Elected Member Briefing – 4 March 2020 Committee Room 1				
Time	**Topic**	**Presenter(s)**	**Open / Closed**	**Time Req'd (mins)**
9.30am	REEP Plan Changes (Council)	Luke O'Dwyer / Debra Stan-Baron	Open	45
10.15am	RMA Decision Make Process (Council)	Luke O'Dwyer / Debra Stan-Baron	Open	45
MORNING TEA 11.00am				
11.15am	Social and Community Development Strategic Plan Update (Community Committee)	Helen Paki	Open	45
12.00pm	Future insights report - PESTLE analysis (Council)	Julie Clausen, Dr Adrian Field (Dovetail Consulting) and Rebecca Mills (The Lever Room)	Open	60
LUNCH 1.00pm				
2.00pm	Growth Projections (Strategic Growth)	Greg Carstens and Nathan Dalgety	Open	60
3.00pm	LGNZ Remits (Council)	Julie Clausen and Sean Hickey	Open	20
MEETING ENDS 3.05pm				

Plan Change 6- Regulatory Efficiency and Effectiveness

Elected Member Briefing

4 March 2020

Hamilton City Council
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Objective for today

To present an overview of Plan Change 6– Regulatory Efficiency and Effectiveness and discuss the next steps.

Background

Plan Change 6 is a result of the Regulatory Efficiency and Effectiveness Programme (REEP)

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REEP Project Purpose

To streamline Council's regulatory functions so they are effective, efficient, transparent and customer-focused…

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REEP Stage 1

- Focuses on District Plan contents/related processes
- *To ensure greater efficiency, effectiveness and ease of use of the District Plan by jettisoning redundant or unnecessary provisions and clarifying other provisions where necessary to achieve the objectives and policies of the plan*
- Council approved Stage 1 Terms of Reference 1 June 2018
- Task Force convened (Mayor, Cllr O'Leary, CE, GM Infrastructure, GM Growth, Tony McLauchlan, Lachlan Muldowney)

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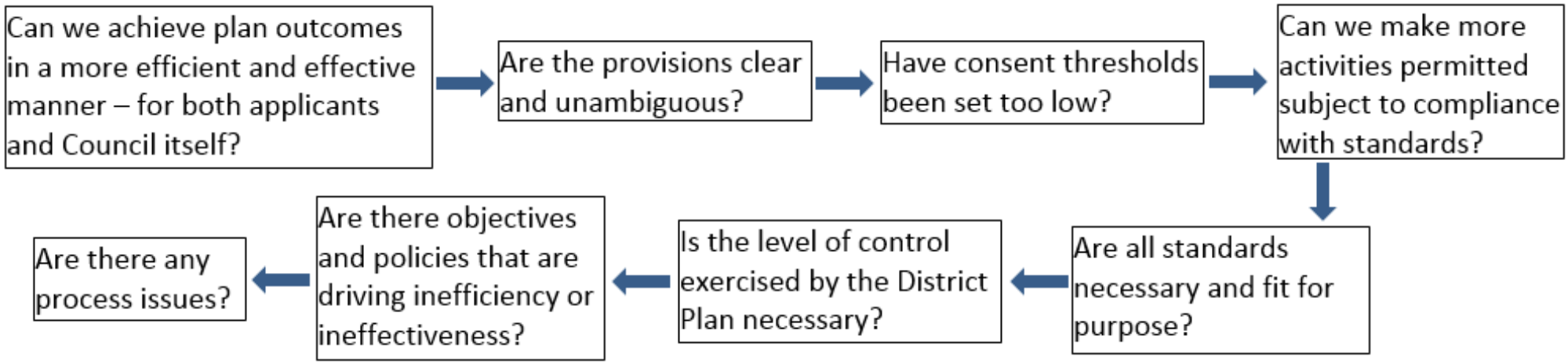
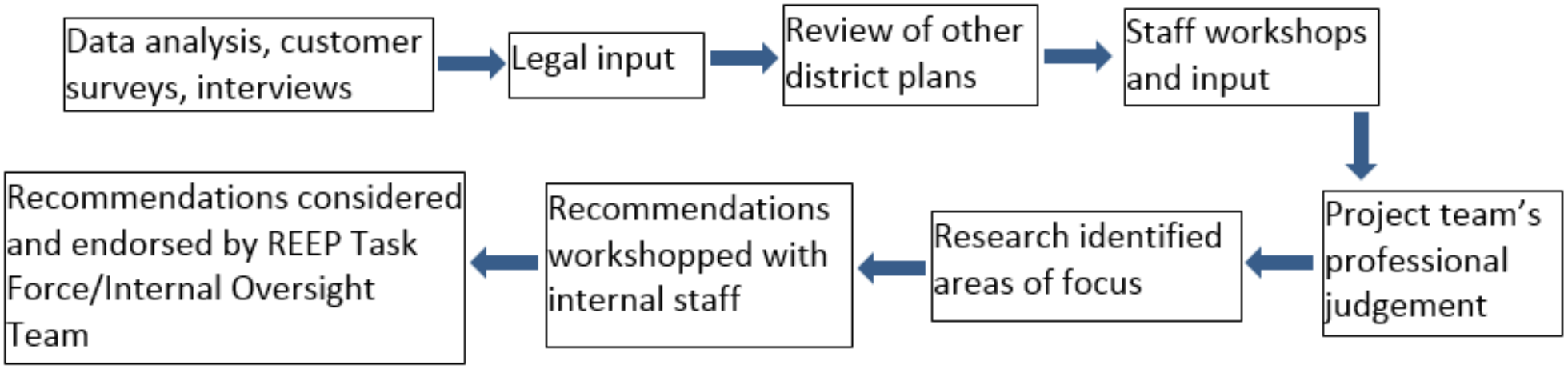
Approach

External project advisor appointed to ensure focus on customer point-of-view



Methodology

Project Plan and Research Programme:



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Outcomes

- No fundamental flaws
- No real issues with objectives and policies
- BUT – plenty of scope to reduce/simplify requirements and still deliver DP outcomes
- Est 200+ resource consent applications eliminated
- Cost savings and removal of delays for applicants
- Council resources freed up to deal with complex planning matters
- Some process changes already being implemented

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Outcomes

Three types of changes:

- Clause 20A amendments
- Plan change recommendations with draft amendments prepared
- Plan change recommendations requiring technical input or parked due to National Planning Standards)

Council Resolution

On 7 February 2019 Council approved the preparation of a Plan Change to :

- Incorporate the recommendations from REEP that can be made in a simple plan change
- Correct a mapping error in relation to the Electricity Transmission Corridor
- Rezone Lot 2 DP 425316 from Special Natural Zone- Lake Waiwhakareke Landscape Character Area to Destination Open Space Zone.

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Council Resolution

Two REEP recommendations were identified as requiring more technical work before proceeding to a plan change. These were:

- Reduce the amount of land on individual sites for dwelling in the Residential Zone.
- Enable Apartments where adjoining an Open Space Zone.

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Preparation of Plan Change 6

- The plan change includes 77 recommendations from the REEP review which aim to reduce or simplify the requirements of the Plan.
- The changes are consistent with the existing policy framework of the Plan.

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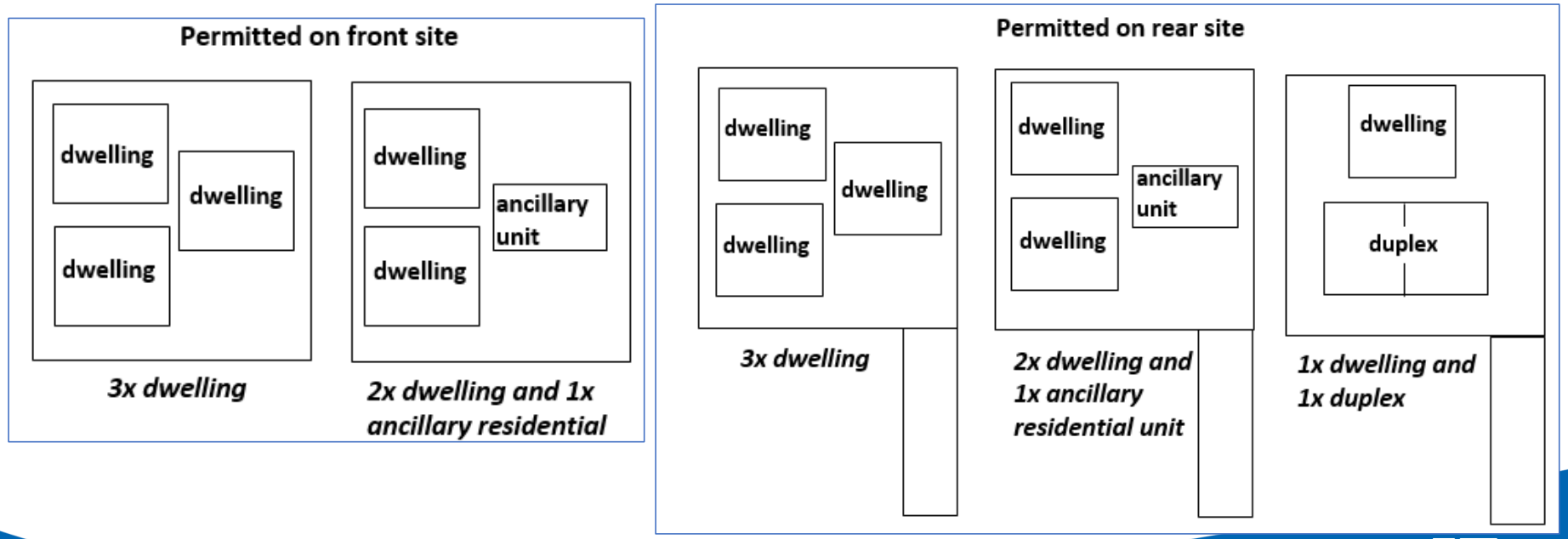
Enabling Residential Development

The amendments which may enable more residential development include:

- One duplex as a permitted activity on a rear site
- Three dwellings on a site as a Permitted Activity



Preparation and Consultation- Plan Change 6

- Emails to a cross section of developers, consultants, owners, interest groups and government agencies.
- Public notice Waikato Times and Hamilton Press
- Drop in sessions held at New Life Church-Ruakura and HCC Reception Lounge
- Feedback was received from 22 parties
- Evaluation undertaken in accordance with Section 32 of the RMA.

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Council Resolution

On 27 June 2019 Council resolved to:

- Notify Plan Change 6
- Hear, determine and make a decision on submissions on the plan change
- Begin pre-notification consultation on:
  - enabling apartments adjoining and opposite open space in the General Residential Zone
  - reducing the amount of land required for single dwellings in the General Residential Zone from 400m2 to 300m2

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Plan Change 6- Notification

Notification on 20 July 2019 included:

- Public notice in the Waikato Times
- Public notice sent out with all the rates notices
- Facebook notice
- Email to cross section of consultants, developers, interest groups and government agencies
- Drop in session held in the reception lounge

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Submissions

- 30 submissions and 4 further submissions were received.
- This included 454 submission points including 233 in support.
- The remainder of submissions either requested removal or tweaks to the provisions or new provisions to be added.
- The plan change was not opposed in its entirety.
- The submissions were from a mix of owners, developers, planning consultants, community groups and government agencies.

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Consultation- Residential Density

- Emails to a cross section of developers, consultants, owners, interest groups and government agencies.
- Public Notice in the Waikato Times
- Facebook notice
- Drop in sessions held at Dinsdale Library, Chartwell Shopping Centre and Claudelands Event Centre (Your Neighborhood session)
- Feedback was received from 31 people with a fairly even split of support and opposition on the density changes

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Infrastructure Modelling- Residential Density

- Growth projections do not reflect what the District Plan enables (duplexes and infill development)
- The infrastructure needed to service what the district plan enables has not been determined
- While "ultimate" infrastructure needed to service plan enabled growth could be determined, the timing and staging of the works would be difficult to define with any certainty
- It is challenging to plan infrastructure investment (with certainty) for infill development that can occur anywhere, at any time.

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Next steps

Hearing to be held on Plan Change 6

- Council resolved to hear and make decisions on the plan change
- Key tasks required to hear and make decisions on the hearing include:
  - Council members to be present;
  - Review all material before hearing
  - Attend hearing 1-2 weeks (must be present at all times)
  - Deliberate and drafting of decisions in accordance with Resource Management Act
  - Decisions on a large number of technical submissions

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Next steps

- Timing of Plan Change 6 hearing
- Decision to be made on notification of Residential Density Plan Change

FURTHER INFORMATION

Hamilton City Council
Garden Place, Private Bag 3010, Hamilton

/HamiltonCityCouncil
@CouncilHamilton
07 838 6699

hamilton.govt.nz

RMA Decision Making
Elected Member Briefing

4 March 2020

Hamilton City Council
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Objectives for today

- To inform Elected Members of RMA hearing and decision making requirements/processes
- To seek guidance on how Elected Members wish to undertake plan change hearings and decision making.

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Council RMA Responsibilities

- District and city councils are generally responsible for making decisions about:
- the effects of land use
- the effects of activities on the surface of rivers and lakes
- noise
- subdivision
- ensuring sufficient development capacity for residential and business land to meet expected long-term demands of the district or city.

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Delegations

- RMA provides the ability for a local authority to delegate powers and functions to employees and other persons

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Delegations to Chief Executive

- Council has delegated the CE all responsibilities, duties and powers to act on any matter in respect of the RMA and to further delegate these matters subject to exclusions
- Delegations to CE, Hearings Commissioners and Officers recorded in RMA Delegations Management Policy

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Exclusions

- Council's own power to delegate
- Notification of a Proposed District Plan
- Approval of a Proposed District Plan as operative
- Appointment of a hearings commissioner
- Decisions on submissions and further submissions to a Proposed District Plan
- Rejection of a private plan change request

These powers remain with Council

- Hearing and determining objections to officer-declined resource consent applications (will be heard by independent hearings commissioners)

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Hearings: Resource Management Act

- Contains provisions for the conduct of hearings
- Certain matters can only be heard by Ministry for the Environment-accredited RMA commissioners or by full Council

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Accreditation required

Appointees on hearing panels must have accreditation in order to hear:

- applications for resource consent
- notices of requirement for a designation or heritage order
- private plan changes
- reviews of resource consents

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Accreditation required

- applications to change or cancel resource consent conditions
- proposed policy statements and plans that have been notified
- any hearing of an objection under section 357C
- All members of RMA hearing panels given authority by a local authority must be accredited unless there are exceptional circumstances

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HCC governance structure

- Includes an RMA Independent Hearings Commissioner Panel
- Panel is delegated authority by Council to undertake certain hearings and make decisions under the RMA

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Panel terms of reference

Panel is delegated power to hear and decide:

- Applications for resource consent or changes to conditions of resource consent
- Notices of objection; or
- Notices of requirement to designate and alter a designation; for a heritage order and alteration to a heritage order.

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Panel terms of reference

- The power to exercise all relevant procedural powers under the RMA
- The power to select a hearings chairperson and give the chairperson a casting vote
- GM City Growth delegated authority to select commissioners from approved list
- Commissioners' decisions to be reported to Council

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Panel members

- Appointed by Council
- 10 accredited independent RMA commissioners and any Hamilton City Councillor or Maangai Maaori who is an MFE accredited RMA Commissioner
- Process underway to refresh panel and increase panel size

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Plan Change 6

- Requirement to make decisions on submissions and further submissions
- This power has not been delegated
- Council resolved to hear and decide Plan Change 6 itself

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Going forward

- Do Elected Members still wish to hear and decide Plan Change 6?
- Process for future plan changes?
  - Full Council
  - Commissioners
  - Hybrid – qualified elected members and commissioners

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Options

- Council adds a new delegation to the Commissioners panel TOR to hear and recommend (or decide if requested) plan changes

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Options

- Full Council hears and decides plan change; or
- Determines that the panel will be used and if the Commissioners are to hear and recommend, or hear and decide plan change
- Common practice is for Commissioners to hear and recommend plan changes

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Community and Social Development

Strategic Outcomes Briefing

Hamilton City Council
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4 March 2020

Briefing Purpose

- To inform the Council of the Community and Social Development Team outcomes

- To give Elected Members the opportunity to input into the Strategic direction of the team

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Briefing Content

- Background – Bev Gatenby Report
- Who we are as a city
- Definitions of Community
- Community-Led Development
- Wellbeing context
- Community and Social Development 12-month outcomes
- Reporting and Monitoring
- Opportunity to give direction

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Background

Bev Gatenby Report 2018 - Findings

- Engaging the community by cultivating a shared vision and building trust.
- Using communication and facilitation to keep momentum.
- Ensuring there are practical achievements.
- Bringing new leaders forward to empower and ensure succession for the project.

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Becoming more strategic

- Inside Council – brokering and civic engagement role
- Strategic links across the organisation
- Focus on Significant issues
- Significant locations
- Community-led development
- Making Council “relatable”

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Who we are as a city

169,300 people,

67% NZ European, 24% Maaori, 18% Asian,

1 in 4 born overseas,

1 in 4 live with an impairment,

half of us under 32, 1 in 9 of us over 65 years

60% of our community live in the 40% most deprived areas of the NZ

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COMMUNITY, definition of types of…

- Community of Place
  A community of people who live within the same geographical space
  - Enderley, Melville, Rototuna, etc

- Community of Identity
  A community of people who share common affiliations or experiences
  - New Migrants, Disability, Waikato-Tainui, Mata Waka, Youth, Older Persons etc

- Community of Interest
  A community of people who share a common interest or passion
  - Environmental, Arts, Cycling, etc

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Community-Led development principles

- Community-led Development is the process of working together to create and achieve locally owned visions and goals.
- Nationally recognised five guiding principles (Inspiring Communities):
  - shared local visions or goals drive action and change
  - use existing strengths and assets
  - many people and groups working together
  - building diverse and collaborative local leadership
  - adaptable planning and action informed by outcomes.

Resources

http://inspiringcommunities.org.nz/wp-content/uploads/2017/09/Community-Led-Development-Principles-2017.pdf
https://helenclark.foundation/wp-content/uploads/2019/12/engaged-communities-report-min.pdf
https://www.communitymatters.govt.nz/community-led-development-programme/

Wellbeing Context

Purpose of Local Government, 2019 Act

- to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future.

- Future of our City, Wellbeing conversation

- Waikato Wellbeing Project regional targets

- Vital Signs Report

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Achieving Outcomes through Partnerships

Including but not limited to:

- Community and Community Leaders
- Community Houses and agencies/Trusts
- Community Waikato; Creative Waikato; Sport Waikato
- Waikato-Tainui
- THaWK
- Te Runanga o Kiririroa
- Central Government - Kainga ora; MSD; MoE; Police
- Funding agencies

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Community and Social Development Team 12 month outcomes

1. Inclusive Community Engagement takes places with our diverse communities of place, identity and interest.
   - Develop meaningful and inclusive engagement alongside Communications and Marketing Team
   - Utilise existing community opportunities and partnerships (e.g. network meetings; community houses; community events; Council facilities, pools, libraries, Museum, stadia)
   - Targeted engagement with groups of interest, identity and place (multiple methodologies including surveys; events; world cafes; co-design)
   - Planning and projects based engagement (e.g. 10-Year Plan; community and infrastructure projects)

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Community and Social Development Team 12 month outcomes

2. Community Capacity is built through responsive services that improves local wellbeing.

Projects to be further defined but include:

- Enderley Community-led development
- Youth projects (Waikato Plan)
- Disability Action Plan
- Older Persons Action Plan

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Community and Social Development Team 12 month outcomes

3. Our public places and spaces are more activated.

- Build community and sense of belonging through enhanced utilisation of public spaces – e.g. pools, libraries; playgrounds, parks
  - Focus on non-users and optimised use of non-peak times
  - Promote events and activities on parks
  - Encourage play
- Public transportation links (buses, cycling, walking)

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Community and Social Development Team 12 month outcomes

4. Our Council and Community are informed and educated through better story telling and case studies.

- Provide opportunities for community to ‘tell their stories”
- Improved communication with Council through Committee and briefings
- Reporting on progress of projects and initiatives – Committee reports (including GM report); Executive update
- Councils Wellbeing Reporting (Metrics)
- Community events and activities

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Questions/Paatai?

Direction onto post-its…

(Follow up with morning tea session with Community and Social Development Team)

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Additional Slides if needed

Future of our City definitions

- Environmental
  - We love and protect our environment
- Social
  - We care for, and about, all our people
- Cultural
  - Our unique and diverse culture is celebrated
- Economic
  - Our economy provides opportunities to prosper

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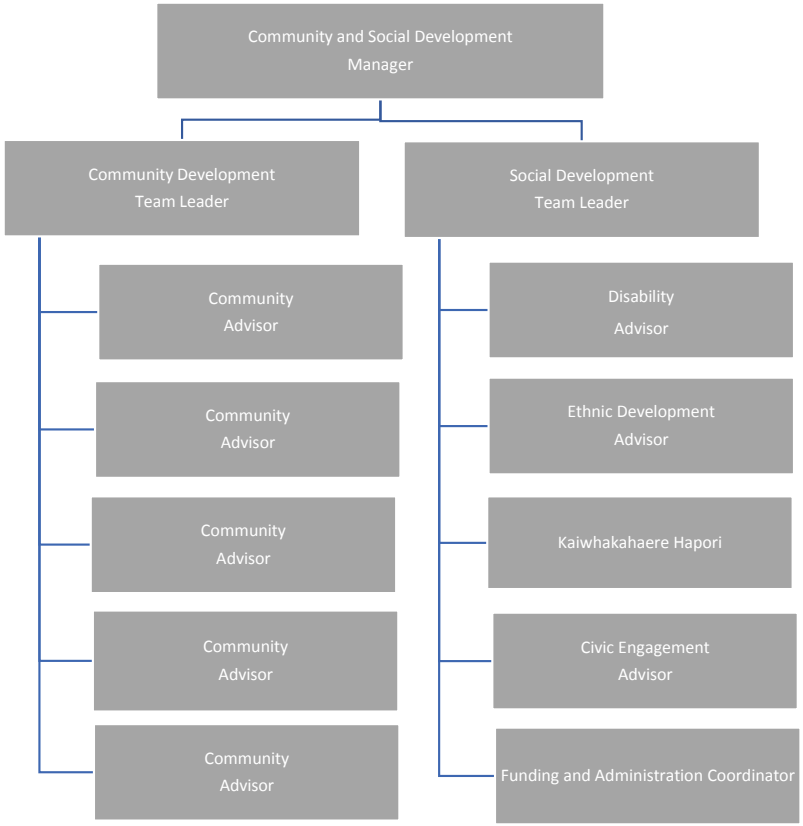
Community and Social Development Team



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FURTHER INFORMATION

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hamilton.govt.nz

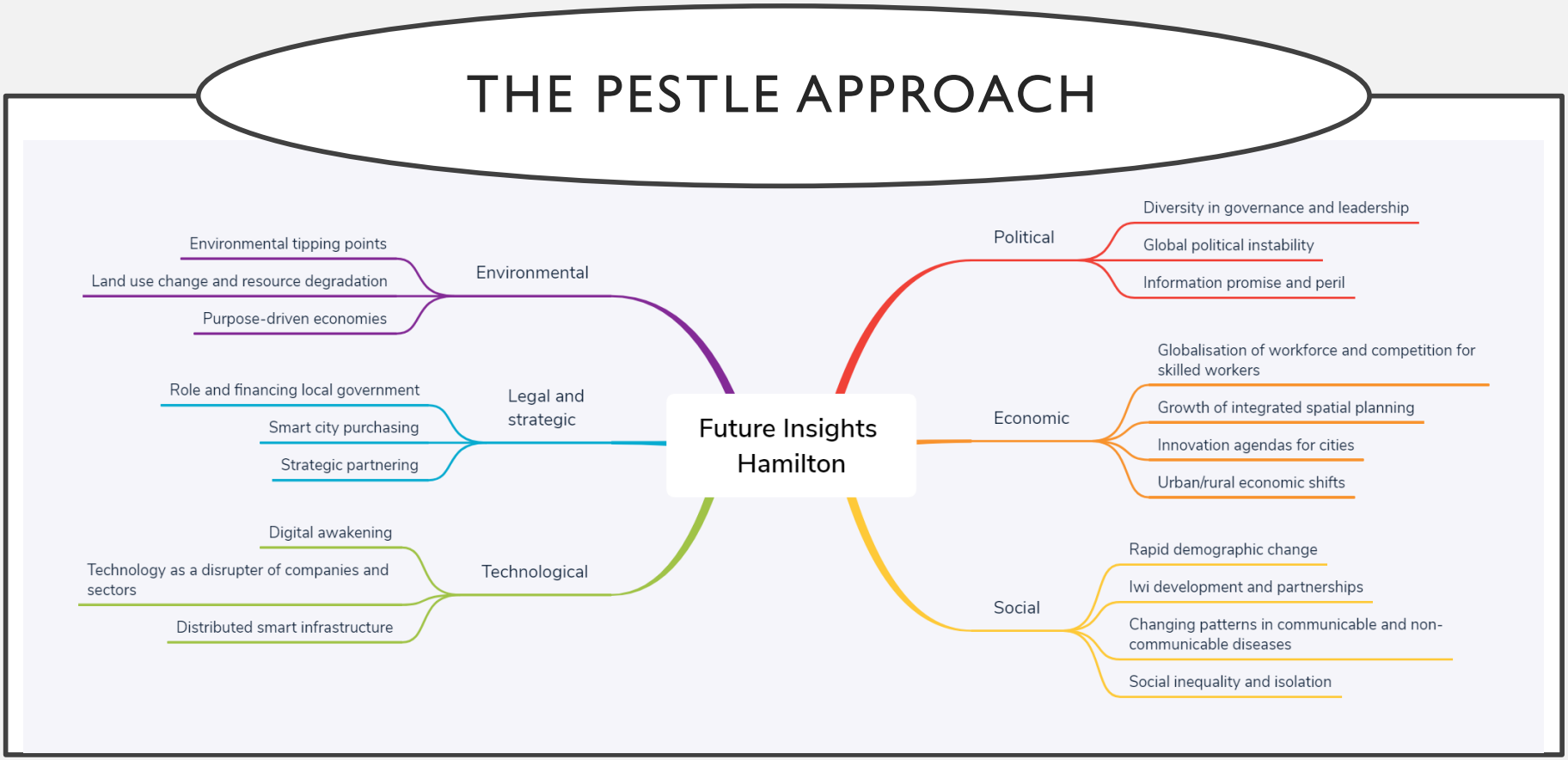
FUTURE INSIGHTS – HAMILTON

Adrian Field, Rebecca Mills, Lily Hirsch, Kelvin Norgrove

March 2020

“The future is already here — it's just not very evenly distributed”

(William Gibson)


THE PESTLE APPROACH
Future Insights Hamilton
Environmental
Environmental tipping points
Land use change and resource degradation
Purpose-driven economies
Legal and strategic
Role and financing local government
Smart city purchasing
Strategic partnering
Technological
Digital awakening
Technology as a disrupter of companies and sectors
Distributed smart infrastructure
Political
Diversity in governance and leadership
Global political instability
Information promise and peril
Economic
Globalisation of workforce and competition for skilled workers
Growth of integrated spatial planning
Innovation agendas for cities
Urban/rural economic shifts
Social
Rapid demographic change
Iwi development and partnerships
Changing patterns in communicable and non-communicable diseases
Social inequality and isolation

How can Hamilton's growth support all its communities to prosper?

GLOBAL CITIES

Global population at 7.7 billion people; 55% in cities

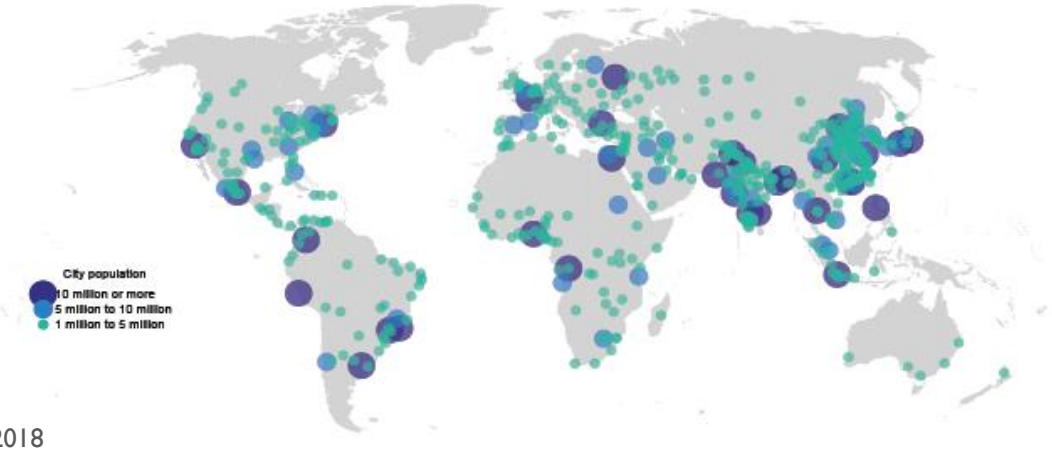
Cities with more than 1 million inhabitants grew from 371 in 2000 to 548 in 2018, and over 700 by 2030

33 megacities with more than 10 million people in 2018, 43 in 2030

New Zealand to reach 5 million people in 2020

87% of New Zealand's population live in urban areas, and 75% in cities

Ageing population, but also rapid growth in rangatahi Māori and young Pacific people



United Nations, 2018

What does global instability mean for a city like Hamilton?

GLOBAL POLITICAL INSTABILITY

- Geo-political and geo-economic tensions
- Weakening of the global consensus on climate and trade as alliances diverging
- "Whatever it takes" political cultures

Trump urges world to reject globalism in UN speech that draws mocking laughter

President says: 'We embrace the doctrine of patriotism'

Guardian 26 September 2018

U.S. Blocks WTO Judge Reappointment Amid Looming Trade Crisis

By Jan Dahinten
August 28, 2018, 4:25 AM GMT+12

Bloomberg

How prepared is the city for widespread illness?

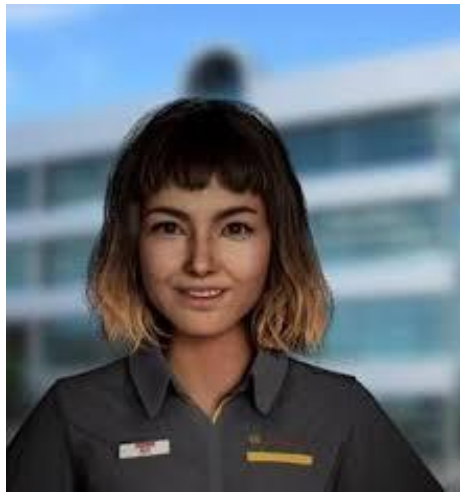
COMMUNICABLE AND NON-COMMUNICABLE DISEASES

- Covid-19 has reset attention back to communicable disease threats
  - Will we shift from containment and quarantine to mitigation and social distancing?
  - A short correction in economies or a deeper challenge?
  - Managing public apprehension and misinformation
- This still co-exists with other ongoing health challenges

Is Hamilton ready for technology as a disruptor?

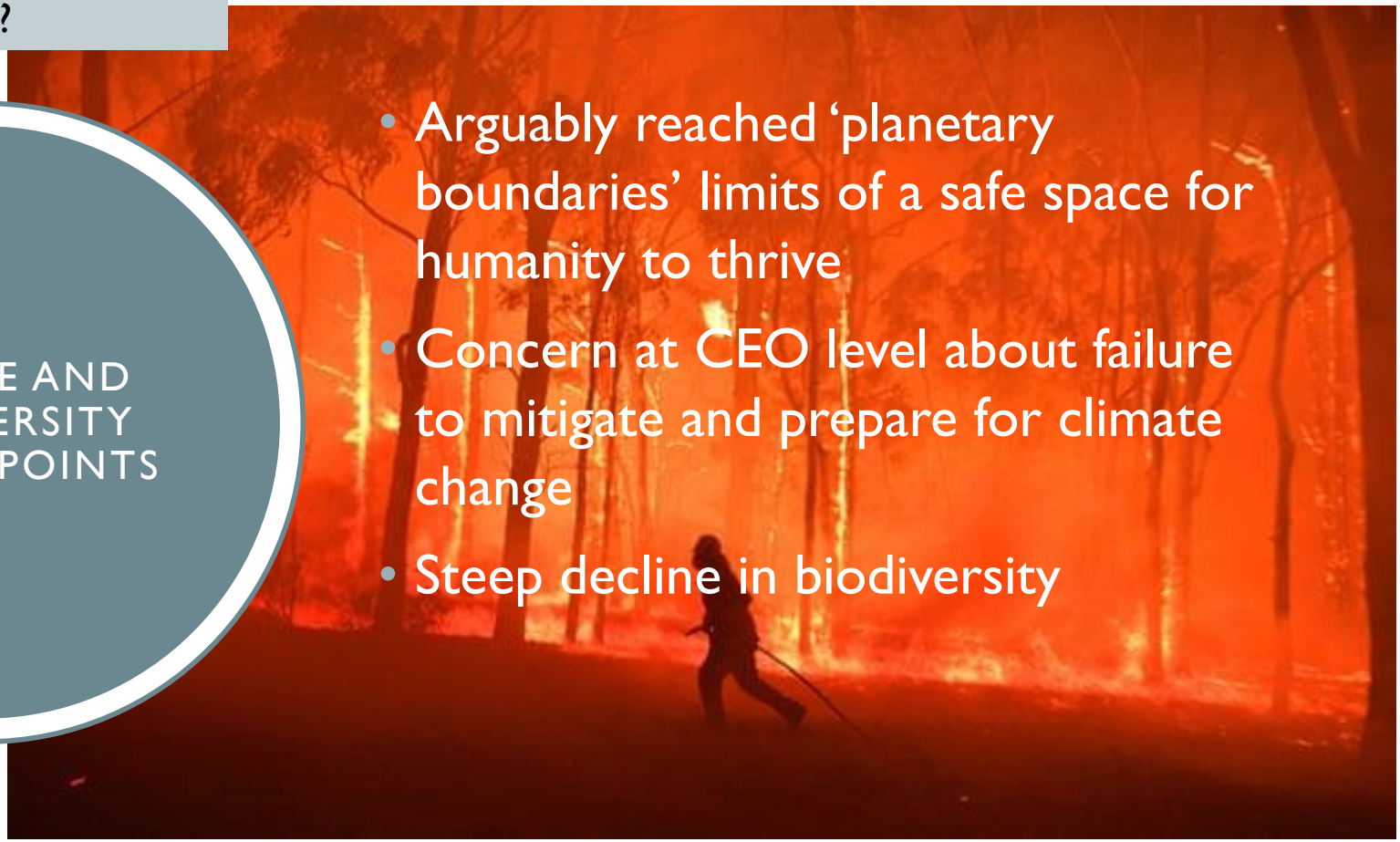
TECH AS A DISRUPTOR

- Previously disjointed fields and technologies converging and amplifying disruptive forces
- Growth of automation, artificial intelligence, machine learning and continuous intelligence
- Disruptive market opportunities for new ventures in food, transport, digital payments and advanced human health



Could areas of Hamilton become uninsurable?

CLIMATE AND BIODIVERSITY TIPPING POINTS



- Arguably reached 'planetary boundaries' limits of a safe space for humanity to thrive
- Concern at CEO level about failure to mitigate and prepare for climate change
- Steep decline in biodiversity

Guardian 22 November 2019

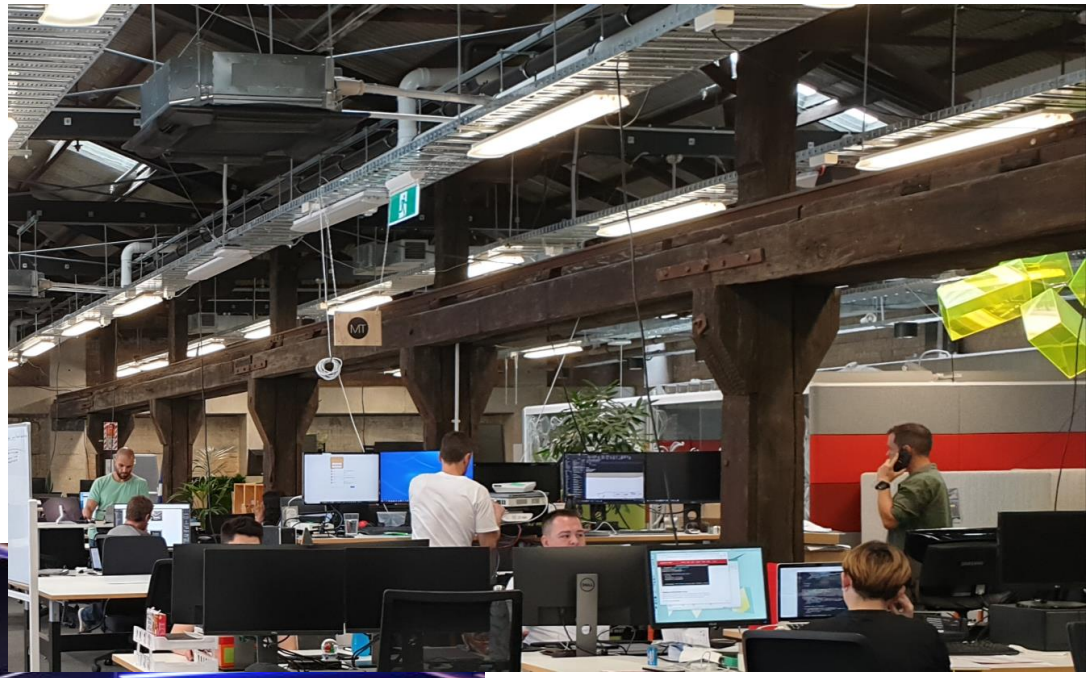
How can Hamilton lead regenerative business and enterprise?

PURPOSE-DRIVEN ECONOMIES

- Citizens demanding governments respond to social and economic challenges
- Shifts in purpose decisions and demand for sustainable and ethical supply chains
- New US statement on purpose of a corporation
- Aotearoa Circle

What are the opportunities to cultivate innovation?

INNOVATING CITIES



- Cities as creators of innovation
- Concentration of services, education and populations
- Innovation districts and innovation hubs
- Harnessing businesses and social enterprises on key issues
- Distribution of innovation support?

How can Hamilton strengthen its partnerships?

IWI DEVELOPMENT

- Co-governance, co-management and strategic partnerships
- Increasing role and influence of iwi
- Growing economic force

What's the potential to grow sustainable procurement in Hamilton?

SMART CITY PURCHASING

- Sustainable and social procurement approaches growing internationally
- Leveraging improved community and environmental outcomes from business as usual purchasing
- Strengthening role of community and social enterprise sectors

What problems could data help tackle in Hamilton?

DATA PROMISE AND PERIL

Cambridge Analytica Files

theguardian.com

BY THE PEOPLE, FOR THE PEOPLE: CROWDSOURCING TO IMPROVE GOVERNMENT

Image: Photos by Mavis/Flickr

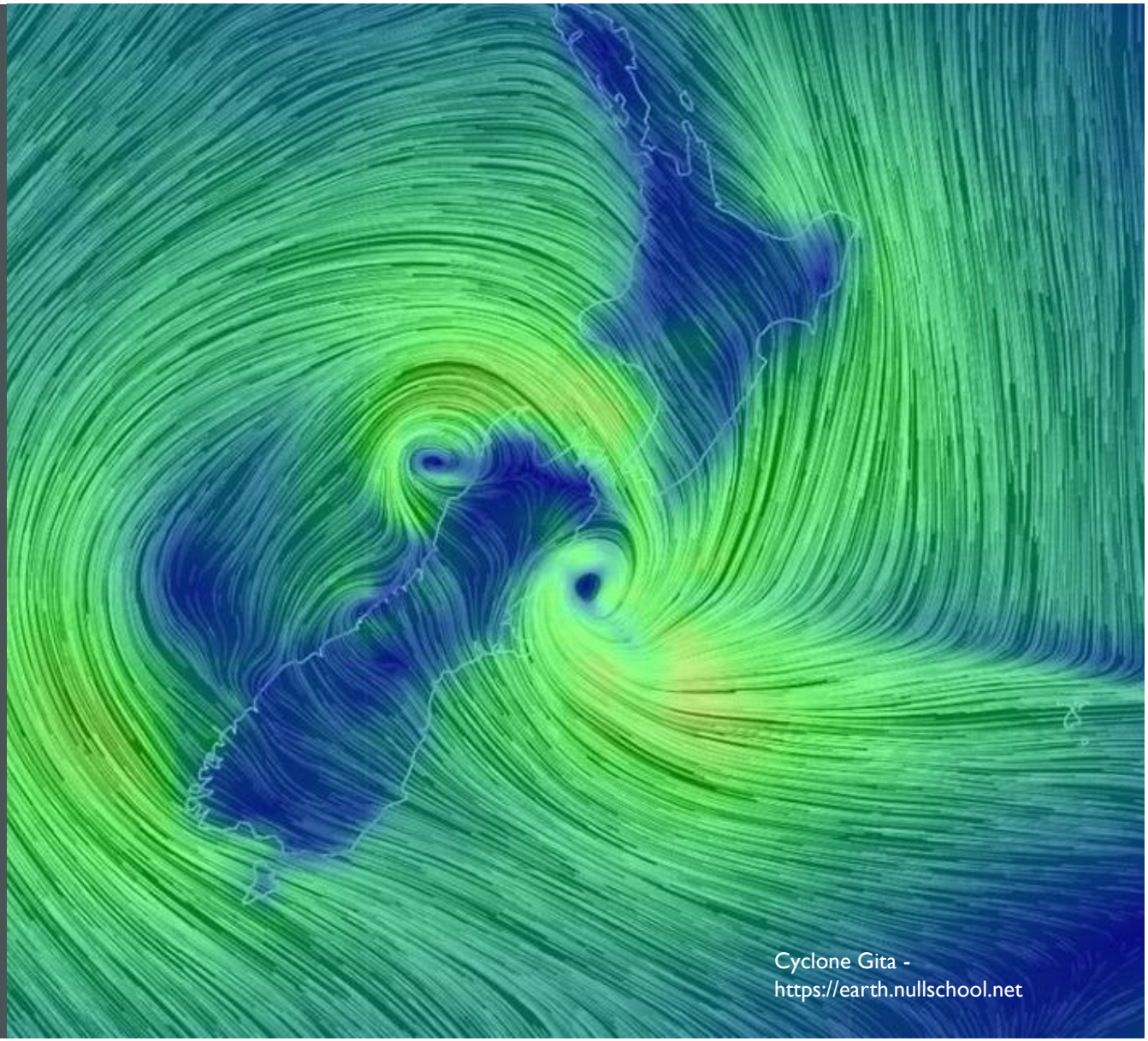
wired.com

- Resource base for citizen knowledge, empowerment and action
- Rapid response and mobilisation
- Surveillance technology
- Manipulation and polarisation in social media

OUR
COLLECTIVE
FUTURE
OUR CHOICES

Plan, prepare and capitalise

Or be buffeted by the winds of change




LET'S DISCUSS
What are the biggest challenges we face?
What are the opportunities of future trends?
How does Hamilton best prepare?

Future Insights: Hamilton

Environmental Scan for Hamilton City Council

Adrian Field

Lily Hirsch

Rebecca Mills

Kelvin Norgrove

dovetail
Building Insight for Action and Change

MACKIE RESEARCH
OPTIMISING HUMAN SYSTEMS

THE LEVER ROOM

STRATEG.EASE
STRATEGY | BUSINESS & ECONOMIC ANALYSIS

30 January 2020

Contents

Executive Summary

This environmental scan explores global and national drivers of change, and poses questions for the future development of Hamilton as a city. The analysis is intended to provoke thought and ideas, and prompt thinking about what these trends may mean at service levels within Hamilton City Council (HCC).

This review takes a PESTLE structure – Political, Economic, Social, Technological, Legal and strategic, and Environmental – to explore key future trends. Within each of these six categories, 20 key global and national trends are identified, corroborated with evidence, and critical questions for Hamilton are explored. The trends identified in the report are:

Political

1. There is growing **global political instability**, as trade agreements, nations and alliances are diverging.
2. Across multiple levels of decision making, there is **growing diversity in governance and leadership**, which enhances representation of the rich make-up of communities, and challenges established ways of working.
3. Unprecedented **access to information and data can strengthen democratic systems**, but are also fraught with risk of fraud, polarisation and manipulation.

Economic

4. The workforce is globalised and **cities are competing for workers and firms**.
5. Councils in New Zealand and internationally are increasingly turning to **spatial plans that integrate land use and infrastructure planning**.
6. Economic development strategies for cities are increasingly featuring **innovation agendas** to boost productivity, economic growth, and living standards.
7. There is a clear pattern of **rural depopulation and urban growth**, but it is unevenly spread with different impacts in different parts of the region.

Social

8. There is a **global trend towards growth of cities**, and in New Zealand, there are substantial demographic shifts occurring where our cities are the face of population change and growth.
9. In New Zealand, **iwi are growing in their economic strength** and their role in regional economies; local and regional government are increasingly partnering with iwi.
10. The overall health of New Zealanders is stronger than ever before, but there are **significant disparities in health**, and new patterns of communicable and non-communicable diseases are emerging.
11. **Disparity between the world's richest and poorest people is growing**, fuelling social disengagement and isolation.

Technological

12. Globally, there is **increasing use of automation, artificial intelligence, and machine learning**. These create new market opportunities but also create greater potential for economic disruption and data misuse.
13. New **technologies are fusing physical, digital, and biological worlds**, disrupting food production, transport, advanced human health, and manufacturing materials.
14. Systems for **energy and transport infrastructure are being disrupted by new technologies** that will create more distributed networks that are less reliant on centralised infrastructure.

Legal and strategic

15. Local government is returning to its role in promoting **economic, social, environmental and cultural wellbeing**, but local government is also contending with funding structures that are no longer fit for purpose.
16. Both public and private sector players are looking for **improved social and environmental outcomes from their business as usual purchasing decisions**.
17. Local government is increasingly looking to its **strategic partnership role** outside its established regulatory powers, working with iwi, philanthropic, community, and private sector partners.

Environmental

18. Globally, there is increasing concern that we are reaching or **have reached the limits of a safe space for humanity to thrive**.
19. Land use changes have **impaired the health of ecosystems and accelerated biodiversity loss**.
20. There is a **growing movement challenging companies and governments to strengthen their role in solving systemic challenges** such as climate change, biodiversity loss, and growing inequalities.

In the face of global forces that cities such as Hamilton cannot control, cities nevertheless have the choice to plan, prepare, and even capitalise on the shifts occurring around us, or to be buffeted to varying degrees by the winds of change.

With careful consideration and informed debate, Hamilton has the potential to co-design and co-create its city to nurture the wellbeing of its communities and environment.

Introduction

Background to this work

Understanding global forces and their implications is a critical part of the decision-making toolbox for regional and city leaders. Forces that are beyond the control of any one city or region can be identified, and factored into long-term planning, so that opportunities are maximised and potentially disruptive negative impacts are reduced.

Hamilton City Council (HCC) commissioned a team of researchers and strategists to explore global trends and forces that could influence the future direction of the city. This environmental scan explores global and national drivers of change and poses questions for the future development of Hamilton as a city. The analysis is intended to provoke thought and ideas and to prompt thinking about what these trends may mean at service levels within HCC.

The intention with this review is to prompt discussion and debate; each trend in itself could be (and often are) the subject of entire books, conferences, and fields of study. This review, it is hoped, will spark thinking and debate to support decision-making for Hamilton's future direction.

Approach

This review takes a PESTLE structure – Political, Economic, Social, Technological, Legal and strategic, and Environmental – to explore key future trends. Within each of these six categories, key global and national trends are identified, corroborated with evidence, and critical questions for the city are explored.

This document builds on ongoing work exploring future trends undertaken by the research team, including a parallel investigation of trends impacting the wider Waikato region. The research was primarily desktop-based; a wide range of global trends were initially identified and tested with HCC staff, which were then refined into a series of leading trends. Following further consultation with HCC staff, additional themes and sub-themes were identified that were incorporated in subsequent searches and analysis.

The research was undertaken by a diverse team of researchers, each bringing their own specialty areas: Dr Adrian Field (policy and evaluation), Dr Lily Hirsch (social and cultural anthropology), Rebecca Mills (sustainability, environmental, and technological strategies), and Kelvin Norgrove (economic and spatial strategy and planning).

Political trends

1. Global political instability

Trend overview

> *"…the common good has been subordinated to winning. Step by step, our system of government has been sacrificed to the goal of short-term political success. The cumulative cost to trustworthiness and integrity of our democratic institutions has been incalculable."*
>
> *Robert Reich, 2018* [4]

Following a long period of globalisation and multilateral trade agreements, nations and alliances are increasingly diverging. Substantial geo-political and geo-economic tensions are occurring internationally, and the global commons is weakening. These "deepening fissures" between nations threaten the ability to make progress on key international challenges, including climate and environmental challenges, economic volatility, and information use and misuse.[1]

The risk of conflict is likely to increase during the next two decades because of diverging interests among major powers, continued terrorist threats, ongoing instability in weak states, and the proliferation of lethal and disruptive technologies.[2]

Evidence base

- Tensions between major powers have created instability in global trade, particularly between the United States and China. Processes for dispute resolution in trade agreements are breaking down.[1]
- Confidence in national governments across all OECD countries declined 3.3 percentage points, from 45.2 to 41.8 percent between 2007-2014; including declines of more than 25 percentage points in Slovenia, Finland, and Spain.[2] Trust in other institutions, such as business, is similarly declining.[3]
- Polarisation is increasingly occurring between different population groups within countries, often fuelled by conflict-driven migration crises, particularly in Central America, Africa, Syria, and the Middle East.[1]
- The nature of politics has descended in many countries to a "whatever it takes" culture that sacrifices truth and bipartisanship in the interests of power and self-interest.[4]
- The ubiquitous nature of technology, combined with the misuse of personal data for political and financial gain is a key threat in many democracies, and was a factor in recent US elections.[5] The vulnerability of critical technology infrastructure, including for public utilities, is a significant political concern.[1]
- There is likely to be a blurring of peacetime and wartime, as states and non-state groups employ information networks and multimedia capabilities, to exploit differences between values, ideologies, nationalism, and other forms of identity politics to weaken political systems.[2]

Provocations

1. What are the potential ramifications for global instability for a city like Hamilton? What stresses could growing polarisation and instability place on the local economy and our communities?
2. How immune is New Zealand from "whatever-it-takes" politics, and how could Hamilton model ethical and responsible political behaviour?
3. How vulnerable is Hamilton's existing infrastructure to cyber-attacks? What are the potential future implications for the city?

2. Diversity in governance and leadership

Trend overview

> *"The election has been a modernising one — throughout the country the results appear to have produced a re-balancing of the councils and the mayoralties, with voters choosing to elect more women and youth than ever before"* *Bryce Edwards, 2019* [6]

There is an increasing trend both internationally and nationally for increasing diversity in governance. This can be seen at multiple levels of governance, including national and local political representation, along with corporate and community sector governance. The growing diversity includes gender, ethnic, age, and sector representation, although we are a long way yet from achieving equity relative to population distributions.

Growing diversity challenges established ways of working, brings greater representation of who we are as a nation, and has the potential to create stronger accountability to people and communities in many different ways.

Diversity brings with it opportunities for more inclusive engagement with communities, including innovative citizen science, co-design techniques, and digital tools for rapid feedback and action. In an age where climate action is taking centre-stage, communities are looking to their leaders to show environmental leadership to protect future generations.

Evidence base

- The New Zealand Parliament has more women (38 percent by 2017), Māori (23 percent by 2017), Pasifika (6 percent by 2017) and Asian MPs (5 percent by 2017) than ever before.[7] Similar trends are evident in elections in the United States, Britain, and Canada (although less so Australia).[1,8]
- New Zealand's 2019 local elections were notable for an increase in women mayors (25 percent, up from 19 percent in 2016), and an increase in mayors aged under 40, as well younger elected representation overall. Women now make up over 42 percent of all local government elected members.[9]
- The proportion of female directors on NZX companies remains low, but increased from 14 percent in 2015 to 23 percent in 2019; over the same period, there was an increase in female directors in NZX50 companies from 19 percent to 28 percent.[10]

- Against an international backdrop of distrust in institutions, trust in the New Zealand parliament and national electoral participation are increasing: 41 percent of New Zealanders trusted parliament in 2018, compared to 36 percent in 2014; and there was a 79 percent turnout in 2017 compared to 72 percent in 2014.[11]
- However, local election participation remains low, at 41 percent for New Zealand overall in 2019 and 39 percent in Hamilton (albeit higher than 34 percent achieved in 2016).[12]
- Diversity is not a nice-to-have, it is important for the economy. For example, McKinsey estimates that if women had the opportunity to participate in the global economy identically to men, this would add as much as US$28 trillion, or 26 percent, to annual global GDP in 2025 compared with a business-as-usual scenario (equivalent to the size of the US and Chinese economies combined).[13]

Provocations

1. What are the opportunities presented by Hamilton's changes in governance for the wider region?
2. Which communities in Hamilton are not currently represented at a governance level?
3. How do we build on the gains in voter participation in Hamilton to achieve broader civic participation?
4. What are the opportunities for co-design of council services with the rich diversity of Hamilton's population?
5. How can Hamilton reduce policy silos between important focus areas such as housing affordability, planning and transport, economic development, public health, and education?

3. Democratisation of information

Trend overview

> *"Data can help us see things clearly, and understand things in a faster and more feasible way than having to experience everything ourselves. The human shifts in our awareness and understanding of others through data is to me, the most exciting thing to come."*
>
> *Lillian Grace, 2019* [14]

Today, at all levels – global, national, and local – there is unprecedented access to information, both in its volume and speed.[2] Real-time data gathering by national and local government creates a resource bases for citizen knowledge, empowerment, and action. Real time data gathering also provides a platform for information exchange, enables rapid response and mobilisation for disruptive events, and supports improved accountability to citizens.

Yet this access to information also creates significant risks. Data fraud and theft risks the financial position of individuals and businesses.[1] Misappropriation of personal data risks the integrity of politics and institutions.[15] Polarised interests in social media risks the integrity of communities, by denigrating ethnic, gender, and income differences between people and the values they hold.[1] [16]

Evidence base

- Governments are using digital connectivity to experiment with different forms of public engagement and consultation. Egypt and Iceland for example have employed online technologies to crowd-source input into their new constitutions.[3]
- Local authorities are using online geo-spatial mapping tools to provide information to their citizens on weather events, air pollution, flood risks, service and amenity access.[17] These are used for providing real-time information, enabling rapid responses, and supporting predictive insight.[18]
- Social media and new technologies enable citizens to express themselves vocally and in real time. This places increasing pressure on local government to respond to expectations of all its constituents, not just ratepayers.[19] Internationally, residents see themselves as consumers of public services; and are becoming more complex, individualised and diverse, with growing, shifting, and contradicting expectations.[20]
- The growth of open-access journals is freeing information that would otherwise be locked into subscription paywalls, freeing access to high-quality research and data.[21]
- The Christchurch Call to Action to eliminate terrorist and violent extremist content online is making some progress. 48 countries and 3 international organisations have joined the Call; Facebook is making changes to how it combats extremism; the Global Internet Forum to Counter Terrorism (GIFCT) will be overhauled; and a government and tech company crisis response protocol has been established.[22]
- Yet the dark side remains. It is well known that a data analytics firm, Cambridge Analytica, harvested Facebook profiles and preferences of millions of US voters to influence the 2016 presidential election.[5] Foreign interference in elections through data hacking and disinformation is regarded as a prevailing threat.[23]

Provocations

1. What are the issues or problems facing Hamilton that enhanced access to data and analytics could help tackle?
2. What is the untapped potential for open access data and analytics to empower Hamilton's citizens?
3. How is the dark side of social media revealing itself in Hamilton? How might the city respond?
4. How can technology be an enabler of co-created services with the citizens of Hamilton? And what are the limits of technology in co-creation?
5. Thinking beyond technology, to what extent can Hamilton embrace innovative ways of engaging with its citizens, so that their perspectives become part of the councils' data-driven decision-making?

Economic trends

4. Globalisation of workforce and competition for skilled workers

Trend overview

> *"Around 150 years ago it took more than three months to sail from Britain to New Zealand; since then the shipping time has fallen to about three weeks (by three-quarters) but people and valuable goods can be flown to Britain and other distant countries in less than two days (a reduction of more than 98 percent). Money and information can be sent around the world virtually instantaneously."* Brian Easton, 2004 [24]

Globalisation is a term widely associated with intensification in the mobilisation of goods, services, capital, technology, and people between national states. Globalization and technological progress have profoundly transformed economies and radically redistributed opportunities to participate and thrive. With increasing urbanisation within developed and developing countries leading to greater concentration of skilled workers in cities, cities are essentially competing as ultimate destinations for talented workers and firms.

For the first time in our history, New Zealand is part of the fastest growing region in the world. There is a growing middle class not just in China but in India, Vietnam, the Philippines, Malaysia, Indonesia, and elsewhere in the Asia-Pacific region. One estimate is for the Chinese, Indian, and Southeast Asian middle classes to be almost 2 billion people by 2020. That is a huge group of markets for New Zealand tourism, export education, and commodities as well as migration.

Countries such as the United States, Canada, Australia, and New Zealand have adopted an active immigration policy aimed at enticing skilled people to their countries as permanent residents. While migration has added to the community diversity of many cities and towns in New Zealand, they will also face more competition from other countries/cities which are aiming to attract and retain highly skilled visitors, including international students.[25] Given the flight of both money and people from troubles around the globe, we can expect New Zealand to stay in demand.

However, while high levels of migration can contribute to maintaining or expanding the size of the working age population in countries/cities with ageing domestic populations, globalisation of technology and capital has been accused of hollowing out the middle class, productivity gains not translating into higher wages for the vast majority of workers and the labour share of total income continuing to fall, and working conditions becoming more precarious for many workers.[26]

Even if Hamilton successfully attracts highly skilled workers, a reciprocal 'brain exchange' may occur - where high-skilled workers come and go between locations for 'work-gigs' rather than putting down roots long-term. The changing nature of work is likely to intensify this trend, with a continuing move to flexible workforces with shorter term or temporary employment arrangements, particularly for highly skilled workers with internationally transferable skills.

Evidence base

- New Zealand has a high rate of net inflow of migrants compared to the US and UK. Statistics NZ reports that based on the rate of net inflow per thousand existing residents, New Zealand's migration rate was 11.4 per 1,000 residents in 2018 (56,000 added to a population of about 4.9 million) and is similar to Australia's but more than triple recent inflows to the US and UK (at 3 per 1,000 residents).[27]
- While the lion's share of international migrants settle in Auckland, Hamilton's ethnic diversity is increasing with 160 ethnicities and more than 80 languages being spoken in 2013. It has a lower share of people who identify as European compared to New Zealand as a whole and almost one in four residents were born outside of New Zealand (particularly from India and China). Projections to 2038 show Māori, Asian, and Pasifika peoples will be 50 percent of the population compared to 34 percent today.[28]
- Globally, the share of high-skilled migrants relative to low-skilled migrants has grown dramatically. Nearly 75 percent of all high-skilled migrants reside in the United States, the United Kingdom, Canada, and Australia. Middle-income non-OECD countries – particularly China and India – are becoming an increasingly important destination for high-skilled labour. As these countries grow, the global economic clout of the advanced economies will continue to diminish.[29]
- Despite high levels of net migration and low levels of unemployment in New Zealand, businesses continue to face challenges with the need to attract, recruit, and retain skilled labour, suggesting the quality of migration matters not just the quantity.[29] Immigration NZ reports there are current shortages of skilled workers in the Waikato Region in occupations such as farmers, metal, electronics and plastics trades, and medical and teaching professions.[30]

Provocation

1. In what ways could Hamilton enhance the choice of its city as a destination for skilled workers? Is there an opportunity to leverage sister-city or other types of international relationships such as retaining international students?
2. Could features such as a relatively quick commute, attractive town centres, or an increased quality and range of amenities and services (e.g. education, health, nightlife) be enough to entice skilled workers who might otherwise obtain higher incomes in Auckland or Wellington?
3. How could Hamilton retain highly skilled migrants in ways that add value to the city?

5. Growth of integrated spatial planning

Trend overview

> *"Spatial planning… uses a spatial lens… for observing economic, social, environmental, physical and cultural trends from a single perspective and offering the potential for integrated public policy solutions that address multiple challenges and goals simultaneously."*
> *Greg Clark, Global City Advisor, 2011 [advice on the Draft Auckland Plan unpublished]*

Calls for local government in New Zealand to prepare properly integrated spatial plans have been heard for at least a decade. Spatial planning is not a new concept, but spatial plans that are fully integrated with private and public sector infrastructure plans and have funding assured are rare. Following overseas practice at regional and local government scales, councils in New Zealand are being pushed by central government to join up land use planning with infrastructure timing and funding, and to strengthen the alignment between public and private sector organisations.[31]

HCC has adopted the low growth projections underpinning the 2018-28 Long Term Plan, provided by Waikato University National Institute of Demographic and Economic Analysis. These projections estimate Hamilton City will add approximately 63,000 new people and 32,000 new dwellings between 2019 to 2061.[32] Although HCC's land area is small (the third smallest territorial authority in the country) and is mainly urban, neighbouring areas in Waikato District and Waipā District such as Cambridge, Te Awamutu, Ngāruawāhia, and Tamahere are all relatively close to city amenities.

Evidence base

- The current government's Urban Growth Agenda focuses on addressing the fundamentals of land supply, develop capacity and infrastructure provision, with an explicit 'pillar of work' to build stronger partnerships with local government as a means of developing integrated spatial planning, starting with the Hamilton-Auckland Corridor project.[33]
- The Productivity Commission inquiry into urban planning recommended ways to make the planning system more responsive so that urban land can shift to different uses over time, and there is enough land and infrastructure to meet demand and residents can move easily through cities. The Commission's report recommends a substantial clarification in statutory objectives, a stronger role for spatial planning, and more tools for councils to fund infrastructure.[34] A proposed National Policy Statement on Urban Development (August 2019) also requires fast growing councils to prepare future development strategies to ensure they have sufficient development capacity available to grow 'up and out.'[35]
- A review of the Resource Management Act 1991 is also now underway and signals that some form of integrated spatial planning will be included in new legislation.[36] This could take the form of a comprehensive four-wellbeing spatial (strategic) plan or a more narrow integrated land use and infrastructure plan that hardwires the current RMA's regional and district plans with the LGA's Long-term plan and infrastructure strategy instruments.
- HCC is currently preparing a Hamilton-Waikato Metro Spatial Plan in partnership with Central Government, iwi, and local government:[37]

Provocations

1. Is there a future opportunity for Hamilton to better 'stitch' suburbs together with the city centre and each other through new or altered transport links and intensified urban form?
2. How might the city make best use of the passenger rail service and Waikato expressway to 'co-produce' a more metropolitan Hamilton?
3. How might Hamilton join forces with neighbouring local authorities to better coordinate, provide for, and fund infrastructure in order to efficiently respond to growth and change?

6. Innovation agendas for cities

Trend overview

> *"Cities are often places of great energy and optimism. They are where most of us choose to live, work and interact with others. As a result, cities are where innovation happens, where ideas are formed from which economic growth largely stems. City councils around the world are reducing air pollution, banning diesel cars, introducing smoking bans, bicycle rental schemes and even imposing sugar taxes in order to help citizens make better lifestyle choices."* *Futureagenda, 2017* [38]

Cities are seen not just as mere hosts of innovative businesses, but as creators of innovation.[39] The provision of education, services, and leisure activities, combined with relatively high population densities and the high frequency of interactions notably found in cities favour technological and social innovation, entrepreneurship, and creativity.

Local economic development strategies commonly feature an innovation agenda with the 'innovation economy' and 'innovation districts' seen as key building blocks of sustainable long-term growth or a pre-requisite to being regarded as a 'smart city'. Cities aspire to have vibrant innovation ecosystems and deep talent pools because of their promise to boost productivity, economic growth, and living standards. Innovation-driven businesses typically grow quicker, employ more skilled staff, and engage with international markets faster.

On the other hand, concerns about inequality and social unrest have led to calls for the democratisation of innovation – to ensure that communities and residents of less prosperous places have the skills, qualifications, and training that prepares them to participate in the innovation economy, including access to innovation infrastructure (tools, resources, and finance) in those places.[40, 41]

Thinking on urban design continues to challenge established car-dominated models of the urban landscape, and increasingly embraces innovation in many forms. People-focused urban design, building on human-centred design approaches, view the city from the scale of the pedestrian, and integrate high-performing green buildings, high quality public transport systems, green space and trees along streets, and space for cyclists. These are not limited to prosperous green field developments but to transformations of existing streetscapes and reaching disadvantaged populations.[42,43] Changes in temperatures and sea levels, and increases in severe weather events and natural disasters are being increasingly considered when designing a sustainable and future-proof city, leading to innovative urban design and changing structures.[44]

Smart cities initiatives are blossoming worldwide, and seek to digitally transform environmental, financial, and social aspects of urban life. They can use sensors, actuators, and technology to connect components across the city, connecting data in air, street and underground levels. This enables citizens to make choices through information (such as traffic congestion), and for the city itself to automatically modify its operations in response to information.[45]

All these trends point to choices for cities on their innovation agenda, and whether it should be narrow or wide. Options include creating place-based innovation ecosystems; harnessing entrepreneurs, businesses or social enterprises to tackle specific concerns among local stakeholders; rethinking the cityscape of the future; and adapting traditional council functions/services (e.g. civic engagement, community facilities) in innovative ways to transform people's relationships with the city.

Evidence base

- The growing complexity of social challenges combined with decreasing financial resources of the public sector are encouraging local authorities to step away from the traditional paths of policy-making in order to explore 'out of the box' new solutions.[46]
- The strength of a city's innovation eco-system can be measured and ranked based on attributes such as the share of employment in high-tech industry, level of patents, R&D expenditure, and education levels of a city's resident workforce. For example, JLL Ltd. assessed 100 cities on a framework that included high tech industry investment and employment, venture capital attraction, R&D expenditure, patent applications, quality of higher education, population-level education, the population aged 20 to 40 years.[47] Their rankings show a familiar roll call of tech-rich cities and a few surprises. Predictably, San Francisco, with its world-leading start-up scene, is at the top but other high-ranking cities are evenly spread across the globe. Asian cities have a much stronger presence than they would have had, even a few years ago.[48]
- Innovation hubs of different types and approaches have been developed in Auckland,[49] Wellington, and Christchurch, as well as some regional centres such as New Plymouth and Dunedin. Hamilton's SODA provides a range of start-up support programmes, mentorship, as well as co-working space. Auckland's GridAKL provides co-working space and initiatives such as Digmyidea, designed to encourage the growth of Māori tech entrepreneurs. In New Plymouth the Get Social programme supports the formation and growth of social enterprises. In Dunedin the Te Aroha initiative, run by Innov8hq, supports community initiatives that unlock local potential.
- In 2018 the 'knowledge intensive sector's' share of total employment in Hamilton was 38.5 percent, higher than New Zealand's average of 31.6 percent. The Professional, Scientific, and Technical Services sector was one of the biggest contributors to growth in business units and jobs in the city over the past decade (2008-18).[50]
- The Technology Investment Network (TIN100) report said Hamilton's tech sector revenue grew by 16.3 percent in 2018 to reach $854 million, making it the country's fastest-growing technology sector, even though Hamilton has just nine TIN200 companies.[51]
- The city has itself adopted a Smart Hamilton programme, based around using innovation, technology and partnerships to generate positive change for the people of Hamilton and the Waikato, and thinking beyond simply technological applications.[52]

- Existing innovation support activities in Hamilton-Waikato include the Waikato Innovation Park,[53] Plant & Food Ruakura Research Centre, and TechFest (led by CultivateIT).[54] Hamilton's suitability as a technology hub is being championed by a recent 'migrant' business from Auckland, Instillery Ltd.[55]

Provocations

1. Are there opportunities to further cultivate innovation by partnering with technology industry and research organisations and community funding organisations (e.g. Momentum, Trust Waikato, Tindall Foundation), iwi-Maori trusts, and social enterprises to explore potential solutions for local issues?
2. As a complement to Hamilton's growing high-tech sector, does the city have any current initiatives equivalent to Xtreme Zero Waste in Raglan[56] (Waikato District), or Te Haa in South Auckland?[57]
3. What is the potential for Smart Hamilton to improve the citizen experience, strengthen community connections and enhance the efficient functioning of the city?
4. How could innovations through Smart Hamilton and other avenues enable the most vulnerable groups in the city to prosper? Could Te Waka, for example, be funded to play a greater role in improving access for residents of less prosperous places to access place-based innovation hubs or other resources (e.g. training) to participate in the innovation economy?

7. Urban-rural economic shifts

Trend overview

> *"While the New Zealand population overall continues to grow, a large proportion of towns and communities in rural or peripheral areas exhibit near-certain stagnation or decline in their populations".* *Jackson & Brabyn 2017* [58]

The changing nature of jobs since the mid-1970s has disproportionately favoured large cities. As manufacturing has declined as a share of total employment, and service sectors expanded, the economies of most cities and towns in New Zealand have become more diversified. As in other developed countries, much new work has emerged in information-intensive sectors such as finance and professional and business services, where productivity is enhanced if firms cluster in a small number of centres.

Across the Waikato region there is a clear pattern of rural depopulation and urban growth, but some rural towns on the fringes of Hamilton are growing in response to property prices and employment opportunities. Meanwhile, towns in Thames-Coromandel and Hauraki are growing on the back of having affordable houses and attractive amenity, whilst other rural towns are declining due to an ageing population and low or no population and employment growth. The depopulation of rural areas has implications for affordable levels of service and food production.[59]

For both groups of councils, the city/rural divide creates funding pressures in terms of their ability to increase debt, raise funds through their rating base to pay for ageing as well as new infrastructure, and at the same time meet resident's expectations for high-quality levels of service.

As the Waikato Expressway project comes to an end, government attention has shifted onto the Hamilton to Auckland Corridor (H2A) project, with prospects for improved rail connections and potentially accelerated housing development in existing towns.

Evidence base

- Based on Stats NZ classification of the degree of 'urban influence' exhibited by non-urban areas between 2001 and 2013, those with high urban influence experienced population growth rates of around 32 percent while areas of low urban influence grew by 8 percent. In contrast, the most remote category, 'highly rural/remote', contracted by about -0.5 percent in the same period.[60]
- Between 1976 and 2013, employment in New Zealand's 30 largest cities and towns increased by 48 percent (or by an average of 1.1 percent per year). Employment increased by more than 65 percent in nine urban areas, including Auckland, Hamilton, and Tauranga. Small and medium sized urban areas with distinctive employment patterns are less common than they were, implying many small towns are now much more alike.
- While agglomeration benefits can explain the growth of Auckland, they do not explain the different employment growth rates among small and medium sized urban areas, much of which appears to stem from the rising importance of consumption amenities, such as a good climate and attractive scenery. In other words, employment grows in some areas because they are nicer places to live.[61]
- Statistics NZ estimates that the Waikato Region's population grew by a significant 13.5 percent between 2013 to 2019 to 482,100.[62] Hamilton grew at a similar rate (12.8 percent) but several districts grew by less than 9 percent.
- Within the region, individual city and district councils face dual challenges of managing the costs of growth in towns in North Waikato, Hamilton, Waipa, and Taupo, while others such as South Waikato and Waitomo have low growth and areas in decline.[63]
- For a rural area to increase the level of interaction with urban areas so as to improve its population growth and economic success, it has two main avenues open to it: decrease the cost of commuting; and/or increase the amenity value of the area.[64] The H2A project[65] is likely to boost growth in existing towns along the corridor and reinforce the region's urban/rural split in growth paths.
- The economic and social impact of Auckland as a neighbour continues to be felt in the Waikato. In particular, the effects of Auckland's housing boom have resulted in the loss of arable land near the Auckland/Waikato border. In turn, people move throughout the Waikato as housing (both owned and rental) and land prices are affected.[66]
- The establishment of Kāinga Ora-Homes and Communities (October 2019)[67] signals the creation of a powerful new Crown agency that will take over Housing NZ and Kiwibuild. As an urban development authority it will be responsible for implementing much of the government's housing and urban development agenda and will have rights to compulsorily acquire land and fund and build infrastructure.

Provocations

1. In the future, how might Hamilton balance tensions between urban and rural interests?
2. How might Hamilton best support future growth in ways that protect existing communities and the environment?
3. How could Hamilton optimise the level of interaction between urban and rural areas to improve economic success?

Social trends

8. Rapid demographic change

Trend overview

> *"At the turn of the century in 2000, there were 371 cities with 1 million inhabitants or more worldwide. By 2018, the number of cities with at least 1 million inhabitants had grown to 548 and in 2030, a projected 706 cities will have at least 1 million residents."*
>
> *United Nations, 2018* [68]

The world's population is continuing to rise, at a rate of 1.1 percent per year. In 2019, we reached 7.7 billion people.[69] In 2018, 55 percent of the world's population lived in cities, and this is projected to increase to 60 percent by 2030. Globally, the number of megacities (cities with populations exceeding 10 million people) is projected to rise from 33 in 2018 to 43 in 2030.[68]

Closer to home, New Zealand experienced its highest population growth rate since the 1960s, and it is predicted that the milestone population of 5 million people will be reached in 2020. In the long-term though, overall population growth is likely to slow.

The composition of New Zealand's population is also changing: the population is ageing; [70] ethnic diversity is increasing;[71,72] income equality between men and women has stalled;[73] and more people identify as having no religion.[74] Finally, there are generational shifts in experiences and outcomes, such as the 'rift' between baby boomers and millennials on matters like home ownership, education outcomes, and living in rural or urban locations.

Evidence Base

- It has been projected that by 2028 New Zealand's population growth will have slowed to 1 percent per year (this is a medium-growth projection incorporating fertility, mortality, and migration assumptions). Population growth in Hamilton will be slightly higher than the national average at 1.4 percent.[70]
- Despite population growth, New Zealand's population is ageing. In 2013, the median age in Hamilton was 32 years, which was 5 years below the national average, and the youngest in the country. The national average is expected to increase to 43 years in 2043, and to 37 years in Hamilton.[70]
- The proportions of New Zealand's ethnicities are also changing. Between 2013 and 2038 the proportion of Māori are likely to increase from 16 to 18 percent, Pasifika from 8 percent to 10 percent, Chinese from 4 percent to 8 percent, and Indian from 4 percent to 7 percent. Meanwhile, whilst Pākehā will remain the dominant ethnicity, they are projected to decline from 75 percent to 66 percent.[71]
- The national changes in ethnic diversity do not perfectly mirror ethnic diversity changes on the State School roll. Between 2009 and 2013, Pākehā enrolments decreased from 56% to 50 percent, Māori students increased from 22 percent to 24 percent, and Asian students increased from 9 percent to 12 percent.[72]

- The gender pay gap – which is measured as median hourly earnings – reduced across the country from 16 percent in 1998 to 11 percent in 2010. However, since 2010 these gains stalled and in 2019, women were earning 9 percent less than men.[73]
- Increasingly, New Zealand is becoming more secular as a nation. The 2001 Census identified 30 percent of the population as having no religion. In 2006 this had increased to 35 percent, 42 percent in 2013, and in 2018 the number of New Zealanders with no religion was 48 percent.[74]
- People's opportunities have also changed across the generations. A current popular focus is on the disparity between baby boomers (born between 1946-1964) and millennials (born between 1981-present). This can be seen in ethnic diversity (79 percent of boomers versus 69 percent of millennials are Pākehā); education outcomes (19 percent of boomers versus 68.6 percent of millennials completed a Bachelor's degree); living in urban or rural locations (50 percent of boomers versus 64 percent of millennials live in New Zealand's main cities); and home ownership (74 percent of boomers [aged between 50-65] versus 19 percent of millennials [aged between 20-34]).[75]
- New Zealand has the highest ratio of housing costs to income per house in the OECD.[76] One estimate suggests that Hamilton has the third most unaffordable housing in the country, after Tauranga and Auckland.[77]

Provocations

1. What are the crucial social issues that New Zealand – and Hamilton – need to face as the population moves beyond 5 million people?
2. With Hamilton's population change in mind, how might we create and maintain strong communities?
3. What is the contribution Hamilton can make to nurturing both the younger and older populations?
4. As ethnic diversity increases, how can the city help to maintain inclusivity, build capability, and facilitate access to services and opportunities within communities?
5. What is the potential for increasing opportunities for non-familial intergenerational interactions as a method of promoting friendships, respect, and understanding?

9. Iwi development and partnerships

Trend overview

> *"the only thing we've got that's our own was taken away - the land. So we said, 'Right. That's what we've got to reclaim. If we're going to establish an economic base that lies under tribal control, we've got to reclaim that raupatu estate'."*
>
> *Sir Robert Mahuta, quoted in NZ Herald, 2001* [78]

The urban Māori population in Hamilton is one of the fastest growing in New Zealand with about 20 percent of Hamilton's population identifying as Māori, and 40 percent being from hapū with ties to the Hamilton area.[79] In Hamilton, the economic and governance power of Waikato Tainui Te Kauhanganui Incorporated is becoming stronger, changing the norms and expectations of local

government from a consultative approach to one that is more based on partnership and strategic collaboration.[80]

Evidence base

- Across the Waikato Region and in Hamilton, the economic and governance power of Waikato Tainui Te Kauhanganui Incorporated is becoming stronger.[81] Expectations of local government have shifted to embracing more co-governance, co-management, and co-activity opportunities. The council itself is shifting from a consultative approach to one that is more based on partnership and strategic collaboration.[82,80]
- Waikato-Tainui made a settlement with The Crown in 1995 and Tainui Group Holdings was established in 1999. Since that time, the iwi has increased opportunities for its members and has grown wealth with the total value of their assets now exceeding $1 billion.[83] The Ruakura inland port is in the process of development and will be the largest investment to date by the iwi.
- In August 2019, the Hamilton-Auckland Corridor plan was signed by local and central government agencies alongside iwi. The Plan's framework will help to protect and enhance the corridor's natural and cultural assets as well as ensuring people can access services they need.[84]
- Hamilton's population is growing, and more housing is being built to cater to the increased demand, such as the development at Peacocke which is expected to be home to 20,000 people once complete. [85]

Provocations

1. What more can Hamilton do to ensure authentic relationships and co-management partnerships with iwi in the future?
2. What are the opportunities for the city to work with iwi to reinvigorate the central city and other areas?
3. Are there future ventures or developments that might bring increased benefits for Māori and the wider city? How might these be nurtured?

10. Changing patterns in communicable and non-communicable diseases

Trend overview

> *"Sustaining the astounding decline in human mortality will require efficient health care, determined public health programmes, the wisdom of Solomon in social policy, and greater respect for the planet on which the future of our species depends."*
>
> *Woodward and Blakely 2014* [86]

As advances in medicine continue, fewer outbreaks and epidemics of infectious diseases are occurring worldwide. However, the rise in antibiotic resistance,[90] a growing reluctance by some parts of the global community to vaccinate, [87] and with a changing climate,[95] these outbreaks are becoming more common.

Over the last 25 years, New Zealand has had one of the fastest rates of decline in health loss from all causes in the OECD.[88] Indeed, New Zealanders are living longer than ever before, and for many, they are living longer whilst in good health. However, many people are living longer but in poor health; the increased years of life are not always accompanied by an increased quality of life. New Zealand is experiencing an increased burden of non-communicable diseases,[98] poor mental health outcomes,[95] child poverty,[101] and intimate partner violence.[99] Striking inequalities can be seen between gender, ethnic, socioeconomic, and generational groups.

Evidence Base

- A serious threat to global health and the modern health system is the increasing spread of microbial resistance to antibiotics which has been linked to the over prescription of antibiotics.[89] Antibiotic resistance is recognised as a global crisis with urgent interventions needed.[90] New Zealand has comparatively low rates of antibiotic resistance compared with neighbouring countries, particularly South East Asia. However, New Zealand has seen a rise in resistant strains of *Escherichia coli*, *Neisseria gonorrhoeae,* and *Staphylococcus aureus.*[91]
- Another threat to global health is the growing hesitancy to vaccinate children, primarily due to 'bogus data'.[87] Having fewer people vaccinated reduces herd immunity, making the population more susceptible to some diseases, as seen by the recent outbreak of measles in New Zealand, Samoa, Tonga, the Philippines, and Fiji. In New Zealand, between July 2019 and September 2019, the national average for the number of children who turned 5 years and who had completed their age-appropriate immunisations was 88 percent (still below the ideal level of 92-94 percent). In the Waikato Region this figure was 85 percent.[92] Nationally, Māori and Pasifika populations have been particularly affected.[93]
- Climate change is already increasing the distribution of some infectious diseases by expanding the habitat and therefore the geographical range of their insect vectors.[94] Such diseases include malaria, yellow fever, Ebola, and Lyme disease. In addition, waterborne infections such as salmonella, cholera, and giardia are likely to increase due to heavier rainfall and flooding events.[95]
- In New Zealand, the burden of mental health and suicide is highest in the OECD with one in five people experiencing mental illness or significant mental distress each year.[96] Over the last four years in New Zealand, annual suicide rates have increased and between 2017-2018 they were the highest since 1999. Poor mental health risk factors include social determinants such as: lack of affordable housing, poverty, family violence, low-paid work, social isolation, and for Māori, cultural alienation.[96]
- The burden of non-communicable diseases, such as stroke, coronary heart disease, and diabetes is rising in New Zealand, despite 70-80 percent of this burden being avoidable through prevention and treatment.[97] From 2010 to 2018, the rate of diabetes increased from 4.3 percent to 5.1 percent of the national population and from 4 percent to 4.8 percent in the Waikato Region.[98]
- Within the OECD, New Zealand has the worst reported rates of sexual and domestic violence.[99] In particular, Māori are over-represented in intimate partner violence, which is understood to be due to socio-economic factors and underlying social deprivation such as family problems in childhood.[100]

- Child poverty is a reality for many New Zealanders. In 2018 it was established that compared with children from the most advantaged communities, children from the most disadvantaged communities are three times more likely to be hospitalised for respiratory conditions.[101]

Provocations

1. What communication, education, and training strategies can Hamilton develop to improve awareness about antimicrobial resistance and the need for herd immunity?
2. What can Hamilton do to mitigate the emerging risk of water-borne diseases associated with flooding and climate change?
3. What can be done to focus more on addressing the impact of non-fatal disabling conditions, to enable people to live more of their 'extra' years of life in full health?
4. How can Hamilton better support communities, whānau, and families to identify and deliver locally-driven solutions for reducing child poverty?
5. How can Hamilton help minimise silos between and within agencies to improve population wellbeing?

11. Global social inequality and isolation

Trend overview

> *"For over 70 years, economics has been fixed on GDP, or national output, as its primary measure of progress… For the twenty-first century, a far bigger goal is needed: meeting the human rights of every person within the life-giving goals of our planet."*
>
> *Kate Raworth, 2017* [102]

Globally, we have entered a phase of right-wing populist and nationalist politics. These sentiments are in part due to mass migration from conflict and climate change, high levels of income inequality and disadvantage, and decreased social engagement. New Zealand is not isolated from the rhetoric of hate speech and anti-immigration, as was seen during the Christchurch mosque attach in March this year.

Although there is significant socio-economic instability in the world, in 2018, for the first time, 50 percent of the world's population was middle class or wealthier. However, the disparity between the world's richest and poorest people is still growing.[103]

Shifts in consumer behaviour and "taking back control" [104] are being seen worldwide with more people focusing on sustainable living choices such as reducing plastic consumption and striking for action on climate change.

Evidence Base

- The effects of climate change-induced extreme weather events are already leading to land degradation, desertification, and decreased food security, which in turn, is leading to human displacement. [105,106] Stemming from mass global migration are significant political,

environmental, security, economic, and human rights implications for both the developing world and OECD countries.[107]

- By 2050 it is predicted that Sub-Saharan Africa, South Asia, and Latin America could generate tens of millions of internal climate migrants.[108] By the end of the century, it is expected that the number of migrants attempting to settle each year in Europe will triple.[109]
- When people lack a sense of social engagement, experience a loss of status, do not have a strong attachment to the social order, and experience high levels of income inequality and disadvantage, they are more likely to feel marginalised and alienated from mainstream politics, have less trust in institutions, and may be more likely support nationalist politics.[110,111,112]
- New Zealand is still reeling with shock and sadness in the wake of the Christchurch mosque attacks in March 2019, where the instability and nationalistic sentiments of foreign politics were brought to our soil.[113] Through strong political leadership with an emphasis on uniting people, the national psyche of the country has been strengthened.[114] However, the attacks show that New Zealand is not immune from the instability faced by the rest of the world.
- The growing disparity between rich and poor has implications for social and civic disengagement, and loneliness. The highest rates of loneliness and social isolation are experienced by younger people (aged 15-24) and the elderly (75 years and over).[115] These trends are reflected in many countries including Denmark[116], Australia,[117] and the United States.[118,119] Loneliness is associated with poor health and wellbeing outcomes.[120] However, compared to seven other cities within New Zealand, Hamilton is understood to have the lowest rate of people feeling socially isolated.[121]
- New Zealanders are becoming more environmentally focussed and are actively seeking more ethical supply chains. In 2018, in a list of ten issues that affect people's lives, the build-up of plastic in the environment rated above concerns about the cost of living.[122]

Provocations

1. What would Hamilton have to do to make the city a national leader in gender equality?
2. What are the opportunities and threats for Hamilton in the face of climate change and related climate migration-led national security concerns?
3. How can we continue to learn from the Christchurch attack and deepen our sense of unity, compassion, and solidarity across religious and cultural divides?
4. How can Hamilton best respond to the shift in public attitudes towards the environment?
5. In the face of rising nationalist polities and populist leaders internationally, what can Hamilton do to help keep its citizens resilient and to mitigate these sentiments from gaining a stronghold in New Zealand?

Technological trends

12. Digital awakening through artificial intelligence and big data

Trend overview

> *"The machines we use on a daily basis are getting smarter, meaning that AI is no longer a futuristic technology but is increasingly integrated into every realm of our lives. From suggesting what books we might like to buy online to powering the virtual assistants that inhabit our phones and smart speakers, some of the applications are more visible than others. In truth, AI is touching our lives far more than many of us realise."*
>
> *Richard Gray, 2018* [123]

Across the globe, there is increasing use of automation, artificial intelligence (AI), deep learning, machine learning (ML), continuous intelligence, and surveillance. Given current trends, in the future we expect to see:

- Increasing use of big data, including data mining and use of cloud-based data.
- Expansion of cheap sensors and new analytic tools, which will allow us to gain a more detailed understanding of the world around us.
- An increased ability to integrate data sets and new ways to visualise data (including three or four dimensional representation).

While these technological advances are becoming more sophisticated and are creating new market opportunities, there is growing concern of the potential to amplify risks of fraudulent behaviour, data hacks, and fake news. Today there are calls for improved accountability as information misuse grows, including calls for governments to act on data governance.

Augmented analytics is the next wave of disruption in the data and analytics market. It uses ML and AI techniques to transform how analytics content is developed, consumed, and shared. Augmented analytics engines can automatically go through a company's data, clean it, analyse it, and convert these insights into action steps for the executives or marketers with little to no supervision from a technical person.

Evidence base

- The debate on the future of work has been polarized between those who foresee limitless new opportunities and those that foresee a massive dislocation of jobs. However, the reality is likely to be highly specific to the industry, region, and occupation in question and the ability of various stakeholders to successfully manage change. Technological change has created new jobs in New Zealand. For example, since 1999, the number of jobs classified as 'Computer systems design and related services' has increased from 8700 to 32,600.[124]
- McKinsey notes that because of the new tasks created by technology, the net effect of new technologies can be to increase the total number of jobs.[125] One-third of new jobs created in the United States in the past 25 years were types that did not exist, or barely existed, in

areas including IT development, hardware manufacturing, app creation, and IT systems management. The net impact of new technologies on employment can be strongly positive.

- Among the most widespread and disruptive impacts of AI in recent years has been its role in the rise of "media echo chambers and fake news". Researchers have studied the trajectories of 126,000 tweets and found that those containing fake news consistently outperformed those containing true information, on average reaching 1,500 people six times more quickly.[126] One possible reason cited by researchers is that fake news tends to evoke potent emotions.
- By 2022, more than half of major new business systems will incorporate continuous intelligence that uses real-time context data to improve decisions.[127] Continuous intelligence is a design pattern in which real-time analytics are integrated within a business operation, processing current and historical data to prescribe actions in response to events. It provides decision automation or decision support and is predicted to allow business users to mash up and blend disparate data allowing the discovery of new insights and revealing it as a data story with complete context.
- Malicious cyber-attacks led to massive breaches of personal information in 2018. The largest was in India, where the government ID database, Aadhaar, reportedly suffered multiple breaches that potentially compromised the records of all 1.1 billion registered citizens.[128] Personal data breaches affected around 150 million users of the MyFitnessPal application, and around 50 million Facebook users.
- In the World Economic Forum's Global Risk Perception Survey, a large majority of respondents expected increased risks in 2019 of cyber-attacks leading to theft of money, data (82 percent), and disruption of operations (80 percent).[129]

Provocations

1. What are the opportunities and threats for Hamilton in a world of digital awakening?
2. How does Hamilton play its part in ensuring safe and ethical online environments?
3. How might Hamilton use artificial intelligence (AI), deep learning, machine learning (ML), or continuous intelligence for positive outcomes?

13. Technology as a disrupter of companies and sectors

Trend overview

In the year 2080, or possibly even earlier, humanity has undergone one of the deepest and most profound agricultural transformations and paradigm shifts in food production in human history. Come 2250, we are living in a society where the majority of food, from animal proteins to leafy greens, is grown indoors on the very fringes of, or within, the urban masses that require it." *Rosie Bosworth 2019* [130]

The world today is in the midst of the Fourth Industrial Revolution.[131] This is characterized by a range of new technologies that are fusing the physical, digital and biological worlds. Disruptive technologies are emerging rapidly, and today's businesses must adapt in order to thrive in a digital world. Developments in previously disjointed fields such as artificial intelligence and machine

learning, robotics, nanotechnology, 3D printing, genetics, and biotechnology are all building on and amplifying one another.

Advances in these technologies are providing disruptive market opportunities for new ventures. There are many examples of digital disruptors in the market today, particularly in the fields of food production and alternative proteins, transport, digital payments, advanced human health, and manufacturing materials.

Today, and in the future we are likely to see no single technology that is driving change — instead we are seeing waves of technology converge and integrate to amplify the impacts of disruption (e.g. autonomous vehicles are a convergence of artificial intelligence, internet of things, and high-speed networks and computing, underscored by a potential ownership model driven by blockchain).

Alongside the creation of entirely new disruptive markets, technology is creating efficiencies in existing sectors. For example, GPS technologies and drones are creating detailed maps of crop yield, terrain features and topography, organic matter content, moisture levels, and nutrient and trace element levels.

Despite the transformative potential of disruptive technologies, a survey of over 580 executives across 16 countries revealed that many companies appear to be still treating disruption as an IT issue — rather than an executive-level strategic imperative.

Evidence base

- Today, many companies are tech companies. Automotive companies are pushing ahead in customer interface technology, using AI and image processing to enhance their autonomous vehicles. Rather than going to a technology player, they're doing it themselves and in the process are creating powerful technology and business platforms. Other companies such as Tesla and Uber consider themselves as being tech companies as much as being in the mobility or automobile business
- Soul Machines, a New Zealand-based company, has created a fully autonomous AI-driven human, which could well disrupt the customer service industry in years to come. Already Noel Leeming has introduced Nola, a digital team member, at one of its flagship stores.
- A global study, based on a commissioned survey of over 11,000 people from 12 countries showed that 55 percent of people were willing to use advanced computer technology or robots with AI that can answer health questions, perform tests, make a diagnosis, and recommend treatment.[132]
- In many places, researchers and start-ups are focusing on synthetic production of milk and protein, with claims that such products would be cheaper and far less damaging to the environment to produce than on farms.[133] Already it has been shown that a burger patty grown from stem cells can be created with the taste, texture, and colour of a real meat patty. 'Impossible Foods' and 'Hampton Creek' have created 'meats' and 'cheeses' from plant products. Start-ups like Mosa Meat, Memphis Meats, SuperMeat, and Finless Foods have attracted millions in funding.
- JPMorgan Chase has estimated the market for plant-based meat could easily top US$100 billion in 15 years. Barclays says the "alternative meat" market could account for around 10 percent of all global meat sales, or up to US$140 billion in 10 years.[134]

- In New Zealand and across the developed world, technological improvements in agriculture (for example, fertiliser, tractors, selective breeding, cropping methods) have led to dramatic falls in the share of the workforce employed in the primary sector, while production grew. This share of the workforce in New Zealand fell from 36 percent in 1901 to 7 percent in 2013.[135]
- Rugged robotics and adaptive learning robotic systems could help address labour shortages and safety issues in a range of industries. New Zealand scientists are developing solutions being sold by the likes of Robotics Plus into huge farming industries such as the United States.
- In financial services, startups are taking advantage of new technologies such as cloud computing, mobile communications, digital currency, and blockchain (otherwise known as the distributed ledger or distributed database) to bring new businesses to market.

Provocations

1. How can Hamilton stay relevant and part of the technology revolution?
2. Where are the greatest market opportunities and risks? What are the implications of these market opportunities and risks for Hamilton?
3. How can Hamilton best position to take advantage of opportunities and limit risks associated with technology disruption?
4. Is Hamilton culturally ready for technology as a disrupter of companies and sectors? If not, what can be done now to prepare for the future?

14. Distributed smart infrastructure

Trend overview

> *"Just substitute the words oil, natural gas, coal, or your favourite conventional energy source for paper, vinyl, or film, and you can peer into the future of energy. The clean disruption of energy and transportation by Silicon Valley's exponentially improving technologies, new business models, and participatory culture is inevitable and it will be swift.*
>
> *Tony Seba, 2014* [136]

Technology advances are disrupting systems for energy and transport infrastructure. There is evidence of a shift from centralised energy production to distributed energy production. The main global trends impacting on the New Zealand energy sector are: concerns over emissions, particularly greenhouse gasses; an explosion in energy technologies driven by material science, particularly ICT and biotechnology; decentralised energy supply giving much greater choice and control to users; and uncertainty in global energy supply, demand, and pricing.

Design specifications for roading infrastructure will need to be future-proofed for both driverless cars, and a large injection of electric vehicles and other forms of transport. Globally, the number of electric vehicles on roads is increasing at an accelerating rate. Computerised systems in vehicles are already making driving much safer. Driverless car technology is developing rapidly, with aspects of the technology already in many new cars.

Blockchain is expected in the next 20 years to have a similar transformative impact on society and commerce as the world wide web. Blockchain is being applied to transform fintech, agriculture, health, smart grid energy systems, climate response, education, public services, and international development, by streamlining supply chains that guarantee the origin and quality of products. With our trusted reputation, New Zealand is picked as a global centre for blockchain innovation.

Evidence base

- Decentralised electricity generation, storage, and distribution is predicted to be the dominant energy sector macro theme over the next two decades. This is partly due to better and cheaper energy technologies such as solar energy. This offers the potential for commercial buildings and industrial sites to, at one level, reduce much of the (morning and evening) electricity peak demands and, at another level, become significant market players in this arena.[137]
- A report by Vector noted that the cost of battery storage is forecast to drop from $1000 per kWh today to as low as $200 per kWh in the next five years. Second hand electric car batteries could provide a good energy storage system for household use.[138]
- The price of solar power modules dropped by over 70 percent between 2009 and 2015, while efficiency ratings have been increasing.[139]
- HMI Technologies has demonstrated New Zealand's presence in the autonomous vehicle space with its Ohmio intelligent shuttles sought after for Korean and Chinese smart cities. In New Zealand we are also expecting to see growth in autonomous sea-going vehicles – submarines as well as boats. They will drive innovation in smart aquaculture and autonomous shipping which is advancing quickly and transforming logistics.
- As more people and organisations adopt energy production, they'll have energy to use both for their own needs and to sell into the power grid. In this space in the future, blockchain could help to recognise power contributions, and balance them against withdrawals; enable peer-to-peer power sales between homeowners; reduce costs through an efficient and direct market on which to transfer power between consumers; and reduce the role of existing power retailers and generators.

Provocations

1. How can Hamilton ensure its infrastructure investments are fit for the future and provide the greatest value to its people and environment?
2. How can Hamilton generate and analyse data in new ways to provide new opportunities for its communities?
3. What are the opportunities and risks of distributed tech disruptions for existing infrastructure?

Legal and strategic trends

15. Role and financing of local government

Trend overview

> *"A shift is needed – from treating local government as an agent of central government to a relationship of genuine partnership. This would involve regulatory regimes being co-designed and jointly implemented, with the needs and circumstances of local government kept front of mind."* *Productivity Commission, 2019* [142]

The role and power of local government have fluctuated over the past 20 years. Reforms in 2002 marked a distinct shift from a largely prescribed role, to a power of general competence, and a purpose to deliver on the social, economic, environmental, and cultural wellbeing of communities. However, subsequent changes both weakened the role and demanded greater accountability back to central government.[140] More recent legislative changes have returned to the ethos embodied by the 'four wellbeings,' and strengthened the role of local government.

Even with the fluctuations in the legislative role of local government, there has been a growing range of responsibilities placed on territorial authorities. They include introduced or strengthened standards that local government needs to meet (e.g. environment and drinking water standards), and implementing Treaty of Waitangi settlements.[141] Local government also has to contend with the supply of sufficient infrastructure to support rapid urban growth, adapting to climate change and tourism growth. For all the benefits these all deliver, they come at an increasing financial cost.[142]

Evidence base

- The Productivity Commission, in its draft report in 2019, highlighted the contribution local government makes to the economy, with councils owning $112 billion worth of fixed assets, employing over 25,000 full-time equivalent staff, annual operating expenditure of $9.3 billion and operating income of $8.9 billion.[142]
- The Productivity Commission highlights that some high growth councils are experiencing constraints in their ability to finance further infrastructure investment because they are coming close to covenanted debt limits.
- In 2019, a flourishing debate is emerging on the future roles of local government. In its draft report, the Productivity Commission is recommending help for councils to mitigate climate change risk; new funding tools for infrastructure; funding tools for tourism hotspots; and reform of the central-local government interface to support co-design regulatory mechanisms.
- Local Government New Zealand, in a 2019 discussion paper, proposes even greater devolution through: a substantial shift towards "localism", including collaborative partnerships with central government; incentivising local government to take on additional devolved responsibilities with local taxation powers or "tax swaps" with central government; place-based approach to decision-making with iwi, business, and other organisations; and adopting new and innovative mechanisms for citizen participation.

Provocations

1. What are the critical challenges or constraints Hamilton faces that are not met by current funding structures, local government's legislative role, or by existing agencies?
2. What are the opportunities for Hamilton that increased financing could address?

16. Purchasing better outcomes

Trend overview

> *"Sustainable procurement is no longer a nice-to-have — it's an integral business function responsible for protecting and improving brand reputation, driving revenue and mitigating business risk"* *Pierre-Francois Thaler* [143]

Increasingly, governments are looking to gain improved value for money from their public investments. Traditionally, this has been via seeking greater efficiencies from purchasing services, and/or striving for greater effectiveness in the delivery of services. A growing trend internationally, and emerging in New Zealand, is the use of sustainable procurement (also called social procurement) approaches to derive improved community and environmental outcomes from business as usual purchasing practice, and in so doing generate benefits beyond the products and services required.[144,145]

These approaches have been used to counter poverty, disconnection, and unemployment, and to support improved environmental practice and outcomes. Frequently, sustainable procurement approaches have tapped into and strengthened the role of community sector and social enterprise providers in the supply chain to government.

Sustainable procurement practice is extending beyond government to involve an increasing range of commercial organisations in their purchasing decisions.

Evidence base

- In Australia, the Victorian State Government has established a social procurement framework that requires public servants to exercise a "balanced judgement of a range of financial and non-financial factors" in assessing value for money. This includes a 1 percent Aboriginal business procurement target by 2019-2020, and the use of incentives so that businesses who use social and disability enterprises or Aboriginal businesses in their tenders for government contracts will have a competitive edge over those who do not.[146] [147]
- Auckland Council, through its Te Auaunga (Oakley Creek) flood mitigation initiative, recruited a local community organisation to lead engagement, supported a social enterprise to establish a native nursery on the grounds of a local school to supply plantings for the initiative, and worked with the contractor to recruit local young people to work on the site development.[148]
- Auckland Transport, through the AMETI infrastructure project in southeast Auckland has minimum and incentivised targets for Māori and Pasifika trainee recruitment, minimum wages, and Māori and Pasifika businesses in the supply chain.

- Auckland Council has set spending targets, of 5 percent direct and 15 percent indirect with Māori, Pasifika, and social enterprises – totalling $150 million in the first year.
- Through its Smart Hamilton programme, HCC is working with the Ākina Foundation to review its procurement policies and processes to better support innovative social enterprises.[149]
- In 2019, the New Zealand government brought in new procurement rules that seek four outcomes: increasing New Zealand businesses' access to government procurement; increasing the size and skill level of the domestic construction sector workforce; improving conditions for workers and future-proof the ability of New Zealand business to trade; and supporting the transition to a net zero emissions economy. Further work is exploring indigenous procurement outcomes.[150]

Provocations

1. What is the potential to grow sustainable procurement in Hamilton? What issues could a sustainable procurement approach help tackle?
2. Who are potential collaborative partners for Hamilton City Council in sustainable procurement?
3. What's the capacity and capability needed to establish partnerships for enabling sustainable procurement?

17. Strategic partnering

Trend overview

> *"Collaborative efforts can lead to outcomes that might otherwise be unattainable—but they are inherently difficult to manage. Expect the rough spots, and prepare for them."*
>
> *Lois Mitchell and Peter Karoff*[151]

Previous sections have acknowledged the legislative roles of local government. But increasingly, local government, working with other partners, are looking to their strategic roles outside of their regulatory powers. Local government are building partnerships with other authorities in their region, with businesses, and with partners in the philanthropic sector.

Internationally, governments at national and local levels are shifting from acting as providers of services to entities that commission, facilitate, or broker services, which support innovation to thrive. This requires new and challenging skills in governments, such as agility, innovation, transparency, and connectedness, as well as capabilities for building relationships with external partners, including flexibility, co-design, and co-management. [152,153] In New Zealand, these capacities are coming to the fore in partnerships with community, philanthropy, and iwi partners.

Internationally and in New Zealand, philanthropic organisations are shifting their attention from transactional grants to strategic or systems-focused philanthropy, to leverage greater impact from their grant-making. This often involves more intensive or directed funding of flagship initiatives that act as test beds for system change, and uptake by central and local government funders, often working in partnership.[154]

Evidence base

- Local authorities are increasingly recognising that many of the levers they need to tackle complex social and economic issues lie beyond their immediate control, but they are in a position to facilitate and broker new directions. 'Shared place leadership' is a concept that offers local authorities a role in facilitating redesign of systems to better meet the needs of people. In this frame, local government makes clear their ambitions for the people they serve, builds consensus with partners and the public, and shares responsibility for leadership.[155]
- A long-term co-investment partnership between the Irish government, Atlantic Philanthropies, and local authorities in a range of initiatives focusing on ageing, children and youth, and human rights, between 2012 to 2016 leveraged an additional €260 million funding from a €99 million philanthropic investment, and transformed many areas of policy and practice.[156]
- In New Zealand, philanthropic investors are investing significant sums for sustained impact. The NEXT Foundation alone is administering a $100m fund over 10 years "to create a legacy of environmental and educational excellence."[157]
- In the Waikato, a collaborative partnership is advancing the Waikato Wellbeing project, to collectively develop with communities a series of wellbeing targets for the Waikato based on the United Nations Sustainable Development Goals and to achieve regional priorities.
- Impact investment, where investors favour a combined social, environmental and financial dividend (as opposed to financial alone),is gaining traction. In New Zealand, both an Impact Investing Network and National Advisory Board have been established.

Provocations

1. What are the key issues in Hamilton that would benefit from partnership approaches?
2. Where are areas of potential co-investment opportunities in the city?
3. How can the people of Hamilton better work in partnership to build shared value and achieve positive outcomes for the city?

Environmental trends

18. Environmental tipping points

Trend overview

> *"If damaging tipping cascades can occur and a global tipping point cannot be ruled out, then this is an existential threat to civilization. No amount of economic cost–benefit analysis is going to help us. We need to change our approach to the climate problem."*
>
> *Lenton et al, writing in* Nature [158]

Globally, there is increasing concern that we have reached or are reaching the limits of a 'safe space' for humanity to thrive. There is growing evidence and concern, particularly around the failure to mitigate and prepare for climate change and to stem the steep decline in biodiversity loss. These issues highlight the need to maintain a supportive climate and thriving biodiversity and are increasingly being acknowledged as core to supporting human wellbeing around the world.

There is growing consensus that humans are driving the Earth's systems into less hospitable state. This is damaging efforts to reduce poverty and is leading to a deterioration of human wellbeing in many parts of the world, including wealthy countries.

Although New Zealand makes a small contribution to global emissions, our country has one of the highest rates of emissions per person. Risks of climate change are already being felt at a national level, with growing concern of the impacts including those on critical infrastructure, insurance, natural resource sectors, water supply, and vulnerable communities.

Evidence base

- The World Economic Forum points to three key concerns in terms of impact and likelihood: extreme weather; failure of climate change mitigation and adaption; and natural disasters.[1]
- The Intergovernmental Panel on Climate Change (IPCC) bluntly warned in 2018 that we have at most 12 years to make the drastic and unprecedented changes needed to prevent average global temperatures from rising beyond the Paris Agreement's 1.5°C target.[159] This report has been referenced at large scale protests for action, such as Greta Thunberg's 'School Strike for Climate' and global 'Extinction Rebellion' protests.
- As a result of climate change, Allianz, Europe's largest insurer, expects a 37 percent increase in insured losses from extreme events in an average year within a decade.
- Many significant changes in New Zealand's climate have already been observed across the country, but regional variations can also be seen. Short term effects include storm, flood, and drought impacts on the economy and in some cases, human safety. Longer term, there will be effects on biosecurity risk, ecosystems and biodiversity (due to factors such as changing acidity of marine water, flooding of coastal shore environments, and changing habitat temperatures), viability of certain agricultural crops, fire risk, and coastal erosion and inundation.

- The Reserve Bank in 2018 noted the country's economy and financial system will be affected by both the physical and transitional impacts of climate change. This includes effects on property values, damage to property and the environment, and changes in consumer and investor preferences. It also said that there are risks if New Zealand is too slow to match the global shift to lower-carbon economies.[160]

Provocations

1. What are the implications for Hamilton of these environmental tipping points for stormwater and water infrastructure?
2. Are there likely to be areas of Hamilton that due to climate-related natural hazards may eventually become uninsurable?
3. How can the city co-create potential solutions to these issues side by side with community members?
4. How can Hamilton best support scalable indigenous biodiversity and conservation efforts?

19. Land use changes and resource degradation

Trend overview

> *Some of our cities and towns have polluted air, land, and water. This comes from home heating, vehicle use, industry, and disposal of waste, wastewater, and stormwater. Pollution affects ecosystems, health, and use of nature… It is challenging to reverse because changing our cities and lifestyles would require significant investment and changes in behaviour.*
>
> *Environment Aotearoa 2019* [161]

Historically, land use change (i.e. a change from one specific use to another, rather than intensification within a similar system) has been a significant feature of the New Zealand landscape since European settlement. Over the last 25 years, the most significant land use change has been a switch from sheep and beef farming, towards dairying and forestry. Farming and urban expansion have driven the clearing of forest and the draining of wetlands, with associated losses of habitat and decline in species, and growing concern about the impacts on our climate and waterways. Māori have seen large areas of their land degraded by such changes, which has greatly impacted species and habitats of particular significance to Māori customary values and resources.

Today, New Zealand is also one of the most urbanised countries in the world, with 87 percent of people living in urban areas. Worldwide, urban land use change is also driving landscape fragmentation, the loss of fertile soils, and is threatening biodiversity. These land use impacts will be exacerbated with climate change. In addition to the environmental issues arising from urban land use change, our cities are challenged by a lack of affordable housing, growing inequalities, and growing risks of outdated infrastructure.

Worldwide, there are calls to stem the growing gap between the rich and poor in urban areas and provide 'inclusive economic growth' in cities. Whilst many countries historically have not had a coherent framework for how they want urban areas to develop, in 2016 a new global urban agenda spearheaded by UN Habitat was launched calling to leave no city behind. Two key concepts of the

New Urban Agenda are the "city for all" and the "right to the city". It also clearly links to Sustainable Development Goal 11, which aims to make cities and human settlements inclusive, safe, resilient and sustainable.

Evidence Base

- Urban land areas grew across New Zealand by 10 percent between 1996 and 2012, to approximately 228,000 hectares. The largest expansion was in Auckland (up 4,211 hectares), followed by Waikato (up 3,900 hectares) and Canterbury (up 3,829 hectares).[161]
- The OECD launched the Champion Mayors for Inclusive Growth Initiative in March 2016. Champion Mayors form a coalition of willing leaders who have committed to tackling inequalities and promoting more inclusive economic growth in cities.
- Nearly half of our gross emissions in 2016 (mainly methane and nitrous oxide) came from agriculture. In 2016, livestock digestion was responsible for 82 percent of all methane emissions.[161]
- The shift from sheep and beef farming to dairy farming is associated with increased leaching of nitrogen from agricultural soils. The Environment Aotearoa 2019 report finds that waterways in farming areas have markedly higher pollution levels than waterways in catchments dominated by native vegetation. Specifically, concentrations of nitrogen, phosphorus, fine sediment, and E. coli in rivers all increase as the area of farmland upstream increases.[162]
- The Productive and Sustainable Land Use package within the recent Wellbeing Budget provides more support for councils and farmers to make positive land use changes. Improving the way we use our land can have significant benefits for the health of our waterways, contribute to our climate change goals and increase the productivity of our land. The $229 million package invests in projects to protect and restore at-risk waterways and wetlands and provides support for farmers and growers to use their land more sustainably.[163]

Provocations

1. How might Hamilton preserve productive soils for their best use?
2. What is Hamilton's role in preserving and enhancing biodiversity?
3. How can Hamilton contribute to producing and consuming food in ways that increase positive environmental and health impacts?
4. Who does Hamilton need to invite into a conversation about the best use of land in the city?
5. Who might Hamilton partner with to understand how to use land in a way that maximises social, environmental and economic outcomes? How can the city best enable future land use decisions that serve the greatest good?

20. Purpose-driven economies

Trend overview

> *"It has become socially unacceptable as a company or a rich person not to be doing good. CEOs are asking the question: 'What can I do to make the world better?' – Anand Giridharadas*
>
> *"People are asking fundamental questions about how capitalism is serving society" – Alex Gorsky, CEO Johnson and Johnson*

Globally, citizens are increasingly demanding that governments effectively respond to social and environmental challenges, and at the same time deliver security and prosperity. Political and social tensions are rising as society is becoming more vocal about social, environmental and economic issues.

People around the world are increasingly concerned about the ecosystem impacts of, and waste generated from, their purchasing choices. We are seeing shifts in consumer behaviour towards sustainable and ethical supply chains. Concurrently, there is a growing movement encouraging companies and governments to play their part in solving systemic challenges such as climate change, biodiversity loss and growing inequalities.

In response, private sector actors are increasingly seeing both an opportunity and responsibility for sustainable business and the low carbon economy, and are stepping up to create change. Companies are increasingly developing strategies to address social and environmental challenges alongside a rise of new socially-driven financial actors.

The reinstatement of the "four wellbeings" in local government legislation, combined with a world-first "Wellbeing Budget" by the coalition government, collectively signal a central government intention to place wellbeing at the centre of the economy.[163]

Evidence base

- The majority (73 percent) of consumers in a recent global study say they would definitely or probably change their consumption habits to reduce their impact on the environment.[164]
- A survey of over 1,000 consumers in the US and UK showed that 88 percent of consumers want brands to help them live sustainably.[165]
- Consumer behaviour is in part driving a new generation of impact driven start-ups such as New Zealand's successful 'Ethique' and 'Find a Truck Load', which was built in Hamilton.
- For more than two decades, the globally influential American Business Roundtable has explicitly put shareholders first. In August 2019 the group publicly announced a new statement on the Purpose of a Corporation. The refreshed mission was signed by 181 CEOs who commit to lead their companies for the benefit of all stakeholders – customers, employees, suppliers, communities, and shareholders.
- The Business Roundtable joins more established, growing movements such as The B Team, led by Sir Richard Branson and Jochen Zeitz. The B Team is a global movement of business

leaders working to shift the culture of accountability in business to include not only numbers and performance, but people and the planet.

- In New Zealand, the launch of 'Aotearoa Circle' in October 2018 is another signal of the appetite to shift to purpose driven economies. The circle brings together leaders across the public and private sectors, united in the belief that economic prosperity comes through recognising the connection of people to nature. An interim report on 'Sustainable Finance' calls for national leadership along with improving the availability and quality of environmental and social data, and pricing natural and social capital.
- The Aotearoa Circle joins a network of players advancing people, planet, and profit over profit-alone structures. These include The Sustainable Business Network, The Sustainable Business Council, The Lever Room, and Pure Advantage.
- China banned the import of foreign waste, including almost 9 million tons of plastic scrap, to reduce pollution and strain on its national environmental systems. This ban exposed weaknesses in the domestic recycling capacity of many Western countries.
- There is a global push for countries and companies to develop climate change policies that contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels.
- In New Zealand, the Zero Carbon Bill was enacted by parliament in 2019 with broad multi-party support.

Provocations

1. How can Hamilton lead the country in enabling regenerative business and enterprise? In what ways can the city use its convening power to advance the discussion on how we create a purpose driven, low carbon economy?
2. How can Hamilton manage its waste to encourage and incentivise a more transformative and innovative circular economy approach in New Zealand.[166]
3. Is there a need to usher forward public private partnerships or coalitions to create a prosperous city?
4. Where does Hamilton have market advantages in a carbon constrained world?

Conclusions

This review has carefully identified a portfolio of future trends and forces that given their nature, have the opportunity to both positively and negatively affect the future wellbeing of Hamilton. The purpose of curating such a portfolio of global forces and trends is to provoke thought and debate on how to best co-create a city that thrives now and into the future.

Although specific events cannot be foreseen or necessarily controlled, key drivers of change and their implications for a city such as Hamilton have been explored in this review so we can collectively agree how to best prepare for the future before it is upon us. In the face of global forces that cities such as Hamilton cannot control, cities nevertheless have the choice to plan, prepare, and even capitalise on the shifts occurring around us, or to be buffeted to varying degrees by the winds of change.

In preparing for tomorrow, today, we trust that Hamilton becomes better positioned to proactively make choices on where to focus, what and who to support, how to fund, and how to create a city that ultimately serves the wellbeing of those it supports.

With careful consideration and informed debate, Hamilton has the potential to co-design and co-create its city to nurture the wellbeing of its communities and environment.

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Growth Projections

2021-31 LTP

04 March 2020

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Purpose

- To brief Elected Members on work to date on growth projections for the 2021-31 LTP
- Brief explanation of how growth projections are developed and what is behind it.
- To explain which aspects of growth projections are most critical to long term financial planning.
- To explain the options the Council should consider in adopting the LTP growth projection line (households and population)
- Explain some of the issues with this LTP's projections
- Discuss concerns about current projections being wrong / too low

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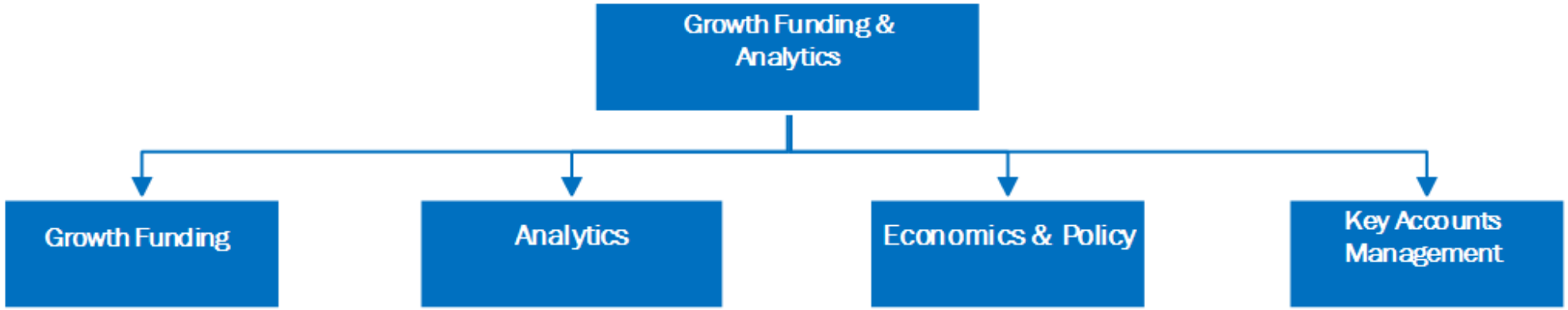
Growth Funding & Analytics Unit, what do we do?

Team structure



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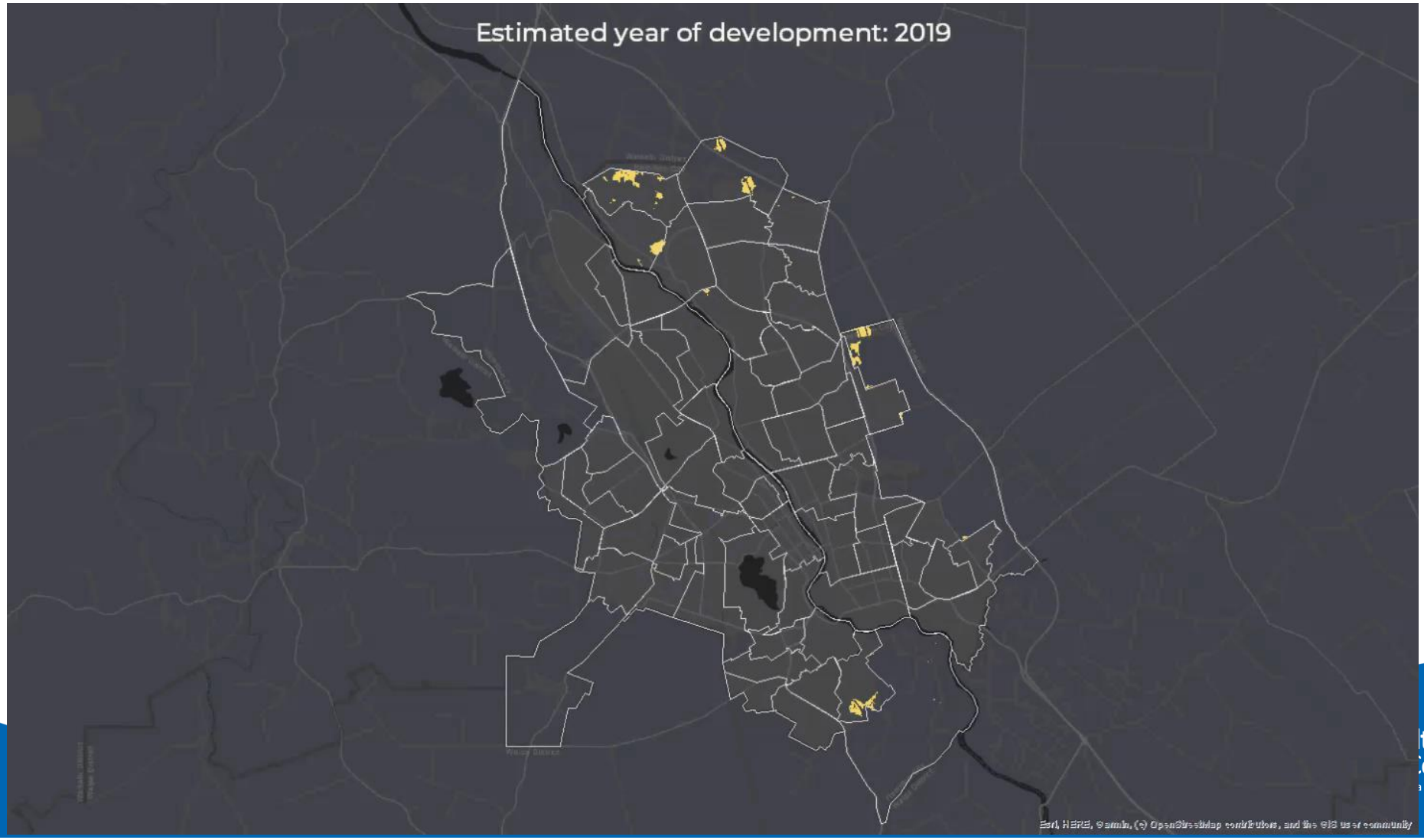
HCC – Urban Growth Modelling (demonstration)



Limitations of projecting the future

- While every effort is made to make sure the demographic growth projections recommended are as robust as possible, it needs to be pointed out that projections are not predictions, no model can predict the future.

- The projections recommended here represent only one possible, albeit plausible, future.

- Furthermore, it is almost impossible to predict the timeframes and severity of any future economic shock or “black swan” events.

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2018 Census Outputs Delays

- The 2018 Census was the first predominantly online based Census in New Zealand's history.
- The participation rate was far below historical rates which has a direct (negative) bearing on the statistical robustness of the results.
- As a result, 89% of the total number of census records will come from 2018 Census forms and 11% will come from other government "administrative data".
- The 2013 Census participation rate was 92.9%

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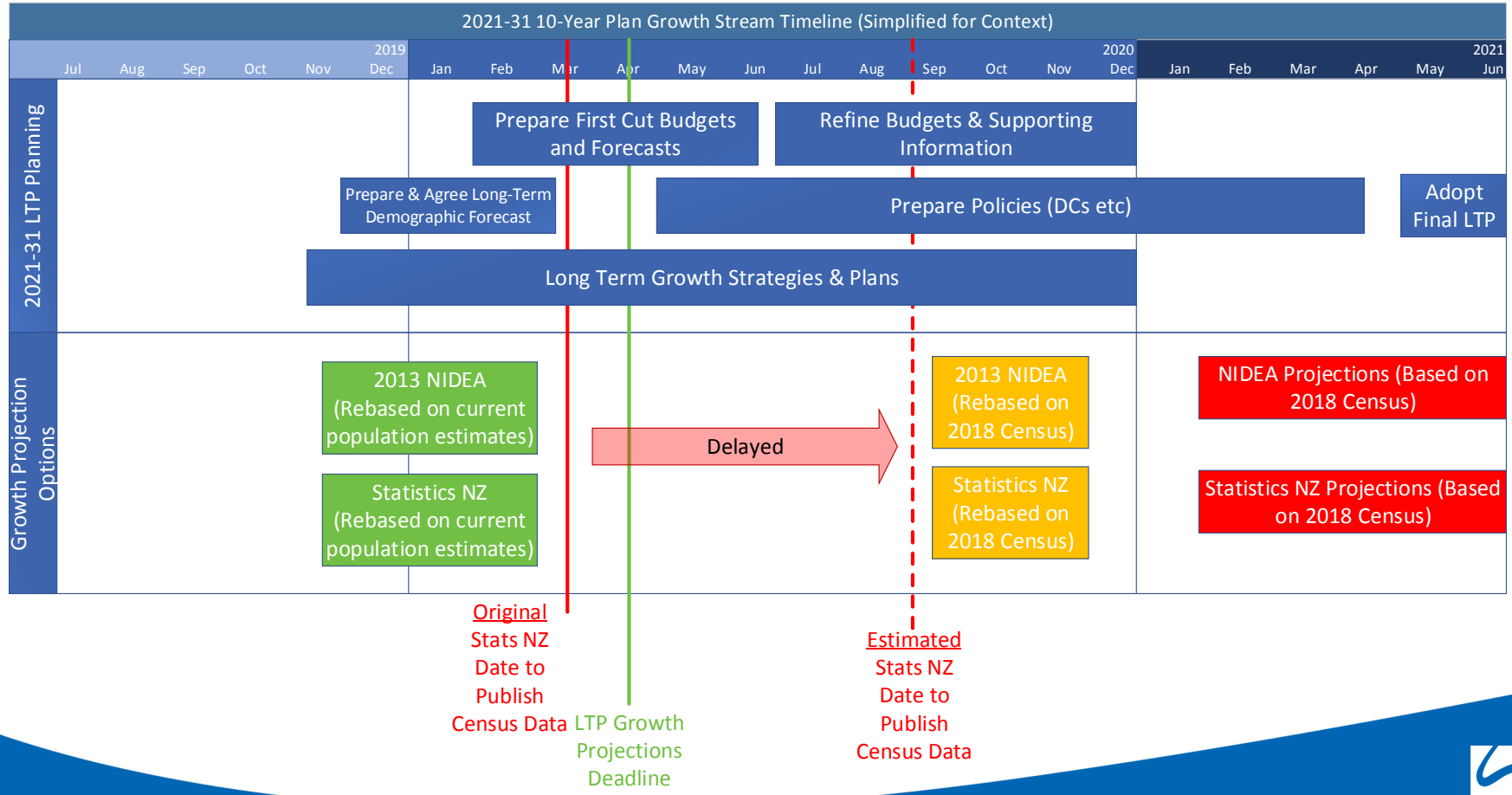
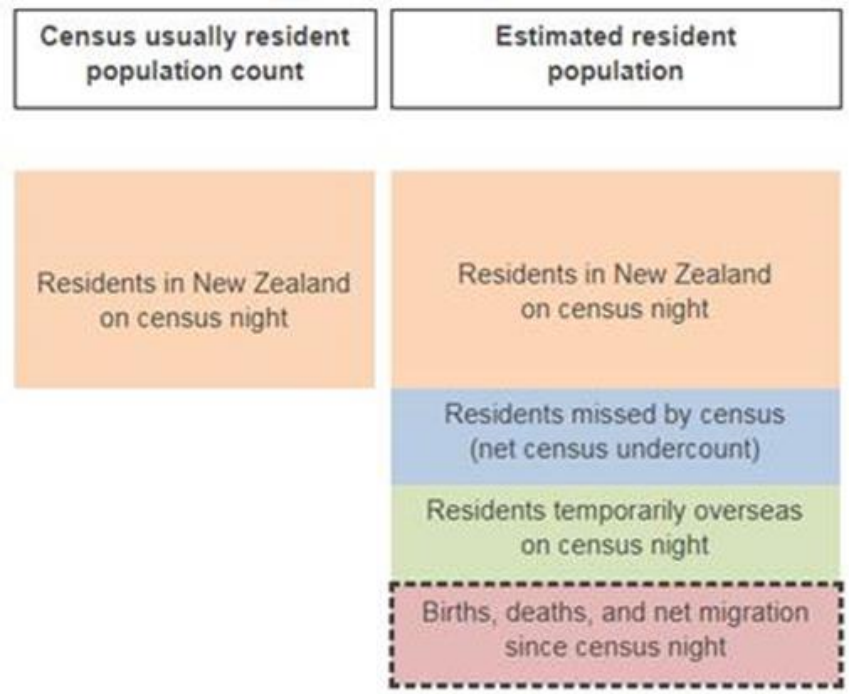
2018 Census Outputs Delays



How current "population" is estimated



How population *increase* is calculated

Simply put, from one year to the next:

Change in population = "Natural Increase" + "Net Migration"

"Natural Increase"

= # births that year MINUS # deaths that year

"Net Migration"

= # people who moved to Hamilton MINUS # people who left Hamilton

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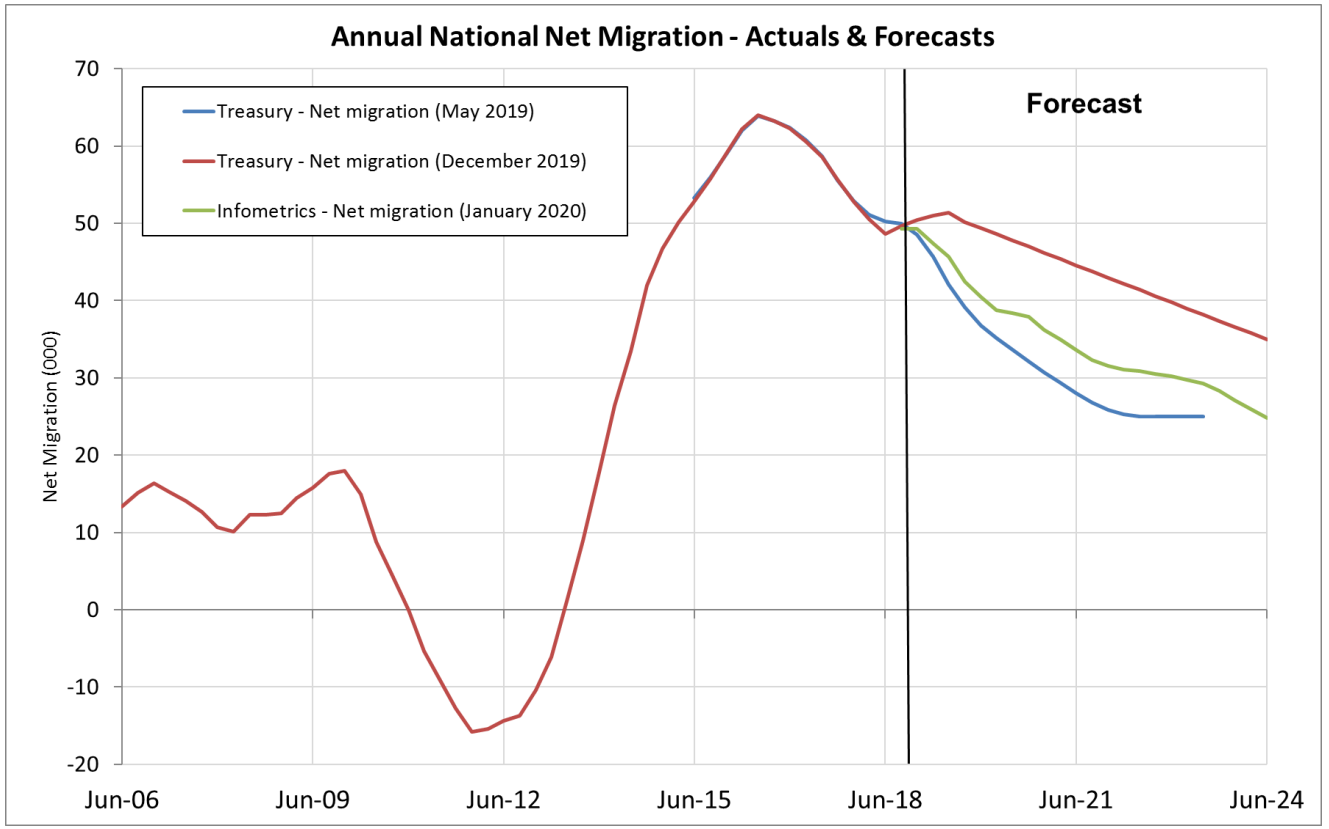
National Net Migration



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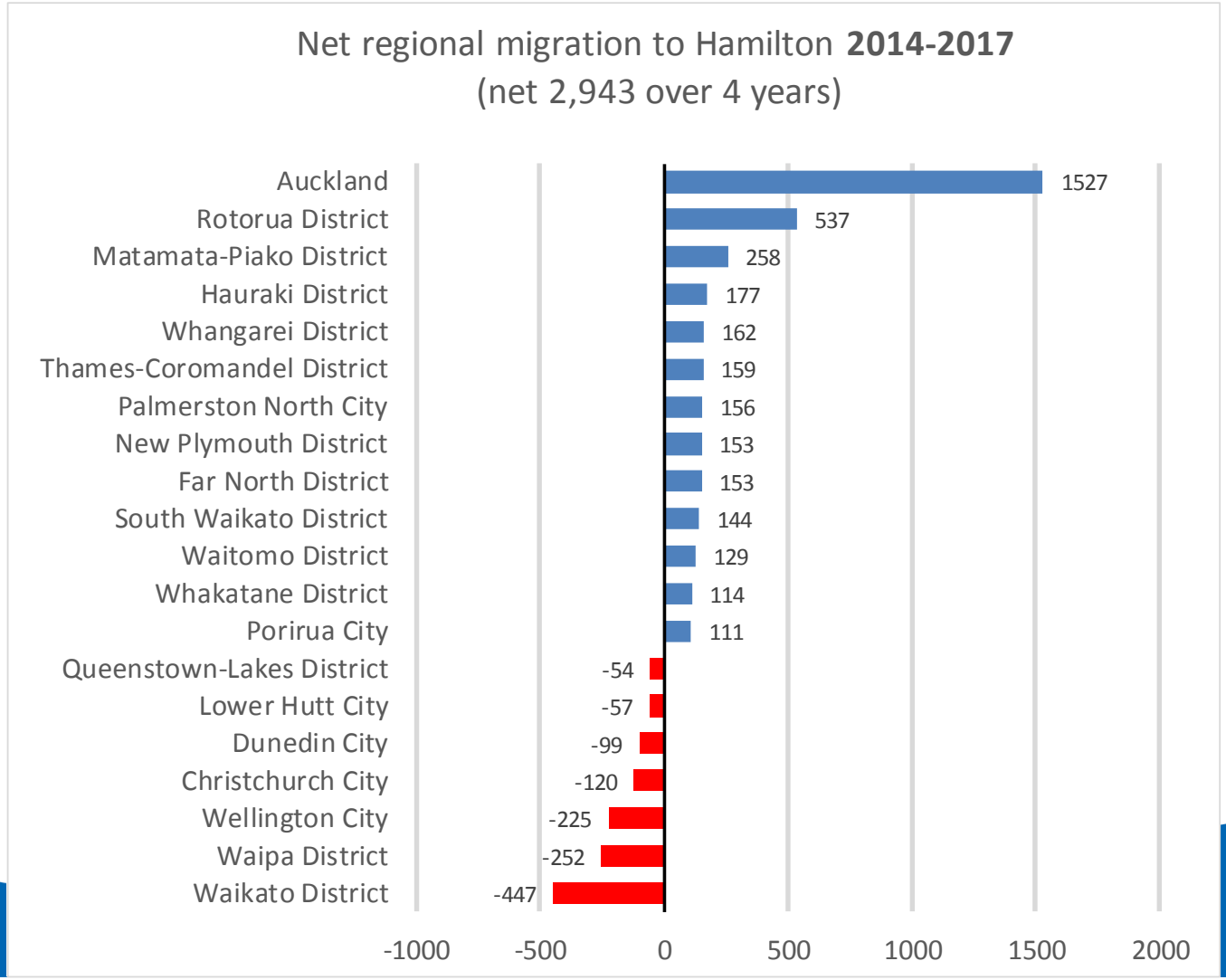
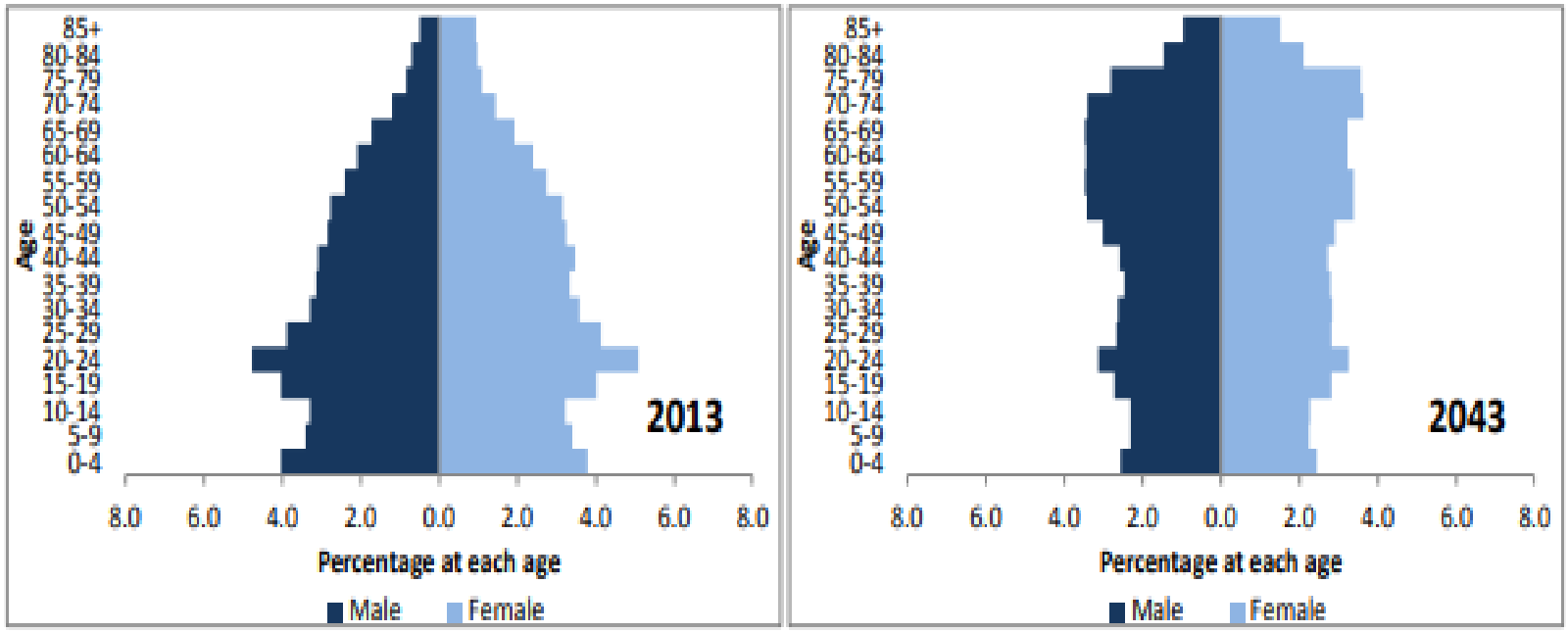
Regional Net Migration to Hamilton



Components of Population Change (NIDEA Projections)



Population & Household Projections – Historically

- There is a trade-off to be made in selecting either NIDEA or Statistics NZ growth series, because they use different assumptions for converting population to households.
- Statistics NZ have produce historically higher population projections mostly due to higher net migration assumptions
- But their household (therefore dwelling) projections are significantly too high when compared with what has historically happened.
- NIDEA has historically been less accurate in regards to population projections, but much more accurate in regards to household projections.
- There is a perception/naming issue with a High Growth Council being on NIDEA “Low”, noting that NIDEA dwelling growth projections are significantly *higher* than Stats NZ “Medium”

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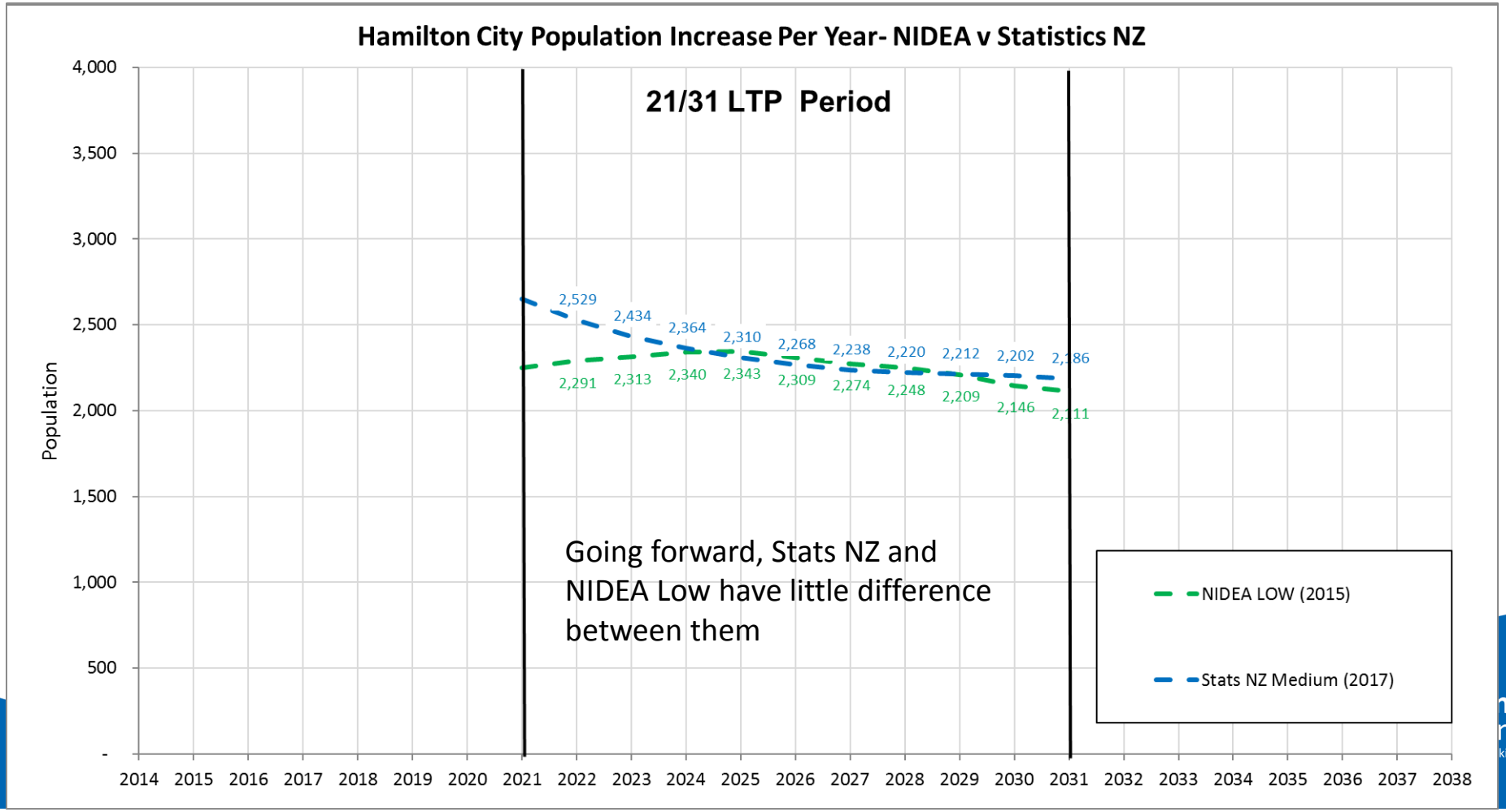
Hamilton City Population Projections - NIDEA v Statistics NZ



Importance of Household Projections

Household (dwelling) projections underpin:

- Financial strategy, capital budgets and new rating revenue
- Forecasting development contributions revenue,
- Structure planning, and
- To inform infrastructure 3-waters and transport modelling.

Population numbers are inherently difficult to measure, the number of completed dwellings in Hamilton is almost exact

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Population Projection Uses

Population projections inform:

- Planning new parks and sports fields
- Forecasting demand for community facilities,
- Telling the Hamilton Story

- HCC can afford to be more flexible in its use of population figures than household projections because:
  - Bespoke methods for forecasting are more applicable here
  - Community facilities often draw from outside the region and so Hamilton population figures are only partly useful

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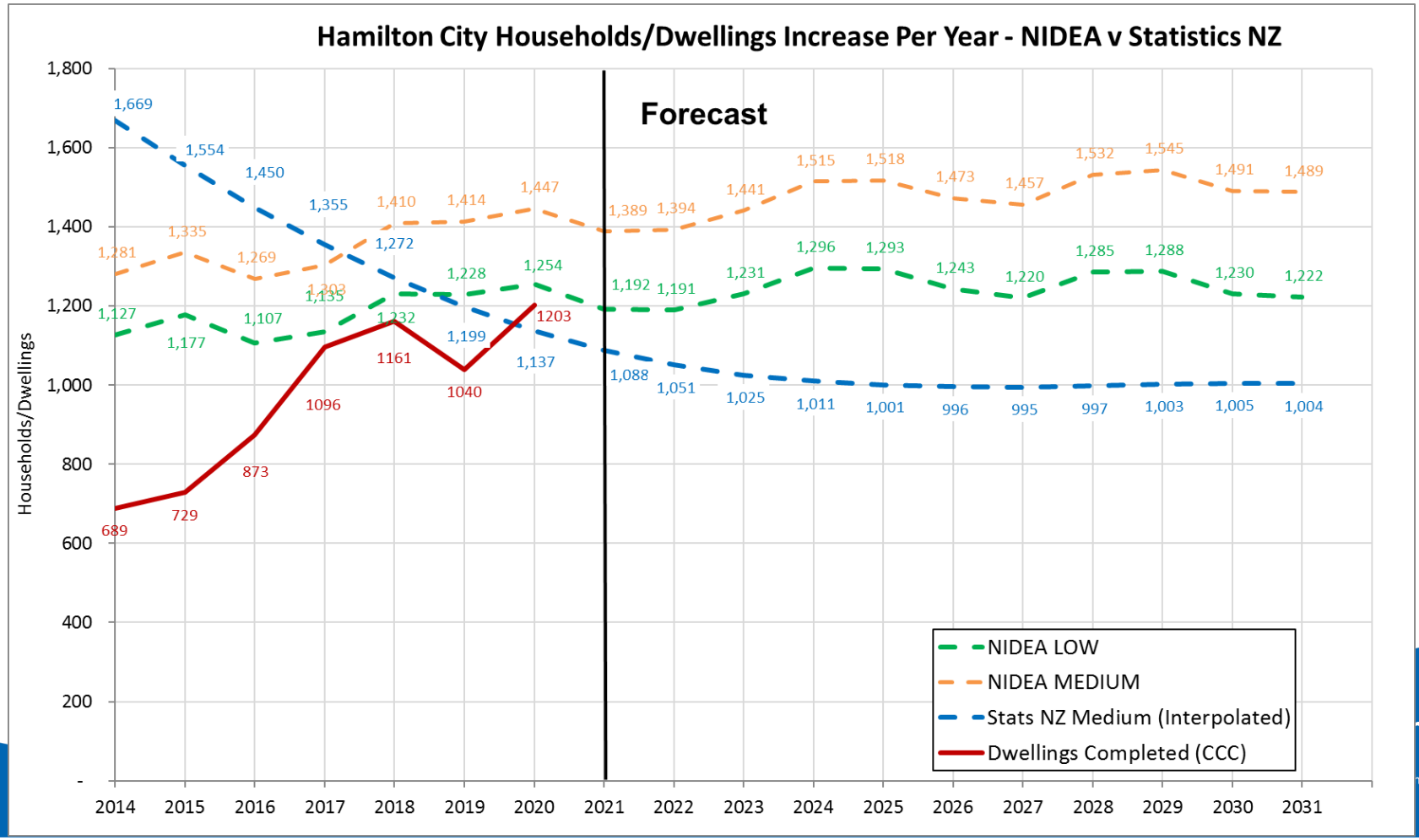
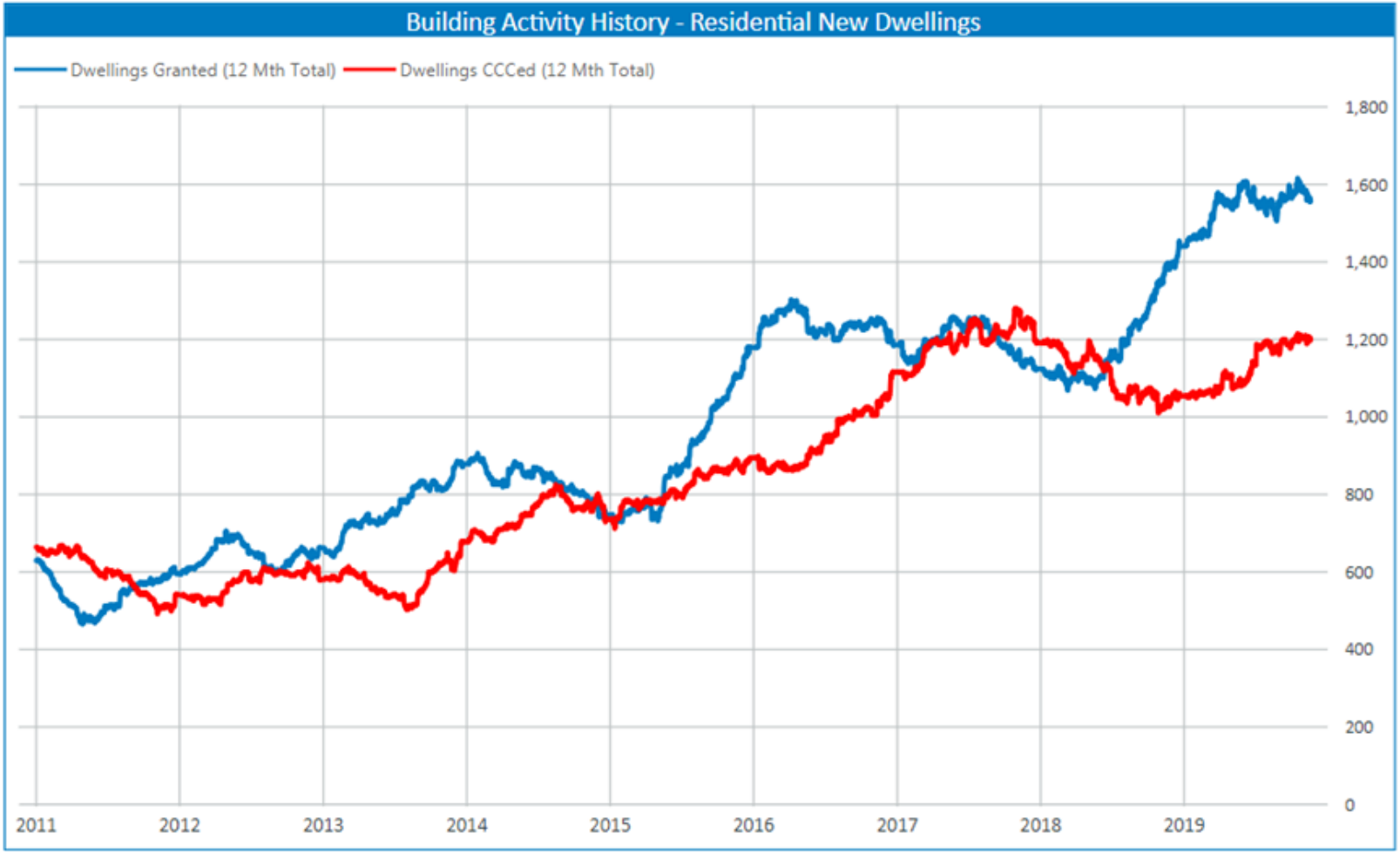
Hamilton City Household Projections - NIDEA v Statistics NZ



Hamilton City Dwelling Growth – Actuals
Consented vs # Completed (CCC)



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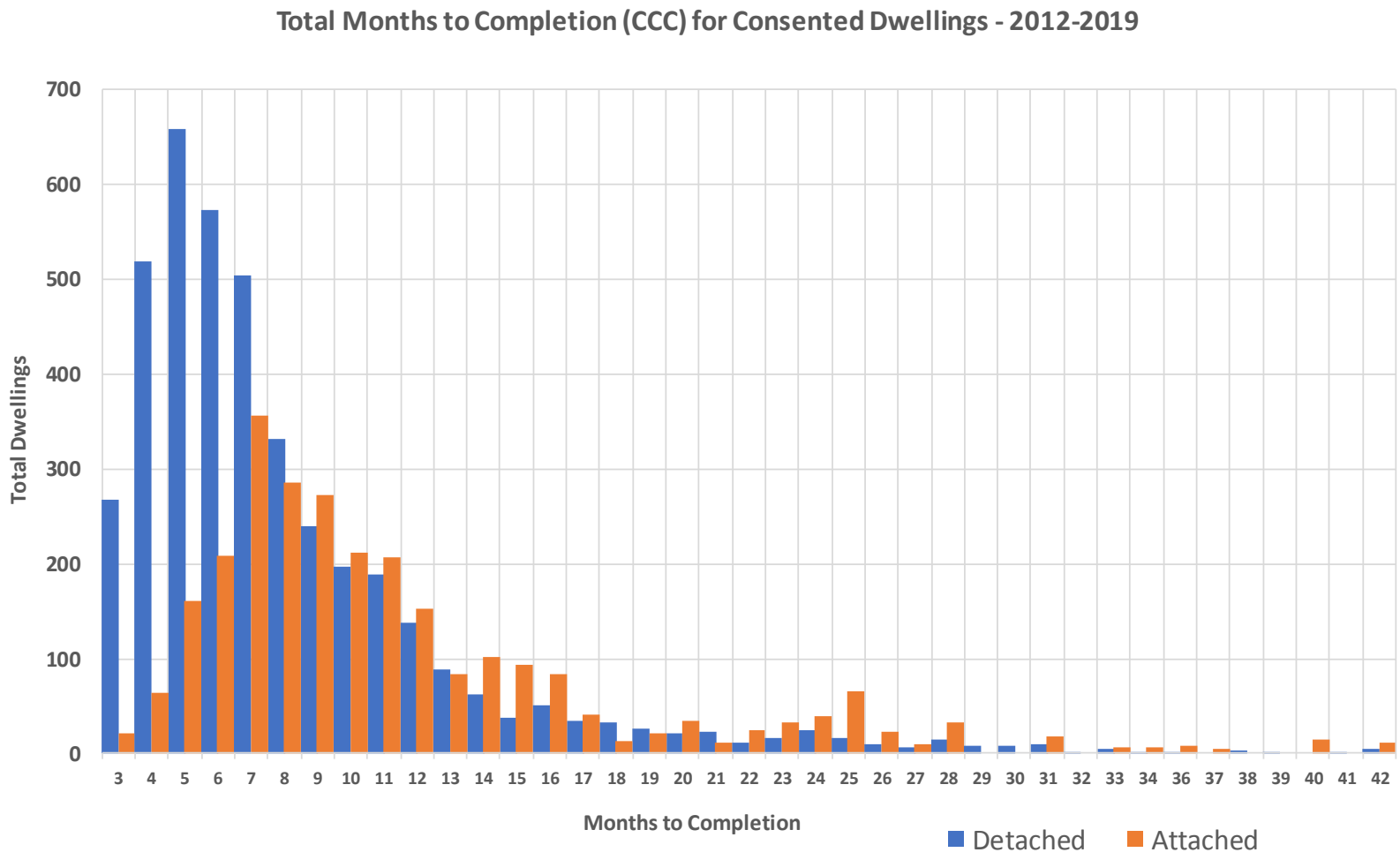
Hamilton City Dwellings – Total Months to Completion



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Which LTP projection series should HCC choose?

Options Analysis:

Option #	Option 1	Option 2 PREFFERED	Option 3	Option 4	Option 5	Option 6
Option Name	**HCC staff bespoke**	**NIDEA Low (Rebase)**	**NIDEA Medium (Rebase)**	**Infometrics**	**Stats NZ Medium**	**NIDEA or Stats NZ High series**
Delivery within timelines?	No	Yes	Yes	Yes	No	NIDEA - yes Stats NZ - no
Historical accuracy and plausibility	Variable	Medium	Low-Medium	Low	Low-Medium	Low-Medium
Resource available?	No	Yes	Yes	Yes	Yes	Yes
Stakeholder acceptability	Low-Medium	Medium-High	Medium-High	Low	Medium	Low-Medium
Transparency and interpretation	Medium-High	Medium	Medium	Low-Medium	Low-Medium	Low-Medium
Internal consistency	No	Yes	Yes	No	Partial	NIDEA - yes Stats NZ - no
Regional Consistency	No	Yes	Yes	No	No	No
Cost	None	None	None	$12,000	None	None

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Timelines/Next Steps

- SLT Briefing – **9th March 2020**
- Strategic Growth Committee to consider/adopt a growth projection line – **23rd March 2020 (tentative)**
- Progress LTP growth scenarios – **April/May 2020**

FURTHER INFORMATION

Hamilton City Council
Garden Place, Private Bag 3010, Hamilton

/HamiltonCityCouncil
@CouncilHamilton
07 838 6699

hamilton.govt.nz

Questions/Feedback?

FURTHER INFORMATION

Hamilton City Council
Garden Place, Private Bag 3010, Hamilton

/HamiltonCityCouncil
@CouncilHamilton
07 838 6699

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LGNZ remits 2020

4 March 2020

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What is a remit?

- A remit is a request for action regarding a matter of a major policy nature
- Remits must be on issues relevant to the whole sector
- Councils have the opportunity to submit remits to LGNZ each year ahead of the annual LGNZ conference at which member councils will vote for the remits they support
- A remit approved at the LGNZ conference by a majority of members has the full support of LGNZ for the relevant matter and action proposed to be progressed. Approved remits become official LGNZ policy

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Process for submitting a remit

- In order to submit a remit to LGNZ, a council must develop a short proposal outlining the nature of the issue and the action sought, and provide sufficient information and research to demonstrate the need for the remit
- The remit must be supported by five councils (including the sponsoring council) or have the support of a zone or sector group meeting and must be sent to LGNZ by 11 May 2020

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Examples of remits

- In 2019, Hamilton City Council submitted two remits, both of which passed at the AGM:
  - LGNZ encourages member councils to consider using environmentally friendly weed control methods
  - LGNZ initiates a national review of the Local Government Official Information and Meetings Act (1987) request management framework and process
- Successful remits from other councils included:
  - LGNZ advocates for enabling legislation that would allow councils to require all guest accommodation providers to register with the council and that provides an efficient approach to imposing punitive action on operators who don't comply
  - LGNZ advocates to the Government to phase out single use polystyrene
  - Central government funding be made available on an annual basis for museums and galleries operated by territorial authorities with nationally significant collections

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Proposed timeline

Date	Action
4 March 2020	Briefing to elected members on remit process and opportunity to suggest ideas
23 March 2020	Elected members provide any remit ideas to Strategy team (Julie Clausen)
24 – 31 March 2020	Committee chairs and principal advisors review ideas with nominator
31 March 2020	Strategy advised which ideas should be further investigated
1 – 15 April 2020	Staff develop those ideas into proposals
30 April 2020	Council meeting – proposed remits considered for approval
8 May 2020	Metro sector council meeting considers Hamilton City Council remits
11 May 2020	Deadline for remit submission to LGNZ
25 June 2020	Council meeting – remits submitted by all NZ councils considered so elected members can decide Council's AGM voting position
18 July 2020	LGNZ Annual General Meeting
Post 18 July 2020	Elected members advised of AGM outcome

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