Central Highlands Economic Master Plan

An Economic Master Plan to 2047 and Action Plan for 2017-2022

Central Highlands Development Corporation

Final

September 2017

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1 Executive Summary

The Central Highlands Development Corporation (CHDC) in partnership with Central Highlands Regional Council (CHRC) and KPMG have together prepared an economic master plan for the Central Highlands region. The master plan builds on the solid foundations for economic development in the region established in 2013 through the endorsement and implementation of the region's first economic development strategy.

The 2047 Central Highlands Economic Master Plan (CHEMP) and associated 2017-2022 Action Plan has been developed in consultation with a broad range of industry, government and community stakeholders.

The CHEMP outlines a robust 30 year vision for the Central Highlands economy that is underpinned by four key pillars of the region's economy – **Export Drivers, Population, Workforce** and **Governance**. This vision has been developed to build on existing strengths and opportunities, and presents an opportunity for continued partnerships with government and the private sector to propel the Central Highlands economy towards a strong future for the community by 2047.

Supporting the realisation of this economic vision for the region requires a targeted and staged series of action plans to ensure momentum towards this vision is maintained and recast at strategic intervals of time. For the Central Highlands, a four phased approach to achieve the longer term Vision has been suggested.

These stages are:

1. **Strengthen existing activity:** Deepening and broadening existing industry sectors and establishing the foundations of enabling infrastructure. Fostering enhanced collaboration across industry, community and government to identify and pursue emerging opportunities.
2. **Attract investment to realise existing and emerging opportunities** Attracting investment and activity to the region to grow the productive performance of newly established and existing industry activities.
3. **Harness emerging opportunities** Supporting the conversion of opportunities presented through emerging technologies and industrial change.
4. **Realise aspirations and reset for the future:** A region that reflects the economic and local community aspirations identified previously. The economy is strong and has leveraged opportunities presented through global change. Refocus aspirations for a new phase into the future.

The CHEMP 2017-2022 Action Plan will assist CHDC, CHRC and other partners to guide economic development activities on a strategic pathway for the next five years with clear direction to achieve the longer term 30 Year Vision for the region's economy and local community.

The CHEMP 2017-2022 Action Plan has been developed with key objectives and actions aligned to each of the four pillars of the region's economy. These include:

OBJECTIVES	2017-22 ACTIONS	
PILLAR 1: EXPORT DRIVERS		
1. Promoting comparative advantage	1.1	Regional Branding
2. Expansion and diversification of existing sectors	2.1	Domestic and international market development
	2.2	Expansion into high-value crops, livestock and horticulture
	2.3	Exploration of by-product use
3. Energy independence and renewables	3.1	Supporting a 24/7 economy
	3.2	Harnessing opportunities for renewables
	3.3	Promotion and optimisation of energy comparative advantage
4. Expansion of research and development activities	4.1	Research and development activities relating to the agriculture, resources education and training and other industry sectors.
	4.2	Coordinated rehabilitation and end of mine life research
	4.3	Industry representation in research activities
5. Improved connectivity	5.1	Improved freight and logistics
	5.2	Supply chain optimisation
	5.3	Increased digital capacity and reliability
6. Increasing the ease of doing business	6.1	Connectivity to markets
	6.2	Small business support and education
	6.3	Core business sharing agreements
	6.4	Innovation and start-up incubation
7. Stability and rehabilitation of the resources sector	7.1	Effective and formalised lifecycle planning in collaboration with the resources sector.
8. Optimising water trade, security and capacity	8.1	Water supply optimisation and ongoing supply certainty and reliability
	8.2	Leverage resources investment
9. Increasing tourism activity	9.1	Better coordination and engagement to support growth and diversification
	9.2	Local operator capacity building
PILLAR 2: POPULATION SERVICES		
10. Supporting a local workforce	10.1	Supporting and promoting livability
11. Improved community investment	11.1	Targeted community investments
	11.2	Multi-purpose community spaces
12. Access to and use of open data	12.1	Open and reliable data

13. Improved education and associated services	13.1	Agricultural Education
	13.2	Digital education and training
PILLAR 3: WORKFORCE		
14. Skill development and enhancement	14.1	Complementary skills development, training and retraining
	14.2	Specialist education and employment destination
	14.3	Joint public / private small business education
PILLAR 4: GOVERNANCE		
15. Improved collaboration and partnerships	15.1	Collaborative investment decisions
	15.2	Leverage the collective weight of the wider region
	15.3	Stronger collaborative advisory functions
16. Frameworks that support economic activity	16.1	Efficient planning frameworks
	16.2	Infrastructure to support economic activity

It is acknowledged that infrastructure plays a critical role in economic development. Through consultation activities to support the development of the CHEMP 30 year Vision and the CHEMP 2017-2022 Action Plan, a number of infrastructure projects were identified as being particularly critical to achieving the desired economic outcome for the Central Highlands[1].

IDENTIFIED INFRASTRUCTURE PRIORITIES	
Project	**Description**
Multi-purpose Centre	A multi-purpose piece of community infrastructure to facilitate sports, culture, tourism and other community events.
CQ Inland Port	An inter-model freight facility to transfer goods from the road network over short intra-regional distances to rail for long haul distances.
Central Highlands Meat Processing Plant and Intensive Beef Industry Precinct	A meat processing facility in Emerald as part of the Agribusiness Precinct that can process 100,000 head of cattle a year.
Central Highlands Business Incubator and Innovation Hub	A technology and business start-up incubator and innovation space to develop innovative solutions or products across all sectors of the region's economy.
Grain and Pulse Processing Facilities	Processing facilities for grain, pulses and other plant products to promote regional value-adding.
Emerald Medical Village Stage 2	$7 to $12m investment in the expansion of the Emerald Medical Village.
Emerald Saleyard Complex	Expansion to the 5.1ha saleyard complex, currently processing 2,000 head a week of cattle.

[1] This list of infrastructure projects have not been assessed in terms of their contextual suitability, ability to generate benefits for the region or ability to be delivered – it is important to fully explore each identified project, potentially through a Business Case process, to determine suitability to progress.

Aged Care Facilities	Aged care facilities in key locations across the region, including Springsure, to support the region's aging population.
Project Regeneration	$18.5m investment in Yamala 180Kt Grain Facility by GrainCorp, including high-speed rail loader.

It is intended that CHDC will continue to have a lead role in the implementation of the 2017-2022 Action Plan in close collaboration with the CHRC, industry representatives and community members.

The region's economic future is a priority for not just CHRC and CHDC – all members of the business community and community more generally will be impacted by the economic outcomes realised within the region in the future. Fundamentally, the implementation of the CHEMP 2017-2022 Action Plan, as well as future economic development planning and activities should focus on the following:

- **Partnerships between key leaders, industry representatives, business owners and community members will be critical to long term success** – instilling a sense of wider community 'ownership' of the region's economic future will assist in leveraging innovation and knowledge across a range of sectors and activities.
- **Investment should be focused and aligned to not only shorter term economic objectives, but also to the longer term economic aspirations for the region** – providing structure and clear 'goal posts' to measure ongoing performance of economic development activities.
- **Innovative thinking and flexibility to adapt to change and harness opportunities will be essential** – ensures that the Central Highlands is not 'left behind' in a rapidly changing global environment.
- **Clear and targeted action planning should be undertaken on an iterative basis** – building on the frameworks and success of previous economic development and planning activities.

With clear strategies in place for 2017-2022, and a view towards the next 30 years, the Central Highlands economy is in a prime position to leverage the progress made in 2013-2016, and continue to expand its economic weight and productivity in a Queensland and broader context, without losing the unique factors that make the Central Highlands economy distinct from other regions and beneficial to its community.

2 Introduction

2.1 Context

Regional Overview

The Central Highlands region is a local government area in Central Queensland, Australia, encompassing an area over 60,000 square kilometres. Its communities and surrounding rural areas include the Arcadia Valley, Bauhinia, Blackwater, Bluff, Capella, Comet, Dingo, Duaringa, Emerald, Rolleston, Sapphire Gemfields (Anakie, Sapphire, Rubyvale and Willows Gemfields), Springsure and Tieri and the Tropic of Capricorn runs through the region.

The area includes one of Australia's largest coal reserves, the Bowen Basin, and is neighboured by the Galilee Basin, recognised as one of Australia's new mining areas. The Central Highlands is rich in minerals and agriculture, with irrigation from water storage in Nogoa and Comet rivers, and boasts the largest sapphire-producing fields in the Southern Hemisphere. The region's wealth of natural resources and agricultural value has seen it attract significant investment over an extended period of time which has benefited the local communities and economy.

The region is strategically located at the gateway to western Queensland, is in close proximity to the coast and has good connectivity to other regions within Queensland and more broadly.

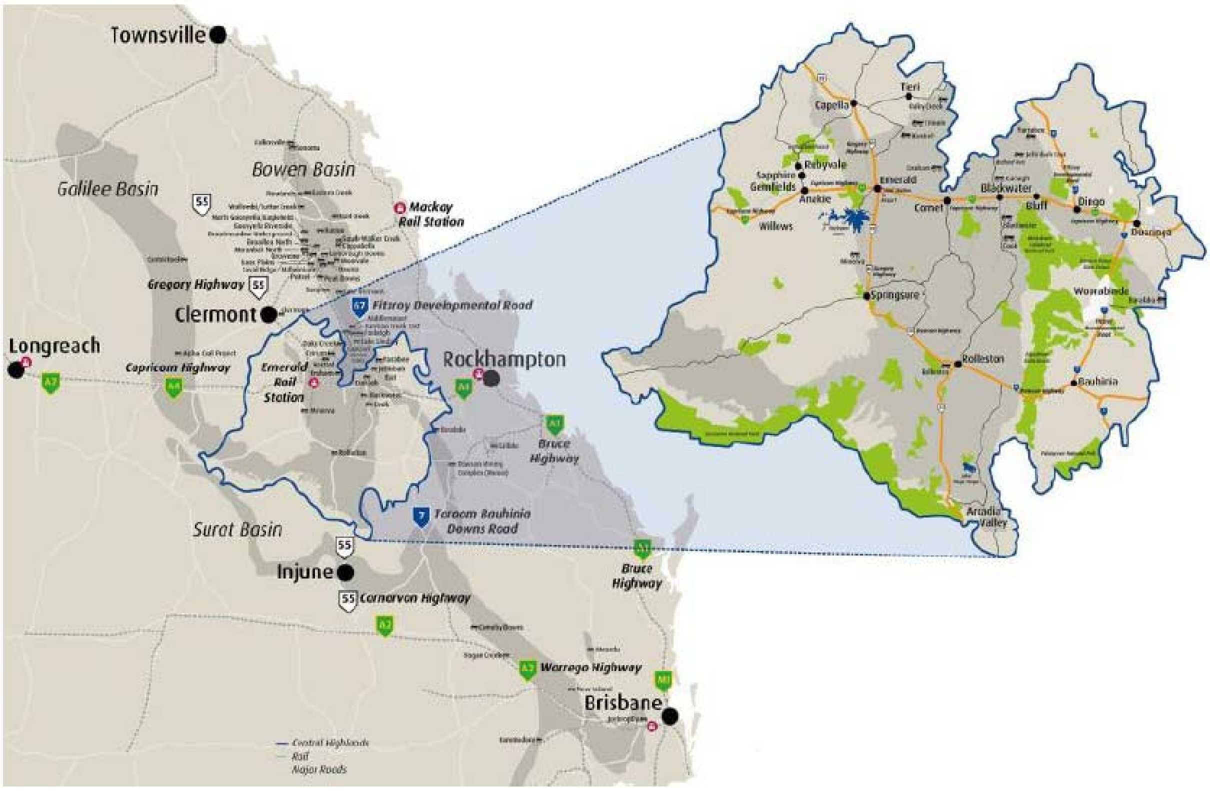

Figure 1 – Central Highlands region

The Central Highlands' community is central to the region and its economy. It is important to understand the key characteristics of the people that live, work and grow in the region in order to plan for the economic future of their region.

Key Demographic Statistics

The region's economy is fundamentally supported by the community of the Central Highlands.

According to REMPLAN estimates, there are currently 31,083 residents and 16,710 jobs in the Central Highlands. Population is forecast to grow at a compound annual growth rate of 1.1% to 2021 however has experienced slight decline (-1.2%) since 2014.

Estimates indicate that the region has relatively low unemployment rates – 3.8% unemployment in December 2016 compared to the Queensland average of 6.1%. The strength in employment is fundamentally underpinned by activities associated with the key industry sectors of mining and resources, construction and agriculture. In addition to these key sectors of regional employment, there is strong representation across other supporting sectors of employment such as health, education and transport and logistics.

The region is considered to have a relatively low degree of disadvantage compared to other areas of Queensland. The Central Highlands has a SEIFA score, which is an index of relative socio-economic disadvantage of 1033, which is lower than the score for Brisbane (1048) but higher for Queensland (1002). This degree of advantage is an indication that the community in the Central Highlands is benefitted by substantial enough contributions to their way of living (including housing, employment, social services, etc.) to raise them above the Queensland average.

The Central Highlands community is supported by and consists of a number of key stakeholders that contribute to economic activity and community activity more generally.

Key Stakeholders

The Central Highlands Regional Council (CHRC) and its not-for-profit supporting entity Central Highlands Development Corporation (CDHC) are at the forefront of the region's leadership – particularly with respect to planning and supporting the region's economy. In addition to CHRC and CHDC, there are a number of key industry and supporting service stakeholders that operate, live and work in the region. All key stakeholders within the region are part of the community itself and as such, it is recognised that there are a number of contributors that are dedicated to ensuring that the communities and economy continue to experience sustainable economic growth into the future.

A key opportunity and remit from key leaders in the region for more effective 'ownership' of the region's future from broader community representation.

Previous Economic Planning Activities

In 2013, CHDC in partnership with CHRC developed and launched the **Central Highlands Development Strategy 2013-2016**. This three year strategy was the first dedicated economic planning activity undertaken in the region and it provided the focus and articulation of actions needed to facilitate economic growth and development in the region.

The strategy outlined a strong vision for a diversified Central Highlands economy that aligned to the Queensland State Government's vision for a four pillar economy driven by construction, resources, tourism and agriculture. The vision was developed on the basis that it builds on existing sectoral strengths and opportunities, and presents an opportunity for continued partnership with government, the private sector and non-for-profit entities to drive economic growth and further diversification in Central Queensland.

This strategy has been well executed by the Central Highlands Development Corporation and their industry and Local Government partners. By structuring the CHDC team to focus on the critical sectors of resources, agri-business and tourism, as well as providing an ongoing business development focus, the team have delivered on the 2013 strategy and seen the region through a period of subdued coal prices.

The success of the Central Highlands Development Strategy 2013-2016 is acknowledged, and it provides a strong platform for this new phase in economic planning and strategy for the Central Highlands.

The Central Highlands 2047 Economic Master Plan

The Central Highlands 2047 Economic Master Plan (CHEMP) presents an opportunity for the CHDC, CHRC and industry to pause, lift their eyes and reconsider the economic future that they aspire to for their region building on the strong foundation established through the delivery of the Central Highlands Economic Development Strategy 2013-2016.

It presents an opportunity to reconsider the strategy that is driving the delivery of these aspirations. To acknowledge what is working well and to identify the areas where new ideas could be incorporated.

Strong industry initiatives have been established around agri-business and tourism over recent years. Coal prices have rebounded and the potential for the Galilee Basin to be unlocked is now more real than ever. The brief for the Economic Master Plan highlights that the CHDC team have a breadth of ideas and initiatives in mind that could build on recent developments to drive the next wave of economic development in the Central Highlands.

In order to develop a robust framework for achieving longer term economic aspirations and goals for the region, the establishment of a clear vision, framework for decision making and a series of action plans to drive immediate activity will be necessary.

The development of the CHEMP (and associated short term action planning) and ensuring that these are embedded into the day-to-day activities of CHDC, CHRC and industry and community partners will be critical to the success of the Master Plan and the realisation of the economic aspirations set for the region in the future.

2.2 Scope

The preparation of the CHEMP and associated action plan has been undertaken according to a clear scope of works and framework to ensure that the CHEMP is reflective of not only key economic data and statistics, but also reflects the sentiment of key stakeholders and wider community as well as key global trends and opportunities.

This report and the scope of activities to prepare it includes:

- A summary **Economic Baseline** that explores the four key pillars of the region's economy
- An overview of key **Global Disruptors** that will influence the economic future of the Central Highlands
- An overview of the **methodology** utilised to prepare the CHEMP and associated action plan including outcomes from **stakeholder consultation activities**
- The **Central Highlands 2047 Economic Master Plan** which includes:
  - A **vision** for the region's economy over a 30 year timeframe
  - An overview of the **process to achieving the identified 30 year vision**
  - The **CHEMP 2017-2022 Action Plan** which identified clear objectives and actions to guide economic development planning and investment activities over the next 5 years
  - An overview of **key infrastructure priorities** that were identified as important to enabling economic activities in the region
- An overview of the **implementation considerations** for delivering the CHEMP 2017-2022 Action Plan and subsequent stages of planning to achieve the 30 year vision for the future of the region
- Appendices including:
  - Overview of **data and sources** utilised to prepare the CHEMP and CHEMP 2017-2022 Action Plan

- A **detailed economic baseline** of the region
- **Other key inputs** considered in the preparation of the CHEMP and CHEMP 2017-2022 Action Plan

The subsequent sections follows the above structure.

Audience

It is intended that this report and in particular the the CHEMP and CHEMP 2017-2022 Action Plan will be used as a key reference for daily activities and decision making undertaken by CHRC and CHDC. More broadly, it is anticipated that industry and community representatives will use the CHEMP and CHEMP 2017-2022 Action Plan as a frame of reference for their own activities with a view to supporting and facilitating the economic future for the region that has been identified.

Information and Sources

The CHEMP, CHEMP 2017-2022 Action Plan and documentation prepared to assist in their development have been compiled utilising a number of different data sources. Primary data sources included the 2011 ABS Census, ABS data more generally, data from the QLD Government Statistician's Office (QGSO) Regional Database, Tourism Research Australia, the Public Health Information Development Unit (PHIDU) Social Atlas, and the REMPLAN Central Highlands Economic Profile as at February 2017.

To supplement these statistical accounts, a diverse range of reports and strategic documents were consulted, including strategies pertaining to specific industries, reports on infrastructure and transport, the QLD Department of Agriculture and Fisheries 2013 Agricultural Land Audit, and both CHRC and CHDC strategic documentation.

3 Economic Baseline

Overview

This economic baseline provides a view of the economy and also the trends that informs its future direction. This economic baseline addresses the following questions:

- How many jobs are in the Central Highlands, what kind and who fills them?
- How many jobs outside of the Central Highlands are filled by Central Highlands residents, what kind and where?
- How many jobs inside of the Central Highlands are filled by non-residents (non-resident workers), what kind and where?
- Where do non-resident workers live and how do they interact with the local economy?
- How does the Central Highlands economy compare to QLD?
- What major changes have occurred since 2011's Census and what might the structure of the economy look like now?
- Outside of the four major export driving sectors identified – Resources, Agriculture, Tourism and Construction – what growing sectors are emerging in the region?
- What additional capacity exists in the region's workforce, businesses or infrastructure?
- What is the unemployment rate, GRP, value-added contribution and other headline economic figures, and where are they trending?

In part due to the age of several data sources, such as the 2011 ABS Census, and the difficulty in accurately forecasting current figures in a region undergoing such dynamic transformations, this baseline does not form a complete socio-economic profile of the region itself. Instead this document aims to provide information to inform future decision making in the Central Highlands region, including high-level trends, disruptors and future considerations.

In late 2017/early 2018, the full 2016 ABS Census will be updated, along with many dependent downstream analysis and data sources. After this full release, supporting demographic information about the region and its workforce may be added or refreshed to keep the CHEMP up-to-date.

Context

Since the last Census in 2011, significant changes have occurred in the Central Highlands economy. Much of the available demographic data in 2011 emphasised strong economy and population growth off the back of a continuing mining boom. Since then the resources sector has undergone a transition and several pending projects, coal in particular, have stalled or gone into administration. The region has subsequently had a period of negative growth followed by relatively low, positive growth. In 2017, there are many signs that the resources sector has stabilised and a few, targeted investments into coal and gas projects are beginning to gain momentum.

It is anticipated that 2016 Census data will show that the region has many of the same characteristics as it did at the time of the 2011 Census, particularly in relation to employment. However, based on separate sources of information, it is anticipated that data will show potentially significant declines in mining and related engineering employment and business numbers. This key difference in employment profile of the region has likely resulted in a more evenly distributed set of businesses and jobs across industry sectors than it did in 2011. This provides an opportunity to continue to diversify and stabilise the region's economy into the future, while leveraging those targeted resources investments for near-term growth and jobs.

Overall, the Central Highlands economy is in transition following a strong mining boom and agricultural sector laid the foundations for a thriving regional centre. While its headline economic figures – Gross Regional Product (GRP), employment rate and measures of economic growth – have all declined since the resources sector began contracting, the outlook for the region is strong.

The region's unemployment rate (4.1%), labour force participation (75% in 2014) and growth rates in population (2.1%pa 2011 to 2016) all indicate a region with a strong economic baseline relative to the state average, albeit a region with slower growth in recent years. The issue for the region is more about growth and counter-acting low labour supply and skill gaps to adequately service future economic opportunities. Currently, the labour force is only growing at 1.1% a year, which will make increasing output for the region difficult without continuing to rely on non-resident workers.

The region's major industries are resources, agriculture, construction relating to mining, and tourism. In 2011, resources accounted for 57% of the region's $8.596bn economic output and 34% of employment. Construction, agriculture and tourism contributed 10%, 4% and 3% to economic output in 2011, illustrating the dominance of the resources sector at the time, particularly as it relates to coal mining activity. Employment for these sectors was more evenly distributed with 9%, 9% and 7% respectively. The proportion of mining and construction activity in the region is likely to have changed significantly since 2011.

Recent data also suggests that business counts have declined significantly since 2011, implying loss of some businesses and a consolidation of others. While not a negative trend for the economy in isolation, it points to a lack of small business and diversified economic growth.

What makes up the Central Highlands economy?

The region's economy is fundamentally underpinned by four key economic pillars:

Figure 2 – Economic Pillars. *Source: KPMG, 2017.*

1. **Export Drivers –** key industries largely orientated towards the export of goods. These industries include the resources, agricultural, tourism, and construction.
2. **Population Services** – key social infrastructure and services such as education and health.
3. **Workforce** – the total labour capacity and capabilities of the economy, both resident and non-resident.
4. **Governance** – the systems and frameworks that organise, control and support the region's other key sectors.

Infrastructure is considered to be a key enabler of economic activity and contributes to all four pillars of the economy.

These pillars provide a foundation for planning the economic future of the region and are outlined in more detail separately below. Understanding the current baseline and future trends for each pillar is critical to developing a robust and comprehensive Economic Master Plan for the Central Highlands.

An overview of these four key pillars is provided in subsequent sections of this Economic Baseline.

3.1 Pillar One: Export Drivers

Export Drivers accounted 9,814 jobs in 2011 which is 59% of all jobs in the region compared to 21.8% of jobs in Queensland in the same sectors.

Economic activity is underpinned by employment in resources, agriculture, tourism and construction

Region impacted by the coal price slowly declining long-term, other commodities are uncertain with forecasts showing short-term volatility

The rise of automation, renewables and the digital economy are beginning to influence the region's export drivers and employment profiles

3.1.1 Overview of key industry sectors

A fundamental pillar of the Central Highlands economy is the economic benefits from the key, export-orientated industries that operate in the region. These industries include mining, agriculture, construction. For the purposes of this analysis, tourism, which is not specifically export-orientated, is also included due to its important economic contribution and strategic role in the future of the region.

Understanding these export drivers is important as they attract a large amount of commercial investment to the region and, for the short to medium future, are the primary drivers of economic development and employment. In many ways, these industries are the targets that all other pillars of the region's economy (people services, workforce and governance) aim to support, stimulate and shape.

The distribution of the Central Highlands' economy in 2011, as outlined in Table 1, was heavily geared towards these export drivers.

Table 1	Top 10 Employment Sectors in 2011 and 2017 Estimates				
Category	**Resident**	**Non-resident**	**Total Jobs**	**% of Total**	**State average of total (%)**
Mining	3108	2,585	5,693	34.07%	2.66%
Construction	834	669	1,503	8.99%	9.26%
Agriculture	1348	97	1,445	8.65%	2.81%
Tourism[2]	972	201	1,173	7.02%	7.18%[3]
Retail Trade	910	119	1,029	6.16%	11.06%
Education & Training	891	20	911	5.45%	8.04%
Healthcare & Social Assistance	624	67	691	4.14%	12.13%
Other Services	541	134	675	4.04%	3.97%
Transport, Postal & Warehousing	523	76	599	3.58%	5.37%
Public Administration & Safety	506	55	561	3.36%	6.83%
Top 10 Total	**10,256**	**4,024**	**14,280**	**85.46%**	**79.03%**
2011 Total	**12,163**	**4,547**	**16,710**	**n/a**	**n/a**
2017 Estimated Total[4]	**15455**	**3100**	**18,555**	**n/a**	**n/a**
Compound Annual Growth Rate (2011-2017)	*4.9%*	*-7.4%*	*2.1%*	*n/a*	*1.2%*

Table 1 – Top 10 Employment Industries in Central Highlands and QLD proportions. *Source: CHDC Economic Profile, 2017.*

Given the large changes to the top two sectors of mining and construction as a result of the downturn in mining, the distribution is likely to be less skewed. However, it is still likely that mining is the highest employing sector in the region and, without any alternative boom in any particular industry, many of the other sectors would maintain roughly the same proportion.

Resources

The region's proximity to the Galilee, Bowen and Surat Basins make it one of Queensland's largest areas for coal, energy and gas production. The region's mining and resource activity includes underground and open-cut thermal and coking coal mining, minerals, liquefied natural gas (LNG) and coal seam gas (CSG) extraction, quarrying, and gemstones extraction. Despite this range of resources, the predominant commodity is coal, with CSG/LNG growing, and gemstone extraction restricted to low volumes of sapphires (mainly for tourist fossicking purposes or mined to create souvenirs).

At a high level, in 2015/16 the resources sector includes 61 businesses in the region, representing a decline of 9% from the previous year and a compound annual growth rate since 2009 of -1.9%. This decline forms part of the evidence base for the end of the mining boom in the region and the potential that other indicators, such as employment, may have declined accordingly.

[2] Tourism is a composite measure, in this case determined by REMPLAN using ABS data from 2011, which combines proportions of other tourism-related sectors such as 'accommodation and food services' (almost 80% of the total) and aggregate these parts to estimate tourism as a sector.

[3] Accommodation and Food Services as a proxy

[4] Total jobs is accurate to December 2016 according to QGSO, non-resident estimate is based on official July 2017 forecasts, and resident population is the difference between the total and non-resident population estimate.

The resources sector employed 34% of the region's labour force in 2011, with 45% coming from non-resident populations. This employment proportion is 15 times higher than the state average of 2.7%.

Critical infrastructure for this sector is adequately supplied by rail investments and various export terminals on the nearby eastern coast, to the extent that current capacity does not limit resources, but inhibits access by other sectors like agriculture. Furthermore, rail capacity may limit future growth if further investment is not planned for the medium to long term. Other than rail, which predominantly services the coal sector, gas pipelines form another critical piece of infrastructure in order to service the fledgling LNG exports in or near the Central Highlands.

Coal is a major economic contributor to the region, but it has shown considerable decline since its economic contribution was last surveyed in 2011. In the 2015/16 financial year, more than $4bn in coal was traded through the Port of Gladstone, a large proportion of this coal comes from the Central Highlands region, or passes through it.[5] The figure below (Figure 3) outlines the value of coal exports from the Port of Gladstone from 2006 to 2016. The figure makes clear the decline in exports since 2009.

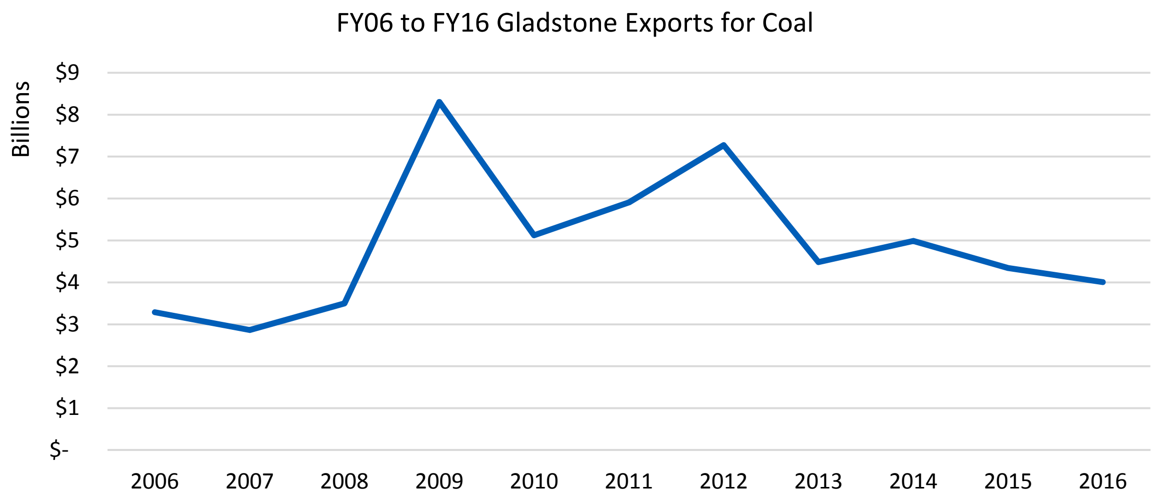

Figure 3 – Value in AUD of coal exports from the Port of Gladstone from financial years 2006 to 2016. *Source: QGSO Regional Database, 2017.*

The current and proposed resource operations in the Central Highlands are outlined in Figure 4. The data underpinning this figure highlights the continued prevalence of coal projects in the region despite the winding down of the mining boom.

[5] QGSO Regional Database, 2017

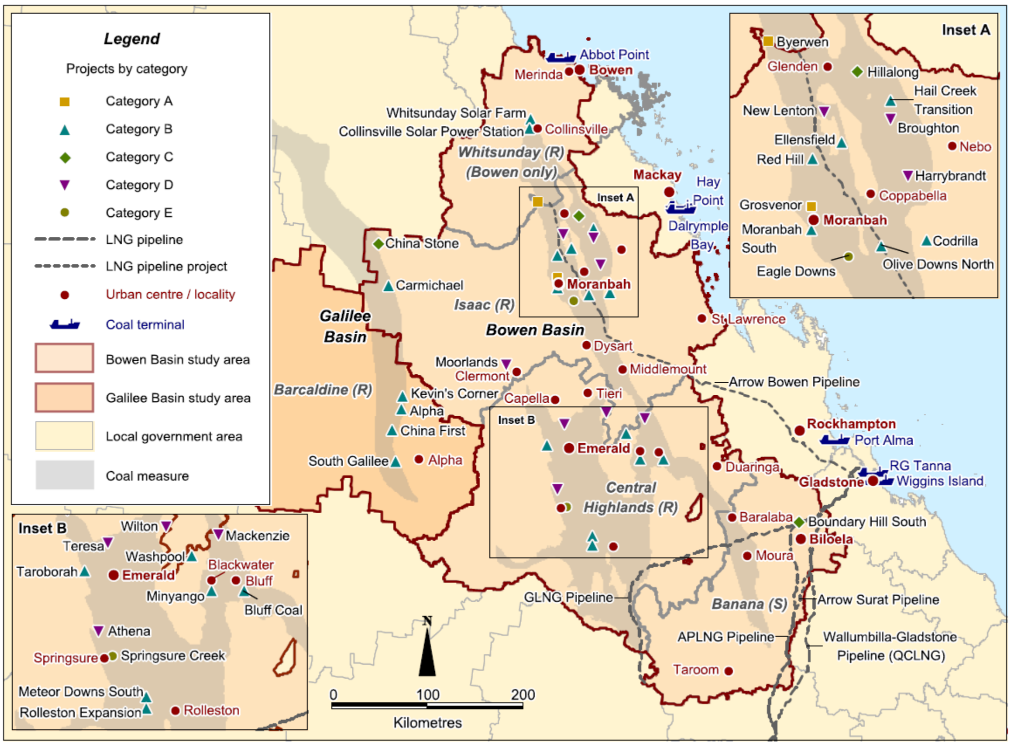

Figure 4 – Map of future projects, including coal and LNG pipeline projects. Does not include rail, gas field and other infrastructure projects. Does not include existing operations. Future project status is current as at December 2016. No Category A or C projects (those with FID, and those with lodged EIS but no FID respectively) are in Central Highlands but are referenced in the figure elsewhere. *Source: QGSO, 2016, Bowen and Galilee Basins non-resident population projections, 2017 to 2023.*

The resources sector provides mixed economic opportunities for the Central Highlands in the long-term. The current concentration of activity around one main commodity – coal – means that the sector is vulnerable to changes in prices and supply interruptions, without having the diversity of products to moderate these highs and lows. Moreover, the over-reliance on non-resident populations to service this sector can cause planning and investment inefficiencies that need to be considered in the long term.

Agriculture

The Central Highlands has a substantial focus on agriculture and several long-term competitive advantages in the global market. Core agricultural products include beef, grains, pulses, citrus, table grapes and several others, but the region also has capacity to diversify significantly in the future.

Understanding and supporting this high-growth sector will be critical to diversifying the region's economy and maximising the use of shared export-orientated bulk infrastructure left over from the resources sector's peak (including roads, rail, ports etc.). While agriculture is well-placed to grow significantly in the near future, the sector is also exposed to the same disruptors and challenges as other export industries. As a result, the rate of change in agriculture will accelerate, and innovative and adaptive planning will be required to enable the sector to harness economic opportunities.

The headline figures for the sector in 2015/16 indicate mixed short-term prospects with 1,175 businesses in 2015/16, a decline of 0.7% from the year before.

While agriculture is increasingly impacted by technology, unlike mining and other resources' projects it is a significant employer of labour servicing a range of activities such as local value-adding, packing, distribution and delicate/small crop harvesting. This means that growth in agriculture could mean strong local employment growth above the rates seen in other export sectors.

In 2011, the sector employed roughly 9% of the region's labour force, with over 93% coming from the resident population. While this is significantly smaller than the resources sector, its proportion may have increased given the changes since 2011 and the decline in the mining sector. Moreover, the agricultural sector provides an important baseline for resident employment and economic output, less vulnerable to the variation experienced in the mining sector.

The Fitzroy / Central Queensland region in which the Central Highlands sits has highly productive agricultural land with agricultural production across the region accounting for 11% of Queensland's total production.[6] The Central Highlands represents around 53% of the region's top 10 products.[7] Between 2010-11 and 2014-15, the gross value of total agricultural commodities produced in the Fitzroy region increased at a compound annual rate of 14.8% to $1,330 million.[8]

The Fitzroy region's main agricultural products, measured as a proportion of Queensland's total agricultural production, are livestock, cotton, wheat, sorghum, and forestry. Figure 5 outlines the estimated value of various agricultural products for the Central Highlands, using 2016 production levels and 2010/11 Agricultural Census estimates of the region's share. The Central Highlands contributes a large proportion of all these categories for the region, particularly as it relates to beef cattle (44%), sorghum (86%), wheat (82%), and cotton production (80%).[9] Other products include citrus and grapes. While the latest official data places the value of production of the citrus harvested at less than $4m, a high-level estimate suggests that the value could be up to ten times higher. The large discrepancy presumably relate to data confidentiality issues, as statistics cannot be released when there are too few data contributors in one particular region[10]. Forestry is largely an east-coast industry and doesn't feature prominently in the Central Highlands.

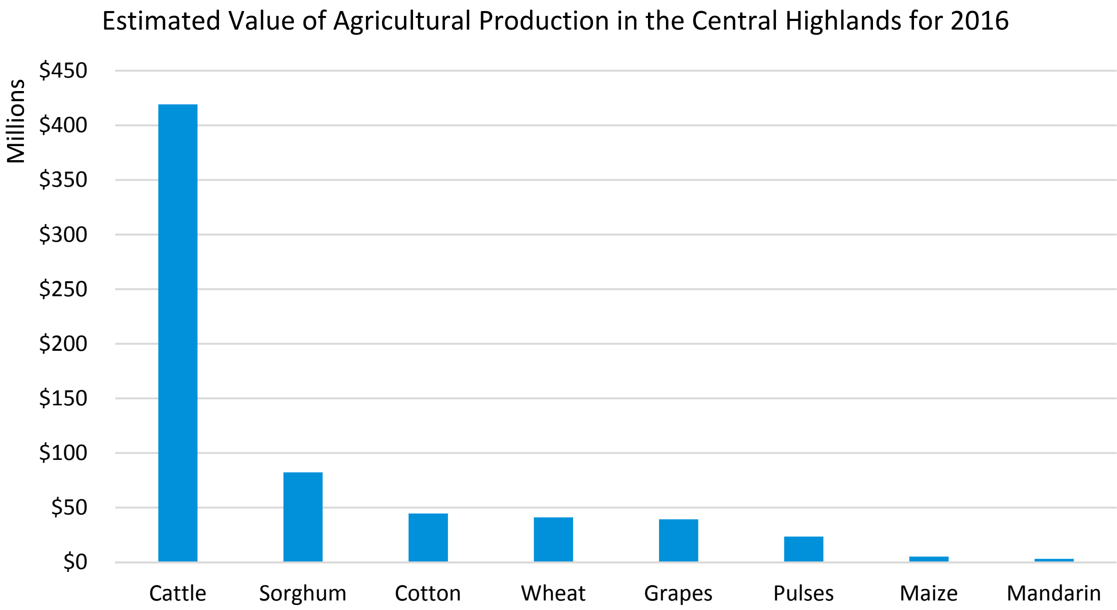

Figure 5 – Estimated Value of Agricultural commodities produced in the Central Highlands, 2016. *Source: CHDC via ACIL Allen Consulting, 2017, using ABS, Value of Agricultural Commodities Produced, Australia, 2014-15, ABS 2010/11 Agricultural Census, and REMPLAN – as developed as an input to 'Agribusiness Regional Stocktake: Baseline Data to Drive Growth', confidential report to the Central Highlands Development, Emerald, 31 July 2017 (unpublished)*

Critical infrastructure supporting the agriculture sector includes a range of rail, road and water infrastructure. Access to the more efficient rail network is often mitigated by supply contracts and control exerted by the resources sector, which reserves capacity on the rail network in case of its

[6] ABS, 2015. *Value of Agricultural Commodities Produced, Australia, 2014-15*, Australian Government, Australia.
[7] ABS, 2015. *Value of Agricultural Commodities Produced, Australia, 2014-15*, Australian Government, Australia.
[8] ABS, 2015, *Value of Agricultural Commodities Produced, Australia, 2010-11*; *Value of Agricultural Commodities Produced, Australia, 2014-15*, Australian Government, Australia.
[9] Department of Agriculture and Fisheries, 2013. *Queensland Agricultural Land Audit*, QLD Government, Australia.
[10] ACIL Allen Consulting, 2017, Agribusiness Regional Stocktake: Baseline Data to Drive Growth, confidential report to the Central Highlands Development, Emerald, 31 July 2017 (unpublished)

own rise is output. Consequently, road networks to the Port of Brisbane are common for agricultural products and pose significant logistical issues.

Regarding water infrastructure, water security in the region is generally considered quite strong. The region is serviced by Fairbairn Dam, a number of smaller weirs and a relatively comprehensive irrigation network. However, minimising water loss, unlocking future capacity and optimising water use and flexibility are ongoing policy considerations for the sector.

Tourism

Tourism is an important part of the services economy future of Queensland and Australia in the long term. While not explicitly an export-orientated sector, the sector relies on many of the same fundamental factors as the other export drivers in this pillar and can form a pivotal role in stabilising a regional economy over-reliant on goods exports.

The Central Highlands has many natural environments and quality services ideal for a thriving regional tourism industry. From large national and state parks such as Carnarvon Gorge, to the Sapphire Gemfields (a 900 square kilometres series of sapphire fossicking attractions that is one of the world's largest sapphire fields[11]), there are many examples of viable long-term tourist attractions for the region.

Because tourism as a sector isn't captured in many standard statistical accounts (like the ABS Census), finding reliable figures for tracking the tourism industry in the Central Highlands is difficult and existing measures often combine various tourism-supporting sectors (like Accommodation and Food Services) into one composite measure.

Analysing data that is available, the headline figures for the sector in the region for 2014/15 included a total of 260 tourism-related businesses, a 10% growth in tourism spending and 7% increase in overnight stays from the previous year. Using four year averages from 2012 to 2015, the largest sources of foreign visitors to the region in 2015 were New Zealand (roughly 29,000 visitors by 2,000 visitors), the UK and Germany. Overall, an estimated total of 1.36m overnight stays occurred in 2015, 84% of which were domestic visits. Tourism generated over $230m in spending into the region in 2016.[12]

These headline figures suggest that tourism has the potential to grow at above-average rates and counter-act the lower growth (or decline) of other major sectors.

In 2011, the tourism sector was estimated to employ 7% of people, roughly the same as the state average.

Overall, the Central Highlands has natural asset advantages that serve as long-term enablers for the tourism sector. Effectively leveraging these advantages will require regional coordination and diversification outside of traditional driving markets and accessing new customer bases.

Construction

The construction sector is a fundamental component in building the infrastructure of an economy and community. In the Central Highlands, this activity mainly focusses on residential construction – building homes for residents and non-resident workers – and engineering construction – building transport or industrial infrastructure, mostly roads and large mining project infrastructure like conveyors.

The headline figures for the sector show that in 2015/16, 412 construction businesses operated in the region, representing a decline of 5.1% from the previous year and a 0.5% compound annual growth rate (2009 to 2016).

In 2011, the construction sector employed 9% of the region, slightly less than the state average due to its low volumes of residential and commercial construction.

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[11] CHDC, 2017.
[12] REMPLAN 2016, utilising 2015-16, Australian Bureau of Statistics (ABS), Tourism Satellite Account

The Central Highlands had maintained a reasonably sized construction industry relative to the state average as a result of significant transport and mining infrastructure. However, given recent trends, this is likely to have diminished. While the sector may not be significantly larger than the state average in 2017, it still plays a critical role in building the supporting infrastructure for economic growth and maintaining infrastructure for the resources sector.

Overall, the construction sector in the region is in a state of transition reflecting the slowdown in the resources sector and will require more conventional residential and light commercial building in order to stabilise its levels of employment and economic activity. Stabilisation will also reduce the reliance on non-resident workers currently being flown in to service surge demand for discrete mining or transport projects.

Diversification into new construction activity will also be key to the future success of the sector as the demands for infrastructure change to be more environmentally conscious, energy efficient, digitally connected and technology-enabling.

3.1.2 Infrastructure enablers

The availability of physical infrastructure is a critical component to economic growth. While the Central Highlands is well serviced by transport, water and resources infrastructure, many elements of energy and digital infrastructure remain lacking. For instance, the structure of the energy network is such that the region is reliant on a few key transmission lines that could disconnect the whole region from the energy grid in the case of extreme weather or localised outages.

The regional transport network is critical to the economic development of the Central Highlands as it facilitates the transport of export goods to domestic and overseas markets, enables importation of critical technology such as mining equipment, and increases the avenues for tourism sector growth. Figure 6 outlines the main road and rail infrastructure in the region. From this figure it is evident that the Central Highlands is a pivotal regional centre, connecting the west of Queensland to major ports on the east coast and connecting the region to northern regional NSW.

The region is, however, dependant on a handful of major highways and particularly reliant on just one – the Capricorn Highway through Blackwater to Rockhampton. Rail networks largely follow the road network and therefore are equally reliant on a few major lines.

Figure 6 – Central Queensland Regional Transport Network. *Source: QTRIP 2017, Fitzroy Regional Profile*

The trend for infrastructure investment in a region is a key measure of the future direction of economic output and growth. Recent market scans of the major infrastructure projects planned in the region highlight the continued resources sector focus of the region, especially coal, closely followed by shared services that both agriculture and mining sectors use such as rail investments. This represents a short-term strategy to double-down on historical strengths for the region, particularly as many market conditions and technology for resource projects improve.

Table 2 outlines the various spending by sector and type in the Central Highlands as at March 2017. It is clear from the data that resources related investment is almost 99% of all investment pending. However, tens of millions of dollars are being invested in housing and community infrastructure throughout the region, highlighting a focus on community capacity building after the mining boom.

Table 2 Project Spending on Infrastructure

Category	Not Started	In Progress	Completed	Total
Within Central Highlands	**8,687.3m**	**112.2m**	**40.9m**	**8,840.4m**
-Community	7.3m	4.6m	15.8m	27.7m
-Retail	-	-	-	-
-Industrial	-	0.2m	-	0.2m
-Residential	-	38.0m	-	38.0m
-Workforce Accommodation	-	-	-	-

Table 2	Project Spending on Infrastructure			
-Rail	-	-	-	-
-Roads	-	38.3m	22.0m	60.3m
-Flood Restoration / Mitigation	-	1.5m	3.1m	4.6m
-Tourism	-	0.5m	-	0.5m
-Mining	7,780.0m	-	-	7,780.0m
-Energy	900.0m	-	-	900.0m
-Water & Sewerage	-	29.2m	-	29.2m
Nearby Central Highlands	**71,247.0m**	**2,090.0m**	**-**	**73,337.0m**
-Rail	4,200.0m	-	-	4,200.0m
-Mining	64,797.0m	2,090.0m	-	66,887m
-Energy	2,250.0m	-	-	2,250m
Total	**79,934.3m**	**2,202.2m**	**40,9m**	**82,177.4m**

Table 2 – Major projects not started, in progress and completed recently in and around the Central Highlands as of March 2017. *Source: Central Highlands Development Register, 2017.*

The rail network is particularly critical to the Central Highlands economy. It services the agriculture and resources sectors, but predominantly carries coal to export.

The below-rail network in the region consists of a mix of ownership arrangements, with Aurizon owning the Blackwater Rail System and Queensland Rail owning the Central Western System.

The Blackwater Rail System services the Southern Bowen Basin coal mines and carries product to the export coal wharves (RG Tanna and Barney Point) and to local users. The Blackwater Rail System runs from Emerald to Gladstone, and includes the section of the North Coast Line between Rockhampton and Gladstone. The Blackwater Rail System predominantly transports coal product.

In contrast, the Central Western System that adjoins the Aurizon Blackwater Rail System at Emerald and runs from Emerald to Hughenden via Longreach and Winton, primarily carries grain, livestock and containerised freight. This rail network can suffer load constraints as it is only a narrow gauge line (1067mm) and therefore cannot accommodate rail freight tonnage above a certain level – for instance 75 tonnes of coal per carriage[13].

Access to the rail network on these systems is regulated under a third party access regime overseen by the Queensland Competition Authority, which enables competitors to use this essential infrastructure at commercial terms, enabling effective competition in the market. As a result, however, there can be conflicts between resources and agricultural goods for accessibility to the rail freight network. As demand for the network increases, there will be additional pressures on the network to accommodate all resources in a diversified Central Highlands economy.

The Emerald Airport is a small, regional airport historically designed to facilitate the large volumes of non-resident workers (so called Fly-In-Fly-Out or 'FIFO' workers) for the coal mining projects in the region. It is serviced by QantasLink, Virgin Australia and Alliance Airlines with expansion potential into more direct flights to regional cities and air freight capabilities. Agribusiness in particular has opportunities in air freight for high-value crops.

[13] http://www.theaustralian.com.au/business/opinion/narrow-gauge-rail-pose-huge-limitations-on-transport-efficiencies/news-story/1095fac29a7dacf5624b21f96c0a1ab5

Since the reduction of FIFO workers, Emerald Airport travel numbers have reduced significantly – the numbers peaked in 2012/13 at 310,640 passengers and has contracted every year since at a rate between -7% and -15%. In the six months to December 2016, just 107,281 passengers were recorded, less than 2015 (113,128) and 2014 (124,811). [14]

Digital infrastructure is also a key consideration that spans the threshold between physical and intangible infrastructure solutions. In terms of physical capacity within the region, the copper wire network and various satellite solutions are still the predominant form of assets, providing limited access to the internet and slower than adequate speeds.

The digital infrastructure and capabilities of the region will be one of the strongest game-changers in the near future. Access to reliable, high-speed internet and mobile connectivity will become an increasingly important part of the Central Highlands' engagement with the digital economy and optimisation of existing industries like mining and agriculture. It is important to understand the game-changing effect of internet access to the innovation of businesses and the development of a modern, stable resident worker population.

However, as noted above, current digital infrastructure is limited. Poor connectivity has been a consistent issue in the region and both the quality of connectivity and accessibility are important factors.

3.1.3 Non-infrastructure enablers

Economic development is enabled not just by the built environment of a region, but by the systems, non-infrastructure and 'soft' or digital infrastructure that supports it. These factors provide important context for the future trajectory of the Central Highlands and its key export-orientated industries.

Particularly in the context of regional areas and a widespread focus on public finances, regional economies benefit greatly from the potential cost-effective development of supporting non-infrastructure solutions to economic development. For instance, instead of expensive investments in new road capacity, better freight route planning and coordination may relieve efficiency issues.

The Central Highlands has several strategic frameworks, collaborative intergovernmental and industry organisations and economic development initiatives to support economic growth.

Strategies cover many standard economic topics such as infrastructure, housing, liveability, employment and investment. Similarly, regional organisations tend to focus on specific industries, infrastructure and economic opportunities in general. However, the effectiveness and completeness of these support structures needs to be considered as anecdotal evidence suggests they aren't always aligned, targeted, or extensively engaged.

[14] CHDC Economic Profile, 2017.

3.2 Pillar Two: Population Services

There has been $15.8m invested in community infrastructure completed recently, with an additional $41.1m planned or in progress

There are 2,317 jobs in Population Services sectors (14%) in 2011, compared to 30% Queensland average

The Central Highlands population has an average life expectancy of 71 years compared to 80 years for Queensland

Key industries include healthcare, education, aged care, legal and family support, and community services

The rising cost of healthcare, policy shift towards primary and home care rather than hospitals, increasing focus on self-funding retirement are having an increasing impact on Population Services in the Central Highlands

3.2.1 Overview of key industry sectors

Population services provide the critical foundations for any economy to live, learn and work effectively. It is important to understand these services – such as healthcare, education and social services – to develop a sustainable population, support this community to be healthy and happy in order to maximise productivity, and be resilient and innovative enough to meet future challenges.

Education

Education as a service and the development of the workforce pillar are very closely related, therefore this section will discuss themes and trends applicable to both in some manner, focused primarily on education outcomes of the region and educational institution capacity.

The Central Highlands has a reasonable amount of education institutions and services given its regional location and population size. It offers primary, secondary and tertiary education (both public and private) across the region with fair coverage in most towns. Access to the charitable funds of resource companies has also allowed selected, albeit uncoordinated, investments in community infrastructure such as schools, playing fields and even a science centre.

Key tertiary institutions include the Central Queensland University (CQU) campus in Emerald, the Emerald Agricultural College (EAC) under the auspices of Queensland Agricultural Training Colleges (QATC), and a range of local Registered Training Organisations (RTOs). The region also provides tertiary education to students outside the Central Highlands in the broader Central Queensland region.

Primarily, the EAC and CQU provide the majority of training for the region and form a critical foundation of capacity and opportunity. The RTOs mainly specialise in niche accreditations in safety, construction, agriculture and resources but not extensive trade qualifications or degrees.

The EAC is one of only three QATC colleges run by the State Government and provides agrarian skills training and qualifications including cattle production, irrigated and dryland cropping, and animal husbandry. It is complemented by a 9,300ha cattle farm for cattle production and stock handling training. It also coordinates with local state and independent schools to transition school leavers and graduates into the college.

The CQU Emerald campus offers a range of courses including the keystone undergraduate qualification – the Bachelor of Agriculture – and a raft of Certificate I to Certificate III qualifications in English and various trades. Its primary focus is on distance education to other courses offered in more metropolitan CQU campuses across QLD (business, marketing, etc.) and vocational education in trades and English following its acquisition of Central Queensland TAFE.

At the primary and secondary levels, the region includes reasonable amounts of both public and private schools (29 in total), some with their own initiatives (particularly in secondary schools) to educate students in relevant skills and subjects such as agriculture. At this end of the system, secondary completion rates and advancement rates to higher education are both lower than the state average. For example, the region has a 17% school leaver participation rate in higher education, which is almost half the 31% state average.[15]

Conversely, the region has a very strong Vocation Education and Training (VET) sector with 30 VET students per 100 people compared to the state average of 22 per 100 people.[16]

School attendance and completion rates are a potential issue for the region. In 2011, fulltime secondary school participation at aged 16 was 68%, lower than both the Brisbane rate of 86% and the state average of 78%. In the same period, people who left at or before Year 10, or didn't attend school at all, totalled 8,448 people (44%) compared with Brisbane's rate of 26% and the state average of 37%.[17] Lower Year 12 and tertiary education completion rates in part reflect the strong VET component of the sector and required skillsets in the dominant resources sector.

In the long term however, this may reduce the uptake of science, technology, engineering and mathematics (STEM) skills required to perform the technology-focused jobs of the digital age. As disruptors such as the transition to blue to white collar work intensifies, secondary students will increasingly need to graduate with more advanced skills in STEM to be able to qualify for future employment opportunities.

The smaller RTOs in the region play a critical part in the broader education sector as they typically have greater flexibility with course content and can specialise to an extent that larger institutions often can't. Examples of qualifications include OH&S, Standard 11 certification (surface and underground coal mining) and many other safety and technical trade related courses. Consideration should be given to the coordination of a diverse group of agile, small RTOs that specialise in specific trades, skills and qualifications.

Apprenticeships and traineeships are also important elements in workforce development. While there are apprentice and traineeship support services available in the region, many businesses are anecdotally unsure of how they can best use these services and how to make a complaint or ask for redress if the service is unsatisfactory. Consideration should be given to programs or workshops explaining the processes and support available to apprentices, trainees and businesses employing them.

Industry engagement by educational institutions will be critical in developing a plan for education requirements in the region, particularly given the prevalence of vocational education. The low labour supply and evidence of skills shortages mean that industry and education bodies will need to collaborate to time and structure degrees and qualifications to adequately supply the future workforce needs of industry. In particular, early engagement with resource project proponents will be critical to align student numbers with project employment needs.

However, these institutions should also consider education needs outside the Central Highlands as a significant proportion of the Central Highlands workforce still lives outside the region. Given the

[15] PHIDU, 2017. *Social Atlas of Australia*, Creative Commons, Australia
[16] PHIDU, 2017. *Social Atlas of Australia*, Creative Commons, Australia
[17] PHIDU, 2017. *Social Atlas of Australia*, Creative Commons, Australia

increasingly global nature of education services and the Central Highlands position at the cross-roads of western Queensland, northern NSW and the east coast, the region could provide niche, industry-specific training and qualifications in rural health, agriculture and resources/engineering.

Health

Healthcare is a critical support service to any economy and this is only amplified in the context of a regional, agriculture- and resources-driven economy. It is important to understand how the health system responds to the health of the population to optimise productivity in both educational and commercial endeavours.

At a high level, the region has health capabilities as outlined by the governing Health and Hospital Services (HHS) in Figure 7.

Figure 7 – Health facilities across the Central Queensland HHS region. *Source: 2017 Edition CQ GP Referral Directory.*

The map illustrates that Central Highlands has a secondary-level hospital at Emerald, multipurpose clinics Blackwater and Springsure, and three outpatient facilities north of Emerald. In addition to these large facilities, GP services are spread across the region and a GP Super Clinic operates in Emerald.

Regional locations often struggle without the utility of nearby, large hospitals under the current model of care, but primary care access (such as GP visits) can be equally challenging. Contrary to this trend, and possibly as a result of the Emerald GP Super Clinic, Emerald's accessibility to services including healthcare in 2014 was relatively close to Brisbane's accessibility. Just 3.8% of people over 18 years old had difficulty accessing services because of transport issues (Brisbane was 3.6%) and only 2.6% of over 18 year olds experienced cost barriers to their healthcare (compared to 2.5% for Brisbane). [18]

However, 4.6 GP services were provided per resident in the Central Highlands in 2010 (during the mining boom), which is significantly less than the state average of 5.5 services per resident or even

[18] PHIDU, 2017. *Social Atlas of Australia*, Creative Commons, Australia

the Brisbane figure of 5.2 services per resident. [19] While more recent data is not available, and the GP Super Clinic may have addressed some of these issues, a 16.4% lower rate of GP services than the state average is poor for a region with a significantly lower health outcomes.

Several disruptors have the potential to further improve the accessibility and effectiveness of health solutions regionally, including the introduction of more advanced tele-health, predictive health analytics using remote sensor arrays, and the use of robotics (e.g. with a specialist based out of a metropolitan area controlling the robot in Emerald).

The physically demanding nature of work on agricultural properties, in construction and long-haul transport, and especially in mining and any extractive industry means that despite reasonable access to healthcare, life expectancy in the region is 71 years compared to the state average of 80 years.[20] This indicates the health pressures of living regionally and working blue-collar employment for entire careers.

Again, improvements in technology and disruptors such as automation may improve the life expectancy of the region and even begin to close the gap between the state average and the Central Highlands.

However, accessing all these benefits to health outcomes is heavily reliant on the rate of adoption for new models of care and new technologies. In many ways, these technologies will be easier to implement in major cities first, meaning that the disparity between metropolitan and rural areas could worsen before it improves.

For an analysis of the health workforce see the next pillar's section on 'Workforce'.

Social and Community Services

Social and community services cover a range of social support services, as well as sports and recreation. These services are important to the economy because they provide the lifestyle and utility required to attract people to live and work in the region. In addition, several services cater to more urgent and serious, or 'acute', needs such as mental health, disability support, family and young parenting support, and homelessness. These services prevent social, health or criminal justice problems in the future and form an essential part of a stable and cohesive community.

There is currently limited provision of **acute community services** in the Central Highlands. For instance, there are two official mental health practitioners according to the Central Queensland HHS, one adult-focused and one child-focussed. Of the major service providers for other community services, Anglicare, Centacare, and the St Vincent De Pauls Society all operate services ranging from domestic violence and more general crisis accommodation to specialist homelessness and youth services. However, some of these services are coordinated or even based out of other parts of the broader Central Queensland (e.g. Rockhampton). Anecdotal evidence suggests that these services are stretched quite thinly across the region and are particularly worried about the impacts of recent funding reforms.

Community programs including sport and recreation clubs are anecdotally highly volatile and over-reliant on dedicated individuals to drive program outcomes and continuity. Targeted funding and more coordination from any number of sources (schools, government, etc.) could provide more stability to these programs and address a need in the community. Without successful opportunities in the community to engage and maintain an active lifestyle, many prospective workers won't be drawn to the region and existing residents will be encouraged to leave.

Access to childcare was nominated in previous strategies as a significant barrier to workforce participation for those currently not participating in the Central Highlands labour-force and 33% of residents in 2011 provided unpaid childcare.[21]

This may have changed since the last Census, however the demand for community services like childcare and family support services will only grow as the population of the region grows and

[19] PHIDU, 2017. *Social Atlas of Australia*, Creative Commons, Australia
[20] PHIDU, 2017. *Social Atlas of Australia*, Creative Commons, Australia
[21] PHIDU, 2017. *Social Atlas of Australia*, Creative Commons, Australia

becomes more stabilised (more working families). It is critical that social and community services, even less acute social support services like sports and recreation, are adequately invested in and coordinated if the region is to attract key industries, workers and general population growth while minimising the social stressors.

For an analysis of the social and community services workforce see the next pillar's section on 'Workforce'.

3.3 Pillar Three: Workforce

There is a total of 19,315 people considered to be in the labour force which constitutes a 75% participation rate of total regional population

The labour force is has experienced moderate growth of 1.2% compound growth in recent years (Dec 2011 to Dec 2016)

There are 16,710 jobs within the region – of which, approximately 80% live in the region

The region's unemployment rate of 4.1% (Mar 2017) is significantly lower compared to Queensland's average of 6.1%

Key industries that contribute to Workforce activities include distance education and vocational education

There has been nationally stagnant wage growth in recent times, with the forecast to remain low and even negative in real terms over the medium term

The rise of automation and agile business combined with an ageing population will impact the region's economic activity

3.3.1 Overview

Workforce is a critical part of any functioning economy and includes the people, skills and potential skills within the economy.

Understanding the trends for skills and employment into the future, both within the region and globally, is pivotal in preparing for and leveraging the challenges and opportunities of the economy over the next 3-5 years and beyond.

Distribution and Transition

The distribution of the Central Highlands' economy in 2011, as outlined in Table 1 in the previous section, was heavily geared towards the export drivers – mining, construction, agriculture and tourism.

Viewed from another perspective, the top 3 occupations in 2011 focused heavily on trades and management – drivers / machinery operators (25%), tradespeople (22%), and managers (13%). This distribution is difficult to forecast without more recent data.

However, given that all three occupations are potentially equally applicable across a number of sectors (agriculture, tourism, transport, construction etc.), it is possible this distribution is largely unchanged.

These rough employment distributions mark the starting point, current strengths and weaknesses for the region's workforce. Given the enormity of the challenges and opportunities facing all economies in the future from disruptors, this employment baseline indicates that the Central Highlands will need to focus on further workforce development in essential services, professional and scientific services, and technology-focused skillsets.

From a population services perspective, all major education, healthcare and social assistance employment categories are significantly less than the state average. As the stability and average age of the population rises over time, these sectors will require significant investment in workforce training.

For instance, healthcare and social assistance employment (4.14%) is almost one-third of the state average (12.13%). As the stability and average age of the population rises over time, these sectors will require significant investment in workforce training and associated aging services.

Similarly, education and training, precisely aligned and pivotal to workforce development, is also significantly less than the state average (5.45% versus the state's 8.04%). This proportion may need to increase in the region because of significant medium-term trends towards greater retraining, mature age education, education for international students, higher education and post-graduate qualifications, and advanced technical training.

Labour Force and Residency

Workforce residency is a significant consideration for the Central Highlands. There are advantages in both resident and non-resident worker populations, however at an economy-wide level in the long-term, it is financially and strategically better to maximise resident workforce populations than non-resident ones.

Non-resident workers can be useful to meet the needs of spikes in economic activity (such as a new mine) where the local workforce is insufficient to fully staff or support the activity. However, non-resident workers do not contribute as much to the local economy in terms of taxes and private expenditure. Compounding the issue, non-resident workers still access critical infrastructure such as roads, hospitals and short-term accommodation – they pay neither council rates that support roads nor spend as much of their income locally supporting businesses.

As long as economic activity is not stalled by a strategic focus on resident employment (i.e. blocking project approvals because they use non-resident workers), policies and investment should be focused in the long term on the maximisation of resident worker populations and the minimisation of non-resident populations.

The growth in the region's labour force is also critical to economic development, because it represents the potential of the region to sustain and grow the economy – see Table 3. The Central Highlands currently has a larger labour force in proportion to its population (the Labour Force Participation Rate, or LFPR) than the state average. Similarly, the region's unemployment rate is also low, meaning that for those people wanting work in the region, only 3.8% are currently not employed. This data would suggest that the region is at full employment with little if any capacity in the local workforce.

Table 3	Labour Force Comparison (Local Vs State)			Forecasts	
Year (as at June)	**2016 (Central Highlands)**	**2016 (QLD)**	***Proportion / Difference***	**2021**	**2026**
Population	33,173	4,853,048	*0.7%*	35,116	36,964
5yr CAGR (%)*	2.1%	2.04%	*+2.9%*	*1.4%*	*1.3%*
Labour force participation rate	76%	70%	*+8.6%*	n/a	n/a
Unemployment rate	3.8%	6.1%	-38%	n/a	n/a

*Compound Annual Growth Rate over the five years prior to the year in question (2016, 2021 or 2026)

This is both a significant advantage and possible disadvantage. It is an advantage because it implies that few opportunities in the region's economy are not being exploited simply because people are discouraged from working or unavailable. Conversely, it means the available resident supply of labour for new opportunities is limited. This is evidenced by the high proportion of non-resident workers in the region – workers attracted to come to the region because local, appropriately skilled workers could not be sourced from the resident population.

Without steady growth in appropriately skilled workers, opportunities may be unmet because of a high cost of the unavailability of labour, or the inefficient reliance on non-resident worker populations may continue to grow.

3.4 Pillar Four: Governance

3.4.1 Overview

Effective and responsive governance structures are an essential framework and system of coordination for regional economies to optimise, advocate and collaborate.

It is especially important for regional areas to have strong governance as the rate of change and volatility of certain sectors will require rapid and coordinated responses. Similarly, regional areas can experience challenges in advocating for investment from institutions based in coastal cities especially where business cases require inter-regional benefits assessment and whole of supply chain economic returns.

The Central Highlands has many conventional structures for governance, including local government, region-based organisations (many whole of Central Queensland or Fitzroy Basin based), industry bodies and community organisations.

Few whole-of-region governance structures appear evident in the region – i.e. a structure that connects industry, community and local government together – however, at this point, Central Highlands Regional Council (CHRC), through the Central Highlands Development Corporation (CHDC), undertakes the broad share of this role.

3.4.2 Participants in governance activities

Local Government

The CHRC councillors and leadership team perform roles expected of public representation and community involvement being driven by the councillors and organisational management largely governed by the ELT and supporting staff.

Council initiatives to foster the economic development of the region include significant funding towards the CHDC, the Economic Development Incentive Framework (EDIF), economic profiling conducted currently by REMPLAN, and a general suite of industry engagement activities.

The EDIF provides a selection of cost savings and possible marketing opportunities for new projects or businesses with strategic value to the region – currently these focus on agriculture and tourism development. Benefits include a reduction in rates, fees or other payments, a payments schedule for fees and the potential for joint marketing opportunities. The approval process is case by case and was roughly budgeted at $150,000 of rate relief in the 2014/15 financial year.[22] It applies to investments over $1m or the creation of over 10 full-time positions. Several other conditions also apply including no negative competition with existing industries and no negative environmental impacts.

Inter-council governance and collaboration in the region is primarily facilitated by the Central Queensland Regional Organisation of Councils (CQROC) and Fitzroy Basin Association (FBA).

The CQROC comprises representatives from the Banana Shire, Central Highlands Regional, Gladstone Regional, Livingstone Shire, Rockhampton Regional and Woorabinda Aboriginal Shire Councils. It focusses on the agriculture sector through joint initiatives and investments, particularly supply chain improvements such as the Inland Port (and intermodal freight facility) and the Meat Processing Plant. Overseeing these specific projects is the Growing Central Queensland program that aims to drive growth in agribusiness for the region.

The FBA also focused on agriculture, with a specific focus on the environment, water security and biodiversity as it relates to the community and agricultural industries.

[22] CHRC, 2015. *Development Incentives Guidelines*, CHRC, Australia.

Industry

Industry representation in the region is facilitated by a number of sector-specific and general organisations from the Queensland Resources Council (QRC) to the FBA.

The CHDC is a unique component of the regional governance framework as an independent, but council-funded, economic development organisation. It is commonly considered the economic development arm of the CHRC given that is reports to the CHRC and is partially funded by it. In many instances, economic development organisations, such as Chambers of Commerce, are partially funded by private contributions or memberships to form a representative industry body and minimise the impact on public finances.

The CHDC has several existing industry partnerships including BHP Billiton Mitsubishi Alliance (BMA), Qantas, and the QRC. While BMA has contributed to the extent of having an embedded BMA-funded Business Development Officer in the CHDC, Qantas and the QRC partnerships appear to focus on coordination and joint planning for specific issues like the Emerald Airport and the future development of the mining sector.

It is important to note that agriculture and resources have considerable representation at national, state and local levels within the region whereas the tourism sector in the Central Highlands may not be leveraging broader sector based opportunities for collaboration and support through industry representatives. It is important to consider the implications of governance and collaboration within and outside the region across all sectors and ensure efforts are sufficient in scope and adequately aligned to the strategic aims of the region.

Community

Community infrastructure and services are governed in the region largely by local government, small unincorporated organisations like sporting clubs, and community industry groups.

Environmental and water catchment planning bodies such as the Capricornia Catchments Inc., the Central Highlands Regional Resource Use and Planning Cooperative (CHRRUP), and the Dawson Catchment Coordinating Association (DCCA) all aim to plan, monitor and develop the environment and water sources within the Central Highlands and Central Queensland more broadly.

3.5 Central Highlands Economic Snapshot

The Central Highlands economy has relatively strong headline indicators and performance, particularly given the unique challenges of maintaining and growing the economy of some inland, regional cities in Queensland. Its employment is strong, several education and health indicators are positive and the region's overall socioeconomic status is above the state average. Below is a summary of the current economic standing of the region – including the identification of what this means for economic planning processes in the future.

Export Drivers

Resources, agriculture, tourism and construction sectors that power the economy have **strong markets for products and an established history of relatively strong growth** until the recent downturn from the period of the mining boom. However, the economy is still heavily reliant on the resources sector, providing 34% of jobs in 2011, and the other major industries are distant equivalents – 9%, 4% and 9% respectively.

Particularly as the future of the coal sector becomes increasingly uncertain, the region's economy needs to deepen its focus into agriculture and tourism, while investigating new opportunities in other sectors to further stabilise the region.

Population Services

The population services of the region are all **relatively under-developed compared to the state average**. The employment proportions for these sectors are under-represented and many social indicators, such as life expectancy, school completion and access to internet connections are significantly lower than the state average. However, this is not atypical of inland, regional communities and there are **many opportunities in the short-term to greatly improve these measures**. Investments in digital infrastructure, tele-health, specialised education pathways and targeted community investment by industry are all considerations for the region that would optimise the population services foundation of the region.

Workforce

The workforce of the Central Highlands is **nearly fully employed** and growing slowly relative to the state average. This means that the **labour supply is likely to be a constraining factor on economic growth** in the future without further relying on non-resident workforces. Moreover, a skills gap in the resident population is also requiring the importation of workers from outside the region to drive economic growth. However, the potential for the region to attract a significantly larger workforce over the medium to long term means that with appropriate skills and training programs, aligned to industry needs, the region could be a key employment centre for Central Queensland and benefit from a significant reduction in non-resident workers.

Governance

The governance of the region's economy focusses on the key institutions of the local council, industry, community organisations and the CHDC. While several quality governance structures exist and comprehensive strategic frameworks are in place, **there are still opportunities to engage more with industry and other regional governments.**

4 What is coming for the Central Highlands?

4.1 Understanding key global disruptors

It is important to understand what may influence the region's economy in the upcoming decades. **There is significant change on the horizon for the Central Highlands' economy. The disruptors impacting all industries and the community** are broad and numerous – from technology, climate change and the rise of Asia, to ageing workers, agile business and the digital age. In addition, export drivers are also vulnerable to traditional market forces even without technological or social disruption, especially commodity prices.

The rate of technological, social and economic change is accelerating and economy's need to be prepared to adapt to these changes quickly and with minimal negative impacts on communities. Not only are the number of disrupters increasing, but the rate of change and adoption is also sharply increasing. This is important for the Central Highlands because it reflects the need to plan for disruptors and be aware of the impact of rapid technological change on its economy and society.

The exponential growth of technology means that technology will be over a billion times more advanced in 30 years – see Figure 8.

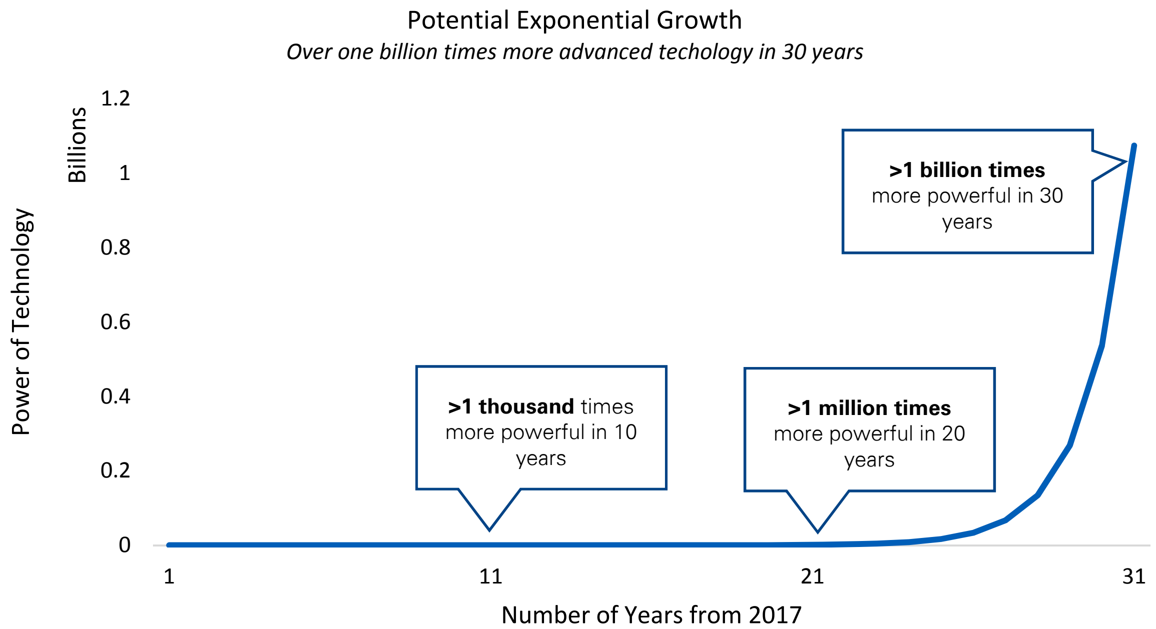

Figure 8 – the exponential growth of technology over 30 years. *Source: KPMG, 2017.*

There are many global disrupting forces of technological, social and environmental change that impact the global economy. These forces apply equally to export-orientated regions like the Central Highlands. These disruptors – sometimes called 'mega-trends' – significantly impact the consumer base, labour force and general ways of doing business across all industries. According to the CSIRO[23], the main disruptors over the next 30 years for Queensland are outlined in Figure 9.

- The rise of Asia (particularly China and India);
- Protecting our natural advantages in resources, biosecurity, and the environment;
- The new digital and knowledge economies, including infrastructure and resources services, ICT services, and urban and environmental services;
- Urbanisation and the strain on critical infrastructure; and
- Healthy ageing and the development of lifelong learning and contribution.

Rise of Asia

The rise of Asia will significantly increase the demand for clean food and high-quality agricultural produce for the booming Asian middle class. Because domestic supply in this region of high-quality and clean produce is sometimes limited, Australia's high environmental and biosecurity standards provide opportunities to supply this demand. This will provide opportunities in tourism, resources and agriculture.

The digital economy

The digital economy is another critical disruptor and opportunity for the region, as traditionally analogue industries and low-tech products like agriculture and tourism face pressures to more agilely supply products online to a global marketplace. New processes and enabling technology will drive change and opportunities in all goods and services, but especially in agriculture, tourism and essential services.

Leveraging natural resources and environment

Similarly, the drive to leverage our resources and environment will increase as the Asia-Pacific grows in size, desires more luxury eco-tourism experiences, and demands more energy and construction materials. However, the increase in reliable and cheap domestic supplies of these commodities will pose an ongoing challenge and encourage the Central Highlands to value-add or innovate more wherever possible to maintain competitive advantage.

This will provide opportunities in tourism, manufacturing, construction, resources and agriculture.

Urbanisation and healthy ageing

Urbanisation and healthy ageing pose similar challenges and opportunities as disruptors for the region. On the one hand, urbanisation in cities may drive the growth of regions like the Central Highlands that have copious supplies of land for development. But, limited infrastructure investment in the region means that trade routes and essential services will still be stressed by the increase in population and development without significant strategic investments in critical infrastructure, services and coordination. Similarly, the young average age of the population in the Central Highlands limits the immediate impact of an ageing population, but the challenge in providing the necessary level of care for some high needs older residents will continue to grow as issues like chronic disease follow their current trends.

Figure 9 – QLD Disruptors based on the CSIRO. Source: KPMG, 2017.

[23] CSIRO, 2009. *Signposts for Queensland: An Analysis of Future Pathways*, CSIRO, Australia.

These trends broadly align with several other reports over the last decade, including by Trade and Investment Queensland[24], CSIRO (from a national and global perspective)[25], and the Planning Institute Australia[26].

Understanding these pillars is important to the long-term economic strategy and aspirations of the region, especially given the region's prominent mining and agriculture sectors that account for over half of the economy and are inherently linked to the fluctuations of global demand[27].

4.2 What impact may disruptors have on the economy?

The opportunities on the doorstep for the Central Highlands economy are immense, and the rate at which these opportunities will present is likely to be rapid. It is important to ensure that the region's economy is in a position with established frameworks and processes to leverage the opportunities presented through these emerging disruptors.

It is important to understand how this disruptors may impact the region's economy. It is anticipated that all four pillars of the region's economy will be presented with opportunities borne through the emergence of global economic disruptors. These are outlined in more detail below and overleaf.

Export Drivers

It is acknowledged that export drivers is the most significant contributor to the region's economy. It is particularly important to recognise that some global disruptors will have more of an impact on the region's economy and export drivers specifically than others. In particular, it is anticipated that the Central Highlands' economy will be most impacted by:

- **Automation –** the resources and agriculture sectors already have many automated and technology-enabled activities such as mine truck navigation, real-time mine convergence, harvesting, monitoring and crop treatment, and processing of many raw products. In addition to the existing impacts of automation, there is evidence that a significant amount of further automation is likely over the medium term. In particular, agriculture is considered one of the sectors with the greatest opportunities for embracing new technology, including automation[28].
- **Rise of Asia** – the increase in demand for clean food and protein in the growing markets of China, India and south-east Asia (Indonesia, Malaysia, etc.) provides significant opportunities for the agriculture sector, particularly grazing in beef and other livestock. Similarly, coal exports, while potentially in long-term decline, are benefited significantly by demand for coal for steel production and energy in countries like China and India. Conversely, there will be challenges in adequately servicing increasingly large volumes in commodities and changing preferences for food, energy and other exported goods.

More specifically, there are a number of potential disrupters that will influence infrastructure within the region. These are outlined below and cover a range of mostly technology-based disruptions.

- **New materials** – including the increased use of energy efficient and recycled materials.
- **Advanced manufacturing and pre-fabrication** – the ability for individuals to manufacture their own parts and products, coupled with the ability to build large modular structures using pre-

[24] TIQ Investment Strategy 2017-2022, 2016.
[25] CSIRO, 2012. *Our Future World*, CSIRO, Australia.
[26] Planning Institute Australia, 2016. *Through the lens: megatrends shaping our future*, PIA, Australia.
[27] CHDC Economic Profile, 2017.
[28] StartupAus and KPMG et al., 2016. *Powering Growth: Realising the Potential of Agtech in Australia*, Startup Aus, Australia.

fabricated, albeit innovatively designed, structures. These development decentralise the field of construction and engineering, disrupt supply chains and the costs of goods and reduce the need for large on-site construction work.

- **Big data and the internet of things** – the increase in affordable data sensor arrays and embedded data in infrastructure has allowed more and more powerful data analytics around transport and infrastructure use. Similarly, the diverse range of economic activity that is underpinned by data-enabled infrastructure is empowered and provides greater flow-on opportunities for increased productivity, quality, automation and responsiveness.

Population Services

There are several disrupting forces acting upon the population services of all global economies, and the disruptors with the most relevance to the Central Highlands are outlined below.

- **The ageing population** – increased life expectancies and advancements in medicine have both extended natural lifespans and reduced premature deaths in developed countries like Australia. As a result, the types of services supplied and demanded in Australia, particularly preventative primary healthcare and aged care, have changed significantly. This is important to the Central Highlands because, despite having a relatively young population now, the demand and nature of services will continue to change just as rapidly with improvements in technology, a growing ageing resident population and the drive for longer working and learning lifespans.
- **Policy reform and agile ways of doing business** – population services are increasingly being expected to act like small businesses. Recent reforms to the disability and aged care sectors have strongly emphasised a consumer-directed care approach that mimics private sector behaviour, reduces regulation around service delivery options and shifts the funding burden away from government. These changes are important to understand as they make services less financially secure in the short-term and require significant operational changes to many essential services.
- **Big data and automation** – the increasing power of data analytics and robotics will significantly change the nature of population service delivery, including more predictive analysis, real-time data monitoring and automated systems. While the most immediate impacts will be felt in health and aged care, education and general community services will also experience challenges and opportunities. This is an important game-changer for rural communities if these disruptors can be embraced, because they have the capacity to 'level the playing field' by decentralising service delivery and reducing the impact of distance of sectors like education and healthcare.
- **Tele-health, digital service provision and advancing analytics** - Several disruptors have the potential to further improve the accessibility and effectiveness of health solutions regionally, including the introduction of more advanced tele-health, predictive health analytics using remote sensor arrays, and the use of robotics (e.g. with a specialist based out of a metropolitan area controlling the robot in Emerald).

Workforce

Given the enormity of the challenges and opportunities facing all economies in the future from disruptors, this starting point implies a workforce with future development needs in essential services, professional and scientific services, and technology-focused skillsets. Specifically:

- **Sectors and potential skills of the future** will require strategy planning and investment to appropriately supply industry with the workforce it needs. Currently, many of the projected important workforce or skills categories (STEM etc.) have a significantly lower proportion in the region than the state average.
- **The transition** towards advanced manufacturing will likely benefit from the core skills of existing manufacturing workers, as well as the importance of supporting infrastructure already enabling the region. It is important that consideration be given to how these skills can be transferred into highly trained, highly paid and stable jobs in the future (e.g. Advanced Manufacturing, R&D and agri-business).

- **Allowing an older and longer-serving workforce** because of longer life expectancies and the drive for healthy ageing;
- **Changing the type of work performed** by people as automation and technology-enabled labour drives productivity but restricts traditional, labour-intensive job growth; and
- **The innovation imperative** to adapt to changes in technology and market demand for workforce will create challenges for education institutions to keep pace with change.

Governance

There are several disruptors that can act upon the effectiveness of governance for the region, including:

- **New funding models** – public-private partnerships, market-led proposals and the increasing use of crowd-funding and venture capital all make traditional advocacy and investment strategies with state and federal governments less effective and less necessary; and
- **Inter-governmental and inter-regional collaborative decision-making** – new policy, planning and governance frameworks including the City Deals model, Northern Australia policy, and Regional Transport Plans increase the degree of cross-boundary collaboration and coordination in government decision-making and policy mindsets.

While the enormity of potential change opportunities resulting from global disruptors may be daunting, these disruptors also provide opportunities for key industries to be more productive, more efficient and generally service key markets more effectively. It is important to recognise the degree of change, potential challenges and supporting frameworks and initiatives necessary to leverage these opportunities for the region's economy. These should be considered both in the short and longer term to ensure opportunities presented through global change can be harnessed for the benefit of the Central Highlands' economy and community more broadly.

5 Developing an Economic Master Plan for the Central Highlands

5.1 Methodology

Over the course of developing this document, various activities were undertaken to provide a comprehensive and collaborative vision of the region and its economic aspirations.

An economic baseline was developed using the latest available data and forecast trends to provide a basis and lens with which to analyse community input and frame potential strategies and actions.

This baseline is summarised in the Executive Summary and appendices of this document.

Industry and community stakeholders were consulted in group and individual sessions on the major opportunities and measures for success that are relevant for the region's 3-5 year future, as well as its 30 year aspirations. Feedback was also sought on the barriers, enablers, possible initiatives and required infrastructure that impact the successful realisation of these opportunities and aspirations.

Approximately 70 members of the community and industry were consulted, mainly through the group session workshops. To supplement, several key stakeholders were followed up separately by phone and email.

These results are summarised in Section 5.2.

The CHRC and CHDC were consulted regularly throughout the process and feedback from these sessions were incorporated at the draft, final draft and final stages of the process. Both the council members and the CHRC executive leadership team were consulted, including the alignment of this documents findings to the strategic frameworks of the CHRC, its Corporate Plan and relevant strategies.

Additional material was consulted in the form of reports and external analyses on global trends, prices, the region, state and national factors at play and any recommendations made publically regarding the economic development of the Central Highlands.

These are summarised in Section 5.3.

These activities were used to develop a series of high level objectives for the future of the region's economy. These objectives form the basis of identifying actions and implementation considerations contained within the CHEMP.

A summary of the above methodology is provided in the subsequent sections.

5.2 Summary of stakeholder engagement

Stakeholder engagement activities were conducted from 16 May 2017 through to 2 June 2017 in a variety of formats including group workshops (16 and 17 May) and supplementary teleconferences. The group workshops were undertaken in alignment to the four pillars of the region's economy to ensure targeted discussion and open opportunity to interact with representatives from similarly focused industry sectors.

A summary of the findings from these workshops as well as additional consultation activities undertaken with stakeholders via teleconference are provided below.

Industry and Export Drivers

Key themes emerging from stakeholder consultation activities pertaining to specific industry and export drivers are outlined below:

- **Comparative strengths –** the need to analyse existing comparative strengths and stocktake capabilities and infrastructure was recommended to reinforce immediate economic strategies towards expanding and improving existing economic drivers such as mining and agriculture.
- **Traditional value-adding and advanced manufacturing** – the need for specific infrastructure such as the Emerald Meat Processing Plant, a goat processing plant, boutique abattoirs, a macadamia and/or oilseed processing plant, and general capability expansion into pulse processing, branding, tracking and new packing capacity.
- **By-product utilisation** – a specific opportunity was identified in the agriculture sector to better utilise by-products from production as other inputs or products such as bio-fuels.
- **Intermodal supply chain optimisation** – the need for the Central Queensland Inland Port and initiatives designed to optimise supply chains and transport networks. Examples include getting agriculture off the roads and more efficiently share the rail network. An aspiration included aiming to be the regional hub for trade.
- **Airport development** – elements of the airport were addressed regarding economic development including opportunities such as air freight capability upgrades, expanded airport services to Toowoomba and coastal regional cities, and helicopter services for tourism and business.
- **Digital economy** – Connectivity and digital infrastructure were consistently highlighted across many workshops, including the opportunity to use microwave wireless networks (South Western Wireless), LORAWAN sensor networks, develop central data storage, implement the internet of things concept, and develop big data analytics capabilities.
- **Energy and resources** – opportunities were highlighted in the renewable energy sector including solar, wind, biofuels and other renewables investment. This was viewed particularly in the context of energy independence from the grid, parallel battery technology investment, and a refreshed strategic view of mining and resources future in the region.
- **Tourism** – various tourism diversifications and improvements were highlighted such as agri-tourism as a counter-cyclical industry. Others include the opportunity to specialise in both investor / business tourism and agrarian sightseeing / experiences, the benefits of a strategic focus on packaging luxury experience, large scale regional events, and the optimisation of the existing driving market.
- **Agriculture** – a constant theme was the desire to have a major shift towards agricultural expansion and diversification, including horticulture, development of niche markets, establishing air freight capacity, and embracing innovation through agri-tech and innovative business examples like fully automated farms, or water and energy independent farming stations.
- **Agile business** – a broad theme also involved the optimisation of governance and planning processes to improve the ease of doing business in the region, particularly for start-ups and

SMEs. Elements of this opportunity included incubator spaces and initiatives to improve access to the basics required to grow a small business.

- **Adaptability** – overall a strategic focus was articulated that economic investment and initiatives should be directed towards economic fundamentals and core systems to allow flexibility to changes in market forces or conditions, such as commodity prices. Examples included so-called 'forced cropping' support initiatives, investment in product-agnostic infrastructure like certain roads, rail and digital infrastructure investment.

- **Development of new and existing markets** – an element of the feedback focused on new and emerging market development both domestically and internationally. Asian markets played a significant role in this feedback for all aspects of the economy, but especially agriculture, resources and tourism.

- **Research and development** – niche and collaborative research specialisations in areas such as agriculture and mining were emphasised. Specific suggestions included attempting to have one Australian Research Council Centre of Excellence in the region, expanding the purview of the Northern Australia CRC, and forming a joint agriculture/resources CRC or initiative to solve numerous joint issues for mutual benefit. The need for greater industry representation in R&D and other economic decisions was reinforced in this discussion.

- **Centralising, contracting and outsourcing** – it was identified that there was a potential opportunity in finding efficiencies in core business services like payroll, accounting, ITS, and equipment hire and management by providing these centrally (e.g. through a discrete role in CHDC), or via out-sourcing to third parties to promote consistency, efficiency and free up businesses to focus on customers and innovation more. Added benefits included the ability to share resources like machinery across the region through a third party rather than every party holding independent, capital-intensive fleets of vehicles, machinery and other equipment.

Population Services

A summary of key themes that emerged through stakeholder consultation activities that relate to the Population Services pillar of the region's economy is outlined below:

- **Community infrastructure** – critical infrastructure was highlighted as a key attractor and retention factor for skilled populations and a lifestyle development strategy. Examples include a multi-purpose facility to serve as things such as an agile small business incubator or business centre, convention centre, indoor sports, arts centre, or community hall etc. The improved targeting and coordination of private investment in community infrastructure and programs was also raised, citing concerns that investment was reactionary and disconnected.

- **Digital** – everything from digital literacy, the digital economy and business technology education was highlighted as requiring significant consideration. Combined with the need for digital infrastructure, digital connectivity is clearly an important issue.

- **STEM** – it was suggested that STEM skills need to be encouraged during early and pre-tertiary education as the basis of both professional and technical jobs in the future.

- **Water security** – issues regarding water security were highlighted, including ensuring towns have sufficient water supply, unlocking high value productive areas, minimising conflict with industry and irrigators, and investigating water trade regionally.

- **Strong and stable population** – the need for a manageable flow of people was raised during the consultations. Stakeholders suggested either a well-maintained, stable and self-contained resident population or a managed flow of residents throughout their lives. Regardless, strategies to address this included strong community programs, amenities and job opportunities.

- **Flood and drought regional safe haven** – opportunities and challenges were presented including continued work in flood-proofing and preparing for droughts and other extreme weather events, getting drought recognised as a natural disaster, facilities for the Local Disaster Management Group, and providing incentives and initiatives to attract industries (particularly agriculturalists) outside the region to relocate or diversify into the Central Highlands after natural disasters elsewhere (like Townsville).
- **Regional health and ageing** – it was identified that many local community groups and health providers were struggling with service provision in the region, particularly given the impending reforms for disability and aged care. Strategies and initiatives were requested to assist services in transition for NDIS, encourage aged care and health services towards primary care and treating chronic disease, and a significant retraining focus was emphasised to assist the ageing population.

Workforce

Stakeholder consultation activities highlighted a number of key themes relating to Workforce which are summarised below:

- **Reinforcing existing programs** – the existing agriculture technical programs and the new Bachelor's degree, along with strong vocational education, were all highlighted as key elements of the region's education system that worked well and should be promoted.
- **Upskilling** – an opportunity was identified to strategically focus on upskilling locals in new sectors or skills like coding, agri-tech and sciences supporting the agriculture and resources space.
- **Retraining** – it was suggested that a retraining program be developed for permanently or temporarily underemployed workers, particularly resource and construction sector workers, or older workers looking to change skillsets.
- **Regional hub for education** – an aspiration was presented that the region could be a regional hub for agricultural education, rural health and distance education.

Governance

As a fundamental pillar of the region's economy, stakeholder consultation activities focused on a number of key themes relating to Governance. These are summarised below:

- **Flexible approvals and planning** – more flexibility in planning and approvals processes was highlighted as an issue. Frameworks were requested to better allow for stalled projects without causing issues, shifts in agricultural or resources demand, and product divergence as a result of global forces.
- **Better regional collaboration** – regional collaboration currently focusses on agriculture and small elements of tourism. Topics ranging from transport, infrastructure, small business and innovation don't appear to have as prominent representation and this was identified as a potential opportunity upon which to improve.
- **More industry collaboration and private funding** – despite significant industry presence, private funding is often restricted to big mining projects and isolated, uncoordinated community projects. Consultations with both industry and community groups identified opportunities to better leverage private funding.
- **Regional branding** – a sense of regional brand and associated strategies was identified as a potential initiative, including internal and external marketing/education programs to educate people about the services and potential of the region.

Identified barriers to economic activity

In addition to a number of opportunities and key themes relating to the four pillars of the region's economy, several barriers to economic development and activities in the region were identified throughout the stakeholder consultation process. A summary of these barriers is provided below:

- **Lack of digital connectivity, including both coverage and capacity across the region** – the lack of digital connectivity is impacting the ability for people to connect to information and networks to undertake business and community activities.
- **Low tourism industry engagement** – the tourism industry of the Central Highlands is perceived to be under-represented in decision-making and regional collaborative networks, and disengaged from the development of trade tourism relationships such as retail travel agents and online travel sources.
- **Containerised freight restrictions** – most containerised freight is restricted to travelling along roads all the way to the Port of Brisbane, rather than using a more efficient rail route to somewhere like Gladstone, Rockhampton or Mackay. The necessary rail capacity and a port capable of managing containerised freight is required in the greater Central Queensland region to address this.
- **Resources sector dominance of the rail network** – the existing rail network is predominately used by the resources sector, forcing other sectors to rely on less efficient road networks to transport goods.
- **Attracting people and workers** – it is a challenge to retain and attract the necessary population and workforce to service industry skills shortages and build up the community's capacity and stability.
- **Maintaining community programs** – community programs like sporting clubs, community services such as aged care, as well as general entertainment and lifestyle elements are difficult to maintain over the medium-term and can lack sufficient quality and range to retain and grow the region's population.
- **Brain drain to coastal cities** – residents, particularly young residents, are leaving the region for higher education and many other specialisations, as well as simply lifestyle factors. This reduces the ability of the region's education system and industry to properly build capacity in education and training, and properly service the skills needs of industry into the future.
- **Over-reliance on non-resident workers for resource industry activities** – due to the high variability in economic activity in the region, non-resident workers are often relied upon to fill skills gaps, which reduces the ability of the region to develop a stable labour force and population base, as well as places pressure on infrastructure.
- **Labour and skill misalignments and shortages** – industry representatives consistently highlight the lack of available labour in the region and the skills gap that forces them to either limit growth or hire more expensive non-resident workers.

5.3 Key objectives for the region's economy

The consultation and research process conducted in the development of this document has determined a number of key underpinning objectives that encapsulate the opportunities of the region over the next five years. These objectives underpin the development of a targeted 5 year plan with discinct actions to achieve identified economic outcomes, and are also reflected in the longer term aspirations for the region's economy.

The following objectives, aligned to the four pillars of the region's economy, are the culmination of consultation activities and review of local and global economic trends as they relate to the future of the Central Highlands regional economy.

Industry and Export Drivers

1 **Promoting comparative advantage** – building on the existing strengths and long-term comparative advantages of the region to maximise the current economic profile of the region.

2 **Expansion and diversification of existing sectors** – diversify existing sectors using a strategic direction compatible with structural advantages in the region (geography, land, location, etc.) to grow and stabilise the region.

3 **Energy independence and renewables** – expansion and diversification of the energy exports and domestic capacity of the region, including a focus on renewables (biofuels, solar, etc.) and a constant, off-the-grid energy supply.

4 **Expansion of research and development activities** – specialising in research and development capabilities and infrastructure in fields with comparative advantages such as rural health, agricultural sciences, resources engineering, and environmental sciences.

5 **Improved connectivity** – comprehensive development of data connectivity and digital capabilities to address the inconsistent and low volume access to the internet and data systems in the region.

6 **Increasing the ease of doing business** – encourage the development of simple and flexible systems to support the planning, approval and execution of economic activity in the region.

7 **Stability and rehabilitation of the resources sector** – strategic focus on the stabilisation of the resources sector through diversification, project smoothing, industry coordination for legacy investment, promotion of resident workforces and a specific focus on the optimal rehabilitation strategy for terminated projects.

8 **Optimising water trade, security and capacity** – continuing the development and optimisation of the water network in the region, including building capacity, reducing issues like evaporation loss, and investigating the potential for water export to neighbouring regions and projects.

9 **Increasing tourism activity** – expand the offerings of the tourism sector to leverage natural assets and advantages such as eco-tourism, agri-tourism, and business tourism for non-resident workers and trade delegations; encourage the engagement of the trade tourism industry and the development of end-to-end packaged experiences; and encourage regional coordination and marketing.

Population Services

10 **Supporting a local workforce** – promote the development of a stable, appropriately skilled local workforce, including a focus on future skills like STEM and professional services.

11 **Improved community investment** – better coordinate and encourage investment in community infrastructure, especially regarding the private investment of funds from major companies.

12 **Access to and use of open data** – formulate a deliberate set of systems and capabilities to provide a local, centralised source of open data and analytics as an enabler for local organisations, start-ups and larger businesses.

13 **Improved education and associated services** – develop and better coordinate existing strengths in education such as agricultural sciences and trades to become a regional centre of excellence for these fields and adequately supply the local economy's workforce requirements.

Workforce

14 **Skill development and advancement** – develop skills that are compatible to related sectors and transferable between occupations, including a focus on retraining, joint public/private business and skills education initiatives, and advancement of specialised skills for niche, future industries.

Governance

15 **Improved collaboration and partnerships** – development of significant industry and regional collaborative initiatives, to promote new funding models, investment attraction, and the collective weight of the broader Central Queensland region's advocacy to various private bodies and governments.

16 **Frameworks that support economic activity** – develop agile and flexible approval and development frameworks to reduce the impact of regulation on the ability of business to adapt to economic shocks and market forces.

These objectives highlight the region's desire for greater prosperity, stability, innovation, connectivity, social cohesion, coordination, reputation and responsiveness.

6 Central Highlands 2047 Economic Master Plan

The Central Highlands 2047 Economic Master Plan (CHEMP) is a strategic document to guide the economic development of the Central Highlands in order to achieve the region's economic aspirations and vision over in the short and longer term.

The CHEMP outlines:

- **The long term (30 year) Vision for the Central Highlands' economy and local community**
- **The actions**, roles and responsibilities necessary to work towards these aspirations in the next five years – this is referred to as the CHEMP 2017-2022 Action Plan
- **The infrastructure** required to achieve these aspirations

6.1 30 Year Vision for Central Highlands Economy

The articulation of longer term Vision for the economic future and community of the Central Highlands provides a means for aligning short term strategies and actions with longer term targets and desired outcomes. It provides a useful framework for future investment and the allocation of scarce resources to particular initiatives.

The aspirations outlined below have been identified through consultation exercises as well as investigation into the key 'game changers' coming for the region – they consider the rapid rate of change of key influences on the region's economy including (but not limited to); technology, global markets and changing skills.

The region's 30 year vision for the Central Highlands' economy and community are outlined in the figure overleaf.

These aspirations are outlined in more detail below:

Emerald is a self-sustaining regional inland hub supporting successful and thriving communities.

Emerald and other communities within the region benefit from services, opportunities and infrastructure that support a growing population and increased economic activity. Access to and use of services and opportunities should be equitable and broadly equivalent to the quality and accessibility of services in non-regional locations. This will support economic activities in the region to be more productive, increase employment opportunities, drive community outcomes, optimise operational efficiency and foster regional growth.

A diversified economy with a number of mature and thriving local industries

The region's economy will be underpinned by advances in agriculture and be in a position to leverage opportunities presented in the resources, tourism, health, and education sectors. Harnessing the opportunities presented by advances in technology, agribusiness, social and economic disruption, research and development, and workforce training and education will support the region's economy to deepen its strengths in agriculture and diversify into other opportunities. These industries will be more efficient and productive, and contribute to solidifying the Central Highlands' position as one of the nation's most prominent and important food bowls, a destination for investment and the generator of economic activity contributing to the broader state economy.

A highly skilled, local workforce that supports our industries to adapt and grow in a changing environment.

The growth of specific industry sectors and the changing ways of undertaking economic activity is supported by a stable workforce that has both the fundamental and advancing skills to support these activities. The ability for this workforce to live and work within the Central Highlands will forge a future for the region that has not only a robust and stable economy, but also a strong and cohesive social fabric that is adaptable to change and engaged in the region's communities.

An established international reputation as a reliable source of clean, safe and quality agricultural production. A sustainable key food source supplying global markets.

The Central Highlands remains as one of the nation's most successful agricultural producers and is competitive in both domestic and international markets. Advances in agri-technology and agribusiness practices will support producers and other supplementary industry activities (upstream and downstream in agricultural supply chains) to be more productive, have capacity to explore new methodologies and products, and be effectively engaged in decision-making that influences the agriculture sector.

High quality connectivity, both physically and digitially, to domestic and international markets, services and information

Physical, social and digital connectivity that is secure, stable, fast and efficient with sufficient capacity to support growth in industry activity and population, both domestically and internationally. The region includes physical infrastructure that supports multimodal transport and freight activity, the movement of people, and digital connectivity across all sectors of the economy. The community has access to information and data about their region, and are able to connect to services, information and activities both physically and digitally within and outside their region.

Celebration, protection and promotion of the region's natural assets

The natural assets of the region – water, natural landscape, climate and environmental conditions are not only protected for the long term, but also leveraged in an economically productive way. The region's water is effectively distributed and used to support economically productive activities and the region's potential as a renewable energy producer has been explored and progressed. The region is predominantly self-sufficient in its energy production and use, and leverages its natural assets to contribute to ensuring reliable and effective energy network capacity. The region also benefits from tourism activities that are focused on experiences in the region's unique environment.

Partnering with public and private sectors to implement governance structures that will promote the region being open for business and investment

Active representation by industry in research and development, education and training, and governance activities associated with the growth and advancement of the region's economy. The knowledge, experience and investment capacity of the private sector is leveraged effectively to ensure that economic development activities progress.

6.2 Achieving Economic Aspirations

The achievement of the 30 year Vision for the Central Highlands' economy and community requires a series of shorter term strategies and actions ideally covering shorter term periods of 3-5 years. Rapid changes in the local, national and global environments such as the disrupters discussed previously necessitate a long term plan to be flexible and re-assessed on a regular basis. Accordingly we suggest that a phased approach be adopted in achieving the longer term Vision providing the opportunity to re-assess and re-direct as necessary reflecting the impact of the rapidly changing environment.

We have outlined below a suggested four phased approach to achieve the longer term Vision.

5. **Strengthen existing activity:** Deepening and broadening existing industry sectors and establishing the foundations of enabling infrastructure. Fostering enhanced collaboration across industry, community and government to identify and pursue emerging opportunities.
6. **Attract investment to realise existing and emerging opportunities** Attracting investment and activity to the region to grow the productive performance of newly established and existing industry activities.
7. **Harness emerging opportunities** Supporting the conversion of opportunities presented through emerging technologies and industrial change.
8. **Realise aspirations and reset for the future:** A region that reflects the economic and local community aspirations identified previously. The economy is strong and has leveraged opportunities presented through global change. Refocus aspirations for a new phase into the future.

These four phases, unique to the Central Highlands context, build on the solid foundation and achievements that resulted from the delivery of the **2013-2016 Economic Development Strategy**. It is recognised that clear planning and strategy has provided a platform for strengthening the region's economy as it looks to the future and the opportunities that lie ahead.

The CHEMP 2017-2022 Action Plan will assist CHDC, CHRC and other partners to guide economic development activities on a strategic pathway for the next five years with clear direction to achieve the longer term 30 Year Vision for the region's economy and local community.

6.3 CHEMP 2017-2022 Action Plan

A plan for the next five years

The CHEMP 2017-2022 Action Plan has been developed to provide a clear plan and strategy for achieving economic objectives for each pillar of the region's economy. This shorter term strategy has been developed with reference to the overarching aspirations for the region's economy in 30 years, the key themes and outcomes from stakeholder consultation and with a view of key opportunities for the region's economy resulting from global change.

These action items recommended to harness key opportunities and barriers identified through consultation activities and in reference to the economic baseline and key global disruptors outlined previously and also provide for the execution of the region's economic aspiration in the long term.

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 1: Promoting comparative advantage				
1.1 Regional branding	• Development of a consistent regional brand and marketing strategy for tourism and investment attraction. • Leverage opportunities identified in the Regional Events Strategy, Marketing Strategy, Advocacy Strategy and CHAA Strategy to promote consistent regional branding within the Central Highlands as well as outside the region. • Utilise a consistent regional brand when implementing the CHRC's Regional Advocacy Strategy.	CHDC With: CHRC	a. Execution of CH Events and Marketing Strategy b. Identification of resourcing to promote Sandstone Wilderness brand c. Establishment of Sandstone Wilderness brand d. Delivery of CHRC Advocacy strategy e. Execution of the CHAA Strategy branding deliverables f. Delivery of consistent regional collateral & assets (websites, imagery, templates, social media)	Ongoing to 2022 June 2018 End 2020 End 2020 End 2020 Dec 2018

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 2: Expansion and diversification of existing sectors				
2.1 Domestic and international market development	• Investigate opportunities to deepen and extend the trade strength of existing markets and explore expansion opportunities into new domestic and international markets.	CHDC	a. Execution of the CHAA Strategy	End 2020
	• Support businesses to be responsive to and prepared for the potential implications of Free-trade agreements, emerging markets, market trends and the utilisation of government bodies such as Trade and Investment Queensland (TIQ), AusTrade, and the Department of Agriculture and Fisheries.		b. Level of stakeholder engagement to grow international market capacity	Ongoing to 2022
	• Support regional business innovation and development to progress international market and trade opportunities that grow the region's manufacturing and industry sectors		c. Increased regional economic growth through international trade market figures	Ongoing to 2022

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
2.2 Expansion into high-value crops, livestock and horticulture	• Investigation of opportunities for diversification into value-added products with new high-value and specialised crops and agricultural products including horticulture.	CHDC	a. Delivery of Agri-business Feasibility Studies b. Development and promotion of existing emerging industries c. Relevant reaserch, industry partners and stakeholders identified	End 2020
2.3 Exploration of by-product use	• In partnership with key industry and government stakeholders, assess commercial viability of market led opportunities in relation to the use of by-products and waste products from agricultural and resource based activities as other inputs or products (e.g. biofuels)	CHDC	a. Execution of the CHAA Strategy b. Including the identification and promotion of feedstock and colocation opportunities	End 2020
Objective 3: Energy independence and renewables				
3.1 Supporting a 24/7 Economy	• Promote and work with stakeholders to leverage continuous energy capacity and secure a greater degree of independence from the grid network to provide a 24/7 guaranteed energy supply advantage for business and communities.	CHRC	a. Development of a Regional Management Strategy for Renewables	June 2018

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
3.2 Harnessing opportunities for renewables	• Investigate opportunities for renewables, especially renewables with comparative advantages in the region such as biofuels and storage technology to maintain energy security. • Investigate opportunities to optimise existing renewable energy technologies in the region, for example, better alignment of solar energy infrastructure with water management and other land assets.	CHRC CHDC With: CHRC	a. Development of a Regional Management Strategy for Renewables b. Level of stakeholder engagement to formulate strategic industry partnerships to deliver energy and economic efficiencies	June 2018 June *2019*
3.3 Promotion and optimisation of energy comparative advantage	• Partner with stakeholders to progress and promote the 'behind the grid' capacity and reduce risk of doing business in the Central Highlands as a point of economic differentiation to other regions.	CHRC With: CHDC	a. # of partnerships established b. Economic growth figures indicating industry benefit	Ongoing to 2022

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 4: Expansion of research and development activities				
4.1 Research and development activities relating to the agriculture, resources education and training and other industry sectors.	• Expansion of existing agriculture and trades education and training capabilities to establish a renowned centre of excellence in agricultural education and/or resources training.	CHDC	a. Increased investment in facilities and services	Ongoing to 2022
	• Expansion of agriculture and resources orientated research and development activities, including a focus on cross-sector collaborative research. Includes investigating opportunities.	CHDC	b. Delivery of the CHAA Strategy c. # Partnerships established d. # number of regionally based researchers	End 2020
	• Consider the establishment of an investment framework to facilitate the delivery formal public/private funded research centre to embed innovation into the agriculture for the region.	CHDC	e. Level of research investment specific to CHRC agribusiness industry sector f. Level of regional benefit delivered as a result of research recommendations	End 2020
	• Bring late stage start-ups and SMEs together with leading mining sector corporates focused on innovation mining sector solutions to drive greater industry collaboration and commercialisation outcomes	CHDC	g. Level of engagement with METS stakeholders h. # research and innovative business development strategies implemented	June 2019

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
4.2 Coordinated rehabilitation and end of mine life research	• Explore opportunities to better engage with industry and other key stakeholders to improve coordinated planning/research capabilities for mine rehabilitation efforts, end of mine life research and development to maximise remediation and transition to other productive land uses.	CHDC	a. Level of engagement with resource and industry stakeholders to develop strategic responses	End 2020
4.3 Industry representation in research activities	• Proactive and structured engagement with industry relating to research and development to provide funding, strategic direction, technical expertise, and commercialisation capabilities. • Continue to partner with key research facilities, such as CHDC and CQU, to undertake targeted research in emerging industries specific to the Central Highlands (agri-tech, STEM, METS, health, education, etc.)	CHDC CQU through Regional Engagement Committee	a. Level of engagement with industry and business sector b. Level of investment into commercialisation capabilities c. Delivery of the CHAA Strategy d. Research and strategic response outputs	Ongoing to 2022 End 2020 Ongoing to 2022

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 5: Improved connectivity				
5.1 Improved freight and logistics	• Investigate opportunities for the expansion of air freight and commuter services including route and airport expansion. • Continue to support the delivery of the Central Queensland Inland Port and associated supporting industries at Yamala.	CHRC	a. Implementation of the Airport Master Plan b. # Stakeholders Engaged c. Implementation of the Rail Siding and Intesection Development Plan d. # partnerships with industry peak bodies e. Implementation of strategic plan to further develop feeder road infrastructure networks	End 2018
5.2 Supply chain optimisation	• Supporting opportunities for local manufacturing and value-adding activities. • Improve coordination between industry sectors to more efficiently utilise road and rail freight capacity including investigating opportunities to utilise latent rail capacity to transport expanded product sets and reserving capacity for agriculture transport. • Engage with industry stakeholders to grow commitment to deliver local content outcomes	CHDC CHDC CHDC	a. Delivery of the CHAA Strategy b. # Stakeholders Engaged c. Undertake technical investigations d. # proponents with commitment to local and regional content strategies e. # businesses registered on Business Directory f. Increased level of local spend by proponents	Ongoing to 2022

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
5.3 Increased digital capacity and reliability	• Deliver initiatives to support opportunities identified through the CHDC Digital Audit for investment in digital infrastructure, literacy, capabilities and the elimination of connectivity blackspots.	CHDC With: CHRC	a. Implementation of initiatives identified through the Digital Audit and Action Plan	End 2018
Objective 6: Increasing the ease of doing business				
6.1 Connectivity to markets	• Develop strategies to improve the connectivity small businesses have to markets across sectors, regions, globally and to digital markets including investigating opportunities to leverage technologies presented by different telecommunications providers.	CHDC	a. Delivery of the CHAA Strategy b. Delivery of the Business and Innovation Centre c. Implementation of initiatives identified through the Digital Audit and Action Plan	End 2020
6.2 Small business support and education	• Partner with stakeholders for the delivery of small business support and education services to improve awareness of existing services and opportunities for improved productivity and effectiveness. • Investigate and promote the use of emerging technologies, such as Blockchain and other enabling technology, to establish clear provenance and cumulative benefits for small businesses and producers in the region.	CHDC With: CHRC	a. Delivery of business development support activities b. Delivery of the CHAA Strategy c. Implementation of training strategies – through partnerships with industry stakeholders to deliver	June 2018 End 2020 Ongoing to 2022

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
6.3 Core business sharing agreements	• Facilitate discussions among "like" small businesses to explore opportunities to share core business functions (eg. Payroll, HR etc.).	CHDC	a. Development of a strategy that supports shared service delivery	June 2019
6.4 Innovation and start-up incubation	• Delivery of 'incubator style' spaces and investigate opportunities for pilot-funding for start-ups and small businesses and enterprises, including opportunities for contributions from industry stakeholders.	CHDC With: Advance Queensland CHRC	a. ARIP funding approval b. Business plan progression for delivery of Innovation Hub c. # start-up support initiatives delivered	Dec 2017
Objective 7: Stability and rehabilitation of the resources sector				
7.1 Effective and formalised lifecycle planning in collaboration with the resources sector	• Facilitate more effective and collaborative engagement between the resources sector and other local businesses to better plan and manage the impact of mine operations on the local community and businesses over the mine's economic useful life.	State Government	a. Industry engagement activities b. Establishment of stakeholder partnerships for planning activities	June 2019

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 8: Optimising water trade, security and capacity				
8.1 Water supply optimisation and ongoing supply certainty and reliability	• Investigate opportunities to optimise the region's water supply and ensure ongoing reliability. • Collaboratively advocate for water security priorities and greater control and flexibility over the region's water resources with the State Government. Advocacy should include industry, community and local government from across the region and Central Queensland more broadly.	CHRC	a. Level of commitment and support from the Fairbairn Irrigation Network b. Level of engagement with stakeholders to advocate for regional water security	End 2020
8.2 Leverage resources investment	• Investigate opportunities to better leverage investment by resource proponents into water security and capacity.	CHRC With: CHDC	a. # of shared infrastructure assets	End 2022

PILLAR ONE – EXPORT DRIVERS				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 9: Increasing tourism activity				
9.1 Better coordination and engagement to support growth and diversification	• Better engagement of tourism bodies and other regions to investigate new or expanding opportunities in the tourism sector including agri-tourism, experience packaging, natural asset tourism, and regional events. • Investigate 'destination marketing' opportunities related to the promotion of the region's Sandstone Wilderness experience.	CHDC With: CHRC	a. Develop and implement a Tourism and Marketing Strategy	June 2018 (develop) June 2021 (implement)
9.2 Local operator capacity building	• Investigate opportunities to support the capacity building for local tourism operators in the Central Highlands.	CHDC	a. Increased # businesses on Business Directory b. Level of increase of economic growth to the region	Ongoing to 2022

PILLAR TWO – POPULATION SERVICES				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 10: Supporting a local workforce				
10.1 Supporting and promoting livability	• Adopt the suite of current or proposed strategies relating to lifestyle, in particular the Liveability Strategy and Youth Plan, to encourage population growth and retention. • Establish a dedicated Liveability Taskforce to implement the Liveability Strategy, and other associated strategies, across all aspects of the economy including representation from industry and community bodies. • Providing point of access to support employment attraction and retention • Delivery of strategies profiling the liveability and opportunities of the Central Highlands region	CHRC	a. Delivery of actions identified in the Liveability Strategy and Youth Plan b. Delivery of platform supporting jobs advertising and employment opportunities c. Increased advertising of jobs d. Decreased length of times jobs left vacant e. # strategies delivering consistent messages	End 2018 June 2018 Dec 2018

PILLAR TWO – POPULATION SERVICES				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 11: Improved community investment				
11.1 Targeted community investments	• Facilitate formal coordination with industry and the community to better fund and deliver investment for targeted regional benefits.	CHRC With: CHDC	a. Identification of regional priorities advocated for b. Level of investment for new industry and developments c. Increased construction and spend d. Increased whole of region spend on Development Register summary	Ongoing 2022
11.2 Multi-purpose community spaces	• Undertake feasibility assessments to consider the delivery of multi-purpose facilities potentially covering arts, conventions, sports, and town hall type functions to attract large scale events and support ongoing liveability in the region.	CHRC	a. Delivery of Regional Master Planning Project	End 2019
Objective 12: Access to and use of open data				
12.1 Open and reliable data	• Better promote and drive awareness of available sources of regional data sets and information to aid in industry, community and public sector decision-making.	CHRC With: CHDC	a. Level of stakeholder commitment to data share information	Ongoing to 2022

PILLAR TWO – POPULATION SERVICES				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 13: Improved education and associated services				
13.1 Agricultural education	• Promotion and facilitation of agricultural training and education centres of excellence and initiatives. • Supporting secondary, tertiary and other training organisations to invest in providing agriculturally focused education opportunities and facilities to support AgTech, MechTech and other targeted education activities to be delivered in the region.	CQU & Ag College Central Highlands Primary and Secondary schools	a. Increased student numbers b. Growth of education and training opportunities c. Level of engagement of education stakeholders	Ongoing 2022
13.2 Digital education and training	• Investigate opportunities to support the delivery of and advocate for digitally enabled classrooms and education and training facilities to support 'skilling for the future' and STEM, METS & health focused education and training opportunities.	CQU & Ag College	a. # stakeholders engaged for specialised delivery b. # strategic initiatives developed and delivered	Ongoing 2022

PILLAR THREE – WORKFORCE				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 14: Skill development and advancement				
14.1 Complementary skills development, transition and retraining	• Work with industry to develop training and skills development opportunities that are complementary across sectors including opportunities for re-skilling. • Develop strategies that target specific skills training and future workforce opportunities presented via emerging industry activities.	CHDC	a. Level of stakeholder engagement and commitment to skilling for the future	End 2020
14.2 Specialist education and employment destination	• Facilitate and engage in the collaborative promotion of, and investment in, the region as an employment destination for specialist education and training courses with key industry partners.	CQU	a. # stakeholders engaged b. Increased level of commitment to skills attraction strategies	End 2020
14.3 Joint public/private small business education	• Partner with stakeholders to provide opportunities for collaborative training and exercises for small business support that are both industry and public sector led.	CHDC	a. # strategies implemented to build capability of small business	End 2020

PILLAR FOUR – GOVERNANCE				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
Objective 15: Improved collaboration and partnerships				
15.1 Collaborative investment decision	• Continue to support frameworks that facilitate improved collaboration between industry, community and public sector in investment decision-making and funding activities by providing a 'seat at the table' via representation on the CHDC Board.	CHDC Board	a. Review of terms of reference and Service Level Agreement	June 2018
	• Investigate the establishment of formal governance structures to support the development of a CHDC membership base which would explore options for financial and strategic co-contributions from industry in economic development activities, to harness the collective experience, knowledge and capacity of key industry stakeholders.		b. Recommendation to CHDC Board for consideration	June 2018

PILLAR FOUR – GOVERNANCE				
Action Item	**Description**	**Action Lead**	**KPI**	**Target Completion Date**
15.2 Leverage the collective weight of the wider region	• Continue to play a lead role in harnessing opportunities to leverage the experiences and activities in neighbouring regions through collaboration forums and other activities including the promotion of inland tourism. • Leverage existing and emerging relationships and local context to support the implementation of the CHRC's Regional Advocacy Strategy.	CHDC CHRC	a. # industry forums delivered b. # cross-regional initiatives c. Level of engagement of cross-regional stakeholders d. Delivery of Regional Advocacy Strategy e. Level of implementation of actions / recommendations from strategy	Ongoing 2022 End 2018
15.3 Stronger collaborative advisory functions	• Evaluate the delivery of formalised, multidisciplinary advisory groups (such as those agri-business industry groups aligned to the CHAA Strategy such as the CHAA Strategic Advisory Group) to determine effectiveness.	CHDC	a. # advisory groups implemented b. Level of outputs of advisory groups against strategic responses developed	Ongoing 2022
Objective 16: Frameworks that support economic activity				
16.1 Efficient planning frameworks	• Investigate opportunities to improve the efficiency of planning and approvals frameworks to promote investment and development activity within the region.	CHRC	a. # strategies developed that improve efficiency b. Economic value of increased investment and development activity	Ongoing 2022
16.2 Infrastructure to support economic activity	• Progress assessment processes for identified infrastructure priorities and projects.	CHRC	a. # assessments completed	Ongoing 2022

6.4 Infrastructure to unlock economic opportunities

Infrastructure plays a critical role in economic development. A broad range of infrastructure assets – transport, digital, water, energy and others – are key enablers of activity and contribute to the productivity and growth of regions both in terms of economic activity as well as broader community development outcomes.

Through consultation activities to support the development of the CHEMP 30 year Vision and the CHEMP 2017-2022 Action Plan, a number of infrastructure projects were identified as being particularly critical to achieving the desired economic outcome for the region.

NOTE: The following list of infrastructure projects have not been assessed in terms of their contextual suitability, ability to generate benefits for the region or ability to be delivered – it is important to fully explore each identified project, potentially through a Business Case process, to determine suitability to progress.

IDENTIFIED INFRASTRUCTURE PRIORITIES	
Project	**Description**
Multi-purpose Centre	A multi-purpose piece of community infrastructure to facilitate sports, culture, tourism and other community events.
CQ Inland Port	An inter-model freight facility to transfer goods from the road network over short intra-regional distances to rail for long haul distances.
Central Highlands Meat Processing Plant and Intensive Beef Industry Precinct	A meat processing facility in Emerald as part of the Agribusiness Precinct that can process 100,000 head of cattle a year.
Central Highlands Business Incubator and Innovation Hub	A technology and business start-up incubator and innovation space to develop innovative solutions or products across all sectors of the region's economy.
Grain and Pulse Processing Facilities	Processing facilities for grain, pulses and other plant products to promote regional value-adding.
Emerald Medical Village Stage 2	$7 to $12m investment in the expansion of the Emerald Medical Village.
Emerald Saleyard Complex	Expansion to the 5.1ha saleyard complex, currently processing 2,000 head a week of cattle.
Aged Care Facilities	Aged care facilities in key locations across the region, including Springsure, to support the region's aging population.
Project Regeneration	$18.5m investment in Yamala 180Kt Grain Facility by GrainCorp, including high-speed rail loader.

7 Implementing the CHEMP 2017 - 2022 Action Plan

It is intended that CHDC will continue to have a lead role in the implementation of the 2017-2022 Action Plan in close collaboration with the CHRC, industry representatives and community members.

The role of CHDC as the region's lead economic development agency will continue to be critical as will CHRC's role from a leadership perspective, however the role of industry will be increasingly important. The region's economic future is a priority for not just CHRC and CHDC – all members of the business community and community more generally will be impacted by the economic outcomes realised within the region in the future.

Fundamentally, the implementation of the CHEMP 2017-2022 Action Plan, as well as future economic development planning and activities should focus on the following:

- **Partnerships between key leaders, industry representatives, business owners and community members will be critical to long term success** – instilling a sense of wider community 'ownership' of the region's economic future will assist in leveraging innovation and knowledge across a range of sectors and activities.
- **Investment should be focused and aligned to not only shorter term economic objectives, but also to the longer term economic aspirations for the region** – providing structure and clear 'goal posts' to measure ongoing performance of economic development activities.
- **Innovative thinking and flexibility to adapt to change and harness opportunities will be essential** – ensures that the Central Highlands is not 'left behind' in a rapidly changing global environment.
- **Clear and targeted action planning should be undertaken on an iterative basis** – building on the frameworks and success of previous economic development and planning activities.

With clear strategies in place for 2017-2022, and a view towards the next 30 years, the Central Highlands economy is in a prime position to leverage the progress made in 2013-2016, and continue to expand its economic weight and productivity in a Queensland and broader context, without losing the unique factors that make the Central Highlands economy distinct from other regions and beneficial to its community.

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