

**Geelong Education
& Workforce Profile**
2011 - 2021

CONTENTS

“ Skilling the Bay brings together education providers, community organisations and industry... Skilling the Bay fosters and supports partnerships and links initiatives to measurable outcomes....”

[Comment from Consultations]

1.0 Executive Summary	02	6.4.2 Revitalising Central Geelong Action Plan (2016)	42
1.1 Transitioning Geelong to a New Economy	04	6.4.3 Greater Geelong: A Clever and Creative Future (2017)	43
1.1.1 The Achievements	04	6.4.4 UNESCO Geelong City of Design (2017)	43
1.1.2 Work to be Done, Now and into the Future	04	7.0 Skilling The Bay 2011 – 2019	44
1.2 Skilling The Bay's Contribution	06	Table 3: Summary of Skilling The Bay	
1.3 A Future for Skilling The Bay: Beyond The Horizon - An Organising Force For Change	07	Goals and Initiatives	44
1.3.1 A New Learning Model	07	7.1 Skilling The Bay Stages and Achievements	46
1.3.2 A New Business Model	09	7.2 Trust, Vision & Consistency	50
1.4 Recommendations	10	8.0 Service Provision in Geelong: Current Stakeholders and the Role of Skilling The Bay	52
2.0 Introduction	12	9.0 Beyond The Horizon: Reframing Skilling The Bay For Stronger Collaboration & Innovation	54
3.0 Methodology	14	9.1 Ongoing Change to the Region's Economy	54
4.0 Geelong Economic Context	15	9.2 Three Case Studies of Placed-based Innovation	55
4.1 Geelong's Economy and Labour Market: 2006 - 2018	15	9.2.1 Western BACE	56
4.2 Geelong's Economy and Labour Market Today	22	9.2.2 Canberra Innovation Centre	57
4.2.1 A Steadily Growing Economy	22	9.2.3 Hunter Research Centre	58
4.2.2 Areas of Entrenched Disadvantage	24	9.2.4 Features in Common: Western BACE, CBRIN and HRF	58
4.3 Labour Market Policy and Participation Trends (Positive and Negative) Impacting on Geelong	25	9.3 Skilling The Bay: Embedding Education 4.0 and Operating Beyond The Horizon	59
5.0 Geelong Education Context	27	9.4 Embracing The Future: Transitioning to a New Strategic and Operational Model	61
5.1 Geelong Region Education Trends	27	9.4.1 Governance	61
5.2 Global Trends and Learnings	32	9.4.2 Business Model	63
5.3 Partnerships Between Education and Industry	33	9.4.3 New Capabilities for Skilling The Bay	64
5.4 Assist Disadvantaged Learners into Education and Employment	34	9.4.4 Transitioning Existing Skilling The Bay Initiatives and Exploring Possible New Initiatives	65
5.5 Vocational Education and Training	36	10. Conclusion	67
5.6 University Education in Australia	38	11. Recommendations	68
5.7 Adult Education and Learn Locals	39	12.0 Acknowledgements	69
6.0 Space And Place	40	12.0 Tables & Charts	69
6.1 Place Based Strategy and Policy Context	40		
6.2 National Context	41		
6.2.1 Statement of Principles for Australian Innovation Precincts: Place-based Partnerships Building Competitive Strengths (Oct 2018)	41		
6.2.2 Smart Cities Plan (2016)	41		
6.3 State Context: Creative State 2016-2020	42		
6.4 Space and Place Geelong Context	42		
6.4.1 Geelong City Deal (2019)	42		

1.0

EXECUTIVE SUMMARY

Geelong, in 2019, is a collective narrative of community transition, structural adjustment and economic transformation. Ten years ago, Geelong was reliant on traditional heavy manufacturing and large multinational companies as major employers. As it looked forward to the decade ahead the community began to recognise the significant exposure it faced to a rapidly changing global economy, and the urgent imperative for it to mitigate the impending impacts of structural adjustment through the creation of new industries able to compete in a modern world.

Skilling the Bay is a Geelong region initiative led by The Gordon Institute of TAFE and delivered in partnership with Deakin University and the Victorian Government. Established in 2011, the role of Skilling the Bay is to investigate and deliver education, employment and innovation initiatives that support Geelong businesses and workers as they transition to the new economy.¹

The Geelong Education and Workforce Profile 2011 – 2021 has been commissioned by the Skilling the Bay Advisory Group to capture the changes that have happened in the Geelong economy over the past 10 years, assist with its forward planning, inform decision-making and determine what role, if any, Skilling the Bay should play in the future.

¹Skilling the Bay, viewed October 2019 <www.skillingthebay.com.au>



1.1 TRANSITIONING GEELONG TO A NEW ECONOMY

1.1.1 THE ACHIEVEMENTS

Over the past decade change has indeed been forced upon Geelong's economy. The closure of a number of large and iconic businesses, such as Ford and Alcoa, led to the loss of thousands of jobs, and impacted on the viability of smaller enterprises reliant on the manufacturing supply chain.

The real story of change, however, lies in the response of the Geelong community, business, industry and Governments in developing a new and more diverse economy, where activity is dominated by small to medium size enterprises (SMEs), and where all industry sectors, with the exception of manufacturing, experienced strong growth across the 2011 – 2016 years.²

In August 2019 the unemployment rate for Geelong (SA4) was 5.6%, just 1.0 point higher than the Victorian unemployment rate (4.6%) and 0.5 points higher than the Australian unemployment rate (5.1%).³

The major employing industry in the region is Community Services and Health. With Advanced Manufacturing now on the rise, it is reasonable to expect that the 2021 Census data collection will show an upward trend across all industry sectors.

The location of major government instrumentalities in Geelong, such as the head office of the National Disability Insurance Scheme, Transport Accident Commission and Victoria's Worksafe has increased the number of professional employment positions and led to Geelong being known colloquially as the social insurance capital of Australia.

An additional key driver to the health of Geelong's business sector is population growth. The population of the City of Greater Geelong is growing and in 2019 is at 257,180. It is forecast to reach 393,216 by 2041, a change of 52.9%.⁴ This growth will continue to fuel economic activity and challenge education and skills providers to change where and how they deliver services to these new Geelong communities.

1.1.2 WORK TO BE DONE, NOW AND INTO THE FUTURE

The figures overall for workforce participation and unemployment in the region can, however, mask the fact that there are significant pockets of disadvantage in the Geelong area where it is much more difficult for individuals to transition from shrinking industry sectors to those that are experiencing growth.

Approximately 35,000 people in the G21 region live at or below the poverty line, the equivalent of 10% of the regional population.⁵ In Corio and Norlane the unemployment rate is currently sitting at 21.6%,⁶ and in Whittington at 18%,⁷ more than three times the average for Geelong as a region and almost four times the national average.

Whilst adjustment to Geelong's industry mix has led to a far more diversified economy, the economic context is continuing to change and challenge the region.

²2016 Census data

³<https://www.geelongaustralia.com.au/business/statistics/article/item/8d01ea2f399573d.aspx>, August 2019

⁴<https://forecast.id.com.au/geelong>

⁵https://www.parliament.vic.gov.au/images/stories/committees/eic-LA/Submissions/080_G21_-_Geelong_Region_Alliance_2019.08.06_Redacted.pdf

⁶ibid

⁷<https://grow.g21.com.au/wp-content/uploads/pdf/GROW-Data-Placemats-Whittington.pdf>

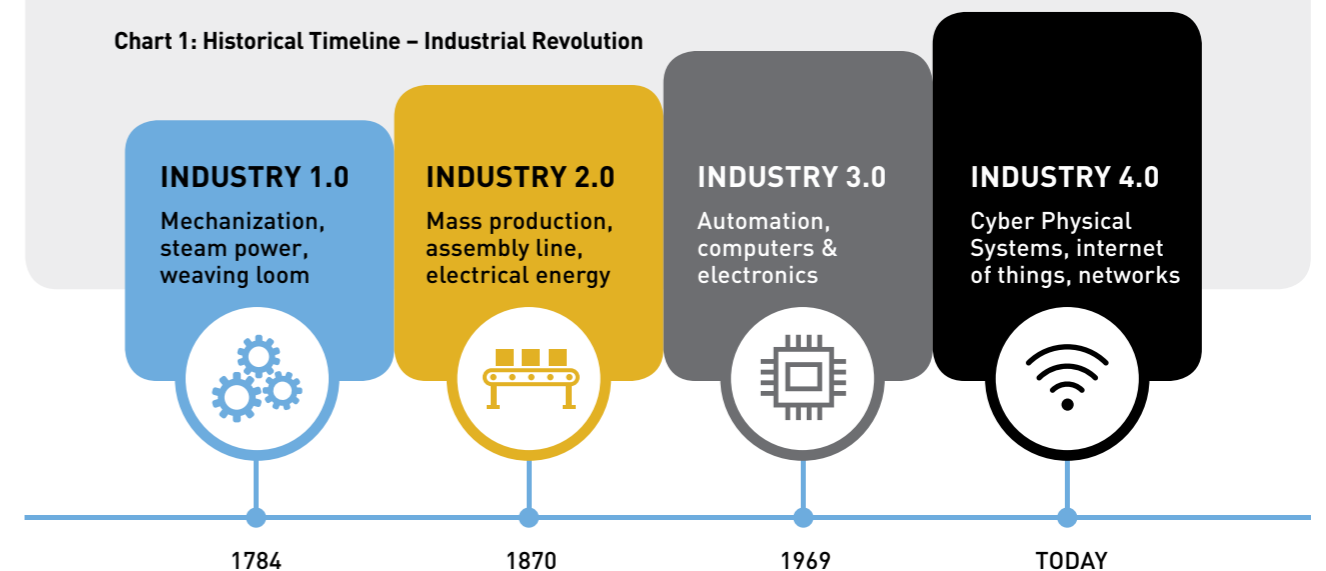
⁸Jobs lost, jobs gained: Workforce transitions in a time of automation [2017]

The fourth industrial revolution, **Industry 4.0**, is currently embedding smart, connected technology to transform economies, jobs and societies. The McKinsey Global Institute⁸ states that for advanced economies, up to a third of the total workforce may need to learn new skills or find new work in new occupations. In the G21 Region this could mean that over the next ten years

upwards of 75,000 jobs⁹ will be impacted by technical revolution. Displaced workers will need to develop new skills, find new jobs and navigate an increasingly complex labour market. Whilst the industry 4.0 economy will see the creation of many jobs, these jobs will require new and different skills.

What is Industry 4.0 – the world's 4th industrial revolution? The diagram below encapsulates the history of industrial revolution, with a timeline showing the move away from reliance on agrarian economic systems into, with the advent of steam power, heavy manufacturing, and forward to today's economy where physical and digital technologies are combining through "**analytics, artificial intelligence, cognitive technologies, and the Internet of Things (IoT) to create digital enterprises that are both interconnected and capable of more informed decision-making**".¹⁰

Chart 1: Historical Timeline – Industrial Revolution



The changing nature of the economy is driving employer demand for a higher skilled workforce. In Australia we can see that the share of employment in occupations requiring a Bachelor Degree or higher qualification has increased from 23 per cent in 1988 to 32 per cent in 2018.¹¹

The data relating to educational attainment trends in Geelong shows that Year 12 completion rates are rising. In 2006 the Year 12 completion rate in the G21 region was 39.9%. Since that time the completion rate has improved to 50.6% of the G21 region population (aged 15 years and over) but, even with significant improvement, it remains below the average for Victoria (59.4%).¹²

Ontrack data¹³ show us that of the students completing Year 12, 46% are going on to university, with another 20% into an education/employment pathway.

Many of the growth opportunities that are likely to become available within the region in the future will require some form of post-secondary qualification.

The region continues to face challenges connecting young people and adults with education post their secondary schooling. If Geelong is to optimise the outcomes from competition in a global economy, it will need to lift post school education rates to the levels of other international cities, such as Seodaemun-gu in South Korea where 60% of a population of 324,000 hold post school qualifications, and where the level of education is directly attributed as the key factor in the country's strong economy.¹⁴

⁹Geelong Advertiser, Our Jobs Future: Rise of the robot to hit job market, 2017, quoting 2016 ABS employment data predicting 74,898 jobs with a high probability of being lost to computerisation or automation by 2030 and Nathan Taylor, chief economist for CEDA in Australia's Future Workforce Report 2015

¹⁰www2.deloitte.com, Industry 4.0 Are You Ready?, 22nd January 2018, Accessed 17th March 2018

¹¹Australian Bureau of Statistics 2018, Labour Force Australia – Quarterly, November 2018,

¹²<https://forecast.id.com.au/geelong>

¹³<https://education.vic.gov.au/ontrack> – victorian on track report

¹⁴2019 International Conference on Learning Cities, Plenary – Governance structures to support inclusive policies, Mr Seok-Jin Mung, Mayor Seodaemun-gu, Republic of Korea

1.2 SKILLING THE BAY'S CONTRIBUTION

It is clear from stakeholder consultations and available data that Skilling the Bay has played a key role over the past eight years in assisting Geelong in its response to the skills challenges associated with a volatile local economy.

The Victorian Government invested \$14.8 million (GST Inclusive)¹⁵ into the Skilling the Bay initiative from 2011 - 2020, with the aim of:

- Raising educational attainment levels;
- Increasing workforce participation through training and re-skilling;
- Growing existing and emerging industries through targeted skills development.

The **collective impact** of Skilling the Bay programs is far reaching; enabling thousands of people across Greater Geelong to participate in education and training initiatives to gain the skills needed to participate in work now and into the future.¹⁶

The implementation of Skilling the Bay initiatives has informed the development of new programs, with one example being the approach of the Geelong Workforce Development Centre to providing training and career advice to vulnerable and retrenched workers. This initiative informed the design of the current state-wide Skills and Jobs Centre initiative.

Skilling the Bay initiatives have also focused on:

- Building science, technology, engineering and mathematics (STEM) skills;
- Supporting small and medium size business identify and develop the skills they need to support future growth;
- Engaging students in opportunities to explore the Community Services and Health sector, Advanced Manufacturing and tertiary study options.

Skilling the Bay was selected as a finalist in the 2017 and 2018 Victorian Training Awards in recognition for its work on **Industry Collaboration and the Skills for Advanced Manufacturing in Composite Materials, and for its work on Careers in Community Services and Health.**¹⁷

One of the key goals for Skilling the Bay in 2013 was to lift workforce participation in the region. The 2006, 2011 and 2016 Census data shows that overall the numbers increased by 20% (from 100,772 to 120,977)¹⁸ across the Census periods.

Stakeholders highly value the Skilling the Bay model for customised place-based delivery of skills training and capability building and its focus on bringing organisations together on the ground to facilitate collaboration, sharing of resources and development of local solutions.

Stakeholders believe that there is no other organisation in Geelong or the region that is:

- Doing the research to underpin programs in areas where there is an apparent need;
- Bringing people together to facilitate local place-based solutions;
- Working with community organisations to strengthen their ability to respond to highly local needs;
- Filling the gaps when needs arise;
- Setting strategy that focuses collaborative effort on addressing skills of the future – “Skilling the Bay people understand the big picture and how to translate it into action in Geelong” (Consultations);
- Understanding the different government departments and what they need;
- Able to report on the work that is happening on the ground.

¹⁵Provided by Skilling the Bay team

¹⁶Skilling the Bay Completion Report 2014 – 2017 Executive Summary

¹⁷Skilling the Bay reports

¹⁸<https://forecast.id.com.au/geelong>

¹⁹Community-based learning for sustainable development, UNESCO Institute for Lifelong Learning, 2017

²⁰ibid

²¹www.thegeniusatwork.com, Accessed 16 March 2018 Education 4.0 ... the future of learning will be dramatically different, in school and throughout life, January 24, 2017, Fisk Peter

1.3 A FUTURE FOR SKILLING THE BAY: BEYOND THE HORIZON - AN ORGANISING FORCE FOR CHANGE

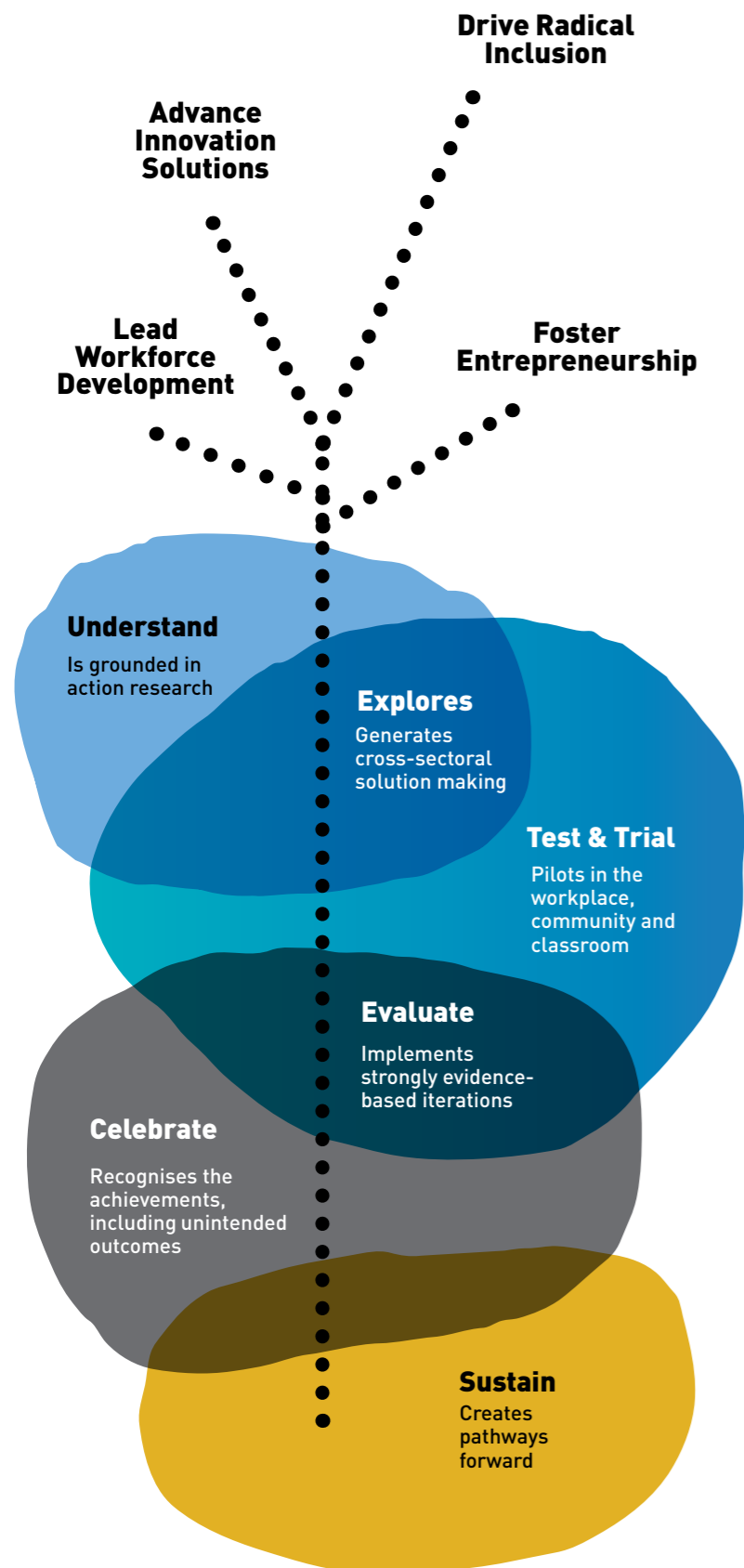
1.3.1 A NEW LEARNING MODEL

The United Nations Educational Social and Cultural Organisation (UNESCO) Institute for Lifelong Learning, in its 2030 Agenda for Sustainable Development, “sets ambitious goals (the OECD’s 17 Sustainable Development Goals (SDGs)) to transform the world, balancing the economic, social and environmental dimensions of sustainable development”.¹⁹ In support of the SDGs, UNESCO has articulated the following action principles:²⁰

1. **Responding** – being at the forefront in responding to emerging issues experienced by local communities;
2. **Engaging** – working in partnership across, and with, different disciplines and knowledge systems to identify [generate] comprehensive, long term solutions;
3. **Enabling** – Investing in capacity building of local communities and institutions to enable a holistic, partnership approach to learning;
4. **Embedding** – developing and sustaining an ecosystem of learning and living that recognises the complexity and interrelatedness of issues and the need to work together;
5. **Sustaining** – ensuring that the communities have appropriate infrastructure, the right relationships, community attributes and the spiritual properties [resilience] to thrive into the future;
6. **Transforming** – continually embracing new ways of teaching and learning, including those made possible by technology and changes to work.

Skilling the Bay is uniquely placed to deliver on these action principles and facilitate a shared vision of education for sustainable development in the Geelong region. With its ability to connect people, organisations and resources, and deliver evidence-based programs, Skilling the Bay will pivot to a strategic Education 4.0²¹ response that drives the development of new skills and knowledge.





Skilling the Bay will:

- Lead stakeholders in the strategic development of a regional workforce development plan;
- Advance the development of innovative future focussed solutions to skilling Geelong's workforce;
- Drive radical inclusion of all Geelong citizens in learning and work, in particular in areas of deep disadvantage;
- Foster entrepreneurship for women, people with disability, CALD and Indigenous Australians.

Skilling the Bay's customers would include Education Providers (traditional and non-traditional), Business and Industry, Startups, Regional Stakeholders and Government.

The continued application of a signature methodology to its work will enable Skilling the Bay to position itself as nimble, agile, ethical, trustworthy, adaptable and accountable.

Skilling the Bay is positioned to leverage an existing strong and durable partnership between The Gordon and Deakin University to embrace a collaborative ethos with education providers, the G21 – Region Alliance, City of Greater Geelong, industry and community stakeholders such as the Committee for Geelong and the Geelong Region Local Learning and Employment Network (GRLEN), and create a regional learning ecosystem that operates as the nexus between today's economy and the skills required for a future beyond the horizon.

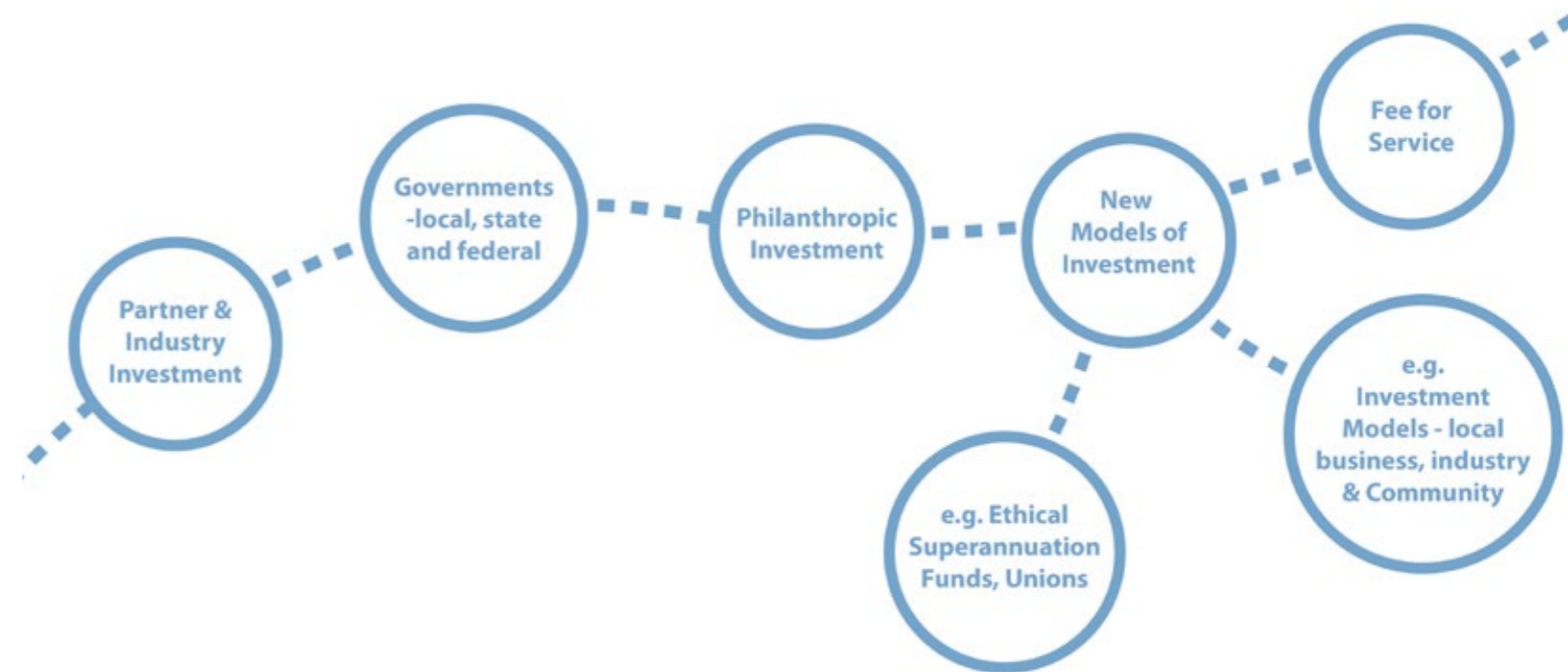
1.3.2 A NEW BUSINESS MODEL

Skilling the Bay currently receives the majority of its funding from the Department of Education and Training Victoria. Given its genesis and current status, this reliance on a singular funding source is not to be unexpected.

The design, however, of a future Skilling the Bay business model must pay attention to the principle of establishing and maintaining diversity in revenue streams. Moving to a more diverse funding base would strengthen Skilling the Bay and enable it to mitigate the risks to sustainability that a single or narrow funding dependency brings.

A new business model with diversified revenue streams would enable Skilling the Bay to exercise local control over its strategic direction and operations.

Possible revenue streams have been identified as:



“Skilling the Bay understands the big picture and how to translate it into action in Geelong”

[Comment from Consultations]

1.4 RECOMMENDATIONS

Skilling the Bay, underpinned by its strong partnership model, can be an organising force for change, collaborating with its stakeholders to enable optimal solutions to current and future workplace skills challenges. The following recommendations have been informed by analysis of local data, international and national literature and consultations with key stakeholders, and are based on a conclusion that there is a strong and necessary argument for a reframed Skilling the Bay to serve the future skilling of the Geelong Region.

Beyond the Horizon: Learning Model

Recommendation 1

Skilling the Bay develops an Education 4.0 Learning Model that:

- Leads stakeholders in the strategic development of a regional workforce development plan;
- Advances the development of innovative future focussed solutions to skilling Geelong's workforce;
- Drives radical inclusion of all Geelong citizens in learning and work, in particular in areas of deep disadvantage;
- Fosters entrepreneurship for women, people with disability, CALD and Indigenous Australians.

Recommendation 2

The Education 4.0 Learning Model uses an evidence-based framework, including predictive analytics, artificial intelligence and data visualisation, to identify and implement strategies which will elevate educational and economic outcomes for all Geelong citizens, including strengthening literacy and numeracy across the community.

Beyond the Horizon: Business Model

Recommendation 3:

Skilling the Bay diversifies its revenue streams to deliver its Education 4.0 Learning Model.

Recommendation 4

Government invests in Skilling the Bay's transition to a new business model that is characterised by a strong customer base with diverse revenue streams.

Recommendation 5:

Skilling the Bay undertakes further scoping work to determine the most appropriate revenue sources for each product and service.

Beyond the Horizon: Governance Model

Recommendation 6

Skilling the Bay elevates its pivotal partnership and facilitation role to include new and existing industry, school and community stakeholders in a deeper collaboration focussed on delivering Education 4.0 to the region.

Recommendation 7

Skilling the Bay is governed by a strong Advisory Group, representing industry, education providers, G21 – Region Alliance and other key stakeholders.

Transitioning beyond the horizon

Recommendation 8

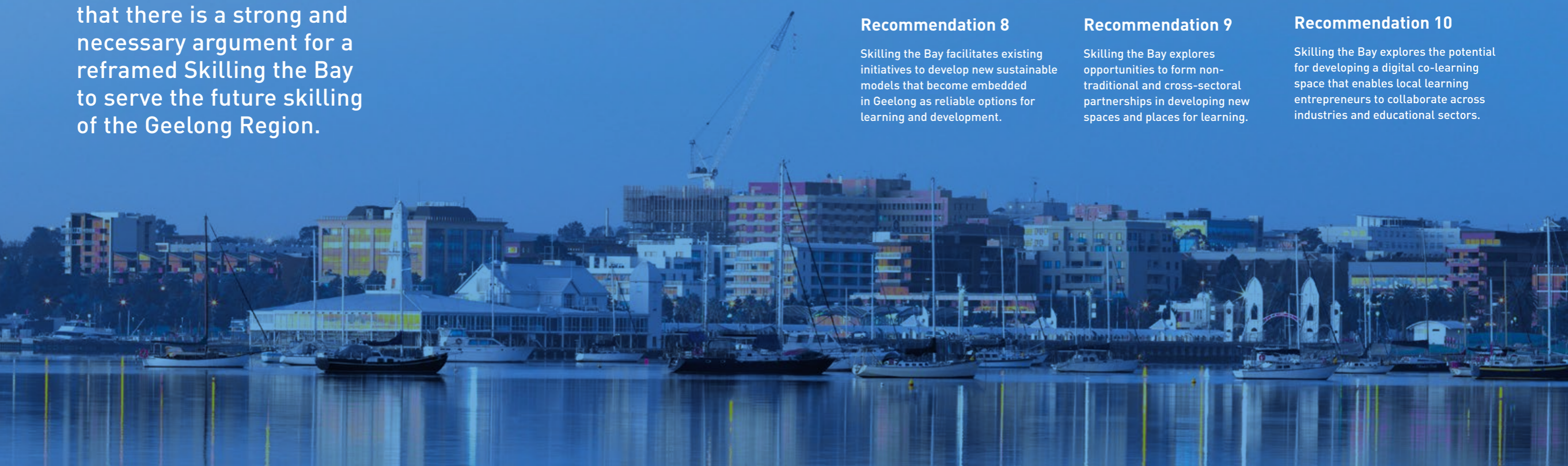
Skilling the Bay facilitates existing initiatives to develop new sustainable models that become embedded in Geelong as reliable options for learning and development.

Recommendation 9

Skilling the Bay explores opportunities to form non-traditional and cross-sectoral partnerships in developing new spaces and places for learning.

Recommendation 10

Skilling the Bay explores the potential for developing a digital co-learning space that enables local learning entrepreneurs to collaborate across industries and educational sectors.



2.0

INTRODUCTION

Skilling the Bay is a Geelong region initiative led by The Gordon Institute of TAFE and delivered in partnership with Deakin University and the Victorian Government. Established in 2011, the role of Skilling the Bay is to investigate and deliver education, employment and innovation initiatives that support Geelong businesses and workers as they transition to the new economy.

Skilling the Bay's focus is on preparing the Geelong workforce for the future through:

1. Education

Inform and raise educational attainment levels, with the focus on improving pathways to employment

2. Employment

Increase workforce participation through training and reskilling

3. Skills Development

Grow existing and emerging industries through targeted skills development²²

²²<https://www.thegordon.edu.au/stb/about>

Over the past eight years Geelong has experienced firsthand the impacts of a rapidly changing global economy. Its reliance on large heavy manufacturing industries has diminished, the Community Services and Health sector has emerged as the major employing sector in the region, small and medium size employers now dominate an increasingly diverse business landscape and social insurance government instrumentalities provide new professional career opportunities.

During this time, Skilling the Bay has been at the forefront of initiatives focused on developing a Geelong workforce that is skilled and agile, with the knowledge, creativity and confidence to embrace opportunities that emerge from Industry 4.0's digitally enabled virtual world.

Skilling the Bay partners internally with The Gordon Institute of TAFE, externally with Deakin University and a range of local stakeholders to facilitate and trial innovative programs.

These include supporting young people with their career choices, people re-entering the workforce, people who are at risk of long term unemployment and people who have been retrenched and are looking to transition to new careers. It has adopted a place-based model to ensure that opportunities for learning and engagement are located in the areas where disadvantage and high levels of intergenerational unemployment and disconnection are most entrenched.

The Skilling the Bay Advisory Group has determined that it is timely to look back across the past decade at the changes in Geelong and to use this retrospective to frame the future for Skilling the Bay. It has commissioned Management Governance Australia (MGA) to research the Geelong Education and Workforce Profile 2011 – 2021 report to:

- Provide an evidence base that can inform a unified approach to addressing current and emerging regional education, employment and skills challenges;
- Inform decision making in relation to proactively responding to, and managing, the emerging challenges associated with an increasingly diverse local economy;
- Identify resourcing options for the future;
- Capture changes that have occurred to the Geelong economic context over the past 10 years.

3.0

METHODOLOGY



In undertaking the Geelong Education and Workforce Profile 2011 – 2021 (the Profile) on behalf of Skilling the Bay, MGA has used its Edge Interface methodology to ensure that the Profile:

- Articulates with clarity the **imperatives** of Skilling the Bay;
- Focuses new thinking on **determining and defining the problems** that challenge workforce development, knowledge acquisition and capability building in the Geelong Region;
- Facilitates local **Culture** and **People** to identify and implement optimal solutions that drive success.

A mixed methods approach²³ has been used to gather, explore and analyse evidence underpinning the Profile and the conclusions it reaches. This evidence base²⁴ includes:

- ▶ **Labour market analysis** that looks at relevant quantitative and qualitative regional demographic data and captures the changes that have occurred to the Geelong economic context over the past 10 years.
- ▶ **Literature review** of strategies, plans, articles and research that:
 - Explore current and emerging regional education, employment and skills challenges;
 - Look at the emerging challenges associated with an increasingly diverse local economy;
 - Provide case studies of initiatives that could inform Skilling the Bay decision making.
- ▶ **Stakeholder consultations** to:
 - Explore the unique role that Skilling the Bay has played in addressing education and workforce challenges in Geelong;
 - Determine any constraints to its ability to respond to local issues;
 - Identify education and workforce issues facing Geelong now and into the future;
 - Provide input into what a future Skilling the Bay should look like.

4.0

GEELONG ECONOMIC CONTEXT

4.1 GEELONG'S ECONOMY AND
LABOUR MARKET: 2006 - 2018

The period from 2006 – 2018 has been a significant time of transition for the Geelong economy. The closure of major businesses and the structural adjustment of other large and medium size businesses led to significant job losses and seriously impacted on supply chain and service industries. At the same time new industry sectors emerged, the local economy diversified, and the city and its surrounds experienced increasing ongoing population growth.



The headline closures with associated job losses include:

July 2007

Ford announced it would close its Geelong engine manufacturing plant in 2010. Whilst this decision was reversed and \$21 million was spent on an upgrade to facilities and a research and development centre, ultimately in 2013 Ford announced the end of its Australian operations and the last car rolled off the assembly line in 2016. Six hundred workers lost their Ford jobs in Geelong and Broadmeadows,²⁵ and many tier 2 and 3 businesses in the supply chain were severely impacted [Ford remains in Geelong with a research and development capability, informing the design and development of its future cars].

2013

Qantas shed 300 jobs with the closure of its heavy maintenance facility at Avalon.²⁶

February 2014

Alcoa decided to close its Point Henry smelter and rolling mills in Geelong and Yennora in NSW, mostly due to a high Australian dollar and waning global aluminium prices. Almost 1000 Alcoa workers were impacted by the closure.²⁷

2018

Target's 92-year history in Geelong came to an end as it shifted operations and head office to Williams Landing.²⁸

2018

Boral closed its Kiln operations at Waurin Ponds.²⁹ [Boral remains committed to the Geelong area with a new chapter of development in the Port of Geelong area].

Closures & restructures impact SMEs

The 2009 global financial crisis and the shift in the economy also led to job losses at Shell Refinery, Huyck Wangner (150 jobs), Viridian (formerly Pilkington Glass) (100 jobs), Sands Print Group (64 jobs) and smaller companies such as Notley Engineering (13 jobs) and Cameron & Castanedo Engineers.³⁰

²³Creswell & Plano Clark 2006

²⁴The Data and Analysis and the Literature Review have been incorporated into the body of this Report

²⁵<https://www.abc.net.au/news/2016-10-07/timeline-ford-australia-ceases-production/7911742>

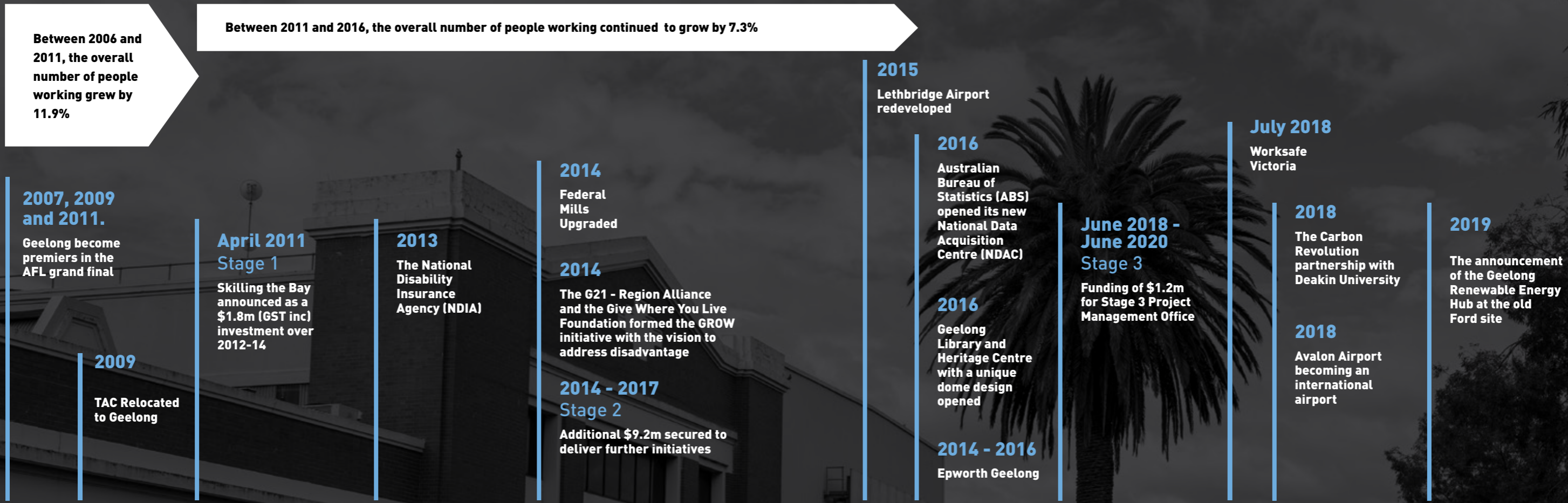
²⁶<https://www.abc.net.au/news/2013-11-08/qantas-to-shut-avalon-base2c-axe-300-jobs/5078194>

²⁷<https://www.news.com.au/finance/business/alcoa-to-close-point-henry-smelter/news-story/4d2b79ebf1d7a1f0205c2a2f4ca49e65>

²⁸<https://www.geelongadvertiser.com.au/news/geelong/staff-farewell-targets-north-geelong-site-a>

²⁹[https://www.boral.com.au/sites/default/files/media/field_document/181206%20BERR%20Cement%](https://www.boral.com.au/sites/default/files/media/field_document/181206%20BERR%20Cement%20)

³⁰Submission to Parliamentary Inquiry House Standing Committee on Infrastructure, Transport, Regional Development and Local Government. Inquiry into the impact of the global financial crisis on regional Australia Geelong Manufacturing Council April 2009



Balancing the closures across the ten-year period, however, has been the location in Geelong of major social insurance instrumentalities, such as the Transport Accident Commission (TAC), Worksafe Victoria and the National Disability Insurance Agency, and the associated rapid growth in employment in the Community Services and Health Sector.

- The TAC is a Victorian Government-owned organisation established in 1986 to pay for treatment and benefits for people injured in transport accidents, promote road safety and improve Victoria's trauma system. TAC relocated from Melbourne to Geelong in January 2009.
- The National Disability Insurance Agency (NDIA) is an independent statutory agency established by the Commonwealth Government in 2013. Its Head Office has been located in Geelong and charged with the role of establishing and implementing the National Disability Insurance Scheme (NDIS). NDIA's new national headquarters, a \$120m building, accommodates 560 staff responsible for delivering the \$22b NDIS to Australians.
- In 2016 the Australian Bureau of Statistics (ABS) opened its new National Data Acquisition Centre (NDAC) in Geelong. The centre will eventually employ up to 300 people and is a key part of the modernisation of the ABS. The NDAC consolidates the collection of data for all business and household surveys. Previously data collection operations were located in offices all over Australia. Moving to one location streamlines processes and ensures the ABS continues to deliver better results and more value to taxpayers.
- Worksafe Victoria is the state's health and safety regulator and the manager of Victoria's worker's compensation scheme. In July 2018 Worksafe Victoria relocated its head office from Melbourne to Geelong.

Across the same period of time, Geelong benefited from the establishment of a range of commercial initiatives that leveraged opportunities emerging from the changing nature of the local economy. These include:

Creating new ways of working

- The redevelopment of the Federal Mills site, from 2014 onwards, into a community of businesses with co-working spaces, incubator and accelerator services available through Runway.
- In 2014 the G21 - Region Alliance and the Give Where You Live Foundation formed the GROW initiative with the vision to address disadvantage. This partnership implements innovative, collaborative and evidence based approaches to tackle entrenched regional social and economic disadvantage.
- The development of Manufactures at Deakin University as a purpose-built advanced manufacturing innovation hub to foster the growth and development of the local advanced manufacturing industry.
- The Carbon Revolution partnership with Deakin University in 2018 to boost the materials science and engineering inputs into its unique manufacturing process.
- The announcement in 2019 of the Geelong Renewable Energy Hub at the old Ford site along with the announcement by Vestas, a Danish company, that it is locating its wind turbine assembly plant at the site.
- Anglesea Futures Project: Following the closure of the Alcoa mine and power station north of Anglesea, the proposed Eden Project development is looking at how to use, preserve and protect land with significant natural value whilst providing complementary major tourism facilities and recreation areas.

Creating new infrastructure to enable new jobs

- The building of Epworth Geelong from 2014 – 2016 and the introduction of associated specialist medical services.
- Development of the Lethbridge Airport in 2015 as an aviation related industry hub.
- Multi-award winning \$45m, state-of-the-art Geelong Library and Heritage Centre with a unique dome design opened in 2016.
- The development of the Heales Road Industrial Estate in the northern suburbs in 2017.
- Avalon Airport becoming an international airport in 2018.
- Port of Geelong redevelopment.
- \$38.5m Stage 2 redevelopment of Geelong Performing Arts Centre currently underway and a further \$128m announced.
- Barwon Water headquarters recently underwent a \$32m refurbishment to accommodate 320 staff.
- GMHBA stadium - \$102m for Stage 5.
- City Deal Projects – Convention Centre \$170m, Geelong Waterfront Safe Harbour Precinct \$19m.

Creating new ways of learning

- Establishment of the Geelong Skills and Jobs Centre.
- Development of the Geelong Technical School. The Victorian Government invested \$128 million in establishing 10 Technical Schools in brand new buildings across Victoria.
- Development of the new Gordon TAFE Library and Student Hub.
- School upgrades including Bellarine Secondary College, Geelong High School, Northern Bay P-12 College, Highton Kindergarten and Whittington Primary School.
- Geelong Regional Library promotes and develops new spaces and places for learning.

Creating new ways to live

- Deakin University's refurbishment of the T&G building in Moorabool Street for student accommodation.
- 10-storey purpose-built Deakin University student accommodation building in close proximity to the Waterfront Campus, providing 410 bedrooms in shared apartments.
- 180-bed Holiday Inn hotel scheduled to open in 2020 on Ryrie Street, Geelong.
- Construction of the Miramar apartment building, Ritz apartment building and the G1 Apartment building.

Labour Market Performance

The impact of the social insurance jobs growth and new work initiatives outlined above is reflected in the 2006, 2011 and 2016 census data collections for the G21 region, which show industry specific longitudinal trends in the region's labour market.

There are nineteen individual industry groups. For the Profile report, the research team has chosen to analyse the fourteen industries that are of most importance to the region. These are:

- › Agriculture, forestry and fishing
- › Financial and insurance services
- › Manufacturing
- › Professional, scientific and technical services
- › Construction
- › Public administration and safety
- › Retail trade
- › Administrative and support services
- › Accommodation and food services
- › Education and training
- › Transport, postal and warehousing
- › Health care and social assistance
- › Information media and telecommunications
- › Arts and recreation services

The industry sectors that have not been included are:

- › Mining
- › Rental, hiring and real estate services
- › Electricity, gas, water and waste services
- › Other services
- › Wholesale trade

The trends from the 2006, 2011 and 2016 census data show:

- Between 2006 and 2011, the overall number of people working in the fourteen designated industries grew by 11.9% (from 100,772 to 112,753).
- Between 2011 and 2016, the overall number continued to grow by 7.3% (from 112,753 to 120,977).
- Across the three Census collections, overall numbers increased by 20% (from 100,772 to 120,977).
- In 2006 the population for the G21 region was 266,000.
- By 2016 it had grown to 308,339.



The data demonstrates that the G21 labour market has continued to grow overall over the past ten years. The growth, however, does not necessarily relate to all industries.

Change in employment 2006 to 2011

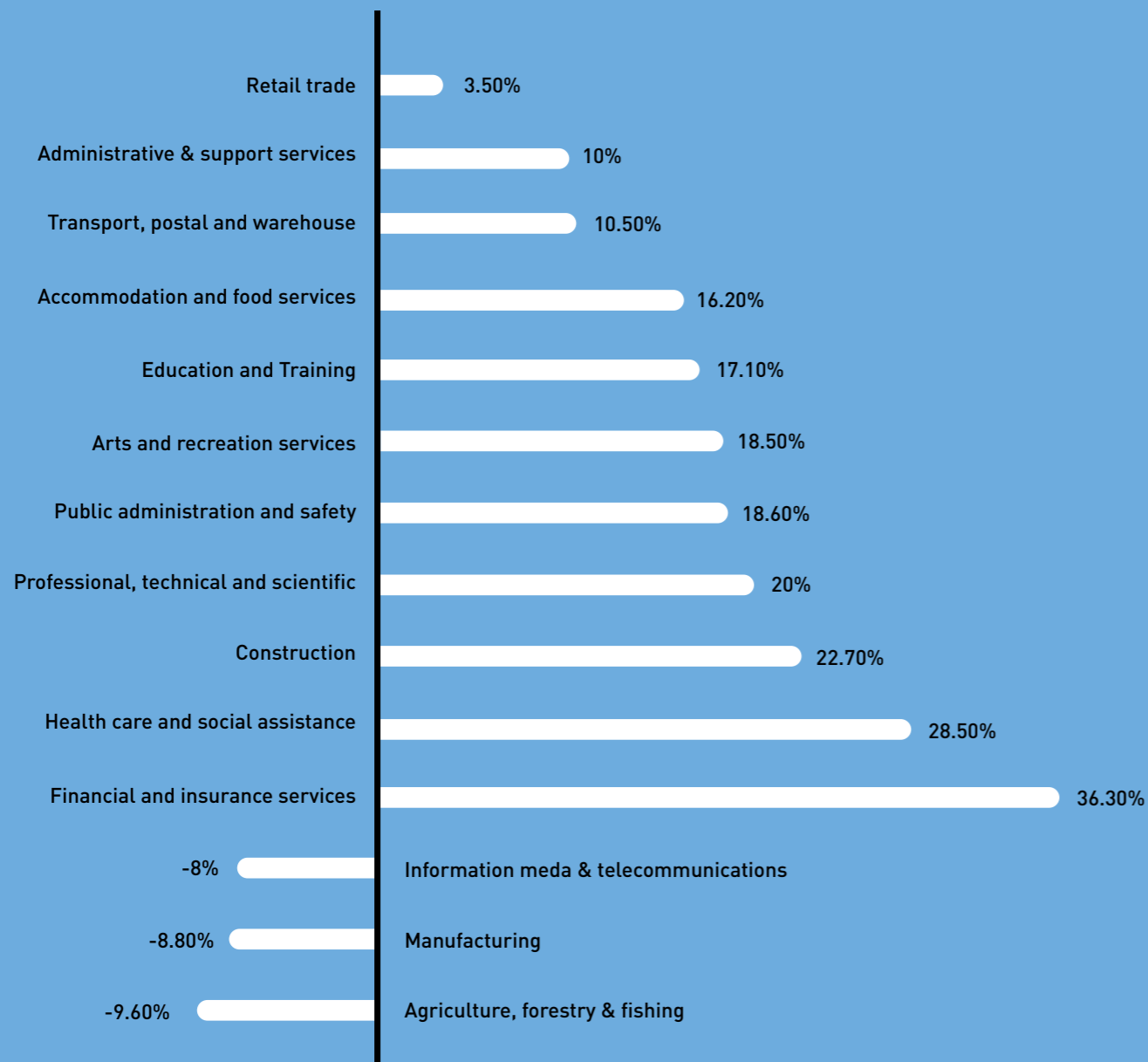


Chart 2 - Change in employment 2006-2011

Change in employment 2011 to 2016

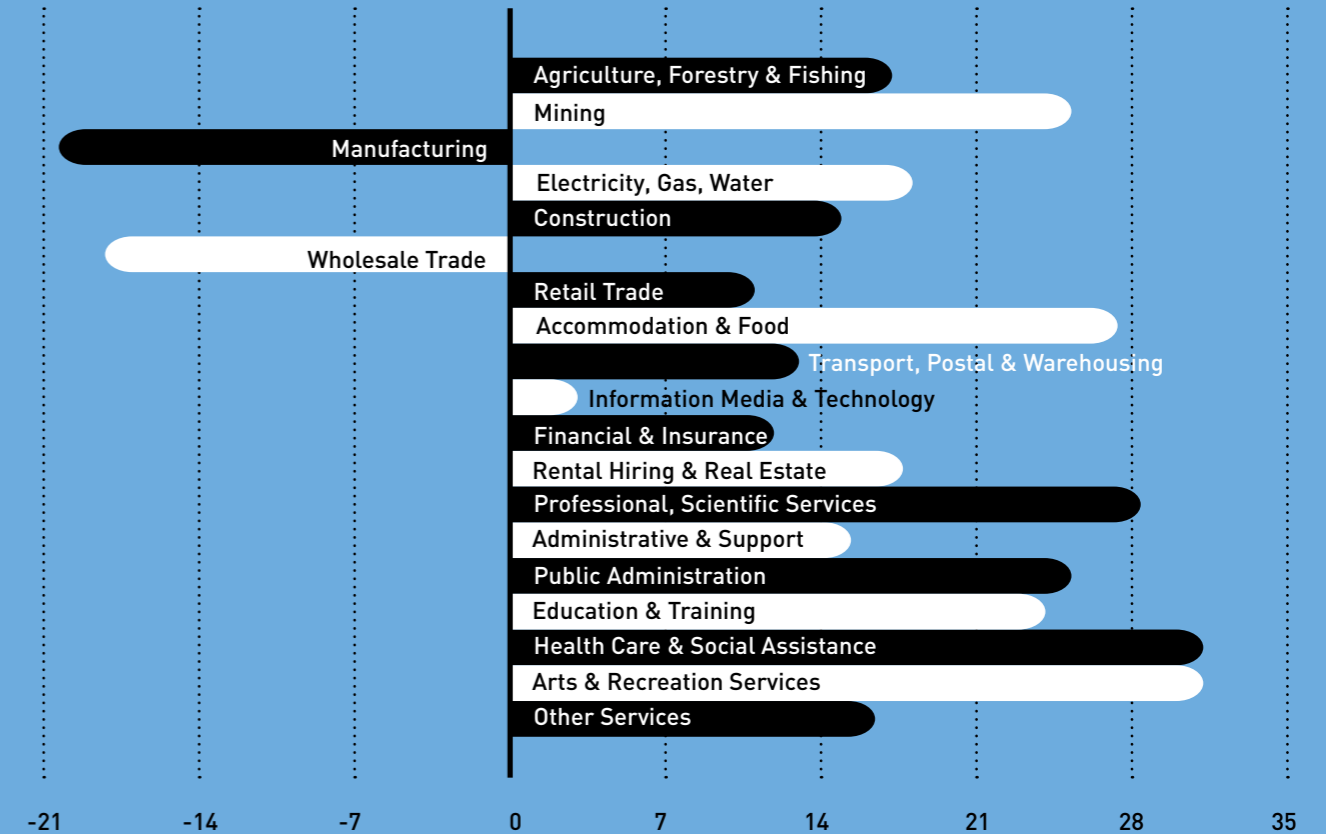


Chart 3: Change in employment 2011-2016, REMPLAN

Predicted growth areas to 2023

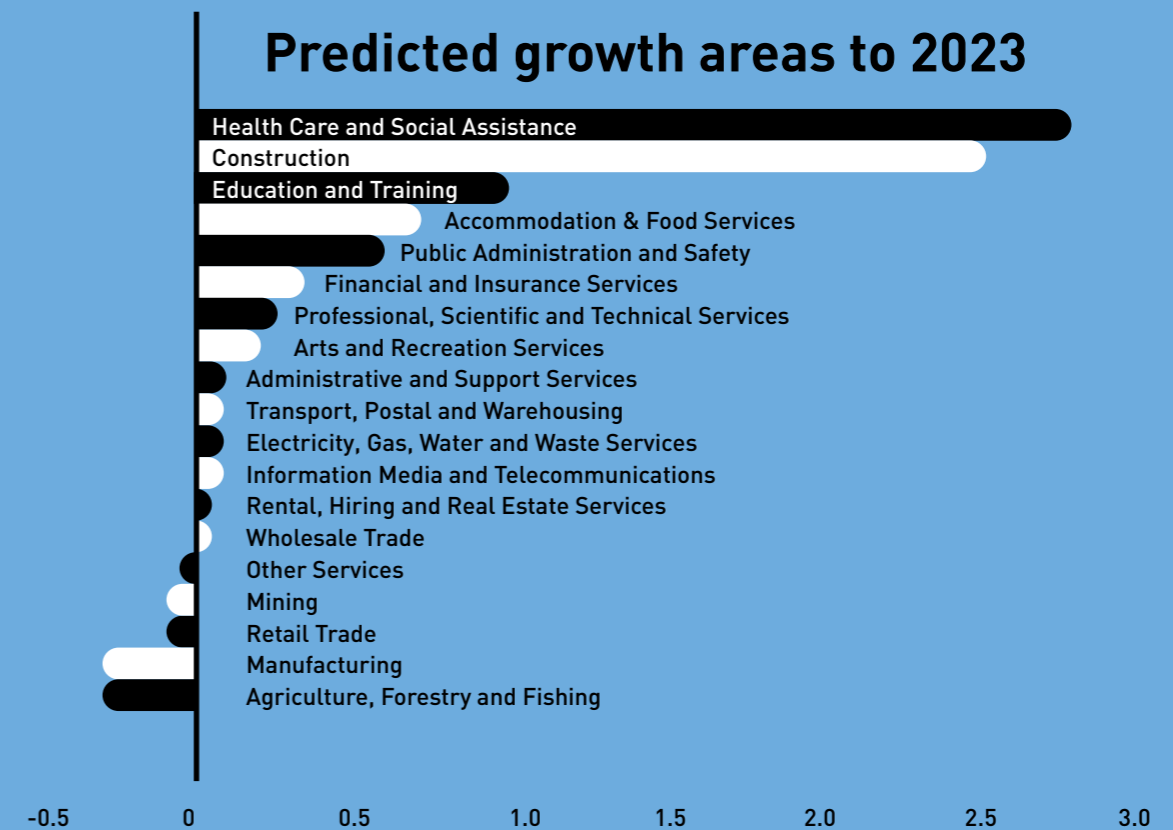


Chart 4: Projected employment growth ('000) - five years to May 2023

4.2 GEELONG'S ECONOMY AND LABOUR MARKET TODAY

4.2.1 A STEADILY GROWING ECONOMY

Overall, Geelong's labour market is showing strong growth in most industry sectors, providing a mix of professional, para-professional, and general jobs. The 2019 G21 Region Profile shows that the regional economy grew by 3.6% between 2011 and 2017.³¹

Comparing the data from the census periods we can see that;

- In 2006 70,570 people living in the region were employed, of which 63.3% worked full time and 39.7% part time;
- In 2011, 74,947 people in the region were employed and 61.6% worked full time and 38.4% worked part time;
- By 2016, 120,977 people living in the region were employed of which 58.8% worked full time and 41.2%³² part time.

We can see from the census data that the percentage of full time roles has diminished with a corresponding rise in the percentage of part time roles.

In addition, the population of the City of Greater Geelong is forecast to grow to 393,216 by 2041, a change of 52.9%³³ from the current population of 257,180.

The 2014 G21 Region Profile stated that workers living in the region were most likely to be employed in the industry sectors of community services and health (13%), followed by retail trade (12%) then manufacturing (11%).³⁴

By 2019, the industry of employment structure of G21 residents is broadly in line with that of regional Victoria. The primary employment industries were: Community Services and Health (14.7% of all employed persons in 2016) remaining the largest, and fastest growing industry in the region; Retail (11.2%); Construction (10%); Education and Training (9.6%); and Manufacturing (7.8%).³⁵

Whilst manufacturing has seen a significant decline over the past ten years due to the closure of iconic businesses, there is, despite the Federal Government predictions in Chart 4 above, the expectation of an upward trend in employment in the industry sector between the 2016 and 2021 Census collections due to the growth in advanced manufacturing within the region.

The 2019 G21 Region Profile has also identified a number of growth industries that will be of ongoing importance in the region. These include:

- › Creative industries;
- › Agribusiness;
- › Information technology;
- › Innovation and start-up precincts;
- › Public agencies hub;
- › Advanced manufacturing;
- › Defence;
- › Joint academic/industry research;
- › Renewable energy.³⁶

Agriculture, Forestry and Fishing industry within the G21 region experienced growth of 9.6% between 2011 and 2016, offsetting the poor performance of the previous five years and contrasting with a national trend of decline. The agriculture industry has the potential for more growth, particularly when combined with the development of food processing manufacturing. This partnership would facilitate increased export opportunities into Asia. It should be noted, however, that little growth is expected to occur in traditional farmgate occupations. Employment in traditional agriculture enterprises is expected to flatline or diminish with the increased use of technologies such as drones, satellites and virtual fencing to manage farm operations.

The G21 Greater Geelong region 2019 profile indicates that the Visitor Economy is an increasingly important component of Geelong's local economy. In 2018, the region attracted 5.8 million visitors. Tourism provides a significant contribution to the regional economy, calculated by visitor expenditure. Overall visitor expenditure, estimated to be \$1.1 billion, generates a total economic output of \$2.2 billion and 11,264 jobs are attributed to the tourism industry. Over the past 10 years, overnight visitation to Geelong and The Bellarine has continued to grow at 5 to 6% per annum.

As well as shifts in industry sector dominance, the profile of business in Geelong has changed. Geelong's economic activity is now dominated by small and medium size enterprises. There are 22,608 small businesses in the Geelong region, with 14,000 of these being sole traders.³⁷

The Regional Australia Institute's (RAI), Regional Jobs Vacancy Map³⁸ identifies the highest performing sector as the Professional, Scientific and Technical Services with 458 vacancies out of a total of 1,605 year to date in 2019. Clerical and administrative workers are the highest in demand.

There are a number of data analytics tools that combine to provide a comparison of Geelong's economy with State capitals and other regional cities. Table 1 shows Geelong's ranking out of 36 for five key economic measures.

Data Analytics Tool	What is being measured.	Ranking out of 36	Commentary on where Geelong sits comparatively.
Great Small Cities Data Tool ³⁹	Entrepreneurship and being a business dynamo ⁴⁰ .	24 th	Geelong shows a low rating with regard to the number of business owners and managers and this should be of concern in the new economy where entrepreneurship skills are critical.
Great Small Cities Data Tool	Number of knowledge intensive business services (calculating business building capacity) ⁴¹ .	11 th	With regard to the number of knowledge intensive business services (business capacity) Geelong is the eleventh highest rating city.
Great Small Cities Data Tool	Vibrancy of business base as measured by the number of new business entrants.	12 th	Geelong has a relatively high rating for the number of new business entrants (start-ups) demonstrating vibrancy in and confidence of the business base.
Great Small Cities Data Tool	Business sophistication as measured by the number of trademark applications ⁴² .	33 rd	In Geelong trademark applications are comparatively low indicating lower business sophistication than other cities.
The Hachman Index ⁴³	The degree of economic diversity within a city ⁴⁴ .	33 rd	Geelong has moved to a far more diverse economy over the past decade in comparison to state capitals and other regional cities.
The Ratio of new to old economy (RHS)	The extent of structural change towards a service economy.	24 th	Geelong is sitting at around the average of other cities in moving towards a service economy.

Table 1: What RAI's data tools tells us about Geelong

International Competitiveness

The InSight Framework, in measuring international competitiveness,⁴⁵ shows that Geelong is low in international competitiveness in comparison to other Australian regions in Natural Resources and Labour Market Efficiency, and medium in Institutional Foundations.



Chart 5 - Geelong's ranking on International competitiveness

Despite the closures of a number of large iconic Geelong businesses, data sources show that the work done by Skilling the Bay in partnership with its stakeholders, and alongside a number of relevant strategies, has resulted in the G21 Region beginning to transition to a more dynamic and diverse labour market with many opportunities for

employment in a range of industries and occupations.⁴⁶ It also shows, however, that the economy has some way to go before it can be considered as well positioned for strong performance in a world that will require entrepreneurship, innovation and business sophistication.

³¹ www.g21.com.au

³² https://profile.id.com.au/geelong/employment-status

³³ https://forecast.id.com.au/geelong

³⁴ http://www.g21.com.au/sites/default/files/resources/141029_region_profile_web.pdf, p. 24

³⁵ G21 Region Profile, 2019, p. 47

³⁶ ibid, pp. 51-3

³⁷ http://liveworkgeelong.com.au/startups/

³⁸ http://www.regionalaustralia.org.au/home/regional-jobs-vacancy-map/

³⁹ RAI 2017, Lighting Up our Great Small Cities: Challenging Misconceptions, pp. 18-19

⁴⁰ ibid

⁴¹ ibid

⁴² https://gardner.utah.edu/wp-content/uploads/HachmanBriefFinal.pdf

⁴³ https://gardner.utah.edu/wp-content/uploads/HachmanBriefFinal.pdf

⁴⁴ http://www.regionalaustralia.org.au/home/

⁴⁵ RAI 2018, [In]sights Results Guide, p. 3, www.regionalaustralia.org.au. The InSight Framework is based on international competitiveness indices developed by the World Economic Forum and European Union that are specifically tailored to reflect the issues that matter to regional Australia. [In]sight rates regions (or specific LGAs) against ten themes of economic competitiveness and compares any specific region to every other region in the country (599 in total)

⁴⁶ Whilst most of the RAI tools are very useful, when it comes to local jobs availability, the Geelong Region LLEN's Geelong Careers is a much more locally focused website with an average of 1,200 regional jobs. See www.geelongcareers.org.au

4.2.2 AREAS OF ENTRENCHED DISADVANTAGE

Over the same time period, 2011 to 2017, that the Geelong regional economy grew by 3.6%, there was a rise, however, in the regional unemployment rate from 5.2% to 5.8%.⁴⁷

Table below provides the data on workforce participation changes from 2011 to 2017.

G21 Region - Persons (Usual residence)	2016			2011			Change 2011 to 2016
	Number	%	Regional VIC %	Number	%	Regional VIC %	
Employment status							
Employed	138,433	94.2	94.0	127,502	94.8	94.8	+10,931
Employed full-time	78,549	53.4	53.8	74,905	55.7	56.2	+3,644
Employed part time	57,353	39.0	38.3	49,989	37.2	36.5	+7,364
Hours worked not stated	2,531	1.7	1.9	2,608	1.9	2.1	-77
Unemployed (Unemployment rate)	8,547	5.8	6.0	6,955	5.2	5.2	+1,592
Looking for full-time work	4,683	3.2	3.5	4,055	3.0	3.1	+628
Looking for part time work	3,864	2.6	2.5	2,900	2.2	2.0	+964
Total labour force	146,980	100.0	100.0	134,457	100.0	100.0	+12,523

Table 2: G21 Region employment data, www.profile.id.com.au/geelong

The August 2019 unemployment rate for Geelong (SA4) has fallen to 5.6%,⁴⁸ an improvement of 0.2 percentage points from August 2017. It was 1.0 point higher than the Victorian unemployment rate (4.6%) and 0.5 points higher than the Australian unemployment rate (5.1%).⁴⁹

Comparing Geelong’s workforce engagement performance with the other 35 State capitals and larger regional cities, the Regional Australia Institute identifies that:

- Geelong rates 16th on the percentage of working age population with incomes greater than \$104,000;
- 17th on income equality measures;
- 9th in the percentage of working age population with Bachelor degree or higher;
- 15th with an unemployment rate of 5.6% in August 2019.

The Institute’s Job Vulnerability Data Tool⁵⁰ shows, however, that there are a large number of jobs that are at high risk due to automation. This is supported by the Gross Value Added (GVA),⁵¹ a measure of workforce participation rate and worker productivity. It shows that whilst Geelong has been experiencing slow and steady growth, its recent history contributes to it being seen as vulnerable to economic slippage.

⁴⁷<https://profile.id.com.au/g21-region/employment-status?WebID=10>

⁴⁸www.g21.com.au

⁴⁹<https://www.geelongaustralia.com.au/business/statistics/article/item/8d01ea2f399573d.aspx>, August 2019

⁵⁰<http://www.regionalaustralia.org.au/home/>

⁵¹RAI 2017, Lighting Up our Great Small Cities: Challenging Misconceptions, pp. 18-19, Past and future output growth rates for Geelong, RAI 2019

⁵²https://www.parliament.vic.gov.au/images/stories/committees/eic-LA/Submissions/080_G21_-_Geelong_Region_Alliance_2019.08.06_Redacted.pdf

⁵³ibid

⁵⁴<https://grow.g21.com.au/wp-content/uploads/pdf/GROW-Data-Placemats-Whittington.pdf>

⁵⁵<https://www.geelongaustralia.com.au/business/statistics/article/item/8d01ea2f399573d.aspx>, August 2019

⁵⁶Strengthening Skills, Expert Review of Australia’s Vocational Education and Training System, The Honourable Steven Joyce, 2019

⁵⁷Australian Bureau of Statistics 2018, Labour Force Australia – Quarterly, November 2018,

⁵⁸World Bank 2019, World Development Report 2019: The Changing Nature of Work, Washington, DC: World Bank.

⁵⁹OECD 2018, Job Creation and Local Economic Development 2018: Preparing for the Future of Work, Paris: OECD Publishing.

⁶⁰World Economic Forum 2018, Future of Jobs Report: 2018, Geneva

⁶¹Curtain 2000: 42

⁶²Qureshi (2009: 93-94)

⁶³ibid

⁶⁴Strengthening Skills, Expert Review of Australia’s Vocational Education and Training System, The Honourable Steven Joyce, 2019

⁶⁵Gemici and Curtis (2012: 42)

⁶⁶Australian Bureau of Statistics 2018, Labour Force Australia – Quarterly, November 2018, cat. no. 6291.0.55.003, Canberra, trend data.

⁶⁷The Joyce Review quoting Department of Jobs and Small Business 2018, Industry Employment Projections, five years to May 2023 Canberra: Australian Government.

Whilst the data shows a steadily growing economy and falling unemployment, and is cause for optimism, it is, however, important for there to be a coordinated approach to optimising skills for future economic development. A coordinated approach also needs to focus on implementing specific strategies to lift the employment rates for Geelong’s most disadvantaged citizens.

4.3 LABOUR MARKET POLICY AND PARTICIPATION TRENDS (POSITIVE AND NEGATIVE) IMPACTING ON GEELONG

The strength of Geelong’s economy and labour market participation is, of course, influenced by the general health of the Australian and Victorian economies and the global factors that influence economic trends.

The Australian economy is in a period of uninterrupted growth. This period has coincided with significant population growth and an increase in workforce diversity, as well as with digital and technological advancements, an increasing number of bi-lateral and multi-lateral Free Trade Agreements and changes in the global marketplace. “Increased pressure from overseas-based competitors has shaped the composition of the labour market, including through an ongoing structural shift away from employment in primary production and manufacturing towards a more service-based labour market.”⁵⁶

Alongside these changes in the Australian economic context, there has been a shift in the demand for a higher skilled workforce. The share of employment in occupations generally requiring a bachelor degree or higher qualification has increased from 23 per cent in 1988 to 32 per cent in 2018, while the share of employment generally requiring Year 12 or below has fallen from 21 per cent to 17 per cent.⁵⁷

Further changes are on the horizon for industry and workers as new digital technologies are changing the way Australians live and work. Emerging technologies such as the Internet of Things, artificial intelligence, automation and robotics will affect the nature and type of jobs available and the skills and capabilities required to perform both new and existing jobs.⁵⁸

The Organisation for Economic Co-operation and Development (OECD) estimates that in coming decades approximately 14 per cent of current jobs are at high risk of automation, while another 32 per cent are likely to be affected by significant modifications, changing how jobs are carried out.⁵⁹

To ensure that the Australian business and industry are able to engage a skilled workforce that is fit for the future economy, Labour Market policy in Australia needs to respond to the increasing importance of non-technical skills such as creative thinking, originality, initiative, analytical thinking, innovation and complex problem solving in Australia’s future skills needs.⁶⁰

Analysis of the process of Labour Market policy making in Australia has found that, in order for it to respond effectively to changing economic circumstances it needs to “be framed in the long term, rather than in the shorter electoral cycles. It should also be outcome-focused by identifying carefully how the policy will deliver desired changes in the real world, enable the recipients of the policy to be involved and be a continuous learning process and not as a series of one-off isolated initiatives.”⁶¹

The development of labour market policy needs to consider both the potential economic outcomes of the policy as well as the likely impact of that policy on the people concerned. Human development and economic growth are interdependent and intertwined in feedback processes which suggest that both are mutually reinforcing, either leading to an upward spiral of development or a poverty trap.⁶² For sustainable ‘real’ growth, fiscal policy should be refocused on human development that will, in turn, lead to sustainable growth⁶³ rather than having a single focus on creating jobs, many of which are casual and part time leaving workers in more precarious employment.

To be work-ready, new entrants have always needed a combination of technical skills and general employability. Training should aim to equip students with the skills needed for their first job, and the flexibility and adaptability to navigate future career transitions.⁶⁴ The COAG [Council of Australian Governments] policy of increasing Year 12 completion is based on macroeconomic policy analysis that projects increased labour force participation and enhanced productivity arising from the skills bonus of higher educational attainment.⁶⁵

In the decade 2008 - 2018, almost two million additional jobs were created in Australia, half of which were in just three industries: Community Services and Health (up by 565,900 jobs), Professional, scientific and technical services (up by 308,000 jobs) and Education and training (up by 234,800 jobs).⁶⁶ Job growth continues as an imperative of the Australian Government with the creation of a further 1.25 million new jobs projected over the next five years. The largest share of new jobs over this period will be in Community Services and Health, the Construction industry, Education and training, and Professional, Scientific and Technical services. 90 per cent of these new jobs will require some form of post-school education.⁶⁷

Skills shortages already exist in many parts of the Australian labour market. It is critical that the vocational education sector is able to deliver quality training in a flexible and innovative manner to help prevent skills gaps from emerging and to keep pace with the rate of technological change.⁶⁸

Traineeships and apprenticeships have traditionally been seen as a key pathway for young people into many industry sectors that have been critical to economic growth. The latest official data shows the number of apprenticeships (broadly classified as trades) has been in decline since mid-2012, but there has been a much more dramatic decline in traineeships (broadly classified as non-trades).⁶⁹ September quarter figures show 485,440 people were in training for apprenticeships and traineeships in 2012 and by September 2018 this had fallen to 267,385, a drop of 45 per cent.⁷⁰

When RMIT separated the numbers, they found that “the sharp overall decline is driven by the fall in traineeships, which slumped by 66 per cent, compared to apprenticeships, which fell by 18 per cent”.⁷¹

Whilst much of this drop is related to the reduced importance of traditional manufacturing trades, in a steadily growing and diversifying economy such as Geelong, small to medium size enterprises need to be confident in their business and understand the complexity of the system to begin employing and skilling apprentices and trainees.

Labour market policy also needs to respond to the issues associated with entrenched disadvantage and intergenerational unemployment. One of the problems

encountered at local and regional levels by education and training providers in trying to integrate employment issues with other social policy areas such as education, health and wellbeing, is the complexity brought to the work by having to deal with the numerous layers of government in Australia. With three ‘levels’ of local, state and federal government, there is plenty of scope for complications and problems about who does what or who gets the money to pay for various policies or programs.⁷²

During the past decade a myriad of national and locally based policies and programs have been devised in order to address issues of economic exclusion and ‘worklessness’.⁷³ An example of a more holistic and cross government approach to regional economic development can be found in North East England. It is here where the Regional Development Agency experimented with integrating actions addressing housing, health, education and cultural considerations with more traditional area-based regeneration.⁷⁴

In Australia, Federal and State Governments have enacted changing labour market policy in the education and training sector, particularly in vocational education and training (VET). This has been done partly in response to the issue of skill shortages, the need to support workers to upskill or retrain throughout their lives⁷⁵ and the resulting need for changes to the VET system, and partly as a way to include disadvantaged groups such as those with disabilities, the long term unemployed and Aboriginal people in the labour market.⁷⁶

⁶⁸Strengthening Skills, Expert Review of Australia’s Vocational Education and Training System, The Honourable Steven Joyce, 2019

⁶⁹www.abc.net.au, RMIT ABC Fact Check, 2019

⁷⁰ibid

⁷¹ibid

⁷²Bessant et al. (2006: 203-4)

⁷³Miles and Tully (2007: 856-857)

⁷⁴ibid

⁷⁵Strengthening Skills, Expert Review of Australia’s Vocational Education and Training System, The Honourable Steven Joyce, 2019

⁷⁶Kell 2010: 98

⁷⁷Ford Motor Company of Australia and Deakin University, 2019, 100 Jobs of the Future, pp. 36-37

5.0

GEELONG EDUCATION CONTEXT

The Geelong Education and Workforce Profile 2011 – 2021 data analysis and literature review provide the context to learning, education and place-based skills development in a period where the local and national economy is changing rapidly under the pressure of increasing globalisation and the impact of the Industry 4.0 technological revolution.

5.1 GEELONG REGION EDUCATION TRENDS

If the G21 Region is to take advantage of a reasonably buoyant labour market and the opportunities it presents, then it must have a suitably educated and prepared workforce. According to a recent Deakin University research project, *100 Jobs of the Future* (2019), most jobs in the future will have a growing technology component and require much more complex capabilities. These will need to be included in the way in which people are educated.

Cross-disciplinary work

People having deep knowledge of one area supplemented with wider knowledge to support working in cross-disciplinary teams;

People marrying disciplinary knowledge with knowledge of technology in order to understand the meaning of data, and of data needs;

People being able to work across disciplinary ideas, for instance in STEM, and technology, but with a creative orientation: ‘learn how to code and learn how to paint’.

Growing importance of humanistic skills

The capacity to understand and communicate with people, so as to be able to work at the technology-human interface. The ability to work effectively in teams will be vital, particularly when working freelance across a range of often concurrent projects. Having community and citizenship skills will also be important while working with technology applications.

Flexibility and adaptability

Future workers will have many jobs over a lifetime, and people who can adapt, and stay ahead of the needs of the workplace, rather than waiting to be shown, will prosper in this environment.

Capacity to learn

The ability to be strategic about learning, will increasingly become the key to success. In the future, qualifications are predicted to be shorter term, more varied, but also something people will need to continually update through all phases of life. Lifelong learning will be universally acknowledged as the only way to retain skills needed in society.⁷⁷



According to the Census data that informed the 2019 G21 Region Profile:

50.6% of the G21 population (aged 15 years and over) reported Year 12 as their highest level of secondary school completed which is above the 45.1% recorded in 2011 and significantly higher than the 39.9% recorded in 2000. However, the completion of Year 12 in the G21 region was below the average for Victoria (59.4%) and above the average for regional Victoria (43.5%). Females were more likely to have completed Year 12 than males (F: 53.0%, M: 47.6%).⁷⁸

Simple completion of Year 12, however, is no longer sufficient to ensure labour market security. The type of Year 12 completion is every bit as important. For those who intend to go on to a profession, the Victorian Certificate of Education (VCE) has always been the traditional pathway and the focus here is on theoretical learning, tested by examinations, which will continue through university. With a growing emphasis on the need to prepare people for the world of work and a strengthening understanding that exams do not truly test attainment of knowledge, the Victorian Certificate of Applied Learning (VCAL) is becoming more widely recognised as a legitimate pathway. In the past, it has been considered the correct choice for those wishing

to immediately enter the labour market, or for those intending to undertake vocational education and training. Now it is being recognised as a valid pathway into university as well.

The post-school destinations of Year 12 completers (as well as those who have left school before completing Year 12) show some alarming statistics.

Although we can see that 46% of students have gone on to university, with another 20% in an education/employment pathway, this leaves 34% of young people in the open labour market and, most worryingly of all, 20% of those are in part time work while only 5% are looking for work.

Whilst the Year 12 completion rate has improved, this data is still cause for significant concern. Many of the growth opportunities that are likely to become available within the region will require some form of post-secondary qualification. Skilling the Bay has already done considerable and valuable work in the education system, particularly in facilitating the higher take-up of STEM subjects and these, along with more creative capabilities will be crucial in the future.

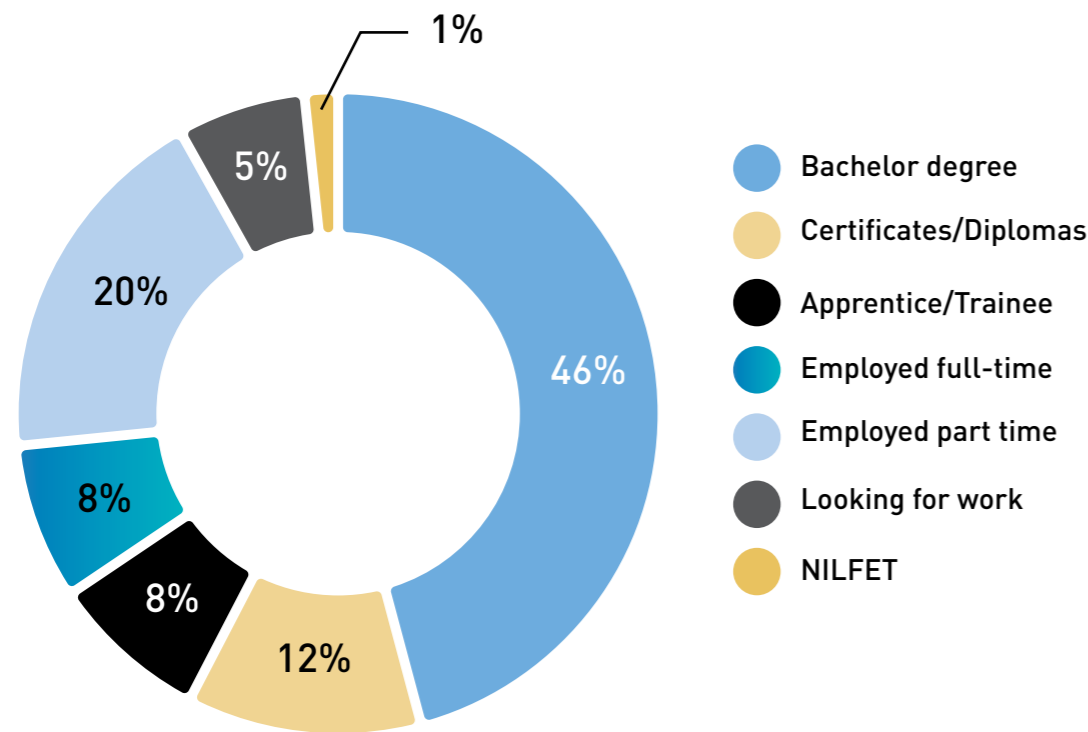


Chart 6: On Track post-Year 12 destination data, 2017, DET

⁷⁸G21 Region Profile, 2019, p. 26

The following chart shows both the highest level of schooling completed and the highest level of qualification completed. Whilst Certificate III and Bachelor degree qualifications have been reasonably well taken up, the higher levels of VET qualifications and post-graduate degrees are poorly represented. This should be of great concern in a region with a world-class university and the largest regional TAFE in the State.

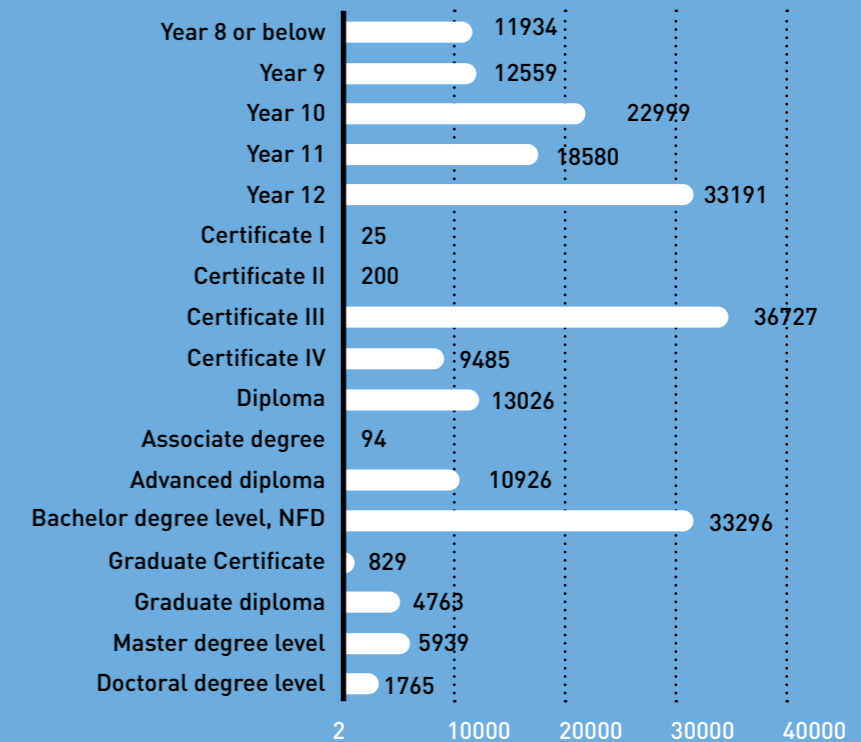


Chart 7: Highest level of education or qualification attained, Census 2016

It is not only the attainment of qualifications, however, that is important. As crucially important is our need to understand the field of study chosen by students and its relevance to the regional labour market (note that this is not necessarily the actual degree, but the academic area in which the student is focusing).

Overall, between the 2011 and 2016 Census collections, there was a 23% increase in the number of students undertaking post-secondary education. All fields of study saw an increase in the number of students at some level.

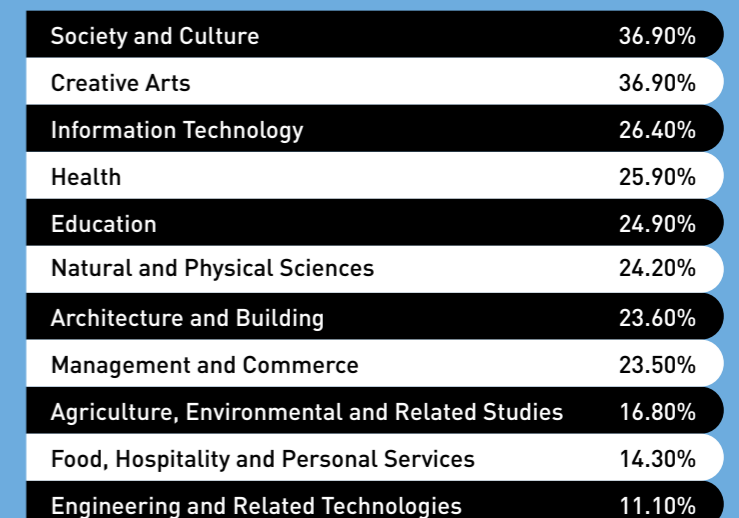


Chart 8: Percentage change in field of study 2011-2016, Census

Whilst some fields of study saw a small increase in the numbers studying (11.1% in engineering and related technologies, 14.3% in food, hospitality and personal services and 16.8% in agriculture, environmental and related studies),

other fields saw significant increases (36.9% in both society and culture, and creative arts).

The chart below shows the comparative numbers enrolled in each field of study in 2011 and in 2016.

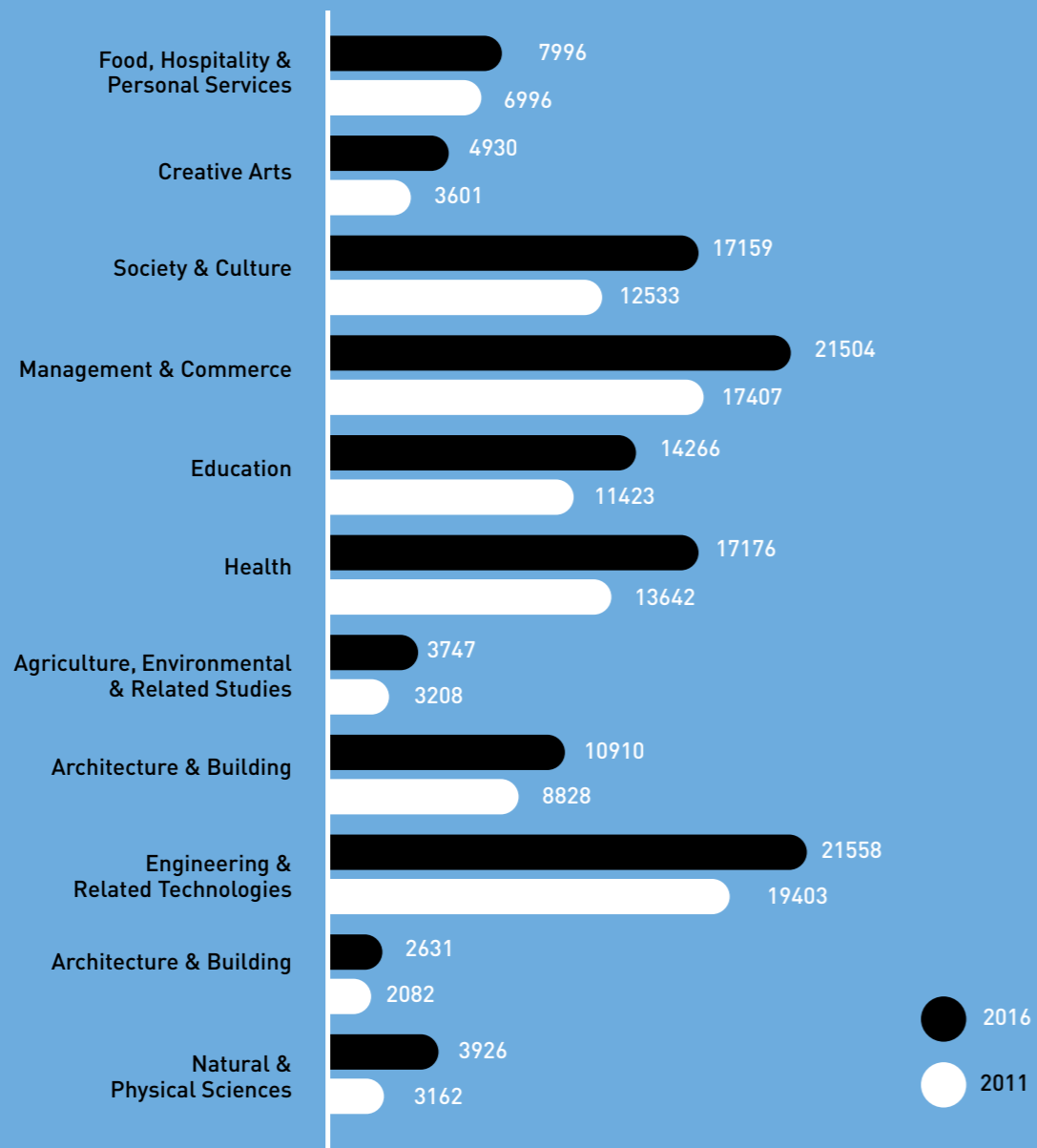


Chart 9: Total number of enrolments by field of study 2011-2016, Census

Further research needs to be done into the sub-fields in which students are studying to compare the education directions being taken with the realities of the regional labour market. Where there are misalignments, Skilling

the Bay could work with education providers and industry to develop strategies to better prepare local workers, particularly young people, with existing and potential future opportunities for employment.



5.2 GLOBAL TRENDS AND LEARNINGS

Education in all its forms is recognised internationally as helping people to understand, adapt to and shape change⁷⁹ and adult education and workplace learning are inextricably linked.⁸⁰

“Enabling citizens to learn throughout life is becoming a priority for communities around the world”. The United Nations 2030 Agenda for Sustainable Development and OECD’s Sustainable Development Goals (SDGs) set out an “ambitious and transformational vision for a world free of poverty, hunger, violence and war; a world in which equity, inclusion and a healthy environment are assured for everyone.”⁸¹

Each of the 17 SDGs include targets for member countries relevant to the local context of learning communities, with SDG 4 Creating a quality education for all, SDG 8 – Decent work and economic growth and SDG 11 – Sustainable Cities and Communities⁸² particularly relevant to Skilling the Bay.

The UNESCO Global Network of Learning Cities, in its Beijing Declaration on Building Learning Cities, committed itself to a range of key actions to advance the 2030 Agenda.⁸³ These actions recognise the importance of facilitating learning in the workplace, enhancing quality in learning, extending the use of modern learning technologies and enhancing economic development and cultural prosperity.



⁷⁹Schuller and Watson 2009
⁸⁰Wang and Allen 2013

⁸¹UNESCO Global Network for Learning Cities, Guiding Documents
⁸²Learning Cities And The SDGs: A Guide To Action, 2017 by the UNESCO Institute for Lifelong Learning, Hamburg, P5.

⁸³<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Skilling the Bay is uniquely placed to enable the Geelong region to deliver on UNESCO’s six action principles.⁸⁴ These principles underpin a shared vision of education for sustainable development.

1. Responding

Being at the forefront in responding to emerging issues experienced by local communities;

2. Engaging

Working in partnership across different disciplines and knowledge systems to identify and generate comprehensive, long term solutions;

3. Enabling

Investing in capacity building of local communities and institutions to enable a holistic, partnership approach to learning;

4. Embedding

Developing and sustaining an ecosystem of learning and living that recognises the complexity and interrelatedness of issues and the need to work together;

5. Sustaining

Ensuring that communities have appropriate infrastructure, the right relationships, attributes and spiritual properties (resilience) to thrive into the future;

6. Transforming

Continually embracing new ways of teaching and learning, including those made possible by technology and changes to work.

The world’s fourth industrial revolution, Industry 4.0, is currently embedding smart, connected technology to transform our economies, jobs and societies. Physical and digital technologies are combining through **“analytics, artificial intelligence, cognitive technologies, and the Internet of Things (IoT) to create digital enterprises that are both interconnected and capable of more informed decision-making”**.⁸⁵

There are many challenges in preparing adult learners, especially older workers and people from socially and educationally disadvantaged backgrounds, for the modern workplace. International competition and new technologies are changing the face of Australian industry.⁸⁶ This means that in this 21st century information society, the adult learner must grow and learn at a more rapid pace than at any time in history.⁸⁷

⁸⁴UNESCO Global Network for Learning Cities, Guiding Documents
⁸⁵ibid

⁸⁶www2.deloitte.com, Industry 4.0 Are You Ready?, 22nd January 2018, Accessed 17th March 2018

⁸⁷Ministerial Council for Vocational and Technical Education 2008

⁸⁸Wang and Allen 2013: 10

Further, the current technology explosion has made the education providers’ task ‘impossibly complex’.⁸⁸ This is because they have an ever-expanding clientele and a workplace that requires ever more advanced skills. This is at a time when a 2007 international adult literacy survey found 48.7 per cent of working age Australian adults had literacy and numeracy levels too low to cope with the everyday demands of life and work in a complex and technologically advanced society.⁸⁹

The most recent international research, based on literacy and numeracy surveys, demonstrate that for individuals, low levels of literacy and numeracy skills have a negative impact on both their social and economic future.⁹⁰ Providers of adult, vocational and tertiary education play a vital role in widening participation and providing fundamental workplace skills for adult learners, especially those from ‘non-traditional’ backgrounds.

Competitive advantage will be driven from the local level as ‘the source of growth and competitiveness is to be found in the local environment’.⁹¹ In developing successfully, communities need to build capabilities in the areas of learning, networking, leadership, innovation and being visionary.⁹² In addition, the skills that will be critical for success in the workforce are sensemaking, social intelligence, novel and adaptive thinking, cross-cultural competency, computational thinking, new media literacy, transdisciplinarity, design mindset, cognitive load management and virtual collaboration.⁹³

Education 4.0, with its focus on lifelong and life wide learning, links directly to the UNESCO 2030 Agenda and responds to the challenges posed by Industry 4.0 through the underpinning principles of: “anywhere anytime, personal and personalised learning, flexibility, learning from peers and mentors, why/where and not what/how, practical applications, modular and projects, learner ownership and evaluated not examined”.⁹⁴

5.3 PARTNERSHIPS BETWEEN EDUCATION AND INDUSTRY

Partnerships between learning pathway providers and business are often heralded as an appropriate and effective response to the effects of globalization.⁹⁵ Many education providers are challenged by:

- Requirements to meet the learning needs of an increasingly diverse cohort of students;
- Costs associated with ensuring the latest technology for training;
- Expectation by learners of additional services such as career counselling and transport.⁹⁶

One way to leverage and pool resources more efficiently is through partnerships, in particular, between libraries, tertiary education providers, business and industry.

An Education and Industry Partnership is a collaboration between an education provider and an individual business, group of firms, chamber of commerce, industry association, or sector partnership with the purpose of using the combined resources to create alternative programs that are tightly linked to regional economic development and labour force needs for non-traditional students—both younger workforce entrants and older ones in need of skills and education upgrades.⁹⁷

Several reasons have been identified for such partnerships between education providers, local government and industry:

- To fill the gaps left by cuts in government budgets;
- The problems around economic development and education tend to be complex and through partnerships you can draw on a range of experience and expertise;
- Partnerships build bridges to other sectors, i.e., local government, social service agencies, and then they can also work on solutions;
- It enables the sharing of resources, such as training rooms and administration, thus potentially reducing costs.⁹⁸

There are many studies documenting the benefits of working in partnership with other organisations and they are well summarised by findings from VCOSS that show that partnerships:

- Can allow for diverse thinking and values leading to better outcomes;
- Provide opportunity to share workload and resources;
- Build capacity of their members;
- Can create the environment for taking risks in developing new service models;
- Create the motivation for people to pull together, which in turn drives and sustains the partnership.⁹⁹

One of the drivers for partnerships between education, business, local government and community has been the increased capacity available to overcome the barriers presented by traditional economic and political structures which perpetuate a competitive environment that denies access by small players to the channels of power and influence.¹⁰⁰ Those small players are often at the front line in reaching the most vulnerable learners. Bringing stakeholders together increases the pool of resources in terms of funding, knowledge and experience, and creates the conditions to provide a coordinated and comprehensive response.

⁸⁹Schmidtke (2013: 461)

⁹⁰Ministerial Council for Vocational and Technical Education 2008

⁹¹OECD 2013; Hagston and Tout 2014

⁹²Lorentzen (2008: 533)

⁹³Haarmaakorpi 2006: 1087

⁹⁴Davies and Fidler et al (2011, pp3-5) of the Institute of the Future, University of Phoenix

⁹⁵www.thegeniusatwork.com, Accessed 16 March 2018 Education 4.0 ... the future of learning will be dramatically different, in school and throughout life, January 24, 2017, Fisk Peter

⁹⁶Schmidtke 2013

⁹⁷ibid

⁹⁸Soars 2010: 4 as cited in Schmidtke 2013: 462

⁹⁹Schmidtke 2013: 462

¹⁰⁰Bourdieu 1979

5.4 ASSISTING DISADVANTAGED LEARNERS INTO EDUCATION AND EMPLOYMENT

Low skilled, disadvantaged learners require flexible and tailored learning models and a range of intensive supports for effective engagement in education and training programs.

Many learners in the Geelong Region will be the first ones in their family to aspire to attend TAFE or University and will require additional support to successfully engage in further education. The add-ins regarded as most important for this group include consistent learner advice, guidance and support (including buddies and mentors), the provision of supportive and locally accessible learning settings, access to small group learning and individual learning, and the provision of managed pathway support.¹⁰¹

There are a number of examples of models in Australia and globally that are recognised as successful in engaging these learners on a pathway to skills and employment.

Pre-accredited Training Models

Pathways to vocational and tertiary education are widely available in the community. Semi-formal entry level training with vocational intent through pre-accredited training has been delivered across Victoria by Learn Local providers for over 30 years. This training provides an important stepping stone for people who have little or no recent experience of education and, for reasons associated with different kinds of disadvantage, find it difficult to commence formal training as a first step.¹⁰²

Flexible Learning

Flexible learning options include part time or distance learning. For example, NSW TAFE Outreach has educational practices that are project based, providing purposeful education with VET accreditation when required.¹⁰³ In Tasmania, the Tasmanian Adult Literacy Action Plan supports volunteers to deliver individual assistance in libraries.¹⁰⁴ In the UK, Scotland's 'Big Plus'¹⁰⁵ and the Norwich Learning Shop (n.d.) have had success over a long period of time with a similar approach.

Modular Learning

Ireland's Back to Education offers part time training and education that leads to certification through the National Framework of Qualifications. Participants take qualifications in components, in a modular fashion, that build up into a whole award over time. Part time provision is designed to be flexible to ensure that the learner can reconcile participation in education with family and/or employment responsibilities.¹⁰⁶

Applied Learning

Applied or hands-on learning may appeal to disengaged learners, especially people who may have been excluded from the academic focus of traditional education programs. The practical application of skills is extremely important for hard-to-reach learners, as a more traditional abstracted instruction will only lead to further disconnection and affirm their distrust of educational settings.¹⁰⁷ The 'Hands On Learning' training program, which is conducted with disengaged young people in various Victorian secondary schools is an example of this approach.

Place Based Learning

Place based learning is integrated into the fabric of local communities. It recognises that increasing access is key to increasing the economic and cultural outcomes available from learning. The local government authority in Seodaemum-gu in South Korea¹⁰⁸ recognised that women in small businesses were not able to access the learning opportunities available in the city because they were working all day in the market until midnight. The answer for the city has been to establish opportunities for the women to engage in learning in the market at the end of their working day.

Blended or integrated approaches

Programs that successfully integrate technologies into their training model can be appealing to many disengaged people, especially young people. Examples from Ireland¹⁰⁹ and Scotland¹¹⁰ as well as local initiatives¹¹¹ show that working towards a qualification using technology to build a portfolio is appealing to young learners, and teaches web skills, behavioural skills and general confidence in dealing with the wider community. Most importantly, the online forum creates a space for young people to find out further information concerning education and training.¹¹² Embedding pathways, mentoring, work placement, transition and post-program support into programs creates valuable connections between the program and the wider community.

¹⁰¹Davies et al. 2011: 56

¹⁰²Davies et al. 2011: 30

¹⁰³Davies et al. 2011: 31

¹⁰⁴Ibid

¹⁰⁵Skills Development Scotland 2011

¹⁰⁶European Commission, 2007 in Davies et al. 2011: 31

¹⁰⁷Davies et al. 2011: 32

¹⁰⁸2019 International Conference

on Learning Cities, Plenary – Governance structures to support inclusive policies, Mr Seok-Jin Mung, Mayor Seodaemun-gu, Republic of Korea

¹⁰⁹Bytes

¹¹⁰Core Connex

¹¹¹Jesuit Community College, Collingwood and NMIT

¹¹²Davies et al. 2011: 34

5.5 VOCATIONAL EDUCATION AND TRAINING

Over the past 10 years the Vocational Education and Training (VET) system in Australia has been the subject of a series of radical reforms. These reforms have been implemented by both the Australian and State (including Victorian) Governments in efforts to create a system that would be highly responsive to the changing skills needs of industry, in particular as Australian businesses face the reality of a rapidly changing economy.

In 2013, as part of the Australian Government's VET Reform agenda a VET Reform Taskforce was established to engage with industry and the training sector to develop and progress agreed reforms. At the inaugural meeting of the Council of Australian Governments (COAG) Industry and Skills Council (CISC) on 3 April 2014, Ministers agreed on six objectives for reform of the vocational education and training system:

- A national VET system which is governed effectively with clear roles and responsibilities for industry, the Commonwealth and the states and territories.
- A national system of streamlined industry-defined qualifications that is able to respond flexibly to major national and state priorities and emerging areas of skills need.
- Trade apprenticeships that are appropriately valued and utilised as a career pathway.
- A modern and responsive national regulatory system that applies a risk-management approach and supports a competitive and well-functioning market.
- Informed consumers who have access to the information they need to make choices about providers and training that meets their needs.
- Targeted and efficient government funding that considers inconsistencies between jurisdictions or disruption to the fee-for-service market.¹¹³

As a result, the Australian Skills Quality Authority (ASQA) was established, along with nationally portable qualifications, the universal student identifier, VET FEE-HELP, the new VET Information Strategy and, in each State and Territory various manifestations of the competitive skills marketplace.

The objective of these reforms has been to improve skills in Australia to support economic growth through stronger labour force participation and productivity.¹¹⁴ Whilst the reforms have "supported more student and

employer choice in training providers, with targeted subsidies and income-contingent loans from governments being made available to a broader range of public and private Registered Training Organisations (RTOs)",¹¹⁵ the unintended consequences included rapid growth in RTO numbers and the need for tighter quality controls to keep pace with the system changes.¹¹⁶

In more recent times governments recognise the need for greater certainty within, and confidence in, the VET sector, whilst also maintaining a contestable system that focuses on increasing the flexibility and responsiveness of TAFEs and RTOs. Demand-driven programs have become increasingly aligned with priority skills areas and targeted at supporting people impacted by structural adjustment in Industry, e.g. the closure of the automotive industry, and those who need assistance to engage in the workforce.

Significant reviews undertaken in the reform period include NCVET review of student entitlements,¹¹⁷ Professor Valerie Braithwaite's independent review of the National Vocational Education and Training Regulator Act 2011 (NVETR Act)¹¹⁸ and Commonwealth, State and Territory governments, industry peak bodies and the AISC together on training package reform.¹¹⁹

In 2019 the Australian Government commissioned a major review of Australia's VET system - the Joyce Review. The premise of the Joyce Review is that "a high-quality vocational education sector is crucial for ensuring Australian businesses of all sizes have the skills they need to support their business growth, whether they be located in cities, regional or rural areas".¹²⁰

The Joyce Review found that vocational education in the form of "work-based learning models will be more important in the future as technology-driven changes to the 'way we do things' need to be quickly transmitted across industries and around workplaces. Our fast-moving world will need flexible and applied ways of learning, so people can lay strong foundations for their careers and then build further skills and knowledge in order to participate in new and changing industries".¹²¹ The Review argues that there needs to be "a new vision for vocational education in Australia as a modern, applied and fast-paced alternative to classroom-based learning".¹²²

The Review also found that in 2017 "54 per cent of employers used the VET system to meet their training needs, while 51 per cent arranged or provided unaccredited training to their staff. Large employers were more likely to use the VET system (85 per cent), compared with small employers (48 per cent)".¹²³

It also found that "employment outcomes for VET students are generally positive. In 2018, around 59 per cent of students who graduated from a VET course in 2017 stated that their employment status had improved after the training. Of those who were not employed before training, 48 per cent were employed after training - this was similar regardless of whether they completed a subject or a full qualification".¹²⁴

Employer satisfaction with Australia's VET system, however, has been declining in recent years. In 2017, a survey of employers with jobs requiring VET found that "approximately 75 per cent were satisfied that vocational qualifications provide employees with the skills they need for the job. This compares with a peak of 85 per cent in 2011. Employer satisfaction is now at its lowest rate in 10 years. Of the employers who were dissatisfied, poor training quality, not teaching relevant skills and not enough focus on practical skills were raised as the prevailing concerns".¹²⁵

In comparison, of the 51 per cent of employers who used unaccredited training in 2017, 89 per cent reported that they were satisfied with this training. Of the employers who used unaccredited training, 11 per cent said there was comparable nationally recognised training available. When asked why they chose unaccredited training instead, the most common reasons were cost effectiveness (37 per cent) or that the approach was tailored to their needs (26 per cent).¹²⁶

The Victorian Government's **Skills First: Real training for real jobs**¹²⁷ recognises that the State's economy needs Victoria's VET providers to be part of "a strong and stable training system with robust TAFEsthat build industry capability and develop Victoria's current and future workforce".¹²⁸ In launching the Skills First policy in January 2017, The Minister for Training and Skills said "Skilling Victorians will ultimately lead to improved productivity, greater investment, stronger economic activity, increased innovation and more jobs".¹²⁹



Chart 10: Skills First training market commitment

Skills First commits the Victorian Government to ensuring:

- Growth sectors get skilled workers;
- Funding supports the delivery of responsive and relevant training;
- TAFEs are recognised and supported for the critical role of delivering around 70% of all apprenticeships and retraining Victorians with skills to help them transition to new jobs;
- The system supports quality providers to meet the needs of students, industry and the economy;
- Industry is at the forefront of design and development of new training programs and products, projects or initiatives;
- Jobs are supported in the Regions by funding training in regions and industries where the current system lacks the ability to meet the needs of local businesses;
- Victorians who are high needs learners are reconnected to education and training.

¹¹³<https://www.employment.gov.au/vocational-education-and-training-reform>

¹¹⁴Strengthening Skills, Expert Review of Australia's Vocational Education and Training System, The Honourable Steven Joyce, 2019

¹¹⁵ibid

¹¹⁶<https://www.abc.net.au/news/2016-04-14/manning-rorts-and-blowouts-the-folly-of-public-subsidies/7325462>

¹¹⁷NCVER 2016, Jurisdictional approaches to student training entitlements: commonalities and differences, Adelaide: NCVER

¹¹⁸Braithwaite, Valerie 2018, All eyes on quality: Review of the National Vocational Education and Training Regulator Act 2011 report. Canberra: Australian Government.

¹¹⁹'The Case for Change',

¹²⁰Strengthening Skills, Expert Review of Australia's Vocational Education and Training System, The Honourable Steven Joyce, 2019

¹²¹ibid

¹²²ibid

¹²³Strengthening Skills, Expert Review of Australia's Vocational Education and Training System, The Honourable Steven Joyce, 2019

¹²⁴ibid

¹²⁵Strengthening Skills, Expert Review of Australia's Vocational Education and Training System, The Honourable Steven Joyce, 2019

¹²⁶ibid

¹²⁷<https://www.education.vic.gov.au/training/providers/funding/Pages/skillsfirst.aspx?Redirect=1>

¹²⁸ibid

¹²⁹ibid

Skilling the Bay is contributing to Skills First and Education State objectives by:

- Facilitating partnerships with Industry and across education sectors;
- Creating awareness of skills needs and promoting pathways and training in areas of demand and growth;
- Supporting the long-term unemployed and vulnerable into training and sustainable employment;
- Demonstrating The Gordon Institute of TAFE's unique role in leading regional communities with regard to education, employment and skills;
- Fostering a culture of lifelong learning in Geelong.¹³⁰

At the federal level a recent change to the machinery of government has seen the Australian Department of Jobs and Small Business become the Australian Department of Employment, Skills, Small and Family Business, an explicit recognition of the importance of skills in supporting employment transition and in supporting skills development for small to medium size enterprises as they become increasingly important to the sustainability of local economies.

Australian governments continue to pursue the VET reform objectives with these having been refined into four main themes:

- Industry responsiveness
- Quality and regulation
- Funding and governance
- Data and consumer information.¹³¹

The Skilling Australians Fund has been established as a partnership between the Australian Government and State Governments to encourage the growth of apprentices and trainees to support Australia's future productivity, jobs and growth.



¹³⁰Skilling the Bay Strategic Discussion Paper

¹³¹<https://www.employment.gov.au/vocational-education-and-training-reform>

¹³²ibid

¹³³Higher Education in Australia A review of reviews from Dawkins to today, Department of Education 2015

¹³⁴ibid

5.6 UNIVERSITY EDUCATION IN AUSTRALIA

Australia's higher education system is made up of universities and other institutions that play a critical role in fuelling innovation, driving productivity and providing students with the skills they need for future success.¹³²

The number of domestic higher education students has more than doubled since 1989, reaching just over a million in 2014. As student numbers have grown, they have come from more diverse social, economic and academic backgrounds. The proportion of the Australian working age population with a Bachelor degree or higher qualification has tripled since 1989 to just over 25 per cent.¹³³

Education is critically important to the broader Australian economy. It has been Australia's largest service export for a number of years, and it continues to grow.¹³⁴

Over the past 30 years the higher education system in Australia has been the subject of a number of significant reviews (e.g. The Dawkins Review 1988,¹³⁵ The West Review 1998,¹³⁶ The Nelson Review 2002,¹³⁷ The Bradley Review 2008¹³⁸ and the National Commission of Audit 2014)¹³⁹ as government has sought to ensure that it has the ongoing capacity to meet the increasing demand for high level skills in the Australian economy. "The challenge for all governments has been how to enable greater numbers of students to access the benefits higher education offers – in terms of employment, earnings, social and cultural opportunities – while ensuring the system remains fair, high quality and affordable for both individuals and taxpayers".¹⁴⁰

The results of these reviews and others include the introduction of the Higher Education Contributions Scheme (HECS), reforms to the Australian Research Council and research training, per-student funding replacing block funding, universities being permitted to set their own student contributions up to the maximum set by the Commonwealth, the introduction of a regional loading component to funding, an increase in the proportion of full fee-paying students, a range of equity initiatives introduced to enable access by marginalised groups including the introduction of participation and equity targets, increased research infrastructure funding, the establishment of a national regulator (TEQSA, 2011) and the provision of demand driven funding for Bachelor courses at public institutions.¹⁴¹

¹³⁵1988 Higher Education: a Policy Statement (Dawkins white paper)

¹³⁶Learning for Life: review of higher education financing and policy (West Review)

¹³⁷2002 Review of Higher Education in Australia (Nelson Review)

¹³⁸2008 Review of Australian Higher Education (Bradley Review)

¹³⁹ibid

These reviews have looked at the role of higher education in developing the skills required in the economy. Bradley in 2008, for instance, found that higher education will clearly be a major contributor to the development of a skilled Australian workforce but that it must address the rights of all citizens to share in its benefits.¹⁴² Shephard in 2014 found that Commonwealth investment in higher education contributes to a more agile and productive workforce, resulting in higher tax revenues, reduced unemployment costs and improved international competitiveness.¹⁴³

Across the world countries are facing similar issues to Australia. OECD analysis shows that there is a wide range of approaches to tuition fees and public support for students. In this analysis Australia is grouped with Canada, the Netherlands, New Zealand, the UK and the US as countries which have well-developed student support systems with relatively high tuition fees.¹⁴⁴

Economic development and structural change are driving the need for more highly skilled workers across all economies. This is resulting in increased demand for higher education qualifications. Reviews have found that globalisation is another international driver of change in higher education, as workers, students and research become more mobile and competition between countries and institutions for the brightest students and most talented researchers intensifies.¹⁴⁵

Responding to the challenge of increased demand for, and increased expectation of, higher education "means taking an innovative approach to ensuring that tertiary education responds to the increasing diversity of its students, and to the changing demands of the Australian labour market."¹⁴⁶

The Productivity Commission in 2018 found that the opportunity to access a strong, fit-for-purpose tertiary education sector must be available to all Australians, to assure a strong future for the Australian economy and society.¹⁴⁷

One of the strongest arguments for the importance of the tertiary education sector arises from the projected future skills needs of the Australian labour market. The Department of Jobs and Small Business (2018) forecast that 96% of the 1.1 million new jobs projected to be added to the Australian labour force by 2021 will require skills produced in the higher education and VET systems,¹⁴⁸ further strengthening the argument for partnerships between TAFE Institutes and Universities.

5.7 ADULT EDUCATION AND LEARN LOCALS

The third post-secondary education sector in Victoria is the Learn Local sector.

Learn Local Organisations (LLOs) are not-for-profit community-based organisations that deliver a wide range of education and training programs to meet the needs of adults and young people from diverse backgrounds.

LLOs are registered with the Victorian Adult Community and Further Education Board to provide pre-accredited education and training for working age adults who need to develop "foundation skills, knowledge and confidence, so they can move to formal accredited vocational education and training and/or employment".¹⁴⁹ Foundation skills include language, literacy and numeracy and skills that support entry or re-entry to work and/or further learning.

Pre-accredited programs are short modular courses that focus on creating pathways for learners to further education and training or employment.

Learn Locals focus the delivery of funded pre-accredited training with:

- Women seeking to re-enter the workforce after significant time away, women who have experienced or are experiencing family violence;
- Early school leavers, both mature and youth;
- Low skilled and vulnerable workers;
- Indigenous people;
- Unemployed and underemployed people;
- People from culturally or linguistically diverse backgrounds;
- Disengaged young people;
- People with a disability.¹⁵⁰

Geelong has 11 Learn Locals within a 50km radius of the CBD providing highly customised pre accredited training to local communities.

¹³⁹2014 Report of the National Commission of Audit, chaired by Tony Shepherd AO,

¹⁴⁰Higher Education in Australia A review of reviews from Dawkins to today, Department of Education 2015

¹⁴¹Higher Education in Australia A review of reviews from Dawkins to today, Department of Education 2015

¹⁴²<https://www.voced.edu.au/content/ngv%3A32134>

¹⁴³2014 Report of the National Commission of Audit

¹⁴⁴Higher Education in Australia A review of reviews from Dawkins to today, Department of Education 2015

¹⁴⁵ibid

¹⁴⁶2008 Review of Australian Higher Education (Bradley Review)

¹⁴⁷AlphaBeta, 2018; Productivity Commission, 2017.

¹⁴⁸<http://www.mitchellinstitute.org.au/wp-content/uploads/2019/05/Rethinking-and-revitalising-tertiary-education-FINAL.pdf>

Rethinking and Revitalising Tertiary Education in Australia, Dawkins, Noonan, Hurley

¹⁴⁹<https://www.education.vic.gov.au/training/providers/learnlocal/Pages/preaccredited.aspx>

¹⁵⁰<https://www.education.vic.gov.au/training/providers/learnlocal/Pages/acfe.aspx>

6.0

SPACE AND PLACE

6.1 PLACE BASED STRATEGY AND POLICY CONTEXT

In developing and sustaining a robust knowledge-based economy, government and industry have begun to appreciate that place matters. As the constraints of geographical distance are becoming less important, the specific features of particular locales are becoming more important.¹⁵¹ Place transcends landscape, climate, and buildings. It is about people and what they produce, the quality of life beyond work, the effectiveness of government, and the momentum of business.¹⁵² According to a Deloitte report on the purpose of place, “people congregate in particular places because place matters for their prosperity. It matters directly and indirectly, materially and non-materially, and for better or worse”.¹⁵³

The bases for advantage are intensely local, as the quantity and quality of human and physical capital vary from region to region. Regions offer a scale at which the attributes of place can be leveraged and cross-sector, systemic challenges can be addressed through place-based policies and strategies. Local communities working together to deliver a shared vision can result in collective shifts towards mutually desired outcomes that support a particular place to flourish.

In advancing Skilling the Bay’s objective of preparing Geelong for the jobs of the future through education, employment and innovation, there are a number of key advantages that a strong place-based approach can deliver. These include:

- **Agglomeration** – Where businesses and institutions concentrate in specific geographic areas to collaborate, share knowledge, skills and resources to foster higher levels of innovation, knowledge transfer and commercialisation;
- **Amenity** – A liveable location that attracts people to live, work and play. Places of high amenity feature good connectivity and accessibility, a vibrant culture and well-designed public and private spaces that grow social networks and increase face-to-face encounters (particularly important since knowledge-based industries often demand the exchange of complex, tacit knowledge);
- **Mixed use** – Blending commercial, cultural, institutional, residential and retail uses into one area, where those functions are physically and functionally integrated to some degree;
- **Identity** – Building on characteristics and opportunities of the location to create market visibility, support branding and build profile;
- **Sense of place** – The competitive advantage of unique place-based characteristics including heritage assets, environmental features and local stories.

These features augment the ‘stickiness’ of a place – that is, the region’s ability to retain competitive advantage by providing the type of environment where people (and businesses) want to stay. Though not traditionally associated with skills development, job creation and innovation, placemaking plays an important role in developing and supporting a vibrant knowledge-based economy by weaving together economic, social and physical assets into a holistic perspective. A regulatory environment that enables the preconditions for a place to grow and succeed is also essential. The following provides an overview of recent national and local policies and strategies that support a place-based approach to drive prosperity in the Geelong region.

6.2 NATIONAL CONTEXT

6.2.1 STATEMENT OF PRINCIPLES FOR AUSTRALIAN INNOVATION PRECINCTS: PLACE-BASED PARTNERSHIPS BUILDING COMPETITIVE STRENGTHS (OCTOBER 2018)

Released in October 2018, this Statement of Principles is intended to foster improved precinct development by aligning and informing inter-related activities and future planning by businesses, the research and education sector, and government at all levels who are seeking to develop precincts. The term ‘Innovation Precinct’ is used to describe the geographic clustering of knowledge-based activity. Common features of innovation precincts include a:

1. widely understood geographic extent (even though boundaries are often fuzzy);
2. shared sense of identity amongst those involved; and
3. strong set of formal and informal networks and partnerships between people and businesses, researchers, education and training organisations and government.

These features are clearly evident in Geelong as it is now well advanced in its transition from a traditional heavy manufacturing-based economy to a diversifying knowledge-based economy. This Statement of Principles makes specific reference to the City of Greater Geelong working with the Geelong Manufacturing Council and Deakin University to provide complementary services to firms, co-sponsor networking events and promote the Greater Geelong region as an innovative manufacturing centre.

It also highlights City Deals as a useful initiative for leveraging and aligning government policy and programs that can support precinct development. It states that the Australian Government will commit to considering the role of innovation and the principles contained within the Statement in existing and future regional development initiatives, including City Deals. With Geelong having recently secured a City Deal, it is well positioned to leverage this commitment in strengthening the role of innovation and entrepreneurship in underpinning the success of its future economy. The Great Small Cities Data Tool shows that Geelong rates poorly in comparison to other major cities in Australia in terms of its entrepreneurship and business sophistication.



6.2.2 SMART CITIES PLAN (2016)

Like the Statement of Principles for Australian Innovation Precincts, the Smart Cities Plan recognises that knowledge-based industries rely on the successful concentration of industries and organisations in particular locations. It also emphasises the opportunity for City Deals to deliver better outcomes through a cooperative approach to long term planning across all tiers of government and a coordinated investment plan that drives national priorities such as long-term growth and job creation, tailored to local needs.

The Plan identifies a range of challenges and opportunities for cities including economic transition, jobs, housing, transport, green urban spaces, and human capital. The plan’s focus on high quality, rapid transport is of particular relevance to Geelong given the federal government’s recent announcement to deliver fast rail between Geelong and Melbourne.

The plan emphasises the importance of regional transport links such as fast rail in increasing both access to jobs and access to the labour force as well as allowing people and businesses to take advantage of the amenity and affordability of regions while reducing pressure on larger metropolitan centres. It also creates incentives to establish businesses and create jobs in regional centres by offering fast, convenient access to markets and services of larger cities when required.

¹⁵¹United Nations Centre for Human Settlements (2001), *Cities in a globalizing world: Global report on human settlements*, London: Earthscan, p.xxxiii

¹⁵²<https://www2.deloitte.com/au/en/pages/building-lucky-country/articles/purpose-of-place-reconsidered.html>

¹⁵³Deloitte (2015), *The Purpose of Place Reconsidered*

6.3 STATE CONTEXT: CREATIVE STATE 2016-2020

Creative State 2016-2020 is the Victorian Government's strategy to strengthen and grow the state's creative industries and the value they bring to Victorians. It contains 40 targeted actions which together provide an integrated plan to grow the state's creative and cultural economy, provide more opportunities for Victorians to embark on creative careers and enjoy creative experiences, and position Victoria as a globally recognised creative state. The actions fall into five areas of focus. **These are:**

- **Backing creative talent** – creating more opportunities to produce and present great work;
- **Strengthening the creative industries ecosystem** – building capability and conditions for growth;
- **Delivering wider economic and social impact** – stimulating innovation and wider creative impact;
- **Increasing participation and access** – engaging more Victorians in creative and cultural endeavour;
- **Building international engagement** – extending Victoria's impact and profile for global audiences, visitors and markets.¹⁵⁴

As the original Creative State Strategy enters its final year, work has commenced on the development of Victoria's next creative industries strategy that will guide initiatives and investment between 2020-2024, with a state-wide consultation process now underway.

The state government's recognition and support of creative industries is of particular importance to the Geelong region given the findings of the Creative Industries Environmental Scan 2018.¹⁵⁵ This report examined the role and impact of the creative industries at a global, national, state and regional level and concluded that the sector provides growing economic benefits to the G21 region, contributing \$2,085,393 million or 5.9% to the overall regional output, and employing 9,127 people, representing 7.3% of the total regional workforce. The importance of this sector is now being further supported through local policy and strategy development as outlined in the following section.



¹⁵⁴<https://creative.vic.gov.au/creative-state/introduction>

¹⁵⁵http://creativegeelong.com.au/CreativeGeelong_Enviroscan.pdf

6.4 SPACE AND PLACE GEELONG CONTEXT

6.4.1 GEELONG CITY DEAL (2019)

The Geelong City Deal is a 10-year plan to revitalise Geelong and unlock the potential of the Great Ocean Road visitor economy. The Australian and Victorian Governments, together with the City of Greater Geelong, will deliver \$370 million in investment to the region, supporting Geelong's continued economic diversification, growth of the visitor economy and a thriving city centre. The Deal will facilitate new private investment, creating businesses and jobs that will allow the region to benefit from its natural assets, and encourage visitors to spend more time in the region. Through the City Deal, Geelong will be looked to as a benchmark for success by transitioning economies around the country.

6.4.2 REVITALISING CENTRAL GEELONG ACTION PLAN (2016)

The Revitalising Central Geelong Action Plan is a key commitment of the Geelong City Deal. The Action Plan coordinates state and local government involvement to drive change in central Geelong. It provides focus for structural, policy and physical changes necessary to attract private sector investment and stimulate growth. The Action Plan is designed to encourage:

- People living and working in the city;
- Permanent job creation;
- Demand for retail and services;
- Creativity and vibrancy across the city day and night;
- New development opportunities;
- Private sector confidence to invest in central Geelong.

The plan recognises that Geelong has the building blocks to thrive locally and globally but to make this a reality the city needs to be able to attract new people, new ideas and new opportunities, beginning with revitalising the heart of Geelong.

Since its establishment in 2016, the plan has helped to deliver a series of projects designed to accelerate Geelong's transformation into a vibrant city centre with a prosperous local economy. Key among them has been the construction of the Geelong Tech School at the Gordon Institute of TAFE's city campus. This was identified in the Action Plan as a catalyst project to develop Geelong as a Smart City by working with local secondary schools to enhance student learning and build the skills needed in future workforces through innovative educational programs centred on industry-led projects in a high-tech environment.



6.4.3 GREATER GEELONG: A CLEVER AND CREATIVE FUTURE (2017)

Cities succeed and perform best when all stakeholders work together to deliver a shared vision for their city. Greater Geelong: A Clever and Creative Future is the city's 30-year community led vision that "by 2047, **Greater Geelong will be internationally recognised as a clever and creative city-region that is forward looking, enterprising and adaptive, and cares for its people and environment**". The strategy outlines key community aspirations, three of which directly align with Skilling the Bay's goals for education, employment and skills. These are:

- A prosperous economy that supports jobs and education;
- A leader in developing and adopting technology; and
- Creativity drives culture.

Each aspiration outlines a variety of ways in which success will be achieved, many of which Skilling the Bay actively contributes to or leads the way in. These include:

- Partnerships between educators and industry to ensure business skills needs are addressed, and people can adapt and learn;
- A highly skilled and diverse workforce, which will be a competitive advantage for local business;
- Well-connected and diverse businesses that grow the local economy;
- Spaces for start-ups to interact and network;
- Attracting innovative and high technology businesses;
- A community and workforce with the capacity to use digital technology;
- Training in future digital jobs;
- Development of creative industries and a culture of thinking outside-the-square;
- Attracting creatively oriented and artistic industries to the region.

6.4.4 UNESCO GEELONG CITY OF DESIGN (2017)

A key step in Geelong's journey to transform the community's clever and creative vision aspirations into reality is its recent designation as a member of the UNESCO Creative Cities Network (UCCN). Members of the Network agree to create and develop awareness of the power of creativity in building sustainable, resilient and inclusive cities. They also agree to advance the principles of the Sustainable Development Goals, particularly SDG 11 'Sustainable Cities'. There are currently 180 member cities across 72 countries, each having a designation in one of seven creative fields – Design, Film, Gastronomy, Literature, Media Arts, Music, Craft and Folk.

Geelong made application to become a member of the UNESCO Creative Cities Network and on 31 October 2017 was designated as Australia's first and only City of Design. Other Australian members of UCCN are Melbourne (City of Literature), Sydney (City of Film) and Adelaide (City of Music).

As a member of the UCCN network, the designation will be a catalyst for fostering and celebrating Geelong's creative capabilities as well as providing opportunity for international relationships and activating and sharing projects. The designation will build local capability in design thinking to improve the City's industrial and commercial activities, urban form and liveability.

7.0

¹⁵⁶Provided by Skilling the Bay team
¹⁵⁷<https://www.thegordon.edu.au/stb/initiatives>

SKILLING THE BAY 2011 – 2019

“We are big supporters of the Skilling the Bay team. Their work is amazing. They get across to everyone in the region and evolve to meet the next need. They see where the gaps are and what needs to be done and bring stakeholders together”.

“Skilling the Bay is central to solutions”

[Comments from Consultations]

Skilling the Bay commenced in Geelong in 2011 at a time of significant economic and industry disruption. During the past eight years of operations it is clear from stakeholder consultations and available data that Skilling the Bay has played a key role in responding to the skills challenges

associated with a volatile local economy that has been in the throes of transitioning away from a reliance on heavy manufacturing and into a new economic reality.

The Victorian Government invested \$14.8 million (GST Inclusive)¹⁵⁶ from 2011 - 2020, with the aim of:

- Raising educational attainment levels [Education];
- Increasing workforce participation through training and re-skilling [Employment];
- Growing existing and emerging industries through targeted skills development [Skills].

Skilling the Bay is being delivered in three Stages, with the first Stage commencing in 2011 and the third Stage due for completion in June 2020. Overall Skilling the Bay has delivered eleven initiatives, with many comprised of several program elements.

The Table below contains a summary of the initiatives¹⁵⁷ supported by Skilling the Bay.

Goals	Goal 1: Informing and raising educational attainment levels focussed on pathways to employment	Goal 2: Increasing workforce participation through training and re-skilling	Goal 3: Growing existing and emerging industry through targeted skills development
Initiatives	<ul style="list-style-type: none"> • Geelong Tertiary Futures Program • Successful Students STEM • Digital Technologies Program • Careers in Community Services & Health • STEM Manufacturing Futures 	<ul style="list-style-type: none"> • Whittington Works • Northern Futures • Geelong Region Workforce Development Centre 	<ul style="list-style-type: none"> • Geelong Future Industry Project • Skilling for Business Success • Skilling the Community Services & Health Workforce • Skills for Advanced Manufacturers – Composite Materials

Table 3: Summary Skilling the Bay goals and initiatives



7.1 SKILLING THE BAY STAGES AND ACHIEVEMENTS

In the years 2011 – 2019 Skilling the Bay has completed Stage 1 and Stage 2 and embarked on Stage 3 of the funding initiative. In that time, it has delivered on a range of outcomes that have contributed significantly to the development of skills in a transitioning labour market. Those outcomes, summarised on the following page, include lifting the educational attainment of young people and adults, increasing workforce participation, including thousands of students and working age adults in education, training and transition to work programs, supporting the development of Science, Technology, Engineering and Mathematics capabilities and enabling local communities take control of their own learning through Northern Futures and Opportunity East (Whittington Works).



The outcomes achieved for Stages 1, 2 & 3 are:

Stage 1 - 2012 - 2013

\$1.8m (GST Inclusive) allocated to The Gordon for delivery of a demonstration project and stakeholder consultation to determine priority actions.

Outcomes:

- Regional Jobs Summit (June 2013)
- Priority Actions Report (December 2013) identifying the need to lift education attainment and increase workforce participation through re-engaging with education and training
- Delivery of the Geelong Future Industry Project (\$500k demonstration project) to develop a pilot manufacturing plant for the production of short nanofiber.
- \$0.5m allocated to Victorian Training Guarantee (VTG) subsidies for retrenched workers

Stage 3 - 2018 - 2020

Funding of \$3.8m secured to deliver Stage 3, a suite of targeted initiatives focused on raising education attainment in STEM, developing 21st century skills, career pathways programs for secondary school students; education to employment programs for disadvantaged job seekers.

Early participation outcomes for Stage 3, across all initiatives include:

- 2668 secondary students have participated in a Skilling the Bay program to assist them in identifying future career pathways.
- 178 teachers have undertaken professional development to build STEM teaching capability and increase the capacity of schools to engage with the Geelong Tech School.
- 425 students enrolled in SbAT and VETiS programs as an early entry pathway to the growing Health and Community Services Sector, and a further 262 students participating in non-accredited pathways programs to introduce vulnerable and disengaged cohorts to career opportunities.
- 243 participants in place-based education to employment programs for vulnerable and disadvantaged job seekers, with 77 job outcomes gained to date.

Stage 2 - 2014 - 2017

Additional \$9.2m (GST Inclusive) secured to deliver 10 initiatives over 2014-17 and develop a clear performance measurement framework to measure and track each of the initiatives.

An analysis of the data collected shows that in the time period 2014 - 2017:

- 7848 secondary students participated in a Skilling the Bay program to assist them in identifying future career pathways
- 504 teachers engaged with Skilling the Bay
- 300+ industry partners engaged with Skilling the Bay and provided opportunities for students
- 1680 adults in education, training, employment and skills development
- 205 jobs were created
- 123 programs delivered
- 7 new training courses developed
- 1000+ enrolments in Health and Community Services (H&CS) SbATs and VETiS programs, with 87% completion rate to meet demand for entrants to the growing H&CS Workforce
- 600 people assisted with new skills and employment opportunities through the establishment of the Geelong Workforce Development Centre

In addition, Skilling the Bay's achievements include being selected as finalists in the 2017 and 2018 Victorian Training Awards in recognition of Industry Collaboration for two programs, namely:

- Skills for Advanced Manufacturing in Composite Materials, including the creation of an Australian first course in the Use of Carbon Fibre in Composite Manufacturing (22312VIC)
- Careers in Community Services and Health program.¹⁵⁸

¹⁵⁸ Skilling the Bay reports

Along with the participants and stakeholders benefiting from Skilling the Bay initiatives, The Gordon has benefited directly and indirectly from Skilling the Bay through the development of new training products, project management, program delivery, increased student pipeline (approximately 40% of students undertaking a Skilling the Bay program have returned to The Gordon within five years),¹⁵⁹ increased positive publicity and awareness of capability across schools, industry and other regional stakeholders.

The following more detailed snapshots of Skilling the Bay initiatives demonstrate its ability to facilitate collaboration, coordinate resources and enable local controls to bring organisations together and deliver learning outcomes.

Northern Futures provides place-based education-to-employment programs for residents of Geelong's northern suburbs who are long-term unemployed or at risk of becoming long-term unemployed. In the years 2015 – 2019 over 350 people participated in education, training and employment transition programs with 85% completing the training and 48% achieving a 16-week employment outcome. 18% of the participants continued on with further training or education. Over 40 local organisations have supported the initiative with work placement or employment opportunities.¹⁶⁰

Opportunity East provides place-based education-to-employment programs for residents of Geelong's eastern suburbs who are long-term unemployed or at risk of becoming long-term unemployed. In the years 2015 – 2019, 134 residents participated in education, training and employment transition programs with 72% completing the training and 46% successfully transitioning into employment.¹⁶¹

STEM Manufacturing Futures provides Year 9 and Year 10 students with hi-tech, advanced manufacturing education and employment pathways, delivered in 2018 – 2019 by the Geelong Manufacturing Council (GMC) in partnership with key industry organisations (previously delivered in 2016 – 2017 by Geelong Regional Vocation Education Council (GRVEC)). Since its inception, 220 students have completed the Geelong Futures Leaders of Industry Program and Girls Leading in Advanced Manufacturing. 99% moved into training or work with 47% studying or working in engineering or science related fields and 2 students are currently undertaking PHDs at Deakin University. In 2019 40 students are undertaking the program.¹⁶²

Growing the Health and Community Services Workforce 2014 – 2019 is delivered by the Geelong Regional Local Learning and Education Network (GRLEN) and provides entry level employment pathways into the rapidly expanding Community Services and Health sector through taster programs, school leaver programs, expos, work placements, Vocational Education and Training in Schools (VETiS) and School Based Apprenticeships and Traineeships (SBATs). Since 2014 the initiative has achieved over 1000 enrolments in SBATs and VETiS and over 500 students in non-accredited programs.¹⁶³

Skills for Advanced Manufacturing: Composite Materials is focused on the emerging carbon fibre sector in the region and aims to promote the growth of the sector through targeted skills development and training products. Following extensive collaboration with Geelong region carbon fibre industry representatives, Skilling the Bay with The Gordon's technical expertise, facilitated the development of an Australian first accredited Course in the use of carbon fibre in composite manufacturing. The course features work-integrated learning as a key component and is aimed at a wide range of individuals including retrenched workers seeking to transition into the growing advanced manufacturing sector. Partners in the development of the course included The Gordon, Quickstep Technologies, Carbon Nexus, Sykes, Carbon Revolution, RPC Technologies and Skilling the Bay.¹⁶⁴

The Upstart Challenge began in 2012 as a concept created by Geelong's St Joseph's College Foundation in response to the region's transforming industrial economic heritage and the need to better prepare young people for the changing employment landscape. The Challenge is an entrepreneurial ideas challenge and accelerator program providing employability skills to better equip students for the jobs of the future.¹⁶⁵

The Returnships Program is another initiative of Skilling the Bay that was highly innovative in the way it provided retrenched workers, mums returning to work and older unemployed with paid work experience. The program placed each participant with an employer for 112 paid hours. The program achieved 40 placements with 50% going on to obtain further work.¹⁶⁶

The Workforce Development Centre was established by Skilling the Bay in 2014 to provide training and career advice to vulnerable and retrenched workers. Over 600 people utilised the services of the Centre, with 46% being retrenched workers and their families. Skilling the Bay's Workforce Development Centre model informed the design of the current state-wide Skills and Jobs Centre initiative.

¹⁵⁹Ibid¹⁶⁰Skilling the Bay Outcomes and Achievements Snapshot¹⁶¹Ibid¹⁶²Ibid¹⁶³Skilling the Bay Outcomes and Achievements Snapshot¹⁶⁴<https://www.thegordon.edu.au/stb/initiatives/goal-3/>

skills-for-advanced-manufacturing

¹⁶⁵<https://www.upstarthq.com.au/about-us/>¹⁶⁶Ibid

7.2 TRUST, VISION & CONSISTENCY

Previous studies of Skilling the Bay achievements and outcomes, and feedback from the Consultations undertaken with stakeholders for the Geelong Education and Workforce Profile (2011 – 2021), provide a picture of an initiative that has developed a reservoir of trust by staying true to its vision and consistently delivering on outcomes for participants and stakeholders, including schools, industry and community.

Skilling the Bay is known for being able to bring together education providers, community organisations and industry to deliver targeted initiatives that enable the community to prepare for work now and into the future.¹⁶⁷ The initiative has played a facilitating role amongst sometimes otherwise competing stakeholders to develop and deliver solutions to education, employment and skills challenges. Being able to bring together stakeholders that haven't normally collaborated and deliver outcomes is a real strength.¹⁶⁸

Skilling the Bay aligns with and complements the significant body of existing regional planning work that is supporting development across the Geelong region. This includes the City of Greater Geelong's (COGG) Clever Creative Geelong, other COGG strategic plans and the G21 – Region Alliance Plans. It provides the Geelong region with a mechanism for establishing partnerships, and coordinating efforts, geared towards improving educational engagement, educational attainment and workforce participation.¹⁶⁹

It provides a model for customised place-based delivery of skills training and capability building that is unique to the Geelong regional culture. A key feature of the Skilling the Bay approach is its focus on bringing organisations together on the ground to collaborate, share resources and develop local solutions. Stakeholders indicate that they believe that there is no other organisation in Geelong or the region that is:

- Doing the research to underpin programs in areas where there is an apparent need;
- Bringing people together to facilitate local place-based solutions;
- Working with community organisations to strengthen their ability to respond to highly local needs;
- Filling the gaps when needs arise;
- Setting strategy that focuses collaborative effort on addressing skills of the future;
- Understanding the different government departments and what they need;
- Able to report on the work that is happening on the ground.

The collective impact of Skilling the Bay programs is far reaching, enabling thousands of people across Greater Geelong to participate in education and training initiatives to gain the skills needed to participate in work now and into the future.¹⁷⁰

Partnerships are core to Skilling the Bay's operations with close collaborations formed with the City of Greater Geelong, Deakin University, G2 Innovation, GRLEN, Northern Futures, Secondary schools from across the region, Upstart, the Geelong Manufacturing Council, Geelong Technical School and The Gordon.¹⁷¹

Skilling the Bay is seen as a quiet achiever and, going forward, it may need to embrace a more prominent positioning and promotional stance in order to differentiate itself from other local organisations.

One of the key goals for Skilling the Bay in 2013 was to lift the Year 12 attainment rate across Geelong. The 2019 G21 Region Profile data shows us that 50.6% of the G21 population (aged 15 years and over) reported Year 12 as their highest level of secondary school completed which is above the 45.1% recorded in 2011 and significantly higher than the 39.9% recorded in 2006.¹⁷² Whilst there is still critical work to be done in this area, substantial progress has been made and it's reasonable to conclude that Skilling the Bay, with its reach to over 50% of the region's students, has been a key contributor to this goal.

A second key goal back in 2013 was to lift workforce participation in the region. The headline trends from the data available in the 2006, 2011 and 2016 Census data show:

- Between 2006 and 2011, the overall number of people working in the fourteen designated industries grew by 11.9% (from 100,772 to 112,753).
- Between 2011 and 2016, the overall number continued to grow by 7.3% (from 112,753 to 120,977).
- Across the three Census collections, overall numbers increased by 20% (from 100,772 to 120,977).¹⁷³

This data demonstrates that the G21 labour market has continued, over the past 10 years, to grow overall, and it is reasonable to conclude that Skilling the Bay and its stakeholders have played a key role in increasing workforce participation by enabling a skilled workforce to be ready and equipped for new jobs and new ways of working.

The stakeholders, in consultation conversations, talked about the difficult times that they and the Geelong community faced through the years from 2011 onward, when all the closures seemed to come at once. During those years it seemed that every person was talking about the downturn and the impact of the emerging Industry 4.0 revolution.

Now Geelong is beginning to see tangible evidence of the Industry 4.0 revolution in the digital businesses that have emerged and are operating in the global supply chain. There is a palpable shift in the local economy where opportunities are available to those who are ready and equipped to embrace the potential on offer from the digital revolution.

The Consultations also recognised that there are risks for workplaces and individuals in this new world. Geelong workplaces need new levels of skills throughout their operations if they are going to adjust products, services and operations to this rapidly changing economy. Individuals need to strengthen existing foundation skills and acquire new skills if they are to reap the economic and social benefits of Industry 4.0. For individuals and communities already suffering disadvantage the risks of further entrenched poverty are high.

A major constraint for Skilling the Bay is uncertainty about ongoing dedicated funding for its operations. This lack of certainty constrains Skilling the Bay in its ability to commit over the long term to its partners and collaborators. An example is where Skilling the Bay's focus on proactively driving workforce development has shifted. This is an area that is identified in consultations as an opportunity for the future, particularly in the Community Services and Health Sector.

Stakeholders observe that Skilling the Bay would be strengthened by moving to a more diverse funding base that enables it to mitigate the risks to sustainability that a single or narrow funding dependency brings.

¹⁶⁷STB Strategic Direction Stage III

¹⁶⁸Skilling the Bay Completion Report 2014 – 2017 Executive Summary

¹⁶⁹Skilling the Bay Priority Actions Report P7 Nous Group

¹⁷⁰Skilling the Bay Completion Report 2014 – 2017 Executive Summary

¹⁷¹Skilling the Bay Completion Report 2014 – 2017

¹⁷²G21 Region Profile, 2019

¹⁷³<https://forecast.id.com.au/geelong>

8.0

SERVICE PROVISION IN GEELONG: CURRENT STAKEHOLDERS AND THE ROLE OF SKILLING THE BAY

Skilling the Bay currently partners with a range of stakeholders in the implementation of programs and initiatives. Mapping of the primary purpose and work of the partners and stakeholders provides an understanding of the strategic and operational nature of the local skills development and workforce transition effort. It also demonstrates that Skilling the Bay currently fills a strategic enabling role that would be left as a critical gap should it not transition into a new model on a more sustainable footing.

With the Geelong economic context changing rapidly, and with the capability and reputation that has been built over eight years of successfully fostering partnerships for innovation and change, there is an opportunity for Skilling the Bay, in a strengthened partnership approach between The Gordon and Deakin University, to connect up with other stakeholders in the creation of a regional workplace learning ecosystem that operates as the nexus between today's economy and the skills required for a future beyond the horizon.

This learning ecosystem would:

- **Work strategically with stakeholders** in the region to foster, support, evaluate, strengthen and promote best practice place-based models, learning entrepreneurship and thought leadership for education, training, employment transition, career pathways and workforce development;
- **Create the spaces and places** that will drive radical inclusion of all Geelong citizens in learning, including digital spaces and places, and non-traditional partnerships that enable the community to take control of learning in Geelong;
- **Use a strong evidence-based approach** that includes new digital technologies and knowledge generation systems (e.g. artificial intelligence, data visualisation and predictive analytics) to aid stakeholders in understanding the future;
- **Work with business and industry** to explore and trial new models for workforce skills development, including cross-sectoral innovation and solution-making;
- **Develop the skills** of the potential labour market for new and emerging industries;
- **Support the acceleration** and sustainability of the capabilities of the region's SMEs;
- **Support business entrepreneurship**, startups and acceleration for specific cohorts e.g. women, people with disability, CALD, Indigenous Australians;

It would build on its existing capability to integrate UNESCO's six action principles of responding, engaging, enabling, embedding, sustaining and transforming into all aspects of its operations.



9.0

BEYOND THE HORIZON: REFRAMING SKILLING THE BAY FOR STRONGER COLLABORATION & INNOVATION

9.1 ONGOING CHANGE TO THE REGION'S ECONOMY

Geelong and the other four G21 local government areas, have for the most part, managed well the transition of its economy from a reliance on traditional manufacturing to a new knowledge and service base. Available data shows that the number of people in the workforce lifted by 20% when comparing the 2016 census with the 2006 census.¹⁷⁴ Whilst some of this lift in workforce participation will relate to population growth (1.6% from 2011 – 2016),¹⁷⁵ the region can take credit for transitioning large numbers of workers from a declining manufacturing industry sector to diverse employment alternatives.

Changes to the nature of work, however, are occurring at an increasingly rapid rate and ongoing work is needed to ensure the Geelong labour market is prepared to deal effectively with technological advancement, including

artificial intelligence, disruption of industry sectors, new and emerging sectors, the changing nature of employment and the rise of the 'gig economy'.

The fourth industrial revolution, Industry 4.0, is currently embedding smart, connected technology to transform our economies, jobs and societies. Geelong, and the G21 Region, needs to be ready with the right skills and capabilities to capitalise on the current major disruption to the global economy, and well positioned in terms of resilience, adaptability and agility to navigate the future beyond.

The McKinsey Global Institute¹⁷⁶ states that for advanced economies, up to a third of the total workforce may need to learn new skills or find new work in new occupations. In the G21 Region this could mean that over the next ten years upwards of 75,000 jobs¹⁷⁷ will be impacted by technical revolution. Displaced workers will need to develop new skills, find new jobs and navigate an increasingly complex labour market.

Workforce participation challenges for the more vulnerable or disadvantaged in the community are compounded in this new work environment with educational attainment and participation in education at all levels remaining a challenge for the region. It is well documented and

recognised by governments that an educated population is essential to economic and social prosperity. Businesses increasingly require a higher level of skill for entry level positions, with the completion of a tertiary education qualification seen as a prerequisite for access to, and successful participation in, the labour market.

Ensuring young people stay at school, stay engaged in learning that will give them 21st century job skills and pathway to further study in VET and/or Higher Education remains a major challenge for the Geelong region.¹⁷⁸ The growth in professional and public services jobs in the region provides opportunity for Geelong to grow its own talent and maximise career opportunities for its citizens.

For people who are living in Corio, Norlane and Whittington, where the unemployment rates in 2019 range from 18% to 21.6%, access to place-based education and employment pathways will be a key factor in addressing prosperity, productivity and wellbeing gaps.

In responding to the ongoing change to the region's economy and the challenges it presents, it is clear that Skilling the Bay has:

- The acumen required to research, explore, assess, implement and evaluate education and skilling initiatives that respond to local need;
- The governance oversight to ensure rigorous attention is paid to the success or fit of particular strategies and initiatives¹⁷⁹;
- Already built relationships between the education, community, government and business sectors and could leverage these relationships into a more sophisticated operation;
- Entrepreneurial know how from which to draw creativity in developing and housing future initiatives.

Skilling the Bay, under a strengthened partnership between The Gordon and Deakin University, has the opportunity to work with the RAI, local government and stakeholders to identify and implement applied research and evidence-based strategies that will drive the skilling of the current and future workforce for an expanded Geelong economy. With small to medium enterprises growing in significance locally, and high population growth there is also an opportunity for Skilling the Bay to take on a role in the "incubator" process, working with local and regional accelerator initiatives to assist micro, small and medium size business with the skills to innovate, become sustainable and be able to exploit available growth opportunities in the global supply chain.

The challenge for Skilling the Bay is to develop a business model that is nimble and agile and that can generate the revenues to thrive without being seen to be in competition with the organisations it now collaborates with.

9.2 THREE CASE STUDIES OF PLACE BASED INNOVATION

Western BACE, Canberra Innovation Network and Hunter Research Centre provide examples of place-based future focussed developments where the purpose is to underpin local economic development with best practice business and skills models.



¹⁷⁴G21 Region Profile, 2019

¹⁷⁵<https://forecast.id.com.au/geelong>

¹⁷⁶Jobs lost, jobs gained: Workforce transitions in a time of automation (2017)

¹⁷⁷Geelong Advertiser, Our Jobs Future: Rise of the robot to hit job market, 2017, quoting 2016 ABS employment data predicting 74,898 jobs with a high probability of being lost to computerisation or automation by 2030 and Nathan Taylor, chief economist for CEDA in Australia's Future Workforce Report 2015

¹⁷⁸pg2, Participation in tertiary education in Australia, Mitchell Institute, April 2018

¹⁷⁹STB Strategic Direction Stage III



9.2.1 WESTERN BACE

The Western Business Accelerator and Centre of Excellence (Western BACE), was established and opened in May 2015 with the primary role of being the hub of enterprise, community activity and business development for Melbourne's West.¹⁸⁰

It is situated at the heart of Western Melbourne's population growth corridor and is a local government initiative built by the City of Melton with funding from the Australian Federal Government. The Australian Government provided the Western BACE project with \$14.62 million in funding and the project was also supported by Federation University, Victoria University, Kangan Institute, Burbank, Lend Lease and others.

The BACE operates as a not-for-profit social enterprise and it aims to help the growing population in Melbourne's West generate a sustainable environment for both business development and educational based learning. Through its various programs and partnerships, in the first three years of operation Western BACE has created over 200 new jobs, supported over 1,300 entrepreneurs and business owners to launch, build and scale their business, supported 500 young people aged 3-15 to participate in a STEM education program, and supported

High School students via free Computer Science professional development for teachers in partnership with Google and The University of Melbourne. Tenants have started "graduating" from the BACE and are now establishing themselves in commercial tenancies.

The facility itself is a state-of-the-art building designed by award winning architects, Six Degrees, and achieves a Green Star 5-star sustainability rating. It provides a range of different spaces including a co-working area, individual offices for small businesses, large flexible office space for anchor tenants, meeting rooms, warehouse areas, and a shared reception. The physical and spatial aspect of the facility is critical to the project's success as it provides a purpose-built place for the colocation of businesses and the associated benefits that flow from that, including networking, access to a range of professional services, and the serendipitous opportunities that arise for collaboration and cross-fertilisation of ideas.

The BACE focuses on building a strong sense of community and has an ethos of radical inclusion. This includes ensuring access to the BACE's services for anyone who wishes to participate, such as those who may not fit the 'criteria' for other programs. Business operators are highly supportive of each other, share in their combined experiences and actively engage in building and strengthening their respective businesses and the accelerator community generally. This development of community is recognised as a major component of the success of the business accelerator. Owners are supported through access to business coaches, experts in residence, events, workshops, training and education.

The BACE offers tenants a 'pay as you grow' rent model, allowing fledgling businesses to access the facility and services at an affordable rate. This model ensures that as businesses grow, they eventually reach a threshold where rent becomes more expensive than commercial rates, thereby acting as an incentive for them to move on from BACE to the next stage of development. This provides opportunity for other new businesses to access the facility. With effective full occupancy, the BACE has achieved a level of activity that underpins financial sustainability, with the project generating a profit in every year of its operation and reducing its reliance on government funding for its ongoing operation to 20%.

The BACE continues to expand its reach in the West, offering 'pop-up' co-working spaces in other suburbs such as Altona and Point Cook, encouraging growth and enterprise across the broader region. BACE members also enjoy the benefits of a mutual arrangement with a co-working space in Melbourne that allows members to use each other's facilities, supporting a cooperative rather than competitive approach across the co-working community.

9.2.2 CANBERRA INNOVATION CENTRE

The Canberra Innovation Network (CBRIN) is a not for profit registered charity that was formed in 2014 as a collaboration between the ACT Government and its founding members – Australian National University, Canberra Institute of Technology, Data 61, CSIRO, University of Canberra and University of New South Wales. Its vision is "for Canberra to be recognised globally as a clever, connected and creative city fuelled by excellence in research, innovation and entrepreneurship, delivering diversified economy, social impact and generation of wealth".¹⁸¹ In founding CBRIN stakeholders focussed on creating cohesion in order to diversify the economy so as to reduce the reliance on public service jobs in the economy.

The initial funding was provided by the Australian Capital Territory (ACT) Government. The Chief Minister remains a strong supporter of CBRIN with the Government continuing to provide the space from which CBRIN operates. The initial concept arose from consultations with a range of people including university students.

The primary objectives of CBRIN are to:

- Provide a network linking businesses and entrepreneurs to services, facilities and stakeholders that accelerate their innovation and growth;
- Promote a culture of innovation and entrepreneurship in the ACT;
- Take a central role in growing the innovation ecosystem in the ACT and building individual and corporate capability;
- Develop innovative approaches to provide services that support the growth and diversity of the ACT economy.¹⁸²

Its mission of "empowering entrepreneurs to make an impact and change the world"¹⁸³ is based on two principles:

1. Innovation-driven entrepreneurial ecosystems – where impact is pursued by entrepreneurial people i.e. researchers, makers, students and innovators, who are supported by a balanced collaboration of key stakeholders;
2. Collective Impact – where multiple organisations or entities from different sectors abandon their own short-term agendas in favour of a common agenda and are supported by centralised infrastructure (a backbone organisation) whose role it is to help participating organisations shift from acting alone to acting in concert.¹⁸⁴

CBRIN has a staff team of ten and works for entrepreneurs, researchers, government and industry. It houses a range of programs and collaborative initiatives including a startup accelerator, incubator and collaborative innovation labs. More than 8,000 people visit CBRIN each year and it has helped over 1,000 budding entrepreneurs and SMEs through its lean innovation focused education.¹⁸⁵

CBRIN holds events including monthly networking nights where people have the opportunity to meet mentors, workshops for entrepreneurs and researchers and Hackathons. The Wednesday connect sessions started with 100 registered participants. Now each month they have in excess of 200 registered participants.

The Hackathons allow companies and organisations to present a problem to be workshopped by a diverse group. These businesses pay a fee for service.

The Foundation Members (the universities) contribute \$50,000 annually to support the operations of CBRIN. Gold partners provide in-kind support on a three-year contract. These partners are Optus, KWM (legal firm), PWC Accounting and Actew AGL.

Additional revenue comes from:

- Participant fees for the Incubator;
- Renting out of workspaces;
- Fees for accessing mentors;
- Fees for participation in the Accelerator programs.

Companies also provide investments of \$25,000 for start-ups in return for shares when the start-up has transitioned into full operations as a company.

CBRIN runs free workshops on topics such as branding, pitching and marketing.

Since 2014, CBRIN has managed to connect, promote and accelerate the growth of the ACT and the region's ecosystem that supports innovators and entrepreneurs and empowers them to take new ideas, research and technology from concept to global impact.¹⁸⁶

The features of CBRIN initiatives that contribute to its success are:

- Co-lab opportunities for work;
- Ensuring workshop presenters are experienced entrepreneurs;
- Outsourcing the Hackathons to foundation members who vie for the rights to host them (they have taken place in Singapore);
- Creating a team culture where collaboration results in buy-in by the stakeholders;
- Government support is critical;
- Ensuring the Board has representatives from the local community;
- Volunteer Mentors - one participant has developed an app to manage bookings with mentors;
- Participants are provided with honest feedback with the philosophy that it is better to fail forward.



¹⁸⁰<https://westernbace.com/about/>

¹⁸¹<https://cbrin.com.au/about/>

¹⁸²Impacts of the Canberra Innovation Network on the ACT and the region's innovation ecosystem, 2019

¹⁸³Ibid

¹⁸⁴Ibid

¹⁸⁵<https://cbrin.com.au/about/>

¹⁸⁶Impacts of the Canberra Innovation Network on the ACT and the region's innovation ecosystem, 2019

9.2.3 HUNTER RESEARCH CENTRE

“Collaboration delivering transformation”

The city of Newcastle and the Hunter region, like the G21 region, face the challenges of navigating the shift from traditional industries, such as resources and manufacturing, to globally-positioned, knowledge-based economies. Both regions are in the process of economic and social transformation.

The Hunter Research Foundation (HRF) Centre has been established as a partnership between the Hunter Research Foundation and the University of Newcastle. The HRF uses a sound base of socio-economic evidence to inform the decision making of industry, government and the community in relation to transitioning the region into a new economic reality. The Centre’s focus is providing rigorous, independent research and analysis that is readily understood and clear in its implications.

The partnership between the Hunter Research Foundation and the University of Newcastle provides the multi-disciplinary HRF Centre with the academic expertise to support analysis, decision-making, and innovation across sectors including health, engineering, energy and the environment.

In addition to its research, the Centre runs the Economic Breakfast Series for business intelligence and networking and publishes the Hunter Region Economic Indicators to capture the Hunter region’s performance across key areas including labour, unemployment, house prices, housing and business performance. The Indicators are based on data collected from thousands of households and businesses through the quarterly Hunter Pulse surveys. It also publishes the Hunter Headline to provide timely business news and information specific to the Hunter region.

Partnerships and collaboration are important features of the HRF Centre’s operations, including with the Hunter Innovation Festival, since its inception and the Hunter Manufacturing Awards.¹⁸⁷

9.2.4 FEATURES IN COMMON: WESTERN BACE, CBRIN AND HRF

Skilling the Bay can learn from the success of Western BACE, CBRIN and the HRF.

The case studies, above, show that these initiatives share some or all of the following features:

- Physical and spatial aspect of the facility is critical to success – being at the heart of the community is important;
- Based on cross sectoral partnerships that include local government, universities, TAFE and other key stakeholders such as, in the case of Western BACE, a developer;
- Supported in the start-up phase by government through infrastructure as well as seed operational funds and arrangements;
- Established through legal arrangements to maximise flexibility and accountability to the customers e.g. not for-profit social enterprises;
- Generate a sustainable environment for business development and educational based learning;
- Commitment to providing rigorous, independent research and analysis that is readily understood and clear in its implications;
- Valuing serendipitous opportunities that arise for collaboration and cross-fertilisation of ideas;
- Based on an ethos of radical inclusion, high levels of support and on creating cohesion;
- Position business development as core to development of community;
- Provide access to business coaches, experts in residence, events, workshops, training and education;
- Provide business arrangements that support the cash flow of start-ups and micro business;
- Diversify revenue sources and arrangements rather than relying solely on government funding for ongoing operations.

9.3 SKILLING THE BAY: EMBEDDING EDUCATION 4.0 AND OPERATING BEYOND THE HORIZON

In order to compete sustainably and thrive in an Industry 4.0 driven global economy, Geelong business needs to radically shift the skills and attributes of its current and future workforce.

With its ability to connect people, organisations and resources, and deliver evidence-based programs in local places to meet local needs, Skilling the Bay is positioned to pivot to a strategic Education 4.0¹⁸⁸ response.

Skilling the Bay will:

- Lead stakeholders in the strategic development of a regional workforce development plan;
- Advance the development of innovative future focussed solutions to skilling Geelong’s workforce;
- Drive radical inclusion of all Geelong citizens in learning and work, in particular in areas of deep disadvantage;
- Foster entrepreneurship for women, people with disability, CALD and Indigenous Australians.

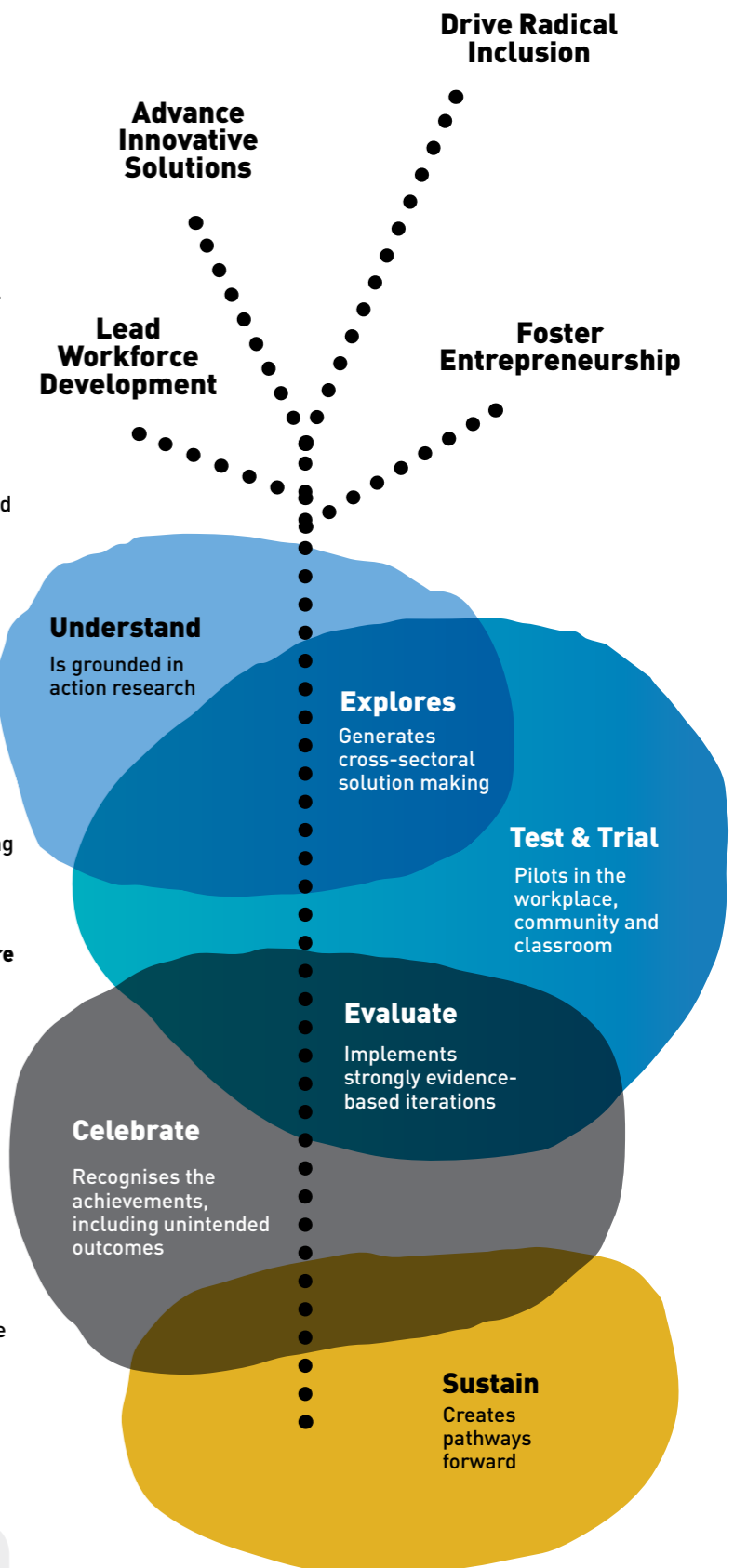
Skilling the Bay’s customers would include Education Providers (traditional and non-traditional), Business and Industry, Startups, Regional Stakeholders and Government.

In working beyond the horizon with its customers, Skilling the Bay would apply a signature methodology to embed flexibility, agility and accountability.

A signature methodology for Skilling the Bay will ensure every initiative:

- Is grounded in action research – Understand
- Generates cross-sectoral solution making – Explores
- Pilots in the workplace, community and classroom – Test and Trial
- Implements strongly evidence-based iterations - Evaluate
- Recognises the achievements, including unintended outcomes - Celebrate
- Creates pathways forward – Sustain

The Skilling the Bay model leverages off its strengths, is nimble in responding to opportunities, draws intelligence from its partners and stakeholders, takes a long-term approach, learns from the success of other place-based initiatives and responds to global drivers of change.



¹⁸⁷<http://www.hrf.com.au/>

¹⁸⁸www.thegeniusatwork.com, Accessed 16 March 2018 Education 4.0 ... the future of learning will be dramatically different, in school and throughout life, January 24, 2017, Fisk Peter

Customer sectors and possible deliverables for Skilling the Bay

Sector	Deliverables
Education Providers (traditional and non-traditional)	<p>Explore agile teaching and learning in vocational education and training (including pre-accredited and non-accredited environments), Schools and workplaces;</p> <p>Create an “Incubator for learning providers” where new models of learning and leadership are explored;</p> <p>Research, develop, trial and evaluate place-based solutions to skills development needs;</p> <p>Investigate market opportunities and business models to sustain and/or scale best practice initiatives;</p> <p>Kick start radical inclusion, in particular in areas of deep disadvantage.</p>
Industry Sectors including new, emerging and those undergoing major disruption, e.g. Waste Management, Energy, Human Services, Advanced Manufacturing, IT/digital technologies, professional services	<p>Access to the pipeline of skills they need in a just in “their time” model;</p> <p>Embrace diversity including under tapped potential labour sources such as: mature aged women in IT, men in the human services sector, people with disability, people from culturally and linguistically diverse communities and Indigenous people;</p> <p>Research, develop and trial new models for workforce skills development, including cross-sectoral partnerships and solution-making.</p>
Businesses & Startups	<p>Solutions to challenges that are inhibiting their ability to optimise market penetration, including in the global supply chain;</p> <p>New skills in facilitating and embedding innovation in business as usual operations;</p> <p>Support the transition of ideas to sustainable business;</p> <p>Innovate from inception by exploring their disruptive capabilities.</p>
Government	<p>Enable policies and interventions that are based on research, analytics, forecasting, and evidence-based evaluations;</p> <p>Proactively mitigate against the potential for 50,000 plus manual jobs in Barwon region being impacted by technical revolution over the next ten years;</p> <p>Create high value place-based partnerships with public private investment in creating special purpose co-working spaces, incubator and accelerator spaces.</p>
Regional Stakeholders and the Community	<p>Raise awareness of the jobs and skills of the future;</p> <p>Foster and support innovative local education approaches;</p> <p>Support Geelong and the G21 region communities to grow career opportunities for young people;</p> <p>Support employers to attract and retain talent.</p>

Table 4: Potential customer sectors and possible deliverables

9.4 EMBRACING THE FUTURE: TRANSITIONING TO A NEW STRATEGIC AND OPERATIONAL MODEL

9.4.1 GOVERNANCE

Skilling the Bay has a strong and engaged Advisory Group. A new Skilling the Bay that is strengthening its links to, and potentially revenues from industry, needs a Committee (or Board) that has strong representation from industry, education and training stakeholders and preferably the City of Greater Geelong.

The independence of Skilling the Bay is an issue for consideration as it transitions to a more commercial future. Stakeholders are keen for Skilling the Bay to retain its transparency and even-handed approach to collaboration. The leadership of The Gordon, in partnership with Deakin University, in a new Skilling the Bay model, will be critical to fostering greater sophistication in the development of networked learning and business models as stakeholders seek to improve the return on investment of community and educational resources.

Stakeholders see a future Skilling the Bay as having an advocacy function to ensure that local place-based issues are “solved” with systemic change and that programs that are known to be making a difference are able to be sustained. They see the Skilling the Bay Advisory Group taking on this role.





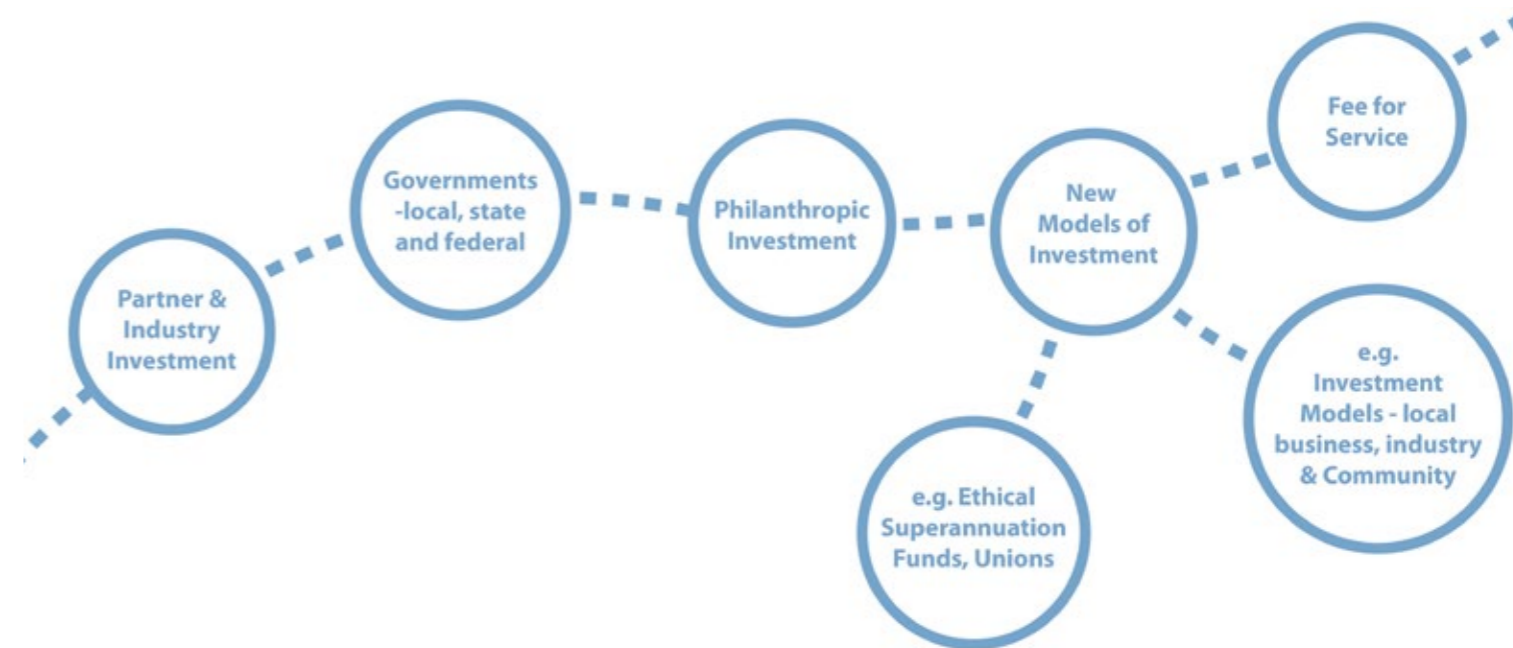
9.4.2 BUSINESS MODEL

A future Skilling the Bay needs a business model that is based on diversified revenue streams. Whilst diversification of income means a potential increase in administration as revenues are accounted for and, if in the form of funding grants, acquitted, it also means that Skilling the Bay would be able to exercise local control over its strategic direction and operations particularly if it can move to more sustainable ongoing revenues.

The Gordon currently provides leadership in education and learning development as well as a very effective administration to support Skilling the Bay. The financial systems are established to ensure accountability for grants from a range of government departments. It can provide financial reporting and business acumen to support a diversification of revenue sources for Skilling the Bay.

Potential revenue streams for Skilling the Bay in the future are:

- Potential partner and industry investment
- Government: state, commonwealth and local
- Philanthropic investment
- New Models of investment
- Fee for Service/local investment – customised research for individual companies or groups of companies.



The Case Studies in Section 9.2 of this Report provide examples of models that combine industry, stakeholder and government investment upfront and ongoing to underpin the establishment and operations of these initiatives. These examples also generally include a component of fee for service work.

Skilling the Bay has the opportunity to approach the design of its business model with an even broader entrepreneurial lens where revenue models are fit for purpose for its services and products. These models may include partnering with philanthropic organisations, developing industry investment and exploring potential business synergies between Skilling the Bay and ethical investors.

In addition to the models of industry investment highlighted in the Case Studies, Skilling the Bay could look to examples that other traditional education providers, such as Massachusetts Institute of Technology (MIT), are implementing to ensure that cross-disciplinary approaches are producing research and solutions to the issues facing industry development. One example from MIT is the Senseable Lab, where the vision is for “urban imagination and social innovation through design and science”¹⁸⁹. The Senseable business model is predicated on membership investment by industry as well as payment for research that has an immediate application to solving business problems. Senseable characterises its approach as omni-disciplinary, in that it speaks the language of designers, planners, engineers, physicists, biologists and social scientists. It is also as fluent with industry partners as with governments, individual citizens and disadvantaged communities.¹⁹⁰

In exploring the potential for attracting ethical investors, Skilling the Bay could investigate the appetite of Superannuation Funds for supporting initiatives that lead to greater and more sustained workforce participation by people who have traditionally experienced part time, intermittent and/or precarious employment. Skilling the Bay might also explore other sectors that have their own interest in growing workforce participation, such as financial institutions and unions.

New models of revenue generation for social and educational good already exist to some degree, refer Social Impact Bonds below, but the underpinning business logic needs further work and models need to be tested in the Australian context.

In a Social Impact Bond (SIB) model the SIBs provide a funding mechanism to enable social service providers to enter into outcomes-based contracts with government. When a service provider enters into an outcomes contract, a portion of payments are dependent on the results achieved by the program. SIBs raise private investor capital to fund upfront service delivery costs and share in the financial risk of service providers achieving the targeted outcomes.¹⁹¹

The general structure of a SIB is:

- Government enters into an outcomes contract to pay for services on an outcomes basis (rather than fee-for-service or block funding).
- Investors provide upfront capital to fund services and share performance risk.
- A service provider delivers services to support people with specific needs.
- Outcomes for the individuals enrolled in the program are measured, often compared to a baseline.
- Government makes payments according to the outcome results achieved.
- Outcome payments are used to repay investors and provide them with a return.¹⁹²

An example of the use of Social Impact Bond is Massachusetts Juvenile Justice Pay for Success Initiative¹⁹². Goldman Sachs, along with several foundations, provided financing for a program working with 929 youthful offenders. Instead of the more traditional punitive approaches, it uses cognitive behavioural therapy – getting people to spot the beliefs and feelings that feed their problems and then replace them with more productive thought patterns and behaviour – and job training to prevent former inmates from re-offending and returning to prison.¹⁹³

In the eight years since the first social bonds were launched in the US a total of 108 have raised about US\$392 million impacting more than 700,000 people in 25 countries.¹⁹⁴

Before Skilling the Bay actively cultivates and establishes new revenue sources it will need to do further scoping work to determine the most appropriate revenue sources for each product and service it is offering.

9.4.3 NEW CAPABILITIES FOR SKILLING THE BAY

For Skilling the Bay to fully embrace a new business model it will need to continually acquire and develop capabilities such as:

- Thinkers in residents/experts in residence – these could be in relation to particular industry sectors, more general business operations or innovation
- A network of action researchers that could be used to form research teams for specific projects in partnership with industry and community
- International linkages to bring global expertise into local business and industry
- Business acumen to develop revenue streams and promote and position the new Skilling the Bay
- Strong collaborative and partnership expertise
- Ability to develop and write funding submissions
- Stronger promotional skills to ensure the work of Skilling the Bay and its outcomes are recognised.

Cities such as Geelong need to use data and evidence to predict and plan for the skills of the future. The adoption of evidence-based decision making offers the opportunity for Skilling the Bay and its stakeholders to partner with existing data collection agencies, utilise their tools and techniques and develop capabilities to craft an engaging data story through data visualisation, big data, predictive analysis and artificial intelligence.

9.4.4 TRANSITIONING EXISTING SKILLING THE BAY INITIATIVES AND EXPLORING POSSIBLE NEW INITIATIVES

In the process of pivoting to a new model Skilling the Bay would apply its signature methodology to ensuring that the following existing initiatives become embedded and sustained in the Geelong region and beyond:

- Growing the Health and Community Services Workforce 2014 – 2019
- Northern Futures
- Opportunity East
- STEM Manufacturing Futures
- Skills for Advanced Manufacturing: Composite Materials
- Upstart Challenge

Utilising a proposed forum, or series of forums, to explore what is possible for each of these initiatives might allow stakeholders to become involved in finding the unique

sustainability solutions associated with each initiative. The Committee for Geelong,¹⁹⁵ for instance, has offered to work with Skilling the Bay to conduct a major Stakeholder Forum in Geelong that focusses on the development of a region-wide jobs for the future plan. A forum such as that could look at the role each of these initiatives has in fostering skills development for the jobs of the future.

Deakin University’s Centre for Regional and Rural Futures (CeRRF) has identified a series of on the ground projects that would benefit the region. Skilling the Bay could support feasibility studies and implementation work to establish these identified projects:

- Aviation – Victoria’s future Freight Precinct
- Irrigated Agriculture – using recycled water supplies
- Australian Animal Health Laboratory Geelong
- Industrial scale advanced carbon fibre manufacturing in Geelong
- Commercialised international education and training in farming and agribusiness

Key numbers for five prospective Geelong region projects: (Ordered by scale of investment):

Emerging economic futures project		Est. capex \$AUD (FTE)
1	Avalon - Victoria’s future freight precinct Other benefits: Facilitates major asset recycling at Melbourne (Dybon Road) and North Geelong rail yards, potentially of same scale as cost of project	\$1 billion (c. 3,000)
2	Irrigated agriculture using secure recycled water supplies Other benefits: Delivers potential new water sales revenue stream to government	\$600-800 million (tbc)
3	Australian Animal Health Laboratory Geelong Other benefits: Government funding to unlock subscription revenues of up to \$30 million per annum	\$600-800 million (tbc)
4	Industrial scale advanced carbon fibre manufacturing in Geelong Other benefits: Incorporates license fee revenue to Deakin University recognising its significant investment in Carbon Nexus and AFFRIC to date	\$70 million (80)
5	Commercialised international education and training in farming and agribusiness Other benefits: Concept stage only	Concept strategy only

Total Geelong and region investment (FTE) \$AUD 1.97 - \$2.17b (c. 3,080)

Table 5: Five prospective regional projects, CeRRF, 2017¹⁹⁶

¹⁸⁹ibid

¹⁹⁰<https://www.socialventures.com.au/impact-investing/social-impact-bonds/>

¹⁹¹ibid

¹⁹²Nonprofit Management & Leadership Journal, William Winfrey, reported in The Conversation, <https://theconversation.com/social-impact-bonds-explained-95504>

¹⁹³ibid

¹⁹⁴ibid

¹⁹⁵Consultation with CEO Committee for Geelong

¹⁹⁶CeRRF 2017, Geelong Economic Futures, Deakin University, p. 4

10.

CONCLUSION

In addition, consultations identified four possible initiatives that could be explored further by Skilling the Bay.

- **A digital learning entrepreneurship space:** Would provide education providers and innovators with the opportunity to connect in a local digital entrepreneurship community. A community such as this could form cross sectoral relationships with other entrepreneurial communities, e.g. the proposed COGG's online design hub.
- **Potential involvement in/presence at/driver of learning and entrepreneurship at the Ford site redevelopment:** The redevelopment of the Ford site has been announced as a Renewable Energy Hub. VESTAS, a Danish Company, has announced its plans to build wind turbines from the site. Other Renewable Energy businesses will also locate at the site. There may be the opportunity for Skilling the Bay to have discussions with the developer and COGG about having a presence, or a connection to, the site as other renewable energy businesses take up the opportunity to operate from the site.
- **Forming non-traditional partners for learning entrepreneurship:** Geelong's population is predicted to grow by over 50% over the next 20 years. Planning and development for new population centres is well advanced in both the west and north of Geelong. Skilling the Bay has the opportunity to be involved in innovative development initiatives that are aimed at providing place-based models of learning and engagement.
- **Working in new ways with traditional partners:** Strong resilient long-term partnerships between schools, The Gordon and Deakin University can underpin new ways of activating and engaging young people and adults in learning for life and improving educational attainment. These partnerships can plan strategically for place-based responses, radical inclusion models and co-location opportunities.

Whilst Geelong has generally transitioned well through the changes to its economy over the past decade, ongoing commitment to initiatives such as Skilling the Bay, and its future iteration and evolution, is necessary to ensure that the region's workforce is educated, skilled and equipped to navigate change and to be at the forefront of driving innovation in a new economy.

For Skilling the Bay to fully embrace a new business model it will, like the region it seeks to serve, need to continually invest in the development of new capabilities, including action researchers, international linkages, business acumen and strong collaborative and partnership expertise.

It will also need to investigate a range of options for revenue diversification and business sustainability. Its findings, and the direction it takes for the future should be of interest to government as the successful application of such a model will have relevance beyond the Skilling the Bay scenario.

Skilling the Bay, underpinned by its strong partnership model, can be an organising force for change, collaborating with its stakeholders to enable optimal solutions to current and future workplace skills challenges.



11.

RECOMMENDATIONS

The following recommendations have been informed by analysis of local data, international and national literature and consultations with key stakeholders and are based on a conclusion that there is a strong and necessary argument for a reframed Skilling the Bay to serve the future skilling of the Geelong Region.

Beyond the Horizon: Learning Model

Recommendation 1: Skilling the Bay develops an Education 4.0 Learning Model that:

- Leads stakeholders in the strategic development of a regional workforce development plan;
- Advances the development of innovative future focussed solutions to skilling Geelong's workforce;
- Drives radical inclusion of all Geelong citizens in learning and work, in particular in areas of deep disadvantage;
- Fosters entrepreneurship for women, people with disability, CALD and Indigenous Australians.

Recommendation 2: The Education 4.0 Learning Model uses an evidence-based framework, including predictive analytics, artificial intelligence and data visualisation, to identify and implement strategies which will elevate educational and economic outcomes for all Geelong citizens, including strengthening literacy and numeracy across the community.

Beyond the Horizon: Business Model

Recommendation 3: Skilling the Bay diversifies its revenue streams to deliver its Education 4.0 Learning Model.

Recommendation 4: Government invests in the Skilling the Bay's transition to a new business model that is characterised by a strong customer base with diverse revenue streams.

Recommendation 5: Skilling the Bay undertakes further scoping work to determine the most appropriate revenue sources for each product and service.

Beyond the Horizon: Governance Model

Recommendation 6: Skilling the Bay elevates its pivotal partnership and facilitation role to include new and existing industry, school and community stakeholders in a deeper collaboration focussed on delivering Education 4.0 to the region.

Recommendation 7: Skilling the Bay is governed by a strong Advisory Group, representing industry, education providers, G21 – Region Alliance and other key stakeholders.

Transitioning beyond the horizon

Recommendation 8: Skilling the Bay facilitates existing initiatives to develop new sustainable models that become embedded in Geelong as reliable options for learning and development.

Recommendation 9: Skilling the Bay explores opportunities to form non-traditional and cross-sectoral partnerships in developing new spaces and places for learning.

Recommendation 10: Skilling the Bay explores the potential for developing a digital co-learning space that enables local learning entrepreneurs to collaborate across industries and educational sectors.

12.

ACKNOWLEDGEMENTS

Carley Brennan, Manager, Skilling the Bay

Mark Corrie, CEO, Western BACE

Jen Cromarty, CEO, Committee for Geelong

Samantha Draper, Canberra Innovation Network

John Fletcher, Victoria State Manager, Department of Employment, Skills, Small and Family Business

James Goring, Skilling the Bay

Keelie Hamilton, The Gordon

Phil Honeywell, Principal Newcombe Secondary College

Seok Jin Mun, Mayor, Seodaemun-Gu, The Republic of Korea

Dr. Judith James, Swansea Learning City, Wales

Tracey Jeffrey, Manager Careers and Transition, The Gordon

Christine Macalister, City of Greater Geelong

Dineli Mather, Pro Vice-Chancellor (Graduate Employment), Deakin University

Lindy Mills, Skilling the Bay

Lyn Morgan, EO, Northern Futures

Professor Jamie Mustard, Deakin University

Leanne Nelson, Geelong Manufacturing Council

Kevin O'Keeffe, Post Doctoral Fellow, MIT Senseable City Lab

Joe Ormeno, CEO The Gordon

Jenny Perks, Upstart Challenge

Asha Reech, Community Manager, Western BACE

Anne-Marie Ryan, CEO, Geelong Region Local Learning and Employment Network

Jan Smith, Pathways Manager, Department of Education and Training

Nick Stanley, Chair Runway

Christine Walters, City of Greater Geelong

Kylie Warne, Managing Director, Brand Bureau

Greg Whitford, Upstart Challenge

Emma Williams, Strategy & Engagement, The Ramsay Group

Erika Williams, Regional Training Officer, Opportunity East

Juliet Williams, Skilling the Bay

Jessica Wong

Tables & Charts

Chart 1: Historical Timeline – Industrial Revolution	05	Chart 8: Percentage change in field of study 2011-2016, Census	29
Chart 2 - Change in employment 2006-2011	20	Chart 9: Total number of enrolments by field of study 2011-2016, Census	30
Chart 3: Change in employment 2011-2016, REMPLAN	21	Chart 10: Skills First training market commitment	37
Chart 4: Projected employment growth ('000) - five years to May 2023	21	Table 1: What RAI's data tools tells us about Geelong	23
Chart 5: Geelong's ranking on International competitiveness	23	Table 2: G21 Region employment data	24
Chart 6: On Track post-Year 12 destination data, 2017, DET	28	Table 3: Summary Skilling the Bay goals and initiatives	44
Chart 7: Highest level of education or qualification attained, Census 2016		Table 4: Customer Segments and Outcomes	60
		Table 5: Five prospective regional projects, CeRRF, 2017	65

Delivery Partners:



Authors: Bernadette O'Connor | Dr Fiona Gray | Dr Jude Walker | Dr Shanti Wong



“Skilling the Bay is about what we do next as an economy and a community”

[Comment from Consultations]

the
Gordon



Skilling
THE BAY