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Executive Summary

The future is coming whether or not we as individuals, organisations or society are ready for it. We, a team of management academics at the Otago Business School, wanted to explore how business and community leaders in the greater Dunedin area envisaged the *future of work* in order to understand the extent to which our local community: (1) has thought strategically about our future; (2) has begun to plan for the future; and, (3) is aware of the implications of what we do today on tomorrow. This report presents the results of a qualitative study undertaken from 2012 to 2014 in Dunedin using an iterative research conversation involving people with considerable experience. It was facilitated using a methodological approach known as the Delphi Survey.

The results presented in this report are a collection of thoughts which we hope will engender strategic thinking, decision making and planning now about the *future of work*. As the future evolves from the present, individuals, organisations and society will need to match their strategic direction with key drivers in the current contextual environment. Understanding these drivers, as well as those forecast to have impact in an extended timeframe, offers an opportunity to consider how collectively we each might proactively respond to future changes. Our findings suggest our respondents believe the following drivers will be the most influential in the next 20 years: demographics, economics, education, climate change, wellbeing, technology, and resource scarcity.

As a result of the initial Delphi questionnaire, a number of key themes emerged that were used to produce the two narrative scenarios. The aim of the scenarios was to ignite richer conversation for deeper analysis. Overall, the findings can be grouped into two areas. The first is a set of descriptive variables, mentioned by participants, to describe the way in which they see work in the years 2030 and 2060. We found that the changes suggested for 2060 were more dramatic than those for 2030. Many of the situations described by particpants in the year 2030 were similar to our working lives today. These included:

- The concept of weightless industries (knowledge based rather than physical products or services);
- Sustainable industries, such as food-related and technology, being important for Dunedin's future;
- Work in the caring industry increasing;
- Flexibility growing in the workplace;
- A more diverse workforce reflected in an aging population and increased cultural diversity (from both increases in the current cultural make-up and migration);
- Human interaction still being valued in the workplace even though there are many technology-enabled means to communicate.

However, when asked what three things kept them awake at night participants opened up and gave big picture type responses that we threaded into the scenarios. Some of these included; financial and economic issues, access to clean water, globalisation making it harder for smaller businesses, over population, possible isolation resulting from Dunedin's geographical position, increased crime, climate change, resource scarcity, and the negative effects of a consumption based society.

The two emerging scenarios were designed to engage people on plausible futures through developing consequences and narrative images of the future. These enabled us to play with the ideas that respondents had provided and then re-present them as a package of possible happenings in order to bring about a response. One depicted a slight downturn and the other a slight upturn – but both were overall very middle of the road and did not radically deviate from the present day. However, the scenarios had deviated enough for there to be a strong response to the concept of a slight downturn; respondents did not want to see that happen and provided very wide ranging ideas for action for Dunedin today.

The aim of the project was to open up conversations on plausible futures – using ideas from experts in the community to develop pictures of what Dunedin might look like in the future. We would like to leave people with three key messages:

1. We need to start planning for the future now and incorporating ideas into current business planning and strategic thinking;
2. The needs of people are going to change and it will be important for business in Dunedin to recognise and build strategies to support change;
3. Dunedin should not become blinded by horizons – staying in the game requires opening up to ideas that may sit outside our comfort zones but this research shows that it is important to have those discussions and not ignore the changes that may bring opportunities as well as different ways of operating.

1. Introduction

Thinking into the future of the economy, society and the world at large is a must for business, government and society. Given the seemingly insurmountable array of issues and perspectives that exist, how do businesses move forward in a productive and sensible way? What priorities might leaders (business and community) be focusing on to better prepare themselves and our communities for an uncertain future? The answers to these questions are complex and tread murky and often times emotional ground. The imagination can run rampant, the answers can appear over-whelming, and one can avoid thinking about how the world of work will look in 2030, 2060, and beyond.

This report presents the results of a study (2012-2014) that examined the future of the work environment in Dunedin. The project focuses upon the bigger picture – the 'World of Work' – rather than just office work. Such a perspective brings to the fore the interdependence of business, society, and the environment. In this project, we view the nature of work as holistic and inclusive of those dimensions that influence the way society perceives work.

The three guiding project objectives were to:

1. Identify the specific drivers likely to affect Dunedin business over the next 25 years, 50 years and beyond;
2. Develop future scenarios for business in Dunedin;
3. Ascertain the future implications for business in Dunedin.

To achieve these objectives, a unique in-depth futures-based research approach was adopted, engaging leaders in the city (business, government, and non-governmental organisations – NGOs) with conversational style questionnaires to generate opinions on what the future might hold. This report explores how critical changes in climate, energy, natural resources, technology, and geo-political forces might influence Dunedin's business and the nature of work in the coming 50 years. In doing so, we created considered solutions for our communities. The outcomes of the report are designed to stimulate conversation about factors which will have significant implications for the world of work in Dunedin in the future.

Beginning a Conversation on 'Work'

In response to the dynamics of the business environment in which organisations operate, it is constantly predicted that there will be fundamental changes to workplaces and the way in which we work.[i] The opportunities and challenges such thinking poses for business, society, and local government is significant and requires much consideration. This project places 'work' at the heart of the examination – not organisations nor the business environment but the fundamental concept of work. Work is what we do for a large portion of our lives and as such we believe that this unit of analysis needs exploration both now and in the future:

> 'Work is one of the most absorbing things men [sic] think and talk about'[ii]

Work has been studied extensively in a variety of different ways, for example motivations to work, [iii] attitudes towards work,[iv] how we work, including our careers[v] and the end of work;[vi] but actually examining and problematising 'work' has not been in the management agenda for a number of years.[vii] Given the pressured business environment and future resource threats, we suggest that studying 'work' as the central unit of a futures-based study is important as it complements the knowledge generated about business environments and organisations.

Work is defined as being an "activity involving mental or physical effort done in order to achieve a result"; in the context of 'work as a means of earning income, employment'

(Oxford Dictionary online)

Seeing the Future of 'Work' as a Wicked Problem

One way of viewing the *future of work* is as a 'wicked problem'. Wicked problems are those that defy easy problem definition and solutions. They require whole systems thinking, and a variety of expertise to figure out, first what the problem is, and then the potential solutions. The notion of a wicked problem originates in the planning literature and reflects the complex nature of planning in any discipline, for example, town planning, organisational planning, development to support poverty and so on. Seen in relation to tame problems that are easily defined and solved by professionals in the field concerned, wicked problems require disciplinary experts to come together and approach the central issue from a variety of viewpoints.[viii]

The current issues facing the future of work can be thought of as 'wicked'. Indeed, we suggest conceptualising 'work' itself as a wicked problem, given the definition above; and when we add the 'future of work' to 'work', we add increased complexity. Future issues (for example, resource scarcity, climate change, technology impacts and demographics) are not 'tame' and not easily remedied; instead they require multiple perspectives and experts to define both the problem and plausible solutions. Conceptualising the future of work as a wicked problem involves adopting an open systems approach to consider possible solutions. It draws attention to the multi-disciplinary nature of 'work' as a concept and encompasses wide ranging factors that have the potential to impact upon future alternatives. In order to explore the future of work in Dunedin, we devised a research method which enabled open dialogue between participants and interaction with the researchers.

An open systems approach as defined by Scott (1992: 25) is where 'organisations are systems of interdependent activities linking shifting coalitions of participants; the systems embedded in – dependent on continuing exchanges with and constituted by – the environments in which they operate.'

Futures Research Methods

We employed an environmental scan followed by a Delphi Survey to explore our objectives. The environmental scan enabled key drivers to be established while the Delphi involved both an iterative questionnaire and a scenario planning exercise (see section 3 for detailed information about how we approached the research). While some previous studies have relied upon anecdotal evidence, others have used established futures-based techniques to assess plausible possibilities for the future.[ix] These techniques include the Delphi Survey, scenario planning, decision trees, foresight etc. The most popular methods, like the Delphi Survey and scenario planning, use experts to develop 'radical' thinking in the respective area. These techniques sit in the scenario paradigm – a paradigm that builds stories around the future (as opposed to modelling).[x]

Like our research, many of these techniques also incorporate environmental scanning as the first phase as it is considered a 'central input' into futures research and provides the context to understand possible future trajectories.[xi] The environmental scan can generate data on the key drivers of future change. This enables a more robust Delphi to be designed based upon the key findings from the scan.

To facilitate scenario planning, we utilised the Delphi Survey which facilitates a group of experts to come together and discuss topics. We used two rounds within our Delphi Survey. We first circulated a Delphi questionnaire with thought-provoking questions about the work in 2030 and 2060. Second, using the results from this questionnaire, we designed two scenarios and circulated these to our panel of experts for comment, thus creating the Delphi conversation.

Due to current environmental instability and economic uncertainty, studying the future in a rigorous and systematic way is becoming an increasingly important strategic tool for both business and government. Consequently, there has been increasing interest in scenarios in the past five years, perhaps encouraged by the Intergovernmental Panel on Climate Change (IPCC) reports on climate change that utilised scenarios, and included terms such as 'likely', 'highly likely' to describe plausible happenings in the future. Many of these scenarios take extreme and more radical positions in the spectrum, although often including an alternative middle position. These are useful for generating radical ideas which bring about particular reactions. However, they are not what we wanted to achieve with this research. We wanted to understand the middle position and open that up as a space for discussion – drawing out the less black and white issues and opening up the 'grey areas'. We see this as a more productive area for debate, particularly in response to what we suggest is a wicked problem – the future of work. We do not want to lead people towards or away from an apocalypse but instead encourage experts in the area to open up the middle ground and examine more plausible possibilities for the future of work.

Environmental scanning is a futures technique 'that scans for trends and events that are critical to strategic decisions' *(Nanus, 1982: 40).*

The Delphi method is a futures-based technique. It is a structured group interaction that proceeds through multiple rounds of opinion collection and anonymous feedback *(Glen & Gordon, 2009).*

Scenario planning involves a set of futures techniques using stories as a way to depict plausible futures. They are often used in organisations to bring about new thinking or challenge the status-quo *(Mannermaa, 1991).*

2. Understanding the Dunedin Context

This research into the future of work is situated within our home town, Dunedin. This section provides brief comment on key aspects of the Dunedin context that are important when considering the future of work in Dunedin.

Population Profile

Dunedin is the fifth largest city in New Zealand, with a population of 124,249.[xii] At 36.7 years, the median age of our workforce is slightly lower than the rest of New Zealand. In comparison, Dunedin has fewer young people and similar numbers of those over 65 in the workforce (Table 1).

By 2031 Dunedin's population is expected to grow to 129,700 *(Statistics New Zealand, 2014a).*

Table 1: Basic Demographics

Age	Dunedin City	New Zealand
Median age	36.7yrs	38.0yrs
Over 65 years of age	14.9%	14.3%
Under 15 years of age	16.2%	20.4%

Table 2[xiii] provides future workforce projections for New Zealand, which suggest that the proportion of the workforce aged between 15 and 64 years is declining, while the proportion of the labour force that are aged 65+ is expected to grow. For Dunedin, it is projected that those aged 65 and over are expected to be 21-25% of the Dunedin population. This would suggest that Dunedin's aging population will play an increasing role in the Dunedin workforce.

Table 2: Future Workforce Projections

	Currently	New Zealand 2030s	2061
Population	4,547,154	5 million	6 million
Median age	38yrs	41yrs	45yrs
Over 65 years of age	14.3%	-	22-30%
Under 15 years of age	20.4%	-	1 in 6
Working age (15-64)	66%	67%	58%
Total labour force (15-64)	2.4 million	2.5-3 million	3-4 million
Not in labour force (15-64)	2 million	2.4 million	2.7 million
Labour force growth	1.2%	0.5%	0.3%
Proportion of labour force that are aged 65+	5% (2012)	9-15%	10-18%
Proportion of 65+ population in the labour force	21% (2012)	30%	-
Proportion of labour force aged 25 or lower	20% (1990s)	14.3%	12.5%
Proportion of labour force aged 25-64	78% (2012)	74%	73%

"The substantial growth of the 65+ population is a striking and inexorable phenomenon over the next 20 years... and to 2061. The effects of New Zealand's ageing population will be most evident in slower labour force growth and declining aggregate labour force participation, which will result in lower real income growth" *(Bascand, 2012, p.26).*

The ageing population and its impact on the workforce are the most significant factors in terms of GDP.

Dunedin is culturally diverse. However, as illustrated in Table 3[xiv], it is less so than the rest of New Zealand, and the majority of residents are still of European descent. The future workforce will have a changing ethnic mix due to higher birth rates (Māori and Pacific) and increasing migration (Asian). This raises issues surrounding the different cultural needs in terms of language, recruitment, or training for instance.[xv]

Table 3: Cultural Diversity of Dunedin

Cultural Diversity	Dunedin City %	New Zealand %
European	88.3	74.0
Māori	7.7	14.9
Pacific peoples	2.5	7.4
Asian	6.2	11.8
Middle Eastern, Latin American, African	1.0	1.2

Industry

Dunedin's business demographics are dominated by social services along with the education and training sector. This is not surprising given that Dunedin has a strong tertiary education presence within the city, and is a major service centre for the Otago region of the South Island. As such, Dunedin is potentially constrained in terms of revenue streams, due to volatility in regional businesses as a result of economic slowdown.[xvi]

Over the past decade the annual economic growth of Dunedin (1.2%) has tended to lag the national figure of 2.3% *(Standard & Poor's, 2013)*.

There are 10,658 business units in Dunedin City, which is 41% of the Otago region, generating NZ$4.84 billion in GDP.[xvii] Seven key sectors contribute significantly to Dunedin's economic performance. These demonstrate some reliance on farming but also suggest potential for further innovation to support the economy through creative industries, education, engineering and technology.

Dunedin city residents have lower median incomes than the rest of New Zealand as well as more people earning less than $20,000 a year (see Table 4[xviii]). This suggests that attracting and retaining talent could be difficult. The higher levels of qualification held (more than the remainder of New Zealand) are not surprising given the University and Hospital dominance in employment.

- Education & research – NZ$350.3 million
- Tourism – NZ$225 million
- Primary processing – NZ$196 million
- Primary production – NZ$142 million
- Information and Communication Technology – NZ$128.8 million
- Engineering, Machinery & Equipment Manufacturing – NZ$83.6 million
- Creative sector – NZ$47.5 million

Table 4: Income, Employment, and Qualifications (15 years and older)

Income	Dunedin City	New Zealand
Median income	NZ$23,300	NZ$28,500
Annual income of NZ$20,000 or less	44.8%	38.2%
Annual income of NZ$50,000 or greater	22.0%	26.7%
Employment		
Employed full time	67.0%	71.5%
Employed part time	25.5%	21.4%
Unemployed	7.5%	7.1%
Qualifications		
Have formal qualification	81.9%	79.1%
Bachelor degree and higher	22.7%	20.05%

Socio-Economic Issues

Before we began the research for this study, we were aware of a number of key issues facing Dunedin. Indeed, it was these that motivated us to start the project thinking about what future happenings might influence the future of Dunedin. This section summarises these in the context of the current research.

Oil and Gas Exploration: Dunedin City is well positioned to take advantage of future oil and gas exploration and become a service hub. Recent exploration commissioned by New Zealand Oil & Gas and Beach Petroleum is just the beginning of new petroleum industry exploration of the Great South Canterbury Basin.[XIX] Such sites, once deemed commercially unviable, due to technological advancements and rising energy prices, have become viable. Central government invitations to the petroleum industry to explore potential sites have the possibility to be an economic game changer for Dunedin, its wider region, and the greater New Zealand economy.

Sea Level Rises: A future challenge for Dunedin and its surrounding low-lying areas is the possibility of sea level rises. Though the impact of such rises may not occur for 50 to 100 years, the effects will require mitigation and adaptation at some stage.[XX] The Dunedin City Council readily accepts that drainage and sea wall work will be required to initially mitigate and protect surrounding low-lying suburbs from the effects of flooding and sea-level change; however, adaptation by the community will also be required.[XXI]

Impacts of Central Government Policy: The effects of central government policies in terms of immigration, the Christchurch rebuild, and the roll out of high speed broadband must also be acknowledged. Though Auckland seems to be the city of choice for new immigrants to settle, the rebuilding of Christchurch offers its own unique dynamics and opportunities. The decentralisation of business away from the Christchurch central business district offers councils such as Dunedin the opportunity to see first-hand the alternatives to a centralised business space. In conjunction with the national ultra-fast broadband roll out, the population of Dunedin and its supporting region may be redefined.

Decentralisation of governmental controls and policies is also a growing international theme. New Zealand is a unique case, in that its central government is regarded as being "far stronger than in other comparable countries, and conversely local government is far weaker".[XXII] The arguments for a stronger local government are compelling; being closer to the people they serve may result in more effective and efficient service of their needs.[XXIII] However, the challenge for New Zealand would be in the development of new structures of localism.

3. Research Process

To conduct this research, we sought the opinions of people in the greater Dunedin area with high levels of business and societal expertise, ranging from those in public service to local business owners. Through a series of questions, across three stages, we asked each person to think about what they thought the future of work would look like. Stages I and II were designed to ensure that our method was rigorous before we distributed the two rounds of the Delphi Survey to our Panel of Experts. In this report, we mainly reflect on the results from the Delphi coupled with relevant findings from the other stages of the research. Figure 1 provides an overview of our method.

Figure 1: Overview of the Research Method

Stage I: Environmental Scan of Futures-Based Organisation Reports from New Zealand (public, private and third sector) (2012)

↓

Stage II: University Pilot Study (2012)

Part One: University Experts Delphi Questionnaire
Part Two: University Experts Focus Group

↓

Stage III: Dunedin Delphi Survey (2013)

Round One: Deplhi Questionnaire
Round Two: Scenario Planning

Stage I Environmental Scan: To identify the key drivers for the future of work, we undertook an environmental scan of 306 future orientated documents sourced from throughout New Zealand, using specific keywords and date boundaries (see Table 5 for a summary of the documents found). Each of the reports was then analysed to identify the key drivers which were discussed in the reports as bringing about change. These drivers enabled us to prepare the Delphi Survey and informed the writing of the scenarios in Round Two (see section 5 for a summary of the results).

Table 5: Environmental Scan Documents

Organisational type	Number of documents
Government Departments	+/- 103
NGOs	+/- 107
Business	12
Crown Research Institutes	+/- 26
Iwi Enterprises	8 corporation documents; 13 Trust documents
Universities	+/- 37

Stage II University Pilot: Good research practice suggests that a pilot is undertaken to ensure that the method is valid.[xxiv] We used University participants to undertake the pilot for Dunedin, as well as conducting a focus group that asked experts to identify key themes. The results of these rounds were crucial in developing the questionnaire.

Stage III Participants: We distributed two rounds of the Delphi survey to a Panel of Experts from the greater Dunedin area, chosen through personal knowledge and recommendation. Forty-two responses (44%) were received in the first round; these participants became our Dunedin Delphi Panel of Experts. The second round was sent only to the panel and we received 13 responses (30%). This is an acceptable sample and response rate for a Delphi administration.

The 42 respondents to the survey came from a variety of industry sectors. Education (29%), and the professional and administrative (31%) sectors were the most dominant industries, which is not surprising given Dunedin's main industrial sectors. Respondents were mainly in high-level manager or education roles.

Stage III Round One Delphi Questionnaire: In the first round, our panel members were asked questions surrounding what their 'world of work' would look like in 2030 and 2060, for example 'When you look outside your window in Dunedin, what other businesses dominate the landscape?'; as well as some questions surrounding advice for future generations (see Appendix 1 for a copy of the questionnaire). Their responses provided the basis for developing the scenarios administered in the second round, and the results from the Delphi Questionnaire are discussed in Section 4.

Stage III Round Two Scenarios: We used the responses from round one to build a picture of different narrative style scenarios. Participants were asked to comment on each scenario in terms of what they saw as plausible or implausible. Scenario planning can prepare managers for possible futures; including, at one extreme, doing nothing, to strong expansion at the other. In our scenarios we proposed a 'business as usual yet slightly worse' story and a 'Dunedin makes changes to have a brighter future' story. These are presented in Section 5 along with our interpretation.

Drivers

The 306 reports that were generated from the environmental scan were analysed using qualitative data analysis software (NVivo 9), which enables the user to organise high volumes of qualitative data, identify and classify themes, sort, arrange information and examine significant relationships. The analysis began by analysing the documents using a basic PESTEL framework. This resulted in a large set of themes from the original documents with the aim of being as inclusive as possible at the early stages. These were then analysed further to condense and refine them into eight dominant themes for change in the next 10-20 years:

1. Demographics – aging population
2. Demographics – diversity
3. Economics
4. Education
5. Climate change
6. Well-being
7. Technology
8. Resource scarcity

What became apparent very quickly was that the data from this scan alone had a story to tell about the way New Zealand organisations included future planning in their strategies. Of note was the timeframe most organisations used as the future barometer of their strategising, which was on average around 5-10 years. Of specific interest is the longer term nature of Iwi organisations and their strategic reporting documents, which tend to take an 'intergenerational' perspective at a minimum and extend the focus on planning out to 100 years or more. The majority of the reports did not have the time frame that we had intended to work with (i.e., 50 to 100 years), therefore, we decided to check the identified themes with a group of experts before using them to drive the development of the Delphi. This led to stage two of the research – the pilot study using academics.

NVivo is a qualitative analysis software package that assists in the analysis of qualitative data. We used it in this research to organise the vast amount of data into topic areas to delve into the data at a greater detail *(Bazeley & Jackson, 2013).*

PESTEL is a method for conducting a business environmental analysis. It consists of examining the key markers of political, economic, social, technological, environmental and legal systems/frameworks in the environment to understand and predict possible impacts to the organisation.

University Focus Groups

Three focus groups were run as a pilot study, consisting of 5-8 people. Each group was facilitated by a project team member and the narrative was recorded and documented. The groups were asked to discuss the themes. Key points from this discussion are outlined in Table 6 below.

Table 6: Focus Group Discussion

Drivers	Description
Demographics	• The city will shrink • Population imbalance (gap in the middle) • Equitable distribution of city wealth and resources will become an issue • Social cohesion or not? • Reduction in diversity • Widening of income gaps
Economics	• Alternate forms of economy to 'serve' the community • Changing industrial infrastructure – past, present & future • Technology is a driver • Cost of transportation • Focus industry or diversify? • Education & tourism both susceptible to climate change • Politics – local, national, international contexts
Education	• What types of education will be important? • Alternate forms of education • New (old) knowledges • Reliance on technology for delivery • Increased global competition • International students – travel costs & carbon footprint
Climate Change	• Lifeboat NZ – national & global considerations • Increasing sea levels • Consequences for ecotourism • Growth & sustainability – mutually exclusive? • Can sustainability be used to create well-being? • Can Dunedin achieve sustainability?
Well-being	• Equity/social equity • Dunedin's quality of life • Work/life balance...but will we have a choice? • Changing demographics also important • Lack of opportunities for people from Dunedin • Linked to resource scarcity • Requires education and skills

Technology	• Competition in green technologies – is Dunedin ready?
	• Technology driven businesses – don't have to be based in Dunedin
	• Requires
	  • investment in innovation to create technologies
	  • Requires leadership locally and nationally
	• Innovative financial solutions (For example Crowdfunding)

Resource scarcity	• Peak oil • Deterioration of food and water resources • Make better use of what we grow (technology) • Being a less energy intensive community • Requires education

These drivers were used as a base to develop the questionnaire for the first round of the Delphi survey method.

4. The Role of 'Work'

This section summarises the responses to the first round of the Delphi survey, to present a picture of what our experts see as the challenges and opportunities for the future of work in Dunedin in 2030, 2060 and beyond. This data, along with the environmental scan and University pilot, was used to develop the scenarios for the next round of the Delphi survey (see Section 5).

Overall, we found that the majority of the responses about everyday working life in 2030 were not too different to our current realities. Our respondents felt that the types of work that future generations might do were most likely similar to today, but there was certainly a focus on information technology and associated careers. There was also a clear trend towards recognition of the importance of education and training and the need for workforce skill to increase, particularly in IT and knowledge management.

However, as respondents had to think further into the future of working life in 2060, they began to reflect on more social and environmental considerations influencing the organisation of work. The achievement of better work-life balance was noted as being of particular importance and therefore a significant aspect of work in 2060. Below summarises our analysis of the results from the Delphi Questionnaire.

Type of 'Work'

The dominant industries for Dunedin are expected to continue to be the high value service sectors, such as education, health, tourism and information services. But our participants see an increase in what one participant has termed 'weightless products'. These are industries such as health, bio- and food technology production, agricultural research and niche manufacturing of high value products that are based upon knowledge generation as a commodity rather than physical products. Additionally, our participants saw the possibility of oil and mineral exploration industries. The following quotes illustrate the points participants made:

> **Weightless Industries:** Our business exports 'weightless' products, associated with our knowledge, and products we can build around that knowledge and how we can use that knowledge to add to our food export products. Outside of Dunedin there will be other businesses very much like this, and while I think there is a lack of interest in agriculture in Dunedin currently, I hope there will be more recognition of food production as being one of our major opportunities both on a production and IP front. Therefore, wider NZ, there will be many Food-Ag IP type firms, I just hope Dunedin can be a part of that (D1, Q13, 0091).

> **Focus on Innovation and Technology:** As long as we get it right Dunedin will be an innovation and technology hub that fosters start-ups that have global reach, and a much stronger light manufacturing base than we have now (D1, Q13, 0046).

Many respondents saw that, by 2060, shifting economic priorities of national and local government would have an impact on the industrial sectors we will see emerging here. Current industrial sectors already operating in Dunedin were seen as continuing for the future, but there was also some thought about the potential innovative industries that might emerge in response to environmental issues.

> **Sustainable Industry:** There will have to be a significant shift away from carbon and protein based economies to sustainable ones with locally produced food and goods. I think that work will continue to be information and technology based for many people. There will however be a number of people involved in service industries, food production and social services/education. It is extremely hard to predict what the future will look like but my guess is that with the shift away from carbon and protein based economies to sustainable ones that the massive worldwide transport network will be somewhat truncated forcing a return to strong local economies and more locally focused manufacturing (D1, Q16, 0074).

Respondents saw the emergence and evolution of new forms of sustainable economy and these were viewed as critical drivers for growth in Dunedin. The key points that emerged were:

- Work dominated by the service sector;
- Increase in technology (for example, 3-D printers) for 'instant' products;
- Increase in localisation in terms of food production, manufacturing, services, and local government controls;
- Increased environmental/resource refugees arriving.

In addition, the continuation of caring and nursing roles were emphasised. Participants envisaged a reduction in manual work and an increase in professional jobs; some participants mentioned doing voluntary work. The following quotes illustrates this neatly:

> **Changes in Work:** Caring for others, particularly the aged and aging (>70y) medicine, nursing, physiotherapy etc.; Education-related work (day-care to tertiary; adult education, foreign language communications, training etc.); IT – (filmmaking, theatre, dance, other 'entertainment'); Tourism, leisure and recreation industries; Healthcare and wellbeing (food services, gyms); Primary production industries especially dairying, agriculture, horticulture, ie., food production and products manufactured from food produced in New Zealand to meet needs of people in other countries as well as New Zealand (D1, Q16, 0076).

As respondents discussed the different types of work they would become engaged in, they also talked about how that work would be organised.

Organisation of 'Work': Location and Flexibility

Our respondents saw the activity of work taking place more *flexibly* in 2030. They saw an increased overlap between a formal work space and working from home. As a consequence, there was an expectation of more flexibility in working hours. For example one respondent stated:

> **Location of Work:** Notion of 'head office' will be redundant with specialist staff spread around company network. Location of staff more likely to be their 'home town' than the company's (D1, Q6, 0096).

Respondents also viewed identified locational factors such as schools, education and city infrastructure as being considerations for where they might be working in 2030:

> **Changing Infrastructure for Work:** We'll be starting to see a return to local commercial interests as distribution becomes more localised, less centralised as transport costs climb. Some increase in local manufacture as a future of increasing self-reliance is increasingly certain. Very large agriculture servicing sector and increasing recyclers/remanufacturers. Health will have ever increasing budgets (D1, Q12, 0096).

Respondents pictured even more change to the nature of work organisation in 2060, not necessarily the type of work, but how activities would be managed and controlled in a more collaborative and less formalised organised structure, such as the idea of working as part of a 'network' or 'hub'. For most respondents the notion of paid work remained similar to today's understanding of what that might entail. There was still a very strong expectation of a continued transition from the more formal organisation and practice to a more flexible model emphasising work-life balance as reflected in these quotes:

> **Work/Life Balance:** In an ideal world we will be working less and enjoying more leisure and picking what we choose to do by volunteering (D1, Q14, 0063).
>
> **Flexible Work:** Hopefully in a manner that allows flexibility for workers **to incorporate all aspects of their lives adequately**, rather than working excessive hours to make ends meet (D1, Q15, 0061).
>
> There may be changes seen to the basis of employment – working hours may be more flexible/remote contracting (perhaps from home) for some positions might be more widely implemented (D1, Q14, 0041).

As we read these, we need to remember that many of our respondents will be viewing themselves as retired by 2060, and although the Delphi survey was not about them per se, this may have clouded their view. The third area that respondents discussed was the characteristics of work in the future.

Characteristics of 'Work': Technology, Diversity and Transport

There was not a great deal of difference in the communication participants saw occurring within the workplace between today and either 2030 or 2060. The majority of the respondents highlighted the importance of maintaining 'face-to-face' communication and interaction; and, as highlighted in Table 7, both face-to-face and virtual face-to-face (for example, Skype or Facetime) were considered the main forms of communication. Therefore a challenge for organisations is to maintain appropriate face-to-face interaction while realising the benefits of flexible work:

> **Human Interaction:** I hope that we don't lose the face to face interactions which, in my view, are vitally important to the development and maintenance of relationships based on trust and rapport. Education will remain key, but perhaps choices (the diversity within this, the scope) might be greatly reduced. I believe we will get to a point of saturation with technology and go back to **'old fashioned' ways of doing some things as there is great value in face to face, human relations** (D1, Q16, 0079).

Table 7: Main Forms of Communication in the Future

Method of Communication	Number of Respondents
Face-to-Face	35
Virtual/Skype/Video	31
Telephone/Mobile/Smart Phone/Texts	18
E-mail/Electronic	16
Future Technology Options	4
Social Media Sites/Websites	4
Podcasts	1

Technology was expected to continue to play an important role in the activities of work, particularly in communication, but also in how organisations structured their operations and work activities. It was agreed that technology would become so commonplace that people would stop referring to it (for example, we no longer distinguish digital photos as being something special, they are now the norm):

> **Technological Change:** Technology would dominate even more than it does now but somehow it will seem more natural and we may not be calling it technology. Just as we are not talking of digital photography so much because there is hardly any other kind and we have long since stopped talking about colour TV (D1, Q8 063).

The respondents suggested that, for the most part, they expected far greater diversity of gender, ethnicity and age in the workforce. Coupled with this was an expectation that they would work virtually across national boundaries enabling engagement with different cultures around the world.

> **Global Work:** Globalisation and technology means the world is a lot smaller place (D1, Q11, 0030).

> **Age and Gender:** There will be a lot more older and younger people in the workforce ... Gender mix and race mix will be much greater in NZ in the future than it is now (D1, Q11, 0046).

> **Culture:** Multiple ethnicities both on staff and as collaborators/clients. Our business will be mostly in highly populated countries where food security is an issue and self-sustainability important. China and wider Asia, but also I envisage India and Africa to be key markets in the future (D1, Q11, 0091).

The majority of participants still saw themselves going to work though by current modes of transport in 2030, though with less reliance on private cars and greater emphasis on walking and public transportation as major alternatives. Awareness of the costs of transport is thought to become more prevalent:

> **Cost of Transport:** To control CO2 emissions, by 2030 the price of carbon will be above $100 (it is less than $1 in NZ now). People will no longer use private cars for commuting and public transport will be used where walking or bikes are not viable (D1, Q7, 0071).

Although education was viewed as important, there was also recognition of broader life skills, such as well-being and balance in life, being adaptable, life-long learning and getting a variety of skills; and perhaps importantly, taking a broader perspective of the world and our place in it and people doing things that they are passionate about. For example:

> **Broader understanding of the world:** Ensure that you have a broad education which will enable you to be adaptable and able to change frequently. **Think of the benefit to others and to the social, economic and physical environment in whatever you choose to do** (D1, Q17, 061).

> He tangata he tangata he tangata. People are social animals. Whatever life may bring my children, a capacity to get on with, work with, and enjoy other people will make the difference between a good life and not (D1, Q19, 071).

‘Work’ Advice for Future Generations

A key question in our round one Delphi questionnaire (see Appendix 1) asked participants to provide working advice for future generations. The responses to this question intrigued us and also made real the worries we have for younger generations. There were a mixture of ideas, from financial security and development of skills for the future, to responses which reflected a combination of pragmatic skill sets and philosophical thoughts. These included:

- The need to save;
- Invest in your future;
- Avoid debt and live within your means;
- Invest in a home/house;
- Develop financial understanding (personal and business);
- Expect uncertainty – become adaptable;
- Develop practical skills.

Adaptability

These ideas are highlighted in the quotes the below. As we can see from the first quote, our respondents discussed the increasing role of data in the world of work as well as the increased likelihood of cultural diversity – combining these two ideas, they felt that future generations would need to be adaptable and realise that their careers and ways of working could change very quickly, which was specifically suggested in the second quote:

> Complex data management, modelling and simulations**...data will be king**. There will still be a massive requirement for 'personalities' though, who are able to get on with people from different cultures and bring ideas together. Future generations will have to **be flexible in their thinking and their training**, what they learn at university, may bear very little relation to what they do 10 years later (D1, Q16, 0091).

> The need to gain a variety of skills and be **prepared to have more than one or two career options** unless they are going into highly skilled employment such as doctor, surgeon, health care or specialist skills. That it is important to understand what you enjoy doing and **transfer those skills** into a related career where possible don't be afraid to try your hand at a lot of different things whilst you are at school or university to see if you enjoy the industry/job (D1, Q17, 0025).

Global Workplace

The impact of technology on the global world will be huge – and our participants identified this, suggesting that we need to learn to be more ethical in our dealings, and therein respectful of everyone:

> Deal with people in a global world, be a professional and add value to a created product (hopefully your own). Be ethical, considerate of other and respectful of what remains of the environment (D1, Q17, 0073).

> ICT/but with a focus on being able to communicate with people of many cultures and a knowledge of tikanga Māori, as well as an awareness of all global cultures (D1, Q19 0035).

What is interesting in each of these quotes is our respondents' ability to see and interrelate different aspects of the future of work such as technology, adaptability and the global world and understand that each of these changes can have knock-on effects on other areas. Perhaps this last quote sums up nicely what we may need to be cognisant of:

> **Happiness.** Having real flesh and blood friends. Working to own strength and passions. Commitment and Drive leads to success. Don't be afraid to give things a go and take risks to get where you want to go. Put people first – show love and compassion. Worry about how you see yourself not how others see you (D1, Q19, 0087).

We need to think ethically, passionately and about ourselves while having consideration for the world and people around us. This takes us on to the next question, what keeps you awake at night?

Outside of 'Work': What Keeps 'You' Awake at Night?

The final question in the first round Delphi questionnaire asked participants to think about the future and consider what three things most kept them awake at night. This was where we had the most interesting, conflicting and intriguing responses to the questionnaire. While there were some statements made that reflected concerns about family, health, well-being, and financial security, there were also significant statements in relation to the economy and socio-environmental factors that were deemed as 'scary' enough to keep our respondents awake at night. Many noted the lack of opportunity for youth in Dunedin in relation to employment and lifestyle as reflected in the following responses:

> **Opportunity** -One big problem I see is the lack of employment to keep our young people here (D1, Q20, 0037).
>
> Knowing there is no future to bring my children back to Dunedin (D1, Q20, 0038).

Many also identified the issues facing businesses in Dunedin who will find themselves operating in an increasingly global marketplace.

> **Globalisation** - it is unavoidable but it is going to make it harder for small businesses to be competitive (D1, Q20, 0050).
>
> How do I keep up with the pace of the Asian market and how on earth do I resource what I want to do, in terms of getting the 'right talent' in the door?; How do I teach my own children resilience to cope in the world of incredibly high stimulation, how do we switch off and retain our sense of family and balance?; How do I know what is a product/person of integrity when I am operating at such a fast pace across different countries and with very little time for true investigative research? How do I manage the extraordinary amount of data being flung at me into something that is useful and meaningful for my business? (D1, Q20, 0091).

Strongly worded cautions also emerged from our respondents in regard to the nature of work and how it might or might not look in the future.

- Either a balanced life-work utopia or social stratification with the masses in 'pointless' work to keep them occupied;
- Greater focus on meeting the necessities of life through working much as our grandparents did;
- Technology will provide more 'labour saving' devices, yet we will be 'working' just as hard.

Throughout the earlier questions the survey responses mentioned the potential of financial and economic collapse, with socio-environmental issues only mentioned in passing. In this question, however, our respondents were very direct in bringing forth some of their concerns about the impacts of environmental and social breakdown. These included:

> **Access to clean water:** Access to clean water; Over population; Protection of resources for future generations (D1, Q20, 0053).
>
> **Over population:** Conflict over resources, more people, less food etc. (D1, Q20, 0030).
>
> **Isolation:** The isolation of people from each other leading to societal break-down (D1, Q20, 0028).
>
> **Crime:** Crime – drugs, binge late night drinking culture (D1, Q20, 0030).
>
> **Global change due to climate change:** The effects of global change – flooding on cities, travel.
>
> **Environmental degradation:** 1. Global warming/climate change/rising sea levels.; 2. Racial and religious intolerance; 3. How to reduce poverty, national and globally, despite rising standards of living (D1, Q20, 063).
>
> **Our consumption based society:** Our gratuitous me first, consumption based society. I need everything now and I will hock my future to get it and damn everyone else; The lack of 'caring and responsibility in our society' (D1, Q20, 0074).

These ideas were also nicely summarised in the quote below:

> The (climate) forces that will powerfully shape the future are slow-acting and may not affect me directly. Nor will climatic change have much direct effect on my children or theirs (NZ is one of the places least affected by temperature rise). What will change radically will be the global economy where I anticipate an unravelling of globalisation to a greater or lesser extent. For us in NZ and specifically Dunedin I think the effects of this may be quite benign – a wider range of local economic needs being met by local industries, and hence a wider range and number of employment opportunities and a more balanced and happy community; The real threats come from the global political scene. With billions of people facing radical change in the capacity to feed themselves, the possibility of large scale migrations, conflict and wars is very real. I read that the military people in the major developed economies are taking these threats seriously and preparing themselves for the climate wars to come. If NZ is caught up as a destination for large scale militarised migrations we will need friends to defend ourselves. And the price of their friendship may be high (D1, Q20, 0071).

One of the most overwhelming findings from this first round of the survey was the sheer mixture of issues and ideas that participants have regarding plausible futures. We have merely highlighted some of the more prevalent ideas in this section, and used it as a basis to develop our Delphi for round two.

As part of the Delphi technique, we needed to analyse and distribute the responses for further comment to the panel of participants. Using a mixture of the responses to everyday life in 2030 and 2060, and the things that keep people awake, we developed two scenarios (see Section 6) that were sent to participants for feedback as part of the process of developing robust scenarios for the future.

5. Scenarios and Participant Reactions

As a result of the first round of the Delphi survey, we developed scenarios based on the responses from the participants. These were produced in a narrative style to bring together the ideas from the responses in a consequential manner. Stories are a powerful way to connect the 'wicked' ideas, issues and possibilities and to draw a response from participants about how they see the connectedness and consequences. This section will outline the scenarios and the reactions we received.

Scenario 1

Little change, Dunedin loses more business - the world has gone global.
Year: 2030, population: 120,000

Seventeen years have passed and very little has changed. In Dunedin, life exists in a similar vein to today. People are mostly in paid employment and work close to fulltime although with more flexible hours. For many the 9-5 day has gone and has been replaced by a 24-hour clock as technology encourages work to occur globally. Generally, people drive or cycle to work, work in an office environment and communicate face-to-face whether virtually or physically. The make-up of the Dunedin workforce is similar to today, although there are more aged people in the workplace and in the general population. The number of people in the working population has decreased. The key skills remain associated with competencies in communication and web-based technologies. In general though there are less manual and less unskilled workers.

The world continues to shrink, becoming more global and consolidated. Large businesses seek economies of scale and increased efficiency from acquisitions and joint ventures, resulting in higher levels of interdependency between firms. This means that many businesses in Dunedin continue to struggle to compete in a global market. However, there are some businesses that have embraced global customers and created niche markets around the world. These can be described as 'weightless industries', which are small and nimble with highly skilled workers. They could operate anywhere in the world but they choose to be in Dunedin.

The dominant industry remains the tertiary education sector. However, while the university is still a significant employer and contributor to the local economy, student numbers have been decreasing for a number of years due to the trend towards large global universities offering flexible online papers and qualifications. In addition, increased travel costs have made the bigger centres in New Zealand more attractive to students outside of the Otago region. International student numbers have also dropped markedly.

Some of our other large businesses have downsized due to global consolidation, for example, Cadbury's strategy during the early years of this millennium. Tourism has seen a reduction in numbers, but those visiting are staying for longer. Other key industries include 'Caring' institutions (aged and health-related care), IT based services and hospitality. The CBD remains fairly unchanged, although there has been a noticeable increase in small discount stores. The city never really feels like it has made a mark or taken off – the leadership style has been focused on maintaining a reasonable lifestyle for its residents. However, many residents would suggest that there is nothing (job-wise) for their children to come back to Dunedin for. Dunedin has lost a significant proportion of the workforce population to other centres: nationally and globally.

Reaction to Scenario 1

The respondents felt that the future Dunedin depicted in scenario one was plausible, but yet it was one which held little favour with the panel. Indeed, following this path was viewed as being a negative outcome for Dunedin and the suggestion was made that Dunedin would continue to lose relevance economically and politically. A reliance on a specific number of industries holds opportunities and challenges as technology and geo-political dynamics influence markets and costs. Many respondents acknowledged the under-realised potential for the technical and material servicing of the rural sector.

Rising transport fuel prices is an area where there is expected to be serious cost increases and implications for the current integrated world economy. While points were raised about the need for alternative 'green' and 'energy efficient' modes of transport, there was little focus on how to achieve this goal. Tighter regulation and levies, such as carbon pricing, was seen as an inescapable consequence. Of interest, however, was the feeling that while rising transportation costs may impact on Dunedin businesses, there is also the potential for local enterprises to develop the local market more.

There was a strong sense that to effectively negotiate this scenario Dunedin would need strong, innovative and 'outside the box' leadership combined with a collaborative approach from business and community. Table 8 sums up the responses to the scenario, under each of the key questions asked.

Table 8: Scenario 1

Question	Prevalent feedback	Examples
Plausibility?	• High plausibility due to current events supporting this scenario, but local apathy to change • Over reliance on one or two industries (i.e., education sector) • Potential for technical and material servicing of rural sector • Transportation costly, no feasible alternatives available	*Perhaps inevitable if we don't sort out our economic strategy. It makes very sad reading and Dunedin people need to consider what a 'do nothing' scenario like this may result in! (S1, Q1, 0046).* *Absolutely, without a clear vision and solid leadership combined with a collaborative approach from business/ community Dunedin will continue to lose its relevance (S1, 0074).*
What is implausible about this scenario?	• Nothing to suggest that the nature of work will change • In the economic realities of this scenario lifestyles will suffer negatively • Climate change and resource scarcity	*I think the potential for Dunedin to develop further as a 'sports hub' and/or 'arts hub' and/ or 'education hub' is seriously missing from this scenario. Further, I think eco-tourism will take off, both in Dunedin (i.e., the Otago Peninsula, Marine Science Centre, Cultural Tourism) and Dunedin being a gateway to other places (e.g., the Catlins, Central Otago, Moeraki) (S1, Q2, 0079).*
Why is this scenario not plausible?	• Increasing awareness in the city as to future issues • Majority of current economy is based around food production • Lifestyle – The scenario ignores the likelihood of rising youth unemployment, especially amongst those who have neither the resource nor initiative to move to opportunity	*Sadly in this scenario no discussion of food-related industries – pipedream of a 'weightless economy' when majority of current economy based around food production seems unrealistic (S1, Q3, 0091).* *a. The scenario ignores the likelihood of rising youth unemployment, especially amongst those who have neither the resource nor initiative to move to opportunity. b. Even a 'steadily downhill as she goes' scenario should acknowledge these possibilities (S1, Q3, 0096).*

Question	Prevalent feedback	Examples
What might happen instead?	• Innovative ideas/opportunities that are held back by business environment • Demographics change as population decreases & the economic situation worsens quicker than as portrayed. • Industry – A Dunedin economy that is less oriented than it is now to trading with other parts of NZ • Increasing pressure on rates as 'band aid' fix-ups; fuels resident dissatisfaction	*People abandon Dunedin so population decreases more rapidly & economic situation worsens quicker than as portrayed (S1, Q4. 0046).*
Is the scenario an ideal vision for Dunedin?	• No, supports a 'stagnant' perception of Dunedin as a transition town (i.e., students coming and going) • Can't ignore implications of climate change	*No – **not an ideal vision as Dunedin is becoming a transition place** for other people's children (i.e., University students) which, when the students leave, takes out the next generation of creative energy (S1, Q5, 0028).*
What can we do to future proof for/ against this scenario?	• Growth: jobs, government services, lowering of business compliance costs, support for SME's • Increasing industry collaboration • Enhance Dunedin culture through investment • Better leadership	*Find ways to **support small/ medium businesses**. Closer relationship between city and university/polytech, with the aim to keep as many graduates here as possible (or to have many return). Industry/ employment needs to be sustainable- not via extractive industries such as oil or mining(S1, Q6, 0061).*

Scenario 2

More change, the localised world – Dunedin is a village. Year: 2030, population: 200,000

The world of work in Dunedin in 2030 is starting to enter a period of transformative change. There are still remnants of the past – work largely consists of full-time paid employment, in an office where face-to-face interactions are preferred. The workday is more flexible and the employment environment encourages strategies, such as job sharing and working from home. The workforce is much more diverse, particularly in terms of ethnicity and age; people are working into their 70's and there are more skilled migrants in New Zealand and Dunedin. The population of Dunedin has increased and become more multi-cultural and more aged like the general population although with a good mix of ages in the working population. Managing diversity is an important workplace skill. There is reduced dependency on oil and transportation choices are more varied, with electric cars, buses and bicycle routes being available and used by vastly more people.

The world has both shrunk and de-centralised. Globalisation has seen the consolidation of large corporates, particularly those operating in the mass commodity markets. Significant advancements in information and communication technologies has allowed for even greater communication reach that is faster than ever before. This has also supported smaller 'weightless industries' to operate successfully in the global realm.

Resource and energy shortages globally have resulted in vastly increased prices for global goods. In addition, the international pressure to reduce carbon emissions has meant the price of carbon has increased significantly, resulting in high transportation costs. At both an international and local level, supply chains have retrenched. The age of global specialisation has slowed down and consequently, local suppliers and businesses are able to be increasingly viable.

In Dunedin some of these local suppliers include – small, high quality, light manufacturers like McKinlay shoes, niche food producers and engineering companies. Consumers are buying locally, and are more discerning about the quality and security of their products, particularly food. Thus, the marketplace is increasingly seeing smaller local businesses selling products that are now competitive and many of these are food-oriented or the niche manufacture of quality products. Other businesses that are dominant are the 'Caring' industries (due to an aging population and increased health providers), the Food-Agribusiness sector, service/IT-based and the hospitality businesses.

The CBD has become more focused on community. Businesses still operate there, but the design of the city is oriented more towards the well-being of people. Although scarcity of resources and climate change are highly disruptive, we have seen a big shift towards local community sustainability. People, and their children, are drawn to work in the innovative industries that have evolved as a consequence. Dunedin has had to develop leadership strategies to facilitate business activities in a more localised economy.

Reaction to Scenario 2

As with scenario one, the respondents felt this scenario was also plausible in that it recognised the increasing diversity of the Dunedin population. Many commented that it was more plausible than scenario one and indeed more positive too. In relation to population though, one respondent felt the increased population growth was too high given the national average in recent years, but it was also noted by another respondent as too low by not taking into account the potential population growth driven by increased immigration (particularly from climate refugees). However, some respondents also noted that the scenario wasn't radical enough in relation to the potential of climate change and resource scarcity to seriously impact on modes of economy, locally and globally. It was a deliberate decision of the researchers not to make the strategies radical when many of the participants were not stating radical changes. Thus, the scenarios are a result of dominant participant responses and a research strategy to explore the middle ground.

Overall, the respondents found this to be a more pleasant scenario for the working environment and suggested that it might attract more people to the city. Although there was also a strong 'voice' that emerged that emphasised the important of a focus on industry and business as the driver for economic growth; some felt this was not emphasised enough in this scenario – particularly in places where community aspects of Dunedin were discussed.

The respondents identified that those involved in Dunedin governance must engage more collaboratively at the national level in regards to political and legal regulation. Moving forward productively was depicted as also requiring strong and positive leadership to fight to retain services and industries in Dunedin. In addition, industry also has a role in encouraging and nurturing more businesses into the Dunedin industrial landscape, through incubators and industrial parks.

Finally, the respondents also highlighted the importance of urban design to enhance communities and ensure the quality of life is at such a level so as to attract people into the city. The economic impact of the CBD was discussed with some seeing the future of Dunedin in creating villages within the city, or hubs of activity; while others reinforced the need for a focused, vibrant CBD embracing business activity. As a university city, there was discussion on the role of the University in bolstering creativity, reaching out to the commercial world and providing support to create these hubs, be it art, sport or tourism. Table 9 sums up the responses to the scenario.

Table 9: Scenario 2

Question	Prevalent feedback	Examples
Plausibility?	• This scenario was generally seen as plausible, although often participants added caveats to how they see certain drivers	See below for examples from those who see the scenario as plausible. An example of a participant who did not see it as plausible: *I think this is an idealistic vision for Dunedin, but not realistic. Fundamentally there is still no push to export in here. I do agree with the diversity comments (S2, Q11, 0091).*
What is implausible about this scenario?	• Population growth of 60% in 17 years • Resource and energy shortages are not accepted • Increase in localisation for food production and purchasing • Pressure on productive land near city for alternative CBD hubs • High levels of unemployment • Transportation issues due to terrain and climate of Dunedin (i.e., biking to work will not be popular) • Stagnant local economy	*While it is plausible, **Globalisation will see more economies of scale**. Small Dunedin firms will struggle to compete price wise with imported goods. Unless times are very good, consumers will selfishly purchase the lower price or better value goods (S2, Q8, 0030).*
Why is this scenario not plausible?	• Economic reality	***Exchange rate has bearing on final cost of import petrol may escalate** – political correctness may push up taxes on some commodities – overall world trade on many items is vastly cheaper (S2, Q9, 0093)*

Question	Prevalent feedback	Examples
What might happen instead?	• Improved public transport • Simultaneously local focus with global focus • Dunedin as a series of villages	*I like the idea of Dunedin remaining or becoming more community-oriented, more aware of local sustainability and discernment with regard to local resources etc. I still maintain that Dunedin developing further as a 'Sports, Arts and/or Education hub' is missing (as is eco-/cultural-tourism) and needs greater emphasis. What are the industries/things, otherwise, that would attract skilled migrants into the city? (S2, Q10, 0079).*
Is the scenario an ideal vision for Dunedin?	YES – BUT • Population growth would cause infrastructure issues • Increasing transport costs will affect Dunedin's growth, both economic and physical	*It would be great! It would be a far more pleasant working environment and if it did take off, it could attract more people to the city. S2, Q11, 0030).* *I think it addresses the range of pressures which it will face and derives growth from such things as global population re-distribution and the change in global market dynamics caused by rising transport costs (S2, Q11, 0096).*
What can we do to future proof for/ against this scenario?	• Positive leadership • Remove business compliance barriers • Encourage light engineering/ manufacturing industry • Develop village hubs proactively, instead of reactively	*Back to positive leadership – Population growth requires jobs Population growth requires jobs – environment needed (S2, Q12, 0043).* *Start to develop the village hubs, encourage development around them, improve transport options, protect arable land against residential development, encourage diversification within the city. We need to create the 'village' now and proof its viability (S2, Q12, 0074).*

Scenarios Conclusion

In sum, two scenarios were developed from the responses to round one, depicting the responses in a narrative manner and representing the data from a different perspective enabling consequences to be identified and explored. There was a good reaction to the scenarios – to the central ideas pulled together to show what possibilities might emerge. The first scenario was not as popular as the second, and that is more than likely due to the bleaker image it painted compared with the second scenario. However, many participants commented that, unless something is done to change the city that is more than likely the current trajectory. Thus, the scenarios can bring about action because they show what might happen if we do not act, as citizens and city leaders, to bring about desired change.

Alternatives to Growth Scenarios

The two proposed scenarios have an implicit assumption that the economic system, based on growth and unlimited access to energy to enable that growth, will still be operating. This is because in the first round of the survey this represented the majority of the comments we received. However, we received a few hints at changes to some of the assumptions about the current economic system that would have an impact on the Dunedin situation, somewhat in 2030, but definitely by 2060. Using the energy-economy link, we include a quote from a recent report by Tullet Prebon (author: Dr Tim Morgan) titled 'The Perfect Storm: Energy, Finance and the End of Growth. In this report Dr Morgan stated that:

> ...expecting a technological solution to occur would be extremely unwise, because technology uses energy – it does not create it ... In the absence of such a breakthrough, really promising energy sources (such as solar power) need to be pursued together, above all, with social, political and cultural adaptation to 'life after growth.' [xxv]

We then asked participants their opinions on this issue and received a number of comments. For example, one participant made the following statement:

> The point is that our future in NZ will be determined by an economic model that is not yet in existence and this fact obviously leads to considerable uncertainty in how the future will unfold (D1, Q20, 0070).

Such a comment indicates that there will be another economic system – which is not an assumption that all participants made. However, knowing what that new system might look like is what participants found to be difficult. Other ideas included the following:

> The economic system to emerge is not that unfamiliar to us. Wind back GDP/head to 1950 levels. The New Zealand of the 1950s was considerably closer to sustainability than now. Many of the technologies we use now will begin to lose ground to substitutes (fewer jet planes – back to the ships; fewer cars – back to the (electric) trams and buses; less steel – more wood). Pictures of Dunedin in the 1950's would make a good start to conceiving what the city may look like in 2050 (S2, Q13, 0071).

Unlike many participants, this participant clearly articulates how they see the economic system developing in the future. Some of the sentiments were echoed in other comments but, overall, the idea of winding back to the 1950's was not representative of the responses. The following two comments are more typical of the overall responses – looking to what is currently important in the Dunedin economy and ensuring that key institutions are able to be sustained in the future.

> The University will need to develop strategies to compete in the 'travel restricted world' and to ensure commercialisation of research & knowledge benefits the city. A smaller more nimble University needs to be an integral part of the Dunedin village (S2, Q13, 0074).

> We have a port and natural resources, technology & education to make the most of it. We would be able to quickly adapt and get to be a leader in this change (S2, Q13, 0030).

The final comment below alludes to just how those key Dunedin institutions might be able to be competitive in a future economy. It was a common comment that Dunedin needs to move from a conservative stance to one that is more 'nimble,' outward focusing and future oriented.

> The bigger risk to Dunedin is that we don't anticipate or respond fast enough to whatever the economic system (new) is and therefore render ourselves out of 'the game'. We are too conservative and inwardly focused and not nimble enough to 'ride the wave of change' (S2, Q13, 0046).

This was a challenging question for participants and one that brought out differing responses but nonetheless is an important question being examined world-wide at the present.

The final question posed to the Delphi panel was in relation to their thoughts on alternative scenarios to the ones we presented. The question was in the form of alternatives to a pure economic growth model that might be feasible in the Dunedin context. Two dominant positions emerged; one that was strongly focused on traditional economic growth, and another which supported the need and capacity for an economic system that is more holistic and embracing a different approach to growth.

Each perspective found middle ground in regards to the risks faced by Dunedin business and community and the perceived inability for Dunedin socio-economic infrastructure to adapt fast enough and respond to the broader influences. The need for strong and collaborative leadership of the city was noted emphatically as being essential for any sort of future.

The critical question that arises from the narrative here then becomes how local government, business and community sectors can 'enable' a space in the middle ground to be heard above the furore over the economic vs the socio-economic conversations occurring.

6. Insights on the Future

This project analysed emerging themes in relation to the future of work in Dunedin given global, social and environmental changes. The themes were developed from an intensive literature search and scan of institutional documents from across the public, private and third sector in New Zealand. In the study, we encouraged our respondents to think holistically about environmental drivers and the changes to the nature of work and role of industry in Dunedin that could occur as a result of those drivers. This section brings together the various findings and reflects on the overall trends across the data.

'It's Simple, But Not Easy!'

It should be noted that our respondents were for the most part employed (or employers) in white collar occupations. Issues such as the 'living wage campaign' or 'employment conditions' were not taken into account, and identify a potential area of further consideration. However, with the voices of our respondents ringing in our ears, we can conclude that issues concerning work and industry in Dunedin are 'simple' (better wages, more jobs, encourage industry, care for the environment), but achieving these goals is not so easy!

We do not presume to suggest that the 'answers' to the complex issues surrounding Dunedin work and industry were simple or easily attainable. The complexity of the number of aspects involved in the scenario stories was not lost on our participants – for example one respondent stated 'given there are so many variables it is not worth going into. Good luck with all of this!' (S2, Q14, 0030).

Part of the complexity arose from recognising that the future is unknown, and 'there will be events we can't predict – some of them will have a positive impact. Could we have predicted cruise ship visits 17 years ago? (S1, Q4, 0063), which opens the future of work landscape in Dunedin to all sorts of potentialities.

Therefore, while it is useful for this report to separate themes into distinct positions for business and the people of Dunedin, it is important to remember that the narrative is occurring in a vast and complex environment of change and influence. As a consequence, Dunedin business and community often have to respond to the changes driven by national and global contexts. As an example, Hillside Engineering having to downsize operations with significant job loses, in response to a national contract being outsourced to a Chinese manufacturer.[xxvi]

'The Best of Times, The Worst of Times ...'

As with any revolution in thinking, positions are often dictated by the worst case scenario. Evident in our respondent narrative were three significant areas for alarm in relation to the future of work in Dunedin.

The first was an inherent uneasiness and a sense of being dispirited (or apathetic), with some respondents feeling that they could have no influence in the future of Dunedin.

> Slow death. Nice for those older & settled now – no sustainability or energy (S1, Q5, 0043).

> It seems a vision of a stagnant city in slow decline – certainly in terms of employment, which can then have impacts on social and cultural life (S1, Q5, 0061).

Others saw the influence of the global political economy as being all pervading and a critical challenge for Dunedin industry and workplaces in the future.

> I believe we will have both very local & very global forces at work but we just don't know what industries will be affected in what ways yet (S2, Q13, 0046).

In addition, there were also strongly worded cautions that emerged from our participants in regards to the nature of work in the future.

> At one extreme, we will all be living much poorer lives struggling to meet the bare necessities. At another extreme, we will be living much as people did 50 years ago, working 40 or so hours a week (D1, Q15, 071)

> We have heard this before with labour saving devices freeing us up, paperless offices etc. I suspect we will be working as hard as ever, not seeing as much of our families as we would like (D1, Q14, 0063).

Importantly, these statements are not necessarily predictors of 'doom and gloom'. Rather they are indicators of the depth that people in the community do 'think' about these matters. Indeed, as illustrated in the report, as our respondents made these statements, they reflected on the opportunities and positive ways forward.

Integrating Multiple Conversations

The respondents engaged with the scenarios in different ways and broadly speaking, three distinct themes or voices emerged. Throughout the feedback, these three voices intertwined to create a bricolage of conversations that we might imagine occur every day, at every level of society in Dunedin. They are covered, in turn, below.

Figure 2: Emerging Participant Voices

Economic Development Voices

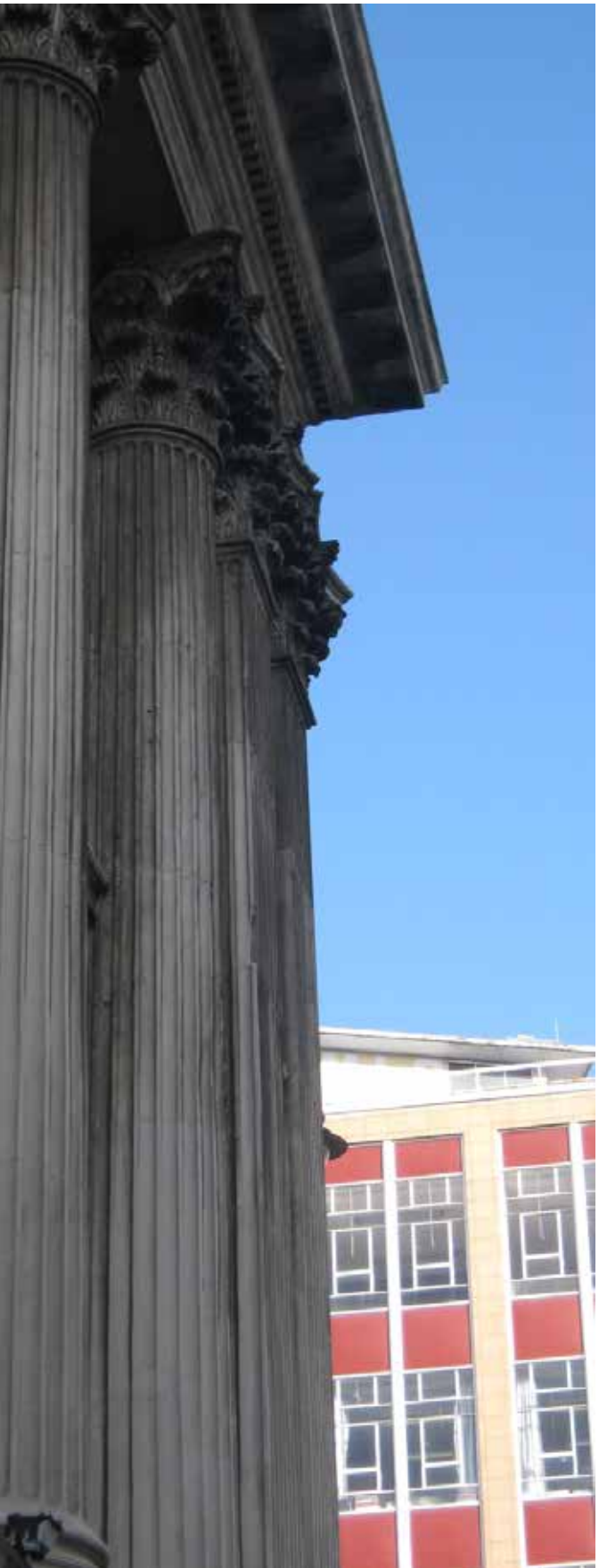
Economic development and industrial growth as the priority to further the future of Dunedin was a strong theme within our respondents' responses.

> Economic reality has a greater say than politically correct & green orientated communities (S2, Q13, 0030)
>
> We need business and industry to bring $ into the economy (S2, Q11, 0046).
>
> **If we can export competitively, then people should become wealthier** (S2, Q10, 0093).
>
> Ideally, while globalisation is inevitable – and arguably, desirable – we need to continue to aim to be the **'best small city in the South'**, attracting businesses and individuals to stay in Dunedin due to the lifestyle and opportunities it affords residents. There are many hidden gems here! (S1, Q5, 0079).

However, there were significant concerns about the capacity of Dunedin's political and economic infrastructure. In particular, business regulation and compliance costs were seen as creating an image of Dunedin as not a 'business friendly' space. As noted by one participant, 'take away all the barriers ... for example compliance, lack of information' (S2, Q12, 0030). There was also a feeling that Dunedin was losing its national political voice and, as a consequence, we were left fighting to retain our local businesses:

> Protect what we have – fight to retain services which are being politically moved to where votes are! (S2, Q12, 0093).

The common thought pattern here seemed to be around the importance of economic development to city wide development and not to forget that relationship. This would also be reflective of the situation in Dunedin at the time of the study whereby businesses and offices were closing with losses of jobs being felt in the community.



Socio-Ecological Voices

Within our responses there were also some very strong statements regarding the importance of social and ecological considerations. The socio-ecological voices for Dunedin had dire warnings regarding the collapse of our natural environment, which they see as provoking the collapse of our economy and society. This would result in a reduced quality of life in Dunedin and loss of income from our natural resources; loss of jobs due to the increasing costs of climate change on industry; and, significant implications for the stability of our society.

> Degradation of the environment to the point that it is quite possible that we leave catastrophic problems for our children and grandchildren to deal with, including the consequent social upheaval that may result; Increasing disparity between those that have the means to leave comfortable and content lives, and those that have to struggle to get by and who have effectively been disenfranchised from a huge part of society. Again, this is likely to continue to result in more and more widespread social and political upheaval (D1, Q20, 0061).

The participants who voiced predominantly socio-ecological concerns for the future, created an undercurrent in the discussion around social upheavals and some sort of collapse. While some might question this as a possibility, many global writers in this area are discussing such trends as inherently plausible. For example Jared Diamond,[xxvii] a popular scientific writer, writes about the idea of civilisation collapse due to resource exploitation, using case studies such as Easter Island to show evidence for the strong link between civilisation as we know it and resource exploitation. At all stages of this research we have encountered resource scarcity as a driver for change, and these ideas are crucial for future planning – especially in the 2060 year range.

Balanced Voices

The 'balance' theme emerged from those participants who want to see balance in any discussion and approach to the future of work in Dunedin. At the heart of this theme was the emphasis on how Dunedin might become an attractive alternative to big city noise if the right environment (socially, environmentally and economically) can be created. The narrative in this space focused on a balanced approach to economic and sustainable development. Indeed, it was in this space in-between the economic and socio-ecological narratives that our respondents looked for innovative and inclusive approaches to Dunedin and the way forward.

> Start to develop the village hubs, encourage development around them, improve transport options, protect arable land against residential development, encourage diversification within the city. We need to create the 'village' now & prove its viability (S2, Q12, 0074).

> We need a comprehensive social and technical strategy matrix which incorporates response options for a range of possible community and economy threatening changes (S1, Q6, 0096).

> Local focus & global focus will both happen so we need to be prepared for both scenarios (S2, Q10, 0046).

In addition, it was in this narrative thread that there was a strong recognition of the need for business, local government and community stakeholders to work together to create innovative industries, and innovative approaches to the industrial infrastructure within which they operated.

> Find ways to support small/medium businesses. Closer relationship between city and university/polytech, with the aim to keep as many graduates here as possible (or to have many return). Industry/ employment needs to be sustainable – not via extractive industries such as oil or mining (S1, Q6, 0061).

Finally, investment in business infrastructure combined with strong business-oriented leadership was seen as vital to the way forward. The following quotes show the balance concept:

> Without a clear vision and solid leadership combined with a collaborative approach from business/community Dunedin will continue to lose its relevance (S1, Q1, 0074).

> Get more realistic about the constraints we face. Diversify our revenue/ business base (do not rely on education!) Absolutely welcome start up enterprise and do all we can to foster Business Development in Dunedin (S1, Q6, 0046).

The balance theme discussed broader, more inclusive and holistic approaches to economic, social and environmental development and the implications such an approach would have on the future of work in Dunedin. As such, this voice somewhat represents the middle ground between the other two dominant participant voices.

7. Implications for the Future

The aim of this research was to encourage and develop conversations that depict plausible futures for Dunedin. Having read in the fields of technology, climate change, communication and indigeneity, we are both concerned and optimistic for the future, but were interested in exploring what business and community leaders were thinking the key impacts would include. Understanding that business horizons are not usually longer than three years and the current compliance pressures facing SMEs, we aimed to design a project that would create a plausible vision for the future that can be also seen as practical for business and community groups in Dunedin today. This section brings together the key findings that we hope are useful for participants.

Planning for the Dunedin Scenario

Two scenarios were produced as a result of the responses to the first questionnaire. These scenarios were designed not to be radical (i.e. take a strong green stance), but instead they were aimed to open up the middle area and create stories that were seen as being generally plausible. While this was the case across the majority of the participants, the first scenario, that painted a bleaker story, was thought to be a situation that was not good for Dunedin and should be avoided. Yet, participants also saw Dunedin on this path presently and seemed keen to avoid such a situation. Actions that were seen as important to take to avoid scenario 1 were:

1. Accepting that Change is Inevitable

Firstly, and one of the anticipated outcomes of the study, is that things are changing and Dunedin, business and its people, need to be adaptable, otherwise we will be left behind. So if we sit back and don't begin planning for the future we will end up with Scenario 1, in which our participants were generally not happy with for the future.

Questions arise as to what type of change do we as business and community stakeholders need to think about? Faced with uncertainty in environmental, social, climate, technological and resource availability, our business and community leadership must develop scenarios that take these different types of change and consider the appropriate sets of responses that are needed. Given the broad and complex range of 'change' occurring today, access to information and data dedicated to their specific needs is essential.

More focus needs to be given to collaboration between the different public and private sector organisations and the research and education institutions that also call Dunedin and the Otago region their home.

2. Developing Strong Leadership

Many of our participant comments expressed a need for strong leadership with a collaborative perspective in the city. Innovative styles of leadership were seen as critical over the next few decades to develop Dunedin so that the city maintains vibrancy and sustainable growth. A collaborative leadership model that 'enables' a dynamic and fluid interaction between our business, community and local government stakeholders is not a novel conception. There are a wide variety of clusters in Dunedin dedicated to specific needs of stakeholder groups. For example, Dunedin Host, Otago Chamber of Commerce, Te Kupeka Umaka Māori ki Araiteuru, the Otago/Southland Māori business network, tertiary institutions and the Council of Social Services Dunedin to name just a few.

This is an opportunity to show 'outside the box' thinking in relation to a network leadership model that provides space for that balanced future scenario for Dunedin to emerge.

3. Celebrating 'Now' for the Future

Understanding, celebrating and supporting what our businesses and communities are currently achieving is critical. Some of our participant comments reflected a sense of 'what are we good at', while others directed attention to innovative industries and practices. What then becomes evident is that while the publications like 'Otago Edge' are fantastic at profiling successful industry and business in Dunedin, perhaps other forum or media could be utilised to reach more of the community.

How we attract and retain new businesses is equally important. Traditional, old school models of economic development still have merit. However, given the dynamic nature of new and emerging industries and organisational forms (For example social entrepreneurs), Dunedin needs to find alternative and creative ways for economic development.

Opportunities to showcase Dunedin business and community sector enterprises in a showcase similar to TRENZ the New Zealand tourism industries biggest annual tourism event. Create an event to market the Dunedin business and community environment to showcase and celebrate our success stories from across the spectrum, and highlight the potential for new sustainable industries here in Dunedin.

4. Preparing for Resource Constraints

Resources are going to be scarcer and planning is needed to think through the implications for businesses depending on the reliance they have for natural raw resources. While the 'weightless industries' should not be adversely affected by rising transportation costs the physical goods industry may feel effects already and in the future. Transportation was an issue raised in the near future – how will goods and services be transported around the country and globally when the prices are constantly increasing? A few participants raised this as an issue for Dunedin especially in relation to our geographic location in terms of global/national shipping/ transportation systems.

Building specific capacity around managing resource constraints is an important way to manage these tensions and to be prepared. Holding special forums to discuss potential resource constraints and responses to them might yield innovative and productive strategies.

Planning for the Future: NOW!

Overall, our research shows that work is going to change, although there will be many similarities to work experiences and patterns we have today. What it demonstrates is the expectation that there is likely to be an increase in the physical or hands-on work taking place locally, while knowledge work will take place globally. Businesses may need to look towards global partners to facilitate this.

Technology is expected to open up a global world, however, our participants also emphasised the importance of face-to-face interaction. A technological orientation makes the opportunities available to Dunedin's weightless industries much more easily accessible. Therefore, our business sectors need to think strategically about the IT infrastructure to support such changes.

Overwhelmingly our participants noted that business will be more challenging and we need to be prepared for that. Our participants expressed a need to include all stakeholders in decisions that are made about the city and develop strategies based upon inclusion. Finally, participants encouraged Dunedin leaders to play on our strengths, and plan for the future through strategic thinking, now!

Below are three points for consideration:

1. Changing Needs of People

As noted, change is inevitable. We need to be considerate of the changing expectations people will have about how they work and even why they work, as highlighted in the findings around work/life balance and flexible organisation in section 4. However, it is also important to note that the technological and cultural competency of people will change and so will likely have an impact on how work is conducted and the makeup of the workforce. Currently, there is already strong emphasis on the implication of a more diverse workforce on business strategy and practice.

2. Opening up Discussions on Futures

Organisations, both business and government, need to think about how they can create more dialogue with their key stakeholders, such as their employees, customers, suppliers, and so on. This requires a shift in attitude to open up discussions and be less closed about what is going on around you. Sometimes this requires posing radical and even mundane questions to stimulate the depth and quality of conversation needed to drive our planning thinking forward. The process of the conversation is also important – that is actually taking the time to use the foresight of others to consider the opportunities today.

3. Blinded by Horizons

He rangi tā Matawhāiti, he rangi tā Matawhānui.
The person with a narrow vision sees a narrow horizon,
the person with a wide vision sees a wide horizon.

Many of the world's top companies are using scenarios to develop innovation, keep up with potential disruptions and aspects in the business environment that may have a bearing on business performance. The outcome may not be to stay abreast of changes, but to just stay in the game. We see this as important for businesses in Dunedin too – staying in the game is increasingly a technological minefield and combined with the pressures of day-to-day operation, make it very difficult to raise one's eyes to the horizon. Particularly, when that horizon is fluid and susceptible to change, influenced from local, national and global forces, some of which are outside of our control. It is important when considering appropriate strategies to prepare for the future of work to maintain that wider perspective of the horizon, so we don't become blinded to potential and opportunities.

8. Concluding Thoughts

Poroporakī, or ceremony of closure, is the final part of this report, but it is by no means the least important part or even signifying the 'end' of the process. The poroporoakī is where we situate our farewell to the narrative conversations that make up this project. Throughout this report, we have portrayed the voices 'as is' from the responses of our participants to represent this narrative as a part of a continuing conversation from an individual and communal sense.

Importantly, this report is not a one-stop-shop for all Dunedin business but rather a chance to take stock of future possibilities developed through a process of assessing key drivers and trends and perspectives from a selection of business leaders. While it may be difficult to predict what we need to think about in relation to the future, we suggest that the key drivers such as demographics, resource scarcity, climate change, education, well-being and technology are useful starting points. Strategically, understanding these drivers from the business perspective enables decisions to be made. To frame the process and bring the future to the present, we started this research conceptualising the issues as 'wicked' problems. By doing so we focused on the drivers for change, impacts and consequences as interconnected and part of a wider system that is not easy to solve. The concept of a wicked problem also highlights the interconnected nature of key drivers for future change.

One key academic finding from this research method is about the power of the narrative to pull together factors in the business environment in an explanatory way to developing an image of the future that conceptually enables participants to see current activities and the path those activities create. We found that the reactions to the scenarios provided useful detailed information on the future that we did not necessarily receive in the first round of the survey. While these phenomena will partly arise from a focusing of attention on the detail produced as part of the scenario, a significant part is due to participants engaging with a narrative that brings together a variety of conversations about the future. Therefore we see the role of scenarios as a powerful way to develop thinking and discussion about the future and consequences of activities today for tomorrow.

Finally, this report shares the thoughts of Dunedin business and community members. It would be imprudent to not note that they are one and the same. All of the respondents care about the environment in which they live, in which they raise their children, and where for the most part they see themselves enjoying their twilight years.

Let's get smart and create the future that matches our vision!

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Appendix 1: Delphi Questionnaire

Welcome to the Dunedin 2060 Future-proofing study

This research project involves the use of the Delphi technique to share ideas. Ideas are shared anonymously and individual identity is protected. Any resulting publications draw upon aggregated ideas. By filling in the survey you consent for the information provided to be used for purposes of this research project.

Thank you for your time and we hope you enjoy the conversation.

Background

This information is confidential and will not be shared.

1. Job Title: ☐
2. Gender: ☐ Male ☐ Female
3. Age: ☐ 18-24 ☐ 25-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ 61+
4. How many total years of business experience do you have? ☐
5. What industry do you predominantly work in?
   - Manufacturing ☐
   - Construction ☐
   - Education ☐
   - Retail/Hospitality Services ☐
   - Agriculture ☐
   - Professional & Administration ☐
   - Other, please state ☐

The next two sections address hypothetical working days in 2030 and 2060. Answer as best you can. You may wish to imagine a possible working day for yourself or others. We aim to generate ideas of plausible realities and therefore there is no right or wrong answer, just your opinion.

SECTION ONE: Think of 2030...and your working day

6. Where might you be working?
(e.g. from home, in an office, in what industry, in what part of the country/world…)

7. How might you get to work?
(e.g. walk, drive, bus, tram, light-rail, cycle…)

8. What type of work might you be doing?
(e.g. tasks, technology, interactions with others, reliance on others…)

9. How long will you work in a day or week?
(e.g. full time, part-time, flexibly...)

10. How will you communicate during the day?
(e.g. face to face, virtually, with few, with many…)

11. Who are you likely to be working with?
(e.g. age, race, gender, education level, family, friends…)

12. Who will be your major clients or customers?
(e.g. industries, consumer markets, local, global...)

13. When you look outside your window in Dunedin, what other businesses dominate the landscape?

SECTION TWO: Now think of 2060...and work in Dunedin

Again, please share your ideas of plausible realities.

14. Do you think employment, paid or unpaid, will still be part of any day?

15. How do you think days will be structured?

16. What type of work might future generations be doing?

The following section brings you back to today and asks you to reflect upon preparing your children / grandchildren for the future.

SECTION THREE: Future-proofing: what advice do you have?

17. If you were going to discuss careers with your children / grandchildren what might you talk about?

18. If you were going to discuss long-term financial goals with your children / grandchildren what might you talk about?

19. If you were going to discuss key skills for the future with your children / grandchildren what might you talk about?

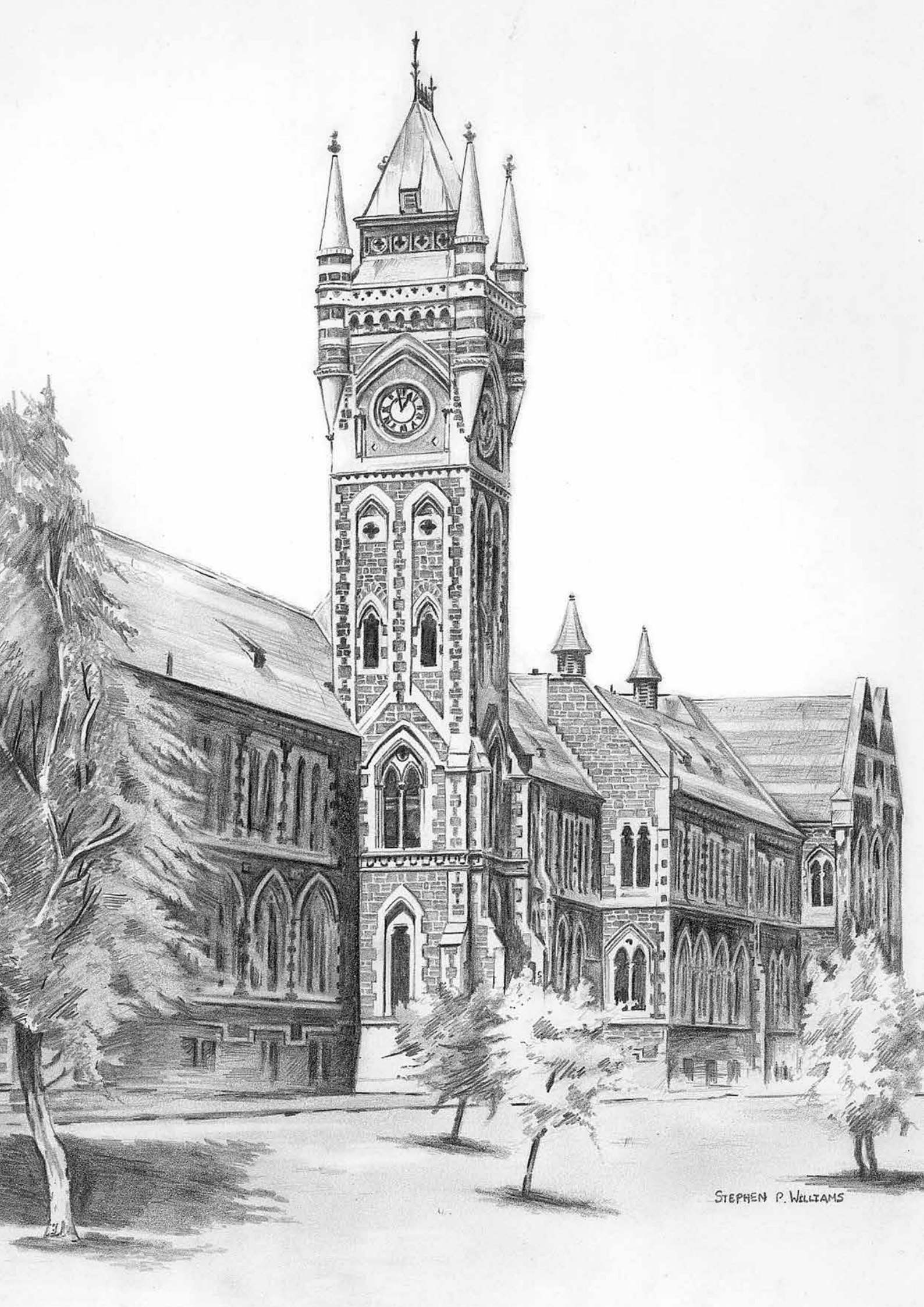
20. Finally, when thinking about the future what three things might keep you awake at night?

1.

2.

3.

Thank you again for your participation. We will collate these responses from our panel of Dunedin experts and will be in touch shortly to share the results.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