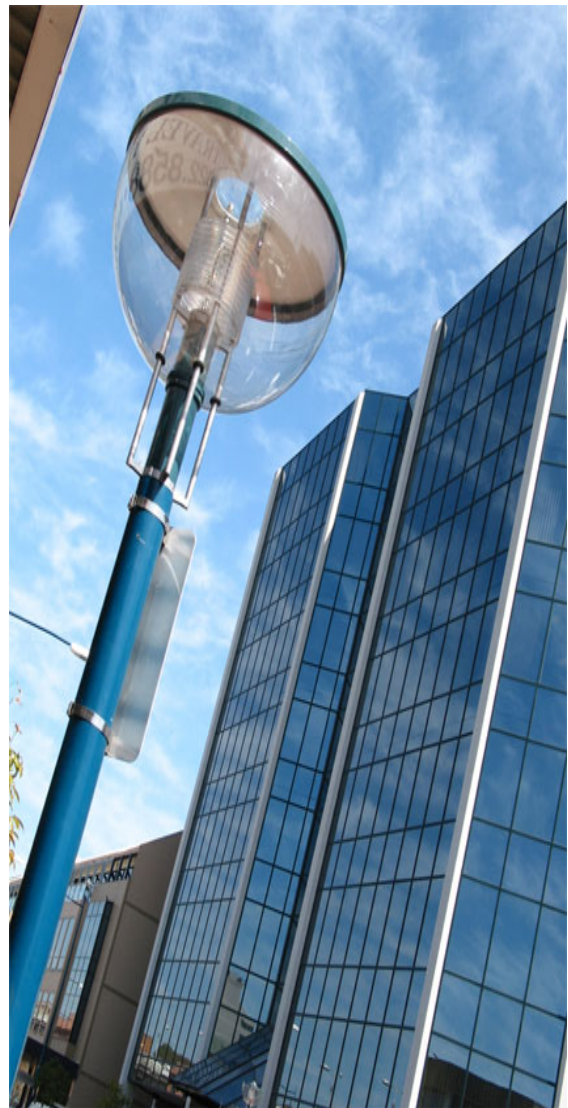


Ways to Grow in South West Sydney: Designing Innovation, Skills, and Employment Strategies

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Disclaimer

The views expressed in this report are solely the responsibility of Dr Martinez-Fernandez and should not be attributed to the Australian Research Council or the Liverpool City Council.

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Executive Summary

This report presents results and recommendations of a three and half year study undertaken by the University of Western Sydney in collaboration with Liverpool City Council. The study was funded by the Australian Research Council under the Linkage Project scheme. The aim of the study was to understand the innovation system of the selected area (Liverpool, NSW) and its associated localities in South West Sydney, via an innovative audit of industrial and service activities. Two neighbouring regions, Central West Sydney and North West Sydney, have been analysed for comparative purposes. A comprehensive innovation survey was undertaken during this study in the regions of South West Sydney, Central West Sydney¹, and North West Sydney.

Key areas of local policy action reported internationally would focus on: (1) attraction of new firms; (2) developing Small and Medium Enterprises (SMEs); (3) understanding systems of innovation; and (4) new approaches: industry clusters and business networks. Traditionally, local institutions have focused a greater amount of their efforts in attracting new firms and investment, and the comprehension of the importance of other elements is only starting to receive attention. It is to these elements that this study contributes, by providing a detailed analysis of activities forming the Regional Innovation System (RIS) of South West Sydney.

Profile of South West Sydney

South West Sydney (SWS) is the strongest growing region in Western Sydney, with 32 percent population growth since 1991 and an expected 200,000 new residents in the next 20 years. However, this growth in population does not correspond with the growth in employment, which is lower than neighbouring regions of Central West and North West Sydney.

The largest employment sector in SWS is manufacturing, and large concentrations are found in retail, construction, property and business services, and health and community services. The strongest industry sector across the three sub-regions is retail, with growth rates above 40 percent, almost double the Sydney Metropolitan Area average. Manufacturing firms are larger in size, while the smallest units are found in the building and construction sector. The majority of the firms have a medium turnover: between \$50,000 and \$99,999.

SWS have low levels of knowledge occupations, and high levels of trades. Apprentices across the three sub-regions concentrate in learning clusters of Building and Construction, Automotive, and Utilities and Electrotechnology. Although SWS is lagging behind in the level of knowledge workers, the sub-region has high levels of engineering and scientific based occupations. The overall rate of education attainment is low when compared with Central West and North West regions.

There are also areas of social disadvantage. South West Sydney has a larger population receiving Centrelink income support (29%) than Central West and North West.

¹ For the purpose of this report sub-regional boundaries differ from the NSW Government boundaries for Western Sydney regions; e.g. 'Central West sub-region' includes Penrith and Blacktown only.

It also has higher percentages of population under mortgage stress. The area also has the highest population of overseas-born residents from non-English speaking countries.

Innovation Activity in South West Sydney

The Outer Western Sydney Innovation Survey (119 respondents) shows that the region has high levels of innovation activity, with 80 percent of firms in South West Sydney innovating in the last three years; above the 67.8 percent of Central West firms innovating and below the 88.5 percent of firms in North West, the strongest performing sub-region. The novelty of innovations is different across the sub-regions; South West and North West have more incremental innovations, while Central West firms have higher levels of radical innovations. The type of innovation is also different; South West firms focus more on product or service innovation, while North West firms focus more on operational process innovations.

The newly established firms (less than 5 years old) show higher levels of innovative activity than the mature firms of more than nine years old. Firms between five and nine years old are the least innovative across the sub-regions, and in both manufacturing and services firms. Small and Medium Enterprises (SMEs) with less than 20 employees are the most innovative firms across the sub-regions, and also in both manufacturing and business services sectors.

Knowledge sources in South West Sydney are a combination of in-house (65%) and external to the firm (35%). The first source of external knowledge is firms from the value-chain (customers, suppliers and competitors). Research and education institutions, government agencies, and regional organisations all have low levels of knowledge provision.

SMEs have greater orientation towards external knowledge than large firms of more than 50 employees. There are also differences by industry sector: manufacturing firms source more knowledge from clients and customers; while business services firms source more external knowledge from interacting with universities, government agencies, conferences, and websites.

South West Sydney firms have high levels of the knowledge intensive service activities (KISA) more commonly linked to innovation (core KISA): information technology (IT) services; accounting & financial; research and development (R&D); and marketing and promotion. They outperform Central West and North West firms in e-commerce KISA, training KISA, and some of the core KISA. They have low levels of standardisation KISA such as legal services, human resources (HR) KISA (recruitment), and industry development KISA. South West firms source core services for KISA from in-house and from the Sydney Metropolitan Area. From the local area they source training services, especially from TAFE. Up to 13.8 percent of these firms expend more than \$100,000 in services per year and 40 percent of the firms expend up to \$20,000.

At the sector level, manufacturing firms have more complementary KISA (non-core such as HR, accreditation, legal services, and industry development advice), while business services firms have more core KISA (IT services, R&D, marketing and promotion, and business planning advice).

Network KISA (non-commercial activities with other organisations) indicate the strength of the network connections of individual firms and how well knowledge flows in a regional innovation system. Firms in South West Sydney have significantly lower levels of connectivity when compared with Central West and North West firms. They have low levels of connectivity to government organisations and to regional development agencies. Firms have better connection to industry networks, and the highest orientation of the three sub-regions to TAFE and the University of Wollongong.

In terms of embeddedness in the Regional Innovation System (RIS), South West Sydney is the more 'local' of the three sub-regions, as the majority of firms' interactions are at the regional or Sydney metropolitan area levels, both in terms of institutions and value-chain orientation. North West Sydney has a greater reach through its networks, connecting to national and international organisations and customers.

Skills and Employment Policies

Skills and employment policies and programs are a key resource for the sustainable competitive advantage of regions. They strongly contribute to Regional Innovation Systems (RIS), and they require local institutions' leadership to generate a quality context for firms and talent to flourish.

National skills programs in Australia target skills shortages in trades, as the shortage situation is acute. Available programs are: the Skilled Migration program; the Skilling Australia's Workforce program; Australian Apprenticeship Scheme; and the Skills for the Future Package. These programs, however, need a certain degree of customisation to the local area.

At the regional level, the greatest policy influence comes from: the NSW State Plan; the Sydney Metropolitan Strategy, which has specific strategies for regional centres and employment; and the Employment Action Plan. The economic and labour force diversity of a city like Sydney again requires a certain degree of customisation of these plans to the local areas.

At the local level, there are no specific plans for skills, employment, and economic development in South West Sydney, although general directions in South West Sydney are noted in Councils' strategic plans, and social and community plans. Some of the local government areas (LGAs) in Central West and North West Sydney have economic development plans and employment plans.

The Regional Innovation System in South West Sydney has a strong business innovation base, a moderate knowledge and skills base, and weak support for connectivity, and local policies and programs. In this environment, the role of local councils and institutions, which is an important one, is to assist the region to grow in smart ways and with strong employment performance.

Key Recommendations

The first recommendation from this research is for Liverpool Council to invest resources in Strategic Innovation and Employment Planning (SIEP). There is a need to ‘customise’ policies where skills and employment strategies are embedded in local conditions. It is important to shift attention away from managing land resources and attracting investment that creates ‘jobs’, and instead directing it towards innovation and employment planning, which acknowledges the complexity involved in job creation. This form of planning is concerned with the ‘type’ of jobs created, ‘where’ they are created, and for ‘whom’ they are created. Specific medium and long term plans need to be designed, and Councils are in a leadership position to include a broad range of actors from industry, institutions, and the community.

The second recommendation is to build on South West Sydney’s strong firm innovation base. The manufacturing basis of the region is to a great extent responsible for this innovation focus in around 80 percent of firms. South West Sydney firms are strongly locally embedded, both in terms of the value chain interactions, and the connectivity with other organisations. Although local embeddedness can be an advantage in terms of social cohesion, it can also provide a lock-in situation in terms of knowledge flows, and a certain disconnection from global knowledge and networks. This is a weakness of the South West Sydney RIS and local leadership is needed to address issues of global connectivity.

The third recommendation is to reinforce the knowledge and skills base, especially for the less qualified and the disadvantaged. An important process in SIEP is understanding the different elements of the regional system that are influencing creation of employment, and facilitating dialogue with the key agents of change. South West Sydney has a strong skills base around three trades’ learning clusters, which could be further reinforced: Building & Construction; Automotive; and Utilities & Electrotechnology. However, the higher education base needs specific attention in order to achieve similar levels of attainment to those of both the broader region and the Sydney Metropolitan Area. The existence of a local university, with strong linkages to the councils in South West Sydney, is a good basis for a continuous dialogue on increasing higher education participation.

The fourth recommendation is to facilitate knowledge intensive service activities (KISA) to connect the region nationally and internationally. Liverpool City Council can influence the attraction of external knowledge by facilitating knowledge intensive service activities for firms in core areas of innovation; for example, organising key seminars and events for local businesses and organisations. These seminars can provide a networking opportunity where national and international knowledge that is relevant for local businesses is discussed and circulated. The core KISA areas noted in this report provide topics of relevance to firms’ competitiveness in South West Sydney.

Liverpool City Council can also be instrumental in increasing the internal connectivity of the region by facilitating a continuous dialogue of organisations with key agents for designing innovation, skills, and employment strategies for the area. Broader connectivity to the other two sub-regions analysed in this report (Central West and North West Sydney) would also facilitate institutional learning and policy knowledge flows. *This could be achieved by creating a forum for SIEP so that the focus on designing innovation, skills, and employment strategies remains strong.*

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1. Introduction

The aim of this study, undertaken in collaboration with the Liverpool City Council, was to trial a new approach to understanding the innovation system of the selected area (Liverpool, NSW) and its associated localities in South West Sydney, via an innovative audit of industrial and service activities. This audit uses standard indicators and also develops new indicators to undertake a comprehensive innovation-focused analysis at a local level, the first one ever done in the region. At a broader level, the project also aims to develop a more refined knowledge of the important dimensions of economic activity, innovation, and employment in the area of analysis. This information will permit much better targeting and prioritising of policy interventions, and the creation of effective innovation and employment development strategies for both the immediate and the longer term. It is through this understanding and targeting that councils in South West Sydney will be able to ensure that employment growth over the coming decades will match industry and community needs and be sustainable in the face of constantly changing competitive conditions.

The focus of the 3.5 years study is the south-western corner of Sydney and its immediate network. Liverpool is the central locality in the South West Sydney (SWS) region. Two other neighbouring regions (Central West and North West) are analysed for comparative purposes, and to see the extension of economic, knowledge and innovation activities over the three sub-regions.

The project has been developed in four parts. The first focuses on an audit of industry and economic activity using standard indicators. This has involved:

- Collecting and collating databases on industry and occupational change in South Western Sydney and on firms and organisations within the region;
- Collecting parallel information for the sub-regions of Central West and North West Sydney so as to extract common and different characteristics and trends for the three areas and to evaluate the extent of local differentiation for strategic innovation and employment planning;
- Reviewing existing research on the structure and dynamics of the Liverpool and SWS economy so as to extract important themes for the further auditing of the region and assess gaps that need to be filled by the project itself;
- Assessing measures of innovation that could be used to measure and benchmark innovation in SWS. These will be used to underpin the analysis of future developments.

The data collected and collated was drawn from several sources, including Census and special surveys conducted by the ABS. Unfortunately, the ABS does not always have regular series in some fields, such as those of skill formation, and may not continue quasi-series such as the innovation surveys. Also, some ABS data cannot be broken down to provide geographical spread. These problems necessitated complementing the available data with several surveys.

The second phase consisted of the use of Australian and international literature to construct an innovative set of indicators in order to assess the functioning of innovation activity and knowledge in the area, and also to provide the basis for the audit. This phase involved the design and implementation of a major regional business survey and follow-up face-to-face interviews with firms. In addition to the questions on innovation (product, process, and organisational form) consistent with those used by the ABS in Australia, and by such bodies as Statistics Canada or the European Union in their regular innovation surveys, the study covered the critical dimensions of relationships with, and the location of, clients and suppliers for all firms in the survey. This enabled the effective 'boundaries' of the different industries comprising the local / regional economy to be mapped for policy purposes. The audit survey also used the international innovation literature to examine other aspects of the innovation endeavour in the region. Thus, for example, in addition to the standard international questions on R&D investment intensity, the survey asked about relationships with the different players that comprise the region's formal knowledge infrastructure (university, VET, and industry networks), in order to assess that infrastructure's capacity to enhance SWS as a knowledge-based region.

Thirdly, the project included detailed analysis of the knowledge networks of the firm with other players within the region, whether they are firms, or public sector R&D and training institutions, or semi-public organisations such as industry groups, and beyond. This helps to define how far the region has come in the development of the sets of inter-relationships needed for innovation, and how strong is this characteristic of the region's regional innovation system (RIS).

The fourth work phase of the project looked into employment and skills strategies, and the development and assessment of policy options to enhance innovation, employment, and regional competitiveness.

This report presents the findings of the project. The report is divided into six chapters. After this introduction, chapter two discusses the conceptual base for the study, presenting a literature review of the theoretical base underpinning the methods chosen and the line of enquiry. Chapter three presents the audit of economic and industrial activity, which forms the profile of South West Sydney. Chapter four presents the results of the survey on industry innovation and regional connectivity. Chapter five discusses skills and employment policies and programs in the regions analysed. Chapter six offers conclusions and recommendations for designing innovation and employment strategies in Liverpool.

2. Conceptual Base of the Study

Key Areas of Local Policy Action

1. Attraction of New Firms
2. Developing Small and Medium Enterprises (SMEs)
3. Understanding Systems of Innovation
4. New Approaches: Industry Clusters and Business Networks

Local economic development has become the name of the game for local government organisations. Over the last few decades, local governments have shifted their attention to developing strategies to assist businesses in their local areas in order to create wealth and employment for their constituencies. Because specific industry development policies at national level during this same period have moved towards an emphasis on micro economic reform, and on creating new macro economic conditions, the focus has shifted to state and regional, or local, governments in the fight to increase the nation's wealth and to grow the economy when viewed from a national perspective. There has been an especially acute shift in Australia where, for the last three decades, the federal government's strategic direction has been on creating a 'better' competitive environment and freeing the economy from the regulatory pressure that was seen as a constraint on the activities of efficient firms. The focus of strategic industry development responsibility has therefore fallen onto local governments. Many are now seeking to make the shift from the more traditional industries, such as the automotive or food industries, which are common or dominant in their arenas, to those more closely aligned to what is usually considered to be the industries of the emerging 'knowledge economy', notably IT, new materials, biotechnology, and nanotechnology.

Local governments have responded in many ways, both within Australia and across the OECD. Some of the strategies developed have achieved greater success than others. New regional patterns are developing, as changes underway in the national economy seep through into local impacts. To cope with such changes and assist regional players to create and maintain a sustainable position in the emerging economy, regional and local governance organisations are seeking the new knowledge needed to understand what may succeed in their regions and what is less likely to be achievable. Greater and greater attention is being paid to the development of employment opportunities. Yet no-one has any definitive answers, and more and more it seems that the traditional approaches to what is loosely called 'regional development' need further refinement if they are to be successful over the longer term and on the scale needed.

Uneven economic growth and the resulting differences in regional development have long exercised the minds of policymakers and analysts in all OECD countries. Over the last several decades, four major strands of work and policy focus, at both national and sub-national levels, have been developing and are gradually coming together.

The first strand of policy action focused on the inwards attraction of firms already successful in another location or on the maintenance of large firms already established in the area but threatening to move elsewhere. It was clear that when a large firm closed, the consequences for local workers/taxpayers/voters were often catastrophic in any given region.

In parts of Europe, notably the UK, the post-war period therefore saw the first inwards attraction policies put into place, and the first subsidies and other inducements to large manufacturing firms to locate their new factories in zones seen as less capable of attracting such opportunities when left to compete with more favoured regions. Throughout the nineteen sixties and seventies, many European countries put into place policies for encouraging firms located elsewhere to relocate to a given area in exchange for rates 'holidays', tailor-made training courses for potential local workers, cheap or free land and buildings, or other forms of fiscal concessions.

When such inducements were copied by competing regions or organisations, however, such policies for national development largely proved ineffective, and within a country were indeed counterproductive – as, for example, when the States of the American 'sunbelt' competed on the basis of low costs with their compatriot regions in the north. Moreover, it became clear that companies that were footloose and could be attracted to a given region could also be attracted elsewhere and were inclined to look for the highest bidder rather than a permanent or long term relationship with one regional partner (Blakely 2000). This type of policy has seen the fortunes of towns depend on the affluence of firms, and is especially notable in shrinking cities (Martinez-Fernandez and Wu, 2007).

While many policymakers were focusing on large firms, a second strand of work, with the opposite focus, was beginning to develop. At the same time as many were focusing on development through the larger firms that promised large numbers of jobs when they opened, but were less than loyal to their new locations, new research in the late 1970s focused on small enterprises and the contribution that they make to local employment creation and hence to regional and national economic development. Birch (1979) was the first to undertake a large scale study of employment creation in small enterprises (in the USA). Empirical research work on small firms has continued since, sometimes varying in focus. More recent work has, for example, given greater emphasis to new firms rather than to small firms per se, and to new technology-based firms in particular (see, for example, Dodgson & Bessant 1996, and numerous papers in Dodgson & Rothwell 1994). The insights gathered from these works have been incorporated into public policies in different OECD countries, albeit with varying success (Raines 2000; OECD 2002). Much government attention at all levels is paid to small firms, in part simply because most OECD economies are still dominated in terms of numbers, although not in terms of economic power, by small enterprises (OECD 2002).

The third strand of work, which grew enormously in importance over the 1980s and especially over the 1990s, focused on the importance to economic growth of innovation and, more recently, of well functioning systems of innovation. 'Innovation' is often

confused with ‘invention’ or with difficult technical definitions of ‘product and process’ and change. An innovation is a novel product or process, including organisational form, which has economic value. Innovation is important because, as much recent international economic literature makes clear (see for example summary in Marceau et al. 1997; OECD 1996a, 1996b, 1997), innovations can permit firms to gain and maintain, often long term, competitive advantage. Successful innovation involves deliberately created, strategically pursued advantage, not relying on accidental, historical or haphazard advantage. Certain industries, especially those most dependent on research, notably computing and IT-related, pharmaceuticals, and scientific instrument industries, have come to epitomise innovation, and it is these that are commonly considered the basis of the emerging ‘knowledge economy’. While these industries are undoubtedly important to modern economies, however, *all* industries need to use innovation to create competitive advantage (Maskell 1998; Smith 2000).

International research has shown that some countries and regions have higher levels of innovation than do others and that these levels are not random. They are higher when all aspects of knowledge generation and transmission, the regulatory framework and other public policies affecting the operation of businesses, notably taxation, and the availability of venture capital, work smoothly together. This characteristic of innovation has led observers to speak of ‘systems of innovation’. These systems function at national level, even in a globalising world (Lundvall 1992; OECD 1996, 1997, 2000), but also at local, regional, and state levels. There has thus been increasing interest in how systems of innovation might work at regional and local levels, and hence how local governments can best direct the resources available for local economic development (Bracyk et al. 1999; Cooke 2001; Landabaso 1997; de la Mothe and Paquet 1998). The search is now on for the best ways of quantifying and measuring the effectiveness of innovation systems at all levels, as the basis for further policy development (OECD 2001a). Localised learning has been shown to be especially important (Maskell et al. 1998).

The fourth strand of literature has focused more on the different approaches that could be useful for both analysing how different sub-systems of a national economy work, and which of these sub-systems could assist with more effective policy development. There have been several strands to this new literature. Principal among these are approaches which focus on one or more of the following: industrial clusters (Porter 1990; Tremblay 1993; Roelandt & den Hartog 1999; Maskell 2001; OECD 2001b); industrial districts (Piore and Sabel 1984; Baptista 1996; Deitz & Garcia 2000); and business networks (Marceau 1998; Cobb 1997; Gordon & McCann 2000; Martinez 2001). Sometimes these are linked with sectoral studies (Breschi 2000). These analytical approaches are all useful in helping understand complex economic development processes. They have not always been consistent or even compatible, however, and there remains much confusion among analysts and policymakers alike as to the appropriate meanings to give to the different terms, let alone how to translate the ideas into effective policies (see Marceau 1997 & 1999 for a summary of these problems). The confusion is indeed more than simply terminological; it indicates deeper conceptual problems, notably those dealing with boundaries (geographic and economic), and even with the kinds of data that should be fundamental to the development of appropriate policies. This problem arises in part because recognition of the data needed grows out of the conceptual framework adopted and there is little clarity on this framework, and partly because there is necessarily much reliance on information gathered by national statistical agencies, which is standardised and

comparable over time and place. National data are often hard to relate to the problems facing particular regional and local areas in the ways that policymakers need.

Despite the now substantial volume of analytical work in various countries, many of the policies put in place at regional and local levels on the basis of the analyses undertaken have had only moderate success. One of the reasons has been that the analysts lacked a coherent framework that would make comparative work over time and space possible. This problem has recently begun to gain the attention needed (Feser & Bergman 2000). A second and critically important problem has been that most of the investigative work on regional innovation and development has proceeded by case studies. The difficulty has been that case studies tend not to be analytically very powerful and in most cases it has proven hard to draw policy-relevant lessons from them. As Markusen has noted (1999), analysis of articles written over 25 years about regional development reveals that very few analysts used easily replicable methods, while some did not reveal much about the methods used, and the reliability of the inferences presented in the papers concerned is therefore hard to judge. There has been a general split between those from different disciplinary backgrounds (which can be roughly characterised as more or less economic) in the use made of quantitative methods such as input-output or trade, and qualitative approaches, which have focused more on relationships between players and emphasised such intangibles as level of trust or collaboration. Indeed, in a very interesting piece of research carried out in Canada, two observers collaborated on the analysis of innovation performance and the problems of a region in Quebec. One, using quantitative methods, presented one picture (quite a lot of innovation), while the other using qualitative interviews with players reported a quite different situation (pessimism about innovation levels) (Nimijean & Landry 2000). Perhaps both revealed some aspects of the truth, but too often the reader is not presented with the appropriate evidence for what is recommended to policymakers.

A different approach was taken by Storper who, in a wide-ranging paper, has discussed each of the major approaches, both analytical and policy, to the analysis of regional innovation. He comes to the conclusion that an approach which combines some of the input-output insights on agglomerations of activities, and some of the more qualitative work, which looks at regional assets and resources and analyses why some are utilised by regions and some not, is the most useful (1995). This is a valuable development but it too has limitations. The most important of these is that it neglects two critical aspects of the dynamics of spatial development: the interaction of different aspects of activity in the spaces selected for study; and the interaction between regions and localities through activities carried out in different but related areas. In any nation, the 'real' economy is a space in which many activities compete for scarce resources. Thus, for example, some industries may be headquartered in one city of the nation while their productive activities are located in several others, where they compete for labour and other inputs. Similarly, since some companies operate in many arenas (spaces), they may not give to any particular one an exact return for what they take out and use in their productive processes: some regions 'drain' others. The drain may be of capital, wages, or tax revenues but, perhaps more importantly where the focus is on growth via innovation, the companies concerned may use a disproportionate amount of the publicly provided knowledge generation capacity available to a region seeking to create the new knowledge needed for economic development. On the more positive side, some business activities may involve players from several areas in interactions as clients and suppliers, within one or more supply chains of different lengths and complexity, and these interlinkages between spaces can be further

developed through targeted local and regional policies that specifically recognise the interconnections. A good study of local and regional economic development therefore must take account of the spread of activities across a broader zone of the economy.

Given the difficulties facing local and regional policymakers, there is increasing international interest in better auditing what is happening in any given geographico-political space, in a more systematic and comprehensive manner. There are three important aspects to this audit activity. The first is the use of a standard set of indicators of how well a region is doing in comparison with others that are deemed to be sufficiently similar. While this approach is not benchmarking in the sense of estimating which of the two or more areas under consideration is doing 'better' (there are major theoretical and practical issues with this – see discussion in OECD 2001a), such comparisons do permit a local authority to pinpoint areas under their jurisdiction that are doing well, and areas which may need policy assistance to reach their full potential in terms of wealth and employment generation. More importantly, the audits permit policies to be refined and targeted much more effectively at the specific needs of different activities in the areas considered. Equally importantly, they permit policymakers to understand better what can best be undertaken within their jurisdictional boundaries, and what would more effectively be served by the development of alliances with neighbouring jurisdictions, or even with industry leaders elsewhere in the state or country.

The second aspect to the audit activity is the qualitative audits, which enable the analyst to look underneath what is revealed by the standard indicators, and to assess *why* the patterns of activity are as they are, and also to evaluate the factors determining particular firm strategies, some of which may be more appropriate to success in a knowledge-based economy than are others. This investigation needs non-standard indicators to reach policy-useable conclusions. The third aspect of the audit concerns the interactions between local and regional institutions and organisations, and the ways in which these may be further developed to enhance the generation and diffusion of innovation-related knowledge.

2.1 Summary

These four strands of local policy action have guided the study, providing an understanding of the interactivity of the four elements for employment creation. Traditionally, local institutions have focused a greater amount of their efforts on attracting new firms and investment, and the understanding of the other elements discussed here is only starting to receive attention. It is to this scenario that this study contributes, by providing a detailed analysis of activities forming the regional innovation system of South West Sydney.

3. Profile of South West Sydney

Key Challenges

- ❖ 200,000 new residents in 20 years
- ❖ High percentage of Centerlink income support residents
- ❖ High percentage of population under mortgage stress
- ❖ Moderate employment growth – lowest in the region
- ❖ High concentration of manufacturing firms – a declining sector
- ❖ Small concentration of knowledge intensive business services and knowledge workers
- ❖ High concentration of Trades in Building & Construction, ‘Automotive’, and ‘Utilities & Electrotechnology’

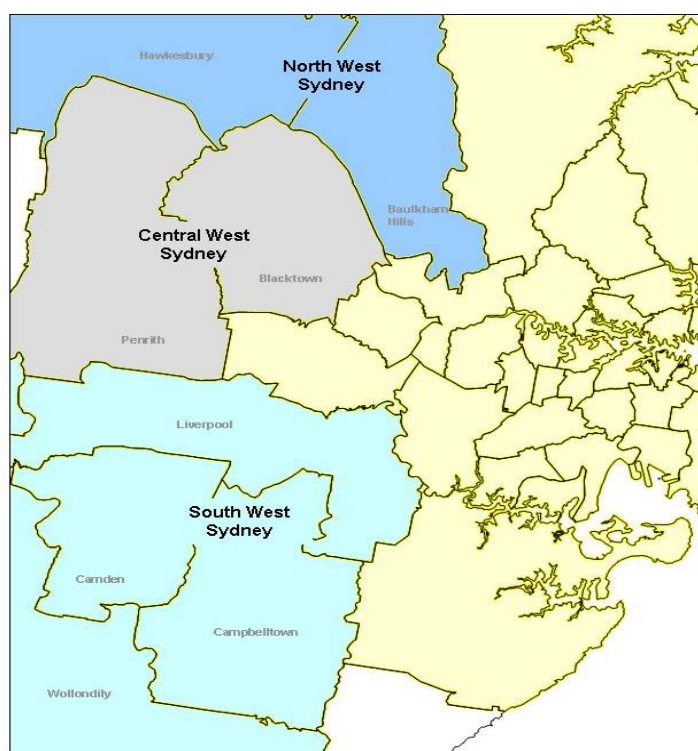
Greater Western Sydney (GWS) is the fastest growing economy in Australia, with a population of 1.85 million people, who represent 43 percent of the Sydney Statistical Division. The economic output for the region is AUD 71 billion (2004-2005), which makes it the third largest economy in Australia behind Sydney (as a whole) and Melbourne. It is home to approximately 241,976 enterprises, 20 percent of which include the country’s top 500 exporters. The major industry sectors are: manufacturing; construction; property & business services; finance & insurance; and wholesale trade. The GWS region contributed a sizable 41.3 percent towards the Gross Regional Product (GRP) of the Sydney economy and 29.8 percent to the State of New South Wales. Of the large percentage of GRP contributed by GWS, 20.5 percent was from manufacturing, which is higher than the industry average for Sydney and NSW. Property and business services, and finance and insurance industries followed closely behind. However, the distribution of industry throughout the region is not homogeneous. South-West and Central Sydney contain many of the manufacturing, transport and storage industries. North-West Sydney is ahead in property & business services, and retail trade.

It is estimated that the number of jobs in Western Sydney will grow from 663,000 in 2001 to 900,000 jobs in 2031, mostly within industry clusters of transport and logistics and manufacturing.² Design of local employment and skills strategies need to be informed by the sectors where these jobs would probably be created, and by the type of jobs that these industries are already producing. The Metropolitan Strategy predicts that employment would continue to grow around transport and logistics, and manufacturing. However, even at the level of the Western Sydney region, there is a large diversity of industry visible if

² NSW Government 2005

smaller sub-regions are analysed. In relation to industry clusters, South West Sydney, and specifically the area surrounding the LGA of Liverpool, is one of the most significant manufacturing areas in Sydney's metropolitan region. Six local government areas in Western Sydney; Liverpool, Campbelltown, Camden, Fairfield, Bankstown and Penrith, account for 26.5 percent of Sydney's total manufacturing employment.³ The highest concentration of activity is found in the 'manufacturing triangle' of Bankstown, Fairfield and Liverpool, notably in the sectors of metals, furniture, plastics, and chemicals. The map below shows Sydney metropolitan area and South West Sydney including the Local Government Areas of Liverpool, Campbelltown, Camden, and Wollondilly.

Figure 1: Sydney Metropolitan region showing South West Sydney sub-region in the Western Sydney Corridor



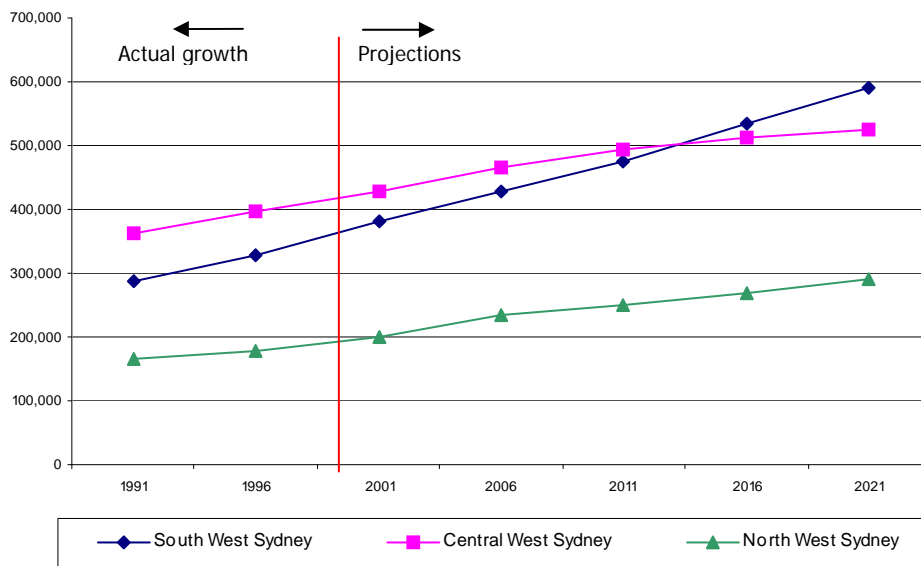
3.1 Population and Employment Growth

South West Sydney has experienced a 32 percent population growth since 1991, well above the 12.1 percent of Sydney Metropolitan area and the 11 percent of the State of NSW. This growth has meant the addition of nearly 100,000 new residents to the region. Population projections for the next 20 years also show a significant increase of new residents for South West Sydney with more than 200,000 new residents settling in the region. As can be seen in the graph below, South West Sydney will overtake Central West Sydney sub-region as the largest region in the Outer West of Sydney. South West Sydney

³ Unless otherwise noted all statistical material is drawn from the ABS 2001 & 1996 Census, *Journey to Work*

will therefore have to accommodate large residential housing developments in greenfields areas⁴.

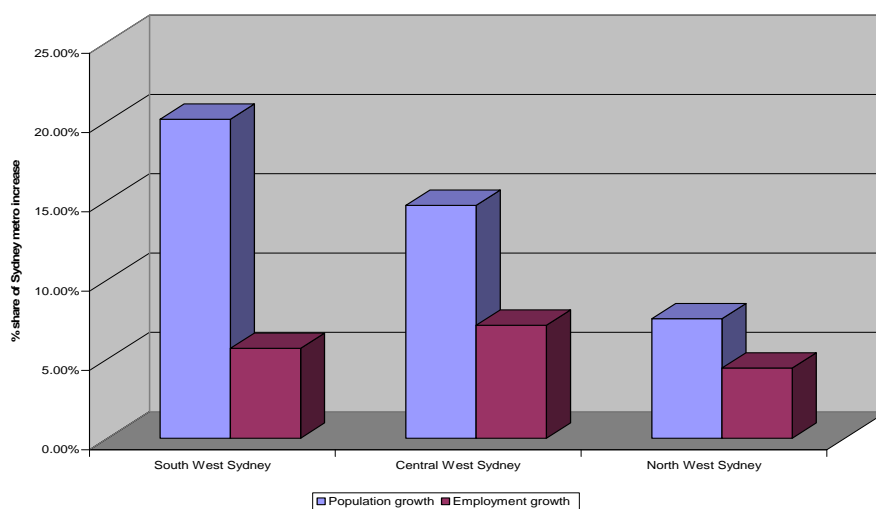
Figure 2. Regional Population projections 2001-2021



Source: ABS Population Projections 2004

Employment growth in South West Sydney has followed different patterns from population growth. Employment in the region grew by 35.8 percent while Central West grew by 38.4 percent and the North West grew by 46.9 percent. Compared with the whole metropolitan area employment growth of 31.4 percent, South West is still ahead, but with the lowest employment growth attainments among its neighbouring regions. This unbalanced growth in employment terms can be seen in the figure below.

Figure 3. Share of Sydney Metropolitan Population and Employment Growth 1991-2001



Source: ABS Census 2001 and 1991

⁴ Greenfields residential development is expected to account for half of all new residential dwellings in Sydney over the next 30 years (NSW Government 2005).

The mismatch between population growth and employment growth in South West Sydney needs to be addressed so that the new growth that needs to be accommodated by the region contributes to the development of a ‘city’ where work, recreation, and living activities are also undertaken. Addressing employment needs for Liverpool and its surrounding LGAs will also change commuting practices, thereby impacting both productivity and environment.

3.2 Labour Force

Labour force participation in South West Sydney has decreased slightly over the period 1991 to 2001, although it is still ahead of the Sydney Metropolitan average. In relation to its neighbouring regions, participation rates are below Central West and North West. The table below shows the labour force composition in 1999 and 2001; the unemployment rate has been consistently higher for South West than for the other two regions and the Sydney Metropolitan average. There is a decrease in Full Time employment and an increase in Part Time employment consistently across the three regions and the Sydney metropolitan area.

Table 1. Labour force composition in the regions 1991-2001

Labour force participation	South West		Central West		North West		SMA	
	1991	2001	1991	2001	1991	2001	1991	2001
People in the labour force	133,582	177,943	170,935	204,132	85,873	107,270	1,736,096	1,934,359
Labour force participation rate	64.7%	63.1%	65.6%	63.7%	69.1%	69.7%	62.6%	61.4%
Employed	116,320	164,594	150,627	189,963	80,927	103,372	1,556,448	1,816,225
<i>Employed full time</i>	72.7%	68.6%	73.2%	68.9%	69.8%	66.7%	70.9%	67.6%
<i>Employed part time</i>	27.3%	31.4%	26.8%	31.1%	30.2%	33.3%	29.1%	32.4%
Unemployment rate	12.9%	7.5%	11.9%	6.9%	5.8%	3.6%	10.3%	6.1%
Not in labour force	65,848	91,973	81,520	102,896	36,025	41,915	958,850	1,051,123

Source: ABS Census 1991, 2001

The highest concentration of labour force industrial employment (people living in the region) is across five categories: manufacturing; retail trade; construction; property and business services; and health and community services (see Table 2).

Table 2. Labour force industrial employment in Outer Western Sydney 2001 (highest concentrations)

Industry	South West	Central West	North West	SMA
Manufacturing	17.50%	16.40%	11.70%	12.20%
Construction	8.50%	8.30%	8.80%	6.90%
Retail Trade	14.50%	15.10%	14.40%	13.40%
Property and Business Services	9.20%	9.60%	12.90%	14.50%
Health & Community Services	7.90%	8.30%	8.90%	8.90%

Source: ABS 2001 Census

Table 2 shows South West Sydney is ahead, especially in manufacturing, but not doing as well in services industries such as property and business services, and health and community services.

The occupational distribution of the labour force in South West Sydney shows lower levels of those professions associated with highest knowledge when compared with North West Sydney, but ahead of the Central West region. This perhaps reflects the concentration of labour force in more traditional economic sectors such as manufacturing and construction in the South West. North West Sydney has a higher concentration of professionals, associate professionals, and managers and administrators as expected due to the highest concentrations of services industries in the region (see Table 3).

Table 3. Labour force occupation in Outer Western Sydney 2001

Occupation	South West	Central West	North West	SMA
Managers and Administrators	6.40%	5.40%	12.10%	9.00%
Professionals	12.50%	12.20%	21.40%	21.20%
Associate Professionals	10.20%	10.00%	12.40%	11.80%
Tradespersons and Related Workers	15.00%	13.80%	11.40%	11.10%
Advanced Clerical and Service Workers	4.10%	3.90%	5.50%	4.50%
Intermediate Clerical, Sales and Service	19.10%	20.10%	16.50%	17.20%
Intermediate Production and Transport	11.90%	12.70%	5.60%	7.40%
Elementary Clerical, Sales and Service	9.40%	10.40%	8.20%	9.10%
Labourers and Related Workers	9.20%	9.30%	5.20%	6.60%

Source: ABS 2001 Census

Income levels in South West Sydney are similar to those in the Central West region and in the Metropolitan region average, but below the North West region. Centrelink income support customers (including pensioners, single parents, unemployed people, and full time students) have higher levels in the South West, well above the North West and also above the Sydney Metropolitan average (see Table below). The age profile in the South West shows a higher concentration of young persons and children, which could explain more income support for single parents and students in addition to the higher number of unemployed persons.

Table 4. Income levels in Outer Western Sydney

	Medium Weekly Individual Income	Medium Weekly Family Income	Medium Weekly Household Income	Mean Taxable Income	Centrelink Income Support Customers
South West Sydney	\$400-\$499	\$1,000-\$1,499	\$800-\$999	\$37,085	29.1%
Central West Sydney	\$400-\$499	\$1,000-\$1,499	\$800-\$999	\$36,588	28.5%
North West Sydney	\$500-\$599	\$1,500-\$1,999	\$1,000-\$1,499	\$42,668	17.7%
SMA	\$400-\$499	\$1,000-\$1,499	\$800-\$999	na.	26.2%
NSW	\$300-\$399	\$800-\$999	\$800-\$999	\$41,623	1,474,412

Source: ABS 2001 Census

An important measure is also 'mortgage stress', defined as a situation in which homebuyers are paying 35 per cent or more of their income on home loan repayments. The basis for the above definition of mortgage stress is the general rule that financial

institutions will not allow a household to take out a housing loan if the monthly home loan repayment, calculated over a 25 year term, exceeds one-third of monthly household income. While it is acknowledged that not all households paying 35 per cent or more of their income in loan repayments are necessarily experiencing stress (indeed, some homebuyers, especially those on higher incomes, may be voluntarily paying more than 35 per cent), mortgage stress in this study refers particularly to the high risk that a stressful situation might arise.⁵ The table below shows mortgage stress in the three sub-regions. South West Sydney, particularly Liverpool, has the highest percentage of population under mortgage stress (paying over 35% or more of their income in loan repayments).

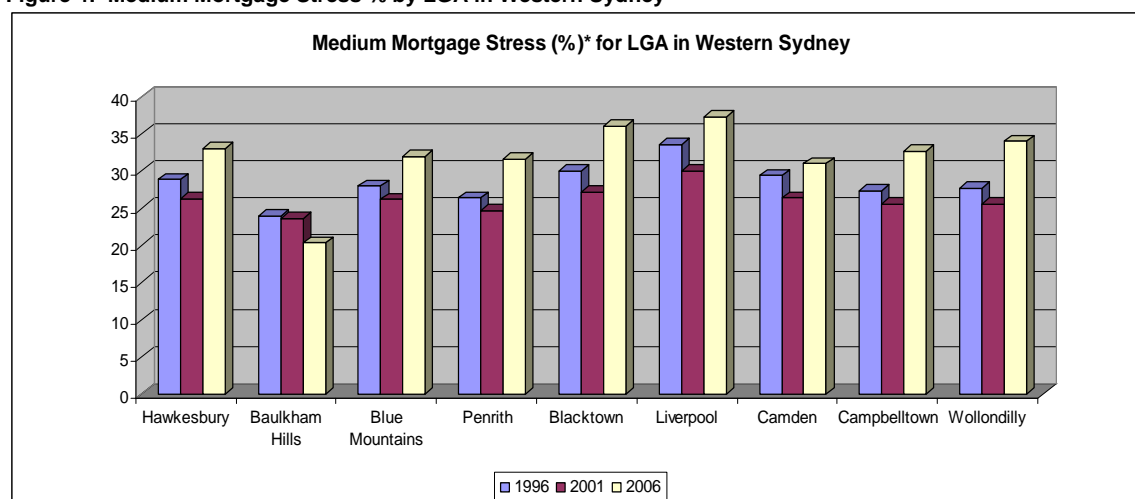
Table 5: Mortgage Stress in Western Sydney by LGA

Medium Mortgage Stress (%)* for the LGAs		1996	2001	2006
North West	Hawkesbury	29	26	33
	Baulkham Hills	24	24	20
Central West	Blue Mountains	28	26	32
	Penrith	26	25	32
	Blacktown	30	27	36
South West	Liverpool	34	30	37
	Camden	29	26	31
	Campbelltown	27	26	33
	Wollondilly	28	26	34

Source: ABS 1996-2006 Housing and Population Statistics - Time Series

See also figure below for easy comparison. Liverpool shows higher mortgage stress, closely followed by Blacktown.

Figure 4: Medium Mortgage Stress % by LGA in Western Sydney



Source: ABS 1996-2006 Housing and Population Statistics - Time Series

⁵ Definition: Commonwealth of Australia/ 2004, 'Research Note n.16 2003-04 Mortgage Stress' (<http://www.aph.gov.au/LIBRARY/pubs/RN/2003-04/04rn16.htm>), 17/10/2007.

3.3 Industry Base

When total employment is analysed (including those living outside the regions), manufacturing is again the largest employing industry in South West Sydney, followed by retail, and health and community services. Retail trade is the largest industry in the Central West and the North West. The North West is also well ahead in property and business services (see table below).

Table 6. Regional industrial base (from employment) 2001

Industry	South West	Central West	North West	SMA
Agriculture, Forestry, Fishing	1.80%	1.00%	3.10%	0.60%
Mining	0.90%	0.20%	0.10%	0.20%
Manufacturing	18.10%	17.90%	11.40%	12.60%
Electricity, Gas & Water Supply	0.60%	1.40%	0.40%	0.60%
Construction	6.60%	6.70%	8.00%	5.00%
Wholesale Trade	5.30%	7.50%	7.60%	6.40%
Retail Trade	17.60%	18.50%	19.30%	13.80%
Accommodation, Cafes & Restaurants	3.30%	3.60%	4.30%	4.90%
Transport & Storage	4.30%	4.40%	1.90%	5.00%
Communications Services	1.00%	1.30%	1.00%	2.40%
Finance and Insurance	1.70%	1.80%	2.50%	6.60%
Property and Business Services	7.50%	7.20%	13.40%	14.80%
Gov't Administration & Defence	4.90%	4.00%	4.30%	3.60%
Education	9.30%	8.90%	8.30%	6.70%
Health & Community Services	11.00%	9.20%	7.50%	9.30%
Cultural & Recreation Services	1.50%	1.80%	2.10%	2.80%
Personal and Other Services	3.40%	3.70%	3.90%	3.60%

Source: ABS 2001 Census, Journey to Work data

Manufacturing⁶ has actually experienced a strong growth since 1991 both in South West and Central West, especially if compared with the Sydney Metropolitan average and the North West, but the most remarkable growth is in the wholesale and retail trade, with 43.24 percent growth in South West Sydney over the last decade. Education, health and community services have also experienced strong growth of 20.71 percent above the Central West and North West regions and the Sydney Metropolitan average. The area of business services is still below the growth experienced by the North West region, which is slightly above the Sydney Metropolitan average (see table below).

Table 7. Greatest Industrial change (based on employment) in Outer Western Sydney 1991-2001

Industry	South West	Central West	North West	SMA
Manufacturing	15.71%	14.60%	8.67%	8.64%
Wholesale & Retail Trade	43.24%	41.82%	40.85%	25.67%
Finance, Insurance, Property & Business Services	11.67%	11.88%	27.43%	27.24%
Education, Health & Community Services	20.71%	12.54%	11.67%	14.99%

Source: ABS Journey to Work data 1991-2001

⁶ The importance of the manufacturing sector in South West Sydney is further explored in a separate report on Innovation in the Manufacturing sector of the Liverpool region.

The industrial composition of these regions in the particular sectors compiled in the table below indicates that the greatest number of firms for South West Sydney is found in the construction sector, followed by firms in the business services sector, which indicates the concentration of micro-enterprises in these sectors. Manufacturing, however, has a discrete number of firms, indicating their larger role as employers in the region (see Table 8).

Table 8. Industrial Composition of Firms in Regions, 2001

Industry	South West	Central West	North West	SMA	NSW
Manufacturing	8.1%	6.0%	7.8%	6.1%	5.6%
Construction	26.7%	26.0%	22.4%	16.2%	16.2%
Wholesale Trade	3.8%	4.3%	5.2%	4.3%	3.8%
Retail Trade	10.6%	10.9%	10.3%	9.4%	10.0%
Finance And Insurance	4.2%	4.1%	0.8%	9.4%	7.5%
Property And Business Services	19.3%	19.8%	28.3%	29.2%	24.2%
Education	1.2%	1.2%	1.5%	1.3%	1.4%
Health And Community Services	3.3%	3.1%	4.5%	4.5%	4.3%

Source: ABS 2004 Regional Profile (2001 data)

In relation to the turnover of firms, the majority of those in South West Sydney are in the middle category (\$50,000-\$99,999), while the majority of firms in North West Sydney are in the highest category of turnover (\$1,000,001 and over), as indicated below.

Table 9 Estimated Firm turnover (Ranges) % in regions, 2001

Estimated Turnover by firms (Ranges)	\$0 - \$49,999	\$50,000 – \$99,999	\$100,000 – \$1,000,000	\$1,000,001 and over
South West Total	31.7%	34.3%	29.2%	4.4%
Central West Total	34.4%	33.5%	27.3%	4.7%
North West Total	32.2%	30.5%	32.4%	4.6%
SMA	33.2%	29.2%	31.4%	6.2%
NSW	34.9%	28.1%	31.6%	5.4%

Source: ABS 2004 Regional Profile

Entrepreneurial activity, as registered by the Australian Business Number (ABN) register, indicates that the growth in start ups peaked in 2001-2002 with rates of 23 percent to 25 percent, and then declined to an average 17 percent in 2003-2004 (see Table below).

Table 10 New ABN Registrations 2001-2004

Region	Total Firms 2001	Active Registrations*	Growth rate 2001-2002	Growth Rate 2002-2003	Growth Rate 2003-2004
Central West Sydney	35,520	71,970	24.9%	21.7%	17.7%
North West Sydney	26,319	57,775	23.7%	22.2%	17.3%
South West Sydney	33,196	66,575	25.2%	22.5%	17.4%

Source: Australian Business Number Register 2005

*Active registrations as at April 2005

3.4 Knowledge Base

3.4.1 Education

An important dimension of the analysis of the regional innovation system in South West Sydney is the concentration of education, knowledge based occupations, and skills distribution. The first thing to notice is that South West and Central West Sydney have lower rates of participation at educational institutions when compared with North West Sydney population and with the Metropolitan Area (see Table below).

Table 11 Participation at Educational Institutions

	Secondary	TAFE	University or other	Other	Total	%population*
South West Sydney	99,111	11,745	8,814	2,424	37,979	13.9%
Central West Sydney	120,257	13,360	10,457	2,583	42,288	13.2%
North West Sydney	56,760	5,498	8,499	1,386	24,237	15.7%
Metro Sydney	907,195	117,907	170,460	37,658	463,165	14.7%
NSW	1,648,023	188,943	231,169	50,068	692,979	13.9%

Source: ABS 2001 Census *Population aged 15 years and older

The second issue to notice is the mirror image of trades education attainment in South West Sydney. It has lower levels of postgraduate degrees if compared with Central West and North West regions, but higher levels of Diploma and Certificate level attainment. North West has the highest attainment at the highest level of education. South West Sydney is the lowest of the three sub-regions for the total percentage of population participation rates in non-school qualifications (28.4% compared with 30.6% for Central West and 44.0% for North West), lower than the Sydney Metropolitan Area (38.7%) ,and lower than NSW (36.2%) (see Table below).

Table 12 Highest Non-School Qualification

	<u>Postgraduate Degree level</u>	<u>Graduate Diploma / Graduate Certificate</u>	<u>Bachelor Degree</u>	<u>Advanced Diploma / Diploma level</u>	<u>Certificate level</u>	<u>Total % of population*</u>
South West Sydney	3,434	2,335	25,167	20,596	68,210	28.4%
Liverpool	1,095	595	7,781	6,120	19,020	30.2%
Campbelltown	1,004	684	5,967	5,006	18,533	29.0%
Camden	368	369	2,282	2,007	6,842	36.9%
Wollondilly	274	299	1,600	1,499	6,087	35.6%
Central West Sydney	3,500	2,057	22,201	15,497	54,933	30.6%
Penrith	1,118	882	7,393	6,016	24,436	30.7%
Blacktown	2,382	1,175	14,808	9,481	30,497	30.6%
North West Sydney	4,343	2,263	19,594	12,254	29,314	44.0%
Baulkham Hills	3,775	1,774	16,522	9,442	19,476	47.1%
Hawkesbury	568	489	3,072	2,812	9,838	36.8%
Sydney SD	89,808	41,295	387,736	215,880	482,910	38.7%
NSW	109,621	60,952	506,806	312,187	819,902	36.2%

Source: ABS 2001 Census *Population aged 15 years and older

South West Sydney has also the highest percentage of population born overseas, the highest percentage of population born in non-English Speaking Countries, and the largest percentage of people speaking languages other than English. These percentages are all above the Metropolitan Area and NSW levels (see Table below). While the diversity of population and the excellent multicultural mix can be a potential advantage for any region, it can also be a source of greater disadvantage in the labour market if qualifications are not recognised or if language skills need to be updated.

Table 13 Ethnicity Characteristics

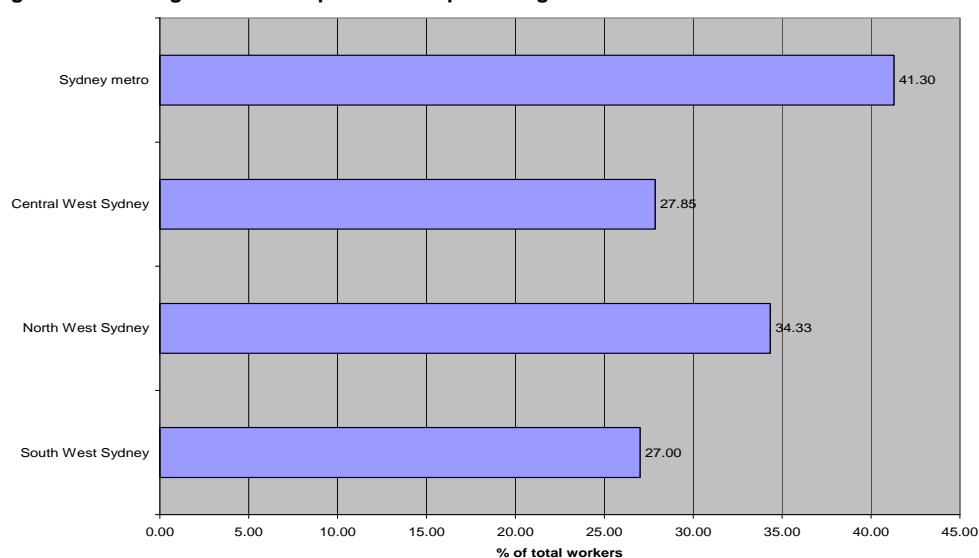
	% Born overseas	% Born overseas in NES country	% Speaking language other than English	% Aboriginal & Torres Strait Islanders
South West Sydney	34.1%	28.8%	39.3%	1.5%
Central West Sydney	26.4%	19.2%	22.6%	2.4%
North West Sydney	21.6%	13.8%	15.9%	0.7%
Metro Sydney	31.1%	22.8%	27.6%	1.1%
NSW	23.2%	16.0%	19.0%	2.1%

Source: ABS 2001 Census

3.4.2 Knowledge

Knowledge based occupations have been calculated by grouping the occupational categories of: 'engineering and building'; 'scientific'; 'business and information'; crafts and trades; and 'general management'. As can be seen from the figures below, South West Sydney has the lowest levels of these workers and all Western regions have lower levels as a whole than the Sydney Metropolitan average.

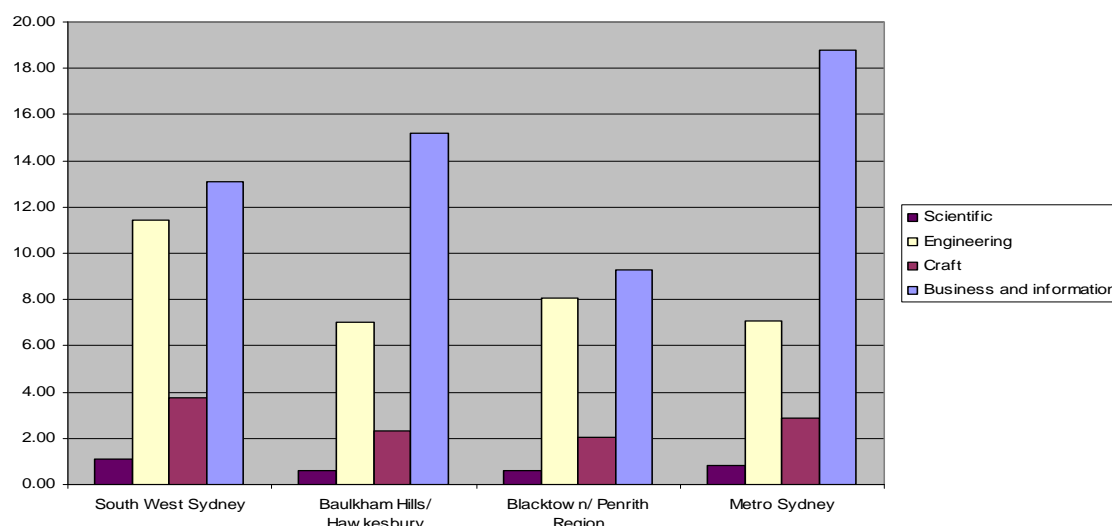
Figure 5 Knowledge based occupations as a percentage of total workforces



Source: based on ABS 2001 Census

Although South West Sydney has lower levels of knowledge workers than the North West and the Sydney Metropolitan area, the area is ahead in ‘engineering’ based occupations, which are particularly found in manufacturing (the business strength in this region). They also have the highest levels of scientists and craft occupations. Business & Information related employment is ahead in the Baulkham Hills/Hawkesbury area, where strong business parks such as Northwest are located (see Fig 6).

Figure 6: Knowledge workers by type in Outer Western Sydney, as % of total regional employment



Source: based on ABS 2001 Census

3.4.3 Skills

The analysis of skills focuses on the analysis of apprentices in training within the sub-regions being considered a different type of skills from the analysis of professionals and knowledge workers evaluated in previous sections. Apprentices’ approvals and numbers in training are the best indicators of the rate of trades in a region, and the longitudinal data can indicate the trends and effects of policy intervention in relation to incentives to industry and employees to participate in the apprenticeship scheme. For example, it can be seen in the table below there was a slightly higher average commencement age in 2006, after age restrictions to participate in the scheme were removed.

Table 14: Apprenticeship Approvals

Regions	No. of Apprenticeship Approvals by calendar year						Average* Com. Age 2002	Average Com Age 2006
	2001	2002	2003	2004	2005	2006		
North West	368	378	420	277	510	555	26.82	27.2
Central West	610	626	746	972	945	962	28.85	28.72
South West	598	635	675	923	834	817	26.01	26.75
TOTAL	1576	1639	1841	2172	2289	2334	27.23	27.56

* Average Commencement Age of the Contract
Source: DET collected statistics – 2007 (unpublished)

North West Sydney has the highest number of professionals (managers and administrators, professionals and associate professionals) and the lowest number of apprentices and trainees (workers in trades), and is the sub-region that has the most similar demographic of knowledge occupations to the Metropolitan Sydney average. The Central West region has the highest number of apprentices and trainees, and is third in relation to the concentration of managers and professionals. The total number of trainees in September 2007 was 8,683, well above the 3,405 in the North West or the 6,565 in the South West. The South West sub-region is slightly ahead of the Central West in its number of managers and professionals, but significantly below the North West (see Table below).

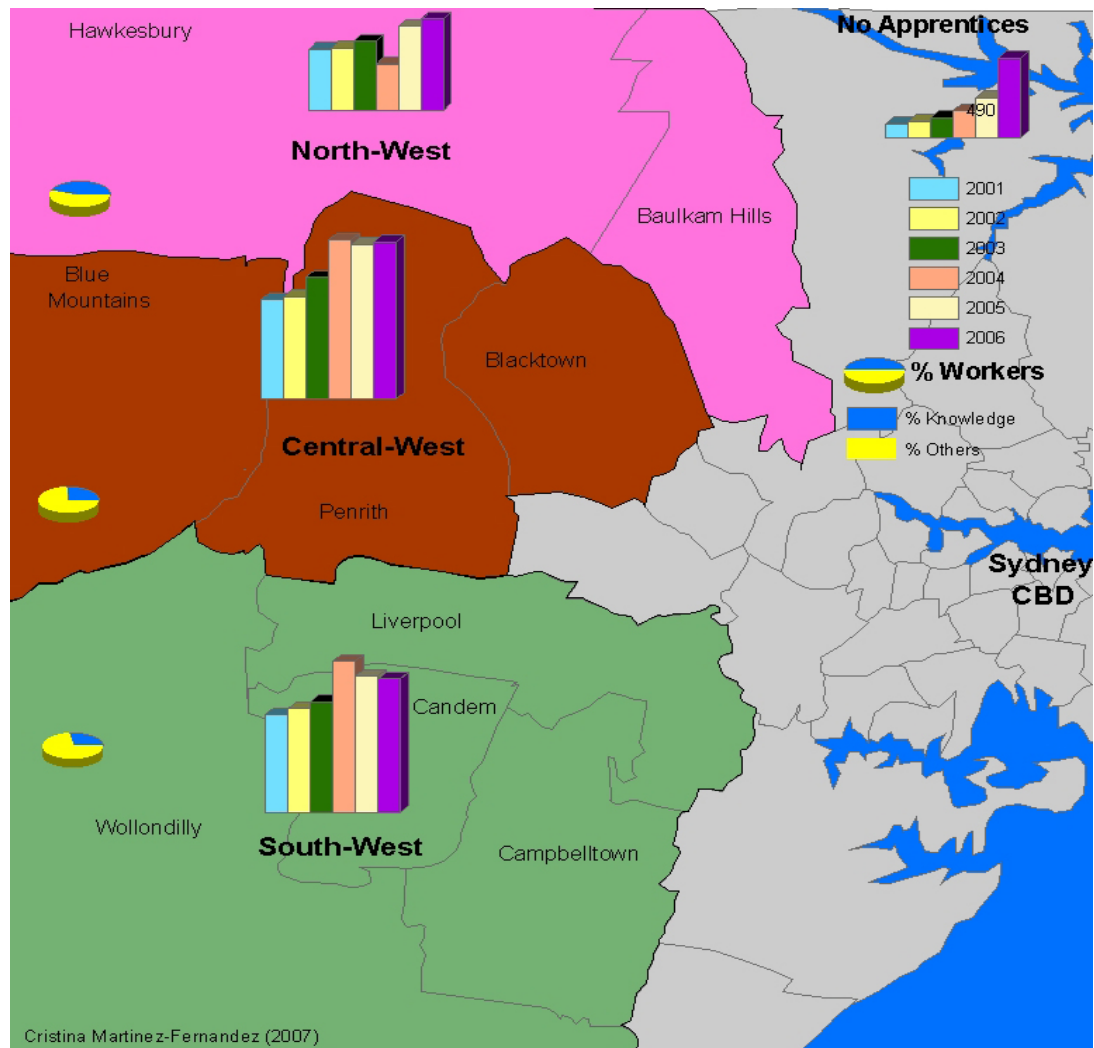
Table 15: Number of Apprentices (in training as at 1st September 2007)

	Apprenticeships	Existing Work Traineeships	New Entrant Traineeship	Total
North West	1575	620	1210	3405
Central West	2788	2737	3158	8683
South West	2519	2174	1872	6565
Total	6882	5531	6240	18653

Source: DET – 2007 (unpublished)

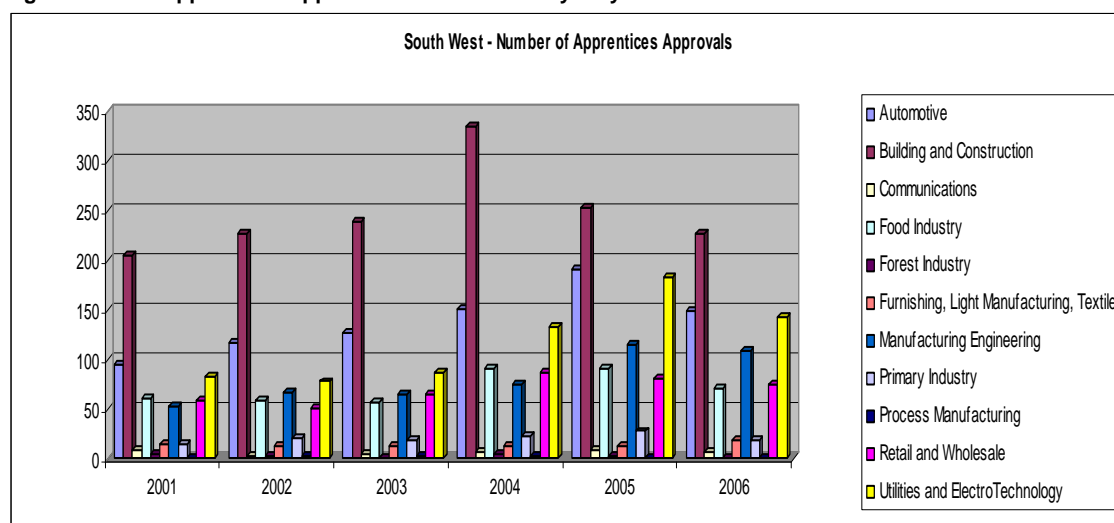
The Figure below shows the distribution of ‘trades’ since 2001 as well as the concentration of ‘professionals’.

Figure 7. Distribution of trades and professionals in Western Sydney sub-regions



The distribution of apprentices by industry indicates the sectors where the training of new talent is occurring, and which industry is attracting more apprentices. In the case of South West Sydney, the Figure below shows the ‘Building and Construction’ sector as being the one with higher concentration of apprentices, followed by ‘Automotive’ and, to a lesser extent but growing since 2004, ‘Utilities and Electrotechnology’. The category of ‘Manufacturing Engineering’ does not attract as many apprentices as expected in this sub-region.

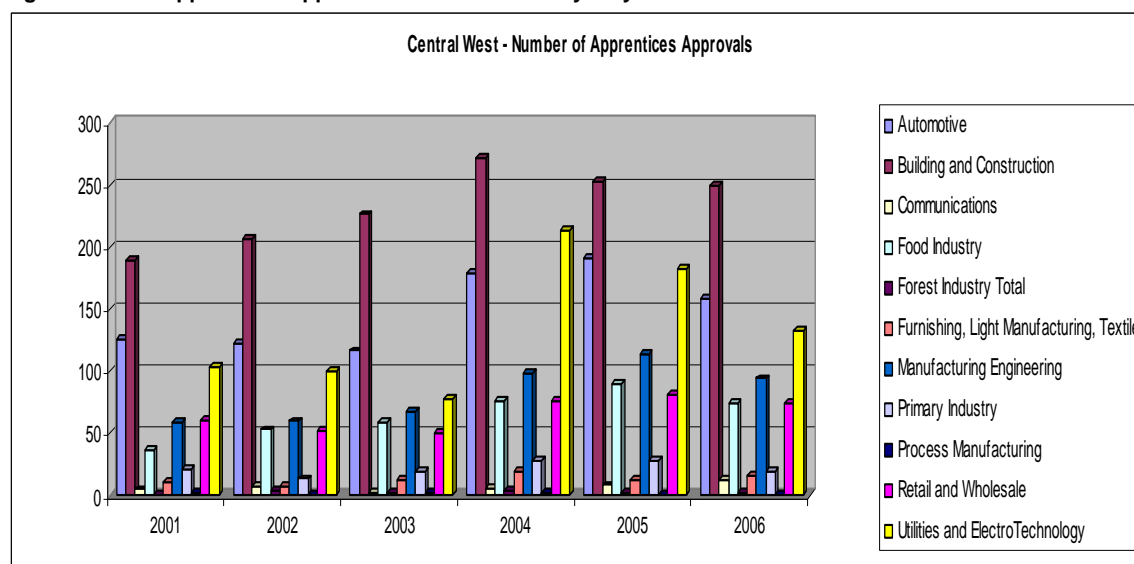
Figure 8: No of Apprentices approvals in South West Sydney



Source: DET – 2007 (unpublished)

The distribution in Central West has a similar pattern, with ‘Building and Construction’ clearly showing a higher amount of apprentices. ‘Utilities and Electrotechnology’ shows a significant increase since 2003, followed by ‘Automotive’ and ‘Manufacturing Engineering’, also showing interesting increases since 2003.

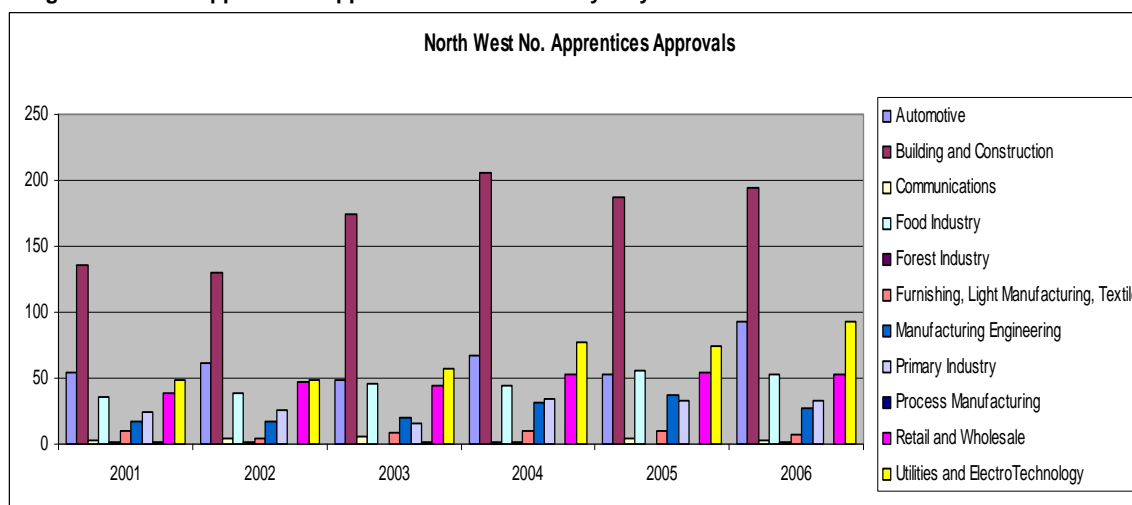
Figure 9: No of Apprentices approvals in Central West Sydney



Source: DET – 2007 (unpublished)

North West Sydney has the lower number of apprentices as a whole, and the figure below shows that, again, most apprentices’ approvals are concentrated in ‘Building and Construction’. In this region, ‘Utilities and Electrotechnology’ is the second group in apprentices’ concentration, followed by ‘Automotive’.

Figure 10: No of Apprentices approvals in North West Sydney



Source: DET – 2007 (unpublished)

The analysis of skills shows three clusters, which spread over the three sub-regions: ‘Building and Construction’; ‘Automotive’; and ‘Utilities and Electrotechnology’. The concentration of demand for apprentices and apprenticeships in these clusters is important for training and education purposes, and also indicates the type of knowledge that is relevant for this region, and where research and development efforts should also be concentrated.

3.5 Summary

South West Sydney is the strongest growing region in Western Sydney, with 32 percent population growth since 1991, and an expectation of 200,000 new residents in the next 20 years. However, this growth in population does not correspond with the growth in employment, which is lower than neighbouring regions of Central West and North West Sydney.

The largest employment sector in SWS is manufacturing, and large concentrations are found in retail, construction, property and business services, and health and community services. The strongest industry sector across the three sub-regions is retail, with growing rates above 40 percent; almost double that of the Sydney Metropolitan Area average. Manufacturing firms are larger in size, while the smallest units are found in the building and construction sector. The majority of firms have a medium turnover; between \$50,000 and \$99,999.

SWS has low levels of knowledge occupations and high levels of trades. The overall rate of education attainment is low if compared with Central and North West regions. Central West has the highest number of apprentices in training, followed by South West, and then North West. Apprentices across the three sub-regions are concentrated in the learning clusters of Building and Construction, Automotive, and Utilities and Electrotechnology. Although SWS is lagging behind in the level of knowledge workers, the sub-region has high levels of engineering and scientific based occupations.

There are also areas of social disadvantage. South West Sydney has a larger population under Centrelink income support (29%) than Central and North West. It also has higher percentages of population under mortgage stress. The area also has the highest population of overseas-born residents from non-English speaking countries.

4. Firm Innovation Activity in SWS

Key Innovation Characteristics

- ❖ 80% of firms have incremental innovations of products and services
- ❖ Small firms (<20 employees) and newly established firms (>5 years) are the most innovative
- ❖ Knowledge sources are made up of those internal to the firm (65%) plus external sources (35%) from the value-chain (customers, suppliers, competitors)
- ❖ High levels of *core* knowledge intensive service activities (KISA): IT; accounting & finances; R&D marketing & promotion. High levels of *complementary* KISA (training)
- ❖ 40% of firms expend up to \$ 20,000 in services sourced from the region (training) and from the Sydney Metropolitan area
- ❖ Low levels of connectivity to other parts of the Regional Innovation System (RIS). RIS locked at the regional and Sydney Metropolitan Area – no significant national and international connections.

4.1 The Outer Western Sydney Innovation Survey

This study has undertaken a survey of firm innovation activities for the first time in the Western Sydney region. The survey sample included 474 firms; responses were received from 119 firms, representing a response rate of 25.1 per cent. The survey was distributed by several industry bodies and using Local Government databases (see table below).

Table 16 Survey sample by list

List	Count
ABL	168
AIG	192
Local government lists	116
Total	476

*ABL: Australian Business Limited *AIG: Australian Industry Group

The survey questions are consistent with several questions investigated by the Community Innovation Survey, various OECD industry research, and the Australia Innovation Survey (collected every three years). A key component of this survey, which differs from these innovation surveys, is its focus on collecting data about the usage of Knowledge Intensive Service Activities (KISA) by firms. This is an emerging area of innovation analysis. A recent OECD 9-nation study (OECD 2006) investigating the role of KISA on the innovative activities of firms, found higher levels of innovative activity in firms that used and absorbed higher levels of KISA (OECD 2006). In particular, KISA related questions have been previously applied in the Australian context in innovation surveys of the software, tourism, and mining technology services industries (Martinez-Fernandez 2005; Martinez-Fernandez and Krishna 2006; Martinez-Fernandez and Miles 2006; Martinez-Fernandez et al 2005), providing national and international validity to the methodology. The sample of firms is dominated by manufacturing firms as this sector contains the highest concentration of firms; the second sector is business services. Half of the sample is from South West Sydney (see Table below).

Table 17. Survey sample by region and broad industry grouping

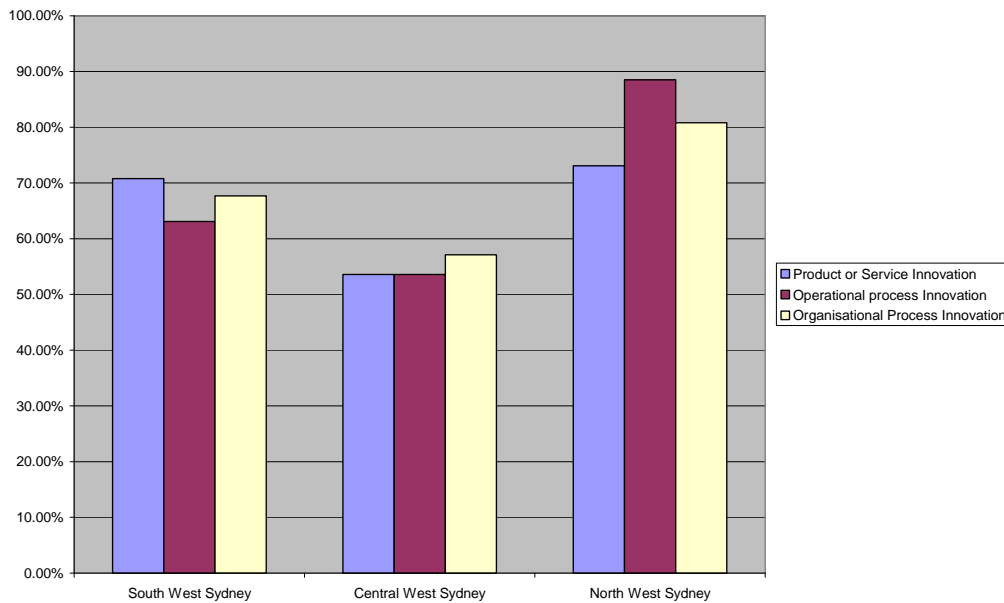
Count of List Industry	Region:			Grand Total
	Central West Sydney	North West Sydney	South West Sydney	
Agriculture	0	0	5	5
Construction	5	4	16	25
Manufacturing	77	54	169	300
Mining	0	0	2	2
Retail Trade	1	5	7	13
Business Services	17	21	45	83
Transport & Storage	4	0	3	7
Wholesale Trade	13	13	15	41
Sample total	117	97	262	476
Total respondents	28	26	65	119
Total no. firms *	35520	26319	33196	95 035

* This is the total number of Australian Business Number registrations per region. There are limitations and overestimations of this data, but this is the only available data at the firm level.

4.2 Innovation demographics

The region as a whole shows that the majority of businesses (94 out of 119) have introduced a new product, service, or process in the last three years. This high level of innovative activity is, however, non-homogeneous among the sub-regions of Western Sydney. The South West has 80 percent of their firms innovating, the Central West has 67.8 percent, and the North West has 88.5 percent. There is also variation at the type of innovation. South West Sydney has higher levels of innovation related to product or services, while North West has higher levels of operational process innovation (see Figure below).

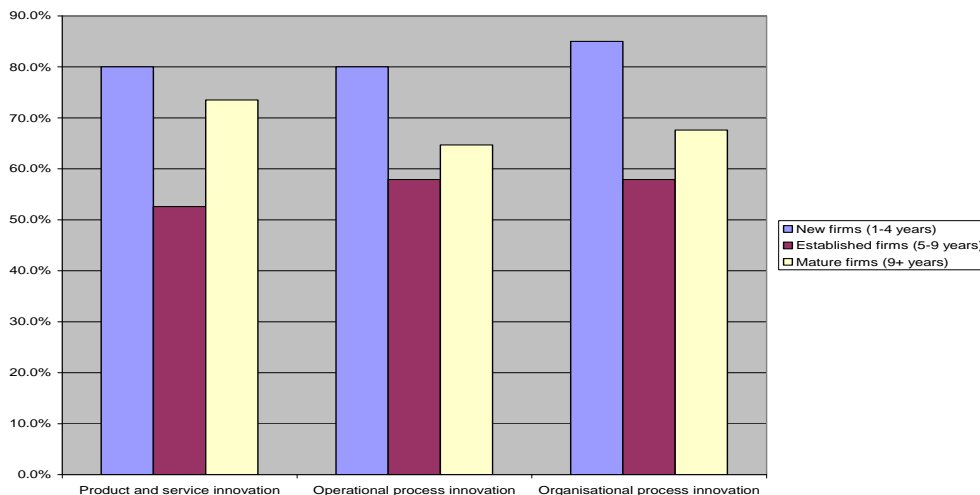
Figure 11 Innovations by type and by region



Source: Outer Western Sydney Innovation Survey. Multiple responses in innovation type allowed, n=119

The position of the firm in the life cycle can indicate whether the innovation is happening more among newly established firms or among mature firms. The figure below shows that those firms between 1-4 years old are the most innovative, followed by the mature firms of more than 9 years existence. The less innovative firms are the established firms between 5-9 years. These are firms that are consolidating their products and services and are not in the area of start-up, when new products and services are typically introduced.

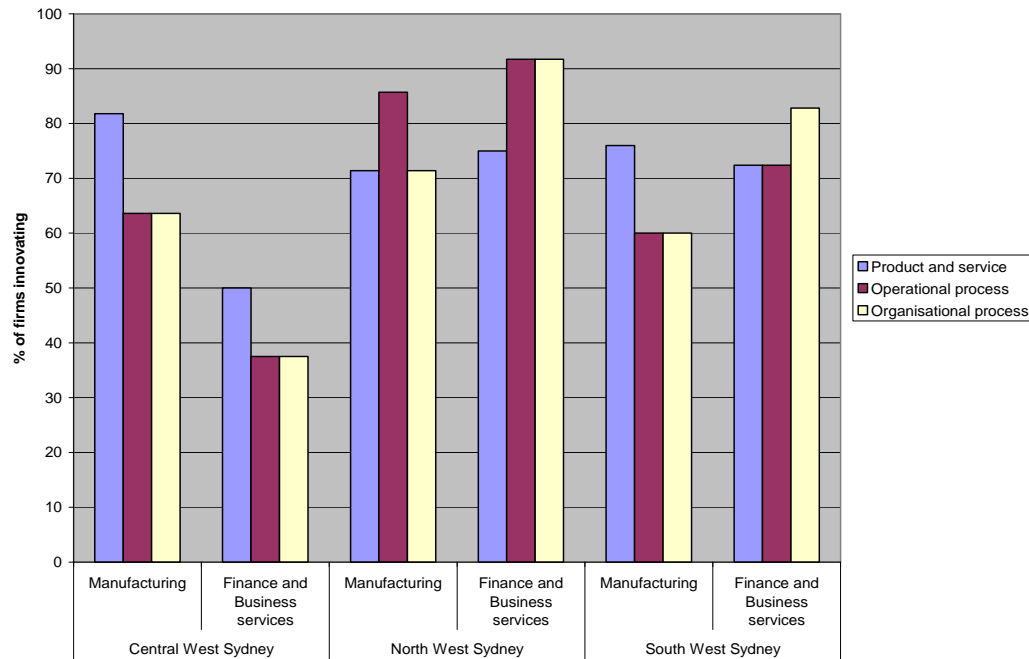
Figure 12 Business cycle and firm innovation activity



The size of the firm is also important for innovation purposes and the survey responses indicate that those firms with less than 20 employees are the most innovative across the three types of innovation activity (product/service, operational, and organisational). The innovation focus, however, varies in terms of industry. In South West

Sydney, manufacturing firms are characterised by product and service innovation, while finance and business services have the highest levels of organisational process innovation (see Figure below). There are also variations across the three sub-regions, especially with the high focus on operational and organisational innovation in North West firms.

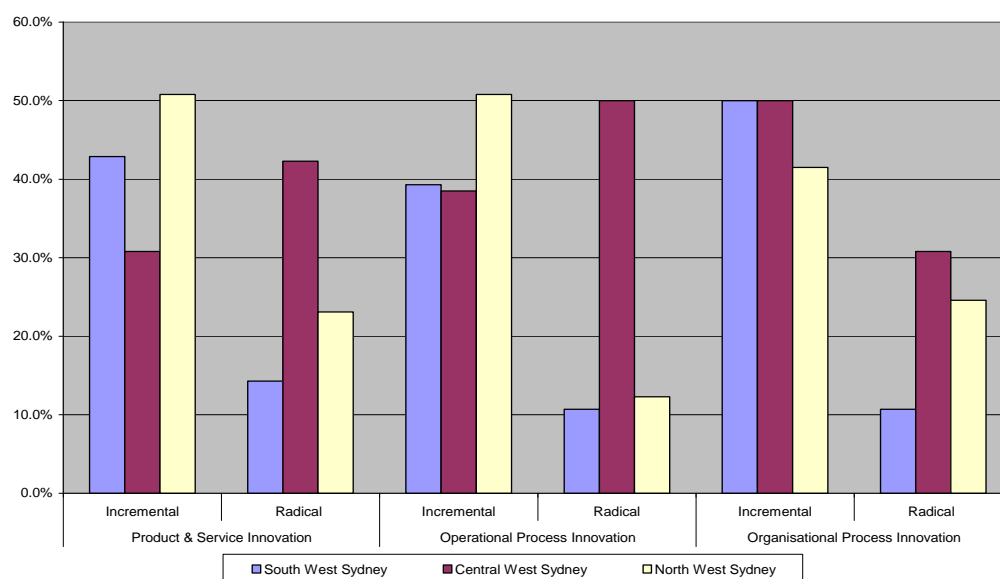
Figure 13. Innovating firms by region by innovation types



Source: Outer Western Sydney Business Innovation Survey n=119

When the novelty of innovation is measured, Central West firms show the highest levels of radical innovations (new products or processes), especially in relation to operational and organisational processes. South West firms have the highest levels of incremental innovations (small improvements to existing products or processes). The figure below shows the novelty of innovations.

Figure 14 Novelty of innovation by type and region

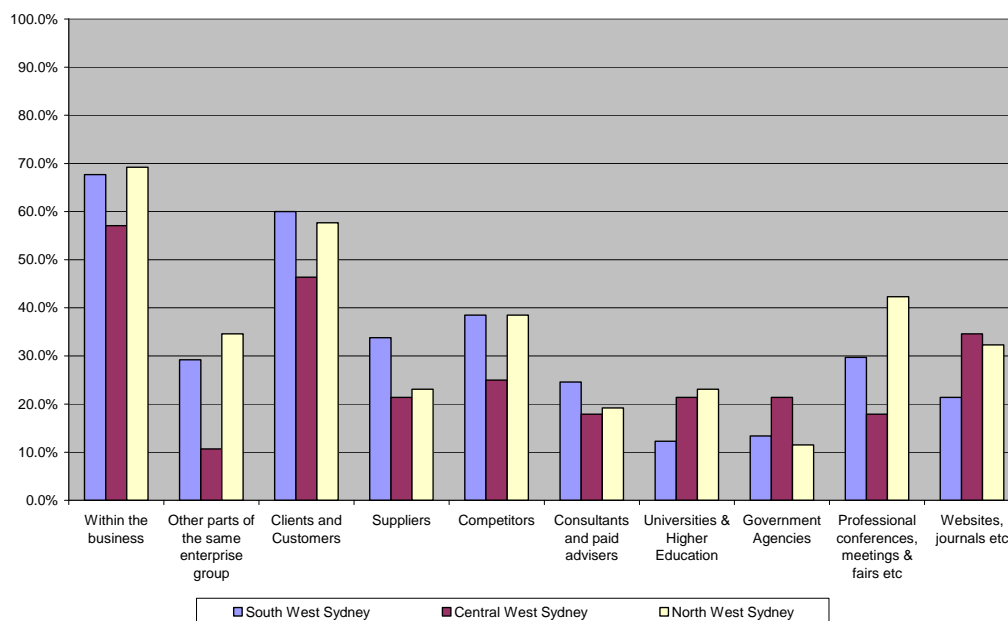


Source: Outer Western Sydney Innovation Survey. n=119

4.2 Knowledge Sources

An important feature of firm innovation is how firms learn, and how they innovate. These topics are the subject of multiple works elsewhere, but they have never been investigated in Western Sydney firms and in SWS there is no knowledge of these features at all. The survey shows that 65 percent of firms rate internal sources (in-house) of knowledge as the most important sources for their learning and innovation process. After that the 'value-chain' of the firm (clients, suppliers, and competitors) is noted as the most important source. Other sources from the Regional Innovation System (consultants, universities and government departments) are noted at much lower percentages. In the case of South West Sydney, universities, government agencies, and websites and journals have the lowest levels of accessibility as knowledge sources of the three regions (see Figure below). The value chain, however, is clearly the most important source of knowledge after in-house. Central West Sydney has higher sourcing from government departments and universities (which may provide an explanation for their higher frequency of radical innovations). North West shows higher levels than the other two regions for knowledge sourced from conferences, meetings and exhibitions.

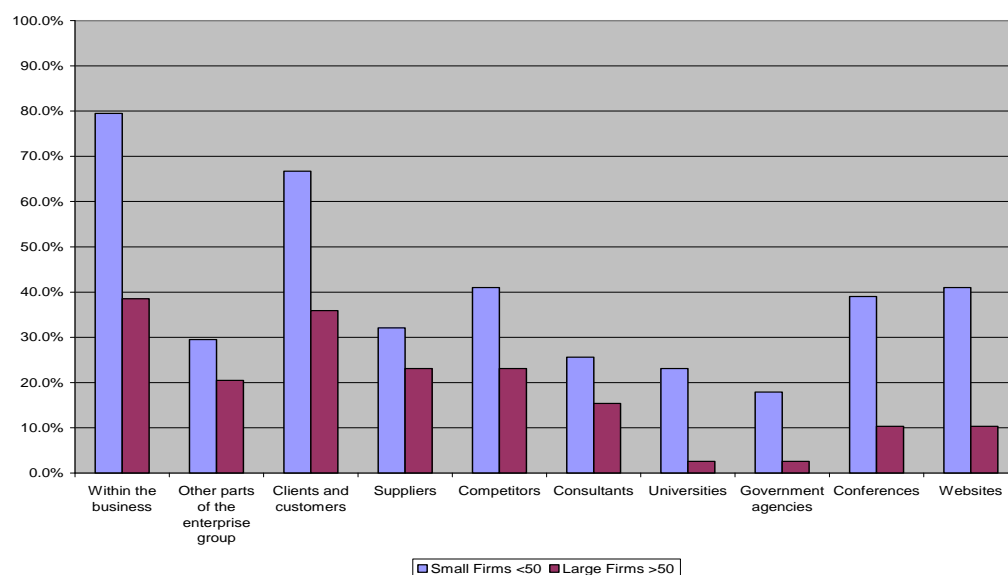
Figure 15 Knowledge sources (rated high and medium importance) by region



Source: Outer Western Sydney Business Survey, n=119

The survey also shows that micro and small firms of less than 50 employees display overall higher levels of knowledge sources, a mixture between internal sources and external sources from the value-chain, universities and government agencies, and from attendance at conferences and Internet research. The higher usage of external knowledge is significant when compared with medium and large firms of more than 50 employees (see Figure below).

Figure 16 Knowledge sources (rated high and medium importance) by business size



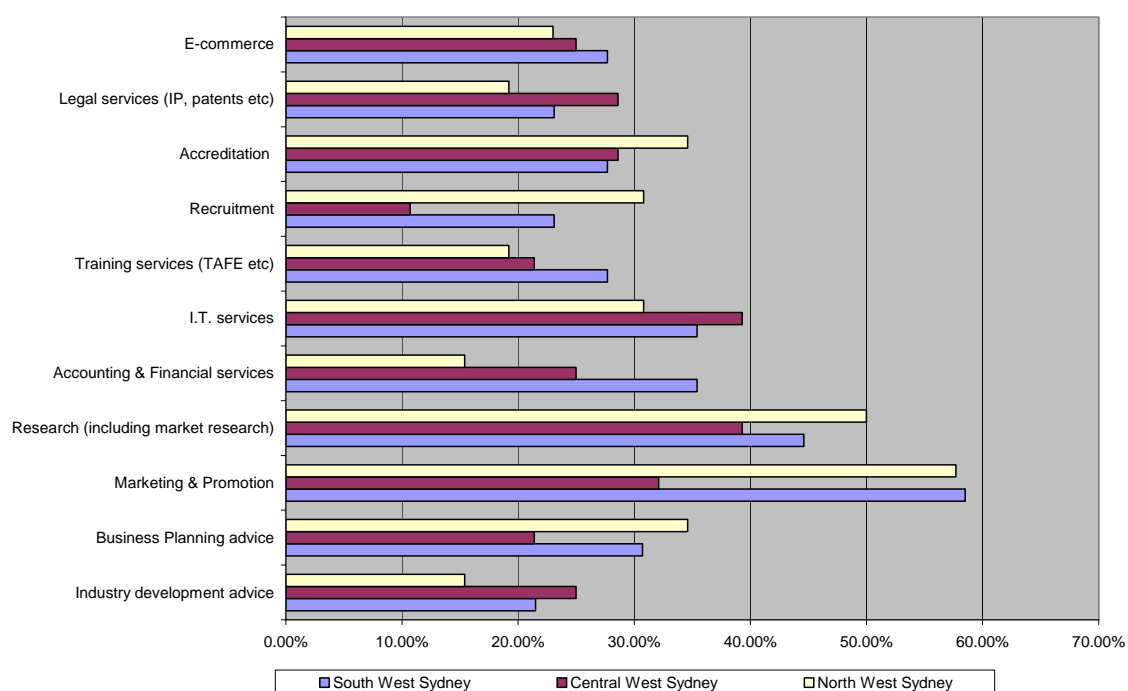
Source: Outer Western Sydney Business Survey, n=119

The manufacturing or business services sectors appear to operate in different value-chains. Firms in manufacturing largely tap into clients, and customers and suppliers for knowledge sources, while business services firms tap more into universities, government agencies, conferences and websites, thus showing the different orientation of the businesses and, specifically, of the customer base.

4.3 Knowledge Intensive Service Activities (KISA)

A recent OECD multi-country study (OECD 2006) defined ‘KISA’⁷ as the production or integration of service activities, undertaken by firms and public sector actors – and, in the context of manufacturing services, in combination with manufacturing outputs or as stand-alone services. There are several KISA that have been identified as being associated with innovation activity, which are not included in normal accounts of research and development activities. They range from electronic commerce, legal services, accreditation, recruitment and training, IT, financial and business services, research including market research, and industry development advice. The use of these KISA varies among the regions analysed; South West Sydney has the highest frequency of IT services, accounting and financial services, research, and marketing and promotion KISA. North West Sydney, where there are more business services firms, has higher the KISA in accreditation, recruitment, research, and business planning advice (see Figure below).

Figure 17 KISA usages by type by region

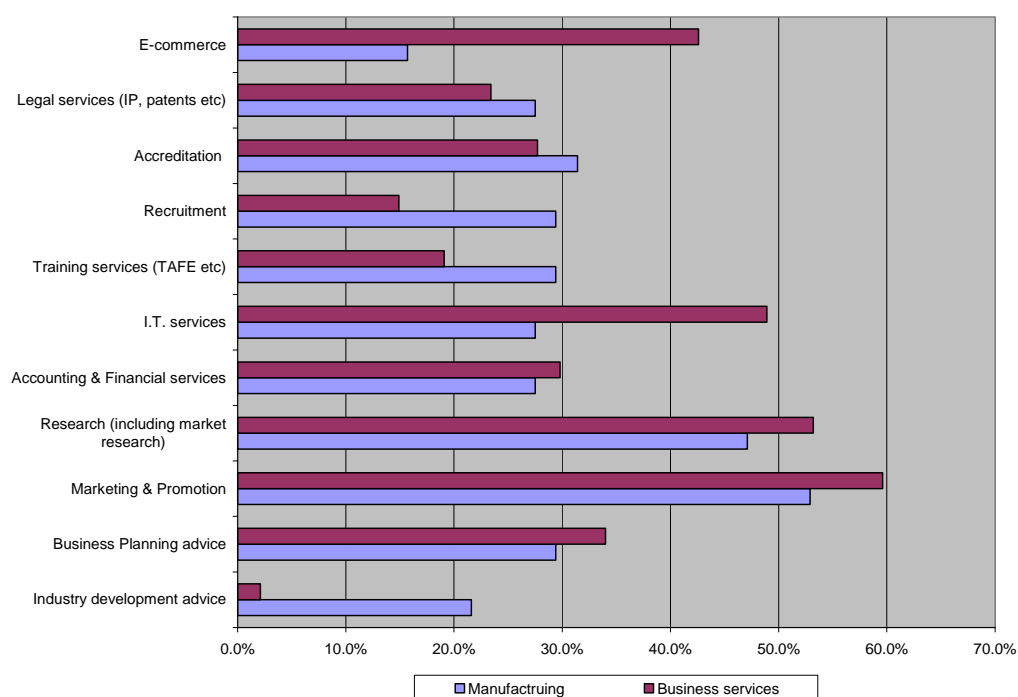


Source: Outer Western Sydney Business Innovation Survey, n=119, multiple answers allowed

⁷ The term ‘KISA’ was proposed by the AEGIS group of the University of Western Sydney in collaboration with the Australian Department of Innovation, Industry, Tourism and Resources (Martinez-Fernandez et al, 2005a,b; Martinez-Fernandez, 2005).

When KISA are analysed by the main industry sectors, the survey indicates that firms in business services are much more focused on electronic commerce, IT services, research, marketing and promotion, and business planning advice. Manufacturing firms have higher frequency of KISA related to legal services, accreditation, human resources (especially training), and industry development advice (see Figure below). This differentiation relates to the different orientation of the businesses and indicates a different scenario for delivering of innovation.

Figure 18 KISA usages by type by industry



Source: Outer Western Sydney Business Innovation Survey, n=119, multiple answers allowed

When KISA are analysed depending on firm size, again SMEs (under 50 employees) show a greater use of KISA, which is particularly notable in marketing and promotion, IT services, and research (including market research).

Further statistical analysis of the kinds of KISA that explain innovation activity and competitiveness of the firm, indicates four different types of KISA with different levels of importance in innovation terms:

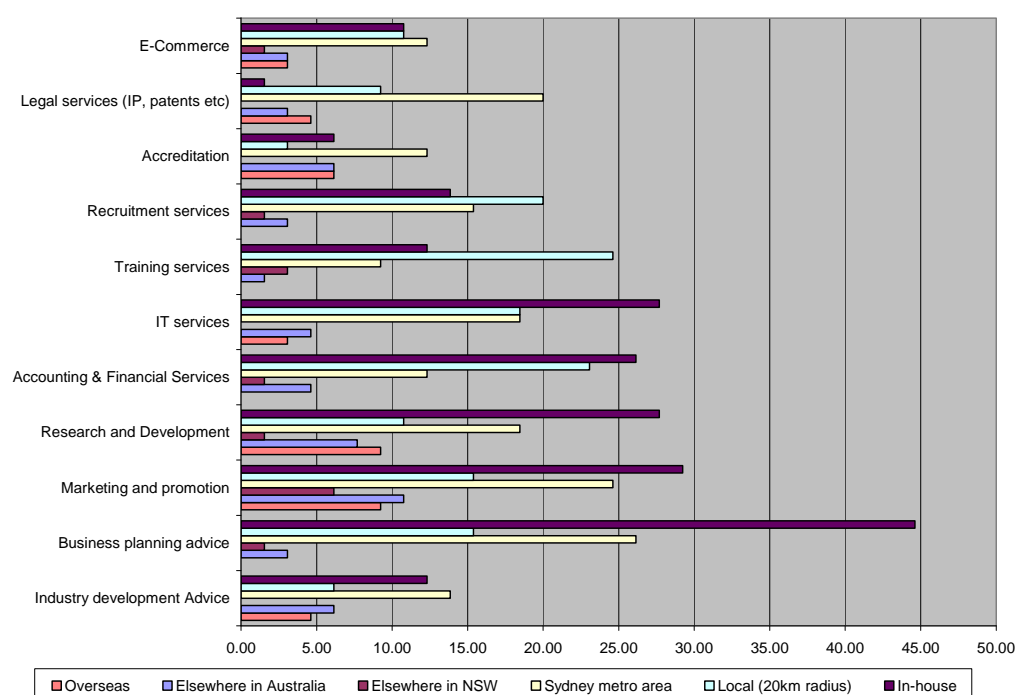
- Level 1: Core KISA (those activities most highly correlated with firm innovation activity and competitiveness): business planning advice, marketing & promotion, research & development, accounting & financial services, and IT services;
- Level 2: Standardisation KISA: accreditation, legal services (IP, patents) and e-commerce;
- Level 3: HR KISA: training and recruitment;
- Level 4: Industry development KISA: industry development advice.

Levels 2, 3, and 4 are considered *non-core* KISA or complementary for the innovation process but not as critical for the firm as the *core* KISA are.

4.4 Geography of Services for KISA

KISA is primarily an interactive function of innovation in firms. As such, the sourcing of services for these activities can come from different geographical areas. The survey asked firms to identify from ‘where’ they were sourcing services for each of their KISA activities: in-house, locally (20 kilometres), Sydney metropolitan area; elsewhere in NSW; elsewhere in Australia; or overseas. South West Sydney firms have the *core* KISA sourced from inside the firm in some combination with external sources from the Sydney Metropolitan Area for IT services, marketing & promotion, and research & development and for *standardisation* KISA. HR KISA are particularly sourced from the local area (especially in relation to training services), which highlights the importance of local labour market and skills (see Figure below). South West firms show a compacted local area for the provision of services for their KISA when compared with firms in the Central West, which are more oriented towards the Sydney Metropolitan Area, national, and international sources, particularly for *core* KISA. North West firms source their KISA mainly from the Sydney Metropolitan Area, especially those for *non-core* KISA.

Figure 19 Location of services for KISA, South West Sydney



Source: Outer Western Sydney Business Innovation Survey, n=65, multiple responses allowed

Expenditure in services adds the important dimension of knowing the relevance of knowledge that is external for the firms in the study sub-regions. The Table below shows the number of firms and the breakdown of expenditure. The majority of firms from the South West (16.9%) expend between \$10,000 and \$20,000 on external KISA, and the second biggest group (13.8%) expends more than \$100,000. North West Sydney firms mainly expend either less than \$10,000 or more than \$100,000. In Central West, the majority of firms expend less than \$10,000. In average across the three regions, firms expend less than \$20,000 although 14.3 percent expend more than \$100,000. Up to 30 percent of the surveyed companies did not respond to this question, which is a high percentage, possibly indicating that it is not easy to calculate this type of expenditure, or to disaggregate this from 'network KISA' or non-commercial transactions (see next section).

Table 18 Expenditure on KISA by region

Expenditure on KISA	Central West Sydney		North West Sydney		South West Sydney		Totals	
	Count	%	Count	%	Count	%	Count	%
Less than \$3,000	4	14.3%	4	15.4%	8	12.3%	16	13.4%
Between \$3,001 & \$10,000	6	21.4%	6	23.0%	7	10.8%	19	16.0%
Between \$10,001 & \$20,000	3	10.7%	1	3.8%	11	16.9%	15	12.6%
Between \$20,001 & \$50,000	1	3.6%	1	3.8%	8	12.3%	10	8.4%
Between \$50,001 & \$100,000	1	3.6%	2	7.7%	3	4.6%	6	5.0%
More than \$100,000	3	10.7%	5	19.2%	9	13.8%	17	14.3%
Did not respond	10	35.7%	7	26.9%	19	29.2%	36	30.2%
<i>Total number of firms</i>	28		26		65		119	

Source: Outer Western Sydney Business Innovation Survey n=119

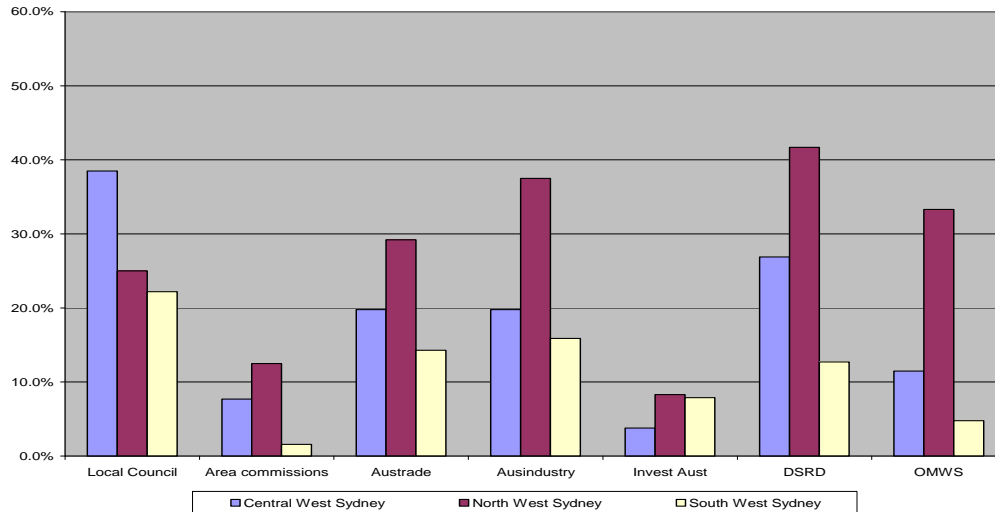
4.5 Network KISA

The environment within which firms operate is of critical importance for the provision of services for KISA – many of these services are non-commercial transactions resulting from networking activities with different agents operating in the region. Many of these transactions have a high level of influence from professionals working in these agencies, and the networks they form over the years of working within the same region. These knowledge transactions can be the result of informal activities or more formal meetings such as seminars or workshops organised by one of the government agencies or university departments. These *network KISA* are critically important because they represents external contributions and interactions of the firm's innovation process in ways that are not accounted for as research and development activities. They are also critically important for the connectivity of the region and for the socio-economic cohesion of the different actors in a particular business space. In the analysis performed in the Western Sydney sub-regions, four groups are identified: industrial networks; educational organisations; government organisations; and regional development organisations.

Of the three sub-regions, North West firms have the highest orientation towards *government organisations*, through their inclusion as part of their knowledge network, especially agencies such as the Department of State and Regional Development, the Office of the Minister for Western Sydney, Aus Industry and Austrade. South West firms have the lowest level of orientation to government institutions, with very low levels for the Area Consultative Committee (GROW) and low involvement of the local council, although the highest among government organisations, into their knowledge networks. Central West

firms have higher levels of orientation towards the local council, with nearly 40 percent of firms noting the Council was in their knowledge network (see Figure below).

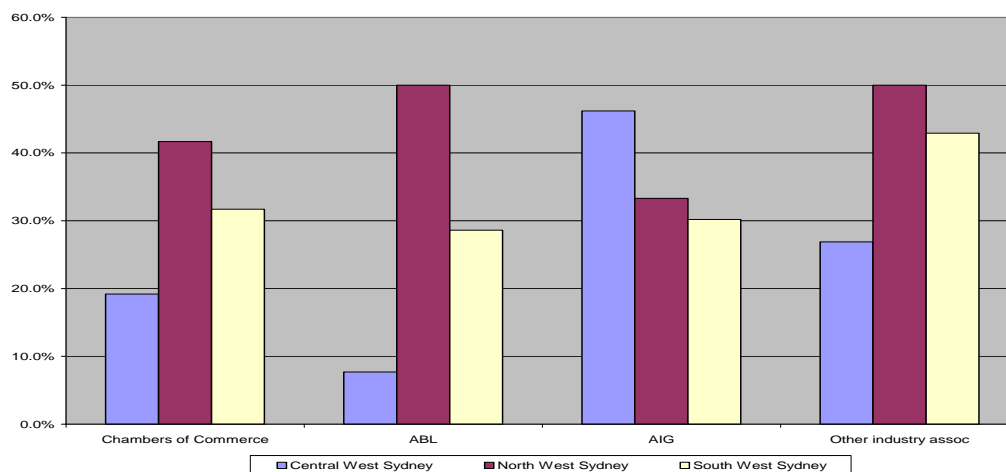
Figure 20 Government organisations included in firm knowledge networks
 % of firms who involve these organisations in their knowledge gathering



Source: Outer Western Sydney Innovation Survey. n=119

In relation to *industry networks* South West firms are more oriented towards the Chamber of Commerce, while North West firms predominantly nominated the Australian Industry Group (AIG). Central West firms are significantly oriented towards the Australian Business Foundation (ABL), although it needs to be taken into account that the survey was distributed by ABL and AIG, so this will influence the nomination by firms from these databases. Overall, North West firms show again a higher frequency of interactions with this group (see Figure below).

Figure 21 Industrial based organisations included in firm knowledge networks
 % of firms who involve these organisations in their knowledge gathering

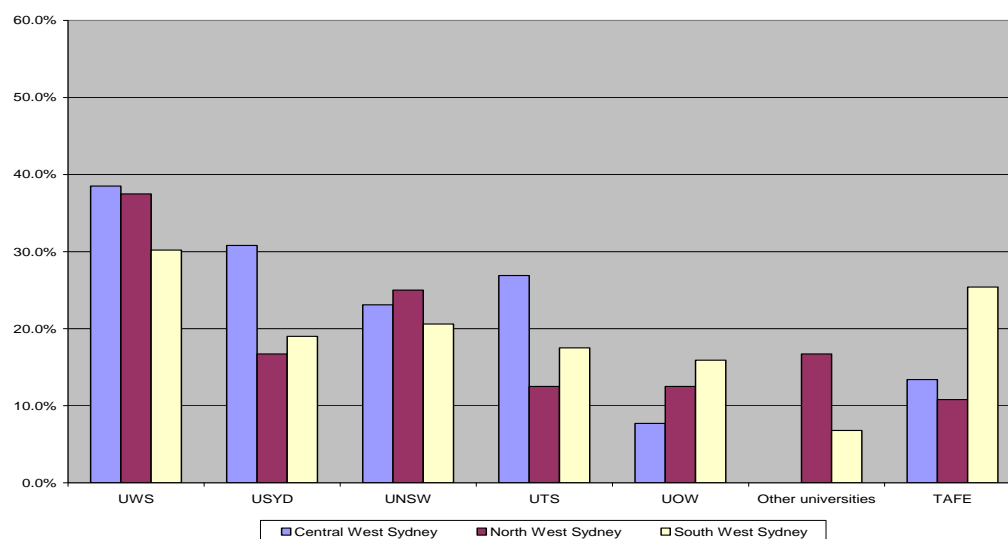


Source: Outer Western Sydney Innovation Survey. n=119

In relation to the connectivity to *educational organisations*, South West Sydney firms report greater connection to the local university (the University of Western Sydney), closely followed by TAFE, which is highly relevant for training and especially for trades, a core occupation in manufacturing. Central West firms have a strong university connection with the main Sydney-based universities (UWS, University of Sydney, UTS, and UNSW). Central West firms also have more radical innovations than the other two regions, and it is possible that the higher orientation towards universities can explain that finding. North West firms are again the ones presenting higher connectivity to universities, not only those in the region, but also outside the Sydney Metropolitan Area (up to 24% of firms noted these as a key knowledge contact), which can be a critical source of new knowledge, different from what may be available in the region. Overall, more than 30 percent of firms included the local university, UWS, as a key organisation in their knowledge network, and TAFE was mentioned by just under 30 percent of the firms (see Figure below).

Figure 22 Educational organisations included in firm knowledge networks

% of firms who involve these organisations in their knowledge gathering

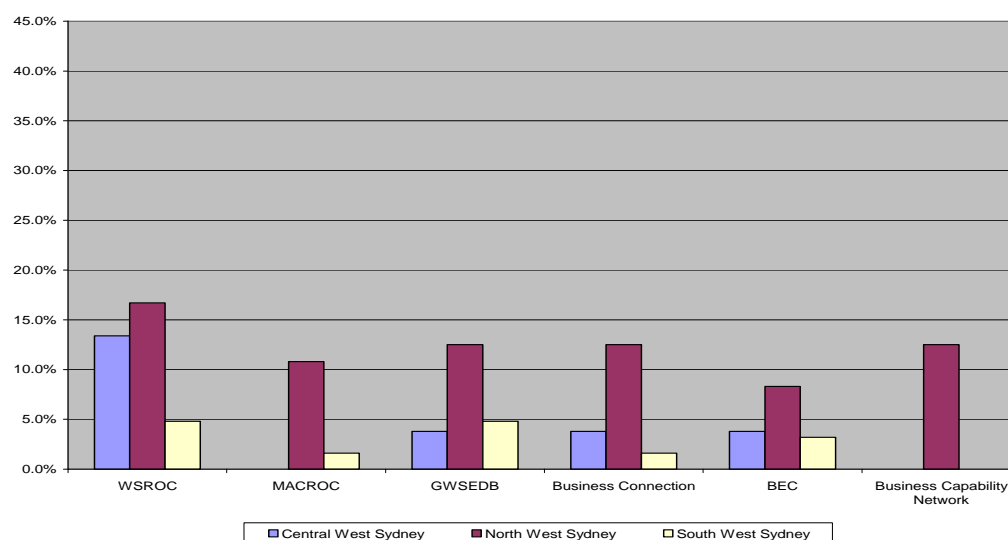


Source: Outer Western Sydney Innovation Survey. n=119

Firms were also asked about the inclusion of Regional Development Organisations in their knowledge gathering, especially regarding those more frequently nominated as important in the region: The Western Sydney Regional Organisation of Councils (WSROC); the Macarthur Regional Organisation of Councils (MACROC); the Greater Western Sydney Economic Development Board (GWSEDB); Business Connection; Business Enterprise Centre; and Business Capability Network. Once again, North West firms show a higher connectivity to these types of organisations, even to MACROC, an organisation based in the South West. Central West firms are more oriented towards WSROC, and South West firms show a weaker connectivity, especially notable regarding MACROC (see Figure below). Further statistical analysis of the most embedded organisation in the knowledge network in Western Sydney points to AusIndustry, AusTrade, AIG, and ABL as being the organisations most embedded in firms' knowledge networks.

Figure 23 Regional development organisations included in firm knowledge networks

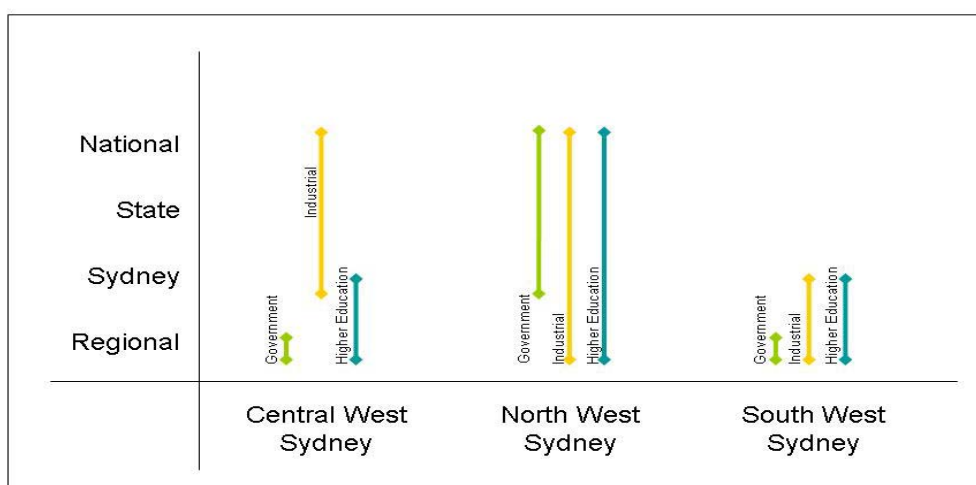
% of firms who involve these organisations in their knowledge gathering



Source: Outer Western Sydney Innovation Survey. n=119

After the analysis of Network KISA, overall, the connectivity of firms to the regional development organisations is the weaker orientation of firms. These organisations do not participate in the knowledge networks of firms to any great extent. On average, only 5 percent of firms from any of the sub-regions will nominate these organisations as part of their knowledge network for KISA. North West Sydney firms are well connected within the region, the nation, and internationally in the three categories of government, industrial, and higher education; Central West firms have a Sydney Metropolitan Area orientation but are expanding nationally and internationally in their industrial networks. South West Sydney is strongly embedded at the regional and Sydney Metropolitan Area level (see Figure below).

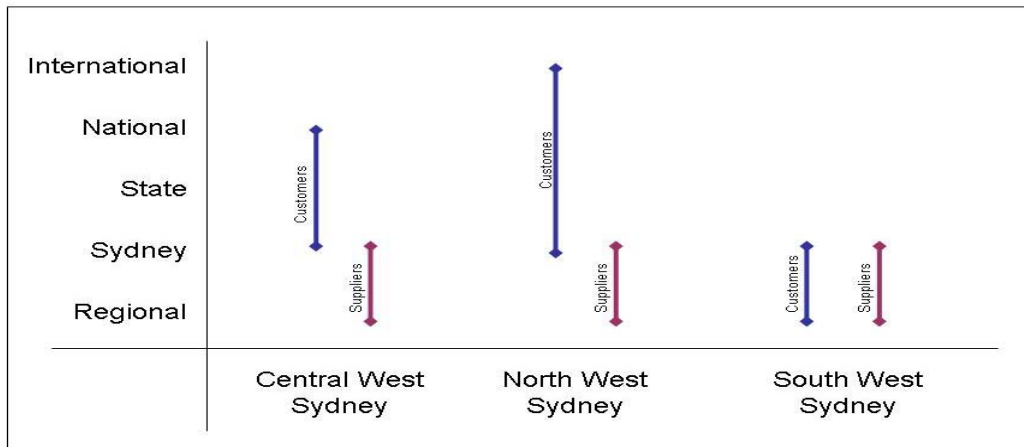
Figure 24 Geography of Network KISA



Source: Outer Western Sydney Innovation Survey. n=119. S. Sharpe (2007)

Other firms from the value chain (customers and suppliers) are also important sources of knowledge that many times are embedded within operational activities, so the location of the value chain firms was investigated. South West Sydney again shows a strong regional and Metropolitan Area orientation for both customer base and supplier base. Central West firms also extend their customer base towards the state and the nation and North West Sydney continues with its international orientation, also extending their customer base to this level (see Figure below).

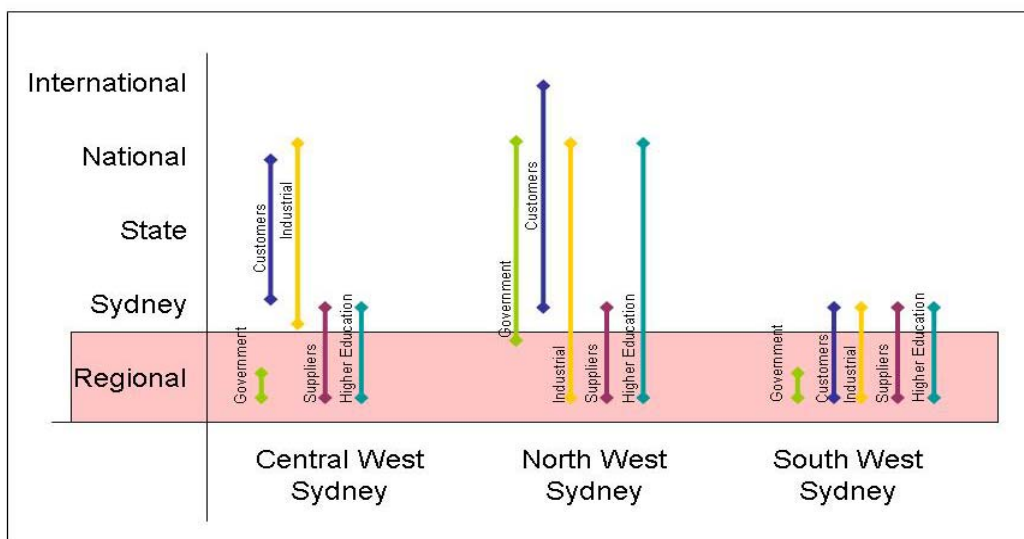
Figure 25 Geography of Value Chain



Source: Outer Western Sydney Innovation Survey. n=119. S. Sharpe (2007)

To conclude this section, the following Figure shows the location of key knowledge organisations in the three sub-regions, where the strong orientation towards the regional level of firms in South West Sydney can be seen. Central West Sydney firms expand towards the state and national level, and North West Sydney shows a higher spread towards the international level.

Figure 26 Geography of knowledge network



Source: Outer Western Sydney Innovation Survey. n=119. S. Sharpe (2007)

4.6 Summary

The Outer Western Sydney Innovation survey shows that the region has high levels of innovation activity, with 80 percent of firms in South West Sydney innovating in the last three years; above the 67.8 percent of Central West firms innovating, and below the 88.5 percent of firms in North West, the strongest performing sub-region. The novelty of innovations is different across the sub-regions; South West and North West have more incremental innovations, while Central West firms have higher levels of radical innovations. The type of innovation is also different; South West firms focus more on product or service innovation, while North West firms focus more on operational process innovations.

The newly established firms (less than 5 years old) show higher levels of innovative activity than the mature firms of more than nine years old. Firms between five and nine years old are the least innovative across the sub-regions, and in both manufacturing and services firms. Small and Medium Enterprises (SMEs) with less than 20 employees are the most innovative firms across the sub-regions, and also in both manufacturing and business services sectors.

Knowledge sources are a combination of in-house (65%) and external to the firm (35%). The first source of external knowledge is firms from the value-chain (customers, suppliers, and competitors). Research and education institutions, government agencies, and regional organisations all have low levels of knowledge provision.

SMEs have greater orientation towards external knowledge than large firms of more than 50 employees. There are also differences by industry sector; manufacturing firms get more knowledge from clients and customers, while business services firms get more external knowledge from interacting with universities, government agencies, conferences and websites.

South West Sydney firms have high levels of the knowledge intensive service activities more linked to innovation (core KISA): IT services, accounting & financial, R&D, marketing and promotion. They outperform Central West and North West firms in e-commerce KISA, training KISA, and some of the core KISA. They have low levels of standardisation KISA such as legal services, HR KISA (recruitment), and industry development KISA. South West firms source core services for KISA from in-house and from the Sydney Metropolitan Area. From the local area they source training services, especially from TAFE. Up to 13.8 percent of these firms expend more than \$100,000 in services per year, and 40 percent of the firms expend up to \$20,000.

At the sector level, manufacturing firms have more complementary KISA (non-core such as HR, accreditation, legal services, and industry development advice), while business services firms have more core-KISA (IT services, R&D, marketing and promotion, and business planning advice).

Network KISA (non-commercial activities with other organisations) indicate the strength of the network connections of firms and how well knowledge flows in a regional innovation system. Firms in South West Sydney have significantly lower levels of connectivity if compared with Central West and North West firms. They have a low level of connectivity to government organisations and to regional development agencies. Firms

have better connection to industry networks, and the highest orientation of the sub-regions to TAFE and the University of Wollongong.

In terms of embeddedness in the Regional Innovation System (RIS), South West Sydney is the most 'local' of the three sub-regions, as the majority of firms' interactions are at the regional or Sydney Metropolitan Area levels, both in terms of institutions and value-chain firms. North West Sydney has a greater reach through its networks, connecting to national and international organisations and customers.

5. Skills and Employment Policies and Programs

Key Policies and Programs

- ❖ National Skills Programs target skills shortages in Trades
- ❖ Regional Policies such as the Metropolitan Strategy target Regional Centres and Employment Lands in Western Sydney
- ❖ Local Policies in South West Sydney focus on Social/Community Plans and Strategic/Management Plans
- ❖ No specific Local Plans for Skills, Employment and Economic development in South West Sydney
- ❖ Weaker local policy contribution to RIS in South West Sydney than in Central West and North West sub-regions

Skills and employment policies are not usually found at the local level but rather are centralised at the national level. Customisation of these policies at the local level is also uncommon, or if some adoption occurs, tend to be uncoordinated, and done by different agencies. For example, policies, programs and initiatives for skills development and upgrading through the national Apprentices Scheme (see Appendix A) are not part of any of the local plans for the LGAs of Western Sydney, even when one of the regional based organisations, the Australian Business Limited (ABL), has been commissioned by the Commonwealth Government to run the program in Western Sydney.

5.1 The National Context

The performance of the Australian economy has been one of high economic growth for a long period since the mid 1980's. Among the factors that contributed to this economic prosperity are: low inflation; opening of national economies into a global economy; increased productivity driven by technological development; the emergence of the knowledge-based economy; and economic policies associated with trade liberalisation, deregulation and micro-economic reform. This high economic growth has had impressive economic outcomes for Australia, with official unemployment rates declining from 11 percent in the early 1970's to the current rate of 4.5 percent. Incomes per capita have

increased by 50 percent over the past 15 years, due to high productivity and favourable trade with Asian neighbours, especially China.⁸

One of the consequences of a strong economic growth with full employment is the emergence of skills shortages as the economy grows. It also needs to be taken into account, however, that in Australia a person is defined as ‘employed’ if they work more than one hour per week. Therefore, there are a large number of adults that are under-employed or in employment conditions under the poverty line. In many cases, this pool of under-employed people has limited skills to offer to help improve their employability. For example, significant skill shortages are emerging for managers, professionals, associate professionals and advanced clerical workers, as well as for tradespersons and related workers, yet access to these positions for un-skilled workers are limited. We therefore have a situation of rapid growth for both highly-paid, knowledge intensive jobs, and casual, low-paid, low-skilled jobs, with the paradox of many qualified people being employed in these lower-skilled jobs. This is especially the situation for many migrants and refugees entering the country.

Within this context there are several national programs in effect, aimed at addressing the skills needed for the future of the country. Significant amongst these are the promotion of the following programs: Skilled Migration; Skilling Australia’s Workforce; the Australian Apprenticeship Scheme; and the Skills for the Future Package. Attraction of skilled migrants is an important policy for Australia’s future. The Department of Immigration and Citizenship has established the ‘Skills Matching Database’⁹ (SMD) to help match skilled people who have applied to migrate to Australia with skilled vacancies or skill shortages in Australia. This database is used by employers for Employer Sponsored Migration categories, as well as by State and Territory Governments. Industry sectors where the Employer Sponsored Migration is frequently used are: building and construction; abattoirs; and mining.

‘Skilling Australia’s Workforce’ creates the basis for a partnership between the Australian, State, and Territory governments¹⁰ to work together to support new national training arrangements on a consensus approach.¹¹ The Agreement provides close to AUD 5 billion over the 2005-2008 quadrennium, with the potential to create up to 128,000 additional training places Australia-wide.

‘Australian Apprenticeships’ is a scheme directed at attracting people to trades. It combines training and employment, which leads to a nationally recognised qualification. They are available to anyone of working age and do not require any entry qualification. In March 2006, there were 403,600 Australian apprentices in training¹². Since 1 July 2006, the ‘Australian Apprenticeship Incentives Programme’ has provided financial incentives to employers who employ and train an apprentice or trainee. In addition to the Australian Apprenticeship Incentives Program, on 12 October 2006, the government released the ‘Skills for the Future’ package, worth AUD 837 million over five years, as a set of initiatives focusing on the need for continuous upgrading of skills within the workforce.

⁸ Larcombe, G. (2007)

⁹ www.inmimi.gov.au/skills/ accessed 06/04/07

¹⁰ Australia is a federal parliamentary democracy with 6 states and 2 territories*: Australian Capital Territory*, New South Wales, Northern Territory*, Queensland, South Australia, Tasmania, Victoria, and Western Australia.

¹¹ Australian Government, Skilling Australia, June 2006: pg 2

¹² National Centre for Vocational Education Research, www.ncver.edu.au (retrieved 10/06/2007)

Among the initiatives is the ‘Australian Skills Voucher Program’ for apprentices and the less qualified, where people who are eligible can purchase training courses using these vouchers.

As can be seen from the above discussion, national priorities are strongly oriented towards solving the acute skills shortages in many trades, which is a disappearing core talent for innovation, especially in manufacturing regions. Trades are rapidly vanishing in Australia, as occupations related to the knowledge economy successfully attract the young. Tradespersons are responsible for many activities linked to firm-innovation, as they provide skills related to the core competencies of manufacturing and engineering businesses. Apprenticeship programs have been the traditional means used to attract new talent into this sector and therefore skills programs seek to increase the number of apprentices. However, the absolute number of apprentices is not a good measure for determining responses to labour market demand in the short-term. Instead, the key measure is the training rate – the ratio of apprentices to tradespersons, and the average age of on-the-job tradespersons. These measures indicate the extent of the trade occupations reproducing themselves through the domestic training system. The Australian case is an interesting one because, due to the privatisation of government services, there is a major decline in the training rate over the last decade – down by 16 percent in aggregate terms, but a decline of as much as 25 percent in some trades. If we add this to the fact that the average age in some of the trades is in the 50s, it shows the matter to be one of serious concern, as the training system is not able to reproduce these skills¹³.

The reasons behind this situation are complex and encompass both national and international factors, which translate into an effect on the local labour market. In the case of Australia, prior to the major corporatisations and privatisations of the 80’s and 90’s, government-owned enterprises in major infrastructure services were large employers of tradespersons, not just in service provision, but also in their role of training people for industry. However, as a result of the privatisations, the focus was no longer on training, and a reduction of 80% to 90% in the intake of apprentices followed over the next 10 years, although there has been an increase in public sector intake in recent years. Another influencing factor in the last 10-15 years has been the pattern of corporate restructuring to outsource maintenance services to labour hire companies, which basically employ no apprentices. In addition, the focus on corporate downsizing and outsourcing has led to a significant reduction in firm size in manufacturing and construction, and mining services. These small firms have less training programs and lower investment per employee than larger firms¹⁴.

The implication of a training system that is not able to reproduce these skills is of concern at the local level, as well as for the industry as a whole. Economic implications are evident when companies are unable to find tradespersons locally or nationally, and so have to hire from overseas markets. However, there are other critical implications in terms of innovation, which are more difficult to see in the short-term. Many of the trades experiencing skill shortages, such as metal, engineering, electrical, and construction, represent an important source of innovative activity for the manufacturing, transport, and mining industries that cannot be supplied by scientists or traditional research.

¹³ Toner, 2003

¹⁴ Toner 2003, 2005

Technological innovation needs the input of people on-the-job, because they provide feedback in the use of machinery or processes, which then goes back to universities, research laboratories, and firm management. Thus, in reality, innovation activity is to a great extent fuelled from the floor of the workplace¹⁵. Shortages of these key trade skills have an important effect in reducing the innovation capacity of a place and of the industry in general, as there is a collateral reduction of professionals' input on Knowledge Intensive Service Activities (KISA)¹⁶.

The discussion above shows the elements impacting labour policy in Australia, national programs addressing skills needs, and some of the consequences at the local level. However, national policies and programs are designed for the country as a whole and therefore the flexibility to adapt and adjust to different environments is limited. There is a need to translate and customise national labour policy for the local level. New planning processes beyond land management also need to be developed to achieve employment growth, and local institutions are best placed for developing processes of Strategic Innovation and Employment Planning (SIEP), where available talent and demand for skills can be analysed to design interventions in a particular employment space. It is within this context that labour policy needs to be customised to different socio-economic scenarios, which require different employment strategies and where local policy organisations such as Councils can play a significant role.¹⁷

5.2 The Local Context

There are several state policies impacting the design of skills and employment strategies in South West Sydney, notably the NSW State Plan, the Sydney Metropolitan Strategy, and the Employment Lands for Sydney Action Plan (see Appendix B for a diagram of policies). These strategies first refer to the NSW State Plan, which includes priority areas and regional delivery plans for the nine regions of NSW, including Sydney and the Greater Western Sydney. Sydney is Australia's global city; with a current population of 4.5 million people, and an additional 1.1 million people to be accommodated and 500,000 jobs to be created by 2031. Sydney has a reputation as the most multicultural hub in Australia, with up to 31 percent of its inhabitants born overseas. It is also the city of contrasts, with a high cost of living in key employment areas and marginalised communities of greater disadvantage in certain locations across the metropolitan region. For a long time the planning of Sydney has occurred at multiple levels and by multiple agencies, until 2005, when the new 'Metropolitan Strategy 2031' was prepared by the NSW Government. The Metropolitan Strategy 2031 departs from the image of Sydney as a city growing around the Central Business District and shows Sydney as the 'City of Cities', with Parramatta as the second CBD, Penrith as the hub in the North-West region, and Liverpool in the South-West region.

The Metropolitan Strategy 2031 (the Strategy) is a broad framework outlining a vision for Sydney over the next 25 years. The area of the Strategy is the Sydney Region, with strong links and relationships to surrounding regions such as the Sydney to Canberra

¹⁵ Toner 2003

¹⁶ Martinez-Fernandez & Miles, 2006; OECD 2006

¹⁷ Martinez-Fernandez (2007)

corridor. The Strategy covers over 10,000 square kilometres, incorporating 43 Local Government Areas (LGAs). The Strategy sets out directions for Government decisions such as timing and location of investment in transport and other infrastructure. It consists of seven interconnected sub-strategies including:

1. Economy and employment
2. Centres and corridors
3. Housing
4. Transport
5. Environment and resources
6. Parks and public places
7. Implementation and governance.

The Strategy was inspired by the need to have better urban development management in order to maintain Sydney's global competitiveness and unique liveability. The Strategy seeks to increase employment opportunities by setting out employment planning capacity targets, especially within subregions and strategic centres. The employment capacity targets are compatible, and are associated with subregional housing capacity targets. These targets are a guide to councils, state agencies, and the private sector to ensure that there are sufficient and appropriately zoned commercial sites and employment lands to meet private sector demand.¹⁸

Two of the sub-strategies are especially relevant for the discussion here: the Economy and Employment sub-strategy; and the Centres and Corridors sub-strategy (see Appendix D for all objectives, initiatives and actions in these sub-strategies). The Economy and Employment strategy has three main aims:

- Provide sustainable commercial sites and 'Employment Lands' in strategic areas;
- Increase innovation and skills development; and
- Improve opportunities and access to jobs for disadvantaged communities.

There are several innovative factors embedded in this sub-strategy. One is the concept of 'employment lands' as related to industrial areas, manufacturing, distribution, and non-centre urban services. They include Business Technology Parks with a mixture of research, manufacturing, distribution, and office activities. Key initiatives are: mapping and update of employment lands in Sydney, with a budget of AUD 1 million; the release of Greenfields land, particularly in the Western Sydney Employment Hub, to allow for 36,000 new manufacturing and distribution jobs; the regeneration of Brownfield sites to support employment; and the improvement of planning strategies and delivery of employment lands across different government departments.

Innovation is supported by strengthening industry clusters in key locations, using infrastructure as 'magnets' for investment and employment, and embedding learning activities at the local level. The sub-strategy has also taken into account the important contribution that disadvantaged communities can make at the local level, and proposes to embed skills development in major redevelopment and renewal projects. In particular, local

¹⁸ NSW Government, 2005, 'City of Cities: A Plan for Sydney's Future – Metropolitan Strategy Supporting Information'

environmental planning zones should include a mix of housing types across Sydney, to ensure diversity in the supply of local labour. Supporting entrepreneurship among these communities is also contemplated through the provision of appropriate affordable premises in high economic growth areas and imparting best practice advice.

The Centres and Corridors sub-strategy recognises the spatial dimension of innovation activity and the importance of ‘place’ for employment targets. It aims to establish a typology of centres, with employment targets for each of them, and improving the liveability of these centres while clustering business and knowledge intensive activities together, and concentrating activities near public transport. The sub-strategy also recognises the role of ‘corridors’ as areas for entrepreneurship and the location for local employment development.

Local Councils have an important role to play both in terms of labour market policy and in terms of designing skills and employment strategies. However, and despite the high interest in employment issues, the local councils of the sub-regions under analysis do not have an extended focus on skills and employment issues. In particular, South West Sydney Councils have no explicit plans for ‘employment’ or ‘economic development’ and none of the Western Sydney Councils have a focus on ‘skills development’ at the level of policies and programs (see Appendix E for information on local councils and regional development agencies’ strategies, policies, and plans). The table below shows the results of a survey analysis of plans in the sub-regions of South West, Central West, and North West, where it can be seen that the LGA of Penrith in the Central West has most of the categories surveyed. These categories include economic development plans, strategic plans, management plans, city centre plans, economic development plans, employment plans, and skills plans. The lack of three critical plans related to employment creation in the South West region is highlighted in bright yellow: skills, employment, and economic development.

Table 19 Local Policies and Programs (Council Plans) by LGA in Western Sydney

	Skills Plan	Employment Plan	Econ Dev Plan	Social or Community Plan	Strategic or Management Plan	Other**
South West Sydney						
Liverpool				X	X	X
Campbelltown				X	X	
Camden				X	X	
Wollondilly			X*	X	X	
Central West Sydney						
Penrith		X	X	X	X	X
Blacktown			X	X	X	
Blue Mountains			X	X	X	
North West Sydney						
Baulkham Hills			X	X	X	
Hawkesbury				X	X	

* Plan under development

**Other plans include ‘City Centre’ plan and ‘Civic Improvement’ plan

Yellow colour indicates not plan available. Other regional organisations can have plans including several Councils.

When these results are combined with the knowledge base and the skills base for these sub-regions, some patterns of higher development for all regional aspects evaluated appear, with Central and North West as stronger regions than South West Sydney. The role of industry development and infrastructure investment in these areas notwithstanding, it also needs to be acknowledged that a strong framework for development and employment growth can have a positive influence on the capacity of the sub-region for learning and up-skilling. This intertwining of local council's strategic plans with labour market policy and the design of skills strategies therefore becomes extremely important for the roll-over of the Metropolitan Strategy, and it is difficult to foresee a successful implementation if this does not occur.

Regional Innovation System (RIS)

The Metropolitan Strategy focuses particularly on Western Sydney as the strongest growth area in Sydney, where greater attention is needed for strategic urban management. In relation to the type of jobs in outer Western Sydney, again the whole region is far from homogeneous if the three sub-regions are considered: North West, including the Local Government Areas (LGA) of Hawkesbury and Baulkham Hills; Central West, including the LGAs of Blue Mountains, Penrith and Blacktown; and South West Sydney, including the LGAs of Wollondilly, Liverpool, Camden, and Campbelltown. North West Sydney has the highest number of knowledge workers (managers and administrators, professionals and associate professionals), and the lowest number of apprentices and trainees (workers in trades) and is the sub-region that has the most similar demography of knowledge occupations to the Metropolitan Sydney average. Business and information related employment is ahead in this area due to the location of strong business parks at Northwest. The Central West region has the highest number of apprentices and trainees, and is third in relation to the concentration of managers and professionals. The South West sub-region is slightly ahead of the Central West in its number of managers and professionals, but significantly below the North West. The area, however, is ahead in 'engineering' based occupations, which are especially found in manufacturing industries (the strength of this region).

The demographics of industry and occupations among these sub-regions are different enough to indicate that attention needs to be paid to specific local factors in order to design strategies that target the characteristics and needs of each of them. It also suggests that local policies can influence the focus of industry and institutions on training the workforce and on up-skilling the population. The following table shows the characteristics of the RIS in South West Sydney and the two neighbouring regions under analysis.

Table 20 RIS characteristics

Key elements	South West Sydney	Central West Sydney	North West Sydney
Industrial Base	<ul style="list-style-type: none"> • Manufacturing • Engineering 	<ul style="list-style-type: none"> • Manufacturing • Engineering 	<ul style="list-style-type: none"> • Business & Financial Services • Business & Information
Knowledge & Skills Base	<ul style="list-style-type: none"> • Higher levels of apprentices • Trades concentration – Building & Construction, Automotive, Electrotechnology • Lower levels of knowledge workers • Lowest levels of higher education attainment 	<ul style="list-style-type: none"> • Highest levels of apprentices • Trades concentration – Building & Construction, Automotive, Electrotechnology • Lowest levels of knowledge workers 	<ul style="list-style-type: none"> • Highest levels of knowledge workers • Lowest levels of apprentices in trades • Highest levels of higher education attainment
Firm Innovation type	<ul style="list-style-type: none"> • Product & Service Innovations • Incremental innovation 	<ul style="list-style-type: none"> • Operational Process Innovation • Radical innovation 	<ul style="list-style-type: none"> • Process innovations (both types) • Incremental innovation
Knowledge Activities and Flows	<ul style="list-style-type: none"> • Sources – customer and commercial networks • KISA – Core KISA & HR KISA (training) 	<ul style="list-style-type: none"> • Sources – customer and public sector • KISA – Core KISA & Standardisation KISA 	<ul style="list-style-type: none"> • Sources – customer, enterprise, and commercial networks • KISA – Core KISA & Standardisation KISA
Key Knowledge Space and Connections	<ul style="list-style-type: none"> • Regional to Sydney metropolitan level • Local Chamber of Commerce, local University (UWS) and local TAFE college 	<ul style="list-style-type: none"> • Regional to national level • Local Councils and Sydney based universities 	<ul style="list-style-type: none"> • Regional to national level • State and federal government agencies, Universities, and industry associations
Global/Local Connectivity (value chain / knowledge network)	<ul style="list-style-type: none"> • Local 	<ul style="list-style-type: none"> • Local-National 	<ul style="list-style-type: none"> • Local-International
Local Skills/ Employment/Economic Policies and Programs	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Economic plans • Employment plan (Penrith) 	<ul style="list-style-type: none"> • Economic plan (Baulkham Hills)

5.3 Summary

Skills and employment policies and programs are a key resource for the sustainable competitive advantage of regions. They strongly contribute to Regional Innovation Systems (RIS), and they require the leadership of local institutions to generate a quality context that will allow firms and talent to flourish.

National skills programs target skills shortages in trades, as the current situation is acute. Available programs are: the Skilled Migration program; the Skilling Australia's Workforce program; Australian Apprenticeship Scheme; and the Skills for the Future Package. These programs, however, need a certain degree of customisation to the local area.

At the regional level, the highest policy impact comes from the NSW State Plan, the Sydney Metropolitan Strategy, which has specific strategies for regional centres and employment, and the Employment Action Plan. The economic and labour force diversity of a city like Sydney again requires a certain degree of customisation of these plans to the local areas.

At the local level, there are no specific plans for skills, employment, and economic development in South West Sydney; some of the LGAs in Central West and North West have economic development plans and employment plans. General directions in South West Sydney are noted in strategic plans, and social and community plans.

The Regional Innovation System in South West Sydney is strong in its innovation base, moderate in the knowledge and skills base, and weak in connectivity, and local policies and programs. Thus, the role of local councils and institutions, which is an important one, is to assist the region to grow in smart ways and with strong employment performance.

6. Conclusions: Designing Local Innovation, Skills and Employment Strategies in SWS

Key Recommendations

- ❖ Invest resources in Strategic Innovation and Employment Planning (SIEP)
- ❖ Build on strong firm innovation base
- ❖ Reinforce knowledge and skills base, especially for the lower qualified and disadvantage
- ❖ Facilitate KISA to connect nationally and internationally

The innovation analysis of this study suggests that firms in South West Sydney have a strong innovation base, particularly regarding product or service innovation, SMEs, and newly established firms. The manufacturing advantage of the region is to a great extent responsible for this innovation focus, which occurs in around 80 percent of firms.

This research shows the potential for local policy to influence strong employment outcomes in their region, supported by the solid innovation base of the region's firms. The research also shows that even regions in close geographical proximity exhibit different characteristics, and therefore pursuing sustainable competitive advantage cannot be accomplished without the participation of multiple stakeholders from government layers, industry, and knowledge providers. The following conclusions for designing local innovation, skills, and employment strategies in South West Sydney can be extracted.

There is a need to 'customise' labour market policies where skills and employment strategies are embedded in local conditions. Local Governments are increasingly realising the need to shift attention away from managing land resources and attracting investment that creates 'jobs', and instead directing it towards 'Strategic Innovation & Employment Planning' (SIEP), which acknowledges the complexity involved in creating employment. This form of planning is concerned with the 'type' of jobs created, 'where' they are created, and for 'whom' they are created. SIEP is also concerned with promoting innovation activities, and with the development of available local pools of human capital. Specific medium term and long term plans are needed and could be led by local institutions.

An important process in SIEP is to understand the different elements of the regional system influencing creation of employment and facilitating dialogue with the key agents of change. South West Sydney has a strong skills base in three trades' clusters: building and construction; automotive; and utilities and electrotechnology. However, the higher

education base needs specific attention to enable it to achieve similar levels of attainment to those in the broader region and the Sydney Metropolitan Area. The existence of a local university with strong linkages to the councils in South West Sydney is a good base for a continuous dialogue on increasing higher education participation.

Higher levels of Centerlink income support customers, a higher concentration of population under housing stress, and higher concentrations of people from non-English speaking backgrounds indicates that pools of local talent from hard-to-reach groups are still difficult to integrate, and more work is needed to ensure the industry sector (including government) is committed to offering work options to these groups. Industry does not necessarily have a good understanding of the different characteristics of disadvantaged groups, including the types of jobs adapted to their abilities, or the types of mechanisms needed to guarantee their success (e.g. peer-to-peer mentoring). Governments have an important role in educating industry on the skills available from these groups and the advantages of their employment. In rapidly growing areas such as South West Sydney, the housing and infrastructure environment needs to be carefully analysed and included in overarching plans, so as not to further alienate disadvantaged groups who are already finding it difficult to participate in the labour market. Loss of housing affordability is a significant collateral effect of strong economies, and a critical challenge for disadvantaged groups attempting to participate in the wealth creation of their city.

South West Sydney firms are strongly embedded locally, both in terms of the value chain interactions, and the connectivity with other organisations. Although local embeddedness can be an advantage in terms of social cohesion, it can also provide a lock-in situation in terms of knowledge flows and a certain disconnection from global knowledge and networks. This is a weakness of the South West Sydney RIS and local leadership is needed to address issues of global connectivity.

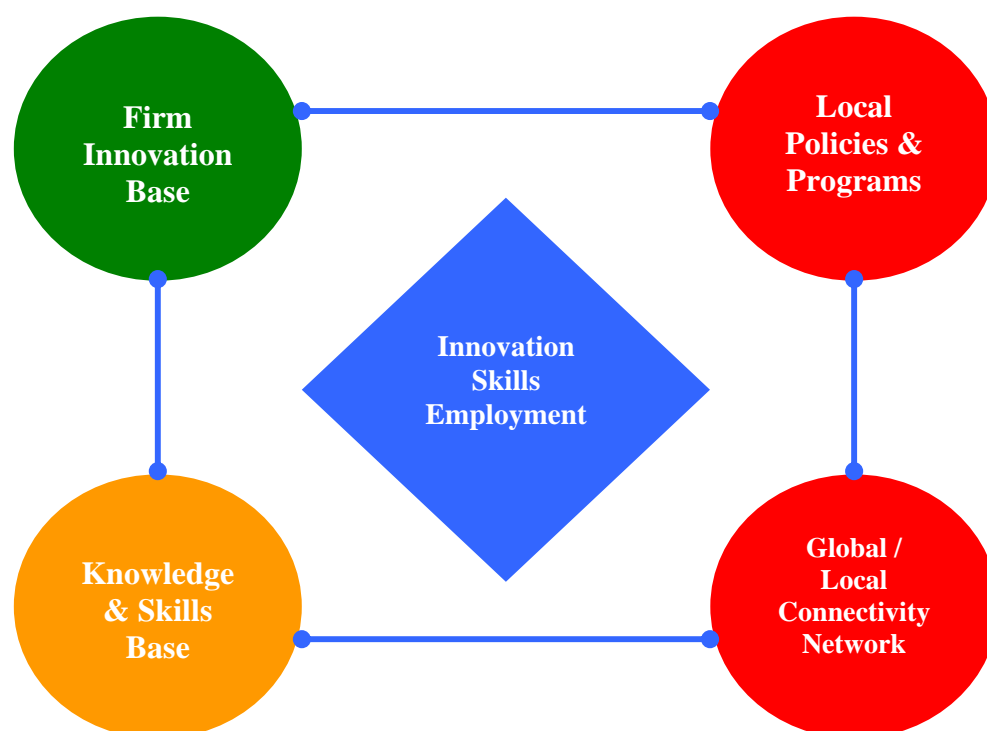
Overall, South West Sydney does not have a strong policy framework for skills, employment, and economic development. More attention to these areas is needed and new models of Network Governance need also to be explored, with closer collaboration between government departments including planning, infrastructure, economic development, skills, and training for a successful implementation. The different tiers of government need to develop collaboration infrastructures with the local level, industry bodies, and the local community. Network Governance is a new territory for many institutions, and requires innovative approaches and public-private partnerships with citizens and industry that can ultimately result in creating a sustainable competitive advantage for the region.

6.1 Policy Suggestions

The main suggestion arising from this research is for Liverpool Council to design innovation, skills, and employment strategies, which consider the following spheres for ‘Strategic Innovation and Employment Planning’ (SIEP) (see figure below). Based on the innovation audit undertaken by this study, the different spheres show areas of competitive advantage (green) and areas that need urgent reinforcement (orange to red). South West Sydney has a strong business innovation base, and by building on this strength, the other areas can be reinforced. The areas of reinforcement are directly related to areas where

Council can provide a leadership and facilitator role, as they relate to the design of policies and programs and to extending regional connectivity from a localised network to a national and global network.

Figure 27: Spheres of Action for Strategic Innovation and Employment Planning (SIEP)



Liverpool City Council can assist with the attraction of external knowledge by facilitating knowledge intensive service activities for firms in core areas of innovation; for example, organising key seminars and events for local business and organisations. These seminars can provide a networking opportunity, where national and international knowledge that is relevant for the local business is discussed and circulated. The core KISA areas noted in this report provide topics of relevance for firms in South West Sydney.

Liverpool City Council can also be instrumental in increasing the connectivity of the region by facilitating a continuous dialogue of organisations and key agents for designing innovation, skills and employment strategies for the area. Broader connectivity to the other two sub-regions analysed in this report – Central West and North West - would also facilitate institutional learning and policy knowledge flows. This could be achieved by creating a forum for SIEP, so that the focus on designing *innovation, skills and employment* strategies remains strong.

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Appendices¹⁹

APPENDICE A

Apprentices Policies, Programs and Initiatives					
Level	Policies	Programs	Initiatives	Budget	Notes
National	Workplace Relations Act 1996 administered by the Commonwealth Department of Employment and Workplace Relations	Australian Apprenticeships Incentive Program (AAIP) - Skills for the Future Package includes Australian Apprenticeship Centres (AAC)	Stand commencement, recommencement and completion incentives	\$837 Million over 5 years	Objective is to develop more skilled Australian workforce that delivers long-term benefits for the nation and improves international competitiveness. The ACC provides a free service to employers and Australian apprentices
			Innovation - Special commencement		
			Rural and Regional Incentive		
			Australian School-based Apprenticeships - additional commencement and retention		
			Declared Drought Areas - Additional commencement and special completions		
			Mature Aged Worker - Special commencement and special completion		
Group Training Organisations - Special completion					

¹⁹ Appendices prepared by Tamara Weyman

Apprentices Policies, Programs and Initiatives					
Level	Policies	Programs	Initiatives	Budget	Notes
			Assistance for Australian Apprentices with Disability		
			Living Away from Home Allowance		
			Commonwealth Trade Learning Scholarship		
			Apprenticeship Wage Top-up		
			Support for Mid-Career Apprentices		
			Further Australian Government Assistance - Youth Allowance, Austudy or ABSTUDY; Tools for Your Trade; Training Vouchers; and Business Vouchers.		
<u>State</u>	NSW Government Employment Practices				Recruitment Drive - increase employment opportunities for apprentices. Guidelines for training on government construction projects. New reporting system to better manage compliance with the policy
	Securing our Skilled Workforce	Extending accommodation allowance		Additional \$7.15 million	
		Group training companies			

Apprentices Policies, Programs and Initiatives					
Level	Policies	Programs	Initiatives	Budget	Notes
		TradeStart to accelerate trade training			
		Full Payroll Tax Exemption for Employers of Apprentices and Trainees		Cost of the program in terms of revenue - \$71 million over the last 3 years	
		Transport Concessions			
		Vocational Training Assistance Scheme		\$4.4 million	
		Vehicle Registration Rebate		\$2.55 Million	
		TRADESTART @ TAFENSW		2005 - \$2 million for a 12 month pilot scheme. TAFENSW has also won Emerging Priorities funding.	
		Group Training		\$2.7 million	
		Early Completion			Fast-tracking adult trade training.
		Apprenticeship Program for People with Disabilities		Since 1998, \$1 million each year	Assist people with assessed disabilities to gain access to apprenticeship opportunities in State Government departments and statutory authorities.

Apprentices Policies, Programs and Initiatives					
Level	Policies	Programs	Initiatives	Budget	Notes
		Workers Compensation (ended December 2004)		2004/05 estimated cost \$14 million	
		Reducing Red Tape			Speed up processing of applications to establish apprenticeships and traineeships (electronic business initiatives)
<u>Local Councils</u>	Management/Strategic Plans and Social/Community Plans refer to training and education priorities for employment within their LGAs	Liverpool Youth Jobs; Hawkesbury traineeship program (established via HCC and private enterprise Joint Venture)			This process has helped identify key industry issues, and supported the link with training organisations to ensure the smooth transition of young people into apprenticeships and traineeships
					Encourage more apprenticeships in the building trades

Apprentices Policies, Programs and Initiatives					
Level	Policies	Programs	Initiatives	Budget	Notes
<u>Risk Groups</u>	Anti-Discrimination Act 1997 (NSW), Racial Discrimination Act 1975 (commonwealth), Sex Discrimination Act 1984 (Commonwealth)		Subsidises the wages of apprentices with disabilities employed by NSW government departments, local councils, and statutory authorities		
	Community/Social Plans (Local Government) some refer to people with disabilities, refugees, migrants and indigenous people's need for training programs				
Disabilities		Commonwealth Government - Disability incentives for employers - Disabled New Apprentice Wage Support (DNAWS),			
		NSW Apprenticeship program for People with Disabilities			Subsidises the wages of apprentices with disabilities employed by NSW government departments, local councils, and statutory authorities
Indigenous			NSW Training Awards - Aboriginal and Torres Strait Islander student of the year		

APPENDIX B: Strategies and Policies for Sydney

STATE PLAN

5 Priority Areas: Rights, respect and responsibility; Delivering better services; Fairness and opportunity; Growing prosperity across NSW; and Environment for living
Includes:
Regional Delivery Plans for the 9 regions in NSW - including Greater Western Sydney

SYDNEY METROPOLITAN STRATEGY

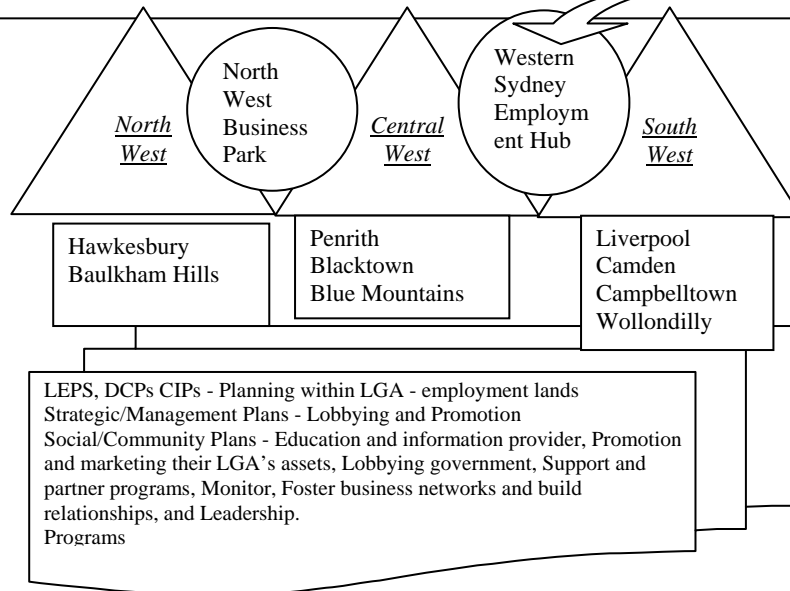
Includes 7 sub-strategies: Economy and employment; Centres and corridors; Housing; Transport; Environment and resources; Parks and public areas; and Implementation and governance.

State Environmental Planning Policy - Sydney Region Growth Centres 2006).
Environmental Planning and Assessment Amendment (Sydney Region Growth Centres) Regulation 2006.

EMPLOYMENT LANDS FOR SYDNEY ACTION PLAN

5 Actions Plans:-

1. Establish an Employment Lands Development Program
2. Release more employment lands
3. Regenerate brownfield sites
4. Employ more efficient processes for zoning and developing employment lands
5. Improve coordination between state agencies, local government, and industry



3 LEPs
SEPP 29 - Central Western Economic Employment Area
State Govt - Significant site (Major Projects)

Major Developments:
\$87 million Coles Myer Distribution Centre (employ 500 workers)
\$75 million Coca-Cola warehouse and distribution facility (employ 300 workers)
\$45 Million Kimberly-Clark Distribution Centre (140 permanent jobs)
\$41 million Woolworths Liquor Distribution Centre (190 operational jobs)
New Employment estate (Huntingwood West) (800 permanent jobs)
Eventual Forecast - 36,000 jobs

APPENDICE C

STATE PLAN, SYDNEY METROPOLITAN STRATEGY, AND EMPLOYMENT LANDS FOR SYDNEY ACTION PLAN

State Plan – New Directions for NSW

(Source: NSW Government, 2006, NSW State Plan – New Directions for NSW, Premier’s Department).

The State Plan was launched by the Premier, Morris Iemma, in November 2006. It sets out priorities for Government action with targets for improvements, to guide decision making and resource allocation.

The NSW State Plan is set out in terms of five areas of activity by the NSW Government:

1. Rights, respect and responsibility – including the justice system and the services that promote community involvement and citizenships.
2. Delivering better service – the key areas of service delivery to the whole population (health, education, and transport).
3. Fairness and opportunity – services that promote social justice and reduce disadvantage.
4. **Growing prosperity across NSW** – activities that promote productivity and economic growth including rural and regional NSW.
5. Environment for living – planning, environmental protection, and arts and recreation.

Growing prosperity across NSW			
Goal: NSW Open for Business			
Priorities	Targets	Actions	New Directions to Consider
P1. Increase business investment.	Increase business investment in NSW.	Working with local business to keep jobs and investment in NSW and side by side with Invest Australia to promote Sydney and regional NSW as first-rate business destinations.	Fostering innovation (Innovation Strategy)
		Reducing turnaround times and increasing the certainty of expected timeframes for major development assessment approvals.	
		Take a lead role in COAG negotiation regarding human capital and innovation – these being key drivers of future productivity growth.	
		Protecting priority employment land in existing areas and fast-tracking the zoning and availability of serviced industrial land to meet the needs of business growth across the State.	

Growing prosperity across NSW			
Goal: NSW Open for Business			
Priorities	Targets	Actions	New Directions to Consider
	Increase tourism in NSW by 10 million visitors by 2016	Continuing to support efforts to attract major events to NSW.	Increasing tourism
		Supporting the efforts of NSW companies to win against international competition in local and overseas markets.	
		Working in partnership with industry to attract tourism from China, India and the Gulf States.	
		Investing in domestic tourism marketing for both Sydney and regional NSW.	
P2. Maintain and invest in infrastructure	Maintain average growth of 4.6% in capital expenditure	Improving the on-time and on-budget delivery of the projects in the <i>NSW State Infrastructure Strategy</i>	Consulting with Local Government on infrastructure planning.
	Develop and report measures of infrastructure maintenance effectiveness	Reviewing the above strategy every 2 years.	
		Greater use of Part 3A of <i>Environmental Planning and Assessment Act</i> to ensure major infrastructure development approval is fast-tracked.	
P3. Cutting red tape.	Reduce the regulatory burden on business	Investigating the Burden of Regulation.	Improved rigour in regulatory gate keeping
	Implement a new regulatory 'gate keeping' process	Small Business Regulation Review. Implementing the findings of at least 3 industry specific red-tape reduction projects, done in partnerships with industry groups.	Better alignment with other States and the Commonwealth
		Government red-tape Review.	
P4. More people participating in education and training throughout their life.	Increase participation in vocational education and training from 11.7% to 16% by 2016	Workplace training and assessment to improve the skills and productivity of existing workers:	Increasing investment in our training system
		- Recognition of Prior Learning (RPL) to officially recognise skills gained at work to assist labour mobility.	Flexible delivery of training
		- Online tools to assist mature age workers access relevant training.	Focusing on mature workers

Growing prosperity across NSW			
Goal: NSW Open for Business			
Priorities	Targets	Actions	New Directions to Consider
		<ul style="list-style-type: none"> - The NSW Skills Council, which provides more effective investment in skills development, to meet business priorities. - Implementing a whole of Government apprenticeship strategy including commitment to apprenticeship ratios in Government contracts and building on current growth in apprenticeships in NSW Government agencies. - Increasing employment and retention of Aboriginal apprentices and trainees across the State. 	
P5. AAA rating maintained	Maintain AAA credit rating	<ul style="list-style-type: none"> Reduce the level of net financial liabilities as a share of gross State product Control the level of net debt of the general Government sector as a share of gross State product Eliminate total State unfunded superannuation liabilities by June 2030 	
Stronger Rural and Regional Economies			
P6. Increased business investment in rural and regional NSW	Set and achieve regional business growth targets	Continue to support programs that assist business to establish or expand in regional NSW and help regional communities build local economies	Developing a regional innovation strategy
		Continue services provided by DSRD and DPI, to encourage and facilitate private sector interest in existing or prospective regional industries with a competitive advantage.	Innovation in primary industry
		Support the network of Regional Development Boards across the State that are tasked to promote their respective regions as locations of choice for both business and prospective employers, as well as provide important input to Government on regional business challenges and opportunities.	

Growing prosperity across NSW			
Goal: NSW Open for Business			
Priorities	Targets	Actions	New Directions to Consider
		<p>Deliver the new \$95 million (over 4 years) Payroll Tax Incentives Scheme to regional areas with high and chronic levels of unemployment</p> <p>Improve the delivery, quality, and availability of Government broadband services, particularly for regional communities and businesses through the Government's new Information and Communication Technology Strategic Plan, 'People First - A new direction for ICT in NSW'. This will lead to better, quicker and easier access to Government information and services, thereby removing a competitive disadvantage of regionally based business.</p>	
P7. Better access to training in rural and regional NSW to support local economies	Increase regional participation in vocational education and training from 228,000 to 300,000 by 2016	<p>Focusing on matching regional educational opportunities with local business demands in regional areas</p> <p>Increasing opportunities for Recognition of Prior Learning and credit transfer to universities in regional areas</p> <p>Offering additional training for mature aged people in regional areas</p> <p>Promoting regional development through enhanced capacity for innovation, skills specialisation, and technology transfer including liaison with TAFE NSW, universities, industry, and Cooperative Research Centres, to create jobs and spread economic prosperity</p>	Improving linkages between local needs and training

Growing prosperity across NSW			
Goal: NSW Open for Business			
Priorities	Targets	Actions	New Directions to Consider
		Provide capacity for TAFE NSW, DPI and other registered training organisations to support innovation within industry and assist with the development of emerging industries and skills.	
Fairness and Opportunity			
Goal:- Opportunity and support for the most vulnerable			
F2. Increase employment and community participation for people with disabilities	Increase employment rates for people with a disability.	Stronger Together: A New direction for disability services in NSW (\$1.3 billion of new investment over 5 years, rising to an ongoing expenditure of \$377.6 million by 2010/11	
		Expanded programs for school leavers with a severe or profound disability to provide age appropriate activities and skills development. In early 2007 services under these programs will increase from 3 days a week to 4 or 5 days a week according to need.	
		Continuing a range of support services at public schools and TAFE, including curriculum support and career counselling to assist people with disabilities to enter the workforce.	
		Continue to support the COAG National Reform human capital agenda	
		Pathways to employment will be improved by working with the Commonwealth to establish better links between the supply of training and employment places.	

Growing prosperity across NSW			
Goal: NSW Open for Business			
Priorities	Targets	Actions	New Directions to Consider
		People with a disability who require personal care or other support to help them maintain their participation in the workforce or training will benefit for an expansion of in-home support places.	
Environment for Living			
Goal:- Improved urban environments			
E5 Jobs closer to home	Increase the number of people who live within 30 minutes of a city or major centre by public transport in metropolitan Sydney	Sydney Metropolitan Strategy: Cities in the Greater Metropolitan Region (Parramatta, Liverpool and Penrith, Wollongong, Gosford and Newcastle). Regional Strategies. Planning legislation (LEPS) Employment Lands Strategy.	

To deliver the State Plan locally, NSW was divided into nine regions. For each of the nine regions, specific regional delivery plans have been prepared based on the advice of the community and community leaders. The nine regions are: Hunter, Illawarra, North Coast, New England/North West, Western NSW, South East, Western and South Western Sydney, and Central Coast.

For the Western and South Western Sydney (Greater Western Sydney) region, the actions that the State Government is committed to include:

- Implementation of the Metropolitan Strategy and Subregional Plans for North West and South West Sydney, which guides housing and employment growth over the next 25 years, balancing economic, environmental and social objectives. The 3 major regional cities – Parramatta, Penrith and Liverpool – are developed as centres for employment, shopping, and recreation.
- New land release areas including the North West and South West Growth Centres, which provide for an additional 181,000 homes and close to 2,500 hectares of employment lands, together with \$7.5 billion of development contributions for infrastructure.
- Increase investment in health facilities and services.
- Implementing the Western Sydney Water Recycling initiative.
- The Western Sydney Employment Hub to be developed over 2,450 hectares at the intersection of the M4 and M7 motorways, expected to create 24,000 jobs by 2008.
- Relocation out of the CBD of NSW Government agencies to Parramatta, including Sydney Water and the Attorney-General's Department.

New directions under consideration for the Western and South Western Sydney (Greater Western Sydney) region are enhanced cooperation and collaboration across the 3 levels of government, business, and community organisations, focusing on:

- Working to improve public transport provision;
- Working on economic development and employment strategies in identified key parts of the region including maximising investment and growth in key existing industries and supporting new emerging industries.

APPENDICE D

Sydney Metropolitan Strategy – City of Cities

(Source: NSW Government, 2005, ‘City of Cities: A Plan for Sydney’s Future – Metropolitan Strategy Supporting Information’).

The Metropolitan Strategy is a broad framework to secure Sydney's place in the global economy by promoting and managing growth. It is a strategic document that outlines a vision for Sydney over the next 25 years; the challenges they face, and the directions that they will follow to address these challenges and achieve the vision. It is also the start of a process to bring the state government, local government, stakeholders, and the community together to discuss, review and then make decisions to guide the future of Sydney's economy, environment, and communities. More detailed planning will follow via regional strategies and subregional strategies.

The area focuses on Sydney (Sydney Region – including the Central Coast), with strong links and relationships with surrounding regions such as the Sydney to Canberra corridor. The Strategy covers over 10,000 square kilometres, incorporating 43 local government areas.

The Strategy guides the process of planning for where people will live and work in Sydney to 2031.

It sets strategic directions for Government decisions (timing and location of investment in transport and other infrastructure). The Metropolitan Strategy consists of 7 interconnected sub-strategies including:

1. **Economy and employment**
2. **Centres and corridors**
3. Housing
4. Transport
5. Environment and resources
6. Parks and public places
7. Implementation and governance.

Economy and Employment strategies/policies areas 2006-2031

Objectives	Initiatives	Actions
A1. Provide sustainable commercial sites and employment lands in strategic areas	A1.1 Provide a framework for accommodating jobs across the city	A1.1.1 Use subregional employment capacity targets for subregional planning with local government
	A1.2 Plan for sufficient zoned land and infrastructure to achieve employment capacity targets in employment lands	Use employment capacity targets for broad industrial precincts in State and local planning.
	A1.3 Engage with industry regarding employment land stocks	A1.3.1 Establish the Employment Lands Advisory Group (ELAG), comprising the Department of Planning, Department of State and Regional Development, and industry.

Objectives	Initiatives	Actions
	A1.4 Contain the rezoning of employment lands to residential zonings across Sydney.	A1.4.1 Review demand and supply of employment lands. A1.4.2 Provide recommendations, guidelines and planning tools for rezoning decisions.
	A1.5 Protect and enhance employment lands of State significance.	A1.5.1 Protect and enhance employment lands around Sydney Airport and Port Botany. A1.5.2 Protect and enhance employment lands in the M7 Motorway Corridor. A1.5.3 Protect and enhance employment lands in the M5 Motorway corridor.
	A1.6 Improve planning and delivery of employment lands.	A1.6.1 Government to develop integrated plans for employment lands and infrastructure. A1.6.2 Government to establish mechanisms to ensure the timely delivery of infrastructure and services to employment lands A1.6.3 Streamline development control frameworks and development assessment processes.
	A1.7 Monitor demand and supply of employment lands	A1.7.1 Extend the Metropolitan Development Program to include employment lands. A1.7.2 Identify areas that could accommodate employment lands growth.
	A1.8 Establish a framework for the development of business parks	A1.8.1 Develop guidelines to encourage local government to plan for future business parks in selected locations
	A1.9 Facilitate the use of old industrial areas.	A1.9.1 Facilitate renewal of old industrial areas for employment areas where practical.
A2. Increase innovation and skills development	A2.1 Establish a framework to support innovation across Sydney.	A2.1.1 Work with the Premier's Council on Science, Innovation, Economic Development and Trade to prepare an Innovation Strategy focusing on boosting innovation activities at key locations
	A2.2 Strengthen industry clusters.	A2.2.1 Support local government to review local activity, industry and economic strengths. A2.2.2 Support proposals for viable cluster development by fast-tracking approvals and aligning Government investment and assets as appropriate
	A2.3 Support magnet infrastructure.	A2.3.1 The Ministry of Science and Medical Research, the Department of State and Regional Development and the Department of Planning to establish a magnet infrastructure policy to accelerate transformation of strategic centres and employment lands.

Objectives	Initiatives	Actions
	A2.4 Utilise local assets to encourage learning and innovation.	A2.4.1 Government to work with local councils to review the utilisation and development of community assets which can facilitate improved learning and knowledge exchange
	A2.5 Promote learning city initiatives in selected centres.	A2.5.1 Government to work with the Greater Western Sydney Economic Development Board and local councils to facilitate local learning and creative use of information and communication technologies.
A3 Improve opportunities and access to jobs for disadvantaged communities	A3.1 Embed skills development in major redevelopment projects.	<p>A3.1.1 Prepare guidelines to include a local skills development component in redevelopment and renewal projects</p> <p>A3.1.2 Ensure Landcom and the Department of Housing, where practical, include local skills development components in their renewal projects</p> <p>A3.1.3 NSW Government to promote the use of the skills development guidelines by the private sector, local government and other government agencies.</p> <p>A3.1.4 Include local skills development as a component in the approval of Major Projects developments where warranted.</p>
	A3.2 Increase integration of employment and housing markets.	A3.2.1 Ensure Local Environmental Plans are zoned for a mix of housing types across Sydney to ensure diversity in the supply of local labour.
	A3.3 Encourage emerging businesses.	A3.3.1 Support the creation of emerging businesses through providing best practice advice, development controls, subregional planning, appropriate affordable premises in high economic growth areas through the Stronger Centres Initiative.

According to the Metropolitan Strategy, the expected jobs growth for Western Sydney is from 663,000 in 2001 to 900,000 jobs in 2031. These will mostly occur within the industry clusters of ‘Transport and Logistics’ and ‘Manufacturing’.

Centres and Corridors/policies areas 2006-2031

Objectives	Initiatives	Actions
CENTRES		
B1 Provide places and locations for all types of economic activity and employment across the Sydney Region	B1.1 Establish a typology of centres	B1.1.1 Classify strategic centres according to size, location and function
	B1.2 Establish employment capacity targets for strategic centres	B1.2.1 Adopt employment capacity targets for strategic centres B1.2.2 State Government and local government to achieve employment capacity targets for strategic centres
B2 Increase densities in centres whilst improving liveability	B2.1 Plan for housing in centres consistent with their employment role	B2.1 Encourage greater housing density in centres where capacity for employment and civic roles is provided
B3 Cluster business and knowledge-based activities in strategic centres	B3.1 Establish a Stronger Centres Initiative.	B3.1.1 Establish a Stronger Centres Initiative covering the strategic centres of Sydney and the GMR. B3.1.2 Evaluate the current centres planning and development program to strengthen future projects B3.1.3 Release a detailed Centres Reinvigoration Report for the strategic centres in 2006
	B3.2 Strengthen centres management.	B3.2.1 Department of Planning, Department of Local Government, and councils to create Business Improvement Districts in Sydney's strategic centres
	B3.3 Use Government assets and investment to support centres.	B3.3.1 State agencies, industry, and universities to undertake a program to examine global competitiveness in strategic centres B3.3.2 Plan for the concentration of new or expanded investment in strategic centres B3.3.3 Assist Government agency decision making to align with priorities for strategic centres B3.3.4 Plan and manage growth to support the core economic role of Specialised Centres.
	B3.4 Ensure sufficient commercial office sites in strategic centres.	B3.4.1 Protect existing core commercial areas in strategic centres B3.4.2 Create redevelopment opportunities for business space in the global economic corridor. B3.4.3 Identify, protect and promote sites for large scale development in strategic centres
B4 Concentrate activities near public transport	B4.1 Concentrate retail activity in centres, business development zones and enterprise corridors.	B4.1.1 Locate retail and office activity in identified or designated retail zones B4.1.2 Allow retailing in industrial areas only, where it is ancillary to industrial uses. B4.1.3 Create business development zones to encourage development in strategic centres.
	B4.2 Support centres with transport infrastructure and services	B4.2.1 Carry out transport planning and align investment in rail and bus corridors to support the concentration of employment centres. B4.2.2 Examine future links to strengthen Regional Cities and specialised centres

Objectives	Initiatives	Actions
CORRIDORS		
B5 Protect and strengthen the primary role of economic corridors	B5.1 Establish Stronger Corridors planning and development initiatives.	B5.1.1 Establish a Stronger Corridors Initiative covering the North Sydney to Macquarie Park and City to Airport corridors.
	B5.2 Strengthen the economic role of the Orbital Motorway Network	B5.2.1 Implement the findings of the M7 land use study to better manage existing employment lands and identify additional future supply. B5.2.2 Prepare a land use and development plan for the M5 corridor, covering employment land renewal and improving transport access
B6 Focus development in renewal corridors to maximise infrastructure utilisation where demand and opportunities exist	B6.1 Implement the Parramatta to City corridor plan	B6.1.1 Complete the work of the Parramatta Road Taskforce B6.1.2 Publicly exhibit the structure plans for each of the four sectors. B6.1.3 Streamline planning in the Parramatta to City Corridor, to allow rezonings to occur in key sites where development is likely to occur in the short to medium term. B6.1.4 Resolve transport planning issues for Burwood town centre B6.1.5 Facilitate the implementation of the Sydney Olympic Park Vision 2025 B6.1.6 Explore opportunities for Landcom's involvement in the implementation of the Parramatta to City Corridor plan B6.1.7 Plan for improved regional bus connections to Sydney Olympic Park B6.1.8 Develop urban renewal demonstration projects B6.1.9 Plan for an open space and cycle network.
		B6.2 Identify future renewal corridors
	B7 Recognise the role of enterprise corridors as locations for local employment	B7.1 Create a zone recognising the role of enterprise corridors.
B7.2 Provide guidance on development in enterprise corridors.		B7.2.1 Plan for 'no net loss' of employment capacity in the development of enterprise corridors. B7.2.2 Support local planning to ensure strategic sites provide locations for viable business opportunities B7.2.3 Prepare urban design guidelines for mixed-use development along enterprise corridors

The Strategy seeks to increase employment opportunities by setting out employment planning capacity targets (especially within subregions and strategic centres). The employment capacity targets are compatible, and associated with subregional housing capacity targets. These targets are a guide to councils, state agencies, and the private sector, to ensure that there are sufficient and appropriately zoned commercial sites and employment lands to meet private sector demand.

Subregional planning – completed by State Government in collaboration with local government and in consultation with the community and business (10 subregional areas – including North West and South West growth centres). These subregions combine local government areas with similar issues and challenges (planning for

growth and managing change). They also relate to particular transport routes, natural features, and patterns of employment and retail activity. The subregional strategies will provide:

- a vision (future role)
- clarity (future role) of centres
- staging and prioritisation of renewal
- a framework for potential agreements between local government
- a framework for prioritisation of State infrastructure
- housing targets
- employment capacity targets

Employment Lands for Sydney Action Plan

(Source: NSW Government , 2007, ‘Employment Lands for Sydney Action Plan’).

Employment Lands for Sydney Action Plan are a key component of the NSW Government’s ‘Open for Business’ Strategy (part of the State Plan). The Action Plan details a range of initiatives which the NSW Government is pursuing to advance planning of employment lands. These are summarised under five key areas of activity.

Employment Lands are defined as industrial areas, which predominantly accommodate manufacturing, distribution, and non-centre urban services such as panel beating and concrete batching plants. Business parks and technology parks, which may contain a mixture of research, manufacturing, distribution, and office activities also fall under the employment lands classification.

Key areas of activity	Budget	Actions
1. Establish an Employment Lands Development Program to maintain the balance between demand and supply of employment land	\$1 million to establish this program to update the previous ‘industry-lands’ programs. Ongoing commitment thereafter to implement the program and achieve coordinated and timely release of employment lands	Map strategic employment lands to be protected, and future employment lands for investigation. Provide a breakdown of land sizes and zonings, vacancies, take-up rates, demand forecasts, and services. Estimate how much and what type of employment land is required in the short, medium, and long term to help maintain the balance between supply and demand. To be underpinned by GIS systems, including web-based interactive mapping and search tools
2. Release more Greenfields land to overcome shortage of supply		Western Sydney Employment Hub at the intersection of M4 and M7 – an addition 929 hectares of employment lands contributing 36,000 jobs to the area. The Dept of Planning, Dept of State and Regional Development, and the Growth Centres Commission will investigate policy and planning options to accelerate the early development of employment lands in the South West and North West growth centres. Detailed planning will ensure a range of lot sizes, to encourage a diversity of economic activities for the growing residential population and workforce in the surrounding areas. Dept of Planning to consider the designation of a Western Sydney Employment Lands Investigation Area in the area between the Western Sydney Employment hub and Badgerys Creek. The aim is to investigate medium-long term needs and integrate this into the development of both the Western Sydney Employment Hub and the South West growth centres

Key areas of activity	Budget	Actions
3. Develop new policy initiatives to encourage the regeneration of brownfield sites to support new investment and employment opportunities		<p>Economic renewal is a priority of the State Government – while working with the different tiers of government and the private sector.</p> <p>Initiatives to stimulate reinvestment:</p> <ul style="list-style-type: none"> - Economic renewal investigation areas (employment lands east of Liverpool centre; St Marys-Dunheved industrial area and Bankstown Airport-Milperra Specialised Centre. -Employment Land Audits <p>Identify Strategic Employment Lands through Subregional Planning;</p> <ul style="list-style-type: none"> - Government Land - Landcom - New Planning Frameworks; <p>Dept of State and Regional Development Industry Network Program.</p>
4. Employ more efficient processes for zoning and developing employment lands		<p>Reducing red tape to facilitate economic growth:</p> <ul style="list-style-type: none"> -The development of SEPP to identify and provide the development framework for employment lands across the state. <p>Expediting approvals for employment lands and/or major infrastructure (classed as <i>State Significant</i>)</p> <ul style="list-style-type: none"> -Supporting local government to protect, renew and identify future employment lands through application of the <i>Standard Instrument</i> (LEP) in the preparation of new Principals LEPs for their LGA. - Providing a more strategic context for assessing DA's and undertaking rezonings through subregional planning. -Investigating expanding the use of exempt and complying development categories for non-critical issues for business uses implied by zoning. -Providing greater certainty over levies and infrastructure servicing. -Working with participating councils to consider use of Independent Assessment and/or Design Review Panels for key industrial developments. -Establish a <i>Better Regulation Office</i>, which will implement a 'gatekeeper' process. - Industry specific red-tape reviews.
5. Improve coordination between state departments and agencies, councils, and industry to improve economic development opportunities associated with employment lands policy		<p>An <i>Employment Lands Ministerial Advisory Committee</i> – advise the NSW Government on employment lands planning and development. Work with other initiatives including <i>NSW Skills Council</i> and the <i>Statement on Innovation</i> to align NSW Government's prescription for future innovative competitiveness and the availability of a skilled workforce with employment lands planning.</p>

APPENDICE E

Local Councils and Regional Development Agencies' Employment Strategies

The level of involvement by Council in employment / skills within their LGA varies. Most have set documents (policies) to guide their strategies, these include a: Strategic and/or Management plan (that included reference to economic development/business within their LGA); Social/Community Plan (which also includes references to employment, education and skills training); and, for the more innovative councils such as Blacktown, Baulkham Hills, and Penrith, an Economic Development Strategy or an Employment Planning Strategy. Two Councils are also developing City Centre Plans as part of the Metropolitan Strategy regional centres development.

The key activities include:

- Land use planning (LEPs, DCPs) – residential and employment lands release areas.
- Social Planning (Community/Social Plans):
 - Education and information provider
 - Promotion and marketing their LGA's assets
 - Lobbying government
 - Support and partner programs
 - Monitor
 - Foster business networks and build relationships
 - Leadership

Following pages lists the Councils and their strategies that refer to employment.

Summary Table of Local Employment Strategies/Programs/Projects

Employment Strategies/Policies and Programs			
Level	Strategies - documents that refer to employment	Programs	Projects
North West	Sub-regional Plans (from Metropolitan Strategy) (not completed)		
Hawkesbury	Strategic Plan (http://www.hawkesbury.nsw.gov.au/files/23023/File/1_StrategicPlan_Adopted0607.pdf) , Social / Community Plan (http://www.hawkesbury.nsw.gov.au/files/21202/File/communityPlan05.pdf).	Home Base Business Connections Project. Transitions to Work	
Baulkham Hills	Strategic Plan (http://www.baulkhamhills.nsw.gov.au/council_documents_policies/pdf/Adopted%20Strategic%20Plan%200708.pdf) Social Plan (http://www.baulkhamhills.nsw.gov.au/council_documents_policies/socialplan.aspx) Framework for Economic Development 2007-2011 (http://www.baulkhamhills.nsw.gov.au/pdf/Economic%20Development%20plan%20web.pdf)	Business Network Program. Investment Attraction Program. Hills Excellence in Business Award and Mentoring Program.	Development of the \$1.5 billion Norwest Business Park owned by Mulpha FLP Pty Ltd trading as Norwest Land. - Development of Annangrove Road Light Industrial Area. -Rouse Hill Regional masterplan

Employment Strategies/Policies and Programs			
Level	Strategies - documents that refers to employment	Programs	Projects
Central West	Sub-regional Plans (from Metropolitan Strategy) (not completed)		
Blue Mountains	Management Plan (http://www.bmcc.nsw.gov.au/yourcouncil/managementplan/managementplan0607/) Community Plan (http://www.bmcc.nsw.gov.au/policiesandplans/communityplan/) Draft Economic Development Plan (http://www.bmcc.nsw.gov.au/policiesandplans/economicdevelopmentplan/)	Blue Mountains Business Advantage Program	Blue Mountains Artist Mob
Penrith	Strategic Plan, (http://www.penrithcity.nsw.gov.au/uploadedFiles/Random_images/Main_page/StrategicPlan2005-2009.pdf) Draft Penrith City Centre Plan, (http://www.planning.nsw.gov.au/penrith/) Civic Improvement Plan, (http://www.planning.nsw.gov.au/penrith/city-centre-plans/civic-improvement-plan--cip-/) Social Planning Framework (http://www.penrithcity.nsw.gov.au/uploadedFiles/Website/Your_Council/Community_Development/SocialPlanningFramework2006.pdf) Employment Planning Strategy (http://www.penrithcity.nsw.gov.au/uploadedFiles/Website/Planning_&_Development/Planning_Studies_&_Strategies/AdoptedEmploymentPlanningStrategy26March2007.pdf)	Established Areas Program - Local Employment and Enterprise. Building Local Enterprises (Penrith Valley Economic Development Corporation) The Werrington Enterprise Living and Learning (WELL) Precinct	
Blacktown	Management Plan (http://www.blacktown.nsw.gov.au/shadomx/apps/fms/fmsdownload.cfm?file_uid=3EC42324-E7FF-0ADF-9E4F-B35A8E873F27&siteName=blacktown) Economic Development Strategy (http://www.blacktown.nsw.gov.au/shadomx/apps/fms/fmsdownload.cfm?file_uid=2BB60723-E7FF-0ADF-9383-3EB22C168ECC&siteName=blacktown) Social Plan 2007 (http://www.blacktown.nsw.gov.au/shadomx/apps/fms/fmsdownload.cfm?file_uid=3E233582-E7FF-0ADF-94BF-8621BE79FF14&siteName=blacktown)	Business Angels Program, Capturing the Strength of Industry in Blacktown Project, Sister City programs	Blacktown Motor Sports Parklands. Business Advisory Services, Nimba Business Centre

Employment Strategies/Policies and Programs			
Level	Strategies - documents that refers to employment	Programs	Projects
South West	Sub-regional Plans (from Metropolitan Strategy) (not completed)		Western Sydney Employment Hub
Liverpool	Management Plan (http://www.liverpool.nsw.gov.au/formspublicationspolicies.htm) Draft Liverpool City Centre Plan, (http://www.planning.nsw.gov.au/liverpool/) Social Plan (http://www.liverpool.nsw.gov.au/formspublicationspolicies.htm)	Breakthrough mentoring program. Manufacturing Building Jobs, Liverpool Work Place Learning Program, The Liverpool CISCO IT Academy, Liverpool City Brand.	Ways to Grow (ARCL) IMAN – Innovative Manufacturing Networks
Camden	Strategic Plan (http://www.camden.nsw.gov.au/files/managementplan/Camden%202025.pdf) Community Plan (http://www.camden.nsw.gov.au/files/community_services/camdens_community_plan_2004_-_2009.pdf)	Outreach from Mission Employments Links to Learning Program, Macarthur Workplace Learning Program	
Campbelltown	Management Plan (http://www.campbelltown.nsw.gov.au/upload/anzxt87899/Adopted20072008ManagementPlan.pdf) Social Plan (http://www.campbelltown.nsw.gov.au/default.asp?iNavCatId=1140&iSubCatId=1143)	Work Ventures	Macarthur Industry and Education Forum
Wollondilly	Management Plan (http://www.wollondilly.nsw.gov.au/council/1167/12907.html) Community/Social Plan (http://www.wollondilly.nsw.gov.au/council/1175/1252.html) Economic Development Strategy in preparation	Wollondilly Industry Research and Economic Development Project	Tharawal Aboriginal Land Council, Macarthur Youth Commitment and Wollondilly Services Network

Other Regional Organisations' Employment Initiatives

Other important organisations within the Western Sydney region include:

- Greater Western Sydney Economic Development Board (GWSEDB)
- Western Sydney Regional Organisation of Councils (WSROC)
- Macarthur Regional Organisation of Councils (MACROC)
- NSW Department of State and Regional Development (DSRD)

Greater Western Sydney Economic Development Board (GWSEDB)

(Source: Greater Western Sydney Economic Development Board's website: <http://www.gws.org.au/> October 2007)

The Board works in partnership with government agencies, councils, and other regional organisations to facilitate employment growth, and economic and community development in Greater Western Sydney.

The GWSEDB principle roles include:

- Advise government agencies on issues relating to employment growth and economic development within Greater Western Sydney;
- To project manage activities capable of delivering Board objectives through regional partnerships.

The GWSEDB participate in a number of projects including:

- The Liverpool Youth Jobs
- Blue Mountains Artist Network
- Catering Social Enterprises
- Airs Slingshot Program
- Make it in Macarthur Investment Drive
- Parramatta Sustainable Business Management Program

The GWSEDB also participates in a number of public and private sector programs:

- The Western Sydney Industry Awards
- NSW Department of Planning
 - St Marys ADI Site Employment Development Strategy Steering Committee
 - M7 Employment Lands Study Project Reference Group
 - Sydney Metropolitan Strategy Futures Forum
 - Western Sydney Employment Lands Taskforce
 - Freight Infrastructure Advisory Board
- Greater Western Sydney Skills Development Task Force
 - Australian Technical College for Western Sydney
 - Chair, GWS Skills Development Task Force
- Urban Development Institute of Australia (member)
- Hawkesbury Economic Development Advisory Committee
 - Participation in planning and development of the Hawkesbury Harvest and Hartvest Project
- North West Bus Transitway Consultative Committee
- UWS Nanotechnology Network (member)
- GROW Employment Council
 - Regional Partnership Program

- Regional Economic Profiles

WSROC – Western Sydney Regional Organisation of Council

(Source: WSROC website: <http://www.wsroc.com.au/> October 2007)

WSROC has a reputation for considered policy analysis and advocacy on a wide range of issues affecting the residents of Western Sydney. These include: urban planning and management; public transport; roads; infrastructure; economic development; environment; employment; community services; and a range of local government issues. WSROC's member Councils include: Auburn, Bankstown, Blacktown, Blue Mountains, Fairfield, Hawkesbury, Holroyd, Liverpool, Parramatta, and Penrith.

Within the WSROC Strategic Plan is the portfolio on Education, Employment and Development. WSROC advocates that Western Sydney education participation and completion rates at all levels (pre-school to tertiary) should be equal to those of the rest of Sydney, and that all levels of educational opportunity should be available to the region's residents. WSROC also seeks to ensure that educational institutions in Western Sydney play a major role in meeting both these goals.

Employment and economic development continue to be critical issues as the region's population grows. WSROC works closely with member Councils to develop economic development and employment initiatives to support the State Government's employment targets as set out in the Metropolitan Strategy, and to ensure participation rates are maintained and increased.

WSROC seeks a diversified regional economic structure through targeted regional growth of key high-skill sectors in the economy, retention, and improvement of the quality of professional service sector jobs, and the development of a skilled and highly qualified resident labour force. As it is not the lead agency in the region for economic or education issues, WSROC works closely with the relevant agencies such as the GWS Economic Development Board, the Department of Planning, GROW, the Office of the Minister for Western Sydney, the Department of Primary Industries, and the University of Western Sydney.

MACROC – Macarthur Regional Organisations of Council

(Source: MACROC's website: <http://www.macroc.nsw.gov.au/> October 2007)

MACROC works towards continually upgrading the social and environmental amenities, and fostering wealth creation to provide residents in the region with opportunities to improve their quality of life. They achieve this through strategic planning, regional coordination, advocacy, and facilitation. MACROC's member Councils include: Camden, Campbelltown and Wollondilly.

MACROC partnerships include: GROW Macarthur; Macarthur Community Forum; UWS; and Macarthur Centre for Sustainable Living. MACROCs main projects include:

- 'Mapping Macarthur's Future';
- 'TwinCam Futures' with the CSIRO;
- MACROC Economic Development Plan;

- ‘Make it in Macarthur Investment Drive’. The project is focussed on bringing new investment into the Macarthur Region and stimulating employment growth. Australand, CABE and Investa are the key industry partners in the project, together with the Greater Western Sydney Economic Board and the University of Western Sydney.

MACROC Economic Plan for the region - Economic Growth Strategy Outcomes includes:

1. Existing employers are more competitive
2. New employers emerge
3. More local dollars captured
4. Increase exports
5. New employers attracted
6. Outside sources of capital accessed

The Macarthur Economic Development Plan’s objectives:

- Mission: Develop and implement a regional economic growth strategy directed at the creation of job opportunities for the region
 - Create a Supportive Business Environment
 - Focus and establish educational resources
 - Transport (private and public) infrastructure
 - Employment land and regional centre development
 - Put Macarthur on the Map
 - Create an integrated marketing communications strategy
 - Create a positive brand image
 - Telecommunications – high speed broadband
 - Greater Austrade and AusIndustry focus
 - Demonstrate Macarthur’s Industrial and Technological Capability
 - MACROC, UWS, EMAI, Sydney University to gain momentum for Nanotechnology and Hi-tech agricultural focus
 - Develop a Centre of Commercialisation
 - Promote high-value adding rural activities and link them to heritage and tourist opportunities
 - Cluster development and new additions

Department of State and Regional Development (DSRD)

(Source: DSRD website: <http://www.business.nsw.gov.au/> October 2007)

DSRD delivers programs and services that support the NSW Government’s commitment to winning new business activity for NSW, and developing the capacity and productivity of the State’s economy. DSRD provides advice and assistance to help businesses of all sizes establish or expand in metropolitan and regional NSW. It works to attract significant investment projects to NSW, as well as major events that have the potential to benefit the State's economy and promote Sydney and NSW nationally and internationally.

DSRD provides support to the State's tourism industry to improve its competitiveness and promote sustainable tourism growth. It facilitates growth and innovation in technology, science, and medical research to improve the health, environment, and

economy of NSW. DSRD delivers enterprise improvement programs that enhance the State's international competitiveness, and drives policy change to improve the NSW business climate.

DSRD adopts a whole-of-government approach and actively encourages collaboration with business and the community in its work. Its services are delivered through a network of offices in NSW.

Western Sydney Business Connection -WSBC

(Source: WSBC website: <http://www.wsbc.org.au/index.asp?id=41> October 2007)

The Western Sydney Business Connection (The Connection) is a business networking and development organisation that was first established in 1985. With strong business services roots, The Connection now represents a cross-section of the 75,000 businesses in the Greater Western Sydney region. The Western Sydney Business Connection includes:

- The Western Sydney Business Connection
- Sydney West Marketing
- Asia Business Connection
- ConnectionX
- ArtsWest Foundation (provides secretariat services)

Together, they form the largest independent not-for-profit group of business associations and regional development organisations in Western Sydney. The Connection is totally self-funded by membership, sponsorship, and its many events, which allows the Connection to be totally member focused.

The group's role covers a range of activities from business networking, the promotion of Western Sydney and investment attraction for Western Sydney, developing young business leaders, growing business opportunities with key Asian countries, through to promoting the Arts in Western Sydney.

Penrith Valley Economic Development Corporation (PVEDC)

(Source: PVEDC website: <http://www.pvedc.com.au/about/aims.html> October 2007)

Role of the Corporation: Only an internationally competitive and vibrant private sector can provide realistic opportunities for sustainable economic growth in regional economies such as Penrith Valley. The Corporation is designed to be the principal vehicle within Penrith Valley for strong collaborative relationships and networks to link local and global markets; this will build collective local strength. The Corporation recognises that it is an association of the key players within Penrith Valley, who within their own charters and expertise will contribute to further strengthening the success of our local economy. They include the key learning institutions such as University of Western Sydney, WSI TAFE, the Nepean Teaching Hospital, the Penrith City Council, and business organisations such as the Penrith City Centre Association, Penrith Valley Business Advisory Centre, and the Penrith Chamber of Commerce.

The objective of the Corporation is: “To attract, retain, and facilitate the growth of business investment in the Penrith Valley”. The aim of the Corporation is that by the end of 2008, the PVEDC will be highly respected and valued for enhancing the status of the Penrith Valley as a place to do business.

It will achieve this position by:

- Promoting, marketing, and raising the business and investment profile of the Penrith Valley region;
- Promoting the growth of business in the region by strengthening existing and attracting new businesses;
- Facilitating cooperative activity among the region’s businesses and institutions;
- Identifying and promoting smart business opportunities; and
- Promoting business and investment opportunities, which lead to employment growth.

Within the PVEDC is the Western Sydney Innovation Advisory Centre (WSIAC), which offers a range of services to help start-up businesses make their idea more marketable and profitable. Services include:

- Access to self-assessment software;
- Business advice and referral;
- Low-cost technical/commercial assessment or innovation market review.

Business Advisory Services (Basi)

(Source: Basi website: <http://www.basi.com.au/index.php?p=5> October 2007)

Basi is a multi-talented non-government and not-for-profit organisation, with expertise in the areas of business advisory and support services. These areas cover policy, strategy, administration, information, advice, information technology systems, Internet management, business management, and business diagnostic and training.

Business Advisory Services Incorporated (Basi) was incorporated in 1994 and its’ sole mission is to facilitate employment and economic growth by providing leadership and best practice business support services to existing and emerging businesses.