

In Confidence

Office of the Minister for Land Information

Cabinet Economic Growth and Infrastructure Committee

Indicative Business Case for Advanced Survey and Title Services

Proposal

1. I seek approval to develop a Detailed Business Case for Advanced Survey and Title Services (ASaTS) to improve the quality and range of survey and title services LINZ provides to its customers and the means by which it does this. Improvements are required to meet customer needs, upgrade the technology base to ensure system flexibility, and to enable integration with other central and local government property functions.

Executive Summary

2. The survey and title systems Land Information New Zealand (LINZ) administers (using an application and service called Landonline) form the basis of New Zealand's property rights market (the residential component of which alone is valued at \$672 billion¹). These systems are critical to the ongoing functioning of the economy. The Landonline application was introduced in 2002 and required the digitisation of land records, and a shift from a paper-based system to full electronic lodgement of property transactions. It is now well-established and has resulted in significant time and cost savings for customers and a reduction in administration costs.
3. A second generation of investment is now required because the current technology platform supporting Landonline is becoming outdated and is increasingly constraining LINZ's ability to meet customer needs. It is needed to ensure system interoperability, and provide a more reliable and complete picture of all New Zealand land. The lead time required to complete business cases, go to market, and design and implement the preferred business solution is approximately six years. Therefore it is important that any decisions about this system and any investment required are made now.
4. ASaTS will contribute to a "Better Property Services" future that I (as both Minister for Land Information and Minister of Building and Construction) am

¹ Reserve Bank of New Zealand (2013). Retrieved from <http://www.rbnz.govt.nz>. This value includes all private sector residential dwellings, flats and apartments, 'lifestyle blocks' with dwellings, detached houses converted to flats and 'home and income' properties. Farms and publicly-owned dwellings are not included.

currently exploring with the Ministers of Local Government and the Environment. I am exploring better integration of central and local government property (including building) ownership, consenting and information services. My vision is for the integrated provision of government-mandated location-based property information and services. I envisage a future in which anyone seeking to buy, sell, build, renovate, develop or live on a property will be able to access the information and transactions they need via a service that shows all the rights, restrictions and responsibilities for that property. ASaTS will be one of the first building blocks of this future.

5. This future would provide a seamless customer experience, based on integrated, up-to-date, digital and location-based information, even though the supporting backroom functions may still be separately managed. This is a future that is consistent with and will contribute to the achievement of the Better Public Services Results 9 and 10 and the Government ICT Strategy and Action Plan. It is consistent with and will ultimately contribute to the achievement of the Government's goals for housing affordability and resource management. In all of these areas we are looking to provide cheaper, more consistent, customer-focused and easier-to-access services and information that New Zealanders need.
6. This seamless future property service will see improvements in timeliness, quality and cost-effectiveness. It will enable increased productivity. It will allow for the release of more valuable and usable sets of information for use both by government and the private sector enabling innovation. It is estimated that real GDP would be \$135 million higher in 2025 if we achieve this Better Property Services future². Officials from LINZ, the Ministry of Business, Innovation and Employment (MBIE), the Ministry for the Environment (MfE) and the Department of Internal Affairs (DIA) have agreed to this vision and are developing proposals to move forward, and I expect to report back on progress to this Committee by April 2014.
7. The attached Indicative Business Case for ASaTS assesses seven options. These range from a Base Case (which addresses some of the outdated technology concerns, but does not future-proof it or address customer needs) to an option that would require a complete overhaul of Landonline and provide the greatest range of service improvements. I prefer an option that comes close to providing the full range of improvements for customers and significant modernisation without requiring a whole-of-system overhaul. The preferred option will:
 - address outdated technology issues, while using some components of the existing Landonline application
 - enable full system interoperability (to enable LINZ to contribute to a future seamless property and building sector service)
 - modernise the existing service to meet customer needs and expectations (for example, enabling access to Landonline on mobile devices)

² From research currently being completed for LINZ by ConsultingWhere and ACIL Allen, to estimate the benefits of Better Property Services.

- provide for a better interface between users' systems and Landonline, reducing the time customers spend interacting with LINZ
 - provide a more complete record of all land in New Zealand (including a register of Crown-owned land and improved accuracy of Māori land information)
 - introduce capability to allow property boundaries, in the future, to be defined and shown in three dimensions (3D) of length, width and height tied to a location.
8. The preferred option for ASaTS currently has an indicative benefit cost ratio in the range of 1.1 to 1.4. The indicative net present cost³ for the preferred option for ASaTS is \$42 million⁴. The indicative net present benefit is in the range of \$50 to 66 million. I believe these initial estimates underestimate the true extent of the benefits as some of the more difficult benefits to assess have not yet been quantified. Research LINZ has undertaken indicates that the preferred investment bundle will deliver benefits to productivity and cost beyond what is included in the benefit cost ratio. These benefits include those relating to: 3D capability; improvements to the quality of information on Crown-owned land and Māori land; and system flexibility to enable future changes to be made more easily. Quantified estimates of these benefits will be considered as part of the Detailed Business Case development.
9. The preferred option is expected to take four years to fully implement and transition to business as usual (from the date of contracting business partners with LINZ) and will require up to 20 additional LINZ Full Time Equivalent staff (FTEs) at the peak of project implementation. Costs for developing the new system will be met by users of the system. Current forecasts show that the new system could be funded by means of cash reserves and user fees (which should be achievable without a need to increase user fees). However LINZ is seeking advice on whether this complies with public sector guidelines for fee-setting and cost recovery. The alternative is to seek a capital injection to be repaid by future user fees.
10. I recommend a Detailed Business Case be prepared and reported back to Cabinet by September 2014.

Background

11. The LINZ-administered cadastral survey and land transfer systems (survey and title systems) form the basis of New Zealand's land-based property rights market. They facilitate the sale, purchase and development of property, and are acknowledged as being world leading in providing certainty of property rights for businesses and homeowners (the residential property market alone

³ "Net present cost" refers to whole-of-life present cost.

⁴ Note that the net present cost figure of \$42m represents the net costs of the project, incorporating process efficiency savings that offset the costs of the project. The net present cost figure used in the benefit cost ratio calculation is the full cost of the project excluding financial savings. Process efficiency savings are then included as benefits in the calculation, ensuring there is no double counting of the process efficiency savings.

has been valued at \$672 billion in 2013⁵). For most New Zealanders, buying a house is their largest investment. This is true also for many businesses, where purchasing or leasing premises or a farm is a significant part of their capital expenditure.

12. The survey and title systems record and make available survey and land title information. Cadastral survey records relate to property boundary location (the physical extent of rights in land) and associated information. Title records relate to ownership and other property interests in land.
13. Since 2002, this information has been held in Landonline – the application and service that enables registered users (“users”) to access the electronic survey system and land titles registry via the internet. Users are primarily surveyors, lawyers and conveyancers who search and lodge survey data and title dealings, such as transfers of ownership and discharges of mortgage on behalf of the public. Other users include: real estate agents, banks, and valuers, who use the systems to conduct and view searches of land information; and territorial authorities, who use the systems to certify that survey plans are consistent with resource consents.
14. As land is a major source of wealth and wealth generation in New Zealand, the survey and title systems are critical to the on-going functioning of the economy. Banks readily accept title to land as security for a mortgage or personal loan which can be used to leverage other ventures and economic activity. Confidence in the certainty of property rights in New Zealand attracts overseas investment. Maintenance and enhancement of the survey and title systems therefore contributes to the Government’s overriding priority to grow the economy.
15. Information from the survey and titles systems is fundamental to the nationally significant geospatial datasets LINZ manages. LINZ is leading a cross-sector initiative to develop infrastructure that makes fundamental Government and private geospatial data available, accessible and useable. Cabinet endorsed the need for this work, noting that it represents an investment in New Zealand’s knowledge infrastructure, supports Government economic objectives and warrants inclusion in the government’s economic agenda [EGI Min (10) 30/14].
16. Accurate and reliable property information contained in the survey and title systems also supports emergency services, civil defence and infrastructure and mapping activities. Private organisations use and rely on the information, for example it is used to populate commonly used geospatial products and services.
17. Since the introduction of the Landonline application in 2002⁶, the digitisation of land records, and shift from a paper-based system to full electronic lodgement of property transactions, has resulted in significant time and cost savings for

⁵ Reserve Bank of New Zealand (2013). Retrieved from <http://www.rbnz.govt.nz>. This value includes all private sector residential dwellings, flats and apartments, ‘lifestyle blocks’ with dwellings, detached houses converted to flats and ‘home and income’ properties. Farms and publicly-owned dwellings are not included.

⁶ Landonline was introduced in Dunedin in 2000 and then introduced progressively over the rest of New Zealand.

users and their clients (“customers”)⁷, as well as a reduction in administration costs in real terms. Users make transactions in real time, thus saving days compared with the paper-based system LINZ used to operate. As well as faster processing turnaround times, customers have benefited from lower fees and reduced risks. The cost of operating LINZ services has declined substantially over the past decade in real terms, from \$67 million in 2003/04 to \$45 million in 2012/13. Since 2003, LINZ has reduced processing centres from 12 to 2 and survey and title processing staff numbers from 500 to 172. Staff expertise is now greater, as most high volume straightforward transactions are automated.

18. LINZ is required to operate the survey and title systems on a full cost-recovery basis. Costs (most of which are fixed) are recovered via third party funding from property transaction fees and charges paid by users, who disburse their costs to clients (property purchasers, owners and developers). The 2008 global financial crisis caused a dramatic downturn in the property market with a consequent impact on third party revenue to LINZ. LINZ received two capital injections, has been conservative in the setting of fees and charges, and will have repaid the capital injections by December 2013. Once this repayment has been made LINZ needs to reassess its fees and charges. There are approximately 12,000 active registered users. In 2012/13, they acted as client intermediaries for 617,315 survey and title transactions.
19. The property rights system in New Zealand is extremely efficient, and this country is currently placed second (compared with Australia’s ranking at 37), in the World Bank ranking of 185 economies in the ‘ease of registering property’ measure⁸. LINZ is committed to maintaining a top three ranking.
20. While the survey and title systems records held in Landonline are authoritative for all privately held land registered under the Land Transfer Act, there are gaps in the record of Māori land and Crown-owned land⁹ in Landonline. Although Landonline holds some Crown and Māori land information, the records are not complete. Manual checks are sometimes required for clarification of the records that are held within Landonline. Trying to access this information is frustrating, costly and often time-consuming.

Strategic context

A vision for the property and building sector: Better Property Services

21. The survey and title or property ownership system is one component of a broader property and building sector system. LINZ’s customers are often also customers of central and local government functions and services relating to permits and consenting for property (including resource management and building consents) and location-specific information (including local plans) provided by local government.

⁷ For the purposes of this Cabinet paper, “users” are registered Landonline users, and “customers” are users and their clients (or “end users”).

⁸ World Bank (2013) *Doing Business in 2013* Retrieved from: <http://wwwz.doingbusiness.org/>

⁹ “Crown-owned land” refers to any land held by government agencies and Crown entities (and does not include local authority land).

22. At present customers seeking to access location-based property services and information are required to contact a number of different government (central and local) agencies. The information and services they access are disconnected (from those of other agencies) and the information provided is often not interoperable¹⁰ with information or services of other agencies.
23. This can result in duplication of effort. The same information can be required more than once but in different formats to comply with the differing requirements of each agency. In many cases, the information or services are not digital or online, and often they are incomplete. It can be difficult for customers to know what services they need, where to access the services they need, and once found, these services can be difficult to understand and use. These issues not only make it difficult for customers when working with government, they also result in unnecessary time and financial costs for businesses and citizens.
24. I have asked LINZ to explore better integration of these central and local government property (including building) functions and services. LINZ is working with the other government agencies responsible for many of the policy and legislative frameworks within which property ownership, consenting, planning and location-information operate. These agencies are MfE, MBIE, and DIA.
25. The future I am considering is one in which consumers and business can experience seamless and consistent digital and online property services from all of the relevant areas provided or mandated by government. There are potential improvements in timeliness, quality and cost-effectiveness across these property functions and services that should enable increased productivity, and allow for the release of more valuable and usable sets of location-based information for use by both government and the private sector, and which can in turn trigger further innovation.
26. LINZ has commissioned research to evaluate and quantify the economic benefits to New Zealand that may result from seamless provision of central and local government property and building information and services. The final report will be available in late November. However, the initial results from the economic analysis show that real GDP would be \$135 million higher in 2025 if we achieve this Better Property Services future¹¹. LINZ is discussing the results of this analysis with DIA, MfE and MBIE, who have all agreed to the Better Property Services vision and are developing options for how to move forward. I (as both Minister for Land Information and Minister of Building and Construction) will discuss a way forward with the Minister for the Environment and the Minister of Local Government, and we will jointly report to this Committee by April 2014.
27. ASaTS will provide an essential building block to enable this Better Property Services future (because of the fundamental location-based datasets it holds and the interoperability it will provide with other government systems). Another

¹⁰ Interoperability is the ability for systems and organisations to easily 'talk to each other' in an automated way, enabling data and information to be easily shared.

¹¹ From research currently being completed for LINZ by ConsultingWhere and ACIL Allen, to estimate the benefits of Better Property Services.

building block is MBIE's National Building Consent System programme (NBCS). In August Cabinet directed MBIE to develop a detailed business case for a system that would enable online building consents [CAB Min (13) 26/9 refers]. ASaTS and the NBCS are currently being developed with the interoperable and seamless Better Property Services future in mind. A seamless service in the future will require all component functions to be provided in digital, interoperable and location-based formats.

Fit with other government strategies and goals

28. Proposals in this paper are consistent with and will contribute to the achievement of the Government's Better Public Services Results 9 and 10 by improving interaction across government and providing a seamless service to business and citizens in a digital environment. Cabinet's directive on *Directions and Priorities for Government ICT* [CAB Min (10) 35/5A] includes supporting improved access to government data and information through:
 - supporting the public, communities and business to contribute to policy development and performance improvement; and
 - creating market opportunities and services through the reuse of government data and information.
29. LINZ is noted in the Government ICT Strategy and Action Plan to 2017 as a leader in digitally delivered services. The Strategy and Action Plan sets out to transform service delivery through digital self-service channels and unlocking the full economic potential of government's information holdings. The Strategy is supported by a focus on services being digital by default (Government information and services must be joined up and easy to access through common customer-centric digital channels) and information being managed as an asset. Interoperability of systems is key to developing customer centric services. ASaTS is intended to be interoperable with other property sector systems.
30. LINZ encourages reuse of its survey and title data (and other location-based data) via the LINZ Data Service which was launched in 2011. The LINZ Data Service is currently provided free and online. The ASaTS and Better Property Services vision will enable the release of further datasets (for example, Crown-owned land) and ensure all survey and title data is interoperable with other location-based data in the government's property and building sector.
31. This survey and title data is also of fundamental importance to the achievement of the New Zealand Geospatial Strategy. In October 2006 Cabinet approved the New Zealand Geospatial Strategy [POL Min (06) 22-13]. In December 2010, the Cabinet Economic Growth and Infrastructure Committee endorsed LINZ as the lead agency to develop a formalised national spatial data infrastructure [EGI Min (10) 30/14]. This work is ongoing, and the New Zealand Geospatial Office (within LINZ) has been working on the design and implementation details for a national spatial data infrastructure. LINZ intends to report to Cabinet in 2014 on the recent developments and progress towards the New Zealand Geospatial Strategy and a national spatial data infrastructure.

32. Location-based data held by LINZ is widely used by central and local government and the private sector. Estimates of the value of using location-based information are significant. The use of location information added an estimated \$1.2 billion in productivity-related benefits to the New Zealand economy in 2008. By removing key barriers to accessing such information it is estimated that a further one-off boost of \$481 million in productivity related benefits and \$100 million in government revenue could be generated¹².
33. I believe the proposals in this paper are consistent with and will contribute to the achievement of the Government's agendas in housing affordability, Resource Management reforms, and Local Government reforms. In all of these areas we are looking to provide cheaper, more consistent, customer-focused and easier-to-access services and information that New Zealanders need.

Need for investment

Enabling Better Property Services: a seamless, digital, customer-focussed service

34. The Better Property Services vision described above is for the integrated provision of central and local government property (including building) functions and services. Consumers and business should be able to experience seamless and consistent digital and online property services from all of the relevant areas provided or mandated by government.
35. All components and functions of the future state will need to be provided in digital, interoperable and location-based formats. While Landonline is digital, the application and the information it holds is not interoperable. To contribute LINZ's part of the Better Property Services vision (and meet the expectations of Better Public Services Results 9 and 10 and the Government ICT Strategy and Action Plan) LINZ must update the means by which it provides its survey and title services to its customers to enable interoperability.

Meeting customer needs – outdated technology is frustrating and costing business

36. LINZ needs to begin work now on the ASaTS because the current technology platform is becoming outdated and it is increasingly constraining LINZ's ability to meet customer needs. Users are frustrated with the existing service. Landonline cannot be modified or updated quickly or easily to meet customer needs. It cannot be accessed on mobile devices, tablets or a number of operating systems (for example, Apple operating systems). It cannot hold and visualise 3D data. It poorly integrates with LINZ's users' own software (e.g. surveying or conveyancing software). These problems cost customers time, effort and money.
37. Landonline so poorly integrates with some business software that it is causing duplication of user time and effort. Landonline users need to manually enter the same data twice. For example, surveyors need to manually manipulate sophisticated graphical and spatial information produced by surveyors' core software so that it can fit with Landonline, which has more basic functionality. It

¹² ACIL Tasman Pty Ltd. (2009) *Spatial information in the New Zealand economy*.

is estimated that surveyors duplicate one hour and conveyancers duplicate up to 15 minutes of time on average per LINZ transaction.

38. In addition, the general user interface of Landonline is outdated compared to modern applications. It is not intuitive and requires extensive user training.

Landonline software and technology is costly to support

39. The software development lifecycle for the current system means that making modifications to improve service cannot happen quickly or easily. The duration for each release is likely to increase as the aged Landonline application requires more and more testing to ensure it works with users' future computing environments.
40. The current technology used to develop Landonline is costly to support. It is increasingly difficult to enhance, and will lead to an inability to reliably provide survey and title services in the future. Landonline was built 15 years ago, using the PowerBuilder software development language. This language was far more widely used than is the case today. Independent advice states that any new business critical initiatives should not be developed in PowerBuilder and that organisations using it should start focusing on the replacement of this product now.

Landonline does not provide a complete picture of NZ land

41. Checking ownership of Māori land is time consuming and costly. Māori land is managed and governed under Te Ture Whenua Māori Act 1993 and Māori land information is held in both the Māori Land Court and at LINZ. Māori Land Court information includes additional information not contained in Landonline such as beneficial ownership. While the Māori Land Court is required to register its Court Orders with LINZ, it does so through a manual process and Landonline does not currently provide a full and accurate record of Māori land ownership (this includes a number of parcels of Māori land with status yet to be determined by the Māori Land Court). Some parcels of land in Landonline are incorrectly identified as possibly being Māori land. Others are Māori land, but not marked as such. Research to confirm whether land is Māori land (which is subject to different rules) can be costly and time-consuming. Approximately 3,000 manual checks are completed in relation to Māori land each year. Although the accuracy of Māori land records is progressively being improved over time, a more intensive work programme is required to remove the inaccuracies and associated research costs and effort to ensure Landonline includes a full and accurate Māori land record.
42. Crown-owned land comprises over 40 percent of the total area of New Zealand and is valued at over \$33 billion¹³. However there is no single register of Crown-owned land in New Zealand, with each agency holding records on land that they administer, and much of this is incomplete. There are complex differences in status, naming and legislation that apply to differing types of Crown-owned land. Records of Crown-owned land may be held under the Land Act 1948 or by way of Gazette notices, proclamations and other instruments

¹³ The Treasury. (2013) *Budget Economic and Fiscal Update*, 16 May 2013. Retrieved from <http://www.treasury.govt.nz/budget/forecasts/befu2013/befu13-whole.pdf>.

under the Public Works Act 1981. In these instances there is often no title to the land. This makes it difficult to respond effectively when required or to understand what land is available to address policy issues (eg housing affordability, or assessing best use of land). Landonline does not identify all Crown-owned land as such. Often Crown ownership can only be inferred in Landonline by the absence of a recorded private owner. A complete and reliable record of Crown-owned land is required to remove the time and cost involved in researching ownership (and administering agency) of Crown-owned land and when responding to requests for land that may be available to address policy issues.

Manual processes exist as part of the property notification process

43. Conveyancers must advise lending institutions that a mortgage has been registered against a title, which often occurs by facsimile or post. Territorial authorities are often notified of a property sale by post, and Inland Revenue must undertake manual data matching to collect information it needs for enforcing property tax compliance. Automation of these processes by Landonline would remove issues of delays and errors that occur during manual processing.

There is a need to act now

44. The ASaTS project is therefore required to provide a technology upgrade to better meet customer needs and expectations, remove errors and frustrations that occur from manual processes, ensure system interoperability, and provide a more reliable and complete picture of all New Zealand land. I do not want decisions in this area to be driven reactively. In accordance with good practice, LINZ is proactively planning for change in this area now. LINZ estimates that it will take approximately 18 months to complete the Detailed Business Case, go to market and complete contract negotiations with an external provider. The project will take four years after that to implement and transition to business as usual (a timeframe determined, in part, by reliance on a small number of LINZ subject matter experts). For this reason, it is important that decisions about this system, and any investment required, are made now.

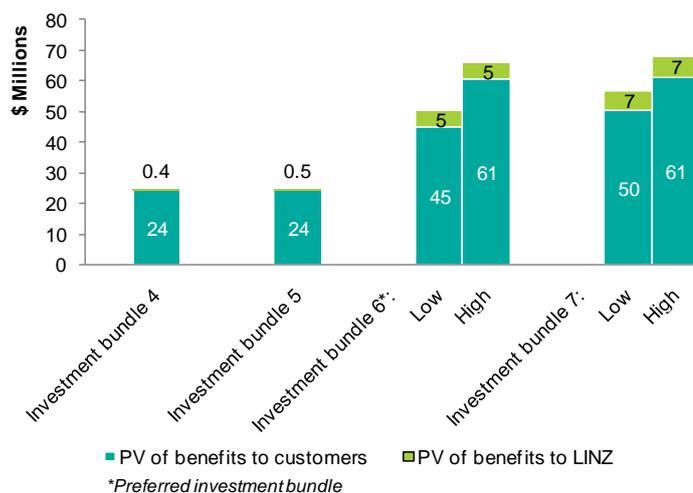
Indicative Business Case

45. An Indicative Business Case complying with Treasury and the Better Business Case guidelines has been prepared and is attached at Appendix A. This Business Case assesses seven options or 'investment bundles'. A preferred option has been identified (Investment Bundle 6).
46. Investment objectives were identified at the outset of this project. The most important of these objectives is to maintain the integrity of the property rights system. The seven investment objectives are:
 - I. Maintain the integrity of the property rights system
 - II. Ensure that the delivery of property services and information is sustainable and enduring (for customers and for LINZ, financially and operationally)
 - III. Improve customers' interactions with government, by giving effect to Better Public Services results areas 9 (one-stop shop for business) and

- 10 (the public completing transactions with government in a digital environment), and by improving the user experience when accessing property services and information
- IV. Facilitate economic growth by improving efficiency in the delivery of, and access to, property services and information, and by increasing the efficiency of land development
 - V. A complete, accurate, easily accessible and useable record of all New Zealand land
 - VI. A quick, simple and cost-effective means of completing property transactions
 - VII. Use the most efficient and effective combination of the private and/or public sectors when delivering property services and information.
47. The potential scope of services that LINZ could offer its customers was considered on a continuum. This continuum ranged from a Base Case through to Investment Bundle 7 which offered the greatest range of additional services. Table 4 of the attached Indicative Business Case (at page 56) summarises the services each investment bundle would deliver. In the Base Case, viability issues of the current PowerBuilder based system were addressed, but issues that have been identified about the quality of the customer service or customer frustrations were not. Investment Bundle 7 would require a complete overhaul of the whole system, with a new service delivery model and complete replacement of the Landonline application. The Investment Bundles differ in terms of: the scope of the services provided; quality of service provided to customers; the level of change required to the existing Landonline application; the degree of process change required; human resource requirements for delivery; and legislative change needed.
48. The net present cost of the options range from approximately \$20 million for the Base Case (which primarily mitigates core technology viability issues) through to \$57 million for Investment Bundle 7 (which is a complete redesign of the delivery model and supporting technology). The cost estimates include a 30 percent premium (cost increase) to account for optimism bias¹⁴. The preferred investment bundle has an indicative net present cost of \$42 million. These costs include all forecast cash costs of the project (capital and operating) over a 10 year period. The costs exclude depreciation, which is discussed in the financial implications section below.
49. Figure 1 below summarises the net present benefits of the shortlisted options. The Base Case would deliver no benefits which have been able to be quantified. It does not result in any time savings to customers or LINZ.

¹⁴ Optimism bias is the tendency for analysts to be overly conservative when estimating costs and overly optimistic when estimating benefits for any given proposal.

Figure 1: Present value of quantitative benefits



50. The quantified benefits identified in the Indicative Business Case are focused on direct time savings benefits to LINZ and its customers. The benefits to customers include time savings from a reduction in survey error rates and reduced time per transaction, notification of sale direct to territorial authorities, and notification of mortgage registration direct to lending institutions. LINZ expects general process efficiencies from better use of LINZ Survey and Title Operations' staff time and efficiencies from improving the process of interacting with the Māori Land Court. These benefits are further described in tables 16, 17 and 18 of the attached Indicative Business Case (at pages 81 to 83) and are summarised in Table 1 below:

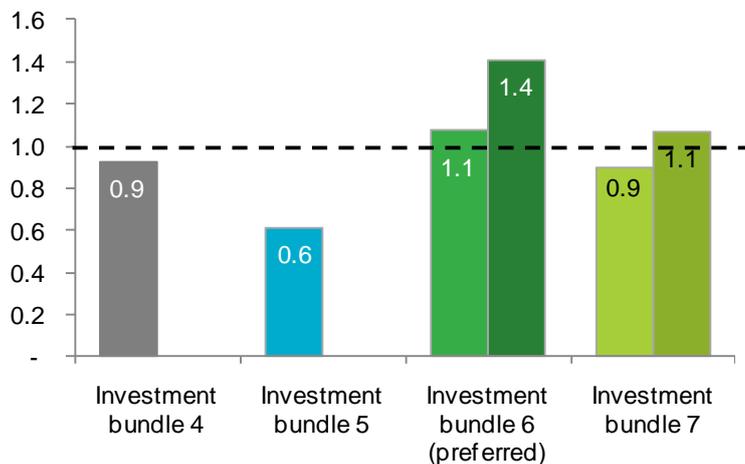
Table 1: Estimated time savings benefits for preferred option

| Who benefits? | Type of benefit | Estimated saving |
|-------------------|--|--|
| Customer benefits | Reduced survey error rates | 40% reduction in survey error rates |
| | Reduced average transaction time for survey and title transactions | 8-15 minute reduction (title transactions) 50 minute reduction (survey transactions) |
| | Direct notification of sale to territorial authorities | Savings based on an assumed number of errors which take on average 5 minutes to correct |
| | Direct notification to lending institutions | Conveyancers assumed to take 6 minutes per transaction to notify lending institutions. Savings to lending institutions based on banks' estimates of number of FTEs manually processing notifications |
| LINZ benefits | Improved quality of information about Maori land | Based on a reduction in manual processing of Court orders per year. plus removal of need for manual checks of land flagged as Maori land. |

| | | |
|--|--|--|
| | Business process improvement from survey and title transactions (% of total staff cost, excluding overheads) | <p>3% savings (title staff)</p> <p>8% savings (survey staff)</p> <p>(Nb most staffing efficiencies were gained when LINZ moved to 100% lodgement via Landonline)</p> |
|--|--|--|

51. The benefit cost ratio (shown in Figure 2 below) suggests that Investment Bundle 6 can offer the greatest quantifiable benefits per dollar invested. The preferred option currently has an indicative benefit cost ratio in the range of 1.1 to 1.4. This underestimates the true extent of the benefits of this option because some of the more difficult benefits to assess have not yet been quantified. Research LINZ has undertaken indicates that the preferred investment bundle will deliver benefits to productivity and cost beyond what is included in the benefit cost ratio.

Figure 2: Benefit cost ratio of shortlisted options



52. Benefits which have not been valued for the purposes of the Indicative Business Case but that the preferred investment bundle will deliver are:

- *Introducing 3D capability* – 54 percent of respondents to a recent LINZ survey believe that introducing 3D capability will deliver improvements in productivity and/or cost of greater than 10 percent. For example, to enable more effective information as an input into planning and consenting processes.
- *Introducing a register of Crown-owned land* – 69 percent of respondents to a recent LINZ survey believe that being able to readily identify the agency responsible for administering a piece of land will deliver improvements in productivity and/or cost of greater than 10 percent. For example, reduction in the time and cost spent researching Landonline, Gazette notices, proclamations etc to determine the status of the land.
- *Increasing the reliability of information on Māori land* – 62 percent of respondents to a recent LINZ survey believe that increasing the reliability of information on Māori land will deliver improvements in productivity and/or cost of greater than 10 percent. For example Te Tumu Paeroa (the

former Office of the Māori Trustee) is seeking more reliable records of Māori land to achieve its goal of putting Māori land to its best use.

The estimates of the above benefits have been derived from a LINZ survey undertaken in August and September 2013 as part of work on quantifying the benefits of Better Property Services¹⁵.

53. The preferred investment bundle also provides for other benefits which have not been quantified, including:
- the benefit of interoperability with other property sector systems, thus contributing to a Better Property Services future
 - greater system flexibility enabling changes to be made more easily
 - avoiding the risk of cost and difficulty in procuring the increasingly scarce resource of PowerBuilder developers who support the current technology platform (PowerBuilder is an outgoing technology)
 - increasing the quality of LINZ data which can be used by third parties
 - improving customer satisfaction (including the ability to access Landonline via modern portable devices such as tablets and including improved integration with user software)
 - improving LINZ's business reporting capability enabling better management decisions to be made.

As part of the development of the Detailed Business Case, consideration will be given to which benefits can be quantified and valued.

The preferred option

54. The preferred investment bundle was identified by an assessment process summarised in figure 12 of the attached Indicative Business Case (at page 57). Figure 14 of the Indicative Business Case (at page 71) shows a continuum of questions to support the decision to modernise or to rewrite a system and provides an assessment of the ASaTS project against these questions. The assessment suggests that the characteristics of the ASaTS project are such that modernisation would be favoured.
55. The preferred option will provide for a modernisation of the existing survey and title service offering to meet customer needs and expectations while utilising some components of the existing Landonline application. It will provide LINZ with the flexibility to make system changes easily to meet business needs as required. It will enable full data and system interoperability with users' and government agencies' systems, reducing the time customers spend interacting

¹⁵ The survey asked about the potential benefits of a future in which anyone seeking to buy, sell, build, renovate, develop or live on a property will be able to use online services including better online titles registration and survey lodgement, online building consent processing and access to relevant information, online resource management consent processing and access to relevant information, improved LIM and hazard information, and improved access to valuation information. The survey was distributed through professional organisations representing building consent officers, planners, property lawyers, surveyors, legal executives, conveyancers, engineers, and others dealing with property.

with LINZ, and enabling LINZ to provide its contribution to the achievement of the Better Property Services vision. This preferred option scored the highest against the critical success factors (which relate directly to the investment objectives in paragraph 46 above) developed as part of the Business Case process.

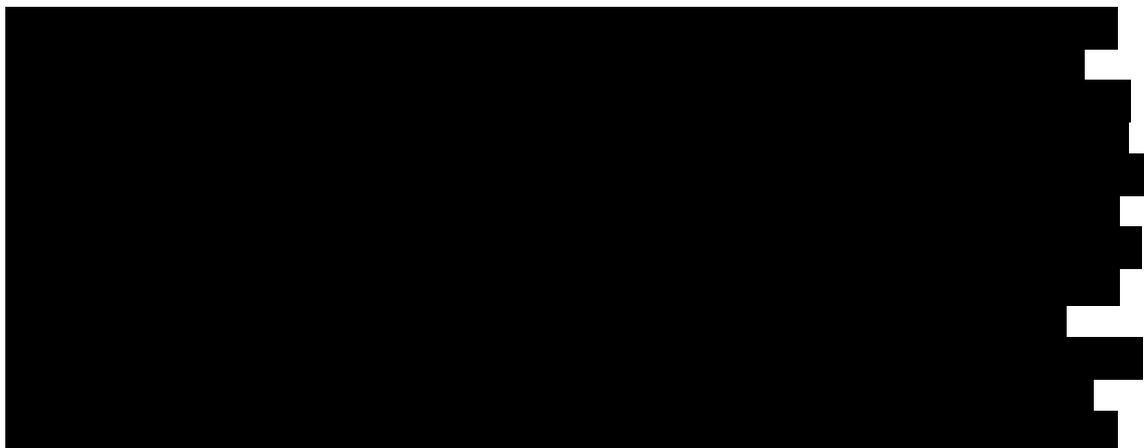
56. The preferred option would:

- address outdated technology issues, while using some components of the existing Landonline application
- enable full system interoperability (to allow LINZ to contribute to a future seamless and integrated property and building sector service)
- modernise the existing service to meet customer needs and expectations, and alleviate current user frustrations
- provide for a better interface between users' systems and Landonline, reducing the time customers spend interacting with LINZ
- provide a more complete record of all land in New Zealand (including a register of Crown-owned land and improved accuracy of Māori land information)
- introduce capability to allow property boundaries, in the future, to be defined and shown in 3D of length, width and height tied to a location.

57. This preferred option includes an intensive work programme for updating and ensuring accuracy of Māori land and Crown-owned land records. The current risks and difficulties associated with the inaccuracies of Māori land records in Landonline would be reduced, removing the time and cost taken in some cases to determine ownership of Māori land and reducing sale and purchase delays. The Crown would be able to access a clearer view of Crown-owned land, and consequently the Government would be able to make more informed decisions in relation to its use. Property information users would more easily be able to determine which Crown agencies are responsible for specific parcels of land.

58. In this preferred option, processing mortgage registration notification would be more streamlined, benefiting lending institutions and conveyancers. LINZ would also collect sale price information at the time of sale and distribute it to territorial authorities, Inland Revenue and other data consumers.

59.



60. As part of the development of the Detailed Business Case, consideration will be given to how LINZ should maintain and fund the LINZ Data Service going forward. The survey and title data contained within Landonline is a key input into the LINZ Data Service.

Programme of work

61. Table 2 outlines the indicative timetable for Advanced Survey and Title Services. The exact phasing of the project and the rollout of services/functionality will be developed further during Detailed Business Case stage.

Table 2: Indicative timetable

| | |
|---|----------------|
| Work on Detailed Business Case begins | November 2013 |
| Market sounding | March 2014 |
| Detailed Business Case complete | June 2014 |
| Cabinet approval of Detailed Business Case | September 2014 |
| Expression on Interest (EOI) to market | October 2014 |
| Close of EOI | November 2014 |
| Bidder interviews | December 2014 |
| Shortlist identified | February 2015 |
| Request for Proposal (RFP) to market | March 2015 |
| Close of RFP | Mid-May 2015 |
| Financial close and contract awarded | June 2015 |
| Assess phase and project commences | July 2015 |
| ASaTS fully implemented and post-project support complete (i.e. transition of project to business as usual completed) | July 2019 |

LINZ Resources

62. The preferred option will require an estimated 8,600 FTE days over the four year project period, with around 20 FTEs required at the peak of implementation. LINZ will also seek additional capacity and capability from a market provider. These resources would be used to help document current state technology and business processes, design future state technology and business processes, input into the design of user and staff training, and stakeholder management.
63. In March 2009 Cabinet put in place a cap on the size of the core government administration [CAB Min (09) 9/11 refers]. LINZ's cap for employees is 499 FTE positions. LINZ has undertaken to manage its establishment so that it remains within its current cap of 499 FTEs.
64. Highly skilled and experienced technical staff will be required to undertake the work. To allow for senior experienced technical staff to be assigned to the project, new staff will be needed to backfill existing resource by increasing the

number and frequency of intake cohorts. To enable the ASaTS project to be delivered on time, the planning and training for these key staff needs to begin now so staff can be released to the project steadily as it ramps up to full capacity.

65. The LINZ Chief Executive has already talked to the State Services Commissioner about the need for additional resource. I recommend that LINZ be given the flexibility it needs to breach the cap on employees by 20 FTEs if required, starting in 2014 and lasting until the end of 2019 when the project will be completed.

Departmental comment

66. The State Services Commission is aware of LINZ's situation and will work with them to determine possible solutions.

Governance

67. This project is currently being governed by a single Board (the Futureproofing Property Rights Programme Board) within LINZ, which in turn advises the Senior Leadership Team. The Board holds fortnightly meetings. The Board consists of three General Managers from the LINZ Senior Leadership Team and is supported by a Programme Manager and the leadership of individual workstreams. In addition a Design Team of senior LINZ managers and technical staff meets weekly or fortnightly as required. A programme plan, communications plan and risk register have been established. Regular updates on progress are also provided to the LINZ Senior Leadership Team who also approve major deliverables for the project. This governance structure will continue and be adapted to the planned phases of the project over its life. Cross-agency governance to enable interoperability with other government agency systems is currently being established.

Quality assurance and risk

68. The State Services Commission assessed the risk profile for the ASaTS project as high, and therefore it will be subject to ongoing Gateway reviews over the lifetime of the project. The first review (a "Review 0 – Strategic Assessment") was carried out in July 2013 before the completion of the Indicative Business Case. The Gateway review team made a number of recommendations and all of these have been addressed prior to completion of the Indicative Business Case. The Gateway team indicated that the next Gateway review should be a "Gate 2: Delivery Strategy Detailed Business Case" to be undertaken prior to finalising a Detailed Business Case.
69. As a High Risk project there is also central agency monitoring and assurance in place. This is facilitated through regular monthly meetings of the State Services Commission Major Project Monitoring team, the Treasury, members of the Government ICT Strategy and Planning areas of the Government Chief Information Officer (GCIO) and the Department of the Prime Minister and Cabinet. Discussions with these agencies have included the risk of high

complexity, high value, government ICT projects, and the lessons learned from the Report of the Ministerial Inquiry into the Novopay Project (June 2013).

70. Following permission to proceed to the Detailed Business Case stage, Independent Quality Assurance reviews will be established, reporting to the LINZ Chief Executive.

Funding options

71. Funding for the survey and title systems is premised on full-cost recovery through property transaction fees and charges paid by users of Landonline. Cost-recovery is conducted in accordance with Treasury and Office of the Auditor-General Guidelines. LINZ currently reviews the survey and title fees annually. Survey and title fees are due to be reviewed in the next six months.
72. Until the 2008 financial crisis, survey and title fees were set based on transaction volume forecasting and were designed to recover survey and title system costs. However, as a result of the financial crisis, transaction volumes declined well below forecast levels (a 33% drop in 2009/10) and there was subsequent under-recovery of survey and title system costs. Significant deficits in the survey and title memorandum account were recorded and two capital injections totalling \$42 million were provided to LINZ to manage the impact of the downturn [CAB Min (09)8/5 and DOM Min (11) 5/4 refer]. Cabinet approved a new fees regime in April 2011 which was designed to return the system to full cost recovery so that LINZ could recover enough revenue from users to fund the total costs, including repayment of the capital injections.
73. LINZ now has a surplus in the memorandum account and the capital injections will be repaid in full in December 2013. LINZ now seeks to maintain a cash reserves "buffer" in its memorandum account, to smooth the regular peaks and troughs of the property market. This buffer aims to limit the need for another capital injection from the Crown to situations where there is an extreme shock to the property market or economy like the Global Financial Crisis.
74. LINZ's fees review process involves a review of its costs for survey and title products and services, forecasts of survey and title transaction volumes and financial data. LINZ consults with key stakeholder groups on proposed new fees, and their comments and views are reflected in the final fees and policy papers that go to Cabinet. The stakeholder/customer groups who are consulted are primarily those groups representing the users (i.e. surveyors and conveyancers or lawyers who directly access the Landonline application). Whilst these stakeholder groups are intermediaries or users rather than the end users of the survey and title systems, they are well-placed to have a good understanding of the views of the actual end users (i.e. those individuals who are purchasing, selling or subdividing land parcels). Draft Cabinet papers (plus any applicable Regulatory Impact Statements) proposing new or changed fees are consulted on with relevant government agencies. Cabinet approves proposed fee changes and legislation is amended accordingly.

75. There are three main options to fund ASaTS. All three options will ultimately be paid for by the users of Landonline. The options for funding are to use:
- a combination of user fees and cash reserves
 - a capital injection (loan) from the Crown to be repaid via user charges
 - user fees, cash reserves and a capital injection (loan) from the Crown to cover any cash shortfall.
76. At this stage, the options for funding ASaTS are being kept open. The advantages and disadvantages of each option will be considered further as part of the development of the Detailed Business Case (when more detailed costings will be determined) and the upcoming LINZ survey and titles fees review. Cabinet will receive further advice from LINZ on whether fees should be amended by April 2014 (when the annual fees review is due to be completed).
77. There are a number of factors LINZ will consider as part of the Detailed Business Case development and the fees review. For instance, a capital loan may result in increased costs to the end users due to the need to pay for the additional capital charge. Funding ASaTS without a capital injection is dependent on the level of cash reserves available at the time of need for investment. Under the assumptions modelled, the preferred option could be paid for at existing fee levels under both low and medium transaction volume scenarios. This would require fee levels to stay at an over-recovery level in the meantime (until project completion).
78. LINZ is seeking advice about whether cost recovery from current customers to fund a future system (as opposed to a capital injection from the Crown to be repaid by cost recovery from future customers) complies with public sector guidelines for fee-setting and cost recovery. One of the principles in the Auditor-General and Treasury guidelines on cost-recovery and fee-setting is that the same user group must be charged if capital expenditure is recovered as part of user charges over a period of time. Fee payers must face the true costs involved to them. Charges for services provided by Crown agencies that exceed the costs of providing those services could be seen as a tax. Equity between current and future users and customers will be considered. LINZ will consider in detail who the users and customers of the system are and whether the current users will also be the future users of ASaTS. Initial indications are that residential dwellings are sold on average once every 17 years in New Zealand.

Financial implications

79. The preferred investment bundle cash costs are detailed in Table 3 below. Further detail on the cost of the investment bundles can be found at pages 72 to 80 of the Indicative Business Case (attached).

Table 3: Preferred investment bundle cash costs

| Cash Outflows – Investment Bundle 6 (\$m) | Jun 2014 | Jun 2015 | Jun 2016 | Jun 2017 | Jun 2018 | Jun 2019 | Jun 2020 | Jun 2021 | Jun 2022 | Jun 2023 | Jun 2024 | Jun 2025 |
|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Business As Usual Cash Outflows | 103 | 105 | 107 | 101 | 101 | 102 | 103 | 104 | 104 | 107 | 107 | 108 |
| Incremental ASaTS Cash Outflows | | | | | | | | | | | | |
| Capitalised costs | - | - | 5.7 | 7.1 | 5.9 | 6.3 | - | - | - | - | - | - |
| Service cost for Landonline | - | - | 2.2 | 2.7 | 2.8 | 3.8 | 7.2 | 6.9 | 6.9 | 6.9 | 6.9 | 6.9 |
| Project management costs | - | - | 3.7 | 3.9 | 3.8 | 3.9 | - | - | - | - | - | - |
| Incremental personnel costs | - | - | - | - | - | 0.5 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 |
| Training costs | - | - | - | - | - | 3.2 | - | - | - | - | - | - |
| Process efficiency savings | | | | | (0.1) | (0.1) | (2.2) | (2.2) | (2.3) | (2.3) | (2.4) | (2.5) |
| Reduction in baseline service costs | - | - | - | - | (1.0) | (2.0) | (2.0) | (2.0) | (2.0) | (2.0) | (2.0) | (2.0) |
| Total Incremental Cash Outflows | - | - | 12 | 14 | 11 | 16 | 5 | 4 | 4 | 4 | 4 | 4 |
| Total Cash Outflows | 103 | 105 | 119 | 114 | 112 | 117 | 108 | 108 | 108 | 111 | 111 | 112 |

80. The revenue figures in table 4 below are based on static fees and the most likely ‘central’ transaction volume forecast scenario as provided by external economic forecasts.

Table 4 Financial implications (\$million)

| Cash View of Financial Implications - Survey and Title | Jun 2014 | Jun 2015 | Jun 2016 | Jun 2017 | Jun 2018 | Jun 2019 |
|--|-----------|------------|------------|------------|------------|------------|
| Survey and Title Revenue | 68 | 68 | 70 | 72 | 72 | 72 |
| Survey and Title BAU Expenditure | (46) | (47) | (48) | (49) | (50) | (51) |
| Capital Injection Repayment | (6) | - | - | - | - | - |
| Net Cash Flow | 16 | 21 | 22 | 23 | 22 | 22 |
| Opening Cash Balance Available for ASaTS | (9) | 7 | 28 | 39 | 48 | 59 |
| Plus Net Cash Flow | 16 | 21 | 22 | 23 | 22 | 22 |
| Funds Available for ASaTS | 7 | 28 | 51 | 62 | 71 | 81 |
| Capital Costs of Project | - | - | (6) | (7) | (6) | (6) |
| Operating Costs of Project | - | - | (6) | (7) | (5) | (9) |
| Surplus | 7 | 28 | 39 | 48 | 59 | 65 |
| Cash View of Financial Implications - Survey and Title | Jun 2020 | Jun 2021 | Jun 2022 | Jun 2023 | Jun 2024 | Jun 2025 |
| Survey and Title Revenue | 73 | 73 | 73 | 74 | 74 | 75 |
| Survey and Title BAU Expenditure | (52) | (52) | (53) | (54) | (55) | (56) |
| Capital Injection Repayment | - | - | - | - | - | - |
| Net Cash Flow | 21 | 21 | 20 | 19 | 19 | 18 |
| Opening Cash Balance Available for ASaTS | 65 | 82 | 99 | 115 | 130 | 145 |
| Plus Net Cash Flow | 21 | 21 | 20 | 19 | 19 | 18 |
| Funds Available for ASaTS | 87 | 103 | 119 | 134 | 149 | 163 |
| Capital Costs of Project | - | - | - | - | - | - |
| Operating Costs of Project | (5) | (4) | (4) | (4) | (4) | (4) |
| Surplus | 82 | 99 | 115 | 130 | 145 | 159 |

Note: For the purposes of this table, revenue has been calculated based on current fee levels. Fees may change as part of normal annual fee review processes.

81. The present value of the capital and operating costs of the project to 2025 is estimated to be \$42 million. This includes an increase in ongoing costs of approximately \$4 million a year post the implementation period (for the increased third party cost for Landonline and additional FTEs to service the functions that enable interoperability, 3D capability and improved business

reporting). The ongoing costs are primarily the cost paid to the third party Landonline provider. For modelling purposes it has been assumed that the fee paid to the third party (covering the costs of design, construction and ongoing maintenance) would be spread evenly over a 10 year period, rather than paying the upfront design and build costs as they are incurred and a lower ongoing maintenance cost. Consideration will be given to which contracting approach is preferred as part of the next phase of work. Any change in assumption regarding the timing of payment is not expected to have a significant impact on the overall costs of the project over a 10 year period. This ongoing \$4 million cost, as with all costs in the business case, assumes a 30 percent premium for optimism bias.

82. In addition to the cash view presented above it is estimated that there will be an increase in depreciation (a non-cash cost) of approximately \$2.5 million a year once the project is fully implemented in financial year 2019 (based on \$25 million of capital).
83. There are estimated process efficiency benefits that will accrue to LINZ of approximately \$2 million per year. These efficiency benefits have been offset against the cost of the project presented in the table above.

Stakeholder engagement

84. As part of the preparation of the Business Case LINZ engaged with its key customer groups, including the: Auckland District Law Society, Cadastral Surveyors Licensing Board, Institute of Cadastral Surveyors, New Zealand Institute of Legal Executives, New Zealand Institute of Surveyors, New Zealand Law Society, New Zealand Society of Conveyancers, Auckland City Council, Wellington City Council, ASB Bank, Westpac Bank and the New Zealand Bankers' Association. LINZ also engaged with the following suppliers of software to surveyors and conveyancers: 12d NZ Ltd, ActionStep, Conveyancing Solutions and Propel-ic. The Gateway review team noted that there is great enthusiasm, commitment and agreement for the ASaTS project amongst its key user group. They also noted that based on the Landonline implementation there is confidence that LINZ can deliver the ASaTS project.

Consultation

85. The following agencies have had the opportunity to comment on the proposals in this paper: The Treasury, the Ministry of Business, Innovation and Employment, the Department of Internal Affairs, the Ministry for the Environment, the Ministry of Justice, Te Puni Kōkiri, the Canterbury Earthquake Recovery Authority and the State Services Commission. The Government ICT Strategy and Planning area of the GCIO, the New Zealand Defence Force, and the Department of Prime Minister and Cabinet were also informed.
86. In relation to the proposal that LINZ be given the flexibility it needs, for the period of the project, to breach the cap on employees by 20 FTEs if required, the State Services Commission says: "The State Services Commission is aware of LINZ's situation and will work with them to determine possible solutions."

Human Rights

87. The proposals in this paper are not inconsistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Legislative implications

88. The proposals in this paper do not have any direct legislative implications.

Regulatory impact analysis

89. There are no regulatory implications arising from the proposals in this paper.

Publicity

90. No publicity is planned as a result of proposals in this paper.

Recommendations

The Minister for Land Information recommends that the Committee:

Advanced Survey and Title Services

1. note the survey and titles systems administered by Land Information New Zealand using Landonline form the basis for New Zealand's property rights market and are critical to the on-going functioning of the economy;
2. note that Land Information New Zealand needs to begin work now on a second generation of investment (via a project being called Advanced Survey and Title Services) because the current technology is becoming outdated and is increasingly constraining the ability to meet survey and title customer needs;
3. note that the attached Indicative Business Case for Advanced Survey and Title Services assesses a number of options for addressing technology issues, customer needs and the need to provide for an integrated future property service;

Better Property Services

4. note officials from Land Information New Zealand, the Department of Internal Affairs, the Ministry for the Environment and the Ministry of Business, Innovation and Employment are exploring better integration of central and local government property (including building) ownership, consenting and information services;
5. note the future envisaged is one that provides for a seamless customer experience based on integrated, up-to-date, digital and location-based information;
6. note the Advanced Survey and Title Services system will be a fundamental building block for this interoperable and customer-focused future;

7. note this “Better Property Services” future will see improvements in timeliness, quality and cost effectiveness resulting in increased productivity and the release of more valuable information for use by both the government and private sector innovation, contributing an estimated additional \$135 million to real GDP in 2025;
8. agree that proposals for how to achieve this Better Property Services future should be reported to this Committee by April 2014;

Advanced Survey and Title Services

9. note the preferred option in the attached Indicative Business Case for Advanced Survey and Title Services will:
 - address outdated technology issues, while using some components of the existing Landonline application
 - enable full system interoperability (to allow LINZ to contribute to future seamless property and building sector services)
 - modernise the existing survey and title systems service to meet customer needs and expectations (for example, it will enable access to Landonline on mobile devices)
 - provide for a better interface between users’ systems and Landonline, reducing the time customers spend interacting with LINZ
 - provide a more complete record of all land in New Zealand (including a register of Crown-owned land and improved accuracy of Māori land information)
 - introduce capability to allow property boundaries, in the future, to be defined and shown in three dimensions (3D);
10. note that the indicative net present cost for the preferred option is \$42 million;
11. note the costs for developing the system will be met by users of the system through fees paid to Land Information New Zealand and that fees are due to be reviewed in the next six months;
12. note that funding options being considered include a combination of user fees and cash reserves; a capital injection from the Crown to be repaid via user charges; and, user fees, cash reserves and a capital injection from the Crown to cover any cash shortfall;
13. note that LINZ is seeking advice to ensure cost recovery from current system fee payers to fund a future system complies with public sector guidelines for fee-setting and cost recovery;
14. note that Cabinet will receive further advice on fee levels for survey and title services by April 2014;
15. note that funding options for ASaTS will be considered further as part of the Detailed Business Case;

16. note that Land Information New Zealand estimates it will take approximately 18 months until the start of the project, and that it will then take a further four years to develop and build the new services and transition to business as usual;
17. note that the project will require up to 20 additional highly-skilled and experienced technical Full Time Equivalents during the peak of the project period;
18. agree that Land Information New Zealand be given some flexibility to breach the cap on employees if required by up to 20 Full Time Equivalents from 2014 until project completion in 2019, to enable the project to be delivered on time;
19. direct Land Information New Zealand to develop a Detailed Business Case for implementation of Advanced Survey and Title Services and report back to this Committee by September 2014.

Hon Maurice Williamson
Minister for Land Information
07/11/2013