



Notice is hereby given that a Meeting of the Community and Policy Committee will be held on:

**Date:** Tuesday, 9 April 2019  
**Time:** 9am  
**Meeting Room:** Council Chamber  
**Venue:** 15 Forth Street, Invercargill

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## **Community and Policy Committee Agenda OPEN**

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### **MEMBERSHIP**

<b>Chairperson</b>	Julie Keast
	Mayor Gary Tong
<b>Councillors</b>	Stuart Baird
	Brian Dillon
	John Douglas
	Paul Duffy
	Bruce Ford
	Darren Frazer
	George Harpur
	Ebel Kremer
	Gavin Macpherson
	Neil Paterson
	Nick Perham

### **IN ATTENDANCE**

<b>Group Manager - Community and Futures</b>	Rex Capil
<b>Committee Advisor</b>	Alyson Hamilton

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Website: [www.southlanddc.govt.nz](http://www.southlanddc.govt.nz)

**Full agendas are available on Council's Website**  
**[www.southlanddc.govt.nz](http://www.southlanddc.govt.nz)**

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**Note:** The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted. Should Members require further information relating to any reports, please contact the relevant manager, Chairperson or Deputy Chairperson.



## **Terms of Reference – Community and Policy Committee**

The Community and Policy Committee is responsible for:

- Assessing and providing advice to Council on:
  - Key strategic issues affecting the District and Council;
  - Community development issues affecting the District and Council;
  - The service needs of the District's communities and how these needs might best be met;
  - Resource allocation and prioritisation processes and decisions.
- Developing and recommending strategies, plans and policies to the Council that advance the Council's vision and goals, and comply with the purpose of the Local Government Act.
- Monitoring the implementation and effectiveness of strategies, plans and policies.
- Developing and approving submissions to government, local authorities and other organisations.
- Advocating Council's position on particular policy issues to other organisations, as appropriate.
- Considering recommendations from Council's Subcommittees and make decisions where it has authority from Council to do so, or recommendations to Council where a Council decision is required.

The Community and Policy Committee is also responsible for community partnerships and engagement. This includes:

- Monitoring the progress, implementation and effectiveness work undertaken by Venture Southland in line with the Venture Southland Heads of Agreement and specific Service Level Agreement between Southland District Council and Venture Southland.
- Allocations of grants, loans, scholarships and bursaries in accordance with Southland District Council policy.
- International relations.
- Developing and overseeing the implementation of Council's community engagement and consultation policies and processes.

The Community and Policy Committee shall have the following delegated powers and be accountable to Council for the exercising of these powers:

- (a) Approving all submissions made by Southland District Council to other councils, central government and other bodies.
- (b) To approve scholarships, bursaries, grants and loans within Council policy and annual budgets.
- (c) Monitor the performance of Venture Southland in the delivery against its Business Plan and Council's letter of expectation.

The Community and Policy Committee has authority to consider and make recommendations to Council regarding strategies, policies and plans.

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**TABLE OF CONTENTS**

<b>ITEM</b>	<b>PAGE</b>
-------------	-------------

**PROCEDURAL**

<b>1</b>	<b>Apologies</b>	<b>6</b>
<b>2</b>	<b>Leave of absence</b>	<b>6</b>
<b>3</b>	<b>Conflict of Interest</b>	<b>6</b>
<b>4</b>	<b>Public Forum</b>	<b>6</b>
<b>5</b>	<b>Extraordinary/Urgent Items</b>	<b>6</b>
<b>6</b>	<b>Confirmation of Minutes</b>	<b>6</b>

**REPORTS FOR RECOMMENDATION**

<b>7.1</b>	<b>Draft TAB (Board) and Gambling Venue Policies</b>	<b>15</b>
------------	--	-----------

**REPORTS**

<b>8.1</b>	<b>Mega trends, disruptors and technological change</b>	<b>31</b>
<b>8.2</b>	<b>Funding and provision of high performance programmes by Regional Sports Organisations</b>	<b>115</b>
<b>8.3</b>	<b>2019 Southland District Council Scholarship Recipients</b>	<b>119</b>

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**1 Apologies**

At the close of the agenda no apologies had been received.

**2 Leave of absence**

At the close of the agenda no requests for leave of absence had been received.

**3 Conflict of Interest**

Committee Members are reminded of the need to be vigilant to stand aside from decision-making when a conflict arises between their role as a member and any private or other external interest they might have.

**4 Public Forum**

Notification to speak is required by 5pm at least two days before the meeting. Further information is available on [www.southlanddc.govt.nz](http://www.southlanddc.govt.nz) or phoning 0800 732 732.

**5 Extraordinary/Urgent Items**

To consider, and if thought fit, to pass a resolution to permit the committee to consider any further items which do not appear on the Agenda of this meeting and/or the meeting to be held with the public excluded.

Such resolution is required to be made pursuant to Section 46A(7) of the Local Government Official Information and Meetings Act 1987, and the Chairperson must advise:

- (i) the reason why the item was not on the Agenda, and
- (ii) the reason why the discussion of this item cannot be delayed until a subsequent meeting.

Section 46A(7A) of the Local Government Official Information and Meetings Act 1987 (as amended) states:

"Where an item is not on the agenda for a meeting,-

- (a) that item may be discussed at that meeting if-
  - (i) that item is a minor matter relating to the general business of the local authority; and
  - (ii) the presiding member explains at the beginning of the meeting, at a time when it is open to the public, that the item will be discussed at the meeting; but
- (b) no resolution, decision or recommendation may be made in respect of that item except to refer that item to a subsequent meeting of the local authority for further discussion."

**6 Confirmation of Minutes**

6.1 Meeting minutes of Community and Policy Committee, 13 February 2019

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## Community and Policy Committee

### OPEN MINUTES

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Minutes of a meeting of Community and Policy Committee held in the Council Chamber, 15 Forth Street, Invercargill on Wednesday, 13 February 2019 at 1pm (1pm - 3.15pm, 3.28pm - 4.07pm).

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#### PRESENT

<b>Chairperson</b>	Julie Keast	
	Mayor Gary Tong	
<b>Councillors</b>	Stuart Baird	1pm-3.15pm
	Brian Dillon	
	John Douglas	1pm-3.15pm
	Paul Duffy	1pm-3.15pm, 3.28pm-3.41pm
	Bruce Ford	
	Darren Frazer	
	George Harpur	
	Ebel Kremer	
	Neil Paterson	1pm-3.15pm, 3.28pm-3.41pm
	Nick Perham	2.59pm - 3.31pm

#### APOLOGIES

<b>Councillor</b>	Gavin Macpherson
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#### IN ATTENDANCE

<b>Chief Executive</b>	Steve Ruru
<b>Group Manager, Community and Futures</b>	Rex Capil
<b>Group Manager, Environmental Services</b>	Bruce Halligan
<b>Communications Manager</b>	Louise Pagan
<b>Committee Advisor</b>	Alyson Hamilton

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**1 Apologies**

An apology for absence was received from Cr Macpherson

**Resolution**

Moved Cr Dillon, seconded Cr Douglas and **resolved:**

**That the Community and Policy Committee accept the apology.**

**2 Leave of absence**

There were no requests for leave of absence.

**3 Conflict of Interest**

There were no conflicts of interest declared.

**4 Public Forum**

There was no public forum.

**5 Extraordinary/Urgent Items**

There were no Extraordinary/Urgent items.

**6 Confirmation of Minutes**

**Resolution**

Moved Cr Kremer, seconded Cr Frazer **and resolved:**

**That the minutes of Community and Policy Committee meeting held on 29 November 2018 be confirmed as a true and correct record of that meeting.**

**Reports**

**7.1 BERL Helping to shape positive community futures - stage 3 report**

**Record No: R/18/12/28881**

Group Manager, Community and Policy, Rex Capil was in attendance for this item.

Mr Capil advised the purpose of this report is to present to the Community and Policy Committee the stage 3 and final report from the BERL Southland Community Futures project.

Mark Cox (BERL) addressed the meeting introducing the stage 3 report identifying what actions may be necessary to ensure that communities in the District are sustainable, affordable to live in, and deliver an appropriate and acceptable level of service from a quality of life perspective.

### **Resolution**

Moved Cr Perham, seconded Cr Kremer **and resolved:**

**That the Community and Policy Committee:**

- a) **Receives the report titled "BERL Helping to shape positive community futures - stage 3 report" dated 22 January 2019.**
- b) **Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.**
- c) **Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the Act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.**
- d) **Endorses the report titled "BERL Helping to Shape Positive Community Futures – stage 3 report."**
- e) **Considers the results of the Southland Community Futures Stage 3 report and provides feedback.**
- f) **Notes staff will undertake appropriate analysis and incorporate opportunities and options into planning processes and associated work programme development.**

## **7.6 Youth engagement plan**

**Record No: R/19/1/1305**

Communications Manager, Louise Pagan was in attendance for this item.

Mrs Pagan advised the purpose of the report is to introduce the draft Youth Engagement Plan developed by Southland District Council's Youth Council in 2018.

The Meeting noted the plan identifies the issues surrounding youth engagement in the Southland District and creates a way forward to improve Council's links with youth.

Youth Councillors, Lachlan Thomson (Central Southland College), Gemma Marnane (Central Southland College), Dene Gwynn (Central Southland College) and Rileigh Lundman (Fiordland College) addressed the meeting updating on results obtained from workshops and online surveys undertaken with young people not only at school, but also those in the community that have left school.

**Resolution**

Moved Cr Duffy, seconded Mayor Tong **and resolved:**

**That the Community and Policy Committee:**

- a) **Receives the report titled “Youth engagement plan” dated 4 February 2019.**
- b) **Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.**
- c) **Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the Act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.**
- d) **Endorses the Youth Council youth engagement plan and supports the plan’s tactics to engage with young people in Southland District.**
- e) **Agrees to set up round table discussions with young people and work with them to create a roving youth space in Southland District.**
- f) **Acknowledges the work of the 2018 Youth Council in developing this plan.**

**7.2 Southland Housing Assessment**

**Record No: R/19/1/148**

Group Manager, Community and Policy, Rex Capil was in attendance for this item.

**Resolution**

Moved Cr Dillon, seconded Cr Ford **and resolved:**

**That the Community and Policy Committee:**

- a) **Receives the report titled “Southland Housing Assessment” dated 1 February 2019.**

**7.3 Chao Shan General Association of New Zealand - Update**

**Record No: R/19/1/616**

Mayor Tong was in attendance for this item.

The Committee noted the purpose of this report is to update Councillors and management around the relationship between the Chao Shan Association of New Zealand and the Mayor.

### Resolution

Moved Cr Ford, seconded Cr Duffy **recommendation a and b with changes as indicated (with underline) and c and resolved:**

**That the Community and Policy Committee:**

- a) **Receives the report titled “Chao Shan General Association of New Zealand - Update” dated 1 February 2019.**
- b) **Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.**
- c) **Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the Act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.**

The meeting adjourned for afternoon tea at 3.15pm and reconvened at 3.28pm.

Mayor Tong and Councillors Keast, Dillon, Ford, Frazer, Harpur and Kremer, were present when the meeting reconvened.

## 7.4 Community Assistance Grant and Funding Approach Review Update

**Record No: R/18/10/23461**

Group Manager, Community and Policy, Rex Capil was in attendance for this item.

Mr Capil advised the purpose of the report is to update the Community and Policy Committee on the review and development of Council’s approach to Council managed community funding schemes and associated funding support to community organisations.

### Resolution

Moved Cr Dillon, seconded Cr Ford **and resolved:**

**That the Community and Policy Committee:**

- a) **Receives the report titled “Community Assistance Grant and Funding Approach Review Update” dated 30 January 2019.**
- b) **Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.**
- c) **Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the Act determines that it does not require further information, further assessment of options or further analysis**

of costs and benefits or advantages and disadvantages prior to making a decision on this matter.

- d) **Endorses the continuation of the community assistance and grant funding review, and the investigation of varying methods to the current system that will provide an alternative option to the way in which Council administers community funding and funding assistance.**
- e) **Notes that this review will assess the current schemes, associated criteria, administration and allocation method of community funding and grants, and consider alternative approaches to this process. Any changes in approach will be included as part of the LTP 2031 development and associated consultation requirements.**
- f) **Notes that the review will suggest if the current schemes, criteria and allocations are continued or disestablished, and what they might be replaced with.**
- g) **Notes that this review will include consideration of the role of community boards in the future of community funding and grants.**

## **7.5 Our Schooling Futures - Tomorrow Schools Review update**

**Record No: R/19/1/1206**

Community Partnership Leader, Kelly Tagg was in attendance for this item.

(Councillor Perham returned to the meeting at 3.31pm.)

(Councillor Paterson returned to the meeting at 3.41pm.)

(Councillor Duffy returned to the meeting at 3.41pm.)

### **Resolution**

Moved Cr Kremer, seconded Cr Frazer **and resolved:**

**That the Community and Policy Committee:**

- a) **Receives the report titled "Our Schooling Futures - Tomorrow Schools Review update" dated 1 February 2019.**

## **Public Excluded**

**Exclusion of the Public: Local Government Official Information and Meetings Act 1987**



## Resolution

Moved Cr Ford, seconded Cr Harpur **and resolved:**

**That the public be excluded from the following part(s) of the proceedings of this meeting.**

### **C8.1 Stewart Island/ Rakiura Future Opportunities Project.**

**The general subject of each matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:**

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
Stewart Island/ Rakiura Future Opportunities Project	s7(2)(i) - The withholding of the information is necessary to enable the local authority to carry on, without prejudice or disadvantage, negotiations (including commercial and industrial negotiations).	That the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists .

That the Group Manager Community and Futures, Communications Manager, Publications Specialist and Committee Advisor be permitted to remain at this meeting, after the public has been excluded, because of their knowledge of the items **C8.1 Stewart Island/ Rakiura Future Opportunities Project**. This knowledge, which will be of assistance in relation to the matters to be discussed, is relevant to those matters because of their knowledge on the issues discussed and meeting procedure.

That the Community Partnership Leaders Karen Purdue and Kelly Tagg be permitted to remain at this meeting, after the public has been excluded, because of their knowledge of the item **C8.1 Stewart Island/ Rakiura Future Opportunities Project**. This knowledge, which will be of assistance in relation to the matters to be discussed, is relevant to those matters because of their knowledge on the issues discussed.

The public were excluded at 3.45pm.

Resolutions in relation to the confidential items are recorded in the confidential section of these minutes and are not publicly available unless released here.

The meeting concluded at 4.07pm.

CONFIRMED AS A TRUE AND CORRECT RECORD AT A  
MEETING OF THE COMMUNITY AND POLICY  
COMMITTEE HELD ON WEDNESDAY, 13 FEBRUARY  
2019.

**DATE:**.....

**CHAIRPERSON:**.....

## Draft TAB (Board) and Gambling Venue Policies

**Record No:** R/19/3/5124

**Author:** Robyn Rout, Policy Analyst

**Approved by:** Bruce Halligan, Group Manager Environmental Services

☐ Decision

☒ Recommendation

☐ Information

### Purpose

1. The purpose of this report is to:
  - seek feedback from the Community and Policy Committee on the draft Board Venue and Gambling Venue policies
  - seek the Community and Policy Committee to recommend to Council that it endorse the draft policies for public consultation.

### Executive Summary

2. All councils are required to have both Board and Gambling Venue Policies. These policies are a way to manage racing/sports betting venues, and to manage electronic gambling machines, in the District.
3. Council's current Board and Gambling Venue Policies were adopted in 2016 and are due to be reviewed by 7 September 2019.
4. To give guidance on an appropriate policy approach, this report provides information on the social impact of gambling in the District, and on possible policy approaches.
5. The draft policies presented are largely the same as Council's current Gambling and Board Venue policies. There has only been minor changes to wording/styling, rather than changes to policy content. Staff recommend the current policy approach as it balances the harm that can be caused by gambling with the benefits the money from gambling can bring to people in the District.
6. It is recommended that the committee consider and provide feedback on the draft policies, and recommend to Council that it endorse the draft policies for public consultation.

## **Recommendation**

**That the Community and Policy Committee:**

- a) Receives the report titled “Draft TAB (Board) and Gambling Venue Policies” dated 27 March 2019.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.**
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.**
- d) Considers and provides feedback on the draft Board (TAB) Venue and Gambling Venue policies.**
- e) Recommends to Council that it endorses the draft TAB (Board) Venue and Gambling Venue Policies for public consultation.**

## Background

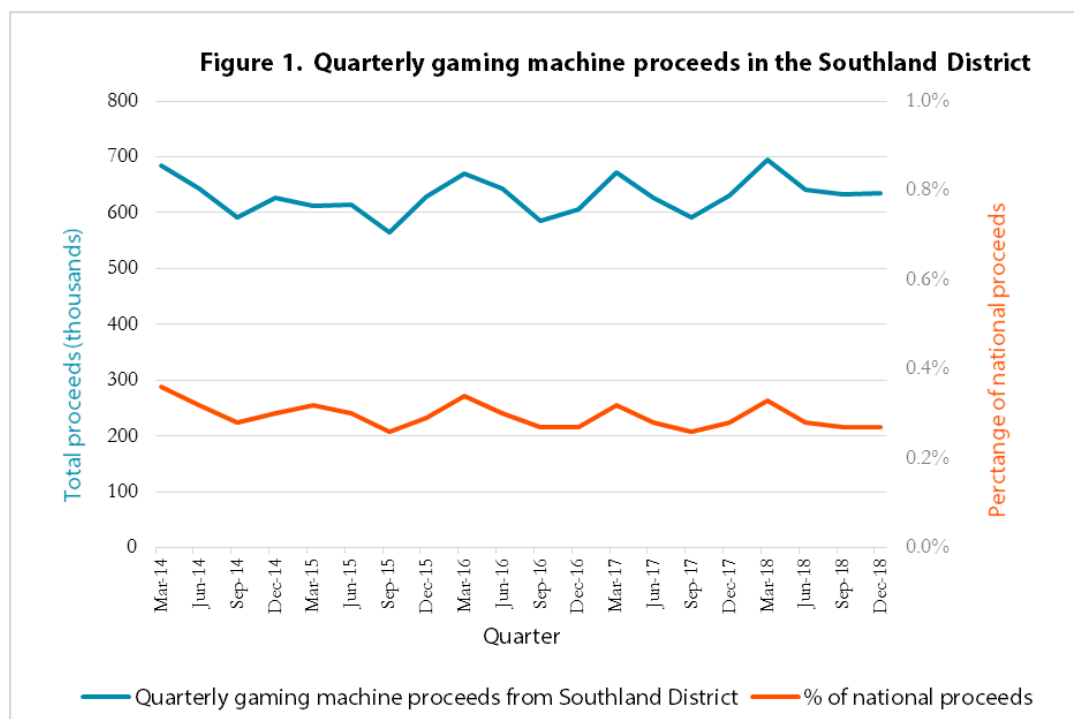
- 1 Council is required under the Racing Act 2003 to have a policy on Board venues. 'Board Venue' refers to a venue that is owned or leased by the New Zealand Racing Board and where the main business carried on at the premises is providing racing-betting or sports-betting services. The policy does not relate to outlets in pubs and clubs.
- 2 Council is also required under the Gambling Act 2003 to adopt a policy on Class 4 venues. Electronic gaming machines (pokies) in pubs and clubs (ie outside a casino) represent 'Class 4' gambling.
- 3 Both Council's Board Venue Policy and Gambling Venue Policy were adopted on 7 September 2016, and are due to be reviewed by 7 September 2019.
- 4 A decision was made in 2013 to have the policies as two separate documents, to reflect the different legislation for each issue.

## Issues

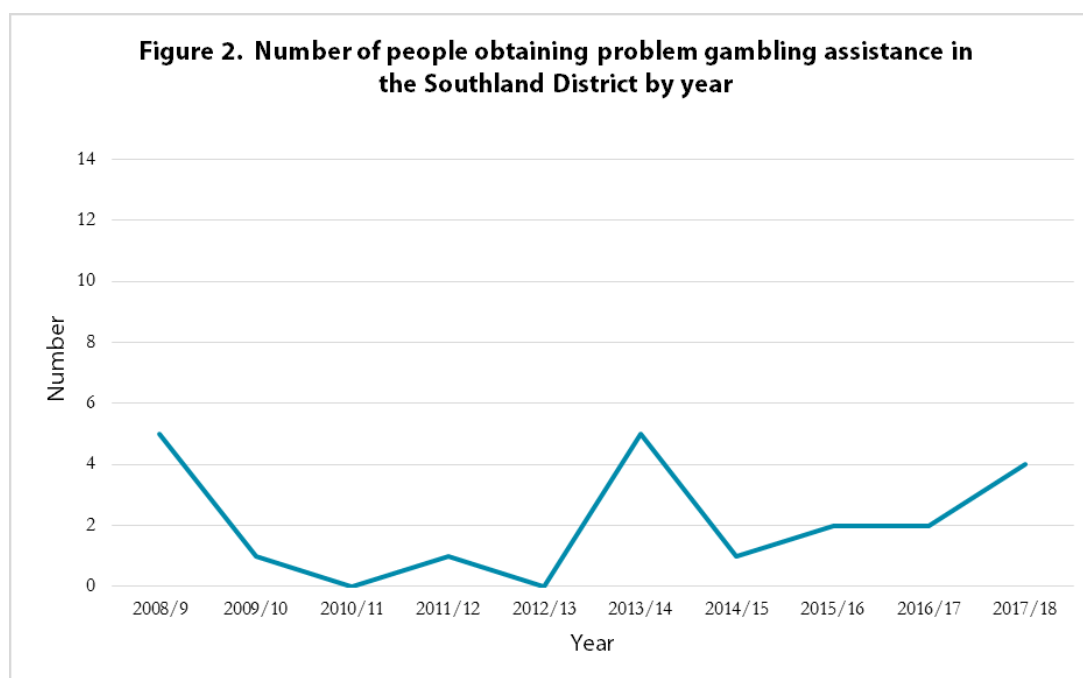
- 5 In adopting a policy, Council must have regard to the social impact of gambling within the District. The following information is presented to give guidance on an appropriate policy approach for the Board and Gambling Venue policies.
  - as at 31 December 2018, in the District there were no standalone Board venues and 15 Class 4 gambling venues containing 88 electronic gaming machines. As at 31 March 2013, there were no standalone Board venues and 23 Class 4 gambling venues containing 133 electronic gaming machines (Department of Internal Affairs, All Venues and Numbers by Territorial Authority/District)
  - people who live closer to gambling venues are more likely to gamble and to be a problem gambler (Ministry of Health. 2008. Raising the odds? Gambling behaviours and neighbourhood access to gambling venues in New Zealand. Wellington: Ministry of Health). Table 1 below outlines where gambling machines are in the District

Town	Number of venues	Number of gaming machines
Edendale	1	3
Nightcaps	1	4
Otautau	1	6
Riversdale	1	4
Riverton	1	9
Te Anau	3	30
Tokanui	1	2
Tuatapere	2	9
Wallacetown	1	4
Winton	2	12
Wyndham	1	5
Total	15	88

- gaming machine proceeds (turnover minus player wins) in the Southland District, and the proportion generated in the Southland District relative to the rest of New Zealand, are stable (Department of Internal Affairs, Summary of Expenditure by Territorial Authority/District) – see Figure 1



- the number of people receiving problem gambling assistance in the District has varied between zero and five people receiving treatment, over the last 10 years (Ministry of Health, intervention client data) – see Figure 2



- using a Ministry of Health method to approximate the prevalence of problem gambling, there are an estimated 68 adults in the Southland District who experienced problems due to someone's gambling in the 2017/2018 year (Ministry of Health. 2009. Problem Gambling Resource for Local Government. Wellington: Ministry of Health)
- across New Zealand, gambling is linked with a number of mental health disorders ranging from alcohol and nicotine dependence, to behavioural disorders (Rook, H. et al. 2018. Gambling Harm Reduction Needs Assessment. Wellington: Ministry of Health)
- gambling has a number of benefits including entertainment, employment, and its contribution to community funding
- in 2011, two of the largest societies allocated \$365,361 in the Southland District, which was an allocation per capita of \$12.34 (Internal Affairs. 2011. The distribution of non-casino gaming machine profits in New Zealand. Wellington: Ministry of Internal Affairs)
- low-income groups spend proportionately more of their household incomes on gambling, and gambling harm disproportionately affects low-income New Zealanders (Abbott and Volberg 2000). The Southland region has a lower weekly average household income than the national average (\$1496 compared to \$2,002)
- gaming machines pose particular risks for Māori and Pacific people (Ministry of Health. 2009. Problem Gambling Resource for Local Government. Wellington: Ministry of Health). Maori or Pacific peoples are under-represented in the Southland District compared to across New Zealand as a whole (Statistics New Zealand).

## **Possible Policy Approach**

### **Board Venue Policy**

- 6 In the draft Board Venue Policy, Council must specify whether or not new Board venues may be established in the District and, if so, where they may be located.
- 7 Council's current Board Venue Policy requires only that any new stand-alone Board venue complies with the provisions of the Southland District Plan.
- 8 In setting its policy, Council could have regard to factors such as:
  - the characteristics of the District
  - the location of kindergartens, early childhood centres, schools, places of worship, and other community facilities, and
  - the cumulative effects of additional opportunities for gambling in the District.

### **Gambling Venue Policy**

- 9 In the draft Gambling Venue Policy, Council must specify whether or not Class 4 venues may be established in the District and, if so, where they may be located. Council may also specify any restrictions on the maximum number of gaming machines that may be operated at a Class 4 venue, and any relocation policy.
- 10 Council's current Gambling Venue Policy is based on a soft sinking lid approach to electronic gambling machines. This soft sinking lid approach allows venues to continue operating existing

machines, but it does not permit licences for new machines. The current policy also states that if a venue closes, the licence to have machines can be transferred to another venue.

- 11 In determining its policy, Council could have regard to the factors listed in paragraph 8 above, and also:
- the number of gaming machines that should be permitted to operate at any venue or class of venue
  - how close any venue should be permitted to be to any other venue
  - what the primary activity at any venue should be.
- 12 There are a number of possible policy approaches that Council could take in its draft Gambling Venue Policy, these include:
- **no restrictions** – venues could be established (or resume gaming machine operations), could be located anywhere within the District, and could operate as many gaming machines as they wish
  - **location restrictions** – place restrictions on where venues requiring Council consent are allowed
  - **location and number restrictions** - place restrictions on where venues requiring Council consent are allowed and restrict machine numbers
  - **a venue sinking lid policy** – not allowing any new venues, but not capping the number of machines (with this approach there may be increases in gaming machines at existing venues)
  - **a soft sinking lid policy** – existing venues continue operating existing machines, but no new licences are granted; and if a venue closes, the licence to have machines can be transferred to another venue
  - **a venue and machine number sinking lid policy** – only allow existing venues and specifying the maximum number of gaming machines.

## **Factors to Consider**

### **Legal and Statutory Requirements**

- 13 Both the Board and Gambling Venue Policies are required to be reviewed by 7 September 2019. In adopting a policy, Council must have regard to the social impact of gambling within the District. The policies must specify particular things, and these have been outlined in the 'Issues' section above.
- 14 Both the Board and Gambling Venue Policies can only be amended or replaced in accordance with the special consultative procedure outlined in section 83 of the Local Government Act 2002 (SCP) (which requires a statement of proposal being made publically available, a consultation period of at least one month, hearings etc). If the policy is amended or replaced, notice of the proposed policy also has to be given to special interest groups and Te Ao Marama, to inform them of the public submission period.
- 15 Council will be required to notify the Secretary for Internal Affairs and the Board, if it adopts/amends/replaces the Board and Gambling Venue Policies.



### **Community Views**

- 16 When Council reviewed these policies in 2016, it received submissions supporting and opposing the soft sinking lid approach. Submissions from gambling and gaming stakeholders predominantly supported a capped approach to the number of electronic gaming machines, while submissions from health and social welfare agencies supported a sinking lid approach with increased restrictions on the relocation of electronic gaming machines.
- 17 Council will undertake a thorough community consultation process on the draft policies, which will include notifying special interest groups/Te Ao Marama – so Council will find out up-to-date views on these policies.

### **Costs and Funding**

- 18 Costs associated with this work, such as staff time and advertising, are proposed to be met within current budgets. There are no proposed changes to current operational practice.

### **Policy Implications**

- 19 If the draft policies are adopted, there would not be any change to the operation/establishment of Board and gambling venues in the District.
- 20 The soft sinking lid approach assists in the gradual decline in the numbers of electronic gaming machines, which may reduce gambling related harm.

### **Analysis**

#### **Options Considered**

- 21 The following options have been identified as practical ways Council could proceed:
- **Option 1** - the committee recommends that Council endorse the draft Board and Gambling Venue Policies for public consultation
  - **Option 2** - the committee recommends that Council endorse amended versions of the draft Board and Gambling Venue Policies for public consultation

### **Analysis of Options**

#### **Option 1 – Recommend that Council endorse the draft Board and Gambling Venue policies for public consultation**

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"><li>• the soft sinking lid approach assists in the gradual decline of electronic gaming machines, which may reduce gambling related harm</li><li>• balances the harm that can be caused by gambling with the benefits the money from gambling can bring to people in the District</li></ul>	<ul style="list-style-type: none"><li>• it is possible amended policies could better reflect community/stakeholder views</li><li>• it is possible amended policies could strike a better balance between the harm that can be caused by gambling and the benefits the money from gambling can bring to people in the District.</li></ul>

<ul style="list-style-type: none"><li>• Council is legislatively required to have policies on Board and gambling venues and the current policies are legally compliant</li><li>• the draft Board and Gambling Venue Policies are aligned with the approach of other territorial authorities within the Southland Region</li><li>• timing-wise, this option will enable staff to progress and met the requirement to review the policy by 7 September 2019.</li></ul>	
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**Option 2 – Recommend that Council endorse amended versions of the draft Board and Gambling Venue policies for public consultation**

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"><li>• it is possible amended policies could better reflect community/stakeholder views</li><li>• Council is legislatively required to have policies on Board and gambling venues</li><li>• timing-wise, this will enable staff to progress and met the requirement to review the policy by 7 September 2019.</li></ul>	<ul style="list-style-type: none"><li>• amended policies may not strike a balance between the harm that can be caused by gambling and the benefits the money from gambling can bring to people in the District.</li></ul>

**Assessment of Significance**

- 22 This matter has been assessed as being of lower significance in relation to Council's Significance and Engagement Policy, and the Local Government Act 2002. No changes to operational practice would arise if the draft policies were adopted.

**Recommended Option**

- 23 It is recommended the Community and Policy Committee proceeds with Option 1, and recommends that Council endorses the draft Board and Gambling Venue Policies for public consultation.

**Next Steps**

- 24 The next step is for staff to incorporate any feedback received from the committee at this meeting, and then present to Council the draft Board Venue policy, the draft Gambling Venue policy and an associated statement of proposal. Staff will be seeking Council to endorse these documents for public consultation.

**Attachments**

- A Draft Board Venue Policy 2019 [↗](#)  
B Draft Gambling Venue Policy 2019 [↗](#)



## Board Venue Policy

**Group responsible:** Regulatory Services

**Date approved:** 7 September 2016

**Date amended:**

**File No:** R/19/3/5471

### 1 Objectives

The objectives of this policy are to:

- outline whether or not new board venues may be established in the Southland District and, if so, where they may be located, and
- facilitate community involvement in decisions about gambling.

### 2 Definitions

DEFINITION	MEANING
<b>BOARD</b>	Means the New Zealand Racing Board
<b>BOARD VENUE</b>	Means premises that are owned or leased by the board and where the main business carried on at the premises is providing racing betting or sports betting services under the Racing Act 2003

### 3 Policy

Southland District Council (Council) does not have any additional requirements to regulate the operation or location of board venues, other than those contained in the District Plan under the Resource Management Act 1991.

### 4 Commencement

Council has adopted this policy after completing the special consultative procedure outlined in the Local Government Act 2002.

This policy is effective from XX 2019.

### 5 Review

Council will review this policy within three years of it being adopted.



## Gambling Venue Policy

**Group responsible:** Regulatory Services

**Date approved:** 15 May 2013

**Date amended:**

**File no:** R/19/3/5466

### 1 Introduction

The act came into force on 18 September 2003. Under section 101 of the act, Council is required to adopt a policy to regulate the number and location of non-casino electronic gaming machines (Class 4), more commonly known as pokie machines.

At 31 December 2018 the Southland District had 15 Class 4 gaming venues and 88 electronic gaming machines.

Council has the ability to limit the number of locations and venues and the number of electronic gaming machines, and must have regard to the social impact of gambling in developing its policy. As required under the act, this policy only applies to gambling venues licenced after 17 October 2001, or to other venues licenced prior to this if they wish to increase the number of electronic gaming machines.

### 2 Definitions

DEFINITION	MEANING
<b>ACT</b>	The Gambling Act 2003
<b>CLASS 4 GAMBLING</b>	Means any activity that involves the use of a gaming machine outside a casino, and may be conducted only by a corporate society and only to raise money for authorised purposes
<b>CLASS 4 GAMBLING VENUE</b>	Means a place used to conduct Class 4 gambling ie premises with Class 4 gaming machines licenced under the Gambling Act 2003. This includes any TAB venue with gaming machines



DEFINITION	MEANING
<b>CORPORATE SOCIETY</b>	Means a society that is: (a) Incorporated under the Incorporated Societies Act 1968 (b) Incorporated as a board under the Charitable Trusts Act 1957 or (c) A company incorporated under the Companies Act 1993 that: (i) Does not have capacity or power to make a profit; and (ii) Is incorporated and conducted solely for authorised purposes Corporate Societies may therefore include clubs (RSA, sports clubs etc), trusts and racing clubs
<b>DIA</b>	Means the Department of Internal Affairs
<b>SOUTHLAND DISTRICT</b>	Means all the area covered by the Southland Territorial Local Authority
<b>NEW VENUE</b>	Means any venue that has not held a Class 4 venue licence for six months or more, or that has never held a Class 4 venue consent
<b>COUNCIL</b>	Means Southland District Council

### 3 Objectives

This policy has the following objectives:

- to assist in limiting the harm of problem gambling in the community
- to encourage responsible gambling practices and attitudes in Class 4 venues
- to reduce the number of electronic gaming machines in the community over time
- to facilitate community involvement in decisions about gambling by ensuring that all communities in the Southland District are given the opportunity to consult with Council in a manner that is culturally appropriate.

### 4 Restrictions on venue and machine consents

Council will not grant consent for the establishment of any additional Class 4 venues or additional gaming machines, including Class 4 machines in TAB venues, under this policy.

A gambling venue consent is for one venue (one premises) and is not transferable to another venue, unless consent is obtained from Council as provided for in Clause 5 below. The consent is given to a venue at a given address, not to a person or business.

Once a venue ceases to operate, the machine numbers will not be allocated to any new or existing venue except as specified in Clause 5 below.

Council will not provide a consent under sections 95(1)(f) or 96(1)(e) of the act to any application by corporate societies with Class 4 licences seeking ministerial discretion to increase the number of gaming machines permitted at a venue, except as provided in Clause 5 below.



## 5 Transfer or changes to existing venues and machine consents

If the owner of the principal business of the venue changes, Council consent remains allocated to the venue. The new owner is not required to obtain a Council consent but a new licence may be required from DIA.

Council will consent to the transfer of a licence from an existing venue to a new venue where the venue will be operated by the same corporate society, and subject to a social impact study. The maximum number of gaming machines permitted to operate at the new venue, at the time when the new Class 4 venue licence takes effect, is the same as the maximum number of gaming machines permitted to operate at the old venue, immediately before the licence relating to the old venue is cancelled.

Two or more licensed Class 4 clubs in the Southland District may apply to Council to merge and increase the number of machines that can be operated at a venue, subject to a social impact study. Council consent will only permit the maximum number of gaming machines to be the sum of the number of gaming machines specified in all of the corporate societies' (the clubs that are merging) Class 4 venue licences at the time of application.

Substitute venues may only be established if:

- the vacated site will not be able to be used as a Class 4 venue; and
- Council considers that the location of the new venue is suitable, taking into account the matters referred to in section 101(4) of the act.

Council may arrange its own peer review of any social impact study provided, at the applicant's cost.

## 6 Visual and sound

Only one sign may make reference to the existence of Class 4 gambling, and may be visible from the street or other public space. This sign shall not mimic or replicate the operation of gaming machines.

No other sign shall promote or identify the existence on site, of gaming machines.

Advertising signs and activities within the building, associated with the operation of gaming machines, shall not be visible from beyond the property boundary.

The operation of gaming machines shall not be audible from beyond the venue property boundary.

## 7 Encouraging responsible gambling practices

Two of the stated purposes of the act are to "prevent and minimise the harm caused by gambling, including problem gambling" and to "facilitate responsible gambling".

Enforcement and monitoring of gambling venues is the responsibility of the DIA.

Regulations made under the act set out:

- what constitutes an unsuitable venue
- requirements and restrictions regarding gambling machines



- requirements of venues to provide information about problem gambling
- requirements of venues to provide problem gambling awareness training to staff.

Council consent for a venue is not revocable once issued and cannot lapse or expire unless there is a period of six months or more where a Class 4 licence is not held for the venue. Further, Council has no retrospective powers with regards to any consented venues and cannot impose conditions subsequently on any venue that has an existing licence.

Council is supportive in general of initiatives and actions that would help to ensure there is a balanced gambling environment where potential harm is managed effectively, and where those who wish to gamble can do so safely. In this regard, Council encourages responsible gambling practices as outlined in Appendix 1.

Where Council has concerns about the operation of existing gambling venues these will be reported to DIA. Council inspectors do not have enforcement powers over venues in terms of their gambling activities.

The provision of information by the venues about problem gambling is required under the regulations and is a key way of promoting responsible gambling. Where Council has concerns about a venue in this regard, it will be reported to DIA.

## 8 Applications for consent

All applications will incur a fee which will be prescribed by the Council pursuant to section 150 of the Local Government Act 2002.

Council will publicly notify applications for Class 4 Gambling Venues and allow for public submissions to be lodged.

Applications for consent by Council must be made to Council on the prescribed form and include:

- name and contact details of the applicant
- names of venue management staff
- street address of premises being relocated and new proposed address
- fees
- details of design and layout to demonstrate how the venue will comply with part six of this policy
- any other information that may reasonably be required to allow proper consideration of the application including how the applicant will encourage responsible gambling practices.

The decision will be made at staff level pursuant to delegated authority and based on the criteria detailed in this policy, except where any matter of opposition is raised in a public submission, in which case the application will be heard and determined by Council.





## 9 Commencement of policy

This policy has been adopted by Council following the special consultative procedure prescribed by the Local Government Act 2002.

This policy is effective from XX 2019.

## 10 Review of policy

Council will review this policy within three years of it being adopted.





## Appendix 1 Encouraging responsible gambling practices

Best practice	Supporting action
Host Responsibility and Harm Minimisation Policy	The applicant has in place a Host Responsibility and Harm Minimisation Policy. The policy conforms to best practice as set out by national guidelines or standards should these become available.
Location of gaming machines	Electronic gaming machine sites should be located so that: <ul style="list-style-type: none"> <li>the facility is ancillary to a principal business and is not the primary purpose of the site</li> <li>the facility is separate from the area of the principal business so that the legal age limit of 18 can be observed and enforced.</li> </ul>
Staff training programme or activities	The applicant demonstrates that staff and management are familiar with its Host Responsibility and Harm Minimisation Policy. The programme provides information on: <ul style="list-style-type: none"> <li>the potential effects of gambling on customers</li> <li>the identification of problem gambling traits</li> <li>the processes for approach, intervention and follow up for patrons with suspected problem gambling</li> <li>identification practices for patrons appearing under 25 and actions to be followed</li> <li>systems in place to support self barring</li> <li>recognition of intoxicated patrons and steps to be followed to prevent intoxicated patrons from gambling</li> <li>systems to be followed if children are left unattended in premises or nearby premises.</li> </ul>
Policy on under age access to gambling machines	The licensee must ensure that appropriate signage is in place indicating age restrictions so that this is visible at every gambling machine and at the point(s) of entry into the gambling area. Policy on identification checks for patrons appearing under 25. Staff training on identification of patrons appearing under 25 and actions to be followed.
Provision of problem gambling information	The licensee must ensure that patrons have access to appropriate information on problem gambling and problem gambling help services. Gambling help line phone number information is placed on or near all gambling machines. Additional material on problem gambling and help services displayed in at least one other area within the premises, situated near to gambling machines.
Clocks are visible in premises	The licensee ensures that clocks are visible from gambling machines.
There is good visibility where gambling machines are located	Natural or artificial light illuminates the area where gambling machines are located at all times when machine are in operation.



## Mega trends, disruptors and technological change

**Record No:** R/19/2/3342

**Author:** Rex Capil, Group Manager Community and Futures

**Approved by:** Steve Ruru, Chief Executive

☒ Decision

☐ Recommendation

☐ Information

### Purpose

- 1 The purpose of this report is to provide the Community and Policy Committee with an overview of the various mega trends, disruptors and technological change issues and opportunities on the horizon.
- 2 This desktop review of recent findings and research papers is part of the work underway to develop an aligned approach with other topics for the community futures research and analysis work programme, which will be used to inform the Long Term Plan 2031 project.

### Executive Summary

- 3 The development and preparation of the “Future of the Future” reflections discussion paper provides an opportunity to consider at a high level some of the topics and societal issues being identified as part of the discussion relating to mega trends, disruptors and technological change.
- 4 The information provided is intended to start a conversation and generate an understanding of what is occurring internationally, nationally, regionally and locally relating to this topic.
- 5 It is also important to recognise that what might be considered to be future issues in fact are current and real life issues today. It is a commonly held view – the future in fact is here, now.
- 6 In considering the topic it is clear there is still a lot of discussion and consideration required to understand the impact of mega trends, disruptors and technological change on communities, industries, work patterns, land use patterns and lifestyle choices.
- 7 This in turn has an impact on our communities and social cohesion, community involvement and engagement methods. The social fabric of our communities is changing, and while this is not only related to the mega trends, disruptors and technological change, these are becoming increasingly important influencers on our communities and community wellbeing.
- 8 While it is acknowledged that Council has a limited role to play in being responsible for directly delivering on outcomes on this topic it does have an important influencer and community leadership role. It is also important to acknowledge Council cannot and does not operate in isolation or in a cocoon separate to the reality of the world around us and the issues being faced by our communities – the people, places and spaces Council serves.

## **Recommendation**

**That the Community and Policy Committee:**

- a) Receives the report titled “Mega trends, disruptors and technological change” dated 1 April 2019.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.**
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the Act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.**
- d) Notes the diversity and scope of mega trends, disruptors and technological change identified from a global, national and local perspective.**
- e) Acknowledges the importance for Council to maintain a ‘watching brief’ and monitoring role on this topic.**
- f) Endorses the need for long term planning assumptions and approaches to be cognisant of this topic and be reflected in a realistic and appropriate way when considering future strategy, policy and planning preparation – especially with regard to levels of service requirements, infrastructure considerations and financial considerations over the short, medium and long term.**
- g) Consider the discussion document content in the context of the BERL community futures work specific to the Southland District – identifying and prioritising important themes for the district being:**
  - Labour market and labour supply pressures**
  - Workforce skills and retraining**
  - Population demographics – age, diversity, ethnicity**
  - Globalisation and the information age**
  - Primary sector considerations re agri tech and agri business**
  - Tourism and sustainability**
  - Environmental considerations**
- h) Consider the discussion document content in the context of the Southland Regional Development Agency areas of focus and associated regional priorities in relation to the Southland District and associated sector, industry and business requirements and trends.**
- i) Supports a series of workshops to be scheduled which will provide Council the opportunity to discuss topics in greater depth and determine some direction setting going forward. These workshops will reference back to the “Future of the Future” document attached and also a recently published book titled “The Big Questions: What is New Zealand’s Future?”**

## **Background**

- 9 The intent of this paper is to provide the Community and Policy Committee with an overview of the various mega trends, disruptors and technological change issues and opportunities on the horizon.
- 10 It is part of the bigger suite of work underway to develop an aligned approach with other topics for the community futures research and analysis work programme to assist in informing the Long Term Plan 2031 project.
- 11 The Community and Policy Committee at its 17 May 2017 and 9 August 2017 meetings received reports relating to Community Futures 2040 work and endorsed the approach to continue to build on the conversations and future thinking work.
- 12 Council identified as part of the development of the LTP 2018-2028 that it supported investing in community future planning.
- 13 The LTP 2018-2028 specifically focussed on “all about preparing for the future. We’re going to do the work now that will put us in the best position to adapt to the new world that awaits us in the next 30 years.

In real terms for us as a Council it means gathering solid information about the age of change that is upon us. Some of the changes are political. Some are environmental. Some are economic, some societal.

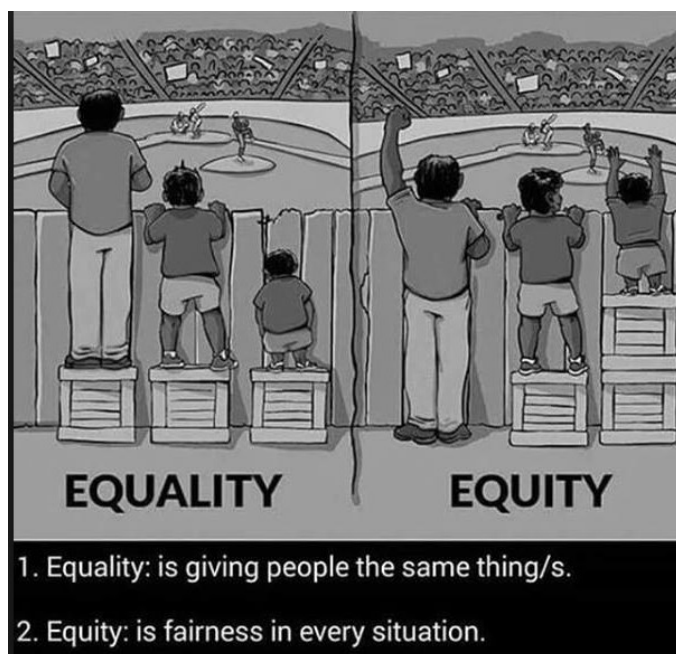
Councillors and staff recognise the external forces that are gathering and the challenges they present for us, the District and the wider region.”

- 14 The LTP 2018-2028 goes on to say “Planning for the future is going to be a big part of our focus in the next three years. We’ll gather data on a wide range of demographic, environmental, social and economic factors that are occurring now, and the changes we can expect to see in the future.”
- 15 Specifically with regards mega trends, disruptors and technological change there are many international, national, regional and local pieces of research and conversations occurring. The attached paper represents a number of excerpts on various topics to be used as conversation starters and discussion points.
- 16 As a starting point the following are suggested as covering some of the important themes from the discussion document attached:
  - Labour market and labour supply pressures
  - Workforce skills and retraining
  - Population demographics – age, diversity, ethnicity
  - Globalisation and the information age
  - Primary sector considerations re agri tech and agri business
  - Tourism and sustainability
  - Environmental considerations

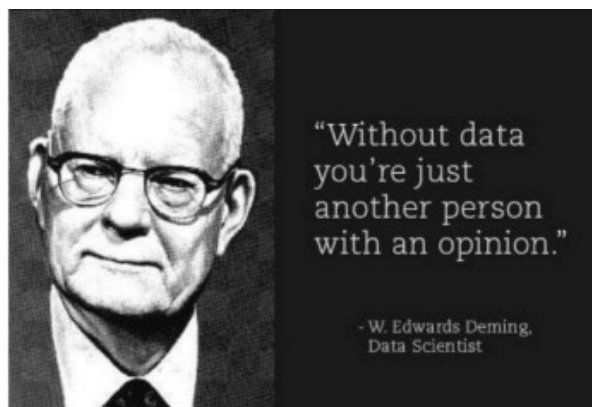
- 17 It is intended this topic will require an ongoing conversation with Councillors, staff, residents, ratepayers and stakeholders. To this end a series of workshops are to be scheduled initially with Councillors which will provide Council the opportunity to discuss topics in greater depth and detail and determine some direction setting going forward. These workshops will reference back to the “Future of the Future” document attached and also a recently published book titled “The Big Questions: What is New Zealand’s Future?”

**Issues**

- 18 Futures thinking is difficult and can create uncertainty and insecurity – as we are talking about the unknown.
- 19 Thinking 20+ years into the future requires us to get out of our own ‘world view’ and imagine a future beyond ourselves. Thinking of the kinds of communities our children and grandchildren will inherit requires us to think of the various scenarios and possibilities that might be available in the future. This is difficult – even if what is being discussed is happening in other parts of the world now. The adage of ‘it will never happen to us’ or ‘Southland is special – so it won’t take off here’ is being challenged.
- 20 A lot of decisionmaking for the future previously has been based on events that have already happened in the past and on behaviours that we have become accustomed to accept. These decisions are made even though we may be aware that we understand the future is not going to be the same as the past.
- 21 The attached paper reflects some of the change that we know is happening now or going to happen – so we now need to understand how that will affect decisionmaking for the future. As is stated – “the future isn’t tomorrow – it’s (all about the little decisions we make) today.”
- 22 As has previously been mentioned to Council – futures thinking is not about predicting the future. It is about having an awareness of the future and being prepared accordingly.
- 23 It is also not about applying what we know based on past experiences – as the future is not the past and the rate of change being experienced now is highlighting the immediacy of some of the issues and opportunities required for future thinking.
- 24 A significant step to assist in futures thinking is about not being judgemental and acknowledging that the future will be different – not whether it is better or worse – just that it will be different. If we can progress our thinking to that end point – then we can think of the future differently.
- 25 As has also previously been highlighted and discussed with Council, futures thinking can highlight the variances in thinking and political ideology. That is what forms a strong democracy. It also can create complexities and ‘healthy’ tensions in decisionmaking processes.
- 26 When change is identified and an acknowledgement of ‘new ways’ is accepted it is important to understand and develop the next steps with ‘eyes wide open’ from the beginning. At this stage it is also important to recognise and understand, from an ideological perspective, that equitable solutions are not necessarily the same as equal solutions.
- 27 As has previously been recognised there is a difference between equity and equality and this leads to political judgement calls. This is appropriately represented by the following illustration:



- 28 Equality and equity conversations are at the forefront of community future conversations, especially when considering the mega trends, disruptors and technological change issues and opportunities.
- 29 A further consideration when considering the issues relating to this topic is about how we use data and information, especially when it is about the future and forecasting possible impacts, or not.
- 30 To this end the following is sourced from a recent article from the following link - <https://metamorphis.digital/blog/f/reporting-the-past-narrating-the-present-predicting-the-future> - to provide a context about data, how we might use data and the questions we can ask when considering data. This is especially important when considering this topic of mega trends, disruptors and technological change.
- 31 The article considers that we live in a world saturated with data but raises the question of whether this means we are making smarter decisions.



- 32 The article suggests to deal with these issues and to use data more effectively based on a three step or three question approach – this seems appropriate as we contemplate how we wish to deal

with the mega trends, disruptors and technological change issues and opportunities. This approach is summarised below:



At Metamorphosis, we've developed a simple three step process to help us get the most from our new emphasis on having data and analytics at the core of how we make decisions:

1. Ask "What?" - What is the challenge or opportunity we need to consider? What is the scope, breadth, and depth. What does the data tell us?
2. Ask "So What?" - Stand back from the detail and the data and focus on understanding the context and meaning. What does the data mean for us and why?
3. Ask "Now What?" - Decide what you need to do about it, and turn that decision into a commitment to take action. What will we do, and by when?

### **There are no simple solutions to complex problems**

It pays to keep in mind that complex problems do not have simple solutions. Being realistic about the need to act regardless of imperfect knowledge of the problem or imperfect solutions will help you move forward.

### **When data and analytics meet beliefs and values**

Don't lose sight of the fact that as much as companies increasingly want to allocate resources and act based on data and evidence, they continue to be staffed by individuals with beliefs and values. Both are vital to effective decision making, but watch out for the friction that the two can create.

## **Factors to Consider**

### **Legal and Statutory Requirements**

- 33 There are no legal or statutory requirements to undertake this research and analysis work. In saying this however, it was identified as part of the community futures research and analysis work programme identified as a priority in the LTP 2018-2028.
- 34 This work also will be used to inform the LTP 2031 processes and decisions which are a legal and statutory requirement for Council.

### **Community Views**

- 35 Over the past 30 months Council has participated and been represented in various international, national, regional and local discussions, conversations and future thinking work that is needed to



prepare for further conversations with residents, ratepayers and stakeholders across the district and further afield.

- 36 As has been previously mentioned community views were sought as part of the LTP 2018-2028 consultation process on the broader community futures work. This will continue to be itemised and specified as part of the consultation and engagement plan for LTP 2031.

### **Costs and Funding**

- 37 The development of the reflections paper and discussion document has not incurred any costs or external funding resource at this stage. The work has been completed in house with existing staff resource.

### **Policy Implications**

- 38 There are no policy implications in undertaking this work to date. It should be noted as a result of potential analysis work to inform subsequent decisions that there may be implications for current policy and future policy implications.

### **Analysis**

#### **Options Considered**

- 39 There are two options to consider
- Option 1 – endorse the report and discussion document as prepared and associated recommendations and approach going forward.
  - Option 2 – not endorse the report and discussion document as prepared and associated recommendations and approach going forward.

### **Analysis of Options**

#### **Option 1 – Endorse the report and discussion document as prepared and associated recommendations and approach going forward.**

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"><li>• continues Council on the path of considering community futures and the associated work programme.</li><li>• supports the priority placed on the community futures work as agreed in the LTP 2018-2028.</li><li>• assists with the preparation of the LTP 2031.</li><li>• provides an opportunity for community engagement to assist Council build its relationships at the local community level.</li><li>• acknowledges that Councils approach supports the concept of people, places and</li></ul>	<ul style="list-style-type: none"><li>• raises a series of issues that may create a sense of vulnerability or uncertainty for Council and the communities it serves.</li><li>• may require extra resource to be sourced to undertake next step analysis work as a result of identified areas needing further work or analysis.</li></ul>

<p>spaces and the need for service provision to be fit for future.</p> <ul style="list-style-type: none"><li>• assists Council to continue to build on the community leadership role Council can play with communities and supports the ‘small Council big community’ approach.</li><li>• supports the concept that council can be one player in a larger multi agency approach to developing community solutions for community issues and opportunities.</li><li>• supports the previous findings from the BERL Community Futures work and the Southland Regional Development Agency establishment and areas of focus.</li></ul>	
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**Option 2 – Not endorse the report and discussion document as prepared and associated recommendations and approach going forward.**

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"><li>• work programme would be revised to free up resource to undertake other work if this is no longer a priority.</li></ul>	<ul style="list-style-type: none"><li>• this would not support the direction Council has indicated it wishes to head regarding the community and futures work programme and using research and analysis of data to support planning and future decisionmaking.</li></ul>

**Assessment of Significance**

- 40 This project is not considered significant in relation to Council’s Significance and Engagement Policy.

**Recommended Option**

- 41 It is recommended the Community and Policy Committee endorse the report and discussion document as prepared and associated recommendations and approach going forward.

**Next Steps**

- 42 If the Community and Policy Committee endorse the report and discussion document Council officers will progress the project based on the resolutions adopted.

**Attachments**

- A Future of the future reflections paper and discussion document [📄](#)



## Future of the Future

### Mega trends, disruptors and technological change: potential impact on communities and possible implications for SDC

A reflections paper and discussion document prepared by Rex Capil: Group Manager Community and Futures – from excerpts from referenced documents

**The future isn't tomorrow – it's (all the little decisions we make) today.**

**"E tu ki te kei o te waka, kia pakia koe e nga ngaru o te wa"**

**"Stand at the stern of the canoe and feel the spray of the future biting at your face."**

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**Table of Contents**

Purpose/ Objectives .....	3
Outcomes .....	3
Introduction .....	3
Background.....	5
Historical Perspective.....	7
Unknown Futures .....	11
Socio Demographic Considerations .....	14
Megatrend Disruptors Considerations .....	30
Work and Education Considerations .....	34
Agri-Business and Agri-Tech Considerations.....	45
Climate Change and Agriculture Considerations .....	66
Communities and Customers .....	67
Conclusion and Recommendations .....	71
Footnote/References .....	73

## Purpose/Objectives

- to understand the potential impact of mega trends, disruptors and technological change on communities, industries, work patterns, land use patterns and lifestyle choices
- to consider the impact of mega trends, disruptors and technological change on community involvement, social cohesion and engagement.

## Outcomes

- to prepare a discussion document based on a desktop review of recent findings and research papers
- to provide recommendations for consideration of next phases of work and scope of such required in this area
- to support an aligned approach with other topics for the Community Futures Research and Analysis Work Programme and consider further analysis work required to satisfy overall Council priorities and direction to inform LTP 2031
- to develop baseline assumptions and standardised approach to assist forecasting and prioritisation for activity managers and future service provision requirements.

## Introduction

How do we view things?

Change can be represented by the term modernising - a term referred to by The Right Honourable PM Jacinda Ardern as below.

<https://www.stuff.co.nz/national/politics/105958689/jacinda-ardern-faces-mounting-problem-in-business-confidence-on-her-return>

In an interview with Stuff, Ardern gave assurances that her Government's agenda did not come at the expense of economic growth.

"I absolutely believe that our agenda will grow the economy, will make sure businesses are in a position to grow and "These are not two separate agendas - they absolutely work hand-in-hand. I think New Zealanders absolutely see my emphasis on the wellbeing of New Zealanders. Now what I'm hoping they'll also see is the agenda that's always existed for us around growing the economy," Ardern said.

"What I intend to do is, within a month at least, bring together some of the work we've been doing in earnest around working together with the business community, to make sure that we are tackling some of the challenges that we're facing collectively," Ardern said.

"But what I'm really proud of is that we know and recognise some of the challenges that businesses are saying to us they have. Finding and attracting skilled labour, making sure that we grow our exports, diversifying our economy beyond housing and dairy - those are challenges we're tackling head on."

Ardern conceded there was big change ahead, but the economy was in a good position.

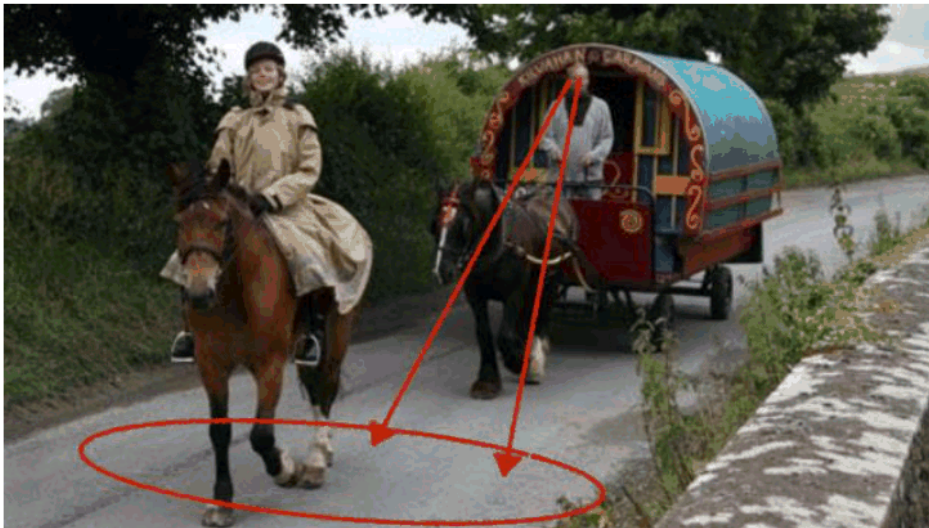
"We have incredibly low levels of unemployment relative to the OECD in particular. We have good solid growth forecast for the future. We have a surplus and, relative to other countries, our debt's in pretty good shape too," she said.

When you tackle challenges - that creates a level of uncertainty. Because you're creating change. We are modernising our economy, but we need to bring everyone with us.

Therefore when we at Council are considering modernising our thinking – we should consider what lens we are looking to the future through?

To get us thinking - what do these photos suggest? There many messages that can be interpreted.

Then:

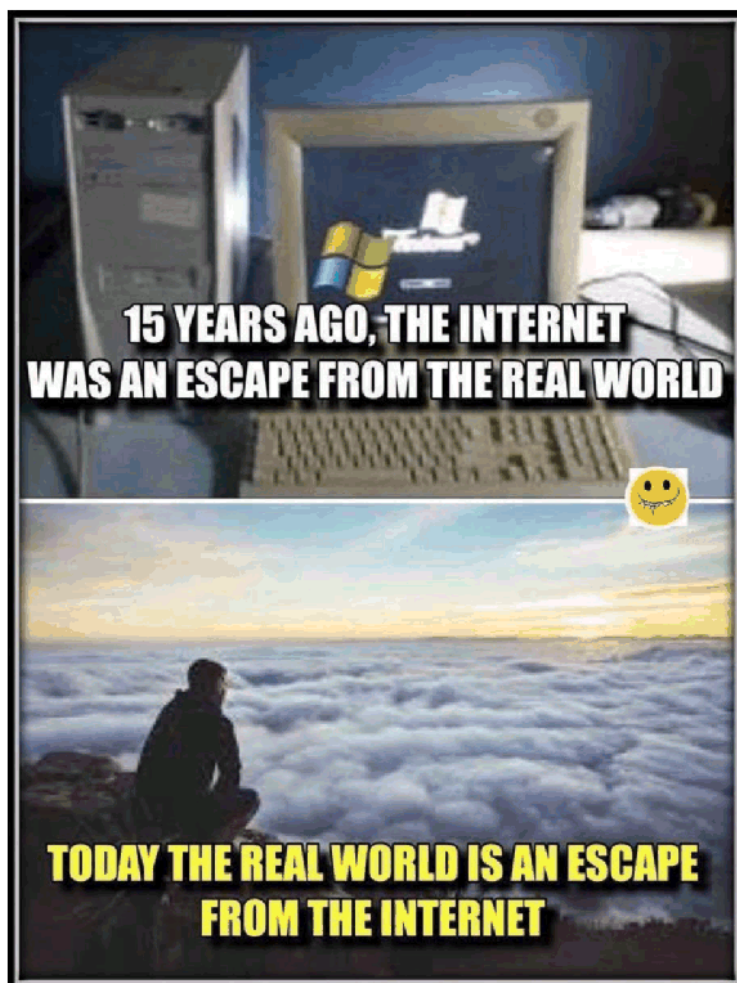


Now:





And then there is this:



## Background

The world we live in is rapidly changing. Emerging technologies in transport, communications and energy; combined with climate change, social movements, structural ageing and other 'mega trends' mean that the future we are planning for is uncertain.

The accelerating speed of technological change will and in fact does affect the way we travel, the way we work, and the way we build our homes and places of business.

This creates uncertainty for long term infrastructure projects and service delivery approaches and how we determine appropriate levels of service for now and in the future.

Using transport as an example, electric self-driving vehicles could be well established by 2030. What level of uptake could we expect in rural Southland? Will the growth of self-driving technologies primarily be shared autonomous vehicles or private vehicles? What does this mean for our arterial roads and state highways?

Future thinking and future development and service delivery approaches will need to respond to emerging trends and new technologies so that we can make the most of these opportunities.

We need to be agile to respond to future shifts.

Many sectors and industries are now taking the opportunity to consider large, transformative trends that define the present and shape the future by their impact on businesses, economies, industries, societies and individuals lives.

It is suggested there are three primary forces behind the current wave of disruption: technology, globalisation, and demographic change.

There is a lot of discussion – internationally, nationally, regionally and locally – about future pressures, future opportunities and future decisions required to ensure our communities are sustainable, affordable to live in and are fit for purpose to deliver on expectations for an appropriate and acceptable level of service from a quality of life perspective.

Over recent years and specifically with regards to the 2016-2019 triennium, the Southland District Council has committed to being proactive and to front foot such issues and the opportunities that they might create.

Council has expressed an interest and a desire to having the courageous conversations with its communities and playing a leadership role with, for and on behalf of the communities it serves. This doesn't mean that the conversations are going to be easy. It doesn't necessarily mean decisions are going to necessarily be accepted by all.

When significant change is afoot it is important to acknowledge and accept that equitable solutions are not in fact equal solutions. There is a difference between equitable and equal. We need to define what we mean by 'equitable' to assist with the many and varied conversations that will need to be had with multiple audiences.

Many may consider 2040 and therefore 2050 to be out of reach when considering future challenges and opportunities, but to provide some context this is seven trienniums or seven elections from now – the same number that Cr Dillon will have served at the completion of this triennium from 1998-2019. This provides a sense of realism to the thinking that 21 years is not long term in the context of local government planning.

Thinking 20+ years into the future requires us to get out of our own 'world view' and imagine a future beyond ourselves when many of us will be retired or handing over the reins to our successors.

Thinking of the kinds of communities our children and grand-children will inherit requires us to think of the various scenarios and possibilities available in the future.

But thinking 20+ years into the future is also difficult. The human brain is 'hard wired' for pattern recognition and 'what we know'. And patterns, by their nature, are based on events that have already happened and the behaviours that we have become accustomed to accept.

The Southland District Council is positioning itself to front foot and be best prepared for having the courageous conversations required.

As Futurist Stephen Yarwood stated recently – "if we are going to apply the last 20 years experiences to plan for the district's future - there is a view we are best to move on"

But it takes work and planning. As the Chinese proverb states – "The best time to plant a tree was twenty years ago. The second best time is now." Being a resilient community and District means investing now, to be future ready.



In a fortune.com article in 2015 - US vs. China: Whose century is it, anyway? -

<http://fortune.com/2015/10/22/editors-desk-21st-century-corporation/> the following was noted:

“Beyond innovation, the question for the 21<sup>st</sup> century is, who will allow the social and economic disruption that innovation brings? We are at a Schumpeterian moment, when creative destruction threatened to clear away the business world we are familiar with to make way for one we aren’t. The 21<sup>st</sup> century will belong to those who embrace that disruption rather than fight it.

In the U.S., business leaders have learned the language of change. When IBM’s Ginni Rometty tells her managers to “always disrupt yourself” or Dow Chemical’s Andrew Liveris talks of four reinventions in 10 years, they are signalling that they recognise the need for rapid and profound change. America’s business leaders hear the footsteps of history rushing behind them. They know they must disrupt themselves, or be disrupted.

The successful corporations of the future will be those that not only embrace the profound changes of today’s technologies but also build their businesses on a truly global scale. The first and second industrial revolutions showered riches on a relatively small group of people in the U.S., Europe, and Japan. The third industrial revolution will cover the globe, creating a new, connected middle class that will include the bulk of humanity.”

## Historical Perspective

### A reality check

<https://www.pwc.co.nz/pdfs/2018pdfs/impact-of-automation-on-jobs-Feb-2018.pdf>

PWC recognises the potential for disruption to labour markets due to advances in technology is not a new phenomenon. The Luddite protest movement of the 19<sup>th</sup> century was a backlash by skilled handloom weavers against the mechanisation of the British textile industry that emerged as part of the industrial revolution (including the Jacquard loom, which with its punch card system was in some respects a forerunner of the modern computer). But, in the long run, not only were there still many (if, on average, less skilled) jobs in the new textile factories but, more important, the productivity gains from mechanisation created new wealth. This in turn generated many more jobs across the UK economy in the long run than were initially lost in the traditional handloom weaving industry.

The standard economic view for most of the last two centuries has therefore been that the Luddites were wrong about the long term benefits of the new technologies, even if they were right about the short term impact on their personal livelihoods. Anyone putting such arguments against new technologies has generally been dismissed as believing in the ‘Luddite fallacy’.

Over the past few years, fears of technology driven job losses have re-emerged with advances in ‘smart automation’ – the combination of AI, robotics and other digital technologies that is already producing innovations like driverless cars and trucks, intelligent virtual assistants like Siri, Alexa and Cortana, and Japanese health care robots.

While traditional machines, including fixed location industrial robots, replaced our muscles (and those of other animals like horses and oxen), these new smart machines have the potential to replace our minds and to move around freely in the world driven by a combination of advanced sensors, GPS tracking systems and deep learning – if not now, then probably within the next decade or two.

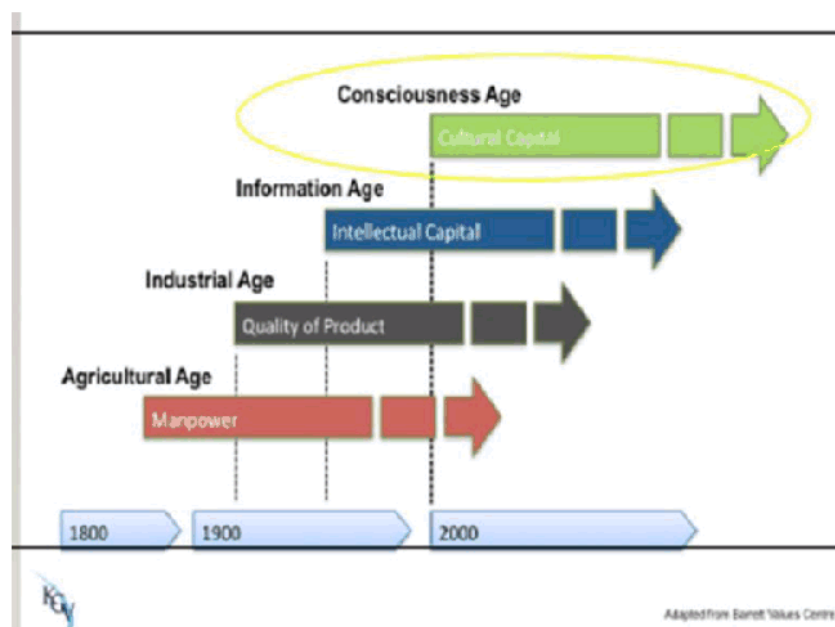
Will this just have the same effects as past technological leaps – short term disruption more than offset by long term economic gains? Or is this something more fundamental in terms of taking humans out of the loop, not just in manufacturing and routine service sector jobs, but more broadly across the economy?

What exactly will humans have to offer employers if smart machines can perform all or most of their essential tasks better in the future?

In short, has the 'Luddite fallacy' finally come true?

It is also interesting to note how the topic of computers and telecommunications and associated impacts has been considered historically. An article from Rural Development Perspectives in the USA in 1987 <https://naldc.nal.usda.gov/download/IND89016891/PDF> made the following predictions – remembering this is from 1987 – 30 plus years ago:

- the high technology of microprocessors, computers, and telecommunications will touch the lives of rural people in countless ways, chiefly as consumer products rather than to assist production and productivity.
- computers will give some rural residents the capability to work at home but computers so far seem to confer no decisive economic advantages to rural areas or cities, nor even to large farms
- technology's effect on rural areas has been double edged in the past and will probably be so in the future. Technology has allowed less than 3% of the US workforce to grow food for America and export but at the same time it has rendered some rural industries obsolete, has forced difficult adjustments on people and areas, and has left some areas with a sparse population and an economic base incapable of supporting a wide range of community services



- computers will probably replace labour and increase output only to a modest degree. They will replace administrative tools and provide more precise control of machines and coordination of people. However it is not envisaged they will replace operators of tractors on the farm, chainsaws in the forest, or draglines in the mine. They will save time and energy but will not substantially increase the output from resources in rural areas
- the social and economic structure of rural communities depends partly on the structure of surrounding farms. High technology will give larger farms an advantage over smaller farms – but not so much as to cause major structural changes either on farms or in communities

- computer and telecommunication technologies for business applications are best suited to large farms. Both part time small farms and full time family farms find it difficult to spare family labour time or afford hired labour to operate computers. However some part time farm operators may have considerable off farm discretionary income to purchase microcomputers, may have been exposed to computers in their off farm work, and may have the multiple use potential to justify buying a computer
- computers and telecommunications do not increase farm output directly. They provide information which may make it possible to increase efficiency by using less aggregate input or producing more output. The larger the farm (and hence the more input and output to influence) the more a computer can contribute to efficiency
- even among large farms though, only a minority will utilise microcomputers and telecommunications for planning analysis. High technology will not save poor managers, profligate spenders, or the unlucky from financial ruin. Personal performance – dedication, initiative, and capacity of operators and their families to mentally process information and reach sound decisions – will far outweigh high technology in determining the success or failure of a farm, be it large or small
- many of the above considerations also apply to rural communities. Microcomputer and telecommunications technology is affordable by small communities but economies of size in operation continue to favour larger communities. High technology will do much less to reduce the friction and isolation of space than did television and the motor vehicle
- it is contended that high technology will probably not depersonalise rural society. Rural areas have long prized such amenities as a friendly, neighbourly social atmosphere. The small rural store, church, and bank contribute to this favourable social atmosphere
- high technology has the potential to leapfrog local institutions by electronic ‘shopping’ using video catalogues, by religious broadcasts on television, and by electronic money transfers. But these are unlikely to replace the local store, church, and bank to the extent that the automobile (or mail order catalogue) has caused these rural institutions to be bypassed
- the personal computer is to a large extent a consumption good which people purchase and enjoy much as they would a pleasure boat or a sports car. People will experience high technology more as consumers than producers.

It could be argued the historical evidence on technology and impact on employment is reassuring. Although, in hindsight it can be counter argued there were many erroneous assumptions.

<https://www.mckinsey.com/~media/mckinsey/featured%20insights/future%20of%20organizations/what%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/mgi-jobs-lost-jobs-gained-report-december-6-2017.ashx>

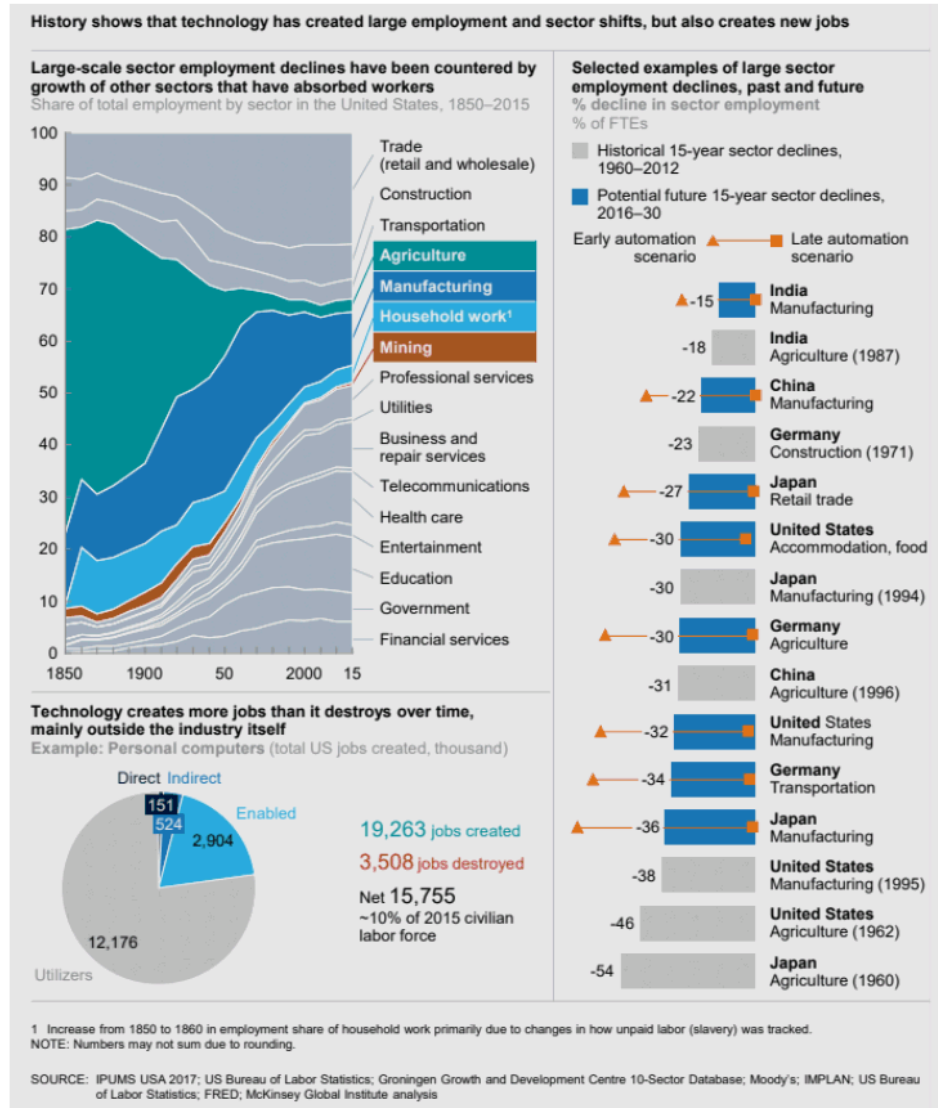
Technology adoption can and often does cause significant short term labour displacement, but history shows that, in the longer term, it creates a multitude of new jobs and unleashes demand for existing ones, more than offsetting the number of jobs it destroys even as it raises labour productivity.

An evaluation of historical situations highlights several lessons:

- all advanced economies have experienced profound sectorial shifts in employment, first out of agriculture and more recently manufacturing, even as overall employment grew.

In the USA, the agricultural share of total employment declined from 60% in 1850 to less than 5% by 1970, while manufacturing fell from 26% of total US employment in 1960 to below 10% today. Other countries have experienced even more rapid declines: one third of China's workforce moved out of agriculture between 1990 and 2015

- such shifts can have painful consequences for some workers. During the industrial revolution in England average real wages stagnated for decades, even as productivity rose. The transition period was difficult for workers, and eased only after substantial policy reforms
- new technologies have spurred the creation of many more jobs than they destroyed, and some of the new jobs are in occupations that cannot be envisioned at the outset.





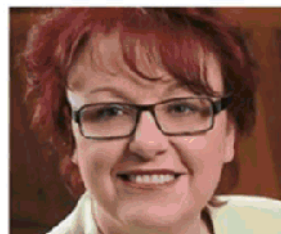
## Unknown Futures

### Tyranny of unknown futures

Not only will technological change majorly transform rural and provincial NZ – the pace of such change is accelerating to the extent that predicting the future economic and social landscape is increasingly difficult.

## Change Is Not A Choice

"We live in a complex world, where the rate of change we experience is both the fastest we have ever known and the slowest we will ever know..."



Jo Miller  
Chief Executive, Doncaster Council  
President, SOLACE



This work is not about predicting the future – but it is about being aware of the future and being prepared accordingly.

[https://www.apf.gov.au/Parliamentary\\_Business/Committees/House/Former\\_Committees/Regional\\_Development\\_and\\_Decentralisation/RDD/Final\\_Report](https://www.apf.gov.au/Parliamentary_Business/Committees/House/Former_Committees/Regional_Development_and_Decentralisation/RDD/Final_Report)

The impacts of globalisation, shifting of new economic activities and industries and the constant churn of population means this requires a flexible definition of region and an on going engagement with communities to identify the appropriate boundaries for development policy and requirements.

Rural and provincial regions will need to be supremely agile – Professor Anthony Sorenson stated:

"...agility in effect requires a focus on the future; knowledge of emerging technologies and their likely economic and social impacts; willingness to discard existing thinking and even industries; greater risk acceptance; constant networking among peers and learning from experience; mutual assistance between business and community groups; and so on."

Professor Sorenson advanced that in order to confront the rapidly changing environment of the 21<sup>st</sup> century, regional communities will need to engage with the so called 'six Cs': capacity, choice, connection, collaboration, creativity, and change agility.

Professor Sorenson argued that policy should focus on:

“...how we change the ability of communities to perceive their operating environment and to change their behaviours in a way that are amenable to accelerating, say, the uptake of new ideas, the grabbing of opportunities; and, perhaps the observe, to relinquishing the past and letting go of things that are no longer relevant.”

#### Tyranny of expanding scale

Regional and rural areas will need to better join the national and global economy to build on their prosperity and sustainability. Regional service centres have traditionally catered to their immediate rural hinterlands and will face increasing disruptions if they are unable to tap into national and global markets.

#### Tyranny of geography

Rural and provincial NZ is not one uniform social, economic and geographical area. Rural and provincial communities can be very different in terms of their social complexions, resource bases, locations with respect to markets or major cities, infrastructure and other social services.

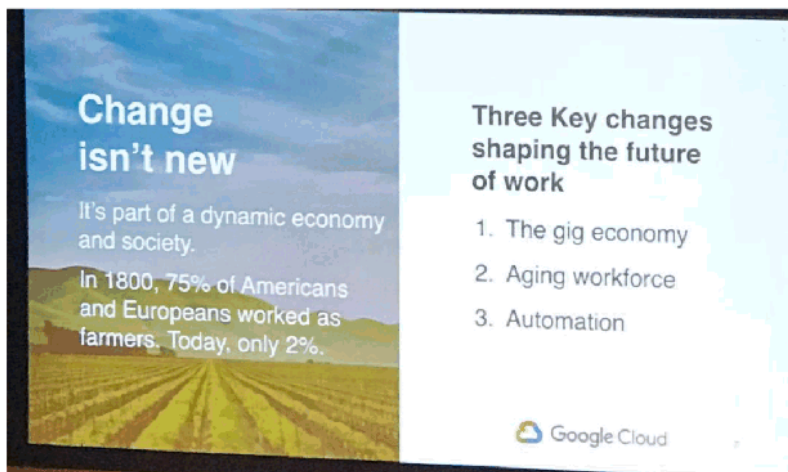
Regions are in constant flux in a globalised and in many senses borderless world, “real” regions’ boundaries are not fixed in place and time.

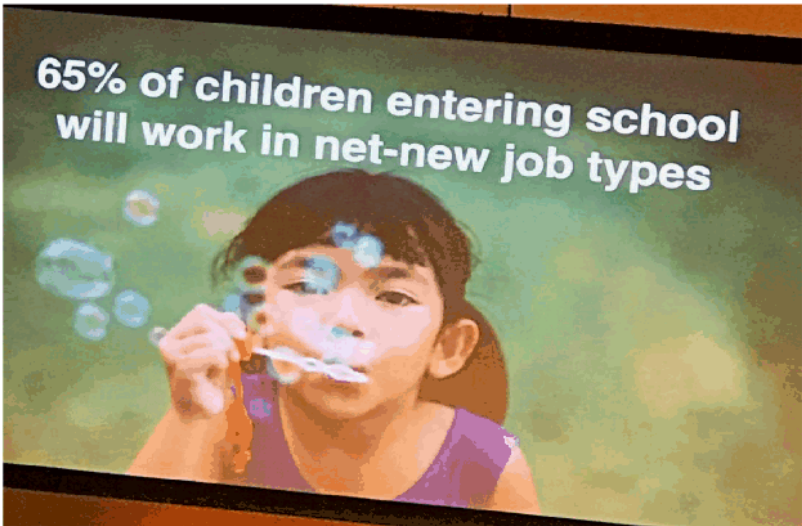
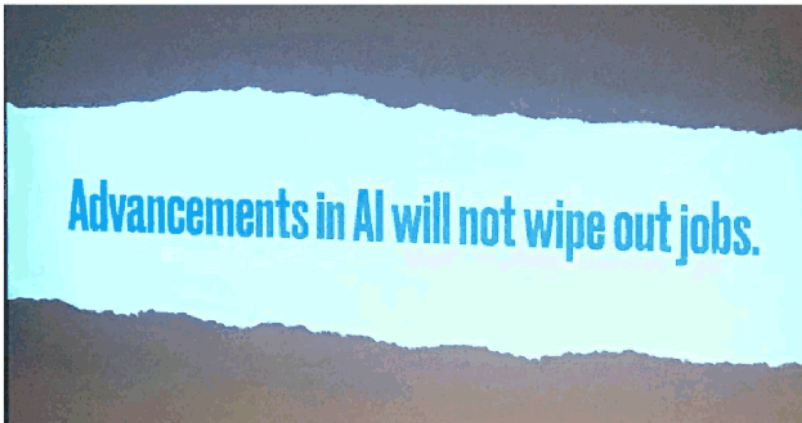
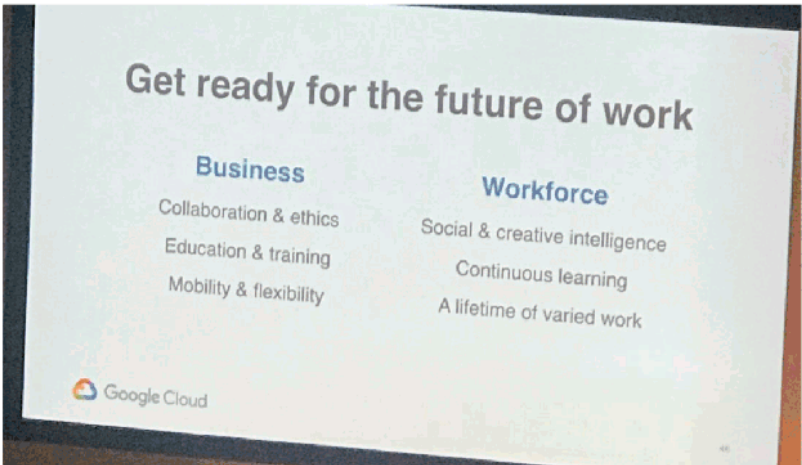
#### Future of the Future – Event Auckland 9 August 2018

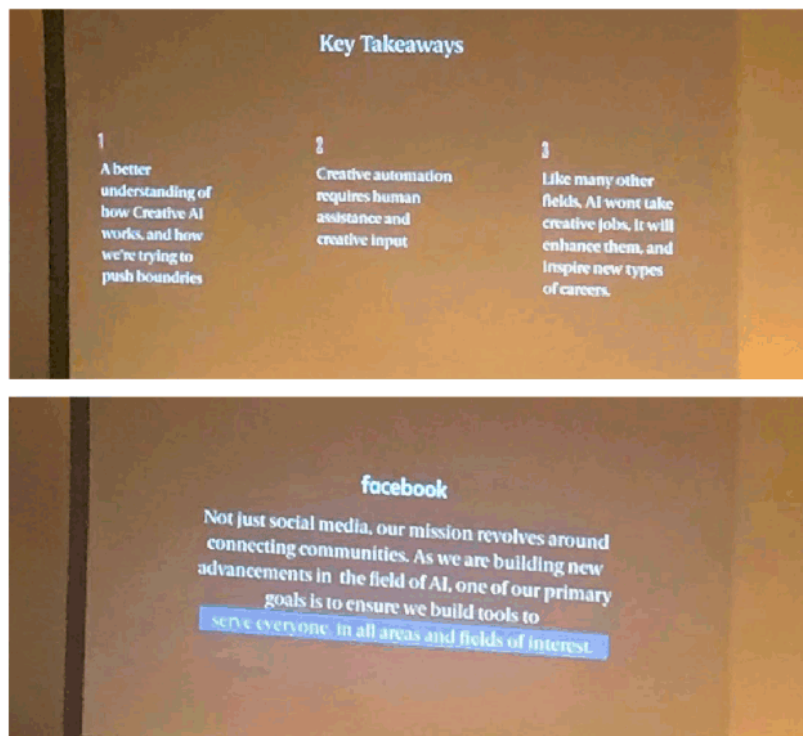
“If the past is another country then the future is going to be another planet. And on that planet, they won’t be just doing things differently, they’ll be doing them in a way that will blow your mind.

Predicting the future is an enviable talent – impossible, perhaps, but that shouldn’t stop us making educated guesses. Today, business is being reinvented at an unprecedented pace; we’re standing at the precipice of massive change. The gig is up for some traditional business models and the gig economy is about to go global, and we know that the business landscape of the future is going to look, and feel, very different.

That’s not just a hollow statement. Consider Virtual or Augmented Reality, infused with empathy, software that knows how you feel, the golden age of coding, the influence of data on entertainment, and entertainment on sales, and new ways of connecting with peoples and their needs in meaningful ways.”







## Socio Demographic Considerations

Local, regional, national, continental and global

[http://www.massey.ac.nz/massey/fms/Massey%20News/DefiningNZ/2013/pdf/definingnz\\_Jan\\_2013.pdf](http://www.massey.ac.nz/massey/fms/Massey%20News/DefiningNZ/2013/pdf/definingnz_Jan_2013.pdf)

Massey University hosted the “It’s Our Future – the new New Zealand Forum” in **December 2012**. This forum hosted Daniel Franklin, the Executive Editor of The Economist and co-editor of the book Mega-change: The World in 2050.

Franklin identified population growth as one of the key drivers of change, as well as the growth of Asia’s economy.

He stated

“New Zealand is surprisingly well positioned for the world in 2050 for a number of reasons. It’s close to Asia where a lot of the economic action is going to be, and has a relatively big agricultural sector in a world that will need to feed nine billion people.

The implications are even more dramatic than the actual population numbers suggest. The world’s population is not only increasing but also getting richer ... so we will need to produce something like 70 percent more food.

New Zealand’s agri-food expertise means that it should be in a position to not only produce valuable food products, but also export its agri-food technology, helping other countries to increase their own food output.

There are many complications due to climate change but New Zealand has a relatively enviable environment so it also raises the issues of managing that great heritage well.



The fact that English is one of New Zealand's official languages will also be to its advantage.

English is probably going to continue to be the main language spoken, despite the rise of China, and New Zealand's links through the Commonwealth to Africa will be important. There is going to be tremendous population growth in Africa and it will be a very fast growing part of the world's economy."

As part of the Massey University "It's Our Future – the new New Zealand Forum", **December 2012** – Professor Paul Spoonley identified an ageing population, a hugely disproportionate growth of Auckland, a population decline in some regions, and the increasing importance of immigration as key elements in changes unfolding in New Zealand's population.

Spoonley stated:

"projections suggest that the New Zealand population will hit five million people by 2031 but every time there has been a projection about population size they have been underestimated. The population has reached the target earlier than estimated.

Of that projected five million, two million will live in Auckland. One third of New Zealanders live in Auckland already. In the next 25 years the city will grow to account for 38 percent of the total population. Half of New Zealand's regions will lose population in the same period.

Agglomeration effects mean a snowball effect for Auckland as demand for goods, services, schools and hospitals helps to drive growth. The reverse is also true. In smaller centres, there is often a tipping point reached that means the loss of health services, or the contraction of such services, and so there is less reason for households and individuals to stay.

A bigger Auckland will act as a magnet for immigrants, who have overwhelmingly preferred it to other parts of the country. Auckland's character will increasingly differ from that of other parts of the country. Europeans are expected to be in the minority in Auckland within the next few years.

The thing that interests me is that there's an increasing two-nations effect.

Where New Zealand traditionally relied on migration from Europe, since 1987 the bulk of immigrants have come from non traditional sources. Asian communities will be easily the fastest growing in the coming decades, rising to between 25 and 30 percent of the population. The number of New Zealanders identifying as Asian will have risen to 800,000 by 2026 – not far short of a Maori population of around 811,000.

Our ethnic mix will change in other ways too: Nationally the age profiles of Maori and Pasifika populations will mean that they contribute more to education and prime working age populations. This will contribute to an increasing ethnic diversity, although it will be much more pronounced in those regions such as East Coast and Northland that already have major Maori populations.

The 'two nations' division can be expanded to three by identifying those predominantly Maori regions as quite different from other areas."

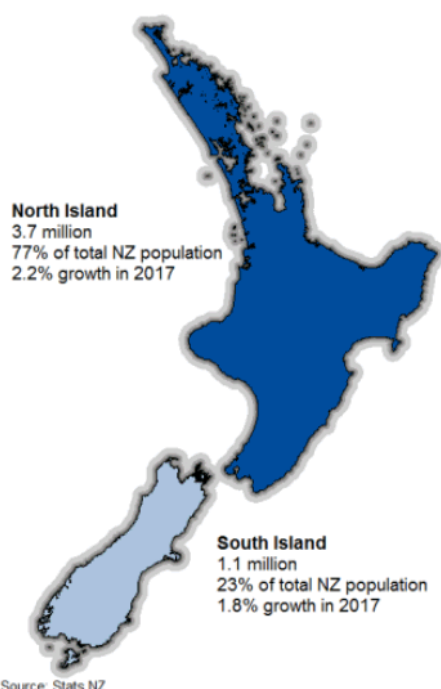
NZ population summary – High level snapshot in time. Statistics NZ

## Three in four New Zealanders live in the North Island

The North Island was home to an estimated 3.67 million people at 30 June 2017, Stats NZ said today. This number accounted for 77 percent of New Zealand's total population.

### New Zealand population by North and South islands

At 30 June 2017  
(Islands scaled to population size)



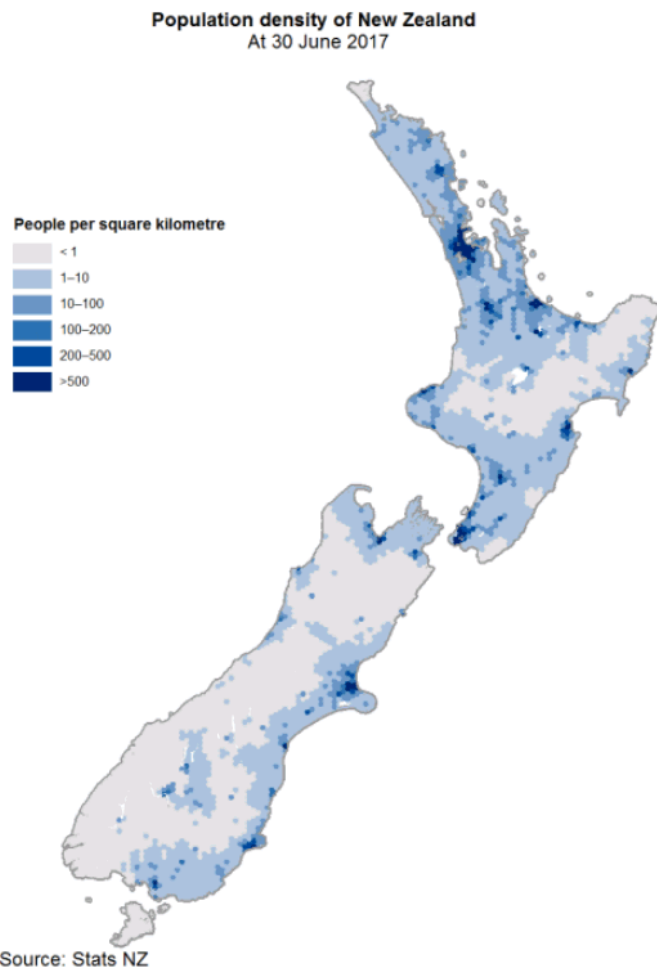
Overall, the North Island's population grew at a rate of 2.2 percent, faster than the national average of 2.1 percent. Generally, the fastest-growing areas were concentrated in large cities and their neighbouring districts.

Kaipara (3.7 percent) and Waikato (3.4 percent) districts had the highest growth rates in the North Island during the June 2017 year, followed by Waipa district (2.7 percent) and Auckland (2.6 percent). Strong growth in the northernmost territorial authority areas has seen an increase in population density of the upper North Island, with about half the country's population living north of Lake Rotorua.



New Zealand's median centre of population is defined as the point of intersection of two lines: one equally dividing the population north and south, the other equally dividing the population east and west. In 2017, the median centre of population was about 1 kilometre offshore, west of Kawhia. This point has moved 280 kilometres north since 1921 at a rate of 1.7 kilometres a year for the last decade.

New Zealand's population density at 30 June was 18 people per square kilometre, compared with 13 in 1991. However, there is considerable variation at the local level, ranging up to 18,000 people per square kilometre in Central Auckland.



See also:

- [Population growth fastest in Northland, Auckland, and Waikato – media release](#)
- [Auckland population grows across the boards – media release](#)
- [Subnational Population Estimates: At 30 June 2017 \(provisional\)](#)

#### Ends

**For media enquiries contact:** Kim Dunstan, Christchurch 03 964 8700, [info@stats.govt.nz](mailto:info@stats.govt.nz)  
Authorised by Liz MacPherson, Government Statistician, 26 October 2017

<https://www.pwc.co.nz/pdfs/2018pdfs/impact-of-automation-on-jobs-Feb-2018.pdf>

As urbanisation continues to impact on lifestyles and infrastructure investment decisions we have to consider a different approach to developing the regions if we want to achieve a different outcome.

As urbanisation (Auckland growth) continues the demand for further infrastructure investment continues to grow. These endless demands for more motorways, more trains running more often, bigger hospitals, universities, airports etc puts the nation into a continuous need for more resources.

As these infrastructure investment projects are completed it supports further more people making the decision to live in these large urban areas and the congestion cycle starts all over again.

The current imbalance will struggle to correct itself without a level of intervention.

As a result of the congestion cycle people are questioning the congestion issues, questioning the housing market affordability and generally struggling to get ahead.

The regions are in a good position to attract those looking for a better all-round lifestyle – but can only foster and promote these opportunities with infrastructure investment ensuring a level of service appropriate and relevant for the 21<sup>st</sup> century.

Some of the most important infrastructure related issues are around connectivity – traditional and digital.

Equally important is the ability to access reasonable base level of services related to health and education.

There is also the need to invest in amenity – visual aesthetics, the facilities, open spaces etc – to maintain and build lifestyle opportunities.

NZ development and future – like the rest of the world – exists within a world of increasing complexity, uncertainty and change. Much of which is the result of globalisation.

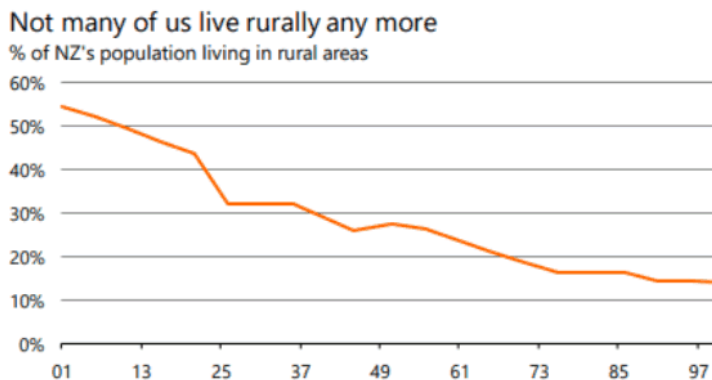
The impact of globalisation is related to a number of ‘megatrends’ – urbanisation, ageing of populations, increasing connectivity between and among countries and regions, rapid technological change.

This changing modern world has ramifications for the way regional development policy is conceptualised, formulated and implemented.

Challenges facing rural and provincial NZ are the *perception* of regions as ‘second rate’, and the ongoing trend of people moving to larger urban areas.

There are clear opportunities presented by our regions. These are broadly encapsulated in the following: people and human capital; capacity and desire to contribute to and share in the nation’s output and growth; natural assets including resources such as land and water; environment and amenity; strong sense of community and identity; uniqueness and diversity.

Increasing urbanisation has seen the proportion of New Zealand’s population living in rural areas dip from 27% to 14% since 1951. During that period, New Zealand’s rural population has grown by just 11% while the urban population has increased by 160%.



Statistics NZ’s projections show that the combined population of Auckland, Hamilton, and Tauranga is expected to lift from 40% to 45% of the country’s population by 2043. Put another way, the number of

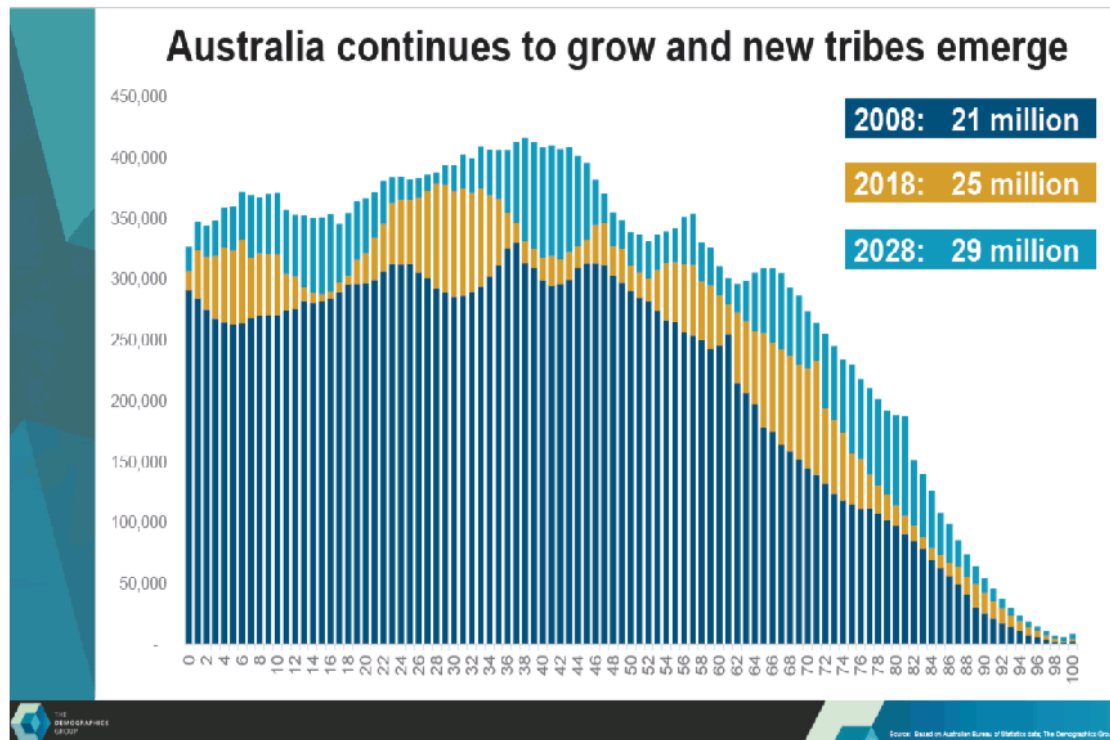
people in these three urban areas is expected to grow by 1.3% pa between 2018 and 2043, compared with population growth of just 0.4% pa across the rest of the country.

The upper North Island is commanding an increasingly dominant role in terms of New Zealand's population, economic activity, and fiscal and voting base.

The dominance of the upper North Island also creates challenges for the economic resilience of other parts of the country, as businesses will find it easier to tap into the high growth areas rather than seeking opportunities in more stagnant regions.

Let's take a look across the 'ditch' - how is population and demographic trends viewed in Australia?

"Changing Tribes of Australia" Seminar – September 2018. [www.tdgp.com.au](http://www.tdgp.com.au)



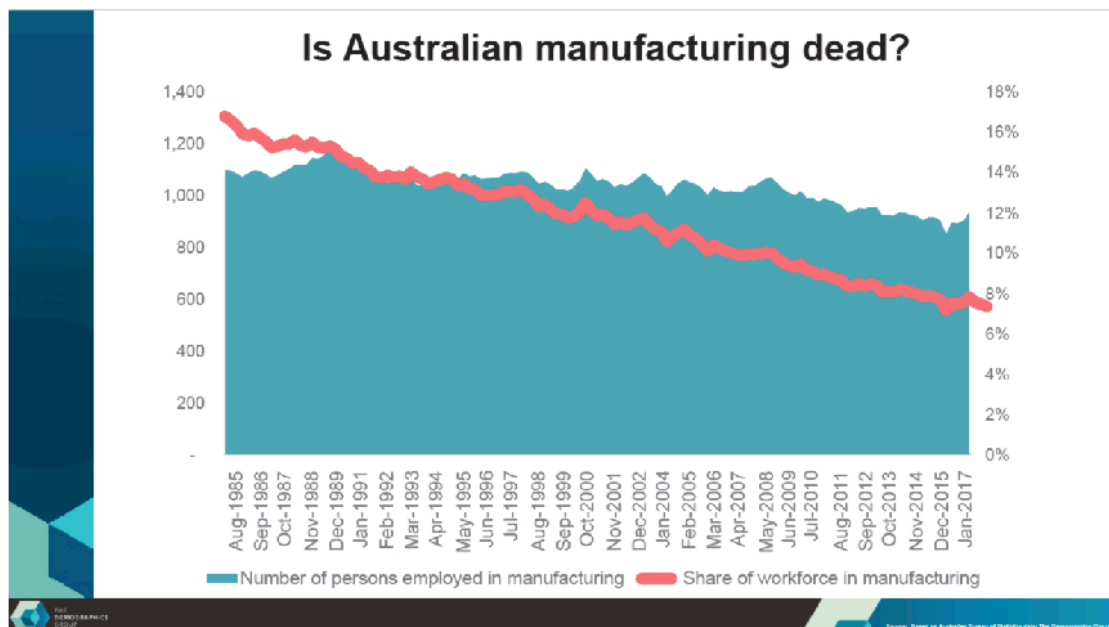
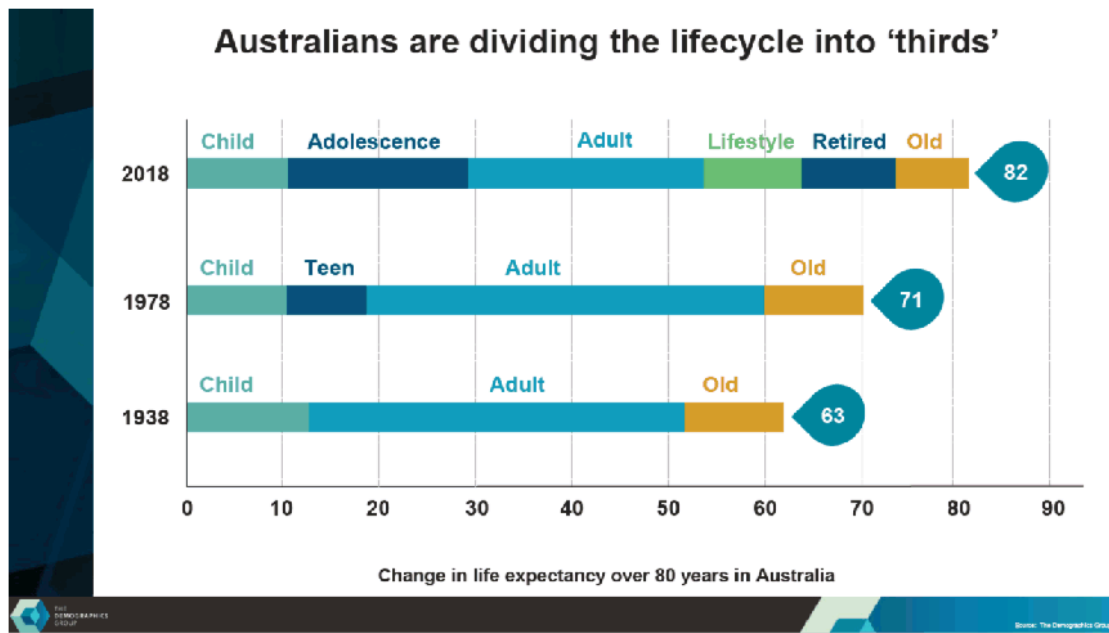


## Australia's future is linked to the Asian middle class



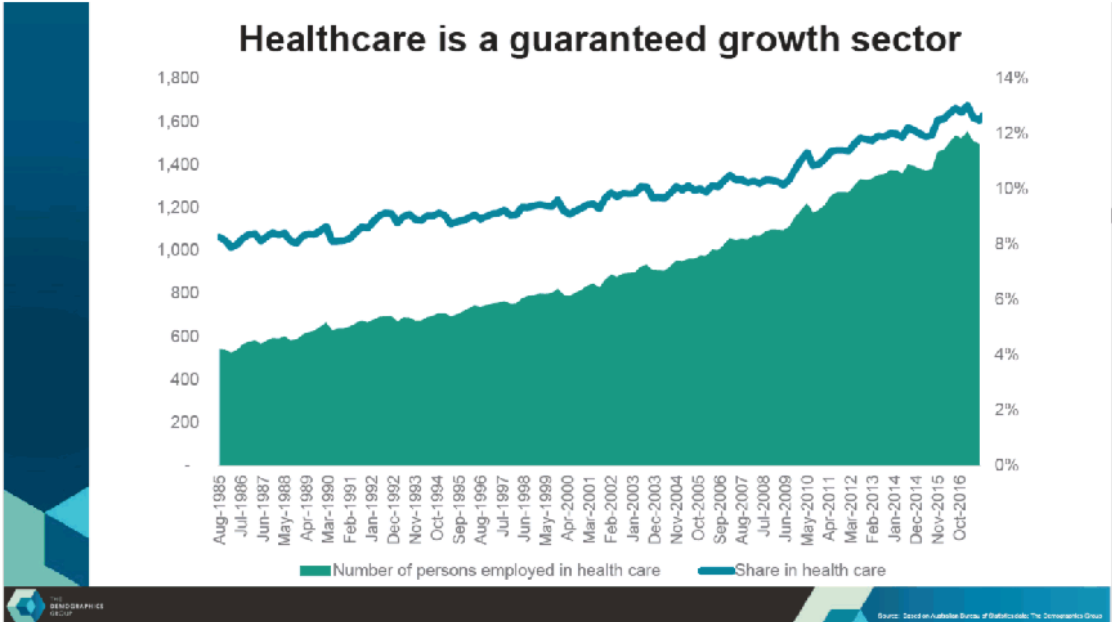
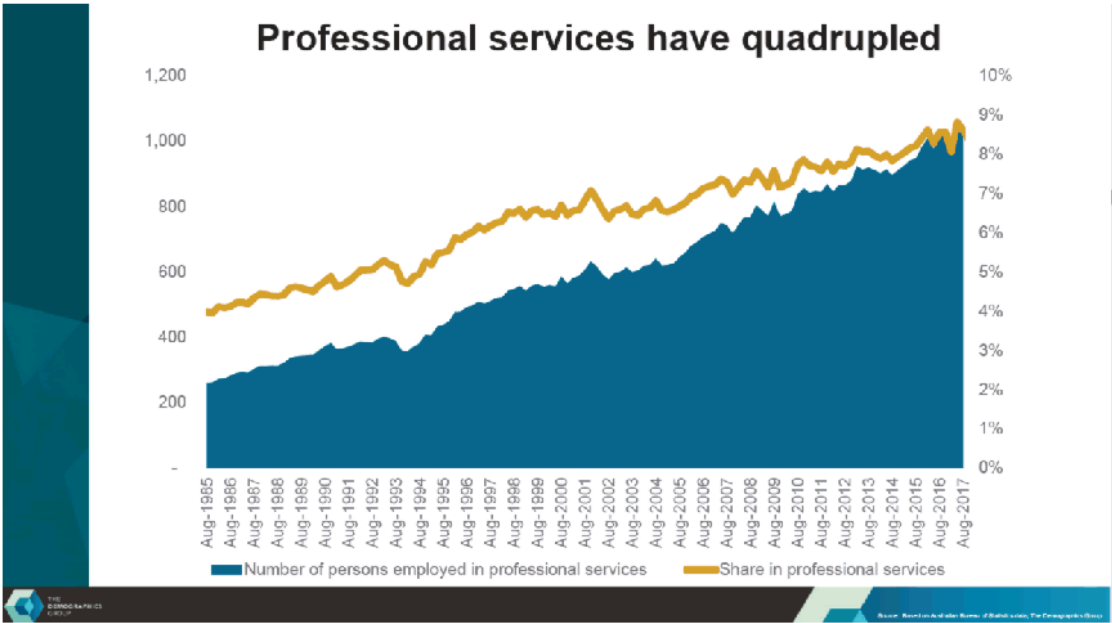
## Australia's future is linked to the Asian middle class







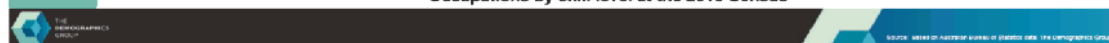
Future of the Future - Rex Capil



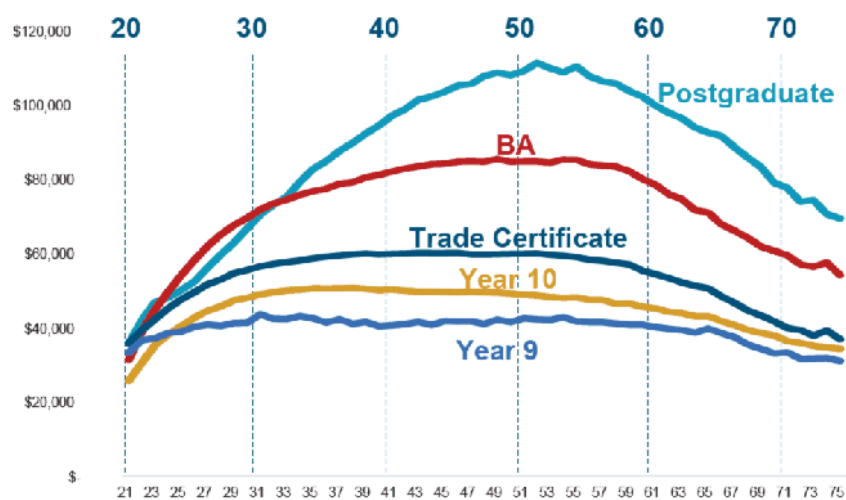
### The hollowing-out of Middle Australia jobs

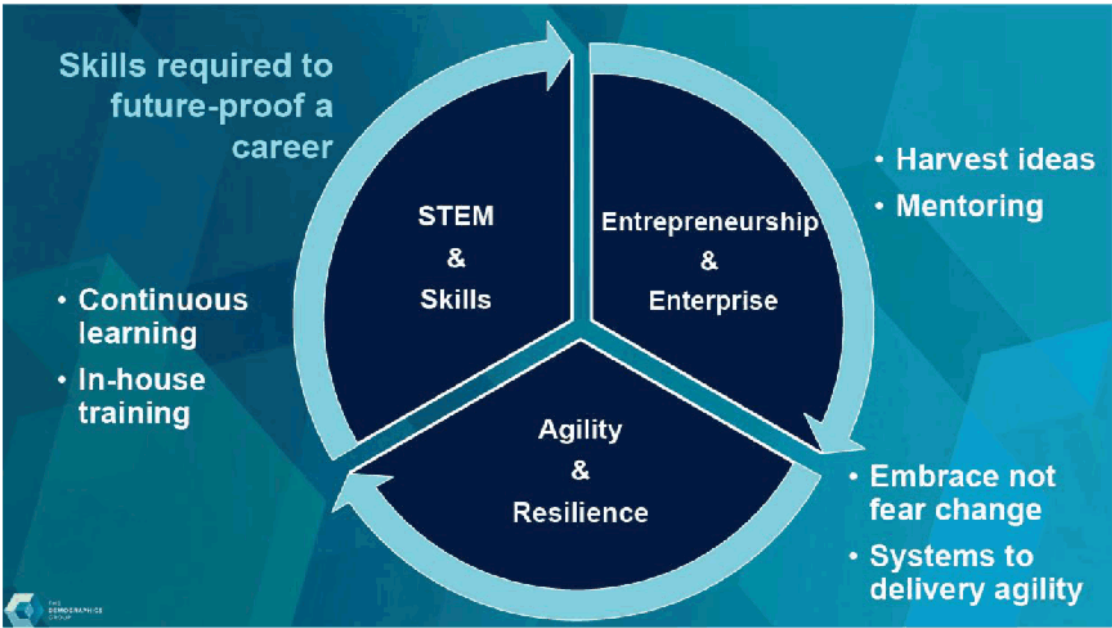
Skill Level	Job Type	Jobs In 2016	Share In 2016	Growth 2011-16	Share of growth 2011-16
1	Doctor, Engineer, Midwife	1,490,000	18%	290,000	46%
2	Police Officer, Dental Hygienist, Chef	1,140,000	14%	80,000	13%
3	Electrician, Butcher, Mechanic	1,360,000	17%	10,000	1%
4	Truck Driver, Walter, Barista	2,520,000	31%	130,000	21%
5	Sales Assistant, Cleaner, Café Worker	1,720,000	21%	110,000	18%
Relevant Total		8,220,000	100%	620,000	100%

Occupations by skill level at the 2016 Census



### Investment in education pays dividends





**Key messages**



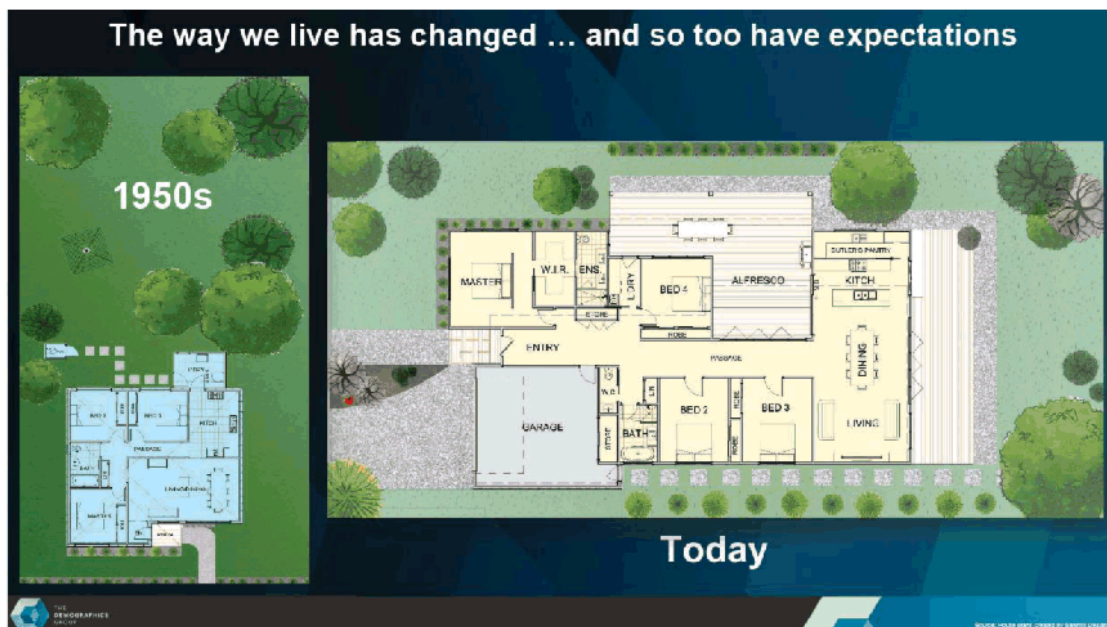
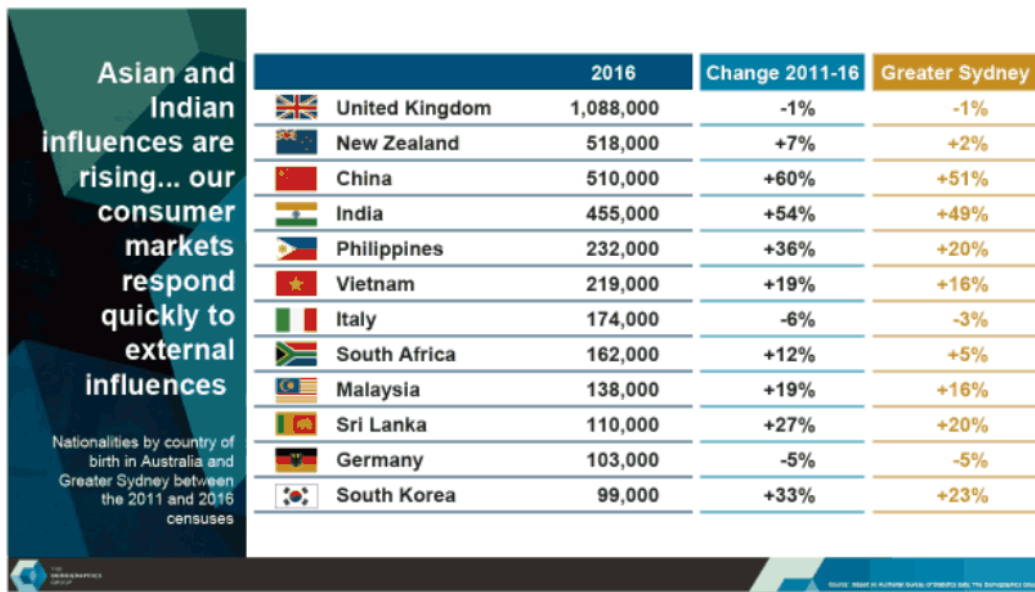
The pie keeps growing ... more **people**, emergence of **new tribes**, more **diverse** nation



The knowledge economy favours highly trained workers ... **social cohesion** a major issue, risk of **geographical segregation**



To succeed you must be open for **innovation** and must be prepared to handle **complexity**



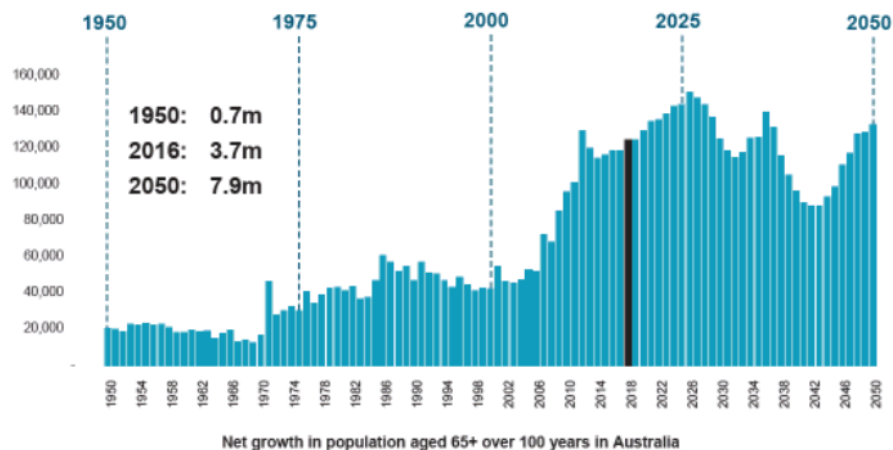
### Australia's social shift... from suburban families to hipster couples

	Number of Households (000)			H/H Growth
	1986	2016	2036	1986-2036
Traditional Nuclear Family	2,272	2,687	3,424	+51%
Couple-Only	1,236	2,199	3,093	+150%
Single Household	961	2,024	2,721	+183%
One Parent Families	215	355	477	+122%
Group Household	499	919	1,275	+156%
<b>Total No.</b>	<b>5.2m</b>	<b>8.2m</b>	<b>11.0m</b>	<b>+112%</b>

Change in household and family type in Australia over 50 years



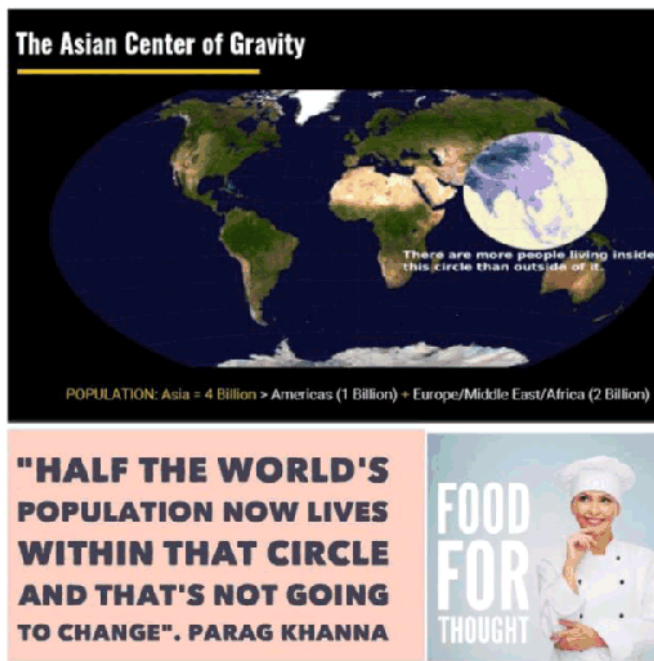
### Today the focus is on wellness... tomorrow it will be on the greatest transfer of inter-generational wealth in history



Net growth in population aged 65+ over 100 years in Australia



## Global population



**Socio Demographic Implications for Southland District****WHAT**

- NZ population growing - but predominantly North Island and north of North Island
- NZ concept of 'three nations' - European decreasing, Asian increasing, Maori/Pacific Island increasing
- Southland population static and ageing
- less people living rurally

**SO WHAT**

- potential labour supply issues for agriculture and primary sector
- implications for agricultural practices, land use and production/productivity requirements which has economic impacts and a ripple effect on utility and amenity demand and requirements for communities - including central government, local government, non profit provided services
- diversity and ageing population demand different services and different levels of service to what might have been the 'norm'

**NOW WHAT**

- Council to consider its position on investment decisions for areas of growth versus decline based on the equity and equality principles
- develop an understanding of future demand requirements and implications on service provision type and levels of service expectations within an affordability and sustainability context

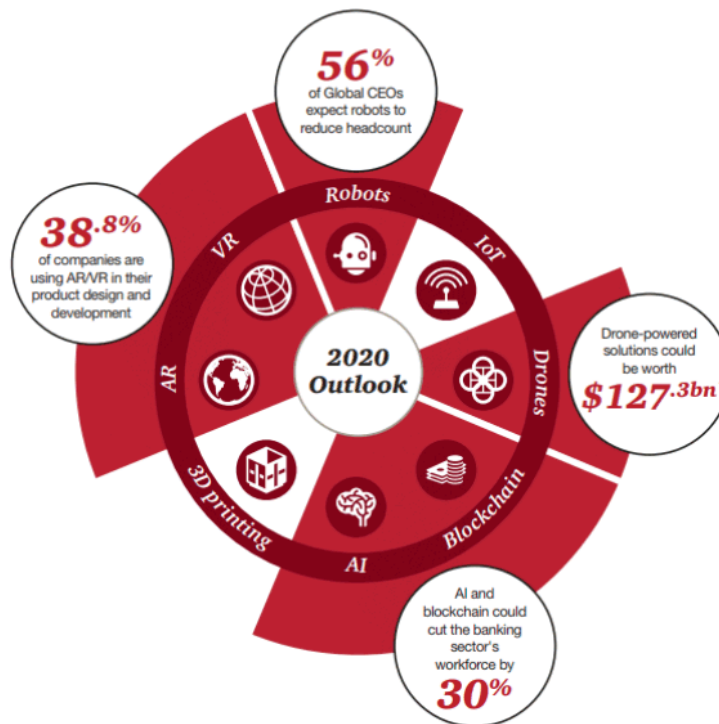


## Megatrend Disruptors Considerations

### 8 Technologies

<https://www.pwc.co.nz/pdfs/Global-Tech-Megatrends-NZ.pdf>

## *The Essential Eight emerging technologies*



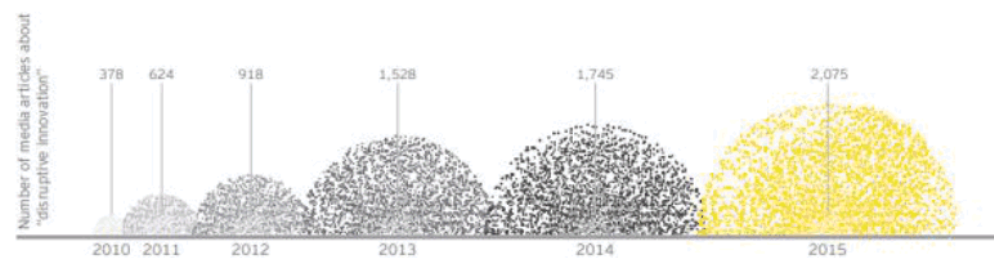
<sup>1</sup> PwC Poland, Clarity from above: PwC global report on the commercial applications of drone technology, May 2016



### *The Essential Eight technologies that matter now*

1. Artificial intelligence (AI). Software algorithms that are capable of performing tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making and language translation. AI is an 'umbrella' concept that is made up of numerous subfields such as machine learning, which focuses on the development of programs that can teach themselves to learn, understand, reason, plan and act (i.e. become more 'intelligent') when exposed to new data in the right quantities.
2. Augmented reality (AR). Addition of information or visuals to the physical world, via a graphics and/or audio overlay, to improve the user experience for a task or a product. This 'augmentation' of the real world is achieved via supplemental devices that render and display said information. AR is distinct from Virtual Reality (VR); the latter being designed and used to re-create reality within a confined experience.
3. Blockchain. Distributed electronic ledger that uses software algorithms to record and confirm transactions with reliability and anonymity. The record of events is shared between many parties and information once entered cannot be altered, as the downstream chain reinforces upstream transactions.
4. Drones. Air- or water-based devices and vehicles, for example Unmanned Aerial Vehicles (UAV), that fly or move without an on-board human pilot. Drones can operate autonomously (via on-board computers) on a predefined flight plan or be controlled remotely. (Note: This category is distinct from autonomous land-based vehicles.)
5. Internet of Things (IoT). Network of objects – devices, vehicles, etc. – embedded with sensors, software, network connectivity, and computer capability, that can collect and exchange data over the Internet. IoT enables devices to be connected and remotely monitored or controlled. The term IoT has come to represent any device that is now 'connected' and accessible via a network connection. The Industrial IoT (IIoT) is a subset of IoT and refers to its use in manufacturing and industrial sectors.
6. Robots. Electro-mechanical machines or virtual agents that automate, augment or assist human activities, autonomously or according to set instructions – often a computer program. (Note: Drones are also robots, but we list them as a separate technology.)
7. Virtual reality (VR). Computer-generated simulation of a three-dimensional image or a complete environment, within a defined and contained space (unlike AR), that viewers can interact with in realistic ways. VR is intended to be an immersive experience and typically requires equipment, most commonly a helmet/headset.
8. 3D printing. Additive manufacturing techniques used to create three-dimensional objects based on digital models by layering or 'printing' successive layers of materials. 3D printing relies on innovative 'inks' including plastic, metal, and more recently, glass and wood.

## Media mentions of "disruptive innovation"



Source: EY analytics using Factiva database. Figures show number of media articles mentioning "disruptive innovation" in each calendar year, excluding duplicates.

**Technology:** while we usually think of disruption in the relatively recent context of IT, advances in technology have been disrupting business models for centuries. The industrial revolution as an example eliminated guilds and created massive labour displacement. In our lifetime, successive waves of IT revolution (PC, online, mobile, social) have democratised data, empowered consumers and spawned scores of new industries. The next waves – the Internet of Things (IoT), virtual reality, AI, robotics – promise to be even more revolutionary.

**Globalisation:** like technology, globalisation has been upending the status quo for centuries, going at least as far back to the 15<sup>th</sup> century launch of the age of discovery and colonialism. Globalisation has accelerated in recent decades, due to trade liberalisation and emerging market growth. These trends disrupt existing business models by creating new competitors, reordering supply chains and lowering price points. The next waves – including the emergence of Africa and a more multipolar world – will increase complexity and require flexible business models to respond to global shifts.

**Demographics:** throughout human history, demographics have determined destiny. In the decades ahead aging populations in western world economies will transform everything from health care to real estate. Millennial dominated workforces will reinvent the workplace. Urbanisation will increase cities' economic and public policy clout, even as it strains their ability to grow in sustainable ways. Migration and immigration will have profound impacts on workforces and economic development. All these demographic shifts will require new strategies and business models.

Responding to disruption is critical and is considered perhaps the most important strategic imperative facing society – why?

**Everyone is affected:** the pace of disruption is accelerating and impacting a growing list of sectors. The next wave of digital innovation – harnessing AI, robotics and virtual reality – will transform activities long considered safe from disruption.

If you think you won't face disruption, it's not because you won't – it's because you don't yet know how it will happen.

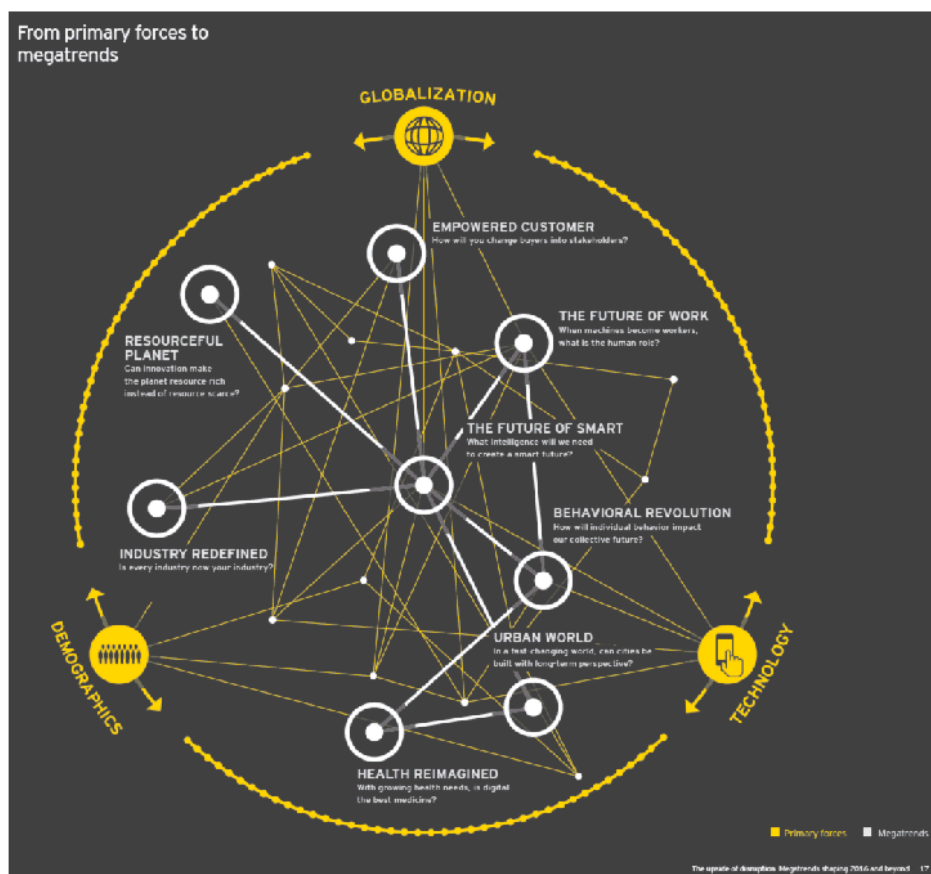
**It's easy to underestimate the pace of change:** "In retrospect, all revolutions seem inevitable. Beforehand, all revolutions seem impossible" – Michael McFaul, former US Ambassador to Russia. In 2012 when Google announced that it had been testing driverless cars on US roads and had already driven over 200,000 miles in everyday traffic conditions, the news reverberated like a shock wave across the world. Driverless cars – a staple of science fiction just a few years earlier – had become a reality faster than most expected. Time and time again we underestimate the significance and speed of disruptive innovation.

Time is not on your side.

**Smart strategy and execution are not enough:** it may sound counterintuitive, but organisations get disrupted not by doing the wrong thing, but by doing the right thing. The long list of organisations that have fallen victim to disruption includes organisations that dominated their sectors for decades. They were often ruthlessly competitive, relentlessly focussed on the market and led by competent strategic thinkers. In many ways, they succumbed to disruption not despite, but because of, that focus. Organisations are typically structured and incentivised to focus on fulfilling the needs of their existing constituents – blinding them to disruptive opportunities, which often do not initially meet those needs.

**The strategy that got you here may not be the one you'll need for the road ahead.**

As the new waves of technology, globalisation and demographics interact, they give rise to a range of megatrends



The net impact of these megatrends is the emergence of a policy environment which is characterised by volatility, uncertainty, complexity, and ambiguity – also known as VUCA.

#### AI – Data

<http://www.infrastructurenews.co.nz/ai-will-transform-life-like-arrival-electricity/>

Artificial intelligence (AI) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans.

People talk about AI as the 4<sup>th</sup> industrial revolution.

It is important to understand the developments in AI and technology.

While technology is making great strides in simplifying and automating some work, the truth is that many of these tasks are actually simpler and fewer than many think.

Many jobs require human qualities like empathy and communication, critical thinking, creativity strategic thinking, questioning and imagination and vision. Collectively these qualities are often referred to as 'soft skills' – but these will be in demand in the job market as AI and technology replace some of the jobs that can be performed without people.

AsiaPacific infrastructure communication [www.infrastructurenews.co.nz/ai-will-transform-life-like-arrival-electricity/](http://www.infrastructurenews.co.nz/ai-will-transform-life-like-arrival-electricity/) (based on the Artificial Intelligence Forum of NZ research) has suggested **AI will transform lives of New Zealanders just like the arrival of electricity 130 years ago**. But it does suggest challenges.

A concern is that many businesses are complacent about opportunities of AI and the potential broader challenges of AI.

AI is perhaps the most talked about technology of our time, promising to transform fundamental aspects of how we live, work and play. It suggests AI is emerging everywhere: as a virtual assistant on every new smartphone, a robo-advisor to help make investment decisions, driving autonomous vehicles on our roads and in sophisticated algorithms underlying recommendation engines for many of the world's leading web platforms.

A challenge is concerning New Zealand's understanding of AI's significance being low compared to other issues with similarly wide ranging effects on society.

It is suggested AI impact is based on a long timeframe. Widespread adoption of AI could take between 25 to 40 years until it is expected to fully impact employment patterns.

This will coincide with natural changes in the labour market which will be significantly larger than any expected impact from AI and existing labour market support policies should be able to cope.

Government and industry must collaborate to maintain support structures for tech displaced workers, accurately identify roles at risk of displacement and increase investment in the development of new skills as part of the long term human resource plan for New Zealand.

There is some positive engagement in AI in NZ – a range of start-ups are leading the development of AI nationally and universities have teams of AI experts publishing world class research with potential for commercialisation success.

It is suggested New Zealand's traditional export earners including agriculture and tourism are starting to show early signs of vulnerability to overseas technology enabled competition and disruption.

This leads to the conclusion that NZ needs to engage substantially with AI now to shape a prosperous, inclusive and thriving future for our nation.

## Work and Education Considerations

### Work patterns – The future of work?

<https://www.ey.com/Publication/vwLUAssets/EY-the-upside-of-disruption/%24FILE/EY-the-upside-of-disruption.pdf>

It is suggested the coming reinvention of work is unlike anything we have witnessed before, even in this era of disruption.

The displacement of labour by technology and globalisation is hardly a new phenomenon. Technology has been reshaping work since the first industrial revolution, which demolished guilds and replaced artisanal



craftsmanship with assembly line production. Globalisation has been changing work for decades due to trade liberalisation and emerging markets.

Now the next waves of disruptive technology – AI, robotics, virtual reality, IoT, and sharing economy platforms – are poised to take labour displacement to a next level.

Automation has long displaced workers in blue collar jobs, from factory labourers to supermarket cashiers.

AI is now disrupting jobs long considered immune to technological displacement such as white collar work and creative endeavours.

Algorithms have uprooted white collar work in the financial sector (high frequency trading) and are starting to do so in health care (mobile health apps, robotic surgery, and diagnosis by algorithm).

Not all jobs will be affected and not all affected jobs will be eliminated – as always, automation will both replace and supplement human labour – but jobs that are truly untouched will be the exception rather than the norm.

Work is more than a cog in a business model; it is a fundamental part of the human experience. The radical disruption of work has profound political and social implications.

The potential impact of automation on employment varies by occupation and sector. Activities most susceptible to automation include physical ones in predictable environments, such as operating machinery and preparing fast food. Collecting and processing data are two other categories of activity that can increasingly be done better and faster by machines.

Automation will have a lesser effect on jobs that involve managing people, applying expertise and those involving social interactions, where machines are unable to match human performance for now.

The changes in net occupational growth or decline imply that a very large number of people may need to shift occupational categories and learn new skills in the years ahead.

The shift could be on a scale not seen since the transition of the labour force out of agriculture in the 1900s in the USA and Europe, and more recently in China.

But unlike these earlier transitions, in which young people left farms and moved to cities for industrial jobs, the challenge, especially in advance economies, will be to retrain midcareer workers.

Automation represents an opportunity to boost productivity and growth especially at a time when aging populations can act as a drag on GDP growth.

To capture opportunities for the workforce, then societies will need to prepare for complex workforce transitions ahead.

For policy makers, business leaders, and individual workers, the task at hand is to prepare for a more automated future by emphasising new skills, scaling up training, especially for midcareer workers, and ensuring robust economic growth.



It is generally accepted the way we work is going to shift over time as machines and machine learning and artificial intelligence start to take over some pieces of what we do. That will require people to adapt and change. Jobs and occupations as we know them today will shift.

There are two main dimensions to how technology is changing work. One is machines are replacing what humans do: robots, cognitive machines, simple software on PCs. The other side of this is digital technology is changing how we organise work. It is taking us from fulltime employment (the norm in the 20<sup>th</sup> century) toward a wide variety of non-employment work arrangements.

Research and history suggest that increasingly over time people will have to be complements to the work that machines do – work side by side or work with machines. Going forward we’re going to see more of these technologies which involve robotics or artificial intelligence working side by side with human beings.

One thing that is a challenge here and now, is whether we can adopt automation quickly enough. What we know is, because of demographics, because of aging, we simply don’t have enough workers to deliver on what is expected/required to be delivered and produced. To continue to produce to the level required and continue to grow and develop to allow supply to meet demand we need machines working alongside human beings.

That means in order for the economy to grow we need to make sure that we develop and adopt the technologies and make sure that people are benefitting so improvements and well beings for the next generation to prosper.

There is the need to consider the challenge of the impact of technology as an opportunity for mass redeployment rather than mass unemployment.

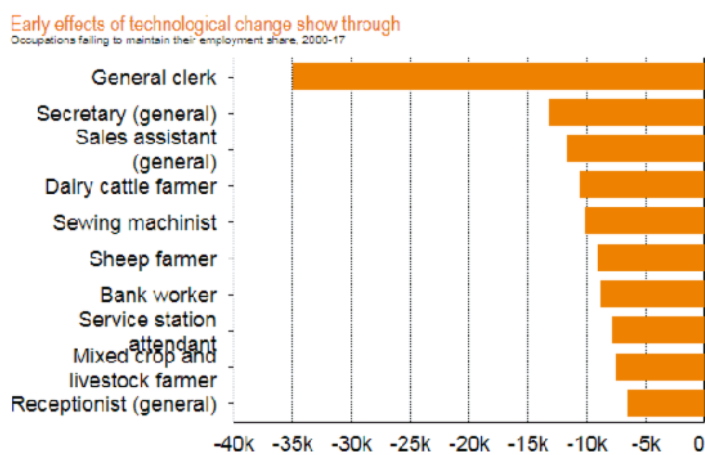
### Rural work patterns

[http://www.infometrics.co.nz/infometrics\\_megatrends/](http://www.infometrics.co.nz/infometrics_megatrends/)

There are various discussions being had about the possible effects of automation on the New Zealand workforce over the next 20 years. Infometrics in its recent report, [From education to employment: Megatrends affecting NZ's working environment](#) estimated that 31% of New Zealand's jobs, or 747,000 jobs are at high risk of automation between 2018 and 2036.

Further analysis then considered how many employees would there be in each occupation if it accounted for the same proportion of the workforce in 2017 as it did in 2000.

The occupations with the largest underperformance in terms of employee numbers are shown in the graph below – Occupations failing to maintain their employment share 2000-17.



This includes dairy cattle farmer down by 1,152 employees rather than up by 9,415, and mixed crop and livestock farmer down by 2,797 employees rather than up by 4,678.

Infometrics suggest although job losses due to automation might be spread reasonably evenly across the country, it is most likely that the geographic distribution of jobs being created in new industries and occupations will be quite different.

It is identified that while automation may lead to the loss of certain categories of jobs, changes in business processes and the structure of the economy will lead to the emergence of new job opportunities in the regions.

Mr Tony Maher, CEO of the National Farmers' Federation (Australia) noted:

“it’s a conundrum, a dilemma. What I’d like to think is that, yes, as farms consolidate there might possibly be more automation and fewer traditional jobs, but that if you were successful there might be newer jobs not necessarily on the farm but in the region in terms of service and technology application.”

A similar view is expressed by Mr Bradley Siddans, Human Resources Manager for Oakley Beef Exports (Australia). He notes that while technology may displace workers within the company, it may lead to opportunity and growth in other areas of the company. He notes:

“It’s considered that in 10 years 40% of the jobs in our industry won’t be there in their current form. It’s not necessarily that 40% of the people won’t be there. The expectation is that we will continue to employ the large numbers of people we do, it’s just that the work we ask them to do will change... We can put in a piece of equipment that costs \$2million, for example, and that might take us from five people down to one in that exact area, but it allows us to expand to employ another 50 people because the throughput of the company goes up at the same time. Those are the sorts of technological changes that we make, more than the machines and automation removing people from the industry altogether.”

### Workforce shifts

[http://www.infometrics.co.nz/infometrics\\_megatrends/](http://www.infometrics.co.nz/infometrics_megatrends/)

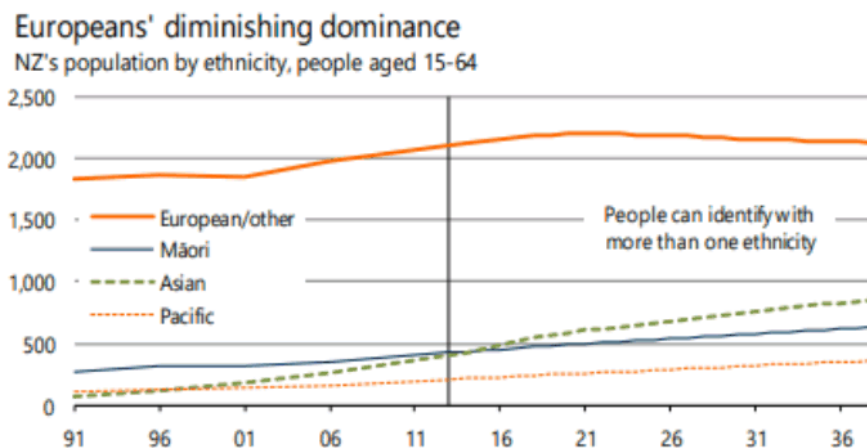
The labour force is becoming more globalised, with increased international migration flows a reflection of the wider and more diverse pool of workers available to businesses.

The more multicultural workforce presents opportunities for growth, but also challenges.

Current occupational preferences mean that some industries are struggling to tap into the rapidly growing group of Asian workers.

The underrepresentation of Maori and Pasifika in more highly skilled and high paying jobs also risks exacerbating the socioeconomic divide that already exists in New Zealand.

The graph below shows the evolution of New Zealand’s population by ethnicity between 1991 and 2013, along with Statistics NZ’s projections out to 2038.



Recent high immigration levels have accelerated the growth in the Asian population, which is now estimated to be 142% larger than it was in 2001. By 2038 Statistics NZ estimates that the number of people identifying as being of Asian ethnicity will have climbed to 860,100, compared with 172,100 in 2001 – a 400% increase.

Broader demographic trends suggest that labour is likely to remain in relatively short supply over the medium to longer term.

Consequently, growth in the Asian ethnic population potentially creates challenges for industries and occupations that don’t have a large uptake of Asian workers.

The reasons for people’s career choices can be complex and varied, but the lack of occupational role models or people with a similar cultural background to associate with at work can be an impediment.



Of the 100 largest occupations in New Zealand, parts of the agricultural sector stand out as being areas where people of Asian ethnicity are underrepresented – as is the case for most non-European ethnicities when it comes to parts of agriculture.

#### Occupations favoured and not favoured by Asian workers

% of employees identifying as being of Asian ethnicity

Chef	41.6%
Taxi driver	40.8%
Baker	34.5%
Café or restaurant manager	30.2%
Resident medical officer	29.4%
Cook	25.8%
Sewing machinist	25.3%
ICT customer support officer	25.2%
Retail manager (general)	23.6%
Developer programmer	23.6%
<b>All employment</b>	<b>11.0%</b>
Police officer	3.6%
Plumber (general)	3.6%
Primary school teacher	3.5%
Dairy cattle farmer	3.2%
Project builder	3.1%
Mixed crop and livestock farm worker	2.8%
School principal	2.7%
Agricultural and horticultural mobile plant operator	1.8%
Mixed crop and livestock farmer	1.2%
Sheep farmer	0.3%

#### Qualifications/retraining

The internet has revolutionised much of the economy and the education sector is no exception.

One of the more radical innovations has been massive open online courses (MOOCs). These generally aim to have open access and unlimited participation via the internet.

The trend towards more online based learning and increasing access to education will continue to affect education provision throughout the next 20 years, particularly in the tertiary and vocational training space.

Online learning provides greater scope for combining theory with practical on job training.

Employees and employers also demand increased flexibility about courses and content. There is increased demand from employers for more skills based qualifications that fit the needs of the modern working environment.

Increased access to courses from education providers independent of a student's location implies a potential increase in competitive pressures for tertiary institutions.

#### Lifelong learner

Taking an approach to training and education that is more focused on skills and structured around smaller courses is necessary given the rapidly evolving workplace.

The need for retraining and upskilling throughout people's working lives will be further emphasised by increasing automation over the next 20 years.

Today's working environment and career paths are very different to what they were two or three generations ago when people were often in a job for life.

Research shows that people often hold 10-15 jobs throughout their working life.

Furthermore many people will change career at least once during their lifetime.

This is further exacerbated with the emergence of widespread automation, and means that many occupations in existence today are unlikely to be around by 2040.

In this environment the abilities of people to upskill or retrain and remain relevant to the evolving labour market are paramount.

#### Automation in rural communities

It is contended by some that:

“any job losses from automation are likely to be broadly offset in the long run by new jobs created as a result of the larger and wealthier economy made possible by these new technologies.”

Nevertheless, even if we assume there is roughly a 1:1 replacement of redundant automated jobs with newly created jobs within NZ, it seems extremely optimistic to suppose that many of these new jobs will spring up in provincial towns and rural areas.

In the context of New Zealand's long term trend towards increased urbanisation, along with the concentration of population and economic activity in the upper North Island, automation poses significant challenges for provincial areas.

Infometrics have estimated that a percentage of jobs at high risk over the next 18 years due to automation for the lower South Island local authority areas are:

Jobs at risk due to automation - % of jobs at high risk over the next 18 years, Infometric estimates

	2024	2030	2036
<b>TIMARU DISTRICT</b>	10.2%	25.4%	33.0%
<b>MACKENZIE DISTRICT</b>	9.7%	24.5%	32.9%
<b>WAIMATE DISTRICT</b>	10.4%	25.5%	33.6%
<b>WAITAKI DISTRICT</b>	10.1%	25.2%	32.8%
<b>CENTRAL OTAGO DISTRICT</b>	10.0%	24.7%	32.1%
<b>QUEENSTOWN LAKES DISTRICT</b>	9.6%	23.8%	31.5%
<b>DUNEDIN CITY</b>	9.4%	22.9%	29.3%
<b>CLUTHA DISTRICT</b>	10.4%	25.7%	33.4%
<b>SOUTHLAND DISTRICT</b>	10.7%	26.5%	34.9%
<b>GORE DISTRICT</b>	10.2%	25.2%	32.7%
<b>INVERCARGILL CITY</b>	9.9%	24.5%	31.3%

The Regional Institute of Australia has identified that by 2030, employers will place greater demand on skills that are high tech (specialist), high touch (practical), and high care (personal). This emphasises the need for workers to have skills that are not easily automated.

#### Automation – Impact of

<https://www.pwc.co.nz/pdfs/2018pdfs/impact-of-automation-on-jobs-Feb-2018.pdf>

PWC has identified how the automation process and its impact might unfold over the period to the 2030s in three overlapping waves:

**Algorithm wave:** focussed on automation of simple computational tasks and analysis of structured data in areas like finance, information and communications – this is already well underway

**Augmentation wave:** focussed on automation of repeatable tasks such as filling in forms, communicating and exchanging information through dynamic technological support, and statistical analysis of unstructured data in semi controlled environments such as aerial drones and robots in warehouses – this is also underway, but is likely to come to full maturity in the 2020s

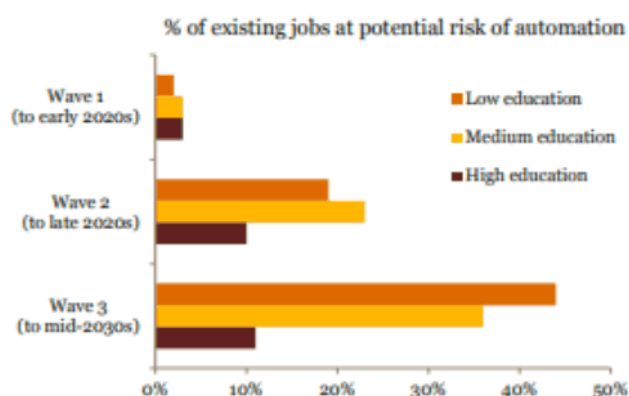
**Autonomy wave:** focussed on automation of physical labour and manual dexterity, and problem solving in dynamic real world situations that require responsive actions, such as in manufacturing and transport (e.g. driverless vehicles) – these technologies are under development already, but may only come to full maturity on an economy wide scale in the 2030s.

Further analysis suggests that any job losses from automation are likely to be broadly offset in the long run by new jobs created as a result of the technologies.

Nonetheless, automation will disrupt labour markets.

**In the long run, less well educated workers could be particularly exposed to automation, emphasising the importance of increased investment in lifelong learning and retraining**

**Figure 2 – Potential job automation rates by education level across waves**



Source: PwC estimates based on OECD PIAAC data (median values for 29 countries)

#### Automation, rural impact and changing nature of work

<http://www.regionalaustralia.org.au/home/2018/06/riding-next-wave-automation-rural-australia/>

The Regional Australia Institute (RAI) is a think tank devoted to issues concerning regional Australia.

A Regional Australia Institute (RAI) discussion paper reveals the automation risks rural areas are facing and outlines how simultaneously increasing migration and lifting local skills development can prepare rural labour markets to do well in an era of changing workforce demand.

The increasing automation of occupational tasks across the economy means the nature of work today is very different to what it was a century ago. Managing these technological and labour force changes remains a challenge for workers and policymakers alike.

The job mix in rural areas more broadly is changing rapidly, from a predominance of low skill agricultural work to a mix of low and high skilled agriculture and service sector jobs.

To assist to cultivate a workforce for the next generation, dual emphasis on migrant labour and skills development/acknowledgement is required.

Rural areas need better promotion of skills development at the local level, not least to boost the attractiveness and viability of farming careers for rural youth. Research (National Centre for Vocational Education and Research - Australia) suggests there will be a rise in the number of job vacancies for farmer and farm manager positions (up to 123,000 openings between 2016 and 2024), due to both the expansion and replacement of retired older workers. To help fill these vacancies, young people need to be encouraged to aspire to senior farming roles, and the increasing level of professionalism that such roles are assuming.

Because employment outlooks vary from place to place for a host of reasons, remaining adaptable to any future workforce challenges is what will safeguard communities in the long term.

In rural areas where increases in the efficiency of agricultural production are expected to come at the expense of jobs, there needs to be broader expansion of the local skills base. This will help to match the general shift from lower skilled, more manual and more routine farm jobs to higher skilled, less manual and less routine farm jobs.

Ongoing investment in human capital through skills development right across rural communities is crucial. Investment in skills development will help ensure that rural employers are able to fill both high and low skill jobs locally, and that people in rural communities are adaptable to the changing nature of work – whatever their industry – so they can remain competitive for employment in the broader economy.

Digital technologies are continuing to change the nature of work across all industries. Proactive strategies are required to ensure rural communities benefit directly (from the diffusion of burden easing automated technologies across rural enterprises) and indirectly (from skills development in digital technologies and beyond).

It is important to maintain a dual emphasis on local and migrant skills development and recognition to meet present and future labour force challenges. This dual emphasis is necessary for the long term sustainability of rural careers in the face of digital and economic transformation, and agricultural careers in particular, both in terms of labour supply (managing seasonal and ongoing workforce shortages) and demand (enhancing the attractiveness of seasonal and ongoing jobs).

There are obviously alternative perspectives of the impact of technological disruption for people living in rural communities. It is important to address what recent changes in employment and technology mean for people working in the agriculture, forestry and fishing industries, as well as what such changes are likely to mean for Australia's rural communities more generally.

Inevitably this becomes a discussion of changing skill and labour demands; how rural areas are able to meet these demands, and what needs to be done to ensure that 'country life' continues to live on.

How changes to the nature of work impact on agricultural labour force has huge implications for the future of rural communities.

### Regional investment

Collaborative investment – by the two tiers of government, private sector and community groups – and improving the amenity value of rural and regional towns is needed to attract and retain people in regional areas.

Investment in rural and regional communities is seen as four fold:

- investment that maintains the status quo – maintains the infrastructure of towns and provides a basic level of universal services
- catalytic investment – drives development and growth and leads to further investment
- capacity building investment – education, training and leadership development
- human capital investment – employment of people to design and deliver services in rural communities.

### Skill shifts and future jobs

Having access to strong human capital in the form of a skilled workforce is directly linked to development of rural communities.

Conversely the absence of a skilled workforce is one of the main constraints on rural communities.

Individuals will need to be prepared for a rapidly evolving future of work. Acquiring new skills that are in demand and resetting intuition about the world of work will be critical for individual's well-being. There will be demand for human labour, but workers everywhere will need to rethink traditional notions of where they work, how they work, and what talents and capabilities they bring to that work.

The kinds of work and skills required will shift with profound implications for the career paths individuals will need to pursue.

**This is a big challenge. In terms of magnitude, it's akin to coping with the large scale shift from agricultural work to manufacturing that occurred in the early 20<sup>th</sup> century.**

But in terms of who will need to find new jobs we are moving into uncharted territory. The earlier workforce transformations took place over many decades but the speed of change today is potentially faster. The challenge and task confronting society is around the need to retrain and redeploy a large number of mid career, middle age workers.

The biggest driver for retraining and reskilling from an employer's perspective is the impact of digitisation, automation and AI reshaping whole industries and the only way to realise the potential productivity gains will be to have the people and processes in place to capture it.



## Megatrend disruptors/technology impact on workforce, education and training and implications for Southland District

### WHAT

- potential displacement of labour by technology with automation both replacing and supplementing human labour
- renewed emphasis on 'new' skills requiring a scaling up of training requirements
- retraining requirements for mid career employees
- potential for open, online courses meaning online based learning improving accessibility and combining theory with practical on job training
- skills based training required to fit the needs of the modern working environment from an employer and employee perspective
- projected 'types' of new jobs and automation poses challenges for rural areas and change in workforce diversity and ethnicity providing a supply of labour willing to undertake rural work roles
- labour force becoming more global and multicultural and transient in nature
- challenges associated with recruiting and retaining workforce with the right skills, attitude and passion for agricultural and primary sector roles

### SO WHAT

- need to prepare for complex workforce transitions ahead
- communities need to best prepare for the new modes and means of training including for the existing workforce and new workforce participants
- potential labour supply issues for agriculture and primary sector requiring a willingness and ability to retrain
- implications for agricultural practices, land use and production/productivity requirements which has economic impacts and a ripple effect on utility and amenity demand and requirements for communities - including central government, local government, non profit provided services
- diversity and ageing population demand different services and different levels of service to what might have been the 'norm'
- potential impact of technology and automation on transport methods and other service provision requirements in the rural areas
- a global and multicultural workforce less attracted to rural type employment opportunities
- if retraining and lifelong learning required for the workforce then does this change focus of residents from community to career - 'we versus me' concept
- early effects of technological change has seen a decrease in agricultural roles and this has an impact on the socio demographics of rural communities

### NOW WHAT

- Council to consider its role in supporting capacity and capability building for the rural workforce, residents and community organisations requirements
- Council to consider its role in human capital development community development and how it might invest in this
- Council build on the work identified in BERL Community Futures work and SRDA focus on migrant labour attraction actions and ensure specific investment to target workers who are receptive and responsive to rural Southland needs
- Council continue to invest in welcoming communities and community integration initiatives to support community development capability and capacity building
- Council to consider policy implications for automated service delivery requirements and associated disruptors
- Council continue to develop an understanding of potential labour displacement issues impacting on rural Southland communities

Agri-Business and Agri-Tech Considerations

Synthetic food/lab grown meat

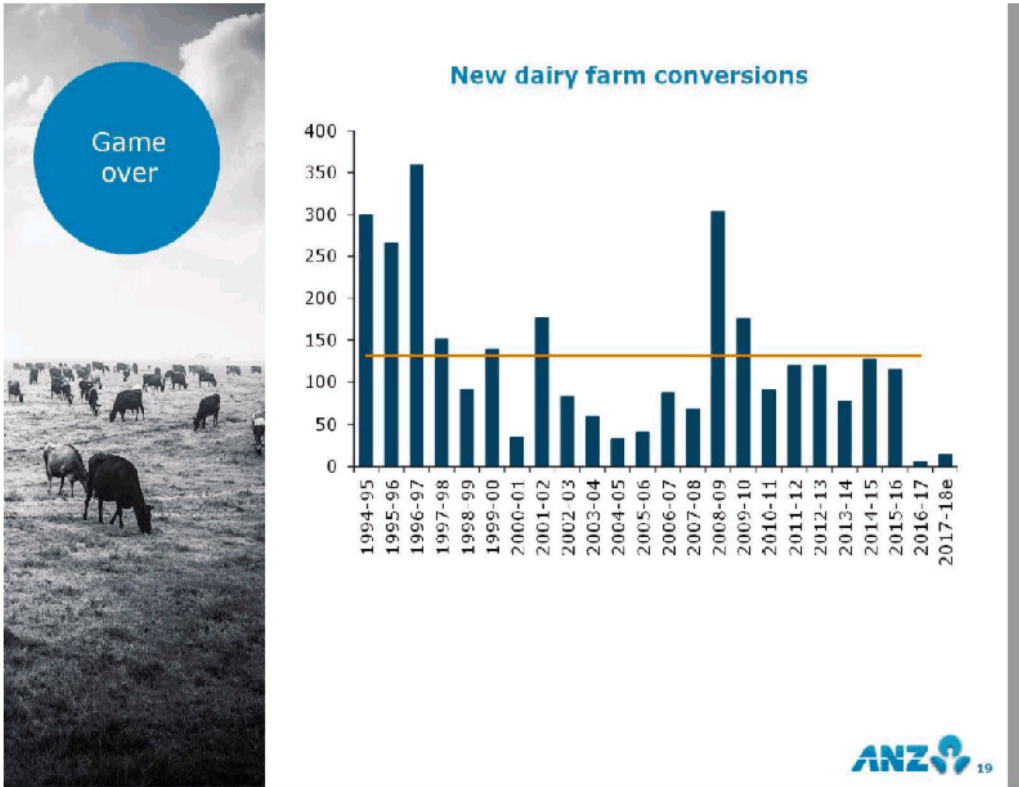
<https://www.linkedin.com/pulse/agricultures-kodak-moment-coming-so-isnt-time-stop-using-bosworth/>

NZ economic outlook. May 2018. Sharon Zollner, Chief Economist. ANZ.

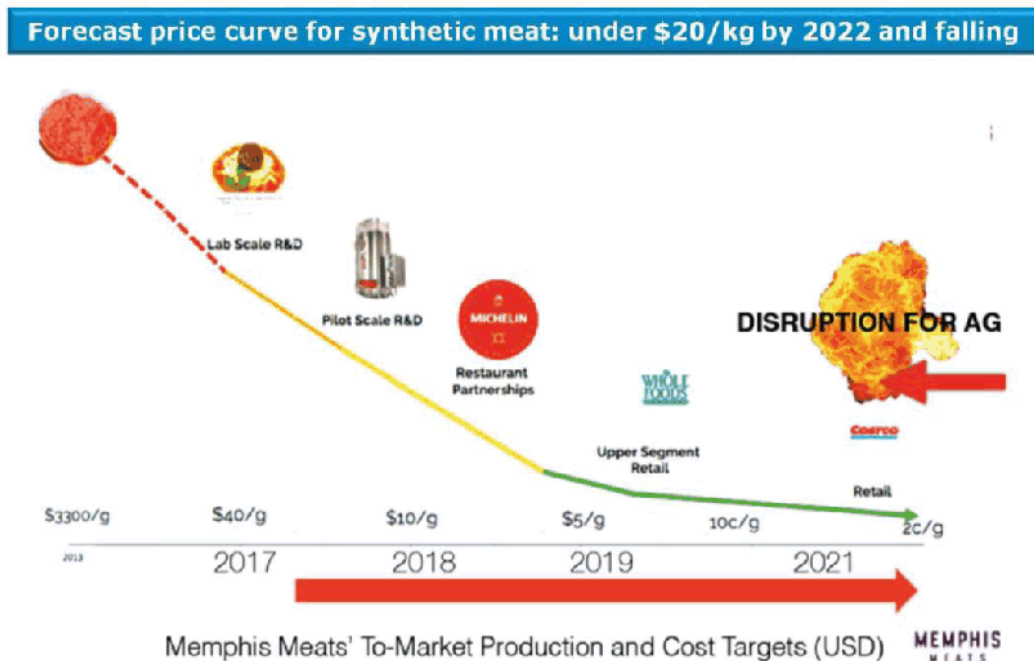
[https://www.vice.com/en\\_nz/article/j5e7wg/does-lab-grown-meat-and-milk-mean-the-end-for-new-zealand-farmers](https://www.vice.com/en_nz/article/j5e7wg/does-lab-grown-meat-and-milk-mean-the-end-for-new-zealand-farmers)

With the advent of cellular agriculture, synthetic biology and plant based protein, agrarian economies like NZ need to consider the implications of such and be planning for alternative realities.

Consideration is being given to the change that is happening – while conservative baby boomers are used to animal reared beef and milk products, millennials and conscious consumers globally are opting to produce food, and their children will be born into a world with many animal free alternatives to choose from that dairy products and meat produced by ‘live animals’ may no longer be the norm.







Source: ANZ, Rosie Bosworth



Creative HQ NZ CEO Stefan Korn says:

“Synthetic milk doesn’t require any land, it doesn’t require cows, it requires no feed and it can be produced wherever it’s wanted – it doesn’t need to be distributed. Of those products being exported from New Zealand, 66% have replacement products that have a different footprint in production.

Do you even know whether it’s artificial or not? Because they’re chemically identical. Most [dairy] product doesn’t end up being consumed directly, it’s in processed food.... A lot of those producers are entirely cost and price driven.”

AgriHQ October 2017 states:

“Rising consumer appetite for synthetic alternatives to milk poses an existential threat to New Zealand’s pastoral based economy and will need the public to confront some thorny issues around climate change and genetic modification, the prime minister’s chief science adviser Peter Gluckman says.

An article on vice.com - [https://www.vice.com/en\\_nz/article/j5e7wg/does-lab-grown-meat-and-milk-mean-the-end-for-new-zealand-farmers](https://www.vice.com/en_nz/article/j5e7wg/does-lab-grown-meat-and-milk-mean-the-end-for-new-zealand-farmers) - deals with the sci-fi nature of what is occurring becoming a reality and addresses some of the points related to what effect this new technology could have on the NZ agricultural industry. The following are some excerpts for consideration:

The United Nations estimates there will be 9.6 billion humans on the planet by 2050, and as developing nations' meat consumption tends to grow with affluence—China's, for instance, rose 150 percent between 1985 and 2008—the world's need for agricultural resources will increase by a denomination that grows faster as it grows faster, with more and more stress placed on the planet.

VICE asked Mark Post, professor of vascular physiology at Holland's Maastricht University and leader of the team that unveiled an in vitro hamburger in London in 2013, how the world can cope with increased demand. "The fact of the matter is that we like meat. And all the indications point to the fact that that is not going to go away soon. So that means we have to be able to produce meat at a scale that is higher than what we are currently producing, and I don't see that happening through livestock."

Post's burger came at a cost of US\$330,000, and took Post and his team three months to create, first growing 20,000 muscle fibres from cow stem cells and then painstakingly pressing them together. Post has started a company to commercialise the product, and his modelling suggests that the price, after scaling up production, will eventually come down to \$11 a burger. He plans to have a product on the market within the next four years.

Post is not alone in working on technology that provides products traditionally supplied by agriculture: Perfect Day, for example, is an American company aiming to bring its cow-free milk to market next year—created using yeast and fermentation techniques similar to how beer is made and bread is leavened, it is full of the exact same proteins present in cow milk.

As with Post's meat, Perfect Day's milk has all the nutritional value of the product it seeks to replace, but it comes at a fraction of the environmental impact—the company's website says the product uses 98 percent less water than dairy farming, and produces 65 percent less greenhouse gas. As Post says of such technologies: "It allows us to create the product that we all love with less resources and less environmental impact. And this will change the business of farmers, for sure; every technology changes the economies of nations."

Dr Rosie Bosworth is a technology futurist who has written extensively about the challenges posed to New Zealand's agricultural industry by the advent of new technology, once suggesting the country could become the "Detroit of agriculture" if it fails to stay abreast of change. "When companies," she says, "such as Perfect Day [can produce milk at] a fraction of the environmental input for below commodity prices then that becomes quite a precarious situation to be in, because where is our place? It doesn't make any sense to be pillaging our environment and our natural resources to produce a product that is not only no longer competitive, but is environmentally taxing on so many angles."

Agriculture, according to Treasury, contributed nearly \$23 billion to the economy in 2015, nearly 70 percent of it from dairy, beef and sheep meat, and any reduction in its contribution to the economy would be felt throughout society. Wool, once an important export, now contributes only three percent of agricultural output, its value lessened by the rise of synthetic fabrics, a clear warning for its agricultural siblings.



Sunfed Meats

43 mins · 🌐

...

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At Good Catch, we are passionate culinary rebels with a cause—seafood without sacrifice. We create the best plant-based, chef-inspired delicacies you'll ever taste. Good Catch brings you the rich flavors and fishy textures of fine seafood—from fish-free tuna and burgers to crab-free cakes—made with nutritious, sustainable ingredients. Our mission: to preserve the ocean's natural resources while introducing awesome delicious "seafood" choices that benefit you and the world. Nothing fishy about it.

Don Appel, Chad and Derek



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All Good Catch foods are 100% plant-based. No dairy, no gluten, absolutely no GMOs, and no worries about shellfish allergens, mercury, plastic or microfibers. Just sit back and savor the Good Catch flavor.

## AWARD-WINNING FISH-FREE TUNA

- COMING FEB. 2019 -

IoT, big data and smart farming – Future of agriculture

<https://www.businessinsider.com/internet-of-things-smart-agriculture-2016-10/?r=AU&IR=T>

[https://www.google.co.nz/search?q=five+ways+agriculture+could+benefit+from+artificial+intelligence&rlz=1C1GCEU\\_enNZ820NZ820&oq=five+ways+&aqs=chrome.1.69j57j35i39j0l4.6050j0j4&sourceid=chrome&ie=UTF-8](https://www.google.co.nz/search?q=five+ways+agriculture+could+benefit+from+artificial+intelligence&rlz=1C1GCEU_enNZ820NZ820&oq=five+ways+&aqs=chrome.1.69j57j35i39j0l4.6050j0j4&sourceid=chrome&ie=UTF-8)

It is contended the farming industry arguably will continue to remain very important in next few decades.

The world will need to produce 70% more food in 2050 than it did in 2006 to feed the growing population of the world – according to UN Food and Agriculture Organisation.



To meet this demand the agriculture sector is turning to Internet of Things for analytics and greater production capabilities.

The IoT is set to push the future of farming to the next level.

Smart agriculture is becoming more commonplace and high tech farming is becoming the standard due to drones and sensors.

High tech farming techniques and technologies used to allow farmers to obtain detailed maps of topography, soil conditions such as acidity and soil temperature. Climate forecasts also reflect high tech means.

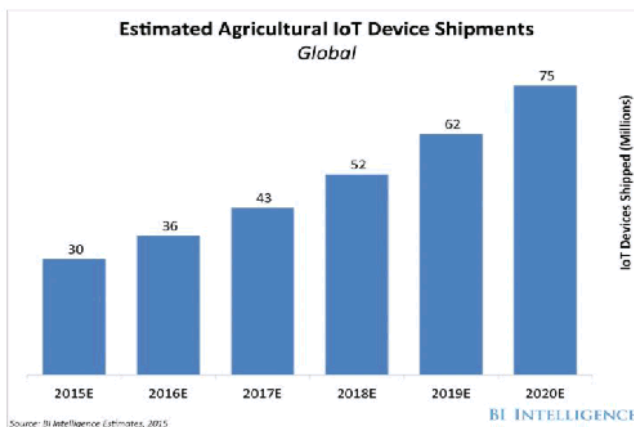
Smartphones allow farmers to remotely monitor equipment, livestock and crops as well as stats and analysis on farming operations.

Drones have become an invaluable tool for farmers to survey lands and generate crop data.

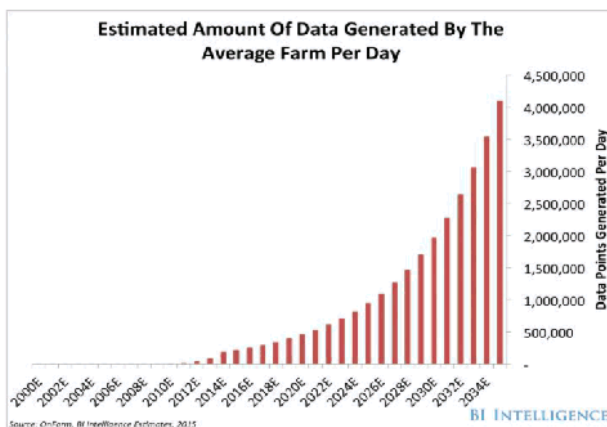
John Deere is pioneering self-driving tractors.

Precision agriculture is the process of using satellite imagery and other technology to observe and record data with the goal to improving production output while minimising cost and preserving resources.

Business Insider predicts that IoT device installations in the agriculture world will increase from 30 million in 2015 to 75 million in 2020



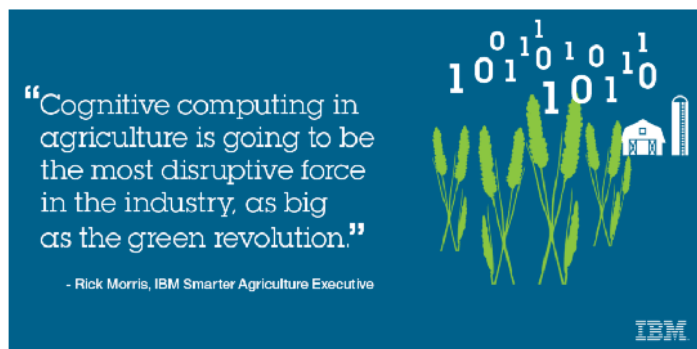
OnFarm which makes a connected farm IoT platform, expects the average farm to generate an average of 4.1million data points per day in 2050, up from 190,000 in 2014.



As well, OnFarm studies identified that for the average farm, yield rose by 1.75%, energy costs dropped \$7 to \$13 per acre, and water use for irrigation fell by 8%.

Digital and technological advancements are taking over the industry, enhancing food production while adding value to the entire farm-to-fork supply chain and helping it make use of natural resources more efficiently.

Data generated by sensors or agricultural drones collected at farms, on the field or during transportation offer a wealth of information about soil, seeds, livestock, crops, costs, farm equipment or the use of water and fertilizer. Internet of Things technologies and advanced analytics help farmers analyse real time data like weather, temperature, moisture, prices or GPS signals and provide insights on how to optimize and increase yield, improve farm planning, make smarter decisions about the level of resources needed, when and where to distribute them in order to prevent waste.



While digital transformation is disrupting the agricultural world and more data feeds the systems, solutions like the Watson IoT platform enhance value by applying machine learning abilities to sensor or drone data, transforming management systems in real artificial intelligence systems. Cognitive IoT technologies allow many types of correlations of large amount of structured and unstructured data from multiple sources, such as historic weather data, social media posts, research notes, soil information, market place information, images, etc., to extract knowledge and provide organizations with richer insights and recommendations to take action and improve yields.

Agricultural drones help already farmers scan fields, monitor crops and seeding or analyse plant health. Farm activities can become much more effective when drone data, IoT and computer vision technologies join forces to optimize strategies. Very recently, Aerialtronics, manufacturer of unmanned aircraft systems, partnered with IBM to bring the IBM Watson IoT Platform and the Visual Recognition APIs to commercial drones in order to capture images, analyse them in near-real time, identify areas of concern and take actions. These artificial intelligence systems will save time, increase safety and reduce potential human error while improving effectiveness. Agriculture could benefit greatly out of it.

In its most recent World Urbanization Prospects Report, UN predicts that, by 2050, 66% of the world's population will live in urban areas. **This growing urbanization will lead to a decrease of workforce in the rural areas. Innovative technologies using cognitive systems will help address this challenge by easing farmers' work, removing the need for large numbers of people to work the land. Many operations will be done remotely, processes will be automated, risks will be identified and issues solved before occurring.** Farmers will be able to take more informed and rapid decisions. In the future, the right mix of skills will probably increasingly be technology and agricultural skills rather than pure agricultural.

The use of cognitive technologies in agriculture could help determine the best crop choice or the best hybrid seed choices for a crop mix adapted to various objectives, conditions and better suited for farm's needs. Watson can use diverse capabilities to understand how seeds react to different soil types, weather forecasts and local conditions. By analysing and correlating information about weather, type of seeds, types of soil or infestations in a certain area, probability of diseases, data about what worked best, year to year outcomes, marketplace trends, prices or consumer needs, farmers can make decisions to maximize return on crops.

Chatbots are conversational virtual assistants who automate interactions with end users. Artificial intelligence powered chatbots, using machine learning techniques, understand natural language and interact with users in a personalized way. While it's still early days and chatbots are used mostly by retail, travel, media or insurance players, agriculture could also leverage this emerging technology by assisting farmers with answers to their questions, giving advice and recommendations on specific farm problems.

Although at the beginning, these ways of using cognitive technologies predict exciting times ahead for agriculture on its road towards efficiency, sustainability and meeting the world's food needs. We're looking forward to seeing how farmers, agribusinesses and other decision makers on the value chain will harness the power of IoT and artificial intelligence to shape the industry's future.

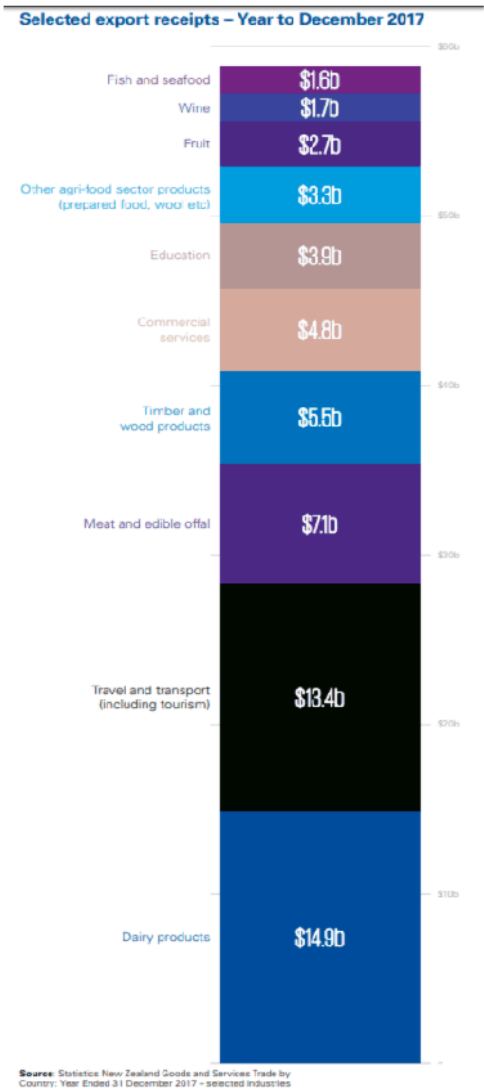
### Agribusiness Agenda 2018

<https://home.kpmg/nz/en/home/insights/2018/06/agribusiness-agenda-2018.html>

The reality is that the agri-food sector is the life blood of New Zealand. It creates wealth for the country year in, year out.

The narrative around the contribution that the agri-food sector makes to New Zealand should be considerably more positive than it is. It is the sector that pays for the schools, roads and hospitals that the whole community relies upon.



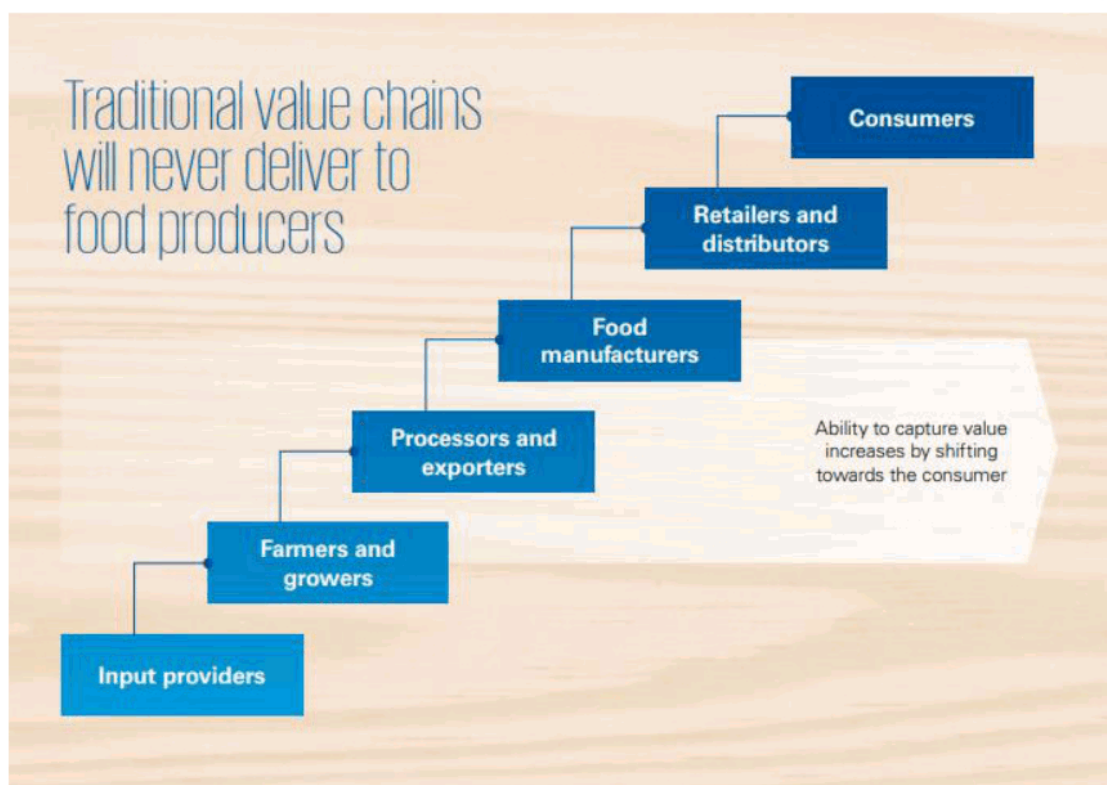


It is important the agri-food sector takes the time to tell its own stories.

The industry also needs to take back control and and develop the narrative about how customers perceive New Zealand products in comparison to a competitors offering.

The reality facing the industry is that the threat of eroded value caused by negative narratives is real and impacting on the industry and New Zealand in general.

The traditional value chain flowed lineally: from input suppliers, through the farmer to the processors, and ultimately to the retailer and the end consumer of the product. The bricks and mortar controlled by the retailer was the only point the consumer interacted with the product, and this experience was managed by the retailer to ensure that they captured the largest share of margin available from the value chain. Much of the time, the consumer had limited knowledge about the original source of the product they were buying. Given that, what was happening in the source country had little impact on their perception of the product or its value.

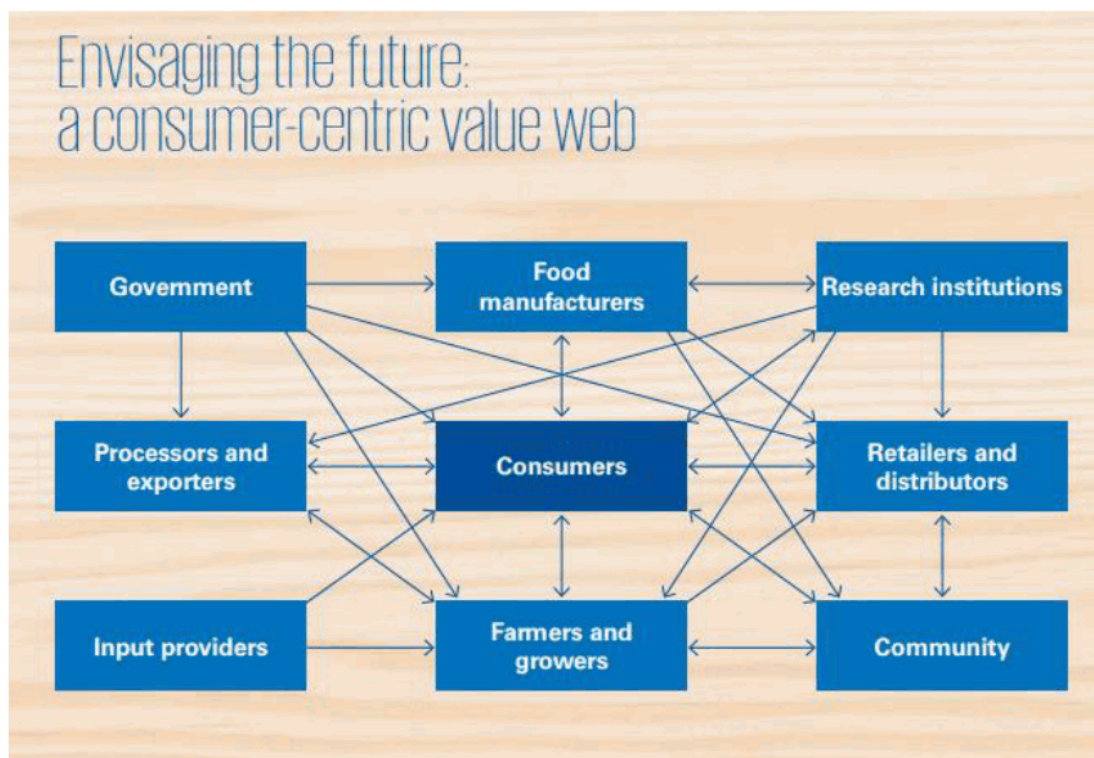


However it has become increasingly clear that the traditional concept of a lineal value chain is rapidly being replaced by a much more complex 'value web' that is built around satisfying the needs of a consumer.

Technology has eroded the previously held power of the retailer.

Now every participant within the value web is able to develop a direct connection with any other participant, including the consumer.

Given that the consumer sits at the centre of the web, every participant organisation should be focussed on understanding their expectations for a product. Obtaining this understanding will enable them to maximise their contribution to delivering a high value product; and in turn, be rewarded with a share of the margin reflecting this. In other words, they will be rewarded for what they bring to the table, rather than simply due to their position on the lineal value chain.



Meanwhile the consumer is also seeking information about the product they are being offered, and is seeking out a wide range of information before they make a buying decision. Uncertainty around sustainability, efficacy, safety or quality of one product in comparison to another will make the buying decision easier for the consumer.

Any unbalanced messaging and narrative puts New Zealand's agri food sector at risk. The need for organisations to ensure their stories are told in a way that satisfies the customer's requirements is more critical today than it has ever been in the past.

There is a growing realisation that the value chain is no longer linear; but a web of relationships, collaborators, and even competitors, with the consumer sitting at the centre.

The challenge to pivot operations to be truly customer centric is one that faces every company and organisation, every day.

Grassroots observations – interpreting a changing world from inside the farm gate:

“Technology is welcomed by producers because it enables farming for the future.”

“All the perfect technology in the world won't work, if you don't create a consistent energy infrastructure and reliable, robust connectivity across rural communities.”

“To effect change you also need credible early adopters that other farmers are prepared to listen to.”

“For farmers, there is plenty of change to navigate, happening at a fast pace – so many are now numb to the change and just get on with what needs to be done.”

“Many want to produce food for those who value traditional proteins, and at the same time, be open to these changes relating to alternative proteins and seek opportunity as the food trends evolve.”

“The industry needs to be clear about who we want to feed, and while the focus is on creating value, it can’t lose sight of what we already have. Free range, free form, grass fed are still compelling propositions – and we need to put energy and strategy into capturing the full essence of this value.”

### Ambitions for the future of the global agri-food sector

A fundamental message for the sector is to “be obsessed with your consumer.”

Disruption and innovation have become the go to words across all industries; including food, agriculture and technology.

New Zealand is at an advantage. We are relatively small, allowing us to be a small test bed for innovation, with access to a feedback loop from consumers and users of our products. Using social media to connect, engage, and draw inspiration from is an increasingly successful tool for feedback.

**In a world where everyone speaks of the disruption and change that is coming, most people can’t actually articulate what it looks like.**

**Consequently, this fear means nothing gets done.**

There is a global willingness for people to work together in solving the big problems, and start to truly embrace change.

### Land use will change in coming years

This has been a common theme in industry conversations.

This theme has been led by Horticulture New Zealand, given the increasing challenge of retaining high quality market gardening land around Auckland and Christchurch, as demand increases for housing, land use regulation, climate change opportunities and growing population.

**Historically there has been little planning over use of rural land compared to urban areas. In rural areas it has been driven by farmers adopting production systems that deliver viable economic returns.**

There is some concern that prioritising the availability of land for housing raises new issues for the country’s food system that have not previously been on the radar in New Zealand. In particular, it has always been assumed that we will be able to grow sufficient food to meet domestic demand. Yet if prime vegetable growing land is no longer used for growing vegetables, we run the risk of losing domestic supply. This will mean increasing dependency on imported supplies, together with higher costs, biosecurity risks, and potentially, less nutritionally dense products.

Future regulations will undoubtedly be shaped by the Paris Climate Accord commitments. This will ultimately mean that even those that are most comfortable with their circumstances will be required to change daily practices to meet new emissions rules, and ultimately driving land use toward activities that deliver greater returns to justify incurring the costs of meeting new regulations.

Grassroots observation:

“We know we may need to change the use of our land one day. But it’s hard to make the investment in change when there’s no infrastructure in place to deliver better returns to the farm gate from an alternative product. We want to use our land to create more income, and



we can imagine a future where our farm produces a range of products in order to provide income hedges, improve environmental outcomes and, frankly, keep business interesting.”

### Unleashing human potential – labour market supply

A common theme in industry conversations was related to the challenges associated with recruiting and retaining people with the right skills, attitude and passion for a whole range of primary sector jobs. The overriding theme was simple; it is getting harder to satisfy the people requirements of the industry, particularly in sectors that are experiencing significant growth.

Much of the onus falls on the industry to ensure that it has access to the right people with the necessary skills to fill the available jobs.

Opportunities identified to address labour challenges related to collaborating to offer cadetships, seasonality of roles and explore ways to create primary industry careers across sectors to provide year round employment, and the industry working harder to engage with schools and tertiary institutes to ensure agri food opportunities are viable options

Grassroots observation:

“Farming systems need labour at particular times, which makes the traditional staffing model uneconomic. Farmers need to rethink staffing models to create a proposition for employees that attracts good people. We need to be open to job sharing, automate repetitive tasks and encourage staff to bring better ways of doing things to the table.”

### Rise of the complex consumer

Industry conversations relating to markets and customers centred on the increasingly contradictory wants and needs of different groups of consumers. The clear message was that the ‘average consumer’ no longer exists. Success in markets depends on organisations doing the work to identify the consumers that they want to work with; and then aligning their products, attributes and story with these expectations.

Historically, people used food for a single purpose – to provide themselves and their families with sustenance and nutrition. Today, particularly in premium market segments, this can no longer be taken for granted. People now use products for a wide range of reasons; including enhancing health, demonstrating status, following fashion, highlighting political agendas and creating social interactions.

Agri sector organisations need to build their understanding of and empathy with consumers, in order to identify the niches best suited to their products.

The attributes that are important to a consumer may not be important to the producer. The point is the producer needs to be careful not to devalue high value attributes inherent in our products because of our mind set and we need to see the world through the eyes of our customers.

Grassroots observation:

“We need to recognise that there is a generation of kids around the world with very different values to us. We need our processing companies to become smart marketers of our products. The whole industry needs to lift its sophistication and as farmers we are relying on our supply chain partners to deliver.”

Positioning New Zealand's primary industry to take advantage of opportunities presented with new and emerging technologies occurring in the production and marketing of food products

<https://www.communitymatters.govt.nz/assets/WCMT-FRR-PDF/Winston-Churchill-Fellowship-Report-Stephen-Macaulay.pdf>

New Zealand is generally regarded as a highly successful exporting nation of agri-food and fibre products. We have lead the way in the application of world class science and innovative practices in temperate grass-based farming systems underpinned by a relatively stable commodity market, which has largely served us well for well over a century.

However, since the start of the new millennium we have seen the erosion of our agricultural sectors' comparative advantage, marked by the loss of our internationally competitive position as a low-cost producer of agricultural products brought about by increasing input costs and expanding compliance requirements, exacerbated by high land costs.

While the farming community and wider industry have been commendably fast adopters of new production-based technologies, more often than not this has been through the pursuit of producing more of the same types of products at less cost, rather than necessarily developing higher value products or services able to attract price premiums in the marketplace.

New Zealand's agricultural sectors are facing some very stark choices. We can continue on our current trajectory and remain a low-value commodity player that will inevitably face diminishing ongoing returns in the future. Or we can look to trade-up and add greater value to our agri-food and fibre products that improve profitability and extract greater returns from the marketplace. Of course, this is very easy to say; there are innumerable reports from credible sources advocating the same approach.

We have, in the New Zealand agricultural industry, been highly successful in implementing and codifying systems around the production and processing of our commodity products, which has contributed to the sector's overall success.

Our farming enterprises, processing and marketing companies, and education and research institutions involved in the primary industry, have become intimately and firmly established within this ecosystem, which has largely delivered familiar types of outcomes expected by the parties involved over a long period of time.

We shouldn't be surprised by this as generally people and institutions like rules and predictability and to know where the boundaries are. The risk, however, is that our intimate knowledge and closely-knit support structures within this ecosystem may in fact create resistance to rapidly changing circumstances that openly challenge the status quo.

Given our exposure to design thinking led approaches, and no doubt other types of solution-focused models that will inevitably follow, why do we not see step change occurring within New Zealand's agricultural sectors that are so often talked about?

Despite the protestations of individuals and industry sectors about the need to break out of the commodity cycle and aim further up the value chain, this is very difficult to achieve. This is particularly so when an industry has grown accustomed to operating within a relatively stable and low-risk commodity market sustained by an elaborate ecosystem to support this. However, this situation makes us highly vulnerable to disruption should a major disturbance or event take place within the primary industry, or some significant transformation occurs in the consumer purchasing behaviours of agrifood and fibre products.

So when a disruption does happen that challenges the way we operate, we often seem reluctant or even powerless to act until someone else delivers a tidy package containing a familiar type of solution or template that is consistent with what we expect to see and aligns with our mental models without fully exploring the extent of the problem and/or seeking alternative broader scale solutions.

Operating within the relative comfort of our commodity market we can expect to see the types of outcomes that match our mental model in the production, processing and marketing of our commodity products. But this does not necessarily provide us with a heightened awareness of external factors that

could impact upon our existing business models or equip individuals with the skills and confidence to become more adept and adaptive in operating in uncertain environments.

The weight of expectation to maintain the status quo – the foundation of our very success within the agricultural industry – is heavy. But does this potentially impact on our ability to deeply consider, discuss and explore radically different perspectives that challenge the status quo, and slow down the uptake of ideas and new technologies.

We need to be acutely alert and plugged into where food trends and values are occurring. That requires having a strong presence in the marketplace and directly engaging with consumers, as well as being tapped into world leading food technology centres.

In many respects commodity producers and processors, along with our educators, researchers and regulators, are neither adept at sensing changes in consumer purchasing behaviour, nor have they the capability to effectively exploit new opportunities in the marketplace should they arise. Often heralded changes we hear about are more in the realm of marginal improvements and sustaining what they are doing already.

**It is far too easy for industry, businesses and commentators to dismiss the impact of new technologies and potentially ground breaking products because they cannot foresee or accept changes that might threaten the status quo, but in doing so they run the greatest risk of being irrevocably disrupted.**

We should not underestimate the challenges faced by agricultural sectors through the rise of new and emerging technologies likely to impact upon the production, processing and marketing of agri-food and fibre products.

The agricultural industry has largely been immune to the digital and technology transformation seen in other industries, such as in the medical care, manufacturing and service sectors. But this is quickly changing and we can expect to see greater levels of technology developments on-farm and at various stages along the supply chain through to the marketplace in the future.

If we don't learn to become more adept at sensing and exploiting changes presented by new technologies and changing consumer preferences within an increasingly dynamic market environment, then we risk falling behind our competitors who have a greater capability to take advantage of the opportunities presented by new technologies.

The sheer scale of technological development now occurring within the agricultural and food sectors is moving at a speed we have simply not experienced before, which makes judgement calls on time horizons and the likely impact of new and emerging technologies extremely difficult to predict. But what is clear is that when a new technology makes an industry or business operation considerably more effective or consumers' day-to-day lives clearly better, the momentum in its uptake is unstoppable.

We have become highly proficient in the production and processing of commodity products, which have largely delivered familiar types of outcomes over a long period of time. However we should not underestimate the effect of advanced technology developments occurring in production and consumption of food proteins.

**If we don't learn to become more adept at sensing and exploiting the opportunities presented by new and emerging technologies and become more attune with changing consumer purchasing behaviours, then we run the risk of falling behind our competitors who have a greater capability and scale to take advantage of these opportunities than we do.**

The agricultural and food sectors will respond to whatever challenges are put forward, but this must move beyond the preservation of existing business models and requires a bold and radically different approach



to what exists today. Undoubtedly this will represent a significant challenge for individuals and organisations involved within the agricultural industry

### Farming and new technologies

<https://www.stuff.co.nz/business/farming/93601779/time-for-new-zealand-farmers-to-take-on-new-technologies>

Rural robotics and other technologies are set to become mainstream on NZ farms.

Waikato University Professor of engineering Mike Duke says robotic technology is much more affordable with more people taking an interest in new technology.

The university's stand at the 2017 Mystery Creek Fieldays featured the prototype autonomous multipurpose mobile platform robot (AMMP) designed to harvest kiwifruit. The prototype robot was developed in partnership with Bay of Plenty business Robotics Plus and Plant and Food Research.

Duke says it is time for the kiwifruit industry to embrace the robot revolution.

"Robots never sleep, which makes them ideal workers. They'll do the menial work humans should no longer be expected to do, and they work through the night without any extra cost."

He predicts that robots will be commonplace on orchards or cropping farms in about a decade as the price of the technology drops over that time.

"It will happen, it's just a case of how long. You just have to look at this machine and the speed that it's working at. It's getting close". This process will be accelerated if machines are created that become a 'must have', he says.

Duke says they designed the AMMP as solution to issues around labour shortages in the kiwifruit industry at harvest time.

"It will stop, look up at the canopy, look up and using computer vision will find out exactly where the kiwifruit are and will send an arm to that location and harvest."

Duke estimates one robot can do the work of at least 12 workers and can harvest one kiwifruit every 1.5 seconds. Over the next year they aim to reduce that time to one second for every fruit harvested, making it at a commercial rate.

Duke says the benefits of the robot are twofold. While it solves the staffing issues the kiwifruit industry faces around harvest time, it also creates a business opportunity to export the technology to overseas markets.

Duke says they are also developing similar robotic technology for the asparagus, apple and forestry industries.

Financial company KPMG says emerging technologies have "irreversibly changed the agrifood sector".

"In a future where change will be the only constant, the ability to identify and adopt emerging technologies quickly and early will be critical to maintaining an edge in premium markets," it says.

"We are seeing the next agricultural revolution where technology and innovation will drive improvements in farm productivity, efficiency, while reducing environmental impact."

One such emerging technology is using wireless sensors on farms as a management tool. Tony Walters has been piloting this technology for telecommunications company Spark. It uses wi-fi sensors to monitor and collect data on his Waiuku dairy farm for everything from milk temperature in the vat, whether his yard

gate is open, wind speed, his water intake, air temperatures, rainfall, soil temperature and soil moisture levels. The sensors enable him to make better farming decisions about how to grow grass.

"We know how much grass is going to grow based on our soil conditions. It's easier to make decisions around getting more out of your property because you have got the ability to analyse the data."

It also electronically records compliance, saving him a huge amount of time. Spark have expanded the pilot from farm scale to an entire district and have begun trialling the sensors on about 30 farms at Richmond Downs in the Matamata-Piako region. The pilot started in March and will finish in January, providing the company with four seasons worth of data, Spark's David Walker said.

But a wider roll out of the technology on a country wide scale will take time because of the preparation involved, he says.

Farmers are slow to uptake new technology because many older farmers are able to run their businesses with a minimal understanding of computers and other technologies, Walters says.

"A lot of the stuff now is getting simpler for us to use and simpler for us to install. Instead of before where we had to read something, take that information and do something with it, now it's automatically been done by the systems that are in place. It also does not have the same 'feel good factor' when compared to buying a new tractor. "You buy what you are comfortable with and some people may go and spend \$100,000 on a tractor without adding any value to your property yet they won't go and spend \$10,000 on technology to understand their farm and see how they may get more out of it."

Concerns around the lack of connectivity are issues for many farmers, making them reluctant to invest in this type of technology, Walker says. But the affordability of this technology will change dramatically over the next few years, making it much easier for farmers to adopt.

## Agritech

<https://nztech.org.nz/blog/challenges-and-urgent-solutions-needed-for-nz-agritech/>

Orchardists and farmers are now looking to the agritech sector to help address some of the worst threats that these challenges pose. The horticulture sector needs more automation in the orchard and the New Zealand agritech sector is responding with the development of advanced robotic and sensor technologies.

On farms, the agritech sector is researching new ways to manage soil and pasture growth, using drone and imaging technologies to deliver valuable and actionable data to the farmer. On the bright side, New Zealand is leading the way in many of these technologies. In the USA for example, tightening immigration controls have led to a significant reduction in the amount of labour available for the agricultural sector.

As the world's demand for food increases with its ever-growing population, New Zealand can expand its primary sector further by focusing on producing higher value produce for the world. The application of smart technology will not only assist this growth but ensure that it is achieved in far more sustainable long-term ways, caring for our environment and protecting it for future generations.

Kiwifruit growers in the Bay of Plenty are benefiting from new technologies that apply pollen to new flowers and assist automate the picking process.

Dairy farmers across New Zealand are benefiting from a new platform called Agrigate – jointly established by Fonterra and Livestock Improvement Corporation – which consolidates on farm data in a single online dashboard.

Soil sensors from Wildeye and Regen are assisting farmers across Australasia have a better understanding of moisture and nitrogen levels in their pasture. Agritech companies such as TracMap and Biolumic are

developing new markets in North America for their New Zealand agritech IP. It's such an exciting time for agritech and the New Zealand economy.

A co-founder of Tauranga based WNT Ventures, Peter Wren-Hilton is working with global partners to support greater access for New Zealand agritech to international capital, as well as enabling increased offshore market access for New Zealand agritech companies.

<https://www.stuff.co.nz/business/farming/103235854/eighty-per-cent-of-farmers-arent-employing-technology-to-be-productive-in-the-21st-century>

Technology is creating a productivity gap between the haves and have-nots of New Zealand farming.

High numbers of farmers have adopted one or more pieces of technology that fitted within the suite of precision farming, yet the report found widespread adoption was probably less than 10 per cent.

KPMG farm enterprise specialist Julia Jones says too many farmers are running their businesses the same way they did 20 years ago and this needs to change. Ground breaking smart technology is already out there, she says, and as rural broadband speeds and connections improve, farmers will increasingly be able to use them to boost productivity on their farms.

"The technologies fall into two categories - business management, and farm systems, clever stuff to boost productivity. Although there is some overlap. There are plenty of New Zealand companies with products available."

FarmIQ product development manager John Dyckhoff says farming is increasingly complex and the more information available, the more productive a farm can be. The growth of electronic monitoring and cloud-connected weighing and metering systems has opened up the market for operations for making sense of all the data that is now available, Dyckhoff said

"For example, you might be running animals through weigh scales in the woolshed, and you want to get a comparison of what they weighed last time so you can make an informed decision about whether you need to feed an animal differently, send it to the works etc. You want to be able to see the information in real time, rather than just relying on your gut feeling."

In 2015 Aad and Wilma van Leeuwen of van Leeuwen Dairy Group developed what was at the time the world's largest robotic dairy shed. Behind the drive to build it was the premium price paid for winter milking, a shortage of skilled staff, and the challenge.

In a nutshell, robotic, or voluntary, milking systems allow dairy cows to live indoors and be milked without human labour. At the core of the system is a type of agricultural robot, computers and special herd management software.

The cows were trained to voluntarily enter the milking stall and be milked. Lured in by a snack of meal pellets, they are milked by robots with hydraulic arms guided by optical cameras and dual lasers. Each robot is controlled by a touch screen, with the capability of remote operation from the central office, suspended below the ceiling with a birds-eye view of the barn. Special collars and ear tags collect data on the cow's yield, how many times a day it has milked, and its general health. If the cow has milked recently, the robot turns it away.

In other technology, Farm IQ has developed farm management software for sheep and beef farmers allowing them to use electronic ear tags which identify each animal to monitor their stock right through life to death.

### By the 2030s, farmers could have autonomous combine harvesters running through the night on controlled traffic tramlines

Subtil can record data on an animal's genetics and combine it with other information including how much it weighs at different stages of its life, what it's been fed and what health treatment it has had. Then once it's gone to the meat works, Subtil can add processing and meat inspection data. Put the whole lot together, and he can see, for example, which animals are the most productive. He is also able to share information with other people bankers, advisors, and even vets.

KPMG head of agribusiness Ian Proudfoot says New Zealand is competing with countries such as Ireland where the agricultural sector has taken a real step forward in auditing and data collection.

"We need to have that data so we can better manage everything from production to the environment, from animal health to waterways. And we need to maintain our premium position in the future with data available not just to the farmer but to the consumer who will want to know that the producer had done the right thing."

Jones says cloud based farm management systems won't just help with productivity but will provide individual traceability across New Zealand's agricultural sector.

"In the same way that someone who buys merino leggings from Icebreaker can scan the barcode to find out which farm the wool comes from, so in the future if a shopper in a German supermarket wanted to know where her steak was born she would be able to pinpoint the cow to an individual NZ farm and field and get the environmental and ethical data," she says.

Ravensdown Chief Executive Greg Campbell believes some tough questions are facing all farmers involved with "food creation" in New Zealand.

"How do we move from commodities like milk powder to niche products that consumers believe in and pay more for? How do we provide proof to back up our foods' 'back story'? How do we manage the trade-off between environmental impacts and economic prosperity? **New Zealand can only grow enough food to feed about 40 million out of seven billion people [on earth]. So the question is which 0.5 per cent of the world's population are we going to feed and how?**"

"Globally 140 million people are joining the ranks of the middle class every year - mostly in Asia - and protein is a more significant part of their family diet. Many will pay for food that has come from a trusted source. But to command a premium, there must be proof, which is where technology comes in with maps that show how much fertiliser was placed and where, robots that measure grass growth, laboratories that diagnose soil needs, aerial cameras that assess soil nutrients and software that shows how best to tackle phosphate run-off and nitrate leaching."

<https://www.stuff.co.nz/business/farming/108961629/how-technology-is-changing-the-face-of-our-farming>

The future of farming technology: The United Nations (UN) estimates a global rise in 2 billion people to 9 billion by 2050 when agricultural consumption is likely to be 60 per cent higher than it was in 2005. Feeding this growing population "while nurturing the planet will be a monumental challenge", according to the UN's Food and Agriculture Organisation. To cope with population increase, agriculture must become smarter and less wasteful.



Fortunately, the growth of technology, innovations and apps is helping farmers make quicker and more accurate decisions to farm more sustainably, is making it easier for them to do business, and in many cases, is changing their bottom line.

**Precision farming:** Precision farming was started in the mid-80s, born out of the military, aviation and space technologies. It involves the use of technology to allow a targeted application of water and nutrients to match what the crop needs. Farmers can be more specific about the quantities of fertilisers and water used, to allow just the right growth to optimise farm productivity.

**Back to drones:** Mustering is where we have found the drone particularly useful, Anderson says.

"One morning I kicked off mustering 2000 wethers and left home at 8 am, drove 20 minutes to where I launched the drone, and we had them down by 10.30am, in time for a coffee. Normally it would have taken three men and a ute to bring them down, and we'd not be finished by evening."

Anderson says the sheep are wary of the drone and respond well, moving away from it without becoming overly spooked. Neither does it make his dogs or shepherds redundant, instead it integrates well with both.

"It won't supersede traditional mustering, you still need dogs and manpower. But mustering the other morning to get to where I sent the drone would have taken an hour, but it was there in three minutes."

**Agri-Business and Agri-Tech Considerations and Implications for Southland District****WHAT**

- in the eyes of global consumers synthetic food and lab grown meat are alternative realities
- while an increased global population is predicted to reach 9-10 billion by 2050 and meat consumption is predicted to increase as global affluence increases there is a need for more agricultural produce but at a scale greater than can be achieved with livestock
- automation, robotic and sensor technologies will impact on how agricultural practices are delivered
- changing global consumers demand and require different approaches to food consumption patterns and data related to production

**SO WHAT**

- implications for agricultural practices, land use and production/productivity requirements which has economic and environmental impacts and a ripple effect on utility and amenity demand and requirements for communities - including central government, local government, non profit provided services
- as the use of high tech farming techniques become the norm it has impacts on type of labour force requirements and those residents who make up the rural communities
- opportunity for high value produce and niche markets which support value add development
- potential changes in regulatory frameworks can impact on production practices and land use which has economic and environmental implications

**NOW WHAT**

- Council to continue to consider rural land use planning and land use implications and impact on socio demographic make up of residents and associated service provision requirements
- digital technology capability, capacity and connectivity important for future opportunities to be advanced in rural areas
- important to partner and align with industry and private sector entities supporting rural development opportunities



## Climate Change and Agriculture Considerations

### Likely impacts on NZ agriculture

<https://www.mfe.govt.nz/sites/default/files/impacts-agriculture-sep01.pdf>

A report prepared for the Ministry for the Environment as part of the New Zealand Climate Change Programme identified the main findings of this report as follows:

- climate change in New Zealand will probably have the greatest impact on agriculture through changes in climate variability and climate extremes. New Zealand farmers and growers are increasingly required to manage risk associated with climate events, and this will continue into the future with the possibility of increased risk in some regions
- eastern regions could experience more frequent, and potentially more severe, droughts through a combination of higher average temperatures, reduced average rainfall, and greater variability of rainfall. Western regions, and possibly some eastern regions, could be more prone to flooding and erosion from high rainfall events
- pasture production will generally increase, particularly in southern New Zealand, through higher carbon dioxide levels in the atmosphere and an extended growing season. There may be a reduction in feed quality in pastures as far south as Waikato, with an increased incidence of subtropical species. Feed quality may also decrease further in dry eastern regions, with more frequent drought leading to changes in pasture composition
- arable crops may generally benefit from warmer conditions and higher carbon dioxide levels in the atmosphere. However, potential yield increases will require higher fertiliser inputs. Availability of water for irrigation will be an important factor to achieve the potential gains, particularly in Canterbury, where there will be increased drought risk
- hayward kiwifruit may become uneconomic in the Bay of Plenty in the next 50 years under mid to high climate warming scenarios, although the current industry expectation is that this variety will continue to be its mainstay. Apple production is unlikely to be adversely affected, although there could be greater risk of heat damage in future and availability of water for irrigation may be an increasingly critical issue
- there are a number of unknowns both with regard to basic climate changes and their impact on agriculture. While the existence of a human influence on climate, and projections of a trend towards higher future temperatures and a shift in rainfall patterns is considered reasonably robust, projections of absolute changes in particular regions are still highly uncertain and are usually considered as a set of scenarios. Within the agriculture sector, uncertainties about the impacts of those change scenarios particularly relate to changes in pest and disease profiles in different regions, changes in soil fertility, and changes in water availability
- if effective strategies are put in place it is likely that the worst possible effects of climate change on agriculture in New Zealand can be avoided, and the potential benefits realised. The most effective strategies are likely to involve a staged approach involving:
  - for the short term, further development and implementation of strategies for dealing with present climate variability and extremes
  - for the medium term, implementing plant breeding programmes, developing water conservation programmes, and planning conservatively to ensure there are buffers against adverse years

- for the long term, developing a more integrated approach to land management that considers climate change alongside other important issues such as biodiversity, biosecurity, land degradation, and water resource use.

## Communities and Customers

### Empowered customer

<https://www.ey.com/Publication/vwLUAssets/EY-the-upside-of-disruption/%24FILE/EY-the-upside-of-disruption.pdf>

Empowered customers know their worth. Today's individual customers understand their commercial value. They can block ads and they can opt out at a moment's notice. However they are willing to pay for what they value.

In this culture of niche, all interactions, products and services need to be personalised. Spotify personalises your music, Netflix customises your entertainment, and Coca Cola displays your name on billboards as you drive by.

Customers are bombarded daily with information, promotions and brand messages.

Software hasn't killed retail, but retail's future depends on delivering experience. Experiences that employ all five senses are becoming distinct offerings.

Differentiated interactions, both live and virtual, will be embedded in everything human beings do. From dining, to vacationing, to riding in a taxi. The growing primacy of delivering differentiated experiences will have profound effects on how value is created and measured.

As demand for personalised services has grown, the direction of trust has also changed. Customers trust each other more than they trust brands or businesses. Online shoppers have more faith in peer recommendations and earned media such as customer tweets than they do in traditional paid advertising. Today's brands are built by consumers themselves, not advertisers.

Today's customers distrust traditional ways of selling and avoid traditional supply chains. They work with multiple routes to transaction – whether by website, mobile app or physical store. They expect seamless engagement across these channels.

Customers are entrepreneurial. They demand vehicles for commercial self expression. The growing affinity for small, local, craft products has had an impact on big companies. Customers are not just buyers, but stakeholders.

Online purchasing means that consumers and other businesses in provincial areas have access to a wider range of goods and services, often at significantly better prices, than local firms can provide.

In smaller provincial towns and more outlying areas, these market dynamics threaten to hollow out retail and other services that contribute to a community's broader economic infrastructure.



Community service impact – education, health etc.

<https://www.ey.com/Publication/vwLUAssets/EY-the-upside-of-disruption/%24FILE/EY-the-upside-of-disruption.pdf>

Disruption and economic sustainability drive the healthcare revolution. Healthcare is being reinvented. The shift is being driven by two main factors: the search for economic sustainability and digital disruption.

Globally healthcare systems strive to balance three fundamental imperatives: expanding access, improving quality and managing costs.

Meanwhile just as health systems need to contain costs, digital health (mobile apps, wearables, social media, and analytics) is providing an opportunity by enabling approaches that are cost effective.

Hospitals across the western world are implementing initiatives to maximise efficiencies with better resource scheduling, discharge planning, and clinical pathways.

It is predicted over time communities will be involved with a fundamentally different model for healthcare. Instead of being passive recipients of care, patients will become empowered consumers, with more information and control over their health decisions.

Sophisticated analytics will allow providers to focus on prevention and disease management. Instead of being only delivered in hospitals and clinics, it is expected healthcare will be available wherever patients happen to be – in sync with the mobility of the consumer.

The next generation of smart technology supports even greater change. With AI, much of medicine today involves heuristic, rules based problem solving based on symptoms and test results. This is fertile ground for AI. Today's decision support tools could soon be replaced by sophisticated algorithms that diagnose and prescribe – with greater accuracy and less random variability than their human counterparts.



**Communities and Customers Considerations and Implications for Southland District****WHAT**

- living in the information age means communities and customers have greater awareness and require personalised services and experiences
- increased demand shown for a willingness to pay for value from a more discerning customer - globally
- traditional linear supply chains seem obsolete and replaced by a much more complex but real customer centric supply chain
- customers and consumers in a position of influence and now recognised as significant stakeholders in the production cycle and service provision experience demanded

**SO WHAT**

- implications that the continuing changing face of retail will have on provincial towns and services and consumer experiences offered
- potential changing face of towns and resident make up based on the transient and mobile nature of residents and experiential consumer behaviour - visitors and residents alike
- service availability and demand impacted on in terms of what and how services maybe delivered - impacting on council services and also other community services like health, education, policing etc.
- important not to consider service delivery in isolation to what and how is required and develop the concept of networks and frameworks for service delivery that do not operate in isolation of each other or a network of locations
- service delivery across all service providers to be recognised by way of different models of service delivery to support an affordability and sustainability approach

**NOW WHAT**

- providers of service to cater for discerning customer needs and view the provision of services through a customer centric approach
- greater transparency and accountability required of public sector service provision
- greater responsiveness to customer and community needs
- support for co creation of solutions and greater community led development opportunities supporting the concept of localism - requiring greater community ownership and leadership for local service delivery



## Conclusion and Recommendations

It is requested this discussion document be read with the intent that it was prepared – that it is a discussion document.

It is a series of excerpts from a variety of sources – international, national and local.

Such excerpts may be interpreted in some ways as being contradictory. There is a reason for that – because there are many and varying views and it is important to provide such varying views to ensure there is an understanding that there is no one solution or steadfast situation that will determine the future opportunities and challenges identified.

There are various scenarios that can be and should be considered. These excerpts provide a start for that discussion.

It is not an exhaustive coverage of potential ‘future impact’ topics.

It is also a challenge when considering mega trends, disruptors and various implications of such, that how do we ensure relevance and appropriateness of significance to our Southland communities and the Southland District Council future thinking.

While it may seem far from a reality for Southland, it is important to understand the Southland community does not operate in isolation or in a bubble or cocoon from what is happening globally, nationally, regionally, or even across the District as a whole.

The Southland District operates in a global economy – with much of its produce exported to global markets and is also a host to global and national businesses and visitors. These businesses and visitors are exposed to many of these megatrends directly and indirectly at various levels of influence and impact, and therefore this alone creates a relevance and appropriateness for Southland District Council consideration.

To this end, the following are suggested to be considered as recommendations for Council:

- notes the diversity and scope of megatrends, disruptors and technological change identified from a global, national and local perspective
- acknowledges the importance for Council to maintain a ‘watching brief’ and monitoring role on this topic
- endorses the need for long term planning assumptions and approaches to be cognisant of this topic and be reflected in a realistic and appropriate way when considering future strategy, policy and planning preparation – especially with regard to levels of service requirements, infrastructure considerations and financial considerations over the short, medium and long term
- consider the discussion document content in the context of the BERL community futures work specific to the Southland District – identifying and prioritising as important themes for the district being
  - Labour market and labour supply pressures
  - Workforce skills and retraining
  - Population demographics – age, diversity, ethnicity
  - Globalisation and the information age
  - Primary sector considerations re agri tech and agri business
  - Tourism and sustainability



- Environmental considerations
- consider the discussion document content in the context of the Southland Regional Development Agency areas of focus and associated regional priorities in relation to the Southland District and associated sector, industry and business requirements and trends. Especially with regard to labour force and labour market requirements and associated community development opportunities pertaining to people, places and spaces and quality of life expectations.

## Footnote/References

- a. 7 job skills of the future (That AIs and robots can't do better than humans). Bernard Marr  
<https://www.forbes.com/sites/bernardmarr/2018/08/06/7-job-skills-of-the-future-that-ais-and-robots-cant-do-better-than-humans/#7394b366c2e9>
- b. The upside of disruption. Megatrends shaping 2016 and beyond  
<https://www.ey.com/Publication/vwLUAssets/EY-the-upside-of-disruption/%24FILE/EY-the-upside-of-disruption.pdf>
- c. Putting automation in perspective. Gareth Kiernan. Infometrics  
<http://www.infometrics.co.nz/putting-automation-perspective>
- d. Technology could help rural areas become thriving and sustainable. Flemmich Webb. The Guardian  
<https://www.theguardian.com/sustainable-business/technology-rural-areas-thriving-sustainable>
- e. Regions at the Ready: Investing in Australia's Future. House of Representatives Select Committee on Regional Development and Decentralisation.  
[https://www.aph.gov.au/Parliamentary\\_Business/Committees/House/Former\\_Committees/Regional\\_Development\\_and\\_Decentralisation/RDD/Final\\_Report](https://www.aph.gov.au/Parliamentary_Business/Committees/House/Former_Committees/Regional_Development_and_Decentralisation/RDD/Final_Report)
- f. From Education to Employment. Megatrends affecting NZ's working environment. Infometrics.  
[http://www.infometrics.co.nz/infometrics\\_megatrends/](http://www.infometrics.co.nz/infometrics_megatrends/)
- g. Job vulnerability in Australia. Where are vulnerable jobs located? Are we ready for the future of work? September 2018. Regional Australia Institute.  
<http://apo.org.au/system/files/190256/apo-nid190256-998586.pdf>
- h. Will robots really steal our jobs? An international analysis of the potential long term impact of automation. PWC.
- i. <https://www.pwc.co.nz/pdfs/2018pdfs/impact-of-automation-on-jobs-Feb-2018.pdf>
- j. No Great Impact on Rural Areas Expected from Computers and Telecommunications. Luther Tweeten. June 1987 Rural Development Perspectives.  
<https://naldc.nal.usda.gov/download/IND89016891/PDF>
- k. The tech breakthroughs megatrend: how to prepare for its impact. PWC  
<https://www.pwc.co.nz/pdfs/Global-Tech-Megatrends-NZ.pdf>
- l. How emerging technologies are impacting industries. November 2017. Dylan Bird  
<https://medium.com/swlh/how-emerging-technologies-are-impacting-industries-b85afc14b5d>
- m. Riding the next wave of automation in rural Australia – safeguarding agriculture and rural labour markets through migration and skills development. June 2018 Regional Australia Institute.  
<http://www.regionalaustralia.org.au/home/2018/06/riding-next-wave-automation-rural-australia/>
- n. Jobs lost, jobs gained: Workforce transitions in a time of automation. December 2017. McKinsey Global Institute.  
<https://www.mckinsey.com/~media/mckinsey/featured%20insights/future%20of%20organizations/what%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/mgi-jobs-lost-jobs-gained-report-december-6-2017.ashx>
- o. Why IoT, big data & smart farming are the future of agriculture. Andrew Meola. December 2016 Business Insider  
<https://www.businessinsider.com/internet-of-things-smart-agriculture-2016-10/?r=AU&IR=T>

- p. Five ways agriculture could benefit from artificial intelligence. Madalina Inimia. December 2016.  
[https://www.google.co.nz/search?q=five+ways+agriculture+could+benefit+from+artificial+intelligence&rlz=1C1GCEU\\_enNZ820NZ820&oq=five+ways+&aqs=chrome.1.69i57j35i39j0l4.6050j0j4&sourceid=chrome&ie=UTF-8](https://www.google.co.nz/search?q=five+ways+agriculture+could+benefit+from+artificial+intelligence&rlz=1C1GCEU_enNZ820NZ820&oq=five+ways+&aqs=chrome.1.69i57j35i39j0l4.6050j0j4&sourceid=chrome&ie=UTF-8)
- q. AI will transform life like the arrival of electricity. Asia Pacific Infrastructure. May 2018.  
<http://www.infrastructurenews.co.nz/ai-will-transform-life-like-arrival-electricity/>
- r. The digital future of work: What will automation change. McKinsey Global Institute. July 2017.  
<https://www.mckinsey.com/featured-insights/future-of-work/the-digital-future-of-work-what-will-automation-change>
- s. How artificial intelligence and data add value to businesses. McKinsey Global Institute. March 2018.  
<https://www.mckinsey.com/featured-insights/artificial-intelligence/how-artificial-intelligence-and-data-add-value-to-businesses>
- t. Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages. McKinsey Global Institute. November 2017.  
<https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages>
- u. Retraining and reskilling workers in the age of automation. McKinsey Global Institute. January 2018.  
<https://www.mckinsey.com/featured-insights/future-of-work/retraining-and-reskilling-workers-in-the-age-of-automation>
- v. Skill shift: Automation and the future of the workforce. McKinsey Global Institute. May 2018.  
<https://www.mckinsey.com/featured-insights/future-of-work/skill-shift-automation-and-the-future-of-the-workforce>
- w. Agriculture's Kodak moment is coming, is it time for the industry to stop using words like "always" and "impossible"? Dr Rosie Bosworth. Future of Food and Agriculture Specialist. LinkedIn. December 19, 2017.  
<https://www.linkedin.com/pulse/agricultures-kodak-moment-coming-so-isnt-time-stop-using-bosworth/>
- x. NZ economic outlook. May 2018. Sharon Zollner, Chief Economist. ANZ.
- y. Does Lab-Grown Meat and Milk Mean the End for New Zealand Farmers? James Borrowdale. 29 May 2017.  
[https://www.vice.com/en\\_nz/article/j5e7wg/does-lab-grown-meat-and-milk-mean-the-end-for-new-zealand-farmers](https://www.vice.com/en_nz/article/j5e7wg/does-lab-grown-meat-and-milk-mean-the-end-for-new-zealand-farmers)
- z. US vs. China: Whose century is it, anyway? Alan Murray. 22 October 2015 Fortune.  
<http://fortune.com/2015/10/22/editors-desk-21st-century-corporation/>
- aa. Time for New Zealand farmers to take on new technologies. Gerald Piddock 15 June 2017  
<https://www.stuff.co.nz/business/farming/93601779/time-for-new-zealand-farmers-to-take-on-new-technologies>
- bb. Challenges and urgent solutions needed for NZ agritech. Jackie Clark 21 May 2018  
<https://nztech.org.nz/blog/challenges-and-urgent-solutions-needed-for-nz-agritech/>
- cc. How Technology is Changing Farming. Andee Gale. 24 April 2018  
<http://www.digitalresources.nz/article/6dj9T3P>
- dd. Eighty per cent of farmers aren't employing technology to be productive in the 21st century. Pat Deavoll 3 May 2018

- <https://www.stuff.co.nz/business/farming/103235854/eighty-per-cent-of-farmers-arent-employing-technology-to-be-productive-in-the-21st-century>
- ee. How technology is changing the face of our farming. Pat Deavoll. 12 December 2018  
<https://www.stuff.co.nz/business/farming/108961629/how-technology-is-changing-the-face-of-our-farming>
  - ff. Agribusiness Agenda 2018 – June 2018 kpmg.com/nz  
<https://home.kpmg/nz/en/home/insights/2018/06/agribusiness-agenda-2018.html>
  - gg. Farming for our future. Dave Hansford. Mar – Apr 2018. NZ Geographic  
<https://www.nzgeo.com/stories/farming-for-our-future/>
  - hh. Positioning New Zealand’s primary industry to take advantage of opportunities presented with new and emerging technologies occurring in the production and marketing of food products. Stephen Macaulay June 2018. A research report undertaken as a Winston Churchill memorial fellow.  
<https://www.communitymatters.govt.nz/assets/WCMT-FRR-PDF/Winston-Churchill-Fellowship-Report-Stephen-Macaulay.pdf>
  - ii. How to feed global demand for seafood – without harming the ocean Tiffany Vora. 16 September 2018 Singularity Hub.  
<https://singularityhub.com/2018/09/16/how-to-feed-global-demand-for-seafood-without-harming-the-ocean/#sm.0000bkqg00f5nfqqtz1j8m1200k9>
  - jj. Climate change: likely impacts on New Zealand agriculture. A report prepared for the Ministry for the Environment as part of the New Zealand Climate Change Programme. September 2001.  
<https://www.mfe.govt.nz/sites/default/files/impacts-agriculture-sep01.pdf>
  - kk. The 2018 Crystal Ball: 8 Trends and Predictions for the Year Ahead. David Carter. 11 December 2017. Growth Cubed.  
<https://www.growthcubed.com/2017/12/11/2018-crystal-ball-trends-predictions-year-ahead/>
  - ll. Future imperfect. Adam Dudding. 3 December 2012.  
<http://www.stuff.co.nz/technology/8027966/Future-imperfect>
  - mm. “Changing Tribes of Australia” seminar. Tuesday 11 September. The Demographics Group. Bernard Salt and Simon Kuestenmacher.  
[www.tdgp.com.au](http://www.tdgp.com.au)
  - nn. Megachange. The world in 2050. Edited by Daniel Franklin with John Andrews. 2012. The Economist.  
[http://homes.ieu.edu.tr/odikkaya/FA313\\_2013/Project1\\_Assignment/megachange.pdf](http://homes.ieu.edu.tr/odikkaya/FA313_2013/Project1_Assignment/megachange.pdf)
  - oo. New Zealand in 2050. Definingnz, January 2013. Massey University.  
[http://www.massey.ac.nz/massey/fms/Massey%20News/DefiningNZ/2013/pdf/definingnz\\_Jan\\_2013.pdf](http://www.massey.ac.nz/massey/fms/Massey%20News/DefiningNZ/2013/pdf/definingnz_Jan_2013.pdf)
  - pp. The 2050 challenge: future proofing our communities. A discussion paper. July 2016. LGNZ.  
<http://www.lgnz.co.nz/assets/42597-LGNZ-2050-Challenge-Final-WEB-small.pdf>



## Funding and provision of high performance programmes by Regional Sports Organisations

Record No: R/19/2/3621

Author: Kelly Tagg, Community Partnership Leader

Approved by: Rex Capil, Group Manager Community and Futures

☐ Decision

☐ Recommendation

☒ Information

### Purpose

- 1 The purpose of this report is to provide a follow-up to questions raised by the Community & Policy Committee around the funding of high performance sports programmes in Southland by Regional Sports Organisations.

### Executive Summary

- 2 At the November 2018 Community & Policy committee meeting members raised queries in relation to the funding and provision of high performance programmes by Regional Sports Organisations (RSO) and the exclusivity, or not, of Invercargill Licensing Trust (ILT) and ILT Foundation funding.
- 3 Since that time staff have met with representatives from Sport Southland, Community Trust South, ILT Foundation and several Southland RSOs.
- 4 While there are over 50 RSOs in Southland, of the organisations staff spoke with (two large and two small), it became clear that their approaches to high performance programmes are quite different and that there was no consistency between the RSOs.
- 5 From the discussions with funders and RSOs it would appear, that like a lot of our clubs and organisations within the District, the RSO's are in a challenging funding cycle of applying to various funders in order to be able to continue to operate.
- 6 ILT and ILT Foundation are supporters of many clubs and organisations located within their boundary however, the Gambling Act 2003 and their trust deed, prohibits them supporting individuals and groups located outside of their boundary, which impacts those within the Southland district.
- 7 It is expected that findings from this paper will be taken into consideration for Council's current funding and grants review which is being undertaken by the Strategy and Policy team, to be completed by June 2019.
- 8 In addition, it is suggested that the mayor and relevant staff meet with representatives from ILT and ILT Foundation in order to better understand the constraints that are placed on their available pools of funding.



## Recommendation

### That the Community and Policy Committee:

- a) **Receives the report titled “Funding and provision of high performance sports programmes by Regional Sports Organisations” dated 1 April 2019.**
- b) **Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.**
- c) **Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the Act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.**
- d) **Recommends that the Mayor and relevant staff meet with representatives from Invercargill Licensing Trust and Invercargill Licensing Trust Foundation in order to better understand the constraints that are placed on their available pools of funding.**

## Background

- 9 At the November 2018 Community & Policy committee meeting members raised queries relating to the funding and provision of high performance programmes by Regional Sports Organisations (RSO) and the exclusivity, or not, of ILT and ILT Foundation funding.
- 10 Since that time staff have met with representatives from Sport Southland, Community Trust South, ILT Foundation and several Southland RSOs.
- 11 The representative from ILT Foundation explained that the funds that the foundation has available, as set down in the Gambling Act 2003, are from the net proceeds of gaming machine sales located in ILT Hotels and taverns in Invercargill with the boundary for funding encompassing Bluff to the south, Makarewa to the north, Otatara and West Plains across to Myross Bush and Kennington.
- 12 By comparison, ILT also distributes funds being the profits from meals, liquor and tavern sales etc. The boundary for ILT is the old Invercargill town boundary and excludes Otatara and Bluff with the northern most point being the intersection of North and West Plains Roads.
- 13 There are over 50 RSOs in Southland. Of the organisations we spoke with (two large and two small), it became clear that their approaches to high performance programmes are quite different and that there was no consistency between the RSOs.
- 14 The two larger RSOs had professional sports teams associated with their organisation which meant that their approach to high performance was quite different to the two completely amateur and smaller RSOs we spoke with.
- 15 Elite or up and coming athletes that partake in the sports with professional teams in Southland were able to access further coaching if they made the professional team or development squads. Funding for these teams comes from a variety of sponsorship and grants.

- 16 One of these larger RSOs advised if students were selected for a NZ junior squad then they could apply to ILT and/or Community Trust South for a grant to assist with costs and they added that most of these students came from within the Invercargill boundary so were eligible for ILT funding. Southland district high performing junior athletes are disadvantaged in that they can only apply to Community Trust South for a sports scholarship whilst Invercargill based athletes can apply to both funders.
- 17 The second larger RSO advised that they did not have direct involvement with non-professional representative teams and that these were geographically based within Southland and came under the umbrella of district sporting organisations.
- 18 The smaller amateur RSOs had more of a user pays approach to high performance with parents or caregivers often funding coaching and development programmes for their child or teen. Some RSO's had a mantra of making their sport more accessible and offered some subsidies where possible for travel, accommodation and coaching. This would be funded from a combination of external funders such as ILT, other district based gaming trusts and other funding agencies.
- 19 Athletes that reached a high level for these smaller RSO's would be eligible for extra funding from their national sporting organisation (NSO) and pathways would be determined by the NSO. The extra assistance may include funding to assist with travel costs to attend national squad trainings or cover the cost to bring elite coaches to Southland.
- 20 One of RSO's development officers was largely funded by ILT which meant they did not have much scope to work with athletes outside of Invercargill. However, schools in the Southland District were able to apply to KiwiSport for funding to cover the costs of the development officer travelling to them and providing development support for students.
- 21 Likewise, other RSOs did deliver programmes in the Southland District and these were funded by KiwiSport, local gaming trusts (e.g Southern Trust), MLT and New Zealand Racing Board.

### **Issues**

- 22 From the discussions with funders and RSOs it would appear, that like a lot of our clubs and organisations within the District, the RSO's are in a near constant funding cycle of applying to various funders in order to be able to continue to operate. Indeed, they are only as "regional" as their funding allows.
- 23 ILT and ILT Foundation are terrific supporters of many clubs and organisations located within their boundary however, the Gambling Act 2003 and their trust deed prohibits them supporting individuals and groups located outside of their boundary.
- 24 The RSOs we spoke with advised they are aware of the accountability requirements associated with ILT and ILT Foundation funding and needed to apply to multiple funding sources in order to provide district wide coverage.
- 25 It is important that Councillors are aware of these issues when being asked to make funding decisions for applicant organisations in the Southland District and appreciate that these clubs and groups have a much more limited pool of funding available to them that organisations based in Invercargill.

### **Next Steps**

- 26 Findings from this paper will be taken into consideration for Council's current funding and grants review which is being undertaken by the Strategy and Policy team. This review will be completed by June 2019 and recommendations through to the Committee to consider at this time.
- 27 The mayor and relevant staff to meet with representatives from ILT and ILT Foundation in order to better understand the constraints that are placed on their available pools of funding.

### **Attachments**

There are no attachments for this report.

## 2019 Southland District Council Scholarship Recipients

**Record No:** R/19/3/5059

**Author:** Bronwyn Affleck, Administration Manager

**Approved by:** Rex Capil, Group Manager Community and Futures

☒ Decision

☐ Recommendation

☐ Information

### Purpose

- 1 The purpose of the report is to seek approval from the Community and Policy Committee of the Southland District Council scholarship recipients for 2019.

### Executive Summary

- 2 Applications for all scholarships close prior to Christmas each year. All applicants are invited to attend an interview held in the third week of January each year. The interview panel, consisted of Cr Julie Keast (Chair), Cr Paul Duffy, Cr John Douglas and Cr Ebel Kremer.
- 3 Applicant interviews were held on Thursday, 17 January 2019.

## **Recommendation**

**That the Community and Policy Committee:**

- a) Receives the report titled “2019 Southland District Council Scholarship Recipients” dated 25 March 2019.**
- b) Determines that this matter or decision be recognised as not significant in terms of Section 76 of the Local Government Act 2002.**
- c) Determines that it has complied with the decision-making provisions of the Local Government Act 2002 to the extent necessary in relation to this decision; and in accordance with Section 79 of the Act determines that it does not require further information, further assessment of options or further analysis of costs and benefits or advantages and disadvantages prior to making a decision on this matter.**
- d) Approves the 2019 Southland District Council scholarship recipients as follows:**
  - Centennial Bursary (\$2,000 each recipient):**
    - Alex Dykes**
    - Helene O’Neill**
  - Valmai Robertson Arts Scholarship (\$2,500 contestable):**
    - Jordis Cowan \$200**
    - Lucy Watson \$500**
    - Bella Robert \$1,800**
  - Additional Bursary (\$2,000):**
    - Cameron Smith**
  - ‘Eric Hawkes Memorial’ Employee Outward Bound Scholarship:**
    - Scott Dickson.**

## **Background**

- 4 Southland District Council offer a variety of scholarships annually.
- 5 These include:
- Centennial Bursary introduced in 1976 to commemorate 100 years of local government in Southland. Applicants are restricted to those about to commence the first year of tertiary education. Two bursaries are awarded annually with successful applicants receiving \$2,000.00 each.
  - “Eric Hawkes Memorial” Outward Bound scholarships, renamed in honour of the Southland District Council staff member who died in the Southern Air plane accident in 1998. Two community scholarships and one employee scholarship are offered each year.
  - Valmai Robertson Arts Scholarship, so named to acknowledge the contribution and commitment, over a period of more than 50 years, to the field of dance by Valmai Robertson of Blackmount. This scholarship is to encourage and assist those wishing to increase their skills through the attendance of development courses, workshops, and/or study in the Arts. This is a contestable fund of up to \$2,500 annually.

## **Issues**

- 6 It was disappointing that no community Outward Bound applications were received this year. The interview panel agreed to review current courses offered and options for a more targeted approach to promotion.

## **Factors to Consider**

### **Legal and Statutory Requirements**

- 7 Aligns with Southland District Council’s Scholarship and Bursary Policy.

### **Community Views**

Annually provides an opportunity for Southland District Council residents and ratepayers to apply for scholarships to assist with course costs.

### **Costs and Funding**

- 8 Costs relating to Southland District Council Scholarships and Bursaries are budgeted for annually.

### **Policy Implications**

- 9 This process meets the current Southland District Council policy relating to Scholarships and Bursaries.

## **Analysis**

### **Options Considered**

- 10 The option for consideration is to either support the Interview Panel’s recommendation in relation to Southland District Council’s 2019 scholarship recipients - or not.



## Analysis of Options

### Option 1 – Endorse the 2019 scholarship recipients

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"><li>Fulfil Southland District Council's annual commitment to offer and award scholarships and bursaries.</li></ul>	<ul style="list-style-type: none"><li>N/A</li></ul>

### Option 2 – Not endorse the 2019 scholarship recipients

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none"><li>N/A</li></ul>	<ul style="list-style-type: none"><li>Southland District Council would not fulfil its annual commitment to offer and award scholarships and bursaries to its residents and ratepayers.</li></ul>

## Assessment of Significance

- 11 Not considered to be significant.

## Recommended Option

- 12 Option 1 - endorse the 2019 scholarship recipients.

## Next Steps

- 13 Advise successful applicants of their application.

## Attachments

There are no attachments for this report.