform all parties that need to support the vision – an example of this is the What Works: Identifying successful strategies for sustainable economies and jobs growth in the 'second tier' research presented in 2010 at the Sunshine Coast Futures Annual Conference hosted by the University of the Sunshine Coast and Sunshine Coast Council.

b. Education and training: In this area, the participants appreciated the difficulty of forecasting the needs but at the same time acknowledged that needs would be guided by the university’s initiatives. There needs to be alignments with the major projects that have been committed to the region and are ready to be implemented. This could perhaps be achieved through joint appointments of academics in government and university. The role of the university and TAFE in providing quality job-ready graduates is critical. This also means being sensitive to the upskilling, retraining and further education needs of the current workforce to keep pace with the changing demands. All this relies not only on the university’s executive but also on an active professoriate who is involved in the community and industry as seen in other case studies.
c. **Engagement with community**: The research works that emanates from the university may be good and useful however there must be a more active dissemination of such work into the community. The university needs to create more effort to connect with the community and identify ‘cheer leaders’ who can assist from the community to also spread the message.

### 9.3 Brisbane

**Summary of Brisbane Workshop**

The outcomes of the Brisbane Value management workshop had a different approach to the same question posed: “How do we attract/hold/grow key workers into regions, specifically the Sunshine Coast?”

The responses focused more on the question without much reference to the local council (or judgement on how they operate) which was expressed at the Sippy Downs workshop.

The focus was more on the targeted individual and their needs and wants, then the needs and wants of their families, followed by the expectation of the community and the broader region. In many instances, responses were personalised in indicating their preferred parameters and the conditions under which they would consider moving to the Sunshine Coast.

An illustration of the responses can be viewed in Figure 12. This also represented the hierarchy that would create the whole package for that ‘key worker’.

![Figure 12: Hierarchy of factors important to the key worker](image-url)
Important factors mentioned:

1. **Worker:** The place should provide a lifestyle, job options (in case the original one that attracted them to the area did not work), and be a place that has some value (meaning) to the individual.

2. **Family:** However, it seems that while the worker may be the initial catalyst to the move, the family’s concerns are equally important to the decision to stay and grow. Therefore their needs should be considered. These include good schools and ease of access to them, increased transport options for the family (although it was noted that the Sunshine Coast enjoys high quality roads compared to other regions) and the overall quality of the place for families to enjoy.

3. **Community:** Interestingly, good networks were cited as significant in understanding the local group. This was important in creating partnerships or collaboration or at least setting the environment to create such alignments. Part of creating new relationships in a region that has a high level of ‘transients’ is also the depth and substance of the potential of those relationships.

4. **Region:** The issues that were of concern that related to the region were its leadership and governance. The need for consistency and sending out the right ‘signals’ was considered important in creating investor confidence to the region. The participants saw the whole offer as one – support from government, institutions and community.

Overall, the opportunities at the doorstep of the Sunshine Coast need to be capitalised on. The suggested actions to attract key workers given these opportunities are outlined below:

1. **Profile of target market:** Whilst not to preclude other key workers, it was suggested that the telecommuting market was growing. The profile of these workers are predominantly male, who are 45-55 years of age and would be working one to two days a week. They would have a high level of lifestyle with concerns for good restaurants, food, wine, and schools for their children. They would be concerned with job options for their spouses.

2. **The ‘new key worker’:** These individuals may very well be running their own businesses, operating in the new mode of outsourcing, or being a service provider. This entails catering to the lateral thinking required by such entrepreneurs who rely on their social capital for their next contract. These workers would like to ‘destroy the templates’ which would mean encouraging innovation, thinking of new ways to do old things, using their imagination, and being challenged by issues that require critical thinking and reasoning. These new key workers have a high value multiplier as their output is creative.

3. **Nurturing (high-tech) environment:** A conducive environment for innovation, investment, collaboration for creative energy is important. More specifically, it is one that is technologically capable for ‘new generation’ thinking and doing
business. There would be a cyber space consciousness and urban thinking which includes capabilities of catering to the needs of cloud computing. This would mean taking advantage of the social networks created on the internet and capitalising on opportunities for education and training delivery from the best providers nationally or internationally.

4. **Institutional support:** The Brisbane participants saw institutional drivers as one group – the university was a place and an institution, the local council was expected to provide consistent and proactive governance and the business councils were expected to assist in creating connections.

All these elements would allow the region to be a hotbed for options. Participants saw the Sunshine Coast as providing these elements but not being able to communicate this to the public.
10 A Sunshine Coast summary

This research emphasises the importance of a holistic strategy to develop and establish new businesses, to attract key workers and to create clusters in a growing region such as the Sunshine Coast.

Internationally, there are a range of studies and indices that address some or all of these components. A number use the title ‘liveability’ while others relate to more definitive economic measures.

Nevertheless, and again, emphasising the holistic offer provided by successful regions, the studies and measures of key assessment criteria for status and success (or otherwise) of particular regions are fairly similar. This was reinforced in the two separate Value Management Workshops undertaken as part of this research.

The Table below extracts the key determinants from many of those studies and qualitatively assesses the performance of the Sunshine Coast.

The table classifies the criteria into Overall, Economics and Business, Education and Training, and Environmental and Social categories. The list is extensive with some of the issues critical but all are important in providing the necessary comprehensive offer that must be presented.

A perusal of this schedule reinforces the fact that the Sunshine Coast already provides an overall excellent offer. There are several matters that are currently limiting and need to be progressively improved. However, the majority of these can be enhanced over a relatively short period of time.

The table is colour-coded: green areas include criteria that are particularly advantageous in the Sunshine Coast offer even at its current stage of development; red areas indicate criteria that require particular attention, enhancement or remedial action.

Provided that the ‘offers’ can be clearly articulated and directed to key demographic and business groups, there is every reason to be positive and indeed aggressive in pursuing new investment and targeted migration into the region.
<table>
<thead>
<tr>
<th>No</th>
<th>Criteria</th>
<th>Priority</th>
<th>Measurement</th>
<th>Status on Sunshine Coast</th>
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<tbody>
<tr>
<td>1</td>
<td>OVERVIEW</td>
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</tr>
<tr>
<td>1.1</td>
<td>Scale</td>
<td>Quant</td>
<td></td>
<td>Sunshine Coast region is of significant scale as an urban area and already identified as one of the second tier high growth areas, aligning with Gold Coast, Newcastle, Illawarra and Geelong. As in most regions, growth has slowed somewhat with the GFC but underlying growth rates and potential remain strong.</td>
<td>Already of a scale and level of urban development to be attractive to incoming investment and population.</td>
</tr>
<tr>
<td>1.2</td>
<td>History and recent growth</td>
<td>Qual</td>
<td></td>
<td>Most growth has occurred over the last three to four decades and has been exponential. The amalgamation of the three councils provides a level of identity and governance for the area. Despite a current slowing, growth and prospects remain strong.</td>
<td>Represents a positive outlook.</td>
</tr>
<tr>
<td>1.3</td>
<td>Location</td>
<td>Qual</td>
<td></td>
<td>Sound strategic location, able to access markets and infrastructure, airport, finance, etc. in Brisbane but separately, distant and with its own identity and overall represents an excellent balance - probably better than any other comparable region.</td>
<td>Care must be taken to defend the separation and maximise the advantages of the proximity of Brisbane but without becoming a part of it.</td>
</tr>
<tr>
<td>1.4</td>
<td>Stability</td>
<td>A</td>
<td>Quant</td>
<td>The emphasis is placed by some on the relatively narrow economic base - development/construction, tourism, services - particularly retail. Whilst this may be true, it is certainly not unusual that an Australian region has a narrow economic base (many have a much narrower base than this). Instead of using this as an excuse, more emphasis should be on renewing those offers - particularly in services (retail and tourism) where better targeting to a new demographic market and new long term tourism from elsewhere offer real possibilities. Further development of the Sunshine Coast Airport would have relevance here.</td>
<td>Renewed sectoral development strategies and investment attraction into these areas is an urgent priority. They should not be referred to as liabilities but as mainstream, viable sectors where renewal and evolution is encouraged.</td>
</tr>
<tr>
<td>1.5</td>
<td>Safety and security</td>
<td>Quant</td>
<td></td>
<td>The area has a sound reputation for personal safety - certainly better than many other regions - reflecting the community and family characteristics of the region.</td>
<td>Sound offer.</td>
</tr>
</tbody>
</table>

1 Colour code: Green = a Sunshine Coast advantage    Red = needs attention / remedial action
4 Priorities identified with ‘A’ are considered a high priority
6 Measurements referred to are either ‘Quant’ for qualitative measures and ‘Qual’ for qualitative measures.
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<tr>
<td>1.6</td>
<td>Leadership</td>
<td>A</td>
<td>Qual</td>
<td>Leadership has been challenged because of the difficulties of Council amalgamation, an unhealthy 'development-no development' divide and a mantra of 'open for business' that would be challenged by some. The fact that the region has no representatives from the ruling State Government may be an issue though infrastructure spending has continued.</td>
<td>Overall, difficult to assess but elections in the first half of 2012 will involve almost inevitable change and the possibility of positive outcomes. Leadership is critical.</td>
</tr>
<tr>
<td>1.7</td>
<td>Physical characteristics</td>
<td>A</td>
<td>Qual</td>
<td>Iconic physical region in overall excellent condition - aspirational and destination place. Recognised nationally and increasingly internationally. Overall, needs to be seen as a lead in the offer, but not at the expense of a business focus.</td>
<td></td>
</tr>
<tr>
<td>1.8</td>
<td>Available evidence and databases</td>
<td>A</td>
<td>Quant</td>
<td>Whilst ABS statistics are available and apply to some extent, the level of interrogation is currently below the standard upon which corporate and personal decisions will be made. Other regions are much more adept at this.</td>
<td>Overall, action required - Sunshine Coast Council and University of the Sunshine Coast University have a joint project under way that will address this key issue.</td>
</tr>
<tr>
<td>1.9</td>
<td>Exposure and linkages to national and international spheres</td>
<td>A</td>
<td>Qual</td>
<td>There are growing linkages here, but they are all considered secondary to those that have been established in competing areas - particularly the Gold Coast. The Sunshine Coast is still observed by some as a 'family holiday destination' rather than a place for business.</td>
<td>Action required - tailored investment missions - in and out would assist in the first instance.</td>
</tr>
<tr>
<td>1.10</td>
<td>Demographics and dependency ratios</td>
<td>A</td>
<td>Quant</td>
<td>This is a critical issue. A better understanding of demographics is required. The Sunshine Coast has a near unique profile, whereby the area remains a destination of choice for many baby-boomers who like the lifestyle and provide a valuable workforce and investment group.</td>
<td>More detailed analysis is required and should be targeting region specific business opportunities (see below).</td>
</tr>
<tr>
<td>1.11</td>
<td>Identity</td>
<td>A</td>
<td>Qual</td>
<td>Excellent, recognised identity with few peers in Australia. The challenge now is that it needs to be more directed to business opportunities and business migration rather than simply focus on a 'tourism beach culture'.</td>
<td>Part of the 'whole offer’ to be developed.</td>
</tr>
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<tr>
<td>2.1</td>
<td>Core business sectors</td>
<td>Quant</td>
<td></td>
<td>The existing three core business sectors need to be redeveloped and viewed positively rather than as some sort of weakness. The volatility and co-relationship between the three is recognised but can be addressed in a positive way.</td>
<td>Requires sectoral redevelopment. In the case of retail, a refocus of the offer is required. Tourism requires more investment in the asset base.</td>
</tr>
<tr>
<td>2.2</td>
<td>Overall economic stability</td>
<td>Quant</td>
<td></td>
<td>This cannot be addressed in a holistic way, but rather, in sectors. The volatility of the regional economy is not unusual in the Australian context and is made worse at this time because of the impact of the GFC (particularly in service sectors) and the fact that the regional economy (particularly residential) is coming off an overinflated boom.</td>
<td>Not for individual action.</td>
</tr>
<tr>
<td>2.3</td>
<td>Demographics</td>
<td>A</td>
<td>Quant</td>
<td>Need to take advantage of the peculiar demography emerging - aspirational destination for baby-boomers and for family groups seeking lifestyle.</td>
<td>More investigation required, but needs to link with housing, retail and business development.</td>
</tr>
<tr>
<td>2.4</td>
<td>Unemployment rates</td>
<td>A</td>
<td>Quant</td>
<td>Unemployment rates are fairly comparable to other regions but like those, underemployment is a hidden and critical issue.</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Export orientation / global ready</td>
<td>A</td>
<td>Quant</td>
<td>Most of the service industry is localised and do not see the full impacts of globalisation or the advantages that go with globalisation..</td>
<td>Overall major issues to address - through education at a firm and individual level and the presentation of case studies.</td>
</tr>
<tr>
<td>2.6</td>
<td>Innovative culture</td>
<td>A</td>
<td>Qual</td>
<td>Developing reasonably across SME's but appears to be more common in particular legal sectors (CleanTech). The SME nature of the economy should lend itself to a more innovative approach. The relocation of a number of professional service firms exists.</td>
<td>A sound base, but critical to extend it.</td>
</tr>
<tr>
<td>2.7</td>
<td>Built environments for business</td>
<td>A</td>
<td>Quant</td>
<td>Significant business vacancies exist and good office space is available at this time - particularly in Kawana. These however, are generic and fairly standard office accommodation environments and perhaps lack the innovation of precincts elsewhere. Transportation issues are beginning to emerge. For the scale of the region and its growth potential, there are too many business precincts.</td>
<td>Overall, there is little that can be done to limit the number of precincts, however as much as possible, each should be encouraged to develop different themes. Sippy Downs Town Centre offers the most important opportunity to provide an integrated development with a university theme and this should not be prejudiced.</td>
</tr>
<tr>
<td>2.8</td>
<td>Anchor businesses</td>
<td></td>
<td></td>
<td>Except for government and semi-government undertakings, there are virtually no major businesses on the Sunshine Coast and those that do exist do not particularly lend themselves to clustering with smaller firms.</td>
<td>It is difficult to see how this will change in the future.</td>
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<tr>
<td>2.9</td>
<td>Retail businesses</td>
<td></td>
<td>Quant</td>
<td>It is arguable that the Sunshine Coast region is (probably unique in Australia) ‘under-shopped’ with significant potential for redevelopment / new development in retail. This requires close consideration in line with demographic change of the region.</td>
<td>The installation of links between demographic and retail activities and a facilitating town plan that promotes targeted retail developments, preferably in an integrated precinct, are called for.</td>
</tr>
<tr>
<td>2.10</td>
<td>Business clusters</td>
<td></td>
<td>Quant</td>
<td>Most of the current clusters relate to tourism, but some have also emerged around the airport facilities. Other firms are much more scattered across the region which is the case elsewhere.</td>
<td>Affirmative action is required on this so that physical proximity and other networks enhance prospects for local companies. Some sectors, such as CleanTech are developing clusters and the Innovation Centre at USC provides another opportunity that is yet to be fully developed. An analysis of industrial land and matching future supply with the demand of new industry sectors would appear to be high priority.</td>
</tr>
<tr>
<td>2.11</td>
<td>Leading edge businesses</td>
<td>A</td>
<td>Quant</td>
<td>There exists on the Sunshine Coast a significant number of small leading edge companies - some related to the Innovation Centre Sunshine Coast, but others scattered across the region. More needs to be done to highlight and celebrate their achievements and to network them with other firms in the region.</td>
<td>Real leadership can be promoted through case studies and a better identification and networking of these firms. The ICSC should assist with that.</td>
</tr>
<tr>
<td>2.12</td>
<td>Available high end workforce (owners, managers, key workers)</td>
<td>A</td>
<td>Qual</td>
<td>Whilst the situation is improving, as a number of professional service companies move to the area, the numbers of these owners, managers, financiers etc. remain at quite low levels, although they appear interested in the region.</td>
<td>The Sunshine Coast represents an excellent offer, but awareness raising to this group appears necessary.</td>
</tr>
<tr>
<td>2.13</td>
<td>Tacit knowledge and networks</td>
<td>A</td>
<td>Qual</td>
<td>Because knowledge-intensive companies remain in relatively small numbers on the Sunshine Coast, the ability to find those leaders with not just disciplined knowledge but also business acumen and networks appears quite small scale and needs to be enhanced.</td>
<td>Awareness raising program is necessary, but perhaps use of high wealth individuals who are already in the region to act as mentors, together with targeted strategies would assist.</td>
</tr>
<tr>
<td>2.14</td>
<td>Overt marketing and consistent message</td>
<td>A</td>
<td>Qual</td>
<td>Whilst advances have been made, the particular 'value proposition' for investment or relocation to the Sunshine Coast needs additional work.</td>
<td>High priority for action.</td>
</tr>
<tr>
<td>2.15</td>
<td>Presence of government business and services</td>
<td>A</td>
<td>Quant</td>
<td>Government services on the Sunshine Coast are limited to service level presence. The relocation of an appropriate component of a government department would significantly enhance and have major social and economical impacts on the Coast. It would be important however, that the section of government would have relevance to this region.</td>
<td>A priority activity - a small taskforce should be established and led by Council to identify a suitable part of government and to strategise its securing for the region - using political links as possible.</td>
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<tr>
<td>2.16</td>
<td>Financial access to capital</td>
<td>A</td>
<td>Quant</td>
<td>There is no significant aim for venture capital networks on the Sunshine Coast nor is that likely. Consequently, formal links with those markets need to be established.</td>
<td>Probably using the Innovation Centre Sunshine Coast as a central point, conduits to venture capital markets in Brisbane and Sydney should be established with regular visitations, presentations, etc.</td>
</tr>
<tr>
<td>2.17</td>
<td>Business development facilities (Innovation Centre etc.)</td>
<td>A</td>
<td>Quant</td>
<td>The Innovation Centre is successfully operating in the region and its activities are currently being upgraded and reinforced.</td>
<td>Actions for regeneration for ICSC are underway, but it needs to ensure that better linkages are made with the University and particularly outreaching to the region.</td>
</tr>
<tr>
<td>2.18</td>
<td>Government business support services / agencies</td>
<td>Quant</td>
<td>Quant</td>
<td>Whilst investment and central plans are under development at the Council and certain sectoral strategies are meeting with some success the overall direction of the State Government is unclear. Likewise, the RDA has been reconstituted and it remains to be seen what advances it can make into the future.</td>
<td>Initiatives are underway with Council and RDA - await outcomes. An improved situation appears to be emerging.</td>
</tr>
<tr>
<td>2.19</td>
<td>Business networks and associations</td>
<td>Qual</td>
<td></td>
<td>Most industry associations are quite strong and viable and the Sunshine Coast Business Council is becoming more relevant and connected. The Chambers of Commerce deal particularly with local issues with limited ability to influence future direction.</td>
<td>The environment here has improved remarkably over recent times with a high level of cooperation and a rising of influence and importance of the Business Council.</td>
</tr>
<tr>
<td>2.20</td>
<td>High-speed internet</td>
<td>A</td>
<td>Quant</td>
<td>Internet and ICT services on the Sunshine Coast are at least of a standard of comparable regions. Rollout of the NBN will enhance existing facilities. Cable links between hospital and university facilities will also be important.</td>
<td>Fairly comparable with other regions and taken as a ‘given’ by contemporary business. Being a region for a priority position in NBN rollout should be organised.</td>
</tr>
<tr>
<td>2.21</td>
<td>Sustainability of SMEs</td>
<td>Quant</td>
<td></td>
<td>Business failures in SMEs remain a critical problem and may indicate poor business planning and/or management and a lack of understanding about the changing economic environment. Either way, structured training programs and mentoring could assist.</td>
<td>A priority given the potential impact on investment properties and workforce. Specialist training courses could potentially be developed and delivered through TAFE and changes should be encouraged. Guest speakers and, as appropriate ‘program leaders’ or similar visitors should be considered.</td>
</tr>
<tr>
<td>2.22</td>
<td>Alignment of economic development and urban planning - common themes</td>
<td>A</td>
<td>Qual</td>
<td>The economic and community offer of the Sunshine Coast is being further developed and needs to be seen as an inputting to the development of the new Sunshine Coast town plan. There is a quite widely held view that the current plan and its operations do not reflect business aspirations and timing.</td>
<td>This is a critical and long term issue and the Sunshine Coast Business Council and industry groups should better articulate their opinion to these matters - whilst a window of opportunity exists.</td>
</tr>
<tr>
<td>2.23</td>
<td>Industrial land planning</td>
<td>A</td>
<td>Qual</td>
<td>The availability of affordable and well located and serviced land will be critical to business and industry attraction and growth. Existing stocks are slow moving, in part because of economic conditions and arguably, because they do not align with contemporary demands.</td>
<td>A detailed study is required of industrial land, availability and type in the region, together with a demand analysis and absorption rates likely for such land uses. An investigation of gas infrastructure might also be undertaken.</td>
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<tr>
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<tr>
<td>2.24</td>
<td>Capital projects / public infrastructure</td>
<td>A</td>
<td>Quant</td>
<td>To ensure that all immediate and long term benefits from public capital investment is maximised. This is particularly true of the Sunshine Coast University Hospital and other major parcels of public infrastructure, including the university.</td>
<td>The hospital development strategy will deliver greater community benefit and similar strategies need to be applied to other public funded initiatives.</td>
</tr>
<tr>
<td>2.25</td>
<td>Transformational projects (refer also 2.24)</td>
<td>A</td>
<td>Qual</td>
<td>Whilst the Sunshine Coast University Hospital represents one transformational project, there are a number of others that present key opportunities. These include the Sunshine Coast airport, Maroochydore town centre and Sippy Downs town centre projects.</td>
<td>These projects represent real opportunities for the Sunshine Coast and its economy. The identified transformation of projects should be kept small in number, but for each there should be a reference/management group from across the community to ensure delivery and performance and to ensure maximum regional leverage.</td>
</tr>
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</table>

### 3 EDUCATION AND TRAINING

| 3.1 | Education as a sector | A | Quant | Education sector (as an income earner) and in the economic and social development community is arguably underrated on the Sunshine Coast. It is the fifth biggest sector on the Sunshine Coast and has significant potential for growth. | A new economic strategy and coordination is critically required. |
| 3.2 | Available and new workforce | A | Quant | Demographic changes result in very significant opportunities to train and retrain and to supply a workforce for new capital infrastructure. | New potential - need to examine workforce planning and planning needs for the region and major capital infrastructure. |
| 3.3 | Aligned education facilities (TAFE, University) | A | Quant | University and TAFE institutions on the Sunshine Coast appear to evolve quickly, but there is a continuing need for them to align their programs with regional, not just wider needs. | Lobbying to promote the regional linkages with institutions. |
| 3.4 | Research capabilities | Qual | The University of the Sunshine Coast is demonstrably undersized for the size and growth of the region. Every effort has to be undertaken to address that fundamental problem. | Assisting the university to promote new research initiatives relative to the region and to secure their delivery. |

### 4 ENVIRONMENT AND SOCIAL

<p>| 4.1 | Physical environment and image | A | Qual | The case for the Sunshine Coast in this area is already well established and profoundly important. | To use this image but to also emphasise business components. |
| 4.2 | Overt care of the environment | A | Qual | Sustainability needs to be practiced at all levels across the community and better engaged as one of its themes - not identified as a drawback or restriction, but as a regional advantage and base for business. | An excellent offer that needs to be refreshed. |</p>
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<td>4.3</td>
<td>Housing affordability</td>
<td></td>
<td>Quant</td>
<td>Housing affordability has diminished on the Sunshine Coast in recent years but now falling demand and some falling house prices will assist in bringing those affordability issues back to manageable or comparable rates with other regions.</td>
<td>Improve supply, innovative infrastructure funding, exemplification of new housing design.</td>
</tr>
<tr>
<td>4.4</td>
<td>Housing choice</td>
<td></td>
<td>Quant</td>
<td>There is arguably a lack of housing choice on the Sunshine Coast and developers and producers should be encouraged to provide more options and exemplification of housing styles available.</td>
<td>Overall, work with the development community to improve options available.</td>
</tr>
<tr>
<td>4.5</td>
<td>Physical diversity</td>
<td></td>
<td>Quant</td>
<td>The urban development (village) pattern on the Sunshine Coast are conducive to the lifestyles and physical community and social diversity.</td>
<td>There are important characteristics that should be highlighted in providing a range of alternatives for migrants to the areas. A major research investigation into the villages will be undertaken through 2012.</td>
</tr>
<tr>
<td>4.6</td>
<td>Tolerance</td>
<td>Qual</td>
<td></td>
<td>The Sunshine Coast represents a reasonably diverse community and ageing will continue to enhance a more tolerant and thoughtful / conservative attitude. The Council has excellent social inclusion strategies, but these can be enhanced further into what is now a very important aspect of business and community life.</td>
<td>The region is at least as welcoming and tolerant as comparable areas, but consideration of more innovative programs to inform and involve the community (town hall meeting, blogs, social media etc) should be further considered.</td>
</tr>
<tr>
<td>4.7</td>
<td>Ethnic diversity</td>
<td>A</td>
<td>Quant</td>
<td>Despite the multicultural image of contemporary Australia, the Sunshine Coast region is overwhelmingly monocultural. In the attraction of workforces that will increasingly be from overseas or be in partnership with overseas companies, investors etc. ethnic links are proven to be of great importance. A number of competing regions, such as the Gold Coast, have much higher ethnic diversity and global exposure, particularly to Japan and China.</td>
<td>This is a more significant economic and social issue than is recognised. Appropriate action or stimuli to encourage ethnically diverse migration needs to be closely considered. Stronger indigenous links also to be considered.</td>
</tr>
<tr>
<td>4.8</td>
<td>Mobility/lack of congestions</td>
<td>A</td>
<td>Qual</td>
<td>Whilst the Sunshine Coast region has significant issues with inferior public transport and, because of its layout, significant commute distances, it is far less congested and has much better accessibility and mobility than practically any other comparable region in Australia. This represents a major lifestyle asset. Also the distance and accessibility to Brisbane (particularly to the airport) is superior to most other comparable regions.</td>
<td>Seen as a significant advantage that needs to be highlighted.</td>
</tr>
<tr>
<td>No</td>
<td>Criteria</td>
<td>Priority</td>
<td>Measurement</td>
<td>Status on Sunshine Coast</td>
<td>Overall / actions recommended</td>
</tr>
<tr>
<td>-----</td>
<td>----------------------------------</td>
<td>----------</td>
<td>-------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>4.9</td>
<td>Transportation options</td>
<td></td>
<td>Quant</td>
<td>Issues revolve around public and alternative transport solutions within the region and improved links to Brisbane. These are long-term strategies but, in most cases, current options are inferior to those of comparable regions.</td>
<td>These are largely long-term high-capital investment projects, but a strategy for investigation of them needs to be in place.</td>
</tr>
<tr>
<td>4.10</td>
<td>Access to cultural and social facilities</td>
<td></td>
<td>Qual</td>
<td>For the attraction of new employees these matters are considered important. Whilst the Sunshine Coast obviously has beach access and beach culture, it is seen as quite limited in access to cultural and other activities - the proximity to Brisbane being a potential limiting factor.</td>
<td>The offer for the Sunshine Coast is improving - with the emergence of a number of festivals and events. A convention/cultural centre is urgently required, with these activities already under way. No doubt the offer will improve and diversify with a growing population.</td>
</tr>
<tr>
<td>4.11</td>
<td>Sporting teams / access to sporting facilities etc.</td>
<td></td>
<td>Quant</td>
<td>There is no national sports team based on the Sunshine Coast - this region being the largest in Australia without such a focus. It is however, at this stage, unlikely that such a team could be established here. The attraction of one-off sporting events - some of which already exist, are probably more achievable and without the high level of capital investment needed. Access to sporting facilities for community use is however very good and at least comparable to other regions.</td>
<td>Offer is sound - the securing of several other iconic sporting or similar events, particularly ones relevant to the local population would be advantageous.</td>
</tr>
</tbody>
</table>
11 Drawing conclusions

The research base for this project is wide and the case studies diverse. The entire discipline area of regional economic development is immature and there is little by way of seminal texts or widely established principles upon which to base specific, regional strategies. In that context, therefore, the use of case studies has been both important and valuable.

Common themes do emerge as outlined below – those include the importance of a true understanding and use of demographic information, the need to take a holistic approach, a wide acceptance of the implications of global markets and the development of an innovative culture.

The research establishes, however, that the components that draw business investment and contemporary knowledge workers to a region such as the Sunshine Coast are essentially the same as those that encourage clusters inside those regions, resulting in the retention of key staff, and later, organic growth of those activities in an evolutionary and dynamic way over time.

The recommended approach relies on enduring partnerships between key stakeholders in the community and the adherence to agreed plans over very long timeframes.

This research also concludes that, by the criteria normally used to assess the level of contemporary development/sustainability/liveability of regions, the Sunshine Coast is already a remarkably strong offer – presenting a good or better rating than most competing regions.

Like any area, there are components of the existing character of the Sunshine Coast region that require enhancement but project teams could be assigned, with specific activities and targets, to better address and improve performance in those areas. In most cases, it is within the power of the stakeholders, working together, to address those current shortcomings.

Most important, however, is the observation that the persona of the Sunshine Coast region reflects its history rather than its future. There is a leadership role, currently fragmented, that now must re-form and target identified prospects, both as regards firms and worker categories.

In this context, the key conclusions and recommendations are as follows:

(i) The future is remarkably different and old strategies will fail

No economic or social initiatives or policy direction is immune from change. Such change is now compounding and permeates all sectors. Notwithstanding, it is difficult to identify any area across an economy and community such as Australia’s that has been subject to such fundamental change as business structures and labour markets. These have been driven by fundamental changes in work practices, the rise of global markets and the use of information and communication technology. Often, important influences have been the
move from tangible to knowledge-intensive product, the demands and aspirations of contemporary workers and generations and the deregulation of labour markets.

Some might argue that, even in the past, economic and regional development policies and strategies across much of Australia were inadequate but, that aside, it is quite inconceivable that those policies and strategies that addressed fundamentally different eras and challenges could still be relevant in the contemporary environment and into the future.

To secure success in this new and still evolving environment, a near-complete reconstruction of such initiatives needs to be embarked upon.

(ii) **The primacy of demography**

There is tendency in economic analysis and its application to respect demographic information and apparent trends but to accept them almost as a ‘given’, preferring to concentrate on other economic issues or aspects of policy. This research would hold that this represents a flawed approach. Historically and into the future demography is destiny. It is not simply a starting point or some background, static information.

Particularly in the contemporary environment, the demographic characteristics, competencies and potential are the essence of economic growth and wealth creation. Policy and initiatives to enhance regional economic performance needs to be based on a detailed understanding of the demography of a particular region and all the idiosyncrasies that are attached to that. To address fundamental demographic problems and imbalances and to seize on comparative strengths of a region’s demographic composition is to address fundamental economic questions of desirable growth, wealth creation and sustainability (broadly defined).

Important to an understanding of this is the realisation that population projections into the future are simply estimates, often based on the extension of existing historical trends. It follows, therefore (and there are numerous examples of this) that demographic characteristics into the future are certainly not pre-ordained and sometimes quite modest and inexpensive changes in policy and the introduction of innovative stimuli and incentives can significantly change current projections for the future.

(iii) **Partnerships**

In no case study or other evidence uncovered has a single government, the business sector or an individual firm’s actions, produced significant long-term change or advancement. Each successful initiative has involved a key partnership based on clear, agreed objectives and trust. Whilst personal relationships are very important, particularly in the early stages, such partnerships must transcend individuals, electoral cycles and so forth. Once they are well established and achieving desired outcomes, they are almost impossible to subvert in any case. In each of the case studies, the role and
responsibilities (for activities, resources etc.) of each of the stakeholders were established and agreed and that platform rarely changed over time.

(iv) Holistic offers and individual choices

Conclusion (ii) identifies the primacy of demography and that an understanding of this is essential to the securing of the required skilled labour within a region and the support of its further development over time.

That notwithstanding, this research would hold firstly that in OECD countries migration does not occur in a mass or organised way. Whilst there may be overall drifts to certain areas (such as the sun belts in the US, Europe and Australia), the decisions to either emigrate or internally migrate within a country are almost always the decisions of individuals (or individual household groups) who arrive at their decision based on their own circumstances, needs and aspirations. Consequently, it is wrong to be overly prescriptive regarding the key attractors of a particular region.

There will almost certainly be a level of personal choice as regards final destination chosen – perhaps based on family reunion, pre-existing social and support linkages or previous personal experience. Additionally, however, and as identified in practically all liveability indexes around the world, there will be a range of criteria that are common to most – availability of work, cost of living, physical safety, law and order, good social and educational facilities, a pleasant physical environment and so on.

What appears to be important here, however, is that individuals consider a holistic view of the prospect region and anticipate that all of these desirable characteristics, together with their own individual requirements, will be adequately met and have the prospects of continuing into the future. Typically, a failure in one of these characteristics cannot be compensated for in overachievement in one of the other selection criteria.

It follows from this that once the demographic characteristics and strategies are in place, a holistic ‘pitch’ needs to be put in place that addresses all of the likely needs.

It is highly unlikely that campaigns that simply focus on one or two criteria (e.g. the prospect of higher wages or liveability) are likely to achieve the short-term or long-term results sought. (The development of mining communities represents a case in point where, because of the prospects of very high wages, there is no shortage of willing labour but, equally, there is no suggestion of building community and social networks, nor of long-term community sustainability – to the point that a fly-in, fly-out solution is often adopted).

The offer must be clear, consistent, uniformly expressed and targeted, representing a true ‘value proposition’ and regional identity to those whose involvement is being sought for investment or relocation.
(v) The critical role for governments

Even in the United States case studies, neither business nor educational institutions in their own right were in a position of leadership, at least at the early stages of new regional economic development and attraction initiatives. The role and impact of those groups were fundamental but again, particularly in the early stages, there was a clear catalyst role for government departments at all levels (federal, state and, particularly, local).

The role of each level of government and the skills, activities and resources that each could bring vary widely. Sometimes, the most important contributions were not financial but rather presented what were good, considered ideas and strategies, delivering to the region some particular new government activity, research centre, part of a department, or a range of other investments, and providing leadership and overt support and reinforcement for the proposition established by the region. Also important was the role, particularly of state and local governments, in providing the conduit that engaged and delivered the wider support across the entire community – linking political leaders, the press and a diverse range of business and community groups and universities.

(vi) Long term and short term

To be adopted, any policy initiative needs to produce at least some short-term outcomes. A repositioning of the ‘value proposition and message’ of a region can in fact do that simply by the announcement effect and an overt unity of purpose and related activities. Case studies, however, reinforce the importance of consistency in policy development and application. Even the newest of the successful case studies investigated had commenced over a decade before and some were more than half a century in their evolution. All, however, were successful and were continuing to evolve and grow.

It is that philosophy that must provide the overall approach and commitment if a new economic development and attraction regime is to succeed and sustain itself.

(vii) Exemplification

It is simply a matter of fact that particularly the private sector and the wider community have little interest and will not engage through simple statements of policy. Rather, they must be shown that the ideas being advanced – be they clustering, wealth creation, innovation support, globalisation, social networks and other key components – are important and, when working together, will achieve results.

The physical nature of the urban form that evolves within a particular region will be individual to that area and the product of a diverse mix of demography, migration, technology and education, settlement history, wealth, social mobility and social networks, and conductivity into the global community. Some such as Glaeser & Media (2011) would promote the importance of very high density urban nodes; Florida (2002) sees the importance of creative clusters concentrated in certain urban areas and forms; Kotkin (2010) envisages an
urban environment of self-contained but lower density ‘new generation’ suburbs in non-traditional growth areas; and Brugmann (2009) identifies the important role of almost ad-hoc or sometimes referred to as informal urban growth with ‘tacked on’ village like modules. In reality, variations of all of these occur will probably emerge depending on the circumstances of the case, but it is important that the strategic direction and planning instruments acknowledge the type of urban area being created. In this, there needs to be a clear understanding of urban design (i.e. abstract principles) and urban planning (i.e. the application and roll out of those principles appropriate to the particular environment).

In advancing all of this, exemplification or the announcement and celebration of regional successes and explanations of how they were achieved represent an important tactic in the early establishment of new economic strategies.

On the Sunshine Coast emerging clusters in clean-tech, education and a number of firms linked with the Sunshine Coast Innovation Centre represent immediate opportunities in that regard.

(viii) Education

A contemporary economy simply cannot satisfactorily develop and evolve without a sound education and research base. These are income-generating sectors in their own right but, more importantly, with proper alignment, provide the necessary skill base to train, retrain, attract and hold necessary employees and for firms to assist in problem solving and wider research necessary to remain competitive. Both university and technical skill providers must take a proactive ‘seeding’ approach.

(ix) Social networks and social media

The emergence of these criteria over very recent times has been extraordinary and their final impact cannot be fully assessed at this time. They are, however, of much greater importance than simply fashion or of community interest. They reflect the required communications and support networks required by new-generation workers and an overlay of communication through these media and the enhancement of social networks that also have a regional dimension will be important to the roll-out of any new economic strategy – be it positioning and attraction, retention or internal growth.

In conclusion, it is essential that the above factors not be seen as discrete or separate but rather integrated as part of the backdrop, a catalyst or a key driver to the creation and development of ‘smart communities’ be that in growing local businesses, stimulating professional and social networks and developing clusters.

Whilst as noted above, each region and location will have unique characteristics. Many of the elements are generic. In areas such as Sippy Downs, Sunshine Coast, these characteristics apply and will be played out in that region. The botanical analogy of Rowe (2009) is most applicable. The fruit and flowers may vary wide variety but the
root system, rhizomes and key nutrients of all of those plants are fundamentally the same.
12 Further actions

There have been many research investigations and reports into various components of knowledge attraction, clustering and the physical development of a number of high-growth regions in Queensland, particularly centred on the Gold Coast and Sunshine Coast. Within that context, this investigation was specifically focused on the attraction of knowledge-intensive firms, their owners and employees, with particular regard to the development of the Sippy Downs Town Centre.

In previous research and through a range of case studies, the themes of globalised enterprise, innovation, lifestyle and social issues and the need to develop a holistic and integrated offer were emphasised.

The evidence base that forms this value proposition for the Sunshine Coast is now available – through this and other reports.

The next stage must be to prosecute that argument, internally to the region and externally to national and potentially international markets and potential labour forces. Case studies would show, however, that, whilst high-profile achievements can be secured even in the short term (including the announcement effect of an innovative new approach), the entire initiative is one to be developed and to mature over a long period of time – five to ten years and continuing thereafter.

Unlike many of its potential competitors, however, the Sunshine Coast region has a remarkably sound offer, even in its current state. Household incomes are comparatively low but it is an aspirational region, still attracting considerable growth despite poor national economic conditions, and is a destination of choice of both baby boomers (who represent an available experienced workforce who are now willing to extend their working lives) and, very interestingly, the attraction of younger family groups with highly skilled members who traditionally are one of the least likely demographic groups to relocate. Again, this represents the aspirational nature and lifestyle advantages of the region. The Sunshine Coast is also very well located as regards capital city facilities, particularly an international airport, with skill and educational levels being sound and significantly above a number of comparable regions.

The region had been affected by adverse housing affordability figures in recent years but these seem to be reverting to levels comparable with other regions and therefore not a disincentive to new migration.

Overall, therefore, the region and its key stakeholders are now in a position to assemble a compelling long-term offer/value proposition – addressing the key criteria for sustainable contemporary regional economies and communities. This report card is summarised in Section 10 of this research. The Table provided in Section 10 highlights perceived key advantage areas viewed as requiring greatest effort and, in some cases, remedial action.
On any of the components requiring explanation or remedial work, a group drawn from government, university and the business community could establish a work plan to be adopted by all parties to, by quantitative measure, to improve that component.

In the meantime, the evidence base can be used in a range of investment attraction, the development of education programs, town planning and development control measures and advertising to promote that new integrated offer. These activities have to be cognisant of existing initiatives, programs and strategies already under way with most of those stakeholders, though it is considered that most of those would align quite well with this new approach.

In particular, the statistical evidence-based project (*The Observatory*) would represent an important ongoing database to support this overall initiative.

To develop this consolidated strategy short-term goals of six to twelve months would need to be established, but form part of the long-term strategy for five to ten years.

A forum and confidential workshop of the key Sunshine Coast stakeholders (e.g. State Government officials, senior council officers, Regional Development Australia representatives and executive representation from universities, TAFE and, particularly, of the business community) should be convened early in 2012 by the Department of Local Government and Planning to advance the strategy.
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99
14 Appendices

14.1 Interview Lists

Melbourne / Ballarat Research Trip
19 (Mon) 20 (Tue) – 21 (Wed) – 22 (Thu) September 2011
Mike Hefferan, Peter Glasby, Pam Wardner

1. **John Collins**, Economic and Development Manager and Visitor Services
   Hepburn Shire Council  J Collins mobile: 0417 167 854 email: jcollins@hepburn.vic.gov.au

2. **Werner Hulsmann**, Acting Director Ballarat Technology Park (Malcolm Vallance, Director is on leave) Greenhill Enterprise Centre, University Drive, Mt Helen, Vic, 335 Contact person: Julie Anson, Assistant to Director Technology Park, 03 5327 9893 or email janson@ballarat.edu.au.

3. **Ian Fry**, Executive Officer, **Taryn Davies**, Executive Assistant, Ballarat ICT Limited Contact 03 53352219 ian.fry@ballaratict.com.au http://www.ballaratict.com.au

4. **Dr Patrice Braun**, Interim Director CRIC and **Prof Frank Stagnitti**, DVC Research University of Ballarat Contact p.braun@ballarat.edu.au T(61)3-5327-9465 |F 61)3-5327-9055

5. **Sean Cameron**, Manager Economic Development, and **Andrea Carroll**
   Ballarat City Council T (03) 5320 5759 Economic Development Unit, City of Ballarat PO Box 655 Ballarat Vic 3353 P: +61 3 5320 500 F: 03 53334 117 E: business@ballarat.vic.gov.au W: www.businessballarat.com m 0400 577 524 f 03 5332 7977 e seancameron@ballarat.vic.gov.au w www.ballarat.vic.gov.au

6. **Dr Helen Thompson**, Director, Centre for eCommerce & Communications T: 03 5327 9418 or h.thompson@ballarat.edu.au

7. **Randall Straw**, Deputy Secretary, Dept of Business and Innovation: randall.straw@dbi.vic.gov.au Contact person: Amanda Jolley | EA to Deputy Secretary | Innovation & Technology Department of Business and Innovation Level 7, 121 Exhibition Street, Melbourne Victoria 3000
1. Peter Simons, Director of Institute for Ethical and Civic Engagement University of Colorado, office: 303 492 1962

2. Stan Deez, Professor, President's Teaching Scholar, and Director, Center the Study of Conflict, Collaboration and Creative Governance (3CG) and the Peace and Conflict Studies Program, University of Colorado, office: 303 492 1673 email: http://comm.colorado.edu/deetz, http://3cg.colorado.edu

3. Frances Draper, Associate Vice Chancellor of Strategic Relations, (former head of Chamber of Commerce), 270 University of Colorado Boulder, office: 303 492 4504, mobile: 303 775 3192

4. Spense Havlick, Professor Emeritus, University of Colorado-Boulder mobile: 303 494 066

5. Frank Bruno, Vice Chancellor for Administration, (former Boulder City Manager) University of Colorado at Boulder office: 303 492 7523

6. David Driskell, Executive Director, Community Planning + Sustainability City of Boulder 1739 Broadway, 4th Floor / Boulder, CO 80302, mobile: 607 227 0327 email: DriskellD@bouldercolorado.gov

7. Susan Graf, President and CEO of the Boulder Chamber of Commerce mobile: 303 442 1058 email: Susan.graf@boulderchamber.com

8. Dr. Anne Heinz, Dean, Continuing Education & Professional Studies and Associate Vice Chancellor, Summer Session Outreach and Engagement office: 303 492 7292 (direct)

9. Michael Grant, Associate Vice Chancellor for Undergraduate Education

10. Willem van Vliet, Professor and Director Children, Youth and Environments Center University of Colorado Boulder

11. Colin Sears, Portland Development Manager, Portland Development Commission, Portland Oregon

12. Kim Griffo, Executive Director, International Town and Gown Association, Clemson University office: 864 656 5077 email: kim@itgaonline.com

13. Marvin Carmichael, Chief of Staff Office of the President and Director of Financial Aid Clemson University office: 864 656 3431 email: mgcarmch@clemson.edu
14. **Jeff Martin**, Executive Director Conference Center and Inn, office: 864-656-4405 email: jeffm@clemson.edu

15. **Rick Cotton**, City Administrator, Clemson City office: 864 653 2030 email: rcotton@cityofclemson.org

16. **Chris Hardy**, President & CEO Clemson Area Chamber of Commerce office: 864 654 1200

17. **Catherine Watt**, Director of Institutional Research and Director Strom Thurmond Institute Master of Public Administration Program, Clemson University office: 864 656 0847

18. **Suzanne Dickerson**, Director for International Business Development and Marketing at Clemson University’s International Center for Automotive Research (CU-ICAR) office: 864 283 7119 email: sdicker@clemson.edu

19. **Jim Oswald**, Technology Consultant PinPoint GeoTech, Clemson City office: 864 643 0344 email: jim@PinPointGeoTech.com

20. **Peter Knudsen**, Campus Master Planning Office office: 864 656-1108 email: pknudse@clemson.edu
14.2 Questionnaire to interviewees

1. The region / national relevance (history, demographic, economic issues, growth / trends, strategic plans, etc.)
   Key drivers:
   Institutions?
   Individuals? Specific groups?
   In retrospect, how did any (major) new change happen (i.e. combination of events)?

2. The university in context (scale, positioning, strategies, history, linked to region; government expectations of this uni)...how important really?
   TAFE and other educational institutions?

3. What would be the main attractor of the region? Why would people settle here?
   What would you say about the ‘culture/feel of the place and has that changed over time?

4. What was the role of State and local government in attracting people to this region?
   State
   Local
   Would the proximity to the capital city have an effect on this?

5. Was there any transformational/catalyst event that changed the direction of the region (for example, NEGATIVE: the closing of BHP steel mill in Newcastle POSITIVE: new major initiatives)?

6. Is there an ‘identikit’ of the people that settled here? If not here, where would they go (competition)?

7. How would you rate the level of amenities and support services that contribute to attracting key workers:

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Rating (please choose one and encircle your answer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Primary schools</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>2. Secondary schools</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>3. TAFE colleges</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>4. University</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>5. Hospital services</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>6. Commercial businesses on site</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>7. Retail and shopping</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>8. Parks and playgrounds</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>9. Cultural activities</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>10. Social capital / networks</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>11. ICT quality / accessibility</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>12. Entertainment</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>13. Local council support / services</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>14. Cafes and restaurants</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
<tr>
<td>15. Spatial capital</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

Others:
8. Are there any failures or areas that if improved would assist in attracting key workers and businesses to your region? Can please rank your answers – 1 being the most important. Do you think it is necessary to achieve a critical mass? What do you think is that level?

9. Other contacts / ideas / references / studies
14.3 Value Management Workshop agenda, list of participants, PowerPoint presentation

‘Knowledge Attraction’ Research Workshop

Agenda

Venue  Innovation Centre Board Room, Innovation Centre, University of the Sunshine Coast, Sippy Downs
Parking available at rear of the building
Date  27 September 2011 (Tuesday)
Time  8:00 am – 2:30 pm

Participants list

Sippy Downs, 27 September 2011, Tuesday

| Facilitator / Research Leader | 1 Mike Hefferan, Pro Vice-Chancellor (Engagement) and Professor Property and Development, USC |
| Research Team | 2 Peter Glasby, Director, Science Precincts, Transit Oriented Development and Design Division, Growth Management Queensland Department of Local Government and Planning |
| | 3 Narelle Roberts, A/Senior Project Officer Science Precincts, Transit Oriented Development and Design Division, Growth Management Queensland Department of Local Government and Planning |
| | 4 Pam Wardner, Teaching and Research Fellow, USC |
| | 5 Jude Mannix, Research Assistant, USC |
| Participants | 6 George Harley, Harley Consulting (CSIRO Lifetime Achievement Medal recipient 2004) |
| | 7 Craig Matheson, Economic Development Manager, Sunshine Coast Council |
| | 8 Michael Hopkins, Director - MMJ Projects, Chairperson - Sunshine Coast Committee Property Council of Australia |
| | 9 Gwyn Jarrott, Director – Property Works International, Director – Sunshine Coast Business Council |
| | 10 Jackie Holt, PhD, Senior Project Officer, Office of Engagement, Lecturer, USC |
| | 11 Andrew Fern, Director - Innovation Centre Sunshine Coast, CEO - Scarpar Pty Ltd |
| | 12 Michelle Hamer, Founder and CEO Smart Advice, Sunshine Coast Member – Regional Development Australia, Lecturer – USC |
| | 13 Brian Anker, Consultant and former Senior Executive with various Queensland Government departments |
‘Knowledge Attraction’ Research Workshop

Agenda

Venue
Simpson Room, Novotel Brisbane
200 Creek Street, Brisbane, Qld 4000
T (07) 3309 3394
Parking available at hotel car park is via Cousins Street located directly behind the hotel off Astor Terrace. Please refer to map (last page) for directions and instructions.

Date 28 September 2011 (Wednesday)
Time 8:00 am – 2:30 pm

Participants list

<p>| Facilitator / Research Leader | 1 Mike Hefferan, Pro Vice-Chancellor (Engagement) and Professor Property and Development, USC |
| Research Team | 2 Peter Glasby, Director, Science Precincts, Transit Oriented Development and Design Division, Growth Management Queensland Department of Local Government and Planning |
| | 3 Narelle Roberts, A/Senior Project Officer Science Precincts, Transit Oriented Development and Design Division, Growth Management Queensland Department of Local Government and Planning |
| | 4 Pam Wardner, Teaching and Research Fellow, USC |
| | 5 Jude Mannix, Research Assistant, USC |
| Participants | 6 Adam Blake, Programs and Partnerships, Director Creative Industries innovation Centre, University of Technology, Sydney |
| | 7 Michael Kane, Principal Advisor, ULDA (Urban Land Development Authority) |
| | 8 Linda Carroli, Consultant &amp; also Deputy Chair of Regional Development Australia, Brisbane |
| | 9 Andrew Fern, Director - Innovation Centre Sunshine Coast, CEO - Scarpar Pty Ltd |
| | 10 Tony Krimmer, Innovative Regions Facilitator, North Brisbane Moreton Bay Region, Innovative Regions Centre, Enterprise Connect Division, Department of Innovation, Industry, Science and Research |
| | 11 John Byrne, Adjunct Professor QUT, Consultant byrne.urbandesign |
| | 12 David Manzie, Consultant, Former Senior Executive Department of Community and Housing, Queensland Government |
| | 13 Phil Heywood, QUT Associate Professor Faculty of Built Environment and Engineering, School of Urban Development Discipline *Urban and Regional Planning |</p>
<table>
<thead>
<tr>
<th>Start</th>
<th>End</th>
<th>Time (minutes)</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am</td>
<td>8:30 am</td>
<td>30:00</td>
<td>Coffee and tea on arrival for an 8:30 am start (sharp)</td>
</tr>
<tr>
<td>8:30 am</td>
<td>8:45 am</td>
<td>15:00</td>
<td>Introduction / purpose / expected outcomes / structure of the day</td>
</tr>
<tr>
<td>8:45 am</td>
<td>9:00 am</td>
<td>15:00</td>
<td>Initial observations of the day by participants</td>
</tr>
<tr>
<td>9:00 am</td>
<td>9:30 am</td>
<td>30:00</td>
<td>Project to date and some premises</td>
</tr>
<tr>
<td>9:30 am</td>
<td>10:30 am</td>
<td>00:00</td>
<td>Divergent ideas (verb-noun, function)</td>
</tr>
<tr>
<td>10:30 am</td>
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Value management process

- Fundamental question(s)
- Some base information / ‘givens’/premise
- Creative process (what solves the problem) – lateral thinking; divergent solutions
- Convergence (what option is best; prioritising)
- Development and actions

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Smart communities: regional communities, knowledge clusters and growth elements

Background of the research

- Queensland’s ‘Smart Communities’ initiative (2009) recognises links between economic development, place, people and leadership to draw together contemporary, knowledge based economy.

  particularly (but not only) hospitals -
  - Brisbane (Princess Alexandra)
  - Gold Coast University Hospital
  - Sunshine Coast University Hospital
  - Townsville General Hospital

- However, they are still maturing and require strategies and policies to assist in growth to attract investment, create clusters, resilient networks, and enhance the ‘place’ for knowledge based economy to flourish ...... and most of all, it needs the right people.
Research objectives

- This research will provide an evidence base for
  - policy development
  - practical guidelines
    that can be adopted to various parts in Queensland
- explore the nature of professional and social networks
  association, goals and aspirations that will retain key
  employees
- understand how (once established) clusters and communities
  can best develop and grow
- for Sippy Downs (and as part of the Sunshine Coast region),
  to build on 'place' planning and to add to its attraction and
  retention strategies for key workers – a case study

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What are your initial thoughts, reflections of today’s topic?

... FROM THE PARTICIPANTS

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Smart communities: regional communities, knowledge clusters and growth elements

Project to date

• Literature review
• Case studies
  – Portland, Oregon
  – Clemson, South Carolina
  – Boulder, Colorado
  – Ballarat, Victoria
• Workshop
  – Sippy Downs
  – Brisbane

Portland: ‘A sense of place’
Portland: ‘A sense of place’

- Long history, always aspirational (‘the Garden of Eden at the end of the Oregon Trail’)
- WW2 navigation → start of technology (Intel chips)
- Fundamental importance of university – scale, interests, location, people
- Asian link versus other west coast cities (big neighbours in Seattle and California)
- Heavy concentration on tight urban frame
  - Greenbelt
  - Tight direction on urban growth
  - Incorporating mixed use and affordability
  - Use of light rail to create development lines
  - Promotion of themed districts i.e. Pearl District
- Internal migration of young professionals ... and others!
Clemson: ‘Welcome to tiger town’

- Semi-rural, land grant, agri-base ... Real, focused, regional commitment
- Fundamental merging of ‘town-gown’ - became same thing
- Huge ‘esprit de corp’!!!!
- Overt unity [orange Friday, IPTAY ‘I pay ten a year’]
- Strong alumni
- University wants to get involved ~
  - Sports / rowing
  - Tech park
  - Mayor – VC relationship
- Long term relationship and trust
- Town revolves around university and its activities
- Challenging automotive industry (take away from Detroit)
  - BMW Research Centre, PhD researchers
- Proactive professoriate

Boulder: ‘The smart hippies’

- Unique community
  - 30% student population
  - Highly educated community
  - Proactive professoriate
- Origins in Chautauqua
- 100,000 population – 100,000 jobs!
- Long liberal history
- Role of various research institutes and university
- Physical environment (mountains and greenbelt)
- Leverage from existing identity e.g.
  - High altitude athletes
  - Specialised manufacturing
Ballarat: ‘After the gold rush’

• Fundamental importance of the government providing innovative catalyst
• Already had an identity
• Underlying community strength but under threat
• A malleable university focussed on ‘skill supply’ ... not simply research.
• Capitalised on price differential and lifestyle as part of the offer
  • Good primary and secondary schools and services
• True partnership (all parties with skin in the game – federal, state, local, IBM, UB)
• Jobs in IBM started with 80 people → now over 600!
• Ballarat Tech Park – more than 1500 employees (bigger than UB)
and all of this and the Sunshine Coast.......

<table>
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<tr>
<th>REGION</th>
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<td>1975a</td>
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<td>20,280c</td>
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<td>$337,336c</td>
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Some ‘givens’:

1) The SME thing is a key factor here.
   - **good**: entrepreneurial / independent / lateral
   - **bad**: limited strategy / limited capital / wrong sectors

   Q: Do you concentrate on sectors, generic or ‘entice them in’?

2) There is a strong evidence of ‘knowledge clusters’, ‘spatial capital’ and ‘place’ works ~ but needs to be part of a full offer…with no components missing.

   Q: What are the elements here? Do we have the full offer?

---

Some ‘givens’ (continued):

3) The future is different…
   - Demographic…and demands of five generations
   - ICT and Energy (and ‘different’ globalisation / regionalisation)
   - Business structures

   Q: Scenarios rather than definitive solutions?

4) The region (Sunshine Coast)…
   - An aspirational place (inherent attractors)
   - In the second tier of urban areas in Australia
   - Within the environs of a very large urban area (with + / -)

   Q: Building on what we got?

5) The role of government will be critical – local government especially.

   Q: What is the **appropriate** role / best target?
Some ‘givens’ (continued):

6) This is a long term task
   - Clear message - consistent, ‘truth be told’
   - Agreed and supported
   - Progressive, evolutionary strategy (including targeting)

Q: The scenarios? How to use case studies, examples?

7) Leadership!!!

Q: Who is that? Who does what? How can we secure support?
This is the Creative Phase – is predominantly concerned with encouraging divergent ideas, lateral thinking and brainstorming, and generating alternatives for better value solutions. A large quantity of ideas (and not solutions) should be generated without any stoppages for judgment or criticism.

**VERB-NOUN AND FUNCTION EXERCISE**
Evaluation Phase – ideas are assessed, culled and prioritised, to identify viable alternatives which will achieve the necessary functions at lowest total cost, consistent with the required levels of quality and performance.

**DISTILLING KEY THEMES**

Some discussion ‘starters’

For these ‘knowledge workers’ and others...

1) What really is the identikit of them? Now and in the future?

2) How would you attract them here...or any where? (Priorities? Direct – indirect ways?)

3) Sunshine Coast (positive-neutral-negative)

4) What do we have to build on?

5) If it is important...where do we start?
Development Phase – Consider the difficulties involved in implementing the developed recommendations, how they can be overcome, recommend action by whom and by when. Be focused on the criteria for development of any new idea.

**DETAILED DISCUSSION OF KEY THEMES**
Reporting Phase – Ensure all other stakeholders understand the intent of any prioritised actions. Prioritise the action plan against the risk profile of the selected actions.

KEY ACTIONS AND FURTHER WORK
Knowledge Attraction
Research Workshop

Thank you

Research Leader: Professor Mike Hefferan
mhefferan@usc.edu.au
15 About the authors

Michael J Hefferan, Research Leader

Professor Mike Hefferan is Pro Vice-Chancellor (Regional Engagement) and Professor, Property Economics and Development at the University of the Sunshine Coast. He is also an Adjunct Professor at the Queensland University of Technology (QUT), where he previously ran QUT’s Institute for Sustainable Resources. For many years he was an Executive Director within the Queensland Department of State Development, responsible for the government’s property portfolio and major projects throughout the State.

Professor Hefferan has a PhD, Masters of Applied Science and postgraduate management qualifications. He is a registered valuer and is the immediate past State President of the Queensland Division of the Australian Property Institute (API) and a member of its National Education Board. Mike is also a Fellow of the Australian Institute of Company Directors (AICD), and an active member of both the Property Council of Australia (PCA) and Urban Development Institute of Australia (UDIA).

Professor Mike Hefferan
Pro Vice-Chancellor (Engagement) and Professor, Property and Development
University of the Sunshine Coast
Locked Bag 4, Maroochydore DC Qld 4558, Australia
T: 5456 5169
F: 5456 5057
E: mhefferan@usc.edu.au

Pamela Wardner, Research Fellow

Pam Wardner is a Teaching and Research Fellow with the Faculty of Business at the University of the Sunshine Coast (USC) lecturing and tutoring in the Property Economics and Development and Economics for Business courses and is involved in various research projects in the subject area. She is currently undertaking her PhD in the value proposition of master planned communities to non retail commercial firms.

Pam has an undergraduate degree in Finance Economics and completed her Masters in Business Management in 1990. She has been an active industry professional since and through her company, Wardner Developments, develops property in the Sunshine Coast, Queensland.

Pamela Wardner
Teaching and Research Fellow, Faculty of Business
University of the Sunshine Coast
Locked Bag 4, Maroochydore DC Qld 4558 Australia
T: + 61 7 5430 1260    F: + 61 7 5430 1231
E: pwardner@usc.edu.au
Judith Mannix, Research Assistant

Jude has a Bachelor of Property Economics and Development from the University of the Sunshine Coast (USC) and finished the degree with a Faculty award for academic excellence. Jude has worked directly under Professor Hefferan in the Office of Engagement at USC as a researcher on numerous projects.

Jude Mannix
Research Assistant, Office of Engagement
University of the Sunshine Coast
Locked Bag 4, Maroochydore DC Qld 4558 Australia
T: 54594627
M: 0420 844 360
E: jmannix@usc.edu.au
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