



brisbane
australia's new world city

brisbane economic series

issue one: december 2011
knowledge, labour, talent

foreword



Welcome to the inaugural edition of the Brisbane Economic Series, a bi-monthly publication produced by Brisbane Marketing's Investment Attraction team to provide vital insights into the city's business climate and investment and growth opportunities.

In this issue, three industry experts discuss how knowledge, labour and talent are key factors in Brisbane's economic performance – today and in the future.

For the past 20 years Brisbane has set Australia's pace for population growth with its population exceeding two million and expected to reach 3.9 million by 2056.

Brisbane's human capital is young, skilled, well-educated and culturally diverse which is attractive to investors seeking a city to establish their head or regional offices in Asia Pacific.

Testament to this is the growing global recognition of Brisbane's leadership in emerging knowledge based industries, such as the digital industries, mining technologies, infrastructure and as a world-class R&D hub.

At the heart of our city's knowledge culture is the formidable array of tertiary talent from three leading universities. These world-class institutions have attracted talent from around the world, who along with graduates from Australia, are choosing Brisbane as their home due to our generous career and lifestyle benefits.

Earlier this month, the Lord Mayor's Economic Development Steering Committee, established as part of my commitment to boost hope, confidence and community for Brisbane businesses, outlined a number of recommendations in the "[Brisbane's Window of Opportunity](#)" Report focused on how Council can better support businesses, encourage investment and create jobs.

The Report's recommendations support my vision for a creative, sustainable and prosperous city and will help drive Council's economic development agenda.

GRAHAM QUIRK
LORD MAYOR OF BRISBANE

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Issue One



Collaboration fuelling transformation: the spirit of partnership and a focus on outcomes in Brisbane's universities lies at the heart of the city's transformation.

**PROFESSOR PETER
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**VICE-CHANCELLOR,
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Investment in education is essential to sustaining competitiveness and excellence in performance.

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**DIRECTOR EXPANSION PROJECTS
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“Boomtown” – workforce planning and labour strategies to support growth and meet demand for skills.

BEN WILLIS

SPECIAL COUNSEL, FRAGOMEN



Policymakers have, since the 1990s, been aware of the emerging “knowledge economy” and the potential for universities to be hubs for creativity and innovation.



As recently as two decades ago, Brisbane’s economy was built primarily on its natural advantages, with tourism, resource industries and agriculture all central to its development up to that time. Since then, the city has changed fundamentally, now home to thriving and diverse groups of people, infrastructure and industries. Universities have been a major player in this transformation and will help drive future innovation and development, as Brisbane establishes itself further as a major international capital. It will do so in a world dominated by the rise of Asian countries, faced with enormous environmental and social challenges but also in which technology and knowledge are exploding in growth and pervasiveness, and enabling ever better exchange of ideas and innovations. Tapping into these rich flows of human ingenuity will deliver huge public and private benefits.

Collaboration fuelling transformation: the spirit of partnership and a focus on outcomes in Brisbane’s universities lies at the heart of the city’s transformation.

PROFESSOR PETER COALDRAKE AO
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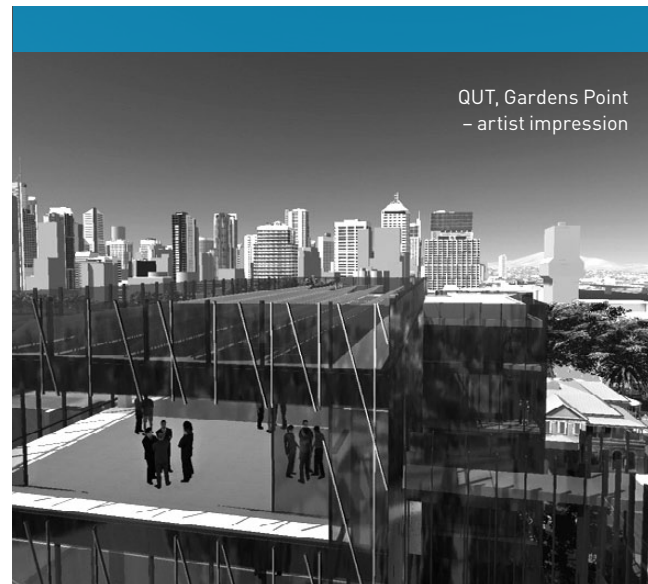


Policymakers have, since the 1990s, been aware of the emerging “knowledge economy” and the potential for universities to be hubs for creativity and innovation, with the relationship between Stanford University and Silicon Valley being the archetypal example. With this in mind, Queensland has led the other States in making strategic investments that dovetailed with Federal government support for higher education, research and innovation. These have enabled the State’s universities, and those in Brisbane in particular, to play a key role in building a

creative and innovative culture and workforce.

In research as well as education, being world class means having the facilities and reputation for quality to attract talent from around the globe, and to enable them to have productive interactions with others.

Brisbane's universities have therefore been transforming themselves along with the city, and linking themselves as widely as possible with the broader community in doing so. At QUT this has been reflected in the development of the Kelvin Grove campus, where we have state-of-the-art health research facilities alongside a major Creative Industries development, all co-located with residential, government, business and community facilities in the Kelvin Grove Urban Village. At Gardens Point a similar major development is underway, where Federal, State and philanthropic sources have contributed to a \$230 million Science and Technology Precinct and Community Hub (opening in 2012) which will house advanced research facilities, outstanding education spaces and engaging environments for the campus community and the public to enjoy.



Brisbane has built a particularly strong presence in the health and biosciences fields, linking researchers in universities with colleagues in hospitals and other research agencies. The University of Queensland has been able to draw on opportunities for major investment from government and philanthropic sources to build its Biosciences Precinct which brings together scientists from CSIRO and the University's Institute for Molecular Bioscience. Headlining such collaborative efforts is the new \$354 million Translational Research Institute, a joint venture between The University of Queensland, QUT, Mater Medical Research Institute, and Princess Alexandra Hospital, which will be Australia's most advanced centre for linking medical research with clinical trials, biopharmaceutical development and patient care.

Beyond the health sphere, this spirit of partnership and focus on outcomes is reflected widely throughout the work of Brisbane's universities. QUT and Brisbane Airport Corporation have enjoyed a working partnership for more than a decade, leading to a major research program which has won significant competitive research funding support from the Federal Government. This Airports of the Future program draws together researchers from many disciplines to work with 33 research partners across the globe, including MIT and The University of Melbourne, as well as airlines, airports, service providers and government agencies. The aim is to improve the safety, security, efficiency and passenger experience within Australian airports by developing an integrated and adaptive complex systems approach for the design, management and operation of airports.

Brisbane's universities also work in partnership with government and business to ensure that graduates have appropriate work experience and skills which match the needs of the local economy. Each year more than 20,000 Australians graduate from Griffith, QUT and UQ, along with a further 10,000 overseas students. The growth in numbers of international students in Australia's universities has been a particularly prominent feature over the past two decades, rising from a relative handful to some 30,000 people from other countries studying at



universities in Brisbane today. International education is worth some A\$2.3 billion to Brisbane, making it the largest export sector in the greater Brisbane region. Over the years hundreds of thousands of people will have studied and lived in Brisbane and then gone on to their own careers, many in prominent government and business positions around the world. The networks and foundations laid by this activity are enduring and will reinforce strong links between Brisbane and international markets.

The American urban theorist, Richard Florida, has long championed the idea that urban economic development needs more than technical skills and industries, also relying on vibrant and diverse creative cultures and communities. In Brisbane this is clearly on display, and universities have also played a central role in the flourishing arts and creative scene. Universities operate their own high quality public art galleries, and host cultural events, as well as integrating their offerings in the performing and creative arts with public venues and performances. Precinct developments such as QUT's Creative Industries at Kelvin Grove and Griffith

University at Southbank (including their Queensland Conservatorium of Music) further underline the porous nature of the boundaries between universities and the wider community that characterise Brisbane.

While the changes that have taken place in Brisbane are striking, they are just the beginning. The resources boom will have a major impact on this State and its capital, and Brisbane's position as a subtropical highly-skilled and innovative city in the new Asian century sees it poised to grow economically and socially over the years ahead. This will require many more people with the skills to adapt and thrive in a globalised world, and to manage the huge infrastructure and environment challenges that such growth will entail. The Federal Government has put in place policies to expand university places and to widen participation in university study by people



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from disadvantaged backgrounds. Such expansion must maintain the highest standards of international quality if it is to meet the demands of a complex and constantly changing future and Brisbane's universities are well placed to meet this challenge. They will continue to serve as engines of innovation and places where human potential can best be developed to make this city a great place to work and live. ■

Professor Peter Coaldrake is Vice-Chancellor and CEO of Queensland University of Technology (QUT), a position he took up in April 2003. He previously had been Deputy Vice-Chancellor in the same institution, and prior to that served for four years as Chair (CEO) of Queensland's Public Sector Management Commission, the body established by the Goss government to overhaul Queensland's public sector.

Peter Coaldrake is a dual Fulbright Scholar, as a Postdoctoral Fellow in the field of politics/public policy (1980 – 1981), and as a Senior Scholar in the field of higher education policy and management (2001 – 2002).

In May 2011, he completed a two-year term as Chair of the Board of Universities Australia, the peak body of Australia's universities. In January 2011, he became Chair of the Board of the Organisation for Economic Development – Institutional Management in Higher Education (OECD-IMHE).

www.qut.edu.au



Over the next five years, the Queensland mining industry is estimated to increase its workforce by almost 20 per cent.



Daniel Havas, Director – Brisbane Marketing Investment Attraction, interviews Jason Economidis – Director Expansion Projects Australia, for mining company Vale, whose global coal division is headquartered in Brisbane.

JASON ECONOMIDIS

DIRECTOR EXPANSION PROJECTS AUSTRALIA, VALE

DH Vale's headquarters for its global coal division is located in Brisbane with tenements and mining operations across Australia. How importantly is Australia positioned as a key investment destination for Vale over the next decade?

JE Vale is a global company that's active on five continents in 38 countries. Suffice to say, with more than 1,300 employees and 10,000km² of tenements here in Australia, and our global coal headquarters well-established in Brisbane, Australia is very firmly on the Vale radar.

Importantly, Vale has a long-term commitment to Australia. This is no flash in the pan, passing interest. Looking ahead, we want to be a leader in Australia's coal industry. We're embarking on a major journey of growth and have clear plans for a big future in Australia. We have a ten year growth strategy in place and our goal is to become one of Australia's top four coal producers, and the second largest player in the global seaborne coal market by 2021.

Looking at the big picture, we know we will only achieve this growth if we invest in the professional development of our people and innovation in our business; improving the way we operate and striving for excellence through these improvements.

DH Vale has spent considerable time thinking about their enormous skills requirements based upon their potential investment in Australia. How will Vale address the skills shortage?

JE A shortage of skilled and unskilled people is an issue faced by the entire mining industry – and there's an inevitable flow-on effect to other industries in Australia.

Over the next five years, the Queensland mining industry is estimated to increase its workforce by almost 20 per cent. Here at Vale we anticipate that our workforce needs will more than treble across the next eight years – growing from 1,300 employees in 2011 to almost 4,900 by 2019.

Increasingly, it's being acknowledged that mining companies must turn to non-traditional geographical sources of labour.



Faced with this challenge and our commitment to delivering on our growth strategy, we're proactively working with Government, industry and the education sector to help address the skills shortage issue. Collectively, we all have a shared responsibility to tackle the issue and develop sustainable solutions. As an international company working within the growing Australian resources sector we have an especially important role to play in creating jobs for Australians.

Increasingly, it's being acknowledged that mining companies must turn to non-traditional geographical sources of labour and the options presented by fly-in-fly-out (FIFO) and drive-in-drive-out work (DIDO) practices. Like most companies operating in the resources sector, Vale views FIFO and DIDO work practices as a critical way of broadening the search for talent and tapping into a deeper pool of skilled labour. Alongside the increasing number of job applications we receive from interstate locations, our recent participation in the Queensland Government's Work for Queensland Mining and Gas Jobs Expos certainly indicates there's skilled labour from regional coastal locations interested in pursuing a career

in the mining industry when FIFO and DIDO employment conditions are an option.

Naturally, training and development are also key components of any skills solution strategy. So alongside the Vale professional development programs, we're working with academic institutions in cooperative agreements to ensure we have access to the right people and the best available intelligence to continue to develop Vale in Australia.

DH One of the many ways companies are gearing up for this challenge is through partnerships and links with key academic institutions. What sort of partnerships does Vale have in place and is looking to develop to ensure growth can be achieved?

JE In December 2010, Vale signed a five year, \$2.5 million agreement with the University of Queensland (UQ) to establish the Vale-UQ Coal Geosciences lab, specialising in coal geosciences technology.

The creation of Vale's global hub of coal geosciences education, research and training at UQ reflects our commitment to significantly expanding operations in Australia through an organic growth strategy of developing existing mines and opening new mines. Along with the development of five important research projects, our partnership with UQ also represents an important element in our broader strategy to attract the best and brightest employees.

The training program that forms a key component of our partnership with UQ will help us meet our workforce skills and capability requirements here in Australia and also internationally. It's a way for us to start developing our own people and potential new employees; plus it gives us a significant edge in terms of skills, training and development and career opportunities. Beyond the immediate and obvious benefits to Vale, this initiative also stands to benefit the broader mining industry with increased expertise and capability being developed here in Brisbane.



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DH **Advancements in technology continue to have a huge impact on the mining industry. How will technology affect the labour and skills requirements of the mining industry over the next decade?**

JE Vale always aims to be at the forefront of new mining technologies. The company has a global reputation for its entrepreneurial spirit and has pioneered a number of leading technologies which are now commonplace in the mining industry. In fact, at the global level in 2010 Vale invested US\$1.136 billion in research and development and a further US\$1.986 billion in 2011.

We're entirely committed to evaluating the suitability of new generation mining methods as we seek to create more efficient, sustainable solutions for our mines. By way of example, right now we're working with the CSIRO to develop better longwall automation technology that will improve underground operational processes to ensure better safety, greater efficiencies and minimised workforce demands.

DH **What strategies do global mining companies such as Vale need to implement to retain and develop their existing workforce?**

JE The Vale culture is about energy, enthusiasm, contribution and being able to make a difference with what we do at work and beyond. We know that people are our most valuable resource and are integral to us achieving our ambitious growth plans.

Across Vale in all our spheres of activity we're committed to the development of our people and providing an enjoyable working environment that reflects the diversity of our global activities. We reward and recognise performance and achievement, and training and professional development is ingrained in our organisational culture. Investment in education is essential to sustaining Vale's competitiveness and excellence in performance, and is a key part of our strategy for attracting, developing

and retaining qualified professionals. Globally, the company brings to life its commitment to training and development through Valer – a dedicated educational arm of the company that was created to stimulate continuous learning among our employees and provide educational activities both inside and outside the company.

As an international company, Vale also operates a global employment program which offers our employees opportunities within the company throughout the world. And for those starting out in their careers, Vale offers great opportunities through our global graduate program.

Jason Economidis joined Vale – the world's second largest mining company – in September 2011 as Director Expansion Projects Australia.

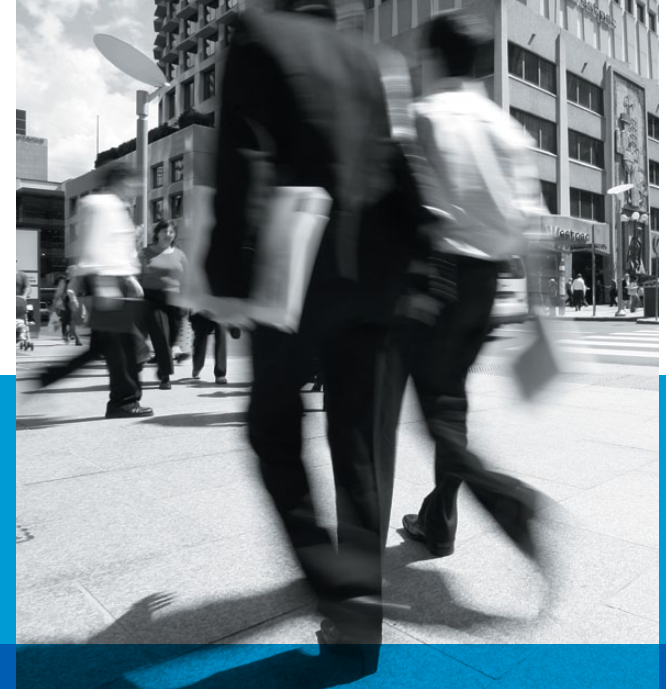
Jason began his career as an underground miner with Capricorn Coal Management (now Anglo Coal), and over the ensuing 25 years has developed into one of the Australian mining industry's most experienced senior executives.

Prior to taking on the role of Director Expansion Projects, Jason spent several years with BHP Billiton Mitsubishi Alliance in roles including Vice President of the Health, Safety, Environment and Community portfolio and General Manager of Caval Ridge and Goonyella Riverside Mines. Jason has also held a number of senior positions with Roche Mining (now Downer EDi Mining) a division of EDi.

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Brisbane, as the professional services hub for much of Queensland's resources sector activity is expecting a growth of 343,000 jobs by 2021



“Boomtown” – workforce planning and labour strategies to support growth and meet demand for skills.

BEN WILLIS

SPECIAL COUNSEL, FRAGOMEN

Australia is experiencing an unprecedented economic boom in the resources sector and with ample opportunity for enterprise, many businesses both Australian and foreign, are clearly keen to be involved. However as the number of resources projects continues to grow, so too does the concern that the skills needed to construct and operate these projects may not be available within the local labour market. Brisbane, as the professional services hub for much of Queensland's resources sector activity is projecting a growth of 343,000 jobs by 2021,* and to realise this growth government and industry alike will need to ensure that effective labour strategies are available to employers. It is now widely recognised that one of these strategies must be easier access to overseas workers.

Brisbane sits in a prime position for investors in the region's resources boom, and will be a key source of labour for Queensland projects. The last few years has seen a significant growth in the number of companies establishing operations in the city with many businesses, whether they be project owners, contractors, or consultants, choosing to base their operations in

Brisbane. Similarly, other companies have selected Brisbane as the most practical and valuable base for their operations in Papua New Guinea.

However, like other regions experiencing strong economic development, most notably Western Australia, Brisbane and Queensland face the challenge of attracting and retaining the skills needed to support its growth. While there will continue to be a strong demand for managers and professional level staff, a more immediate concern is the need for trades workers and technicians, as well as semi-skilled construction labour for projects coming online.

The most convenient and cost effective option for employers is to recruit locally, and most businesses will try this avenue first. Ideally, a suitable candidate can be found within the area, if not, interstate. Where a qualified and experienced person is not readily available, employers may choose to invest in training a graduate or apprentice. The Australian Federal Government is investing heavily in supporting training opportunities for Australians, having allocated \$200 million to the Critical Skills Investment Fund (CSIF), which in partnership

* Source: Regional Development Australia 'Skill Shortages in the Greater Brisbane Labour Market 2012-2021'



business visa program, which allows an approved business to sponsor an unlimited number of foreign workers into skilled occupations for up to 4 years at a time. The 457 program is designed for easy sponsorship of skilled occupations (occupations that require at least an Australian Qualifications Framework (AQF) Certificate III qualification or three years of relevant work experience) including managers, professionals, and some trades workers and technicians. It is a great option for businesses needing more highly skilled workers as the process is well established and provides a level of speed and certainty. The Australian Government has recently confirmed its commitment to enhancing the 457 program by directing A\$10 million to establish an additional processing centre in Brisbane in an effort to reduce standard processing times to five days for sponsors operating in the resources sector (currently the average time is two to three weeks).

In order to recruit quickly and effectively it is important to understand the range of immigration avenues available and know which will best suit the business's needs.

Where an employer needs to fill less skilled positions they can negotiate a Labour Agreement directly with the Department of Immigration and Citizenship (DIAC). A Labour Agreement is a formal contract between the employer and DIAC, which allows the business to sponsor a certain number of foreign workers in specified occupations. Any Australian business or organisation can negotiate a Labour Agreement if it can demonstrate that there is a genuine and on-going need for the recruitment and employment of overseas workers in those occupations. A Labour Agreement can provide significant benefits for an employer, the major advantage being the ability to negotiate to vary the standard rules that otherwise apply when sponsoring a 457 worker. This could include the ability to nominate occupations with lower qualification and work experience requirements, or to lower the English language levels that are required for some overseas workers.

with industry, is training new workers and up-skilling existing workers in industries currently facing skills shortages. To complement this initiative Federal Government has also introduced the Skills Connect program, providing \$109 million over the next year to help transition workers from sectors that are experiencing structural adjustment to sectors in which skilled labour is in strong demand.

Where it is not possible to find suitably skilled Australians and where workers are needed quickly, many employers will obviously look overseas to fill the gap. Recruiting overseas can be a challenge and is a process that requires careful planning, execution and management. In order to recruit quickly and effectively it is important to understand the range of immigration avenues available and know which will best suit the business's needs.

The most commonly used vehicle for employing foreign workers is the subclass 457 temporary



In response to the expected labour needs the Australian Government recently introduced two key initiatives to encourage migration to regional Australia, for resource project work as well as for the services needed to support rural communities. The first initiative is Enterprise Migration Agreements (EMAs), which are designed specifically to meet the staffing needs on "mega" resources projects, with a capital expenditure of at least A\$2 billion and a peak workforce of more than 1500 workers. An EMA acts as an umbrella agreement to cover the entire construction phase of the project and provides contractors the ability to sponsor workers in a much broader range of occupations.

As an example, Multi Corp is the owner of a future coal mine in central Queensland. The construction phase for the mine is about to start and there will also be an associated rail link to the nearest port. Multi Corp has appointed an EPC contractor for the mine and directly entered into agreements with a number of specialist contractors for the rail link. For the mine construction Multi Corp can endorse the EPC to enter into an EMA and this will permit all their contractors to obtain fast tracked template agreements. For the rail construction Multi Corp can enter into its own EMA so that its contractors and any sub-contractors can obtain template agreements if the need arises.

The second initiative is Regional Migration Agreements (RMAs). Similar to an EMA, an RMA is designed to be an agreement for an entire region, rather than a project. Again the major benefit of an RMA is in the ability to sponsor more occupations and negotiate concessions to the standard 457 visa rules. RMA's are an ideal option for businesses operating in areas which have seen a loss of workers to local resource projects, such as in the following circumstances:

Dad and Dave construction has recently lost three excavator operators to the large mining projects in the area and without operators their contracts can't be completed. Fortunately, their local chamber of commerce has negotiated an RMA with the Government for the area which permits Dad and Dave to enter into a template agreement under the same terms and conditions. The RMA allows for excavators to be sponsored to Dad and Dave's area, and they can now access these workers from overseas directly.

The Government has also placed permanent employer sponsored migration as the top priority for the overall migration program. The two most frequently used visas for this type of migration are the Employer Nomination Scheme (ENS) and the Regional Sponsored Migration Scheme (RSMS). The RSMS is particularly flexible in



that it allows employers to nominate a very broad range of positions for sponsorship, and is not restricted by an occupation list, and although the minimum skills requirement is an AQF Diploma level qualification this can be waived if position is considered 'exceptional'.

Whilst immigration falls under the jurisdiction of the Commonwealth the individual State and Territory Governments have an important role to play in identifying occupations that are in demand in their respective regions, and which occupations they will support through the concept of "state sponsorship". Under the General Skilled Migration Program state sponsorship is available for people who wish to migrate to Australia without already having an employer, and who are skilled in the occupations identified in a State list. The Queensland Government, in collaboration with local government and industry, has a great opportunity to assist businesses by taking the necessary steps to ensure the lists include occupations in clearly identified growth sectors such as health care, science and technical services, and construction.

Brisbane stands to gain immense benefit from the resources boom, both as growing international city and as a hub for regional workforces. Through immigration and workforce planning businesses can take advantage of numerous immigration options, whether it be for immediate skills shortages or for long term development. ■

Brisbane stands to gain immense benefit from the resources boom, both as a growing international city and as a hub for regional workforces.



Ben Willis is the Practice Leader and Special Counsel in Fragomen's Brisbane office. Ben is an Accredited Immigration Law Specialist and has practised exclusively in the area of immigration law since 2004, largely specialising in corporate immigration. Ben has a wealth of experience in dealing with clients operating in all industries and sectors. In addition to working with clients on temporary and permanent business entry programs, Ben also provides strategic and commercial advice on workforce resourcing and planning often culminating in various types of Agreements including Labour Agreements, Work Agreements, Enterprise Migration Agreements between industry and the Commonwealth Government.

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acknowledgments

SPECIAL THANKS

Brisbane Marketing is indebted to our special contributors for their generous involvement with the Brisbane Economic Series, namely:

Professor Peter Coaldrake AO, Vice-Chancellor, Queensland University of Technology

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We drive economic and social benefits to residents and business by profiling Brisbane globally as Australia's new world city and as a destination for business investment, export, international students, conventions, tourism, major events, and CBD retail.

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