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Sent:	Monday, 3 August 2009 8:19 PM
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Subject:	Inquiry: Employment Opportunities in Queensland
Attachments:	more than just jobs.pdf

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Economic Development Committee

To: The Research Director, Economic Development Committee

I respond to the letter of 8 July from the Chair of the Economic Development Committee to Mr Angel Gurria, Secretary-General of the Organisation for Economic Co-operation and Development (OECD), inviting submissions to an inquiry into employment creation opportunities in Queensland, Australia.

I would like to inform you on behalf of the Secretary-General that the Local Economic and Employment Development Programme of the OECD has undertaken recent analytical work on employment development in the region of Mackay in Queensland, placing it in an international context.

The work is written up in chapters contained in two OECD books, one recently released, the other forthcoming:

Martinez-Fernandez, C. (2008) 'Australia: Local Employment Strategies that Address Diversity' in Sylvain Giguère (edt) *More than Just Jobs: workforce Development in a Skills-based Economy*. OECD: Paris.

Abstract. Designing employment strategies is a complex issue in Australia, a vast continent with different labour market policy scenarios. One of the scenarios is found in the seven capital cities. These cities grow into extended metropolitan regions, where hubs of skills and knowledge-intensive activities coexist with suburbs of social disadvantage. Other scenarios are found outside these capital cities:
in regional centres and remote communities. On the one hand are the booming, prosperous towns where there is a fierce demand for skilled workers, and on the other are the shrinking towns and declining regions, where simply retaining people is a major task for local agencies. These different scenarios indicate the challenges of applying centralised labour market policy instruments to areas with
very different market and lifestyle conditions. They also show the important role of local knowledge relevant to local needs, and essential to the design of local employment strategies. The regions of Mackay in Queensland, Broken Hill in New South Wales and Western Sydney are analysed.

Martinez-Fernandez, C. (forthcoming, 2009) 'The Skills Imperative in Mackay: Local Strategies' in Francesca Froy (edt) *Local employment and Skills Strategies (title to be determined)*. OECD: Paris. (Forthcoming)

Abstract. The region of Mackay in Australia has experienced un-precedent growth and wealth creation since 2004, putting significant pressure on company development. In response, manufacturing companies in Mackay have formed an industry cluster named "Mackay Area Industry Network" (MAIN) with the purpose of addressing skills shortages quickly and effectively. The result was the MAIN CARE program – a program designed to recruit, select and manage apprentices in the workplace. The main success of the scheme has been improving retention rates within the apprenticeship programmes which had previously had high drop-out rates. This chapter situates the approach within wider skills strategies in Queensland, and assesses whether an employer led approach can fully integrate hard to reach groups into the workforce development system.

I attach for your information an electronic copy of the released book. The second book is expected to be

published in Autumn this year.

The OECD Local Economic and Employment Development Programme is willing to undertake further analysis on employment opportunities in Queensland in collaboration with the Queensland government. Please contact my colleague, Cristina Martinez of the OECD Secretariat if you would like further information on this possibility, email cristina.martinez@oecd.org.

Regards,

Jonathan Potter

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PART II

Chapter 7

Australia: Local Employment Strategies that Address Diversity

by

Cristina Martinez-Fernandez

Designing employment strategies is a complex issue in Australia, a vast continent with different labour market policy scenarios. One of the scenarios is found in the seven capital cities. These cities grow into extended metropolitan regions, where hubs of skills and knowledge-intensive activities coexist with suburbs of social disadvantage. Other scenarios are found outside these capital cities: in regional centres and remote communities. On the one hand are the booming, prosperous towns where there is a fierce demand for skilled workers, and on the other are the shrinking towns and declining regions, where simply retaining people is a major task for local agencies. These different scenarios indicate the challenges of applying centralised labour market policy instruments to areas with very different market and lifestyle conditions. They also show the important role of local knowledge relevant to local needs, and essential to the design of local employment strategies.

The Australian context

The performance of the Australian economy has been one of high economic growth for a long period – from the mid-1980s through to 2006 – with a short interval of recession in 1990-91. Among the factors that contributed to this economic prosperity are: low inflation; the 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 (Larcombe, 2007).

This high economic growth has led to impressive economic outcomes for Australia, with official unemployment rates declining from 11% in the early 1970s to the current rate of 4.5%. Incomes per capita have increased by 50% over the past 15 years due to high productivity and trade with Asian neighbours, especially China. The resources sector in Australia is experiencing very strong demand from the extraordinary growth of China and its importation of Australian minerals and energy commodities. Analysts, however, are warning that the Chinese economy is overheating and the global economy is entering a period of uncertainty – and therefore, Australia's economic bonanza might not last (Larcombe, 2007).

One of the consequences of strong economic growth with full employment is the emergence of skills shortages. It does needs to be taken into account, however, that in Australia a person is defined as "employed" if s/he works more than one hour per week. Many adults are thus underemployed or in employment conditions under the poverty line. In a good number of cases, these underemployed have limited skills and little to offer to help improve their employability. Skill shortages appear in a vast number of occupations. Unemployment rates for managers, professionals, associate professionals and advance clerical workers have historically low levels in the last decade, 1-2%. The unemployment rates for tradespersons and related workers are also declining, and significant skills shortages are emerging in these areas. There is thus a situation of rapid growth in both high-paid, knowledge-intensive jobs and casual, low-paid, low-skilled jobs, with many qualified people being employed in these lower-skilled jobs. This is especially the situation for many migrants and refugees entering the country.

Several programmes address the skills needed for the future of the country. Significant among these are the Skilled Migration programme;

Skilling Australia's Workforce; the Australian Apprenticeship Scheme; and the Skills for the Future Package. Attracting skilled migrants is an important policy for Australia's future. The Department of Immigration and Citizenship has established the Skills Matching Database (SMD) (Department of Immigration and Citizenship) 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 commonwealth, state, and territory governments[1] to work together to support new national training arrangements on a consensus approach (Australian Government, 2006). The agreement provides close to AUD 5 billion over the 2005-08 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, and leads to a nationally recognised qualification. The apprenticeships are available to anyone of working age and do not require any entry qualification. In March 2006, there were 403 600 Australian apprentices in training (National Centre for Vocational Education Research). Since 1 July 2006, the Australian Apprenticeship Incentives Programme has provided financial incentives to employers who hire and train an apprentice. On 12 October 2006, the government released in 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. Among these initiatives is the Australian Skills Voucher Programme for apprentices and the less qualified; those 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 represent a disappearing core of 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 programmes have been the traditional way to attract new talent into this sector, and skills programmes therefore seek to increase the number of apprentices. However, the absolute number of apprentices is not a good measure for understanding 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 has been a major decline in the training rate over the last decade – 16% in aggregate terms, but a decline of as much as 25% 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 skills (Toner, 2003).

The reasons behind this situation are complex, and encompass both national and international factors that translate into an effect on the local labour market. In the case of Australia, prior to the major corporatisations and privatisations of the 80s and 90s, government-owned enterprises in major infrastructure services were large employers of tradespersons, not just in service provision but also in employing trainees. As a result of the privatisations, the focus was no longer on training, and a reduction of 80-90% in the intake of apprentices followed over the next ten years, although there has recently been an increase in public sector intake. 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, construction and mining technology services industries. These small firms have fewer training programmes and lower investment per employee than larger firms (Toner, 2003, 2005).

The implications of a training system that is not able to reproduce these skills are 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. 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 workplace (Toner, 2003). Shortages of these key trade skills reduce the innovation capacity of a place and of the industry in general, as there is a collateral reduction of professionals' input in knowledge-intensive service activities (KISA) (Martinez-Fernandez and Miles, 2006; OECD, 2006).

The discussion above shows the elements impacting labour policy in Australia, national programmes addressing skills needs, and some of the consequences at the local level. However, national policies and programmes are designed for the country as a whole, and the flexibility to adapt and adjust to different environments is therefore limited. There is a need to translate and customise national labour policy to the local level. New planning processes beyond land management also need to be developed to achieve employment growth. Local institutions are best placed for developing processes of Strategic Employment Planning, where available talent and demand for skills can be analysed to design interventions in a particular employment space. It is within that context that this chapter seeks to contribute – by arguing that labour policy needs to be customised to different socioeconomic scenarios, which require different employment strategies.

Scenarios for Strategic Employment Planning (SEP)

Australia currently has a population of 20.6 million. Of this population, 76.9% are Australian-born and 23.1% are foreign-born. Up to 1.7% of the population are Indigenous. The fertility rate is low (1.76) – which, combined with an increase in deaths from an ageing population, will result in the fertility rate falling below zero in the mid-2030s. Up to 23% of the population are migrants, with the highest numbers coming from the United Kingdom, New Zealand and Italy. Australia is one of the world's most urbanised countries: 85% of the population live in urban areas and are concentrated in the seven capital cities, and 15% live in rural areas. Up to 70% of Australian land is arid and semi-arid; consequently, the population is concentrated in the coastal cities (Martinez-Fernandez and Wu, 2007). This demographic diversity results in at least three different scenarios for employment growth.

One scenario is found in the seven capital cities. These cities grow into extended metropolitan regions where hubs of skills and knowledge-intensive activities coexist with suburbs of social disadvantage. The other scenarios are found outside the capital cities: in regional centres and in remote communities. On the one hand are the booming, prosperous towns where there is a fierce demand for skilled workers, and on the other are the shrinking towns and declining regions where simply retaining people is a major task for local agencies. These different scenarios indicate the challenges of applying centralised labour market policy instruments to areas with very different market and lifestyle conditions. They also show the important role of local knowledge relevant to local needs, and essential to the design of local employment strategies. This section discusses the three scenarios, and the local initiatives that created customised national policies and programmes.

Scenario 1: Booming cities – Mackay

Mackay is a city of 84 856 inhabitants, located on the central coast of the state of Queensland in Australia – 1 948 km north of Sydney and 974 km north of Brisbane. Mackay has the distinction of being the largest sugar-producing region in Australia, with the largest bulk sugar facility in the world (737 000-tonne capacity). In addition, the Mackay region has the largest coal-loading terminal in the southern hemisphere (Hay Point), with a capacity of over 50 million tonnes per annum. The resources boom in Australia has seen Mackay's minerals and mining industry explode; there are over 20 coal mines now operating in the region. Mackay's unprecedented growth and subsequent wealth creation since 2004 has put significant pressure on company development; skill shortages in particular are a constant threat to industry growth.

Mackay's extraordinary growth draws attention to the mismatch of talent in the area, as well as the lack of skilled people. Skilled workers from the sugar industry needed retraining for the mining boom; there was a shortage of school-leavers wishing to enter a trade; and the available large Maltese and Indigenous populations are largely a pool of untapped talent. In particular, the last ten years show a growing population in the Mackay-Whitsunday region, which is expected to continue at a higher rate than the Australian average through to the year 2026. This growth is more acute in Mackay's city centre and some of the neighbouring local government areas, while other districts decline or experience small population gains. There is also movement of the younger population away from the shrinking towns and towards the growing areas in the region.

Employment-wise, Mackay has experienced a 6% increase since 1996, and a consistent decline in its unemployment rate since 2001. The demand for knowledge workers is higher than across Australia as a whole, especially within the computer professionals' category. The demand for other occupations (less knowledge-intensive but equally important for industry development and firm innovation) such as tradespersons, transport workers and labourers is also higher than at the national level. There is evidence of industry restructuring from an agriculture-related base towards coal mining, rail transport and mining technology services. The top employing industries are in the categories of services to the working population, such as education, retail and business services. The upskilling of Mackay's population has been larger than the national average in most areas, but particularly at the bachelor-or-higher degree level and in the specialised trades. Up to 84.3% of all apprentices in the region are registered in Mackay's city centre and are in diverse industries ranging from manufacturing to business services, retail and hospitality.

This economic bonanza is not unique to Mackay: The state of Queensland is experiencing an economic boom, with rapid business growth and a general shortage of skills in many areas. The low unemployment rate, which is under the national average, the strongest labour market competition in the last 30 years, and major structural shifts across industries and markets fuelled the design of skills strategies and reforms to the training and vocational system statewide in Queensland. The self-denominated "Smart State" undertook the most significant reform to Queensland's skilling and training in more than 40 years, with the release of the billion dollar Queensland Skills Plan in March 2006, which was designed to address the emerging skills shortages (Queensland Government, 2006).

The Skills Plan articulates specific mechanisms to respond to the loss of skills, the need to upskill the workforce, and the integration of hard-to-reach groups. The plan integrates education policies and reforms from the national and state level to respond to present and future challenges of the labour market. It is a top-down approach targeting broad skills infrastructure gaps affecting industry competition at the state level. An analysis of the Skills Plan shows four broad elements for the design of skills strategies: 1) the training system, through the vocational education sector (VET) and the technical and further education colleges (TAFE); 2) the industry and employers; 3) the employees and talent pool; and 4) a strong specific focus on trades as a key occupation that interrelates with the other elements.

Actions in the Skills Plan assess training needs, skilling and labour market development at the local level through partnerships with industry groups. These actions include:

- *Skills alliances* (sector-specific) – autonomous organisations made up of major industry stakeholders, unions and employers that provide strategic advice about industry skills needs by monitoring the needs of the industry and fostering open communications with the stakeholders on skilling issues. Among the services these alliances provide are: identifying the causes and effects of skill shortages; planning for future skill needs; promoting their industries to schools and regions; and encouraging each industry to take control of its skilling future.
- *Industry-government partnerships* – that capitalise on existing industry networks, and address the industries' skilling and workforce development needs through a whole-of-government approach.
- *Direct engagement* – that involves consulting with industry representative organisations to obtain expert advice on workforce development and skilling requirements for industries. Formal agreements are put in place in certain industries to keep on consulting.

- *Centres of Excellence* – whose mission is to identify skills requirements at the local level, so that training priorities, products and methods of delivery are tailored to local employers. A strong focus on development partnerships is supported by AUD 1 932 million over four years; specific actions are targeted, such as holding annual industry forums to discuss skills issues.

One of the difficulties of labour policy design is the need for flexibility to quickly adapt to local conditions. As the Skills Plan was being produced, the private sector in Mackay was having difficulty filling vacancies at many levels; this was especially the case at the trades level in some of the main employment industries, such as manufacturing, agriculture, forestry and fishing, mining, transport and storage, and construction. The shortages were across the board, and included what are consistently noted as "skills in demand" in the state of Queensland (DEWR, 2006): electrical and electronic trades, and metal and engineering trades (ABS, 2001).

A group of companies in Mackay's manufacturing and engineering sectors joined together to form a cluster-type organisation in 1996; their objective was to solve the dual problems of skills shortages within their companies and the lack of necessary skills associated with the national apprentice training system, which was not responding fast enough to the growth of the manufacturing industry. The companies involved in this organisation – called the Mackay Industry Network (MAIN)[2] – analysed the strategic needs required to remain competitive in Mackay under the mining boom, and how they could maintain their level of employment despite stiff competition. They decided on three major areas of focus: 1) networking information, 2 skills and 3) exports. The identification of skills shortages as one of the key areas of work led to the establishment of the CARE programme – the most successful activity of the network.

CARE serves as an intermediary agent, connecting industry with education agents. The programme manages the bookings for all their apprentices, and also focuses on the sorts of gaps prospective employers might have in the near future. Its role is not to train – other organisations such as the technical colleges do that – but to organise the logistics of training courses and job introductions that the technical college or other organisations deliver. The programme also provides the apprentices with basic, important information that companies are usually too busy to provide, explaining the expectations of the job from inside the workplace. This information is part of the introduction programmes MAIN delivers, subcontracted by the Mackay Technical and Further Education College. The programme has been able to introduce hard-to-reach people – the long-term unemployed, people with Indigenous backgrounds, women – into the workforce, although this is not its main focus. The reality is that the engineering sector in general would be able to employ only a small percentage of these groups. In particular, it would be

very difficult to employ people with physical disabilities due to the nature of the jobs in the sector.

The case of the MAIN network highlights the importance of providing the private sector with mechanisms for participation in the design of solutions to their labour market imperatives. MAIN started to address the skills shortage in trades some time in advance of the Queensland Skills Plan, although the analysis MAIN companies performed on the impact of the mining boom on business was much less sophisticated than that conducted by the Queensland government. However, as these companies based their strategic analysis and planning around the direct local market impacts on their day-to-day work, they were able to move quickly and design a solution that targeted trades as the core skills needed by their businesses. Because the network includes state and local organisations that are also involved in the Queensland Skills Plan, it benefits from the analysis and strategies proposed in the Plan. It is also aware of the opportunities for extended partnerships with local agencies such as Skilling Solutions Queensland, which could provide a more tailored service for apprenticeship programmes for small and medium-sized enterprises (SMEs). Nevertheless, MAIN CARE is likely to continue operating mainly for the manufacturing sector in Mackay, as most of the companies are small and the benefits of the cluster model are evident. Enhancing local partnerships for a common local skills strategy would further strengthen the competitiveness of companies in MAIN, as well as the broader industry and community in Mackay.

However, some challenges associated with hyper-growth economies need to be noted. One of the difficult adjustments of Mackay's population has been the rising cost of housing. As the economic boom and the city attract more highly skilled and higher-paid professionals, the availability of housing has been dramatically reduced, leaving a growing demand. The result has been that disadvantaged groups are forced to move from their houses as they cannot cope with new rental prices. The instability of housing affordability only adds to the disadvantages already experienced by these populations in accessing sustainable employment, as they are moved further away from the centres of employment. This situation is very different from what is experienced in places where the economy is not that buoyant. It also suggests a different, rapid, urban gentrification that is normally only experienced in the big urban centres where the housing stock is greater and more diverse. Neither the Skills Plan nor the local strategies emerging in Mackay deal with the housing situation or the extent to which these disadvantaged groups can benefit from the current economic boom. Nor do they address the uncertainty over whether the skills these groups are acquiring are sustainable and transportable.

Scenario 2: Shrinking Cities – Broken Hill

Shrinking Cities are a global phenomenon also found in Australia; they are associated with processes of urbanisation-suburbanisation, climate change, and industrialisation. As the four major coastal cities (Perth, Melbourne, Sydney and Brisbane) continue to dominate the Australian urban system, another process at work is the consolidation of the major regional towns, which grow at the expense of smaller towns in their region. Some 245 local government areas (LGA) lost population numbers in the 2001 census, and this process is expected to continue (ABS, 2006). It is partly driven by changes in the agriculture economy, the out-migration of population (especially the young and educated) – now exacerbated by the drought – and the need for consolidation to gain economies of scale (Martinez-Fernandez and Wu, 2007). Another shrinkage process is occurring in industrial centres, where decline is characterised by the long-term population and/or economic decline of small and medium-sized cities servicing a mining site, a system of mining sites, mining settlements or a manufacturing industry. Many of these towns experience periods of both growth and shrinkage depending on international mineral and manufacturing markets.

Losing population, talent and skills can have a critical effect on shrinking cities[3] struggling to retain their population and businesses. Designing skills strategies for these cities requires approaches different from those for cities that are growing and where skills shortages therefore relate to strong industrial demand. The case of Broken Hill exemplifies ways in which these particular types of cities can renew their competencies in order to attract and retain their population, and involve firms in continuous learning.

Broken Hill is the largest regional centre in the western part of the state of New South Wales; it is 1 100 kilometres west of Sydney and 500 kilometres northwest of Adelaide. Broken Hill is Australia's longest-settled mining city, called variously over time the "Oasis of the West", "Silver City" and the "Capital of the Outback". Mining has been the main industry since the foundation of the town in 1883; the famous BHP Company (Broken Hill Proprietary) was the main mining operator until 1939. At its peak in 1952, the mining industry employed 6 500 people, with more than 30 000 people living in the city. Since then, Broken Hill has steadily declined to an estimated 20 223 people in 2006 and projections are for a further drop to 15 350 by the year 2031, with an annual average growth rate of -1.1.[4] Employment in the mining industry has declined from 51.26% in 1954 to 7.57% in 2001, and there are now fewer than 500 miners living in the town. The unemployment rate was 8.3% in 2006, well above the 4.6% national average.

Broken Hill's decline had a critical impact on skills supply and retention of the population. The challenges of remoteness, water shortages, annual

rainfall of less than 250 mm and summer temperatures of 40 degrees Celsius put further stress on the city's development. Approaches adopted by growing regions such as upskilling the workforce, increasing the number of training places and sponsoring overseas workers to meet local demand might not be suitable for a city that is shrinking. These types of cities need to work much harder at offering lifestyle choices and a dynamic business environment. For example, Broken Hill City Council is developing a total rebranding of the city as a postmodern cultural centre, and a place of creativity, with the objective of attracting and retaining creative, skilled people. As a result of these efforts Broken Hill and its environs have now entered the nominations for inclusion on the Australian National Heritage List. If successful, the listing will include 179 sq km, including buildings and the landscape. It would be the first entire city entering the National Heritage List (Williams, 2007).

However, the challenges of providing a dynamic business environment in a remote community in the Australian outback requires a much more sophisticated approach than what urban design strategies can offer. Although the state of New South Wales has a State Plan, a Vocational Education and Training Plan, and a series of agencies located in Broken Hill, the application of these plans to upskilling remote business production spaces had only limited success until 2004, when an innovative programme was launched. A key agency for desert regions, Desert Knowledge Australia – funded by the Northern Territory, but with programmes linking all desert regions – partnered with Telstra[5] and the Australian government in 2004 to create the Desert Knowledge Linking Business Networks (DKLBN) project under the Small Business Enterprise Culture Programme. The project was also supported by the Desert Knowledge Cooperative Research Centre (DKCRC), which started at about the same time, and by key participating agencies from Broken Hill such as the Outback Area Consultative Committee and the Broken Hill Chamber of Commerce.

The project started as a pilot programme for the training and mentoring of businesses in desert regions. It works to develop networks between firms in Broken Hill, Alice Springs, Mt Isa, Kalgoorlie/Boulder, and the Upper Spencer Gulf (Whyalla, Port Pirie and Port Augusta). The network has linked 329 businesses and 15 organisations from these five remote desert regions. The focus has been on four industries: mining services (40% of companies); bush products and local foods (10% of companies); tourism (35% of companies); and sustainable building (15% of companies). The majority of the firms involved in the project were very small – between 1 and 20 people – and most were micro companies of 1-2 people with small annual turnover.

The project delivered a total of 902 sessions from 2005 to 2006. Skills development sessions numbered 377, with 31 small businesses using the service. Participants in these sessions were owners and managers who were

trained on local/regional business skills and networking. Sessions addressed the following range of skills: human resources; business planning; industry-specific skills; marketing; information technology; and business clustering. Mentoring sessions numbered 525, with 329 small business owners/managers using the service. The mentoring services provided focused on business management and core industry capacity building in areas such as ICTs, regulation and finances, and technological innovation (Desert Knowledge CRC, 2006). As desert regions are located so far from each other, it was important to train and mentor "skills and network development facilitators" in each region. These were staff from the participating public institutions who would take the lead as DKLBN facilitators in their regions. In some instances, if a government department could not allocate a staff member to this role, the Chamber of Commerce or a business organisation would step in. All skills and network development facilitators have continued in their regional roles since the pilot project finished late in 2006. Video link and conference meetings are still being held across the desert regions, organised by Desert Knowledge Australia in co-operation with the skills and network development facilitators.

This project addressed an important constraint for desert businesses in Australia – their isolation from other businesses in different industries, from businesses within the same industry, from customers, from markets, and from publicly funded knowledge infrastructure such as R&D and training. As a result of this isolation, desert businesses tend to be self-contained and non-specialised, and service only local markets. As a consequence, these businesses are in a disadvantaged position compared to those in the coastal cities; they do not benefit from productivity improvements, do not serve profitable distant markets, and are less likely to tap into international networks. The objective of the mentoring and skills development services of the DKLBN was to built capabilities that enabled those involved to develop critical mass within regions and across borders. The project is unique in Australia because it covers large geographical distances, different time zones and different state/territory jurisdictions. Moreover, it involves local partnerships from different levels of government and a combination of local intra-industry networking, cross-border intra-industry networking, local cross-industry networking, and cross-border cross-industry networking. The investment in "networking skills" was therefore considered as a core capability to upskill employees.

An important lesson that has been learned is how the use of different technologies for communication can be effective in building trust and facilitating collaboration. One of the reasons why this has worked so well is that the long distance between cluster members does not allow for face-to-face meetings as in other cluster models. Therefore, participating business have had to become familiar with – and proficient in using – new media. They have

been able to develop collaborations with limited face-to-face contact. This experience also indicates that distance might limit lifelong learning and the training of employees in these remote areas, as participation in meetings and knowledge-intensive service activities outside their towns is very costly.

The model explored in this project is especially significant for shrinking cities, where attracting and retaining population is difficult, entrepreneurship is low, and out-migration tends to be concentrated on the young and skilled. The case of Broken Hill shows that to maintain the vitality of the city, local agencies have to work hard at positioning the city as something special that stands up on the strength of its own cultural heritage. However, this is not enough to overcome the tyranny of distance in a world where the marketplace is global. The linked business network project targeted the core of the problem by providing much-needed business networking skills, to enable companies to tap into both national coastal markets and international markets. The fact that they are forced to use ICTs as their main method of communication added an important skill to their business networking, as well as providing critical training that was then used to explore new markets miles away from the desert. Participating businesses have been exposed to a knowledge-intensive service activity, with tangible benefits, in a very short time.

The result of this project for Broken Hill is that businesses and employees are more capable of being connected to national and international networks, and in a more sophisticated way than was possible before this project. Cross-industry and cross-border networks also facilitate renewal of a broad range of skills that support economic success, and provide access to both the information and knowledge needed to survive in an accelerated-change marketplace. The challenge now is in sustaining the innovation momentum, and turning the skills acquired into commercialisation outcomes to sustain and grow their businesses.

Scenario 3: Global Cities

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% 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 occurred at multiple levels and by multiple agencies; then in 2005 the new "Metropolitan Strategy 2031" was prepared by the NSW government. The strategy departs from the image of Sydney as a city growing around the Central Business District; it instead shows Sydney as the "City of Cities", with Parramatta as the second CBD, Penrith 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 corridor. The strategy covers over 10 000 square kilometres and incorporates 43 local government areas (LGAs). It 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:

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 sub-regions and strategic centres. The employment capacity targets are compatible with and associated with sub-regional 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 (NSW Government, 2005).

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. The Economy and Employment strategy has three main aims:

- Provide sustainable commercial sites and "employment lands" in strategic areas.
- Increase innovation and skills development.
- 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 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 updating of employment lands in Sydney, with a budget of AUD 1 million; the release of greenfield land, particularly in the Western Sydney Employment Hub, to allow 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 into major redevelopment and renewal projects. In particular, local 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, along with employment targets for each, and to improve the liveability of these centres by 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 locations for local employment development.

The case of Western Sydney

The Metropolitan Strategy focuses particularly on Western Sydney as that city's strongest growth area, where greater attention needs to be paid to strategic urban management. Greater Western Sydney (GWS) is the fastest-growing economy in Australia, with a population of 1.85 million people who represent 43% of the Sydney population. The economic output for the region is AUD 71 billion (2004-05), 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% of which include the country's top 500 exporters. The major industry sectors are manufacturing, construction, property and business services, finance and insurance, and wholesale trade. The GWS region contributed a sizeable 41.3% towards the gross regional product (GRP) of the Sydney economy and 29.8% to the state of New South Wales. Of the large percentage of GRP contributed by GWS, 20.5% was from manufacturing, which is higher than the industry average for Sydney and NSW. Property and business services and finance and insurance industries follow 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 and 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 (NSW Government, 2005). Design of local employment and skills strategies needs 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 if smaller sub-regions are analysed. In relation to industry clusters, South-West Sydney – and specifically the area surrounding the LGA of Liverpool – is one 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% of Sydney's total manufacturing employment.[6] 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 (Martinez-Fernandez *et al.*, 2007).

In relation to the types of jobs in the area, again the whole region is far from homogeneous if three sub-regions are considered: North-West, including the LGA of Hawkesbury and Baulkam 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 demography of knowledge occupations similar to the Metropolitan Sydney average. Business and information-related employment is ahead in this area due to the location of strong business parks in the North-West. 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. The area, however, is ahead in engineering-based occupations, which are especially found in manufacturing industries (the strength of this region).

The demography of industry and occupations among these sub-regions is sufficiently varied to indicate that attention needs to be paid to specific local factors so as to design strategies that target the characteristics and needs of each. It also suggests that local policies can influence the focus of industry and institutions in training the workforce and on upskilling the population. For example, Central-West Sydney consistently has had the highest number of

apprentices among the three sub-regions since 2003. An analysis of policies designed by the local councils suggests that two of the councils in the North-West (Penrith and Blacktown) actually have the most innovative economic and employment development strategies. The role of industry development and infrastructure investment in these areas notwithstanding, it also needs to be acknowledged that a strong government framework for development and employment growth can have a positive influence on the capacity of the sub-region for learning and upskilling. This intertwining of local council's strategic plans with labour policy and the design of skills strategies therefore becomes extremely important for the rollover of the Metropolitan Strategy; it is difficult to foresee a successful implementation if this does not occur.

This case shows the potential for local labour policy to influence economic development – but social cohesion and innovative activity is not without its barriers, and the complexity of the task cannot be accomplished without the participation of multiple stakeholders from government layers, industry, and knowledge-providers.

Lessons for local employment policy and governance

The three scenarios discussed in this chapter exemplify the different skills imperative for cities and regions in Australia and the need for local labour policy instruments. The following lessons can be drawn.

There is a need to "customise" labour 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 Employment Planning (SEP), which acknowledges the complexity of creating employment. This form of planning is concerned with the *types* of jobs created, *where* they are created and *for whom* they are created. SEP is also concerned with promoting innovation activities, and with the development of available local pools of human capital.

An important process in SEP is facilitating industry clusters to take the lead in addressing skill shortages at the local level, which can result in creating skill-hubs for the current and future needs of the industry. This discussion has demonstrated the power of industry networks in both growing and shrinking cities. Investing in local employment strategies requires connecting talent with employers in ways that may be more sophisticated than simply offering recruitment or information services. Companies need support to initiate collaboration structures, where "thinking spaces" focused on skills and business development can take place. It is too hard for companies, especially those in declining areas, to obtain capital to create the organisational structure such clusters need. This is where governments and

local agencies can help through supporting clusters and networks to enable creation of skills-hubs. The investment is usually small, and the solutions companies come up with together are usually very well tailored to the local operating context. This local focus is difficult for agencies at the state or national level, and although overarching skills and employment plans are necessary, they also require the companies at the other end of the employment equation to fast-track solutions for their business.

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 from both private and public sectors on the skills available from these groups and the advantages of their employment. In rapidly growing areas, 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 hyper-growth economies, and a critical challenge for disadvantaged groups attempting to participate in the wealth creation of their city.

International mobility of workers from shrinking cities to growing cities is a rising trend calling for new roles and investments by local governments. More work is needed to understand the pressures occurring at both urban ends, the sustainability of the imported skills, and the significance of informal networks operating across international regions.

Skills strategies need to take a whole-of-region approach. The regions analysed here show the potential that exists to capitalise on the different collaboration schemes emerging from public and private organisations. Creating local employment alliances – where providers and users of knowledge and all stakeholders involved in skills development could come together to discuss their skills needs and initiatives, and to integrate their different knowledge into strategic plans that can later be implemented at their own organisation level – would bring enormous benefits to the scenarios exemplified here. The three scenarios also suggest that the approach needs to be customised: the same strategies would not work for growing regions, shrinking regions, and global cities.

The analysis of these scenarios suggests key reforms that can stimulate economic growth. One is the need to upskill the unemployed and the less qualified. Another is the need to tap into marginalised groups such as people

with disabilities, Indigenous people, and refugees. Focusing on urban infrastructure to boost productivity growth through reducing commuting time, providing affordable housing, reducing traffic congestion and providing services for parents such as childcare is a further key reform. Overall, a greater integration of where people live and where people work, concentrated around regional centres in metropolitan cities, is needed.

New models of network governance need to be explored, with closer collaboration between government departments involving planning, infrastructure, economic development, skills, and training. 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 an increase of social cohesion.

Notes

1. Australia is a federal parliamentary democracy with six states and two territories: Australian Capital Territory, New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria, and Western Australia.
2. Information regarding this network was collected through in-depth interviews with MAIN staff and other organisations in Mackay, December 2006 to April 2007.
3. Cities experiencing a decline in population and/or economic terms for a sustained period of time although spurs of growth can occur.
4. ABS population projections, June 2006.
5. An Australian telecommunications company.
6. Unless otherwise noted, all statistical material is drawn from the ABS 2001 and 1996 Census of Population and Housing, Journey to Work Data Set.

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