

LAND INFORMATION NEW ZEALAND

2016-2020 Four Year Plan

BUDGET SENSITIVE





I present the 2016 Four Year Plan for Land Information New Zealand and confirm that it is consistent with the policies and performance expectations of the Government.

Peter Mersi

Chief Executive

Land Information New Zealand

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Four Year Plan 2016-20 - Land Information New Zealand



Whatungarongaro te tangata toitū te whenua - While people come and go, the land endures

Our Minister's Priorities



Opening government data to create opportunities



Contributing to the Business Growth Agenda by working with regions and cities



Leveraging LINZ's expertise across government

What we are funded to do

Provide policy advice and other support to **Ministers**

Manage New Zealand's property rights system **Make location** information available, accessible and usable

Administer New Zealand's overseas investment regime

Manage Crownowned and used land

Ownership and management of **Crown land** affected by the Canterbury earthquakes

Our Impacts and Outcomes



Confidence in property rights

- Property rights are easily transacted
- Integrity of the property rights system is maintained



New Zealand has a world-class location system



Accessible geographic information

- LINZ's geographic and property information is fit for
- Use and re-use of geographic and location information is supported



Sustainable use of Crown land

- Better utilisation of Māori land is enabled
- The best economic, environmental and recreation uses are being made from Crown-owned and crown-used land
- More effective disposal of Crown land

Our Vision, Goal and Strategic Objectives

Our vision

the power of where drives New Zealand's success

Our goal

grow by tenfold the value created for New Zealand through the use of geographic and property information over the next decade

Our strategic objectives

Increase the use of geographic S1 information



Improve resilience to natural events

Our Customer and Stakeholders

- Our customers are diverse, and so are their needs
- People use our data to decide on buying, selling, and developing land
- People analyse our data to innovate, invest, and make decisions
- We are working to ensure we speak to customers and stakeholders with one voice
- We are becoming a more customer-centric organisation
- We are seeking feedback from our stakeholders
- Our regulatory functions influence our engagement with stakeholders
- We deliver our products and services through the LINZ Data Service and Contact Centres

Our Capability

- We are shifting our culture and behaviours
- We are building a continuous improvement philosophy around being Better Every Day
- We are growing our leadership and management capability: leading strategically, leading with influence, leading at the political interface, managing work priorities
- Our Whakapakari programme underpins our approach to Business with Māori
- Our size, technical and specialist nature presents recruitment challenges
- · Our diversity is strength
- We are ensuring our people are safe and well
- We are focused on sustaining key technical capability
- We are building our planning, performance, and investment management capability

Four Year Plan 2016-20 - Land Information New Zealand



INCREASE

the use of geographic information

Drive the delivery of accessible and usable geographic information for industry and government to provoke better decisions and inspire innovation

In Year One we will:

- Provide a system to maintain and distribute national allocated addresses
- Deliver a dataset value measurement framework
- Form partnerships with key stakeholders in addressing
- Form partnerships with local government to release data
- Prioritise a fundamental data release plan
- Leverage existing data initiatives
- Establish a property data standard
- Establish a national positioning board.

By Year Four we will:

- Establish a national infrastructure for geographic information
- Enable publishing of geographic information within New Zealand via the LINZ Data Service
- Support other agencies with the release and publishing of other geographic information
- Ensure that the datasets of national importance that LINZ is responsible for will be accessible and re-useable by government, businesses and the public
- Coordinate the maintenance, release and distribution of key datasets of national interest with a focus on information for addressing, property and natural hazards
- Establish a national addressing dataset that is accessible and reusable by government, businesses and the public.

Success will mean:

- Geographic information is being used by others
- Alignment of government programmes relating to geographic data
- The value of geographic information is widely understood
- Consistent and comparable spatial data is available for use and re-use
- Address is a common reference that can be integrated across different information systems.

UNLOCK the value of property

Targeting New Zealand's property services and information so that people making decisions on Crown land, Māori land, and urban intensive areas can realise its potential

In Year One we will:

- Review policy to eliminate barriers to land development
- Review policy to provide increased mandate to collect additional property data
- Complete the web portal for Treaty of Waitangi settlements Right of First Refusal to Crown Land
- Collect information to understand end customer needs in property
- Identify other sources of geographic data
- Work on data linking standards for property.

By Year Four we will:

- Establish open access to property data that is seamlessly linked
- Improve the quality and completeness of property data
- Optimise LINZ's property regulatory settings to unlock the value of property data
- Improve government processes around the property it manages.

Success will mean:

- Faster and easier access to joined-up property information
- The private sector delivers better services to support New Zealanders to realise the potential of their property
- Better quality and more complete property data enables people to increase the utilisation and productivity of their land, and Māori land owner can quickly access accurate land related records
- Crown Land transactions will be faster and more efficient for those wishing to sell, purchase or lease Crown land
- Improved management of Crown property and faster decisions on acquisitions and disposals.

IMPROVE resilience to natural events

Enabling those who are making decisions on the impacts and risks of natural hazards to have the right information that will help protect New Zealanders and their assets

In Year One we will:

- Complete the collection of LiDAR data for the determination of a national elevation model to support flood modelling
- Implement the New Zealand Vertical Datum 2016
- Identify and coordinate responsibility for the mapping of building footprints and floor levels
- Identify they key input data sets that need to be opened up or improved
- Identify the policy changes that are needed to open, manage, and integrate data.

By Year Four we will:

- Provide better information and tools to assess the risks and impacts of natural hazards
- Establish policy settings required to enable New Zealand to assess the impacts of flooding on property and land
- Provide, by 2020, stakeholders with the spatial information, analytical models and visualisation tools needed to robustly assess and respond to flooding from rivers
- Provide the critical positioning, property and elevation datasets to enable the assessment and response to flooding from rivers.

Success will mean:

- Decision-makers will have better knowledge about the risks and impacts of natural hazards
- Our property rights and land transfer legislation will operate efficiently and effectively in the event of natural disaster
- A robust flooding information system is fully operable.
- People have the tools and capability to use the flooding information system
- Better quality and more consistent data at a national level can be aggregated to support evidence-based investment and risk response decisions around natural hazards.



THE CONTRIBUTION WE MAKE FOR NEW ZEALAND

This section describes the nature and scope of LINZ functions and outlines our vision and strategic objectives.

Land is central to New Zealand's social and cultural identity, and its economic growth and prosperity. At LINZ, we create, manage and share information about where things are, in, on and around our land and waters. The value we create for New Zealand is diverse and comprehensive.

Our role and function

While many of the services we provide result in a physical product such as a map or chart, others are largely invisible to the public, such as the collection of core geographic information, maintenance of New Zealand's positioning framework, or management of Crown land. This work is a key part of New Zealand's infrastructure and is valuable to New Zealanders.

We lead and work with others

Geographic information – sometimes called spatial information - is data and information that can be linked to 'where' things are.

We work with government and local government agencies, businesses, iwi and Māori, surveyors and conveyancers, as well as the users of our products and services. We work with others to make sure New Zealand has:

- accurate and interconnected geographic information
- · robust property rights
- · sustainably managed Crown property.

Together, we make sure New Zealand has data, information and technologies that work together so people can unlock benefits to build New Zealand's prosperity.

As system leader, we recognise our role isn't always about leading from the front. We also work to enable others to lead, and to enable others to deliver on their goals to realise the economic, environmental, social and cultural value of geographic information.

We make geographic information accessible and usable

We're building world-class infrastructure for geographic information in New Zealand. That infrastructure connects different geographic data sets, and delivers this information to people who need it, in a form they can easily use – and re-use it. This includes topographic maps and nautical charts, property information, and aerial imagery.

Most of our information is available free, online, in readily reusable formats through the LINZ Data Service and on data.govt.nz. We champion sharing and exchanging public information through the open data programme and our role in promoting a national infrastructure for geographic information.

LINZ is the source for nearly 50 percent of the datasets available on the public data.govt.nz website

We protect New Zealanders' property rights

We regulate and administer the survey and title system which records ownership and guarantees titles for New Zealand. This provides people, businesses, and lenders with confidence in property rights and a system that facilitates the sale, purchase and development of property, and the use of property as a security, at a reasonable cost.

We manage and protect our land

We are the guardians of two million hectares of Crown land, including some of New Zealand's most iconic land, from South Island High Country pastoral land to bodies of water such as lakes Wanaka and Dunstan. We manage \$500 million of property assets for other government agencies, using our expertise to deliver greater efficiency and benefit to New Zealand. We also administer the policy on overseas ownership of sensitive New Zealand assets, through the Overseas Investment Office.

Our strategy, goals and priorities play to our core expertise and our strengths in geographic information, and in land and property administration.

Our vision

Our vision is that 'the power of where' drives New Zealand's success

Geographic information matters. It tells us where things are. It helps us plan for the future and make good decisions. It enables us to build and care for our resources and property, and recover faster from natural disasters. This information needs to be easy to find and use, alongside all the other information that individual New Zealanders, businesses, communities, and government use every day.

We have the opportunity to increase the significant contribution that geographic information already makes to New Zealand's success—it's economic, environmental, social, and cultural prosperity.

Our goal

Our goal is to grow by tenfold the value created for New Zealand through the use of geographic information over the next decade

We will do this by being the champion for world-class geographic information to provoke better decisions and inspire innovation. We want to support anyone making any decision where location matters. Better access to geographic information will enable:

- reduced transaction costs and frustrations in finding information
- faster planning and decision-making
- more sustainable decisions that benefit future generations
- greater resilience and faster recovery from natural events.

Our strategic objectives

We have set ourselves three strategic objectives to deliver on our vision

Our strategic objectives are the critical things we need to achieve in order to reach our goal. We will focus our actions on these strategic objectives over the next few years and align our skills and resources with what is most important.

In developing our strategic objectives we identified and focused on where we can contribute most and drive the greatest return in economic, social, cultural and environmental value for New Zealand.

Our three strategic objectives are:

Increase the use of geographic information

We will drive the delivery of accessible and usable geographic information for industry and government to provoke better decisions and inspire innovation.

Unlock the value of property

We will target New Zealand's property services and information so that people making decisions on land, particularly Crown land, Māori land, and urban intensive areas, can realise its potential.

Improve resilience to natural events

We will enable those who are making decisions on the impacts and risks of natural hazards to have the right information that will help protect New Zealanders and their assets.

Our outcomes framework

Our outcomes framework describes our work, our outcomes, and our strategic objectives¹.

¹ Our current outcomes framework is attached as Annex 1

OUR CUSTOMERS AND STAKEHOLDERS

This section describes at a high level who our key customers and stakeholders are, and what they need from us. It also outlines the work we are undertaking to better engage and develop our relationships.

External organisations are critical to achieving our vision. Understanding and anticipating the needs and wants of those we serve and work alongside ensures we continue to deliver.

We recognise it is our role to enable and support others to realise the economic, environmental, social and cultural value of geographic information.

Our customers

Our customers are diverse and so are their needs

Our end-users range from people working with surveyors and lawyers to buy a property, mariners navigating at sea, people travelling by land using our maps, and tenants of Crown land, to Defence and emergency services who need to know the terrain of an area.

People use our data to decide on buying, selling, and developing land

We want to enable people to know more about the land they're interested in, and the best possible options for the land's use. This information will help them more easily unlock the value of their land, whether that be economic, social, cultural or environmental.

LINZ supports better decision making by Māori and iwi, by making land information available, along with knowledge to help them to identify the best use of land. We have strong working relationships with Māori and iwi and intend to improve our support of Māori economic, environmental, social, and cultural development.

Our Business with Māori Strategy, He Whāriki Maurua, is giving effect to this through establishing key strategic relationships with Māori and iwi organisations. Through these relationships we are working collaboratively on projects to improve their access to, and use of, geographic information.

People analyse our data to innovate, invest and make decisions

Our annual customer satisfaction surveys tell us that our data customers want us to grow the types of data we make available, and make the data more integrated. They are also looking to us for an increased range of services and products. They are asking that we take a leadership role in establishing the infrastructure (platform) that they can use to get access to more data/information faster in seamless and automated ways.

Our customers want us to deliver more information to an acceptable standard of quality and timeliness. Customers use our data to produce information that becomes the knowledge they use for decision-making and action. It is important that customers know the quality and completeness of the data and information on which they base decisions and actions. Figure 1 shows how data can inform actions.

We are working to ensure we speak to customers and stakeholders with one voice

The first step to achieving that is to ensure we understand how we interact with different customers and stakeholders across our activities. Armed with that understanding, we will develop customer and stakeholder plans that improve coordination, planning, and two way communication.

We will continue to build stronger relationships with key customers and stakeholders

We value our customers and stakeholders and will continue to build stronger relationships. We know that to achieve our vision, we must gain a deeper understanding of external groups to better understand how we can help; to engage with them at an appropriate level, and to provide the appropriate support at the right time.

We will continue to seek feedback from our customers on their experience of our products and services. We will also work with them to shape future

Figure 1: Data to action

data

knowledge

knowledge

actions

products and design our service delivery.

We are driving to become a more customer-centric organisation

By better understanding our customers' current and future needs we will deliver more relevant products and services for them to achieve their goals and help drive economic development opportunities.

We are refining our customer segmentation model²; working across LINZ to ensure it is fit for purpose. This includes identifying and agreeing priority customer subgroups that align with the strategic objectives in our strategic plan.

We will collate existing customer information from across LINZ to identify behaviours and trends regarding the use of our products and services. We will continue improving our understanding of how our customers interact with us, so we can better identify and meet their needs.

We are continuing to work to make sure customers are considered in our decision-making process and that we understand the impact of any change on them.

We are coordinating our engagement with customers and other stakeholders across the organisation to ensure a consistent approach.

Our stakeholders

We are seeking feedback from our stakeholders

We engage with a range of organisations and people in our day to day work. To maximise the benefits from this engagement, we are working to be more strategic in our approach.

We are building stronger relationships with a core group of organisations, who, in the main, are both producers and/or users of geographic information.

We will continue to identify other government agencies we can assist with the management and/or disposal of Crown properties.

Our regulatory functions

Our regulatory functions influence our engagement with stakeholders. While we do work alongside and listen to our stakeholders, we are working within legislative and regulatory frameworks that sometimes dictate what and how we discharge our functions.

Figure 2: Key Stakeholders

Key Stakeholder	Relationship
Local Government	We work closely with local government to collect and maintain geographic information and to encourage the innovative use of data. We continue to work with them to streamline the processes so geographic information is efficiently collected, managed and made available as open data. We are supporting Auckland City Council, Wellington City Council and Christchurch City Council to increase their use of geographic information and to encourage the innovative use of data. Projects underway include
	the Smart City Project, Metadata Standards Project and expanding the Forward Works viewer on a national basis across these councils.
Māori and iwi	We continue to work closely with Te Tumu Paeroa, the Federation of Māori Authorities and Port Nicholson Settlement Trust, Te Rūnanga o Ngāi Tahu and Waikato-Tainui.
Statistics NZ	LINZ and Statistics NZ have aligned visions and goals to empower decision making and add value through the power of information and data. Senior leaders from both organisations meet regularly to explore opportunities to collaborate. We work alongside Statistics NZ around the ICT Strategy, Open Government Data and Information Programme and geospatial projects.
Landcare Research	We are working with Landcare Research on projects that use geographic information to inform decision making. We are working to identify further collaboration projects, such as the successful Māori land visualisation tool which helps Māori land owners make informed decisions about how to use their land to support whanau.
Surveyors and Spatial Professionals (NZIS)	We are collaborating with New Zealand Institute of Surveyors, both directly and through the Surveyor-General, to promote best practise and professional development for surveyors and spatial professionals. LINZ is working closely with surveyors to resolve issues with Canterbury property boundaries following the earthquakes.
Entities involved in Christchurch regeneration	LINZ will continue working with key Canterbury agencies to support the Christchurch rebuild, including Christchurch City Council and Environment Canterbury. We took over the management of red zone properties from CERA in December 2015.
Natural Resource Sector agencies	As a member of the natural resource sector we work with fellow agencies to ensure there is a coherent and integrated approach to sector-wide issues such as freshwater, mineral use, biodiversity, and climate change.

Our current customer segmentation model is attached as Annex 2

Our channels

We deliver our products and services through a variety of channels

Our customers access our diverse range of products and services through an equally diverse range of channels, such as physical retailers, online channels, mobile applications, and telephoning or emailing our Contact Centres or direct to our specialist teams.

The use of the LINZ Data Service as an online channel is growing

While there continues to be a need for printed authoritative products such as our nautical charts and topographic maps distributed through retailers, the growth in the LINZ Data Service as a key channel highlights digital uptake.

The LINZ Data Service is an online service that makes LINZ (and others) geographic information freely available for download and reuse under a Creative Commons licence. The LINZ Data Service makes available more than 1,800 datasets on New Zealand's land and sea.

We are continuing to leverage the LINZ Data Service for wider, more sustainable use to give New Zealand increased benefits from data reuse. This is aligned with the Government ICT Strategy 2015, which is seeking to unlock the value of information through partnering with the private sector and exploiting emerging technologies.

This work has seen 'proofs of concept' that established data publishing services for the New Zealand Defence Force and Environment Canterbury.

The result of this work is that data publishing capability will be available so other government agencies wishing to establish a data service can do so easily. This approach will also deliver economies of scale across government, including savings for us that we can reinvest into publishing more LINZ data.

Our distributed contact centres maintain our frontline presence

Surveyors, lawyers, conveyancers and other professionals use our Landonline transaction centre to securely search, lodge and update title dealings and survey data, digitally and in real time.

We have customer service agents within our contact centres who provide individualised support to our customers, particularly to Landonline users. As demand for our data increases we anticipate a rise in customer queries about the LINZ Data Service and its datasets through our contact centres.

We need to ensure our customer service agents have the right tools and capability to answer these queries and our processes are clear, efficient, and effective.

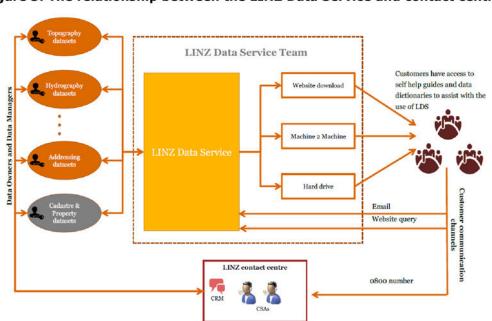


Figure 3: The relationship between the LINZ Data Service and contact centres

OUR OPERATING ENVIRONMENT

This section describes our operating environment; including Government's priorities, sector strategies and trends impacting us from our environmental scan.

Our priorities

Government priorities shape our direction

Government has set four priorities:

- · Responsibly managing the Government's finances
- Building a more competitive and productive economy
- Delivering Better Public Services
- · Rebuilding Christchurch.

Our strategy, to derive greater value from geographic information, directly contributes to building a more competitive and productive economy for New Zealand.

We have supported the rebuild of Canterbury through developing the Canterbury Spatial Data Infrastructure. In December 2015 we assumed responsibility for management of Crown-owned Residential Red Zone properties from the Canterbury Earthquake Recovery Authority. This work involves insurance recoveries, demolition of built structures, clearance of land, and ongoing maintenance of the land for future use.

We are explicitly contributing to Better Public Services Results 9 and 10: improving interaction with government, by improving the online availability and accessibility of geographic information, and making property transactions easier.

Other Government strategies that inform our activity include the Crown-Māori Economic Growth Partnership: He Kai Kei Aku Ringa, and the Government ICT Strategy and Action Plan to 2017. Our responses to these are laid out in the strategic delivery section.

We contribute to the Business Growth Agenda

The Government has refreshed the Business Growth Agenda (BGA), with the *Towards 2025* report. Our work and initiatives contribute to a number of the BGA workstreams.

Alongside our work in the Natural Resources Sector, our work is developing the infrastructure required to further leverage geographic information, as well as unlocking investment opportunities in Crown and Māori land, and we will continue to evaluate opportunities to contribute to all BGA workstreams.

Our Minister has set us three priorities

In 2016, the Minister for Land Information set us three new priorities for the near to medium term. While our previous priorities had been focused on distinct programmes of work, our new priorities direct the ways we should be working. They are:

Opening government data to create opportunities

Making data and information open, accessible, and available for reuse enables better decision making and inspires innovation.

To further this, LINZ will:

- Accelerate the release and reuse of government data
- Refresh the strategy for open data across government, and
- Co-ordinate the maintenance and distribution of key datasets of national interest with a focus on geographic and property information

Contributing to the Business Growth Agenda by working with regions and cities

The Business Growth Agenda is an ambitious programme of work that will support New Zealand businesses to grow. LINZ will support this through focusing on existing and new work on creating opportunities for New Zealanders, its businesses, communities, and people. LINZ will have work programmes focused on the real opportunities that can be delivered, and to make a difference in people's lives at a local level.

To further this, LINZ will:

- Complete the Overseas Investment Office fees review and increase resources to the Office to enable faster application processing and more robust monitoring
- Engage closely with local government, businesses and communities to work through the data and information needed to support better decisions, particularly on land use
- Engage with the regions to showcase and identify the opportunities created from open data, and
- Collaborate with other government agencies, and Māori and iwi, to help Māori to realise the full potential of their land holding.

Leveraging LINZ's expertise across government

As a small department with specialist expertise around land and information, LINZ can make wider contributions to government outcomes. We will work in an integrated way to enable and support outcomes across agencies and government.

To further this, LINZ will leverage its expertise to:

- Improve the management of Crown property to maximise the value of Crown land assets
- Accelerate disposal of surplus Crown property to free up capital for higher priority use
- Manage the residential red-zone property in Canterbury while future use is being considered; and continue demolition of the remaining redzoned properties
- Lead the building and property information initiatives across central and local government to ensure that there is joined-up property information, and
- Support flooding, freshwater, and local government infrastructure to improve people's lives.

Following the approval of the 'as a service' approach for developing the Advanced Survey and Titles Services (ASaTS) platform, LINZ will:

- Introduce a flexibile, readily adaptable technology platform that delivers greatly enhanced services to customers
- Ensure that this system is a key enabler to allow seamless delivery of property services and information across organisational boundaries and systems, and
- Monitor the delivery of this investment.

Our sector

We are part of the Natural Resources Sector

The Natural Resources Sector (NRS) is made up of eight government agencies involved in the management and stewardship of New Zealand's natural resources. NRS agencies work together to create a more productive economy from our natural resources while improving the quality of the environment for New Zealanders. The NRS has a collective goal underpinned by six focus areas³.

LINZ is actively contributing to the work of the NRS with our own initiatives⁴, and by working with other agencies to support theirs, including:

- · NRS information programme
- Integrated Property Services
- Smart Cities
- Metadata/Three Waters
- Māori Land Service in conjunction with Te Puni Kōkiri and the Ministry of Justice
- Wilding Conifer Strategy together with MOE, DOC, MPI, NZDF and regional authorities.

The NRS will also be working together to contribute to the Building Natural Resources BGA work-stream.

We are contributing to the Government ICT Strategy and Action Plan

As an information rich agency, LINZ also forms part of an informal information sector⁵. Led by the Government Chief Information Officer, the Information Sector is looking to embed a whole-ofgovernment approach to technology and information management.

As part of this work, we are leading the NRS Information Programme. This programme takes a sector-wide approach to managing all of the NRS's information assets.

The programme will improve the information base to support the decisions and activities of the whole NRS, particularly the key priorities:

- System-wide improvement of information for decision making
- Improving the quality and value of information about natural resources
- Improving the ease with which information can be integrated and shared
- Enabling access to better innovation and technology
- Contributing to specific resource issues affecting climate, land, water and the marine environment.

We are also modelling Better Public Services (BPS) result areas 9 and 10 in the way that we make information available and provide digital services to our customers.

 $^{^{3}}$ More information on the NRS goal and focus areas is attached at Annex 3

⁴ More information about these can be found in the "Our Strategy and Objectives" section

⁵ The informal information sector is comprised of four government agencies including Land Information New Zealand, the Department of Internal Affairs, the Ministry of Justice, and Statistics New Zealand

In addition we directly provide some aspects of the geographic information infrastructure that supports better-informed activities in the NRS, such as data services, data standards, and data management frameworks. We also provide important geographic information.

Our influences

We have identified trends that will influence us

Identifying trends and barriers helps us to identify the opportunities and unmet needs on the horizon; and to assess the impact on future products and technology that we both deliver and use.

We have chosen to focus on five major trends⁶. We believe these trends will have a wide-ranging impact on LINZ's activities and operations by 2025:

- · Increased and more rapid urban intensification
- Natural events are growing in frequency and severity
- Māori economic development relies on better access to property and land information
- There are widespread opportunities and need for geographic information
- Increasing demand for open data to be coordinated and provided as a national asset to support decision making

We know we have a key role in realising the benefits of a fully geographicenabled society

Our role in enabling the benefits from greater use of geographic information is to:

- Consider the requirements for geographic information for society as a whole
- Provide reliable, trusted and maintained geographic information datasets
- Facilitate collaboration between all sources of geographic information, including public, private, volunteered and crowd-sourced
- Provide frameworks to integrate disparate sources of data into national datasets and in a structured way
- Develop and promulgate standards, methods and tools to assure quality and provide authority

- Oversee the geographic marketplace to ensure and maintain openness, integrity, equity, and trust
- Develop policy, and advise on and advocate for, geographic information
- Commission and manage the delivery of supporting frameworks.

We are addressing known barriers to creating, distributing and using geographic information

We identified a number of barriers to the effective creation, distribution and use of geographic information. These are barriers to realising a geographic-enabled society. We are working with our partners and stakeholders to remove these barriers. Figure 4 describes these barriers and some of the work we have undertaken to address them.

Our full listing of identified trends and impacts is attached as Annex 4

Figure 4 - known barriers to creating, distributing and using geographic information

Barrier	Description	How we are addressing this
Lack of understanding	Geographic considerations are not a standard item in business case frameworks, and data requirements are often overlooked, meaning geographic data capture is not built into new systems. Similarly, the complexity of the language used around geographic data can make it difficult to engage with agencies and raise awareness.	 Providing material on LINZ website 'What is Geospatial Information?' - http://www.linz.govt.nz/about-linz/our-location-strategy/what-geospatial-information Providing advice to agencies in relation to procurement of geographic information and services (see Government Rules of Sourcing, Rule 60) - http://www.business.govt.nz/procurement/pdf-library/agencies/rules-of-sourcing/procurement-government-rules-of-sourcing-v3.pdf Developing and promote success stories/case studies on LINZ website - http://www.linz.govt.nz/about-linz/what-were-doing/success-stories Presenting at conferences and workshops to increase understanding and awareness of a range of geographic topics Coordinating and work with cross-sector groups on geographic matters such as: governance, standards, R&D, capability/skills development (industry, tertiary, schools) Coordinating 'Building the business case for investment in geographic projects' courses
Lack of awareness	The number of competing strategies influencing management in Government means competing for visibility.	 Aligning more closely with Government's ICT Strategy and Action Plan Contributing to DIA led All of Government Information work Presenting at conferences and workshops to increase understanding and awareness of a range of geographic topics Developing and promote success stories/case studies on LINZ website - http://www.linz.govt.nz/about-linz/what-were-doing/success-stories
Resource constraints	Including lack of dedicated, knowledgeable staff and a lack of dedicated budget.	 Coordinating and work with cross-sector groups on geographic matters such as: governance, standards, R&D, capability/skills development (industry, tertiary, schools) to share staff knowledge/resourcing and project costs as appropriate Providing opportunities and scholarships for staff to gain needed technical skills Working with other agencies to build on the data publishing experience of the LINZ Data Service
Risk aversion	Agencies are cautious about sharing datasets that could be incomplete or potentially compromise security.	 Contributing to DIA led All of Government Information work Present at conferences and workshops to increase understanding and awareness of Government's Open Government Information and Data Programme and the ongoing Ministerial commitment to making it work - http://www.linz.govt.nz/about-linz/what-were-doing/projects/open-government-information-and-data-programme
Lack of coordination	A need for all data providers, including private providers, to provide collective consent in order for a comprehensive dataset to be made available.	 Providing an online geographic catalogue (GeoData) for data providers to publish metadata including fitness for purpose and licensing information - http://www.linz.govt.nz/about-linz/our-location-strategy/connecting-and-sharing-geospatial-data Working with public sector data purchasers and private sector data creators to enable appropriate open data licensing arrangements e.g attributing aerial imagery data http://www.linz.govt.nz/data/licensing-and-using-data/attributing-aerial-imagery-data

OUR STRATEGY AND OBJECTIVES

This section sets out the strategic choices we have made and strategic objectives we are pursuing.

Our Performance Improvement Framework

The PIF review is a tool to help agencies build on strengths and identify areas for improvement.

The 2013 PIF review recognised that LINZ was a 'quiet achiever' in the land information and property rights space. In November 2014, a follow-up PIF review of LINZ was conducted. The findings commended the work we had done, and set out what was needed to reach our Four Year Excellence Horizon. We have taken on the challenge to step up leadership in the geographic information area through our vision.

While our positive direction of travel was noted, there were three key challenges identified in reaching the Four Year Excellence Horizon:

- A need to identify the business strategy and operating model
- A need to develop a strategic plan and measurable outcomes
- A need for culture and behaviours to align with the operating model and for our Executive Leadership Team to provide collective leadership and be outward focused.

As part of our plan for achieving our 10 Year Vision, our Executive Leadership Team is getting 'up and out' and becoming more externally focused. This means our Operational Management Committee⁷ can focus 'in and across' – on running the business to drive towards the 10 Year Vision from an internal perspective.

We are committed to improving the quality and durability of our strategies and, in 2014/15, deliberately strengthened our strategic capability to support achievement of our vision.

The organisational alignment in 2014/15 provided a structure and operating model that supports our vision.

7 A group of tier-three managers tasked with managing the day-to-day operations of LINZ, representing all five business groups

Our strategic objectives

We developed our strategic objectives to focus on the biggest impact we could have

Our culture discovery work highlighted that our people needed better line of sight from their day-to-day activities to our vision.

Our people told us that, whilst they understood our vision they weren't always able to see how they contributed.

Essentially we needed a strategic plan to galvanise our people around the power of where.

In October 2015, in response to this feedback from staff, we held a three day design-shop involving all third-tier managers. We used an accelerated solutions environment to generate the necessary thinking, engagement, and buy-in from LINZ leaders.

We have set ourselves three strategic objectives:

In developing our strategic plan we identified and focused on where we can contribute most and drive the greatest return in economic, social, cultural and environmental value for New Zealand.

Our strategic objectives reflect these opportunities.

Our strategic objectives are the critical things to achieve in order to deliver on our vision. They build on our strengths and core capabilities.

Increasing the use of geographic information

We will drive the delivery of accessible and usable geographic information for industry and government to provoke better decisions and inspire innovation.

Unlock the value of property

We will target New Zealand's property services and information so that people making decisions on Crown land, Māori land, and urban intensive areas can realise its potential.

Improve resilience to natural events

We will enable those who are making decisions on the impacts and risks of natural hazards to have the right information that will help protect New Zealanders and their assets.

Strategic Plan overview

Our strategic plan sets out our vision and long term intent through our strategic objectives

OUR STRATEGY

OUR VISION



The power of where drives New Zealand's success

OUR GOAL

To grow by tenfold the value created for New Zealand through the use of geographic information over the next decade

OUR STRATEGIC OBJECTIVES



Increase the use of geographic information

We will drive the delivery of accessible and usable geographic information for industry and government to provoke better decisions and inspire innovation.

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Unlock the value of property

We will target New Zealand's property services and information so that people making decisions on Crown land, Māori land, and urban intensive areas can realise its potential.



Improve resilience to natural events

We will enable those who are making decisions on the impacts and risks of natural hazards to have the right information that will help protect New Zealanders and their assets.

OUR VALUES

Bold

We take personal responsibility to be better every day. We're courageous, agile and unafraid to fail

Expert

We're among the best in the world, but we never take that for granted. We're passionate about reaching our potential.

Stronger Together

Manaaki connects us.
Our diversity is our strength.
We back each other, challenge
and keep each other safe.

Strategic objective

Increase the use of geographic information

OVERVIEW

Drive the delivery of accessible and usable geographic information for industry and government to provoke better decisions and inspire innovation

We are leading the development of a national spatial data infrastructure for New Zealand. The spatial data infrastructure links the different geospatial data sets to make them more easily accessible for all potential users.

We can't do this alone, so we are working alongside other central government agencies, local government, industry, other businesses with geographic information interests, Māori and iwi, and not-for-profit organisations.

We are **BEST** placed to do this because:

- We have the technical skills and experience and are in the best position to provide the core spatial data infrastructure for New Zealand.
- We are the lead agency for the New Zealand Geospatial Strategy. We are leading by example through the success of the LINZ Data Service and our cross-sector work to identify national geospatial research and development priorities.
- We have already successfully coordinated the maintenance, release and distribution of key datasets of national interest such as aerial imagery, cadastre, and title.
 We can do more.

We are seeking to accomplish:

Improved efficiency in the use of geographic information across local and central government, stimulated growth and innovation based on geographic information; and leading by example in the realisation of New Zealand's national spatial data infrastructure.

WHAT WE WILL ACHIEVE

There will be a national infrastructure for geographic information.

We will enable publishing of geographic information within New Zealand via the LINZ Data Service.

We will support other agencies to release geographic information, and to publish data by appropriate means.

Datasets of national importance that LINZ is responsible for will be accessible and reusable by government, businesses and the public.

We will have coordinated the maintenance, release and distribution of key datasets of national interest with a focus on information for addressing (see below), property (see strategic objective 2) and natural hazards (see strategic objective 3).

We will work across government to establish a national addressing dataset that is accessible and reusable by government, businesses and the public.



HOW WE WILL DO THIS

- We will contribute to the Government Chief Information Officer Partnership Framework, including the New Zealand Data Futures Partnership, and the Open Data and Information Programme initiatives.
- We will ensure the Open Government Information and Data Programme is further developed and is well led.
- We will build capability in managing geographic information through the Natural Resources Sector Information Programme.
- We will lead a work programme to deliver a national spatial data infrastructure.
- We will measure the value of geographic information and regularly promote this to decision-makers and leaders.
- We will provide expertise, support and service for publishing geographic information. We will enable publishing of geographic information within New Zealand via the LINZ Data Service.
- We will support the establishment of nationally consistent standards for collection, recording, holding and sharing interoperable data – making it easy for government and business to make information available and accessible.
- We will apply good data management practice for ourselves. We will promote this for other organisations responsible for datasets of national importance. For all national datasets we will ensure:
- data is released in open formats
- datasets are standardised
- dataset quality is improved
- data can be combined with, and linked to, other data.
- We will model a stewardship and custodianship framework for the five fundamental data themes for which LINZ is responsible (cadastre and property, positioning, elevation and depth, addressing, and imagery).
- We will establish data linking capabilities across our key systems, including the cadastre and property, and addressing data themes within the building and property sector.
- We will establish partnerships with other agencies to help us create a spatial data infrastructure for addressing.
- We will promote the use of the national addressing dataset to government agencies.
- We will regularly engage with government, business and the public users of addressing data and respond to their infrastructure needs.

SUCCESS WILL MEAN

- Geographic information is being used in the decisions and operations of the public, iwi and Māori, industry and government. For example geographic information is being used to contribute to long term planning and evidence based investment in infrastructure.
- The Government Chief Information Officer Partnership
 Framework, the Open Government Information and Data
 Programme, the Natural Resources Sector information
 programme and the national spatial data Infrastructure are
 aligned and work coherently with other government
 programmes.
- The value of geographic information is widely understood, communicated and the benefits and costs are quantified.

- Consistent and comparable spatial data is available via online services from different central, regional and local government sources.
- The infrastructure and construction industries can work more efficiently because they can more easily integrate spatially referenced engineering design and asset information with other spatial datasets.
- Users can easily find and combine geographic information for their own purposes.
- Information managers have clarity about collection and management standards on geographic information.
- · Duplication in addressing data is eliminated.
- · People and properties can be more quickly and accurately located.
- Different information systems (such as health, education, and social welfare) containing official address as a common reference can be cross-referenced.
- Online transactions are faster because it is quicker to validate address information.
- There are fewer address clarification requests for local government.

Strategic objective 2 Unlock the value of property

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OVERVIEW

Targeting New Zealand's property services and information so that people making decisions on Crown land, Māori land, and urban intensive areas can realise its potential

Much of LINZ's work and responsibilities relate to property rights. We have a leading role to drive ease of use, speed of movement through the system, accessibility, cost, accuracy and clarity.

By working across central and local government to enable the release of comprehensive property and building information, we can make it less time-consuming and expensive for people to make decisions about property.

We are **BEST** placed to do this because:

- We have a strong interest across New Zealand's property system. We are responsible for legislation and regulation through to land management, acquisition and disposal.
- Our Crown Property Centre of Expertise and clearances teams provide leadership across government in managing and disposing of property.
- We administer the overseas investment regime which considers applications for acquisition of sensitive assets.
- Our Crown Property Disposals e-portal has improved the information sharing process between agencies and we are extending this to cover the Right of First Refusal offerback process for Māori and iwi.

We are seeking to accomplish:

Increased knowledge and management of property so that all rights, restrictions and responsibilities are readily available and understood; joined up and easily accessible property information that is available for reuse; and quicker processes and better decisions about property.

WHAT WE WILL ACHIEVE

There will be open access to property data that is seamlessly linked.

The quality and completeness of property data will be improved.

We will have optimised LINZ's property regulatory settings to unlock the value of property data.

We will have improved government processes around the property it manages.

HOW WE WILL DO THIS

- We will leverage ways to create and open up seamlessly linked property data.
- We will support and engage councils to make property data open.
- We will focus on high priority initiatives to improve the cadastre in relation to Crown land and Māori land.
- We will replace Landonline with a next generation system and support Te Ture Whenua Māori Land Act reforms to develop a register of Crown land and to improve the quality of information available for Crown and Māori land.
- We will enable improvements to the information in the cadastre.
- We will lead a review of the framework for acquisitions and disposals to enable better management of Crown land.
- We will implement the changes required in other regulatory areas to remove barriers to transacting property.
- We will engage and support agencies that manage Crown land to improve property management.

SUCCESS WILL MEAN

- There is less frustration, expense and wasted time for homeowners, builders and developers who need access to joined-up property information.
- It is faster and easier for insurance companies to respond to claims from natural disasters.
- Better services are being delivered by the private sector to support New Zealanders to realise the potential of their property.
- Better quality and more complete property data enables people to increase the utilization and productivity of their land.
- Māori landowners can quickly access accurate land related records.
- Māori landowners have access to improved services and support to realise the potential of their land.
- Crown land transactions will be faster and more efficient for those wishing to sell, purchase or lease Crown land.
- · Faster decisions on acquisitions and disposals of Crown land.
- Improved management of Crown property leading to greater efficiency and effectiveness.

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Strategic objective 3

Improve resilience to natural events

OVERVIEW

Enabling those who are making decisions on the impacts and risks of natural hazards to have the right information that will help protect New Zealanders and their assets

LINZ is well placed to contribute to datasets and information that enable better understanding of natural hazard risks and impacts. Better quality and more consistent data at a national level can be aggregated to support evidence-based investment and risk response decisions around natural hazards. Initially we will focus on providing information that will enable better determination of the impacts from flooding risk.

We are **BEST** placed to do this because:

- We have core specialist geospatial capabilities (mapping, geodesy, topography, hydrography, and elevation) that can contribute to improving natural hazard data and information.
- We have focused on flooding initially as it is the most common natural hazard event in New Zealand, with significant cost and impact on people and their assets.
 Globally the cost of natural disasters is rising year on year.
- A key priority for governments is to create resilient communities that are able to quickly recovery from disasters.

We are seeking to accomplish:

Improved support for decision-making to identify natural hazard risk in New Zealand; better quality and consistency of data that can be aggregated at a national level to support evidence based investment; and better understanding of flooding and the impacts and risks of river flooding.

WHAT WE WILL ACHIEVE

New Zealand will have better information and tools to assess the risks and impacts of natural hazards.

The policy settings will be in place to enable New Zealand to assess the impacts of flooding on property and land.

By 2020, stakeholders will have the spatial information, analytical models and visualisation tools needed to robustly assess and respond to flooding from rivers.

We will provide the critical positioning, property and elevation datasets to enable the assessment and response to flooding from rivers.



HOW WE WILL DO THIS

- We will focus efforts on improving and making available information and tools both we and others provide to help understand natural hazard risks and impacts.
- · We will drive LINZ-related legislative change.
- We will support other agencies to progress related legislative change.
- We will support lead agencies and stakeholders to progress and implement priorities for the flooding information system.
- We will support new systems to manage the flooding information system.
- We will support training for ongoing collection, management and use of information and technologies related to flooding from rivers.
- We will take part in information infrastructure forums relating to flooding from rivers.
- We will leverage the activities, outputs and methods of strategic objective 1.
- We will develop and implement an Integrated Vertical Datum across the land and sea.
- We will coordinate the capture of public sector topographic LIDAR data which will contribute to the development of a national Digital Elevation Model.
- We will develop a 1m Digital Elevation Model for river flood prone areas.
- We will contribute to the capture of and contribute to the development of a database of building footprints with unique identifiers which will be complete in river flood prone areas.
- We will improve the accuracy of river mapping in our topographical database.

SUCCESS WILL MEAN

- Information and tools will support decision-makers to make better decisions about the risks and impacts of natural hazards.
- Resilient communities have information and tools to be able to more quickly recover from disasters.
- Our property rights and land transfer legislation will operate efficiently and effectively in the event of natural disaster.
- Information to identify resources, risks and rights relating to land is captured on property information accessible by landowners. (For example flood areas; building restrictions and/or consent notices.)
- · A robust flooding information system is fully operable.
- People have the tools and capability to use the flooding information system.
- The cost and impact of flooding on people and their assets is reduced.
- Our data is being used to mitigate the impacts of natural hazards by those making decisions on the risks of natural hazards
- People can more easily understand, anticipate and plan for the potential impacts of natural events.
- More informed decisions can be made on the location and protection of new and existing assets.
- Better quality and more consistent data at a national level can be aggregated to support evidence-based investment and risk response decisions around natural hazards.

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Our initiative portfolio

As a result of re-setting our strategic objectives we are now in the process of re-balancing our initiative portfolio.

The following initiatives have been aligned to our new strategic objectives. We anticipate that the work to fully re-balance our portfolio will continue through to the commencement of 2016/17. In doing so we are building out key programmes of work. In some cases below, where those programmes contain significant initiatives more detail on those initiatives are provided.

Programme Initiative	Strategic Objective	Description	2016/17	2017/18	2018/19	2019/20
Addressing Programme		We are going to develop a national addressing strategy which will then inform other pieces of work that include the development and implementation of an Addressing Information Management System and the merging of electoral and topographic road addressing together. The addressing strategy will ensure that addressing meets customer needs and ill form a fundamental component of LINZ's to Integrated Property Services.				
Culture and Transformation		The culture programme is focused on understanding our current culture and defining the right culture needed to enable LINZ to achieve our ten year goals. The right culture is encapsulated in a set of values – Bold, Expert, and Stronger Together (BEST) that we will embed across our people processes (recruitment, performance management etc). We will define ways of measuring our progress and seek to actively remove the barriers to culture. We will also equip our leaders with the skills and tools to lead culture change with their teams.				
Cross-Sector projects Current initiatives include:		LINZ participates in a number of cross-sector projects that are undertaken in conjunction with other government agencies and local government bodies.				
Forward Works National Approach	a	While the Canterbury SDI transitioned to core business activity on 30 June 2015, LINZ established a national governance board to extend the Forward Works Viewer to other cities, currently focussed on Christchurch, Auckland and Wellington. The Forward Works Viewer is designed to minimise disruption and support efficient planning of construction and repair projects. The tool combines data from the public sector, utilities, and private sector developers into a single viewer. LINZ is the asset-owner and holds product ownership responsibilities, although it is not an operational user of the system. LINZ will retain its current responsibilities for another 18 months, until we transition to a sustainable long term ownership model				
Asset Metadata (shared data) Standards	(i)	LINZ and MBIE are working with local councils and central government agencies to develop national metadata standards for the 3-Waters (potable, waste and storm) network, and for residential housing and light commercial buildings. A 'proof of concept' suite of works will inform this common set of asset data dictionaries across the public sector. A Better Business Case will be finalised by 31 August 2016.				
Natural Resources Sector Information	a	LINZ is a member of the Natural Resources Sector (NRS) Information Leaders Group which is tasked with overseeing NRS information as an asset, taking a systems perspective, so that the power and value of open, integrated and shared information is realised.				
Smart Cities Programme	a	LINZ is co-ordinating proof of concept projects to investigate new 'sensing technologies' that have the potential to enhance the management of New Zealand's infrastructure and improve community well-being. Innovative technologies being explored include those that can measure air and water quality, and transport congestion, as well as technologies that can reduce the overall cost of deployment. Working collaboratively with local authorities, the programme is designed to test how to accelerate progress, create coherence, and transfer knowledge and benefits across New Zealand's major cities. A Better Business Case for the Smart Cities Programme will be completed by 31 December 2016. The project is funded by Better Public Services seed funding.				
Crown Property Centre of Expertise Programme Current initiatives include:		The CPCoE provides leadership across government in the management and disposal of property. Services provided by the CPCoE include property portfolio management, financial management, asset management, and property maintenance. Crown agencies are able to use the CPCoE's expertise to assist them in selling their surplus Crown property. Since its inception in 2013, LINZ's CPCoE has signed Memoranda of Understanding with seven Crown agencies, including the Ministry of Education, New Zealand Police, and the Ministry of Justice.				
Property Disposal Fund (excluding Residential Red Zone properties)	a	Crown agencies benefit from disposal of surplus property through a reduction of on-going capital charge, depreciation, and other asset related expenses. The Crown benefits because property disposal allows for capital to be re-purposed to higher priority needs. However, cost of disposal can be a barrier for Crown agencies, especially if they have very constrained operational funding and are trying to dispose of multiple properties that can have low or moderate value. This initiative proposes a fund that LINZ client Crown agencies can access to increase their volume of disposals by 270 properties over and above those already funded within baselines. The five year (2015/16-2019/20) cost is estimated to be \$6.3 million and the corresponding expected gross proceeds total \$31.5 million. Savings in operating costs of approximately \$3.1 million are also expected of the same period.				
Mapping Wilding Conifers		An integral part of the wider joint LINZ, Ministry of Primary Industries and Department of Conservation business case deferred from Budget 2015. The objective is to reduce the negative impacts and costs of wilding conifers destroying iconic landscapes and threatening economic growth through depriving farms of essential water.				
Review of the framework for Crown land acquisition management and disposal	a	The legislation governing the acquisition and disposal of land has not been amended since 1987. We are carrying out a review of the framework to ensure it is still fit for purpose and conforms to international best practice, ensuring decisions are made as quickly and as effectively as possible. This review is expected to be complete by the end of 2015/16.				

Programme of Work	Initiative	Strategic Objective	Description	2016/17	2017/18	2018/19	2019/20
Elevation Initia Current initiatives			Programme of work that includes the coordination of land LiDAR and the development of a new improved elevation dataset and sub one-metre digital elevation model focused on freshwater flooding.				
Investigate eleva investment option			Develop a business case support a bid in Budget 2017 for further investment in LiDAR – a critical component supporting LINZ's Resilience strategic objective.				
National Elevation Initiatives Phase Coordination			The LiDAR programme aims to provide a complete Digital Elevation Model over New Zealand.				
Geospatial Wor Programme	·k		The Geospatial Work Programme leads New Zealand's Geospatial Strategy and the development of the national Spatial Data Infrastructure (SDI) in order to: help to build geospatial capability in New Zealand; lead New Zealand's user-driven research in spatial information working with CRCSI; develop and implement fundamental datasets and standards development; and support the establishment of fundamental data stewardship. An example of current prioritised work focuses on identifying how best to link address, administrative boundary and property data to data about people. This could reduce problems that key agencies currently experience in locating people.				
Integrated Prop Services Progra (IPS)	amme	a	LINZ, MBIE, MfE and DIA are working jointly to progress Integrated Property Services (IPS) with local government. The programme aims to make property information held across central and local government more readily available and easily accessible. IPS has the potential to improve decision making, such as buying, selling, building, developing, and maintaining property. The programme also supports local government and the private sector to use building and property information in new and innovative ways to improve service delivery. For example, LINZ is leading work with those who hold property information to determine who uses it, whether there are data gaps, and agree a common way to describe it. In the future, IPS will enable a simpler and easier customer experience that will reduce time, costs, and the number of interactions with government.				
Property Data Ma Framework	anagement	6	The Property Data Management Frame work seeks to solve inconsistencies between the way information on building footprints, addresses, land parcels, rating units, and ownership data is handled across multiple agencies and systems.				
Mapping New Z Programme Current initiatives			A work programme to join bathymetry, elevation and other data in an integrated vertical datum across land and sea. It will encompass all of New Zealand's territory above and below the water line.				
Investigation of r datasets	resilience		Programme of work to understand how LINZ can contribute to datasets and information to enable better determination of and impacts from river flooding risk; have better quality and consistency of data that will enable aggregation of data at a national level to support evidence based investment and risk response decisions around river flooding risk (for example, building footprints dataset); and enable better understanding of flooding and impact from river flooding risk.				
Historic Imagery	Scanning		The imagery programme is scanning the entire Crown historic aerial photo archive, and will continue to coordinate the procurement and publishing of aerial imagery. Implementing the historic imagery scanning programme: managing the project transitioning the project into BAU; reviewing after four years; seeking new local government scanning partners to develop our business case for a second phase of scanning.				
Te Ture Whenus Land Act reform Current initiatives	ns		Te Ture Whenua Māori Bill is the most significant reform of Māori land law in a generation. It will help realise the promise of tino rangatiratanga of Māori over their land. The reform protects the status of Whenua Māori as a taonga tuku iho with special significance to Māori, and promotes its retention. It is intended to empower owners to use the land however they agree best suits their vision for their whānau, hapū or iwi. It puts in place options for more robust governance structures for thousands of blocks of Māori freehold land currently governed by Trusts and Incorporations or without formal governance entities. The three components of the proposal are Te Ture Whenua Māori Bill, the Māori Land Service (MLS) and a refocused Māori Land Court. The MLS is dependent on the enactment of Te Ture Whenua Māori Bill, with the MLS programme an enabler for many of the Bill's proposed reforms.				
Te Ture Whenua	Māori Bill	a	A bill to repeal and replace the Te Ture Whenua Māori Act.				
Māori Land Servid	ce	a	The cross-agency multi-year programme will set up the Māori Land Service, the 'front door' for a suite of services that will support the retention, management and utilisation of Māori freehold land. It will provide important administrative services, make information available, and deliver support to Māori land owners. LINZ will manage the technology and infrastructure behind the Māori Land Register, which is the primary technology solution to land ownership and governance information. These services recognise LINZ's strength in managing land information. In July 2014, Cabinet agreed the MLS would provide the following services: 1) Supporting owner decision making processes. 2) Administering a mediation service for Māori land owners (including Court ordered mediation). 3) Maintaining the record of Māori land ownership. 4) Providing information services for Māori land ownership and title. 5) Providing registry services for Māori land governance entities. 6) Appointing and overseeing external managers. The MLS is a cross-agency programme between Te Puni Kōkiri, LINZ, and the Ministry of Justice. It will provide administrative functions replacing some existing legal functions of the Māori Land Court, as well as providing support, advice, and mediation services to land owners.				

Programme of Work	Initiative	Strategic Objective	Description	2016/17	2017/18	2018/19	2019/20
Independent Current initiati							
Advanced Surv Service	vey and Titles	6	Advanced Survey and Title Services will modernise and secure the future of the survey and title system by introducing a flexible, readily adaptable technology platform that delivers greatly enhanced services to our customers. It will allow us to seamlessly deliver property services and information across organisational boundaries and systems. This platform has been approved to proceed to procurement 'as a service' – meaning a third party will build and maintain the system and we will retain ownership of the property information.				
Canterbury Pro Boundaries	operty	a	Cabinet has made decisions for determining boundaries on land affected by movement resulting from the 2010 and 2011 earthquakes. The following work is needed to implement those decisions: new legislation, new deemed regulations (rules), supporting guidelines and guidance, changes to operational policies, processes and procedures, adjusting representation of boundaries on Landonline, release technical information, resurvey boundaries for inconsistent surveys, ensure continuing building and development rights, review implementation is achieving policy objectives, review implications of policy for NZ-wide disaster response.				
Managing Prop Relationships (a	This initiative is seeking to populate the data linking capability that will be provided by Advanced Survey and Title Service (ASaTS), building on the Property Data Management Framework produced as part of the Canterbury SDI.				
Open Governm Information an Programme			The Open Government Data and Information Programme works to drive access to high value data across government by: supporting central government, local government and Crown Research Institutes to proactively release data for reuse; encouraging wider public sector data supply; working with civil society to increase user demand for public data; looking at what will accelerate agency's release of open data and information; and building awareness about open data – how to release it and where to find it.				
Syndicated Da	ata Services		We are establishing a syndicated contract for data publishing that all Government agencies can access to set up their own publishing service to share data and information openly (based on the LINZ Data Service model). The syndicated contract model and Software as a Service platform will reduce agency procurement and IT infrastructure costs as they will not have to invest in sourcing and establishing their own platform. It will increase interoperability, and improve standardisation for agencies releasing mainly geographic data.				

OUR OPERATING MODEL AND CAPABILITIES

This section outlines our operating model, delivery of core business, and highlights the work we are undertaking to improve our capability.

Our operating model

After developing our vision in 2013 we commenced work to evolve our operating model.

We described our desired operating model through a number of interconnected components

These components outlined the change we wanted to achieve across our:

- · Culture and values
- People and capability
- · Structure, leadership and governance
- Systems and processes
- Finance and assets
- Key activities and services
- Customers and stakeholders.

For each of these components we identified the desired future state and we are undertaking the shifts necessary to achieve these.

Our operating model is designed to drive cross-LINZ collaboration, coordination and focus

In 2014 we started making these shifts by ensuring we had the optimal structure, governance and leadership frameworks and capability in place through our alignment process.

In 2014/15 we:

- Reshaped senior capability by creating five new Deputy Chief Executive positions reporting to the Chief Executive
- Formed the Executive Leadership Team with a primary collective responsibility of focusing on 'up and out' by representing us externally and building relationships that all of LINZ can leverage in pursuit of our vision
- Formed the Horizontal Management Team (HMT) comprising selected Tier Three leaders from across the organisation to take more responsibility for the 'day to day' running of LINZ
- Empowered HMT to establish temporary crossfunctional groups to tackle and resolve organisational challenges
- Placed some key pan-LINZ roles in each business group to ensure a broad view

 Commenced a culture and leadership development programme aimed to support our shift to a more outward facing operating model.

In 2015/16 we:

- Continued the culture and leadership development programme, embedding in our revised values and rolling out the leadership development programme to Tier Four people leaders
- Strengthened our planning, prioritising, and performance systems to allow us to be more disciplined
- Developed our strategy and outlined our strategic objectives
- Separated HMT into two distinct groups to better clarify roles and responsibilities:
 - The Operational Management Committee (OMC) to oversee business planning, performance, and risks; and
 - The Portfolio Panel which provides assurance to ELT that projects and programmes will deliver and contribute to LINZ's three Strategic Objectives. The panel also ensures that LINZ makes good funding decisions
- Placed greater emphasis on engaging with our customers, stakeholders and partners through the recently formed customer insights team and stakeholder engagement role
- Will refresh our Information Systems Strategic Plan to reflect the changes made to our strategic direction in 2015
- Will be developing a financial model to support our strategic plan. The model will integrate a number of facets such as capital/operating expenditure, inflationary pressures, appropriations, overhead allocations, and cash flows. The model will provide a 10 year view of our projected financial position.

Over 2016-20 we plan to:

- Continue to embed our values
- Strengthen our planned way of working across the organisation to achieve our goals
- Continue to embed our continuous improvement philosophy through 'Better Every Day'
- Strengthen our focus on health, safety, security and wellbeing
- Develop our Employee Value Proposition
- Continue to strengthen our leadership and management capability
- Review and refresh our outcomes and performance measurement frameworks
- Continue to evolve the role of OMC and the Portfolio Panel in running the business.

Our structure

We are structured into five business groups

To deliver our core functions LINZ is structured in five business groups:

- Location System
- Location Information
- Property Rights
- Crown Property
- Corporate.

During the 2014 alignment we deliberately placed some key pan-LINZ roles in each business group to drive cross-LINZ collaboration⁸, shown in figure 5 below

Figure 5

Our capability

We are working to shift our culture and behaviours

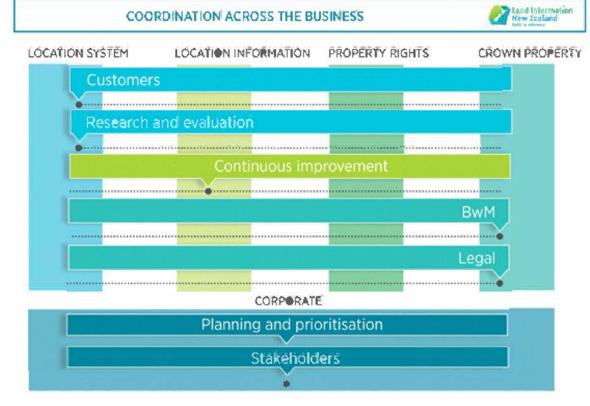
Our Performance Improvement Framework review identified we needed to shift our culture and behaviours to support our desired operating model.

A key focus throughout 2015 has been to understand our current culture and define the right culture we need to achieve our 10 Year Vision.

To do this we ran workshops, attended by over 80 percent of staff, to find out what our people's experience was of our current culture, what their views were of a 'right' culture and what their role should be in creating that culture for LINZ.

This was distilled into key themes that encapsulated

how our people perceive our current culture.



A series of actions have been put in place to address the raised issues. The most urgent of these was to introduce policy and guidelines outlining LINZs Zero Tolerance stance on workplace harassment, discrimination, bullying, violence. Alongside this, we rolled out sessions to staff on personal taking responsibility for being the best version of ourselves.

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⁸ Further detail can be found on our business groups in Annex 5

Our new values are Bold, Expert and Stronger Together

We launched our new values in December 2015 so that our people understand not only where we are going but how we need to behave to get there.

We will embed these values into our recruitment, induction, performance management, development and communications processes. They serve as anchors for our behaviour, for guiding our decision making and as a succinct reminder of what's important to us.

The 'manaaki' theme within the Stronger Together value describes our commitment to creating a workplace based on diversity, inclusion, and respect.



We are building a continuous improvement philosophy around being Better Every Day

To deliver on our vision we recognise we must strive to be better every day in our work.

This means everyone, everywhere, at every level is looking for opportunities to increase value to our customers. Many of our people, teams and leaders already approach their work in this customer-centric way and, over the next four years, we will build on this.

Developed by the State Services Commission, the Better Every Day approach gives us the tools to manage and improve our work. More importantly, it's a philosophy that drives system and customer-centric thinking.

Over the last two years, we have progressively introduced the Better Every Day approach to our survey and title processing areas with an initial focus on increasing the capability of our people to allow us to meet customer demand.

In 2016/17, we will continue to grow Better Every Day thinking and practice in our Property Rights, Corporate and Crown Property Business Groups, with support from the State Services Commission (SSC). For other groups, our Executive Leadership Team will lead their people to grow, strengthen and embed customer-centric, systems thinking in what they deliver. From 2017/18 onwards, we will continue to review, plan and deliver activities to build Better Every Day thinking across LINZ.

We are growing our Leadership and Management capability

We are piloting the use of SSC's Leadership Success Profile to describe the leadership capabilities needed to deliver our strategic plan. We are working to embed this across our recruitment, performance management, development, and talent processes throughout 2016, ahead of the 2017 all-agency deadline.

It is important that we align ourselves with the wider system as soon as possible, as many of our capability challenges can only be met by providing our leaders with increased external exposure and opportunities for collaboration. There is likely to be a need to 'buy in' or borrow certain skill sets from other public sector agencies and the private sector. A common leadership language at the public sector level will help to facilitate the transfer of capability and talent we need.

Our recent focus has been on understanding what the capabilities look like, making them meaningful for LINZ and aligned with our values.

Our Whakapakari programme underpins our approach to Business with Māori

Over the past two years we have invested in building capability to do business with Māori. The Whakapakari programme works to develop knowledge of the Māori world view, and skills in building relationships with Māori in a business context.

Leadership and **Actions** Management Capability Leading strategically We need to take the strategic thinking capability that's evident in some of our specific business areas and extend it to thinking in a joined up way across LINZ and the wider system. We will do this by: Exposing those leaders at all levels with demonstrable strategic thinking ability to broader experiences, points of view and issues through secondments, mentoring and short term placements (internally and externally) Increasing the systems thinking skills of all of our leaders Strengthening our leadership recruitment processes to better assess strategic thinking capability. Creating the space for our leaders and teams to connect, think and reflect Bringing the outside in through regular presentations from thought leaders We need to promote the use of geographic information to anyone involved in solving NZ's Leading with influence problems and realising its opportunities. We will do this by: Providing our external facing staff with the skills to ask strategic questions to better understand the issues facing other organisations, whether they are customers or not. Providing all staff with storytelling skills to confidently talk about LINZ's work and the impact that it has. Encouraging more secondments and short-term placements in and out of LINZ to better develop a mutual understanding of respective organisations. Increasing the commercial acumen of leaders to enable them to talk to customers and stakeholders about business impact Broadening and deepening our capability to do business with Māori Leading at the political We need our staff to be more politically savvy. They need to understand how the political system works (in the context of what they do) and how it can be an enabler rather than a interface barrier to making things happen. We will do this by: Facilitating more opportunities for staff to gain exposure to the Minister and the Minister's office Continuing to build the Ministerial Support team Rolling out 'writing for the Minister' training to ensure anyone involved in drafting or reviewing correspondence to the Minister has the skills to write effectively and appropriately to the audience We need to be smarter about how we work, both organisationally and individually. We will do Managing work priorities this by: Being clear on LINZ's roles and priorities at the 1 year and 4 year time horizons, and cascading these through the organisation Expanding the use of continuous improvement methodologies to make work more efficient and customer focused Continuing to implement tools and systems to prioritise our work and make investment decisions Increasing the skills of leaders and their teams to prioritise their work, remove noncritical activities and effectively manage their time.

The focus of the programme has been on those roles and teams who have high engagement with Māori. Over the next four years we are looking at how we can extend this training for these individuals as well as building greater tikanga and te reo awareness at all levels of the organisation.

We will do this by:

- Reviewing and revamping the te reo learning resources for staff encompassing online, classroom and coaching resources
- Reviewing the Mana Whenua induction programme for Wellington based staff in conjunction with Taranaki Whanui
- Investigating the opportunities for similar Mana Whenua programmes in conjunction with Ngai Tahu in Christchurch and Waikato-Tainui in Hamilton
- Refocusing the Sam Brown Scholarship to provide educational opportunities for leadership in a Māori context.

 Working with other NRS agencies to leverage resources across all of these areas.

We are focused on sustaining key technical capability

Across a number of business groups, there is increasing need for skills in Geographic Information Systems and modern mapping technologies. We have initiatives to develop awareness and capability in this area:

- GIS summer intern positions have been set up within the Topographic and Addressing team to identify talent in this area for the future
- A Masters of Geographic Information System scholarship continues to be offered to allow staff to study this area to postgraduate level
- Introductory level GIS training has been rolled out to users across all business groups.
 Over the next year, user groups will be introduced to facilitate ongoing learning and

- application. Beyond this we will look at what role we can play in facilitating user groups externally
- Targeted recruitment of technical mapping experts to design specifications and coordinate/deliver a national LiDAR mapping programme for New Zealand.

We are building our planning, performance and investment management capability

Improving our prioritisation and initiative selection is becoming a stronger aspect of business planning at LINZ. It allows us to focus and allocate resources for 'running the business' and 'changing the business'. We developed a 'AAA' (attractiveness, achievability, affordability) prioritisation framework that, along with our agreed strategic objectives, will provide us with a discerning filter to aid selection of initiatives and activities to pursue. This represents a significant capability shift for LINZ, for our senior leaders, and our line managers. This work has recently commenced and we expect it to mature over time.

We have established a Portfolio Panel to ensure that we are choosing to do the right things and are getting the right outcomes. The panel manages demand for capability and resources across the portfolio by assessing proposals, making decisions on commencement and funding, and tracking progress and benefits realisation through the governance structures agreed for each initiative.

We have identified and prioritised our strategic initiatives. These are the critical few initiatives that seek to transform or sustain LINZ outcomes.

This work meant that we had better information to

support the Natural Resource Sector Budget bid process for 2016, and to support our own strategic and annual planning and budgeting processes. We've also more clearly outlined the business improvement initiatives underway⁹; those that aim to improve the delivery of our current products and services over the coming years. These initiatives are funded from within baseline.

Our regulatory approach

We use an 'optimal regulation model'

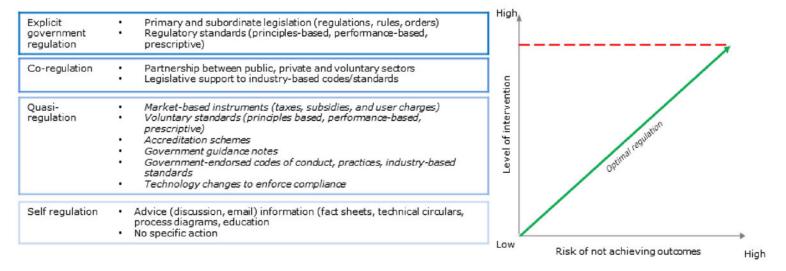
LINZ's regulatory approach was developed between 2004 and 2010 and is based on an 'optimal regulation' model, shown in Figure 6 below.

The model is used to help balance the level of intervention (the tools chosen) against the risk of not achieving outcomes. For example, self-regulation amounts to keeping a watching brief and providing information and advice where needed. In contrast, explicit government regulation is using an Act or regulations. In terms of LINZ's activities, this includes promoting amendments to legislation, making regulations, prescribing rules or standards by a regulator (for example, by the Surveyor-General, the Valuer-General, or the Registrar-General of Land).

A stocktake was carried out in 2010 using the logic of optimal regulation. This process significantly reduced the volume of published information and regulatory instruments needed to support our regulatory activities.

LINZ saw the benefits of adopting this approach as supporting reviews, building in-house expertise and raising the effectiveness of our regulatory activities.

Figure 6 Optimal regulation and the regulatory toolkit



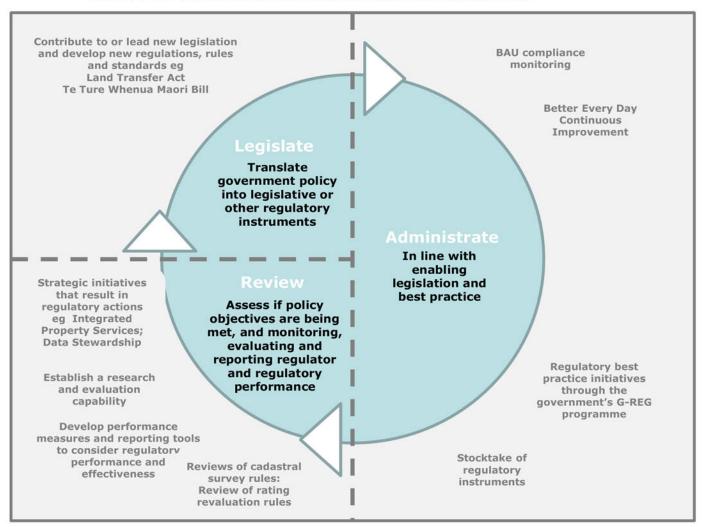
⁹ Further detail on key business improvements across business groups can be found in Annex 5

Optimal regulation is designed to make sure the regulatory tools we choose are 'fit-for-purpose' and focussed on end results, not just processes.

The optimal regulation model still forms the basis of our regulatory administration and organisational structure. However, we are using opportunities in our work programme to review and refresh the model, in light of the Government's response to the 2015 Productivity Commission's inquiry into regulatory institutions and practices.

In this 4-year plan, we have initiatives that will improve our regulatory activities. They include discrete projects and wider programmes to evaluate our performance and effectiveness in delivering outcomes. Examples of these initiatives and how they fit with the regulatory processes of review, legislate and administrate are shown in figure 7 below.

Figure 7 The regulatory process and LINZ initiatives (from 2016)



Based on regulatory process concept diagram in 'Better Practice Guide', Australian National Audit Office 2014

Our workforce

We identified priority workforce segments that are critical to sustain

Given the diversity of the work that we do, there are a wide range of workforce segments that are critical to continuing to deliver our services and achieve our strategic objectives.

This creates a challenge in managing our workforce as we do not have the economies of scale to leverage the approach to any given workforce segment more broadly.

Capacity constraints will continue to have an impact on us

We recognise this reality and are working to better prioritise our work so that we can make decisions about where to allocate scarce resources.

We anticipate increased demand will affect volumes in the survey and title operations area over the next four years.

Likewise demand and service levels will also have an impact on the Overseas Investment Office.

These changes can be seen in our FTE projections.

Over the next year we will focus on building a workforce planning model for Operations to better allow us to manage capacity.

This work will seek to better understand all of the variables that affect processing volumes and current and future staffing requirements. This will help us to better forecast recruitment needs, understand the impact of time away from operational work, and better facilitate staff progression through career paths.

NZIER forecasts indicate that over the next four years our survey lodgement volumes are expected to increase by 25 percent, and our title lodgement volumes are expected to increase by 19 percent. This means that our frontline operations will require more people to meet our increasing customer demands.

In our survey and title operations area, there is a need for additional FTE, both to take on data management and support responsibilities for the cadastre and property data we produce, and to meet the increasing transaction volumes from our customers. The support roles will respond to customer queries and ultimately support better use of this data by customers. These datasets are one of the five that LINZ has stewardship responsibility for as part of the National SDI framework.

Our size, technical and specialist nature presents recruitment challenges

Our workforce comprises a number of small, specialist technical teams which present challenges for resourcing, retention, and succession planning. In particular, these specialist skill sets cannot be easily moved around to alleviate workload challenges in other teams.

We continue to be challenged with the recruitment and retention of certain occupational groups.

Withheld under section 9(2)(j) of the OIA

Over the next year, we are seeking to develop an Employee Value Proposition to define and sell the benefits of working at LINZ. This will include references to our culture, values, flexible working practices, the varied and interesting nature of our work and opportunities for growth and development. The diverse nature of our workforce means that the Employee Value Proposition will need to be targeted to different employee segments.

Our diversity is a strength

We know that we will only succeed if we build a workforce with a range of skills, capabilities and experiences.

One demographic area that we need to increase our focus on is age. At the younger end of the age spectrum, our summer internship programme and Young Professionals Network are providing us with greater visibility, and a better understanding, of the younger generation. At the other end of the spectrum, our revamped wellbeing strategy focuses on how we can better support our staff to effectively transition to retirement.

As part of our culture programme we are relaunching our strengths based workplace programme. This programme encourages staff to understand and work to their strengths, while also understanding and working with the strengths of others. This reflects our basic philosophy that all of our people are individuals and can make a unique contribution to the achievement of our vision.

We are ensuring our people are safe and well

We have strengthened our health and safety focus and realigned our wellbeing programme to ensure that LINZ is a safe and healthy place to work for all of our people. This is important for LINZ for the following reasons:

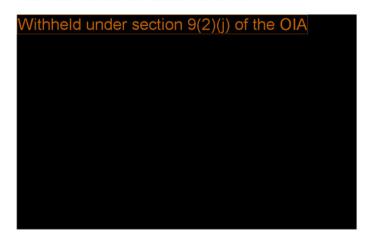
- A number of our teams work in the field in places like the Canterbury high country, or at sea, increasing our risk of serious harm injuries
- We engage third party contractors to carry out some of the above work and are liable for their health and safety
- The implementation of the Health and Safety at Work Act 2015 in April 2016
- The transfer of some of CERA's responsibilities to LINZ also brings increased exposure to safety risk given the dangerous nature of this work.

We improved the governance structure of health, safety, security and wellbeing and have worked closely with 'high risk' teams to understand and manage their specific risk areas. Our focus for the next four years is to:

- Integrate CERA Health and Safety processes, systems and practices
- Encourage active participation in health and safety across LINZ
- Empower our people at all levels by making health and safety responsibilities clear and ensuring they are understood
- Increase the health and safety capability of our people through focused programmes and appropriate systems, tools and information
- Implement a planned approach to ongoing hazard/risk identification, assessment and management of such hazards/risks
- Implement a comprehensive approach to workplace and contractor inspections/audits and the control of hazards/risks
- Undertake collective bargaining this year and develop our approach to working with the PSA, who are represented on our committees, on this.

Managing our workforce costs

The capacity challenges outlined above will have a direct impact on our workforce costs.



What we deliver in remuneration adjustments over the next four years must support retention and engagement levels. Feedback from exit surveys and the increase in the number of appeals received from staff challenging their annual remuneration outcomes suggests that remuneration is becoming a factor in people leaving or their engagement. As a result, we need to ensure that our remuneration policies support retention and our remuneration practices are sufficiently competitive to recruit from the external market.

Withheld under section 9(2)(j) of the OIA

Our continuous improvement work within Survey and Title Operations is helping to reduce overall processing times by identifying inefficiencies and reducing errors. This should enable us to support some future demand increase without necessarily needing to increase FTE. The resources to support the continuous improvement work will result in some short to medium term resource challenges.

Workforce demographics Gender **Ethnicity** Age Number 54.3% New Zealand Over 60 Average Age Asian 3.4% Head count **497** FTE: **487** cap: **587** Annual leave Tenure Sick leave 0-1 Turnover 2014 2013 2015 10.1% 12.4% 7.1%

Our financial position

The major themes to our financial position include:

- The funding model under which we operate and consequent constraints including the volatility of third party revenue
- Cost savings and efficiencies made in recent years and implications for any further savings
- Capital constraints, including new capital and the effect of changes to accounting standards
- Inflationary pressures and our ability to absorb these given the cost savings in recent years
- The ongoing need to prioritise any new initiatives arising from our 10 Year Vision and consider alternative funding options.

Our funding model

We are funded through a mix of Crown appropriation and third party fees and charges

LINZ's total funding consists of approximately one third Crown and two thirds from third party. In some cases activities are funded by a mix of Crown appropriation and third party fees and charges such as the geodetic network and the addressing database.

Outputs from Crown funded activities are generally made available to users free of charge primarily through the LINZ Data Service. We are currently undertaking procurement to develop a syndicated contract for a data service, which will enable other government departments to piggy-back off our system without requiring us to increase our system.

Where third party fees are charged, they are done on a cost recovery basis. As a result, any over-recovery in any given year cannot be used to fund other activities.

We operate memorandum accounts for Survey and Title Operations, the Overseas Investment Office and Crown Property Clearances. In addition we are investigating whether a memorandum account would be appropriate for the production and sales of maps and charts. Where memorandum accounts are used, surpluses or deficits can be made in any given fiscal period as long as the balance of the memorandum account trends to zero over the medium to long term.

Property Rights generates approximately 53% of overall revenue

As at 30 June 2015 the memorandum account had a balance \$27.8 million. With turnover forecast at \$72.7 million for the 2015/16 financial year the balance is expected to increase to \$46.7 million. We expect to undertake a survey and title fee review through 2015-17, to ensure that cost recovery principles are met. It is expected that new fees will be in place for 1 July 2017.

By opting for the 'as a service' model for ASaTS, operating costs are expected to increase once the service goes live in 2020. A further fees review will be undertaken at this time.

We use NZIER to forecast Survey and Title Operations demand on cadastral survey dataset and titles processing. Recent forecasts (see below) indicate increasing demand.

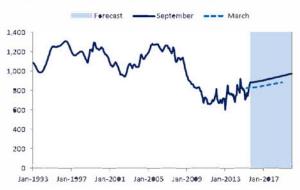
4. The outlook for LINZ

Expect steady growth in LINZ business lines

Figures 12-14 show the forecasts for key business lines for LINZ: Titles, CSDS and Electronic searches. The forecasts include data from August 2015.

All three products show strong growth. Recent months have been relatively strong for both Titles and CSDs although there is some volatility evident.

Figure 13 CSDs volatile but some solid months



Source: LINZ, NZIER

We are undertaking a fees and charges review for Overseas Investment applications

As at 30 June 2015 the memorandum account was in deficit by \$0.9 million. A review of fees for overseas investment applications has been under way for the last 15 months and final decisions were made in early 2016. The review addresses three issues: the slow processing of applications, the ongoing underrecovery of costs; and to increase our ability to more actively monitor consents. The proposal includes an additional seven employees, which will contribute to addressing the processing time and monitoring issues.

Crown Property Clearances memorandum account is forecast to go into a deficit position

At this point we have not commenced a review of fees and charges for property clearance applications from other government agencies.

We are looking to operate a Maps and Charts memorandum account

Chart sales cover the costs of production; however, map sales do not. In the last two financial years there has been a deficit in the cost recovery, which has been addressed by subsidising the production costs from Crown funds. A fees and charges review is underway that will seek to address the current under-recovery from the 2016/17 year. We are also investigating the use of a memorandum account for maps and charts.

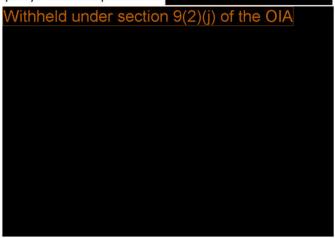
Our future cost pressures

We have continued to absorb inflationary pressures

Through prudent financial management, reprioritisation of funding, and implementation of new ways of operating we have managed to undertake new activities and provide efficiency savings from within the Crown baseline since 2008.

We expect cost pressures to present greater challenges

Over the next four years we expect cost pressures to present greater challenges in both Crown and third party funded operations.



Increasing complexity of overseas investment applications also requires additional resourcing in the Overseas Investment Office. A fees review is expected to offset cost pressures.

For the LINZ Biosecurity Programme, the National Policy Direction for Pest Management necessitates

additional resourcing to ensure we are fully compliant with the 'good neighbour' provisions of regional pest management plans. We estimate costs of \$1 million per annum to address this, and may seek additional funding from the Crown in the future to meet our obligations.

Annex 6 shows our 2016 budget bids, potential future bids, and cost pressures.

Prioritisation

Improved investment management and prioritising of initiatives ensure that we are better placed to address our cost pressures and to make decisions about our investments than ever before. Our portfolio panel are assessing initiatives against criteria spanning attractiveness, achievability, and affordability, to determine the relative worth of initiatives and make decisions about best use of our finite resources.

We continue to be capital constrained

Departments are expected to manage their noncurrent assets responsibly, with Ministers directing departments in 2012 to ensure that sufficient depreciation reserves are retained to replace existing assets when required. Our significant non-Landonline assets (for example, building fit outs, our financial management system, and our National Property and Land Information System – NaPALIS) are not expected to be replaced for five to seven years. This plan assumes that depreciation reserves will largely be required for replacement of existing assets.

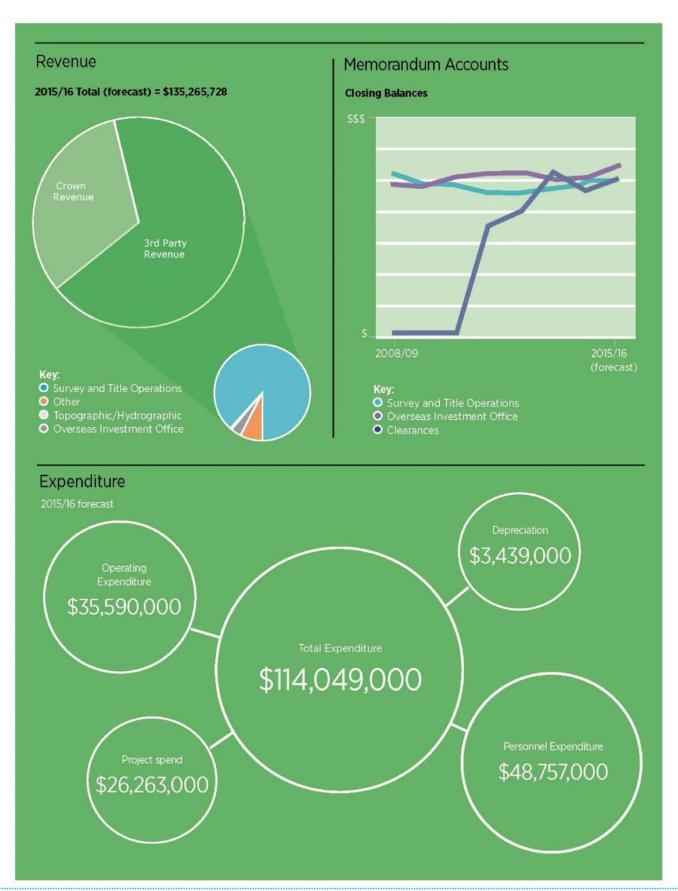
Our long-term capital plan indicates that we have sufficient capital funding to replace existing assets. However, a number of systems used within LINZ have been identified that were not originally capitalised when they were developed. When these are replaced, they will be classified as assets. We do not have specific depreciation reserves for these systems, and this will put pressure on existing capital funding.

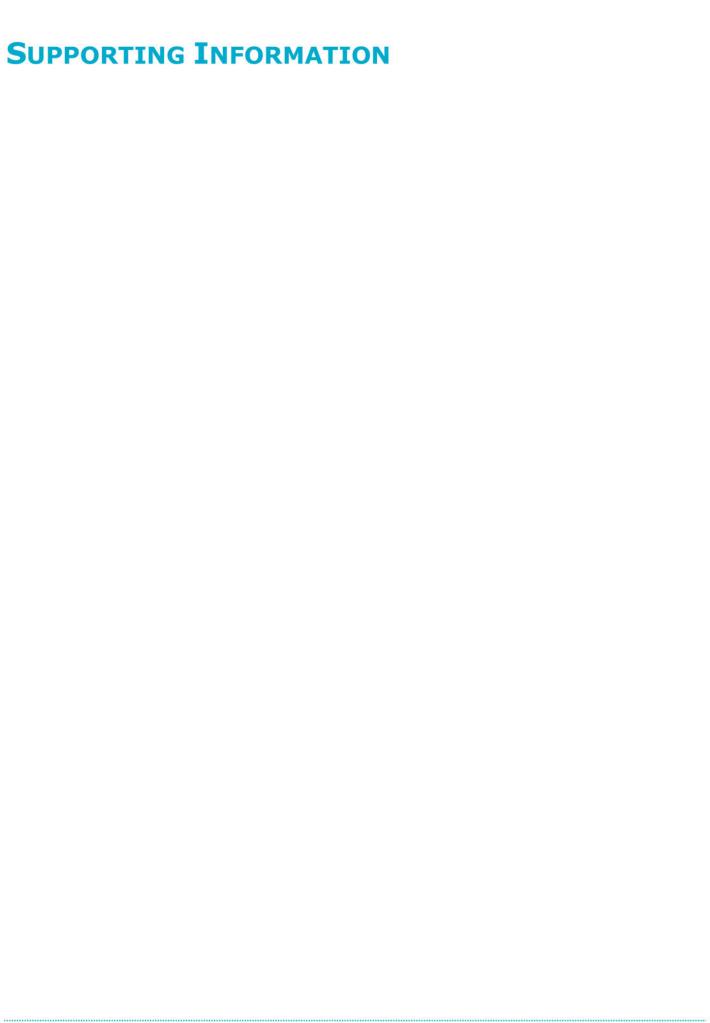
The Four Year Plan includes a small increase in new capital expenditure. Any increase in the asset base will result in additional depreciation expenses, which if not funded by increased baselines, will need to be absorbed.

Due to a change in accounting treatment, expenditure on some new types of data is now considered capital expenditure. An example of this is that we are collecting a new gravity data set. Data costs were previously classified as operating expenditure. At this stage it is not clear how significant the investment will be in new data. However, our capital base was not established with

this type of expenditure in mind. It is unlikely that we will be able to meet this need from existing depreciation reserves. Annex 7 describes our capital position.

Our financial position, pressures and funding model All data at 30 June 2015





Annex 1 - Our Outcomes Framework

Our Minister's Priorities

M1)0

M1 Opening Government data to create opportunities



Contributing to the Business Growth Agenda by working with regions and cities



M3 Leveraging LINZ's expertise across government

Our Business Groups

Location System Business Group

Property Rights Business Group

Location Information
Business Group

Crown Property Business Group

Corporate
Business Group

Our Outputs

Administering New Zealand's overseas investment regime

Managing Crown-owned and used land

Making location information available, accessible and usable

Managing New Zealand's property rights system

Ownership and management of Crown land affected by the Canterbury earthquakes

Providing policy advice and other support to Ministers

Our Impacts and Outcomes

O1) Confidence in property rights

- · Property rights are easily transacted
- · Integrity of the property rights system is maintained

② World-class location system

· New Zealand has a world-class location system

○3) Accessible geographic information

- · LINZ's geographic and property information is fit for purpose
- Use and re-use of geographic and location information is supported
- · Better utilisation of Māori land is enabled

©4)Sustainable use of Crown land

- The best economic, environmental and recreation uses are being made from Crown-owned and used land
- · More effective disposal of Crown land

Our Vision, Goal and Strategic Objectives

Ourvision

'the power of where' drives New Zealand's success

Our goal

grow by tenfold the value created for

New Zealand through the use of

geographic and property information

over the next decade

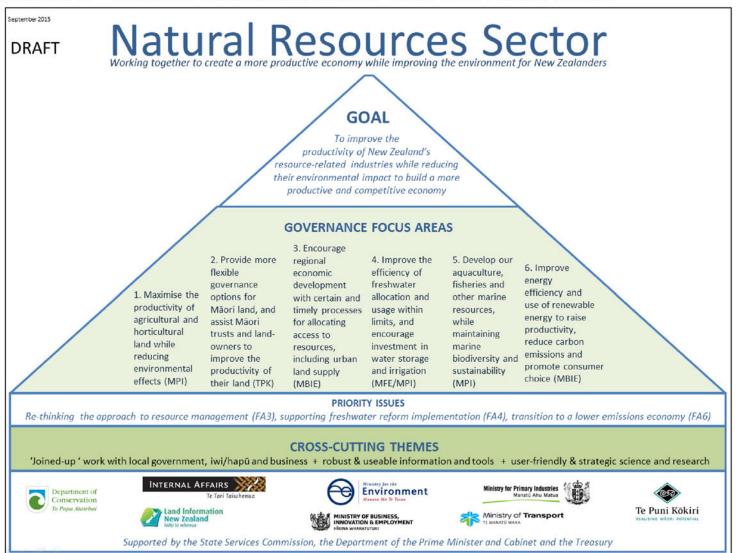
Our strategic objectives

- S1 Increase the use of geographic information
- S2 Unlock the value of property
- (S3) Improve resilience to natural events

Annex 2 – Overview of our key customer segments

Segment Group	Customer segment	Description	Needs Analysis
Commercial For-profit individuals or	Legislated Property Professionals	Commercial organisations who are legally required to interact with LINZ to complete property transactions	Ability to transact the majority of business online - quickly, effectively and at low cost
organisations who rely on LINZ's products, services and / or information in order to successfully run their businesses	Non Legislated property Professionals	Commercial organisations who interact with LINZ to complete property transactions, but are not legislated to do so	 Access to experts for infrequent transactions / exceptional circumstances Access to authoritative, up-to-date hydrographic products
	Mariners	Professional Mariners or Marine organisations, operating in New Zealand waters	 Access to information on LINZ products, including guidance on use Access to information and guidance on products and
	Retailers	Commercial organisations who on-sell LINZ products and services	standards, including how to be compliant and when to seek professional advice
	Value added resellers	Commercial organisations who use LINZ's products and services to create the product and services they offer	 Easy and cost-effective / free access to fast, reliable, authoritative, and up-to-date products and services, 24/7 Easy access to free, reliable and up-to-date property
	Asset Managers	Commercial organisations who use LINZ's information for asset management purposes (e.g. Utilities)	 information/ documents, 24/7 Access to historical documents Timely notifications of product updates, product changes, and new LINZ offerings
Public Sector Not-for-profit organisations who	Emergency and Defence Organisations	Organisations who use LINZ's products, services and / or information for emergency or civil defence planning and response	 Ability to provide technical feedback Access to reliable, up-to-date products, and technical
undertake their functions on behalf of the Government of the day who are wholly or partially funded by the Crown	Central Government	Publicly funded organisations undertaking functions on behalf of the Government of the day who are wholly or partially funded by the Crown, excluding emergency service, defence organisations and local government	 information Access to data in formats that can be easily transformed to value-added products and services Access to data in formats that can be easily manipulated
	Local Government	Local Government authorities	and integrated for specific needs Notification of broader LINZ initiatives that may impact
General Public and Interest Groups	Researchers	Organisations / individuals who use LINZ's products, services and / or information for research purposes	 segment Information on how to engage with LINZ
Individuals or groups who use LINZ's products, services and / or information for personal use or interest, or on behalf of those who	Recreationists	Organisations / individuals who use LINZ's products, services and / or information for recreation purposes	
require them for personal use or interest	Land Owners	Current or future landowners, or individuals / groups with a previous connection to the land	
Māori and Iwi	Māori: • The Federation of Māori Authorities • Te Tumu Paeroa Iwi: • Waikato Tainui Te Kauhanganui Inc • Te Rūnanga O Ngāi Tahu • Taranaki Whānui (via the Port Nicholson Block Settlement Trust)	LINZ has developed strategic relationships and signed Memoranda of Understanding with a selection of iwi and Māori organisations - (as named left). These organisations are significant users of land information. As part of our Treaty settlement obligations LINZ or the Commissioner of Crown Lands also have accords or deeds of recognition that require us to have relationships, or consult on specific matters with a range of Iwi. These arrangements will help build further relationships, identify new opportunities to address Māori and iwi needs, and help to inform the management of the land we look after for the Crown.	 Māori and Iwi want assistance to unlock the economic value of their land Land is fundamental to supporting the economic, environmental, social and cultural aspirations of Māori A desire for increased education on the value of location information to inform better and faster decision making on land and asset utilisation Ability to provide feedback to ensure our information and services are useable, accessible and fit for purpose Assurance that Māori interests in Crown land are expertly managed Increased capability through the provision of internships and/or secondments and the opportunity to participate LINZ's own internal training programmes

Annex 3 - Natural Resources Sector Goal and Focus Areas



Annex 4 – Overview of trends and their potential impacts on us

Trend	Driver	Description	Impact on LINZ
Urban Intensification	Social, Physical	 Pressure on the urban environment, and land supply. Infill housing. New subdivisions. Land banking. City as a customer. Citizen services – location aware municipal services using open data and standards. Globalisation Connected living. 	 Increased importance of aggregated land-related information; need to identify vacant Crown property Expectations of a broader cadastre (RRR); 3D cadastre; Topographic data in 3D Importance of 3D city models, interoperability with BIM. Sensor webs.
Climate change - Extreme Weather Events	Environmental	 More frequent and severe weather events affect coastlines, inundation, land parcels and pastoral land. Public expectation of a better response and resilience to events. Government urged to address the rights and restrictions of people living in vulnerable areas. Risk-based assessments used to prioritise remedial action 	 Demand for improved identification of high risk areas, greater frequency of updates, and improved timeliness of system information. Demand for interoperability and integration of marine geographic, broader hydrographic and topographic information for decision-making. Greater relative accuracy required between coastline and parcels.
Resource Stress	Environmental	 Combined pressure of population growth, economic growth and climate change places stress on natural resources including water, food, arable land and energy. 	 Demand by the public and government to have the information to understand resources in order to manage them. (Water, Land.) Demand for the information infrastructure that underpins it.
Rise of the Individual and E- citizens	Social, Political, Technological	 The citizen has a strong say on what gets done and how, with greater involvement in policy setting. Members of the public do more for themselves and desire one touch government. Advocacy groups have skills to source, analyse and present information to support their position. Social media empowers the exchange of information. 	 Services must be designed to be user-friendly, user-centric, and digital. Demand for translation of data to information, accessible on any device. Consumer base has grown beyond traditional geographic users to cover non-geographic users. Demand for shorter design and product development lifecycles
Māori Economic Strength	Economic	 Rapidly maturing governance and strength of the Māori economy. Drivers and decision will be made by Māori. The Crown will not be the only player. 	 Collaborative working relationships with Māori and iwi essential. Staff must be confident to work with Māori and iwi partners. Titles system must accommodate Māori system of title and ownership
Social Equity	Economic, Social	 The drive for affordable social housing heightens the need for information for decision-making. Information requests are less about resolution and accuracy and more about the images and intelligence that can be extracted. 	 Economic and social imperatives influence what LINZ delivers and prioritises. E.g., property rights, tenure decisions, expectations of ASaTS and IPS. Crown land register.
Open Data → Open Government Open Society	Political, Social, Legal	 Demand for inter/national consistency and leadership so that information is managed as a national asset to support decision making. Stronger interoperability and integration between geographic and statistical authorities and agencies looking after the economy and land. Increasing multi-agency programmes. Central, regional, and local government, and iwi collaborate to progress joint actions to meet mutually agreed outcomes. 	 Urgency to deliver technical frameworks defining data collection standards, interoperability to make data work together, the infrastructure and ability to integrate data sets in a structured sense, and the services, tools and capability to use the data. Legislative imperative for SDI participation / compliance Relationships and collaboration across government services and sectors essential. PPP opportunities
Connectivity and Convergence	Technological, Political	 Technologies such as LiDAR, GNSS, camera and imaging sensors are integrated to enhance the productivity of customers' activities. Big Data technology. Tools for transforming Big Data into useful information include complex multi-dimensional processing and real-time handling of transactional data from sensors (including human), search engines, social networks and other sources. 	 Geographic convergence – technologies that were considered discrete and disconnected are increasingly connected and integrated. Big processing of Geographic data. Visualisation and analytics add value to data and information Higher quality and accuracy of data is expected
Smart Is the New Green	Technological	 Smart cities, smart products, smart technologies, smart infrastructure. 3D printing is commonplace. 4D printing gains mainstream acceptance. Sensory devices guide everyday lives. Smart grids and smart metres. Increasing automation of technology and introduction of cooperative intelligent systems. 	 Spatial intelligent architecture for Smart Cities will be an integrating force across geographic, civil and infrastructure engineering and technology, and build bridges between central, local government and the private sector.
Digital by Default, Enabling Technology	Technological	 'Digital natives' expect cutting edge IT: instant file sharing; infrastructure and services that connect ideas to implementation in real-time; immediate download response; zero processing time, tools fit-for-purpose. Increasing use and acceptance of different models for the collection, management and dissemination of data, including crowd sourcing for maintenance of geo data. Seamless integration of: GIS, Imaging, Augmented Reality, 3D modelling, sensor networks, GPS, IoT and location services. Development in Geo-semantics. 	 Urgency to speed up implementation of digital transactions across government. (ICT Strategy). Demand by customers for real time acquisition of data, near real-time analysis. Acceptance of crowd-sourcing to produce 'data', to use information, and to provide feedback on it to improve it for all. Crowd sourced cadastre and datasets. Cybercartography - computer-assisted cartography, incorporating elements of geomatics and multimedia. Mapping becomes personal.

Annex 5 – Overview of our business groups

Location System Business Group: Location System focuses on fulfilling LINZ's leadership role on the location data system, meeting our steward responsibilities at both a location system and data theme level, discharging our regulatory responsibilities and providing policy advice.	Location Information Business Group: Location Information focuses on LINZ's custodial role – internally and externally – for specific data sets together with stakeholder engagement and cross-agency collaboration.	Property Rights Business Group: Property Rights focuses on the continued delivery of a world-class survey and title system and the development of a next generation technology platform.	Crown Property Business Group: Crown Property is responsible for Crown property business development, operational and advisory services, as well as Legal Services and the Overseas Investment Office.	Corporate Business Group and Office of the Chief Executive The Corporate Group supports the whole organisation with specialised services, knowledge best practice and technology, making sure LINZ runs smoothly and effectively. It translates strategic and operational decisions into action, helps the organisation manage change, and supports LINZ to plan and deliver services for New Zealanders.
Comprises the following groups: Office of the Surveyor-General and New Zealand Geographic Board Office of the Registrar-General of Land Office of the Valuer-General Policy and Frameworks Sector Data Programmes Cocation System hosts LINZ's Customer Insights team.	Comprises the following groups: National Geodetic Office New Zealand Hydrographic Authority National Topographic Office Addressing Data Services Location Information also leads work on the Māori Land Service, in collaboration with Te Puni Kōkiri and the Ministry of Justice. They also work with these agencies on the review of Te Ture Whenua Māori Act. Location Information hosts LINZ's continuous improvement co-ordinating function.	Comprises the following groups: > Survey and Title Operations (Christchurch, Wellington, Hamilton) > Property Rights Support > Technical Capability > Advanced Survey and Title Services Project Property Rights hosts LINZ's customer service functions.	Comprises the following groups: Crown Property Management Crown Property Centre of Expertise Overseas Investment Office Business with Māori Legal Crown Property hosts our legal function.	Comprises the following groups: Business and Regulatory Assurance Enterprise Portfolio Management Office Finance, Facilities, and Procurement Strategic Communications and Digital Services Human Resources Information Strategy and Delivery Strategy and Performance
Is undertaking business improvement initiatives ncluding: Improving our understanding of our customers Establishing a cross-sector programme of work for Excellence in the Cadastre and scoping a review of the Cadastral Survey Act Progressing review of the Valuers Act Improving information available on regulatory interventions	Is undertaking business improvement initiatives including: Historic imagery scanning Implementing the Positioning strategy Addressing Information Management System Phase 1 Syndication of the LINZ Data Service Mobile geodetic app enhancements New Zealand Hydrographic Risk Assessment Notice to Mariners policy review and website redevelopment	Is undertaking business improvement initiatives including: Establishing the Wellington Operations Office Landonline Map Objects Replacement Structured Learning Programme Improving reporting for Operations Developing a knowledge base for Operations Automation of Survey Approval in Landonline Integrating our continuous philosophy Better Every Day into Survey and Title Operations	Is undertaking business improvement initiatives including: > Right of First Refusal web-portal > Review of framework for acquisitions and disposals > Land bank > Crown Property Accreditation Framework > Crown Property Centre of Expertise website upgrade	Is undertaking business improvement initiative including: > Ongoing culture and values work programs > Implementation of an investment management framework improving project management > Improving website and intranet content > Improving business performance management
Key challenges include: Increasing engagement across government, and across sectors, including with local government Building capability, confidence, and credibility to influence and lead at a system level	Key challenges include: Being recognised by external agencies and stakeholders as leaders and influencers in the location system Withheld under section 9(2)(j) of the Compact to deliver	Key challenges include: Survey and Title Operations technical capability resource including aging population and lead times to recruit and train Revamping the Structured Learning Programme for new Property Rights Analysts to enable faster and more effective transition to full competence in the role	 Key challenges include: Increasing demand and more complex applications overseas investment applications Integrating CERA functions and people 	 Key challenges include: Retention of people with transferrable skill across the public sector Withheld under section 9(2)(j) of the Building corporate capability and working alongside the business

^{*}As at 31 March 2016

^{**}Corporate costs include all IT systems spending

Annex 6 - Budget bids and major initiatives

Budget 2016 Bids - LINZ or Lead Agency will submit a bid in December

Name	Description	Agency	BGA Stream	Work	16/17 - 19/20	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Withheld und	der section 9(2)(j) of the OIA													

Potential Future Bids

Name	Description	Agency	BGA Stream	Work	16/17 - 19/20	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Withheld unde	er section 9(2)(j) of the OIA													
Withheld unde	er section 9(2)(g)(i)													
Act														

Name	Description	Agency	BGA Wo	ork 16/17									
2			Stream	19/20	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Withheld und	der section 9(2)(g)(i) of the OIA												

Risks (Known financial risks that are currently unfunded)

F		_	T	г			1			18 3				
Name	Description	Agency	BGA	Work	16/17	2016/17	2017/10	2010/10	2010/20	2020/21	2024 /22	2022/22	2022/24	2024/25
			Stream		19/20	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Withheld und	er section 9(2)(g)(i) of the OIA	0			19/20				8	3 V				
vviu iriela aria	er section 9(2)(g)(i) or the OIA													

Cumulative General Inflationary Pressures (Cost pressures arising from procurement and wage inflation – will be addressed through efficiency savings)

Name	Description	Agency	BGA Stream	Work	16/17 - 19/20	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Withheld unde	er section 9(2)(j) of the OIA													

Annex 7: Capital Expenditure Withheld under section 9(2)(j) of the OIA

Template 1: Workforce capability and capacity information

Priority workforce groups

We provide a range of services requiring a wide range of technical workforce groups. It is therefore difficult to identify areas which are more important than others. However, looking at our longer term strategy, there are critical projects requiring critical roles. The two key programmes of work are the national spatial data infrastructure and Advanced Survey and Title Services (ASaTS). In addition to the roles needed for these programmes, there is a broad need for strong leaders and managers.

National Spatial Data Infrastructure

We are leading the creation of a national spatial data infrastructure. This function encompasses acting as Steward for five fundamental data themes within the spatial data infrastructure. Data Stewards are responsible for ensuring that investment in geographic information (by government in particular) is prioritised and purposeful. It also involves having standards and protocols in place to ensure access to data, interoperability and reuse, and that the current uses and future potential of geographic information is promoted and widely understood.

We are still scoping the Data Steward roles, so it is difficult to know at this stage whether there will be challenges recruiting or retaining this group.

Advanced Survey and Titles Services

Withheld under section 9(2)(j) of the OIA

Leaders and managers

Leaders and managers will play a critical role in the achievement of our strategy, both in terms of their own skills and behaviours and the role they play in developing the capability and culture of the wider organisation.

The current retention levels in this group are good and there is a strong focus on bringing in the right leaders through the use of our Leadership Success Profile in the recruitment process. This framework will, over time, be used as the basis of development efforts for current leaders at all levels of the organisation.

Recruitment



Workforce capacity

	31 Dec 2015	2015/16	2016/17	2017/18	2018/19	2019/20
Position numbers - departmental	621	621	646	656	652	636
Position numbers – non-departmental	0		0	0	0	0
ASaTS		+10				
CERA		+ 4	- 3	- 4	- 16	- 2
Overseas Investment Office		+ 5				
Other*		+ 6	+ 13			
% change year on year						
Total incl CERA	621	646	656	652	636	634

Additional positions taken on:

2015/16:

- 1 Continuous Improvement Coach
- 5 Policy positions

2016/17:

- 4 staff related to the transfer of the Office of Treaty Settlements land bank
- 9 staff for survey and title operations

Workforce costs

Our workforce costs are projected to increase over the next four years as we increase the overall number of positions.

The increase in costs is primarily driven by additional salaries and annual remuneration increases. We expect ongoing pressure on remuneration to recruit and retain technically skilled people to support our strategic objectives and priorities.

