



25 June 2018

*Briefing prepared for the Land Information Minister – the Hon. Eugenie Sage, in preparation for a meeting at 10.15 am on Wednesday 27<sup>th</sup> June 2018.*

NZIS represents the New Zealand survey and spatial sector. We are a stakeholder across a wide range of government policy areas including housing development, land subdivision, construction, infrastructure, spatial information and resource management. Our members are lead professionals for the delivery of residential developments and subdivisions. We are acutely aware that three issues: Advanced Survey and Titles Service (ASaTS); housing supply and local government leadership will enable more houses for all New Zealanders. We are also aware of the growing need for a strong relationship in the South West Pacific. NZIS wants to assist with solutions in these key areas.

### **1. ASaTS and Integrated Property Services (IPS)**

We wish to bring your attention to the growing risk of the Landonline system administered by Land Information New Zealand (LINZ).

Almost 20 years ago LINZ introduced Landonline and it was a world-leading system enabling survey and title dealings to be carried out efficiently and securely online. Surveyors, conveyancers, lawyers and LINZ were all able to do more work with fewer staff. The return on the investment in Landonline has been an outstanding success for New Zealand. Increasingly there is now evidence that the system is approaching the end of its economic life. If it were to fail in a way that could not be rapidly fixed due to declining support for many component parts of Landonline, there would be significant impact on the New Zealand economy and it would result in significant delays in and around all major housing projects.

The ASaTS project is the replacement plan and it is of critical importance to the efficiency of the surveying profession. ASaTS will enable the economy to grow, it will support housing supply and it will enable new applications of spatial data for better decision making. The advances that we expect to see from ASaTS will deliver efficiencies in the work of the surveying and legal professions and in the work that LINZ does as together we create new real property assets for New Zealanders. The survey and title system underpins the New Zealand Economy with New Zealand residential property now worth a combined total of nearly 1 trillion dollars. Understandably, NZIS is a strong supporter of the ASaTS project.

We urge the Minister to ensure ministerial colleagues are aware that ASaTS is a critical national infrastructure project and to ensure that the full potential of the system is delivered at the earliest opportunity.

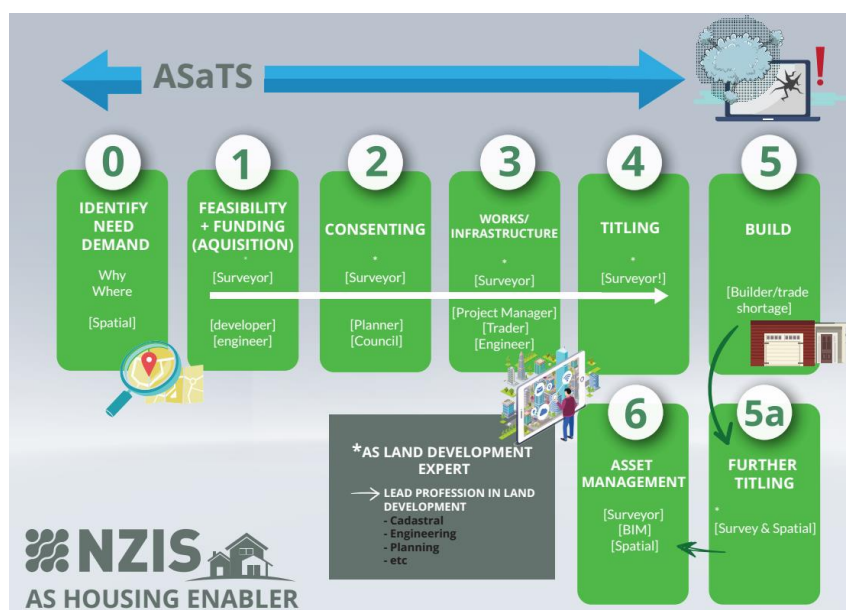
Integrated Property Services (IPS) is another project that aims to connect central and local government property data sets to facilitate faster and more accurate decision making across the range of property enquiries from an individual property to multiple properties.

Currently data is fragmented and the process to assemble an accurate and detailed picture of a particular property’s attributes is time-consuming and requires expertise. NZIS members regularly undertake property data searches and we understand the value that IPS would deliver. An efficient and accessible means of accessing property data would support better and faster property related decision making. The public, land and property professionals, like surveyors, spatial data professionals and government agencies would all benefit from IPS.

NZIS supports this project and recommends that the Minister promotes the business case to ministerial colleagues.

## 2. Surveyors Critical Role in Housing Supply and the Growing Skills Shortage

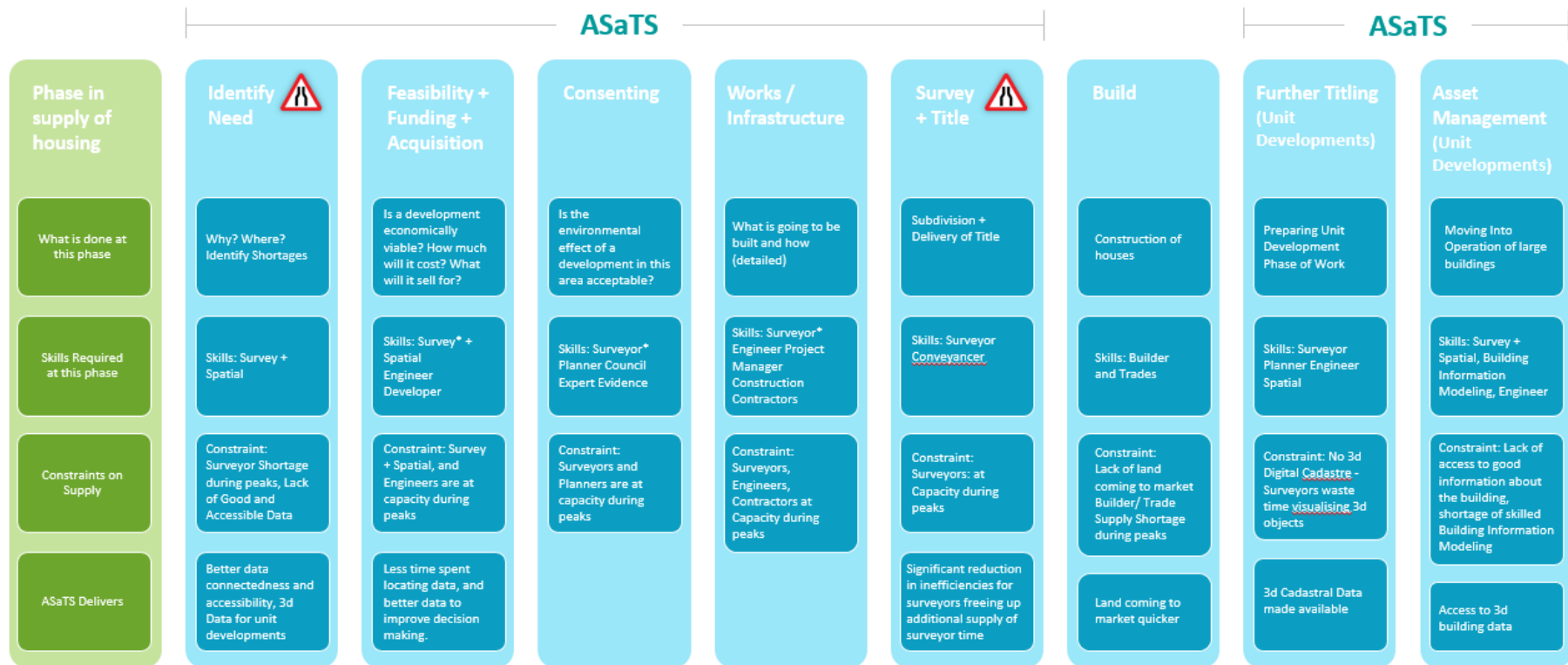
NZIS believes that government Ministers and departments could benefit from fully understanding the land development value chain, and where and how to best leverage interventions. Our members understand and enable the process of land development and subdivision. They are involved from the beginning of feasibility investigations and concept plan development. They manage the resource consent process and often control the subdivision construction process through to subdivision acceptance and the creation of new titles. The supply of skilled labour could significantly improve downstream delivery of more houses.



In New Zealand professional surveyors have fundamental knowledge in surveying and spatial measurement to go with land law and cadastral surveying. Surveyors are also trained and experienced in resource management and land development engineering processes. We believe that NZIS and surveyor led businesses need to be at the table when solutions to the supply of houses are being discussed. Currently surveyors are not often at the table because others assume that planners, engineers and developers cover the skill sets, however, that is not the case.



# ASaTS and Housing



Apart from some apartment and terrace house projects, the majority of new house construction follows the development of building sites and new lots. Surveyors are usually the lead consultants in land development and subdivisions. The surveyor is the only professional that is qualified to complete a subdivision process on their own and this gives the surveyor a unique overview and skillset. Surveyors often do work in teams with other professionals to complete housing developments.

We would like the Minister to be aware of the role that NZIS members play in housing and raise this issue with the Ministers of Housing and Construction. NZIS can contribute to government-led housing goals and solutions and ensure that government receives practical advice.

What do surveyors who are land development specialists have to contribute:

1. A unique overview of the land development process and how it works from start to finish. No other professional or advisor group has that same perspective.
2. Ability to work alongside government to ensure that housing solutions proposed are practical and achievable.
3. Identify where productivity and efficiency gains can be achieved
4. Deep awareness of the problem areas that constrain supply
5. Advise on capability and skill shortage for surveyor skill sets including cadastral and land development

### *Surveying and Spatial Skills Gap*

NZIS has evidence of a growing gap in the skills required to service demand in areas such as housing, construction, hydrographic surveying and spatial professionals. Our evidence suggests that although licenced cadastral surveyors are our greatest need, all areas of the sector are under growing pressure.

Our professional skills cover a broad range from land development professional to cadastral surveyor, hydrographic surveyor, engineering surveyor and spatial professionals.

*“Many graduates and trainees in the mathematical, modelling or design sector are not skilled in spatial concepts and technologies, so we are all missing out on their expertise being taken to the next level. This is a quantum shift that we need to recognise far earlier in our educational process”.*

*Anne Harper – Spatial Industry Business Association (SIBA) Chair*

*Eighty4 Recruitment specialises in placing surveying, engineering, construction and property professionals across NZ and supplied this skills shortage update.*

“In the past 12-18 months we’ve seen a significant increase in demand, upwards of 500% increase for surveying and spatial people across New Zealand companies. Four to five years ago, there was a steady number of vacancies; around 5-8 at any one time across NZ, however right now we have more than 40 vacancies (and growing monthly) at various levels across the entire country. We put this simply down to the pressure on surveying and engineering consultancies to free up the required land to meet the demands of public and private sector developments and construction projects. There simply are not enough people to meet this demand. These vacancies range from small surveying and engineering consultancies, to the top 4 (largest) land development consultancies also operating nationwide.

In previous years around the GFC 2009-2011, the Otago School of Surveying had very low numbers of students coming through, those that did, came with very little job prospects in NZ and ultimately ended up taking off to Australia and overseas. Unfortunately, not many have returned to our shores since.

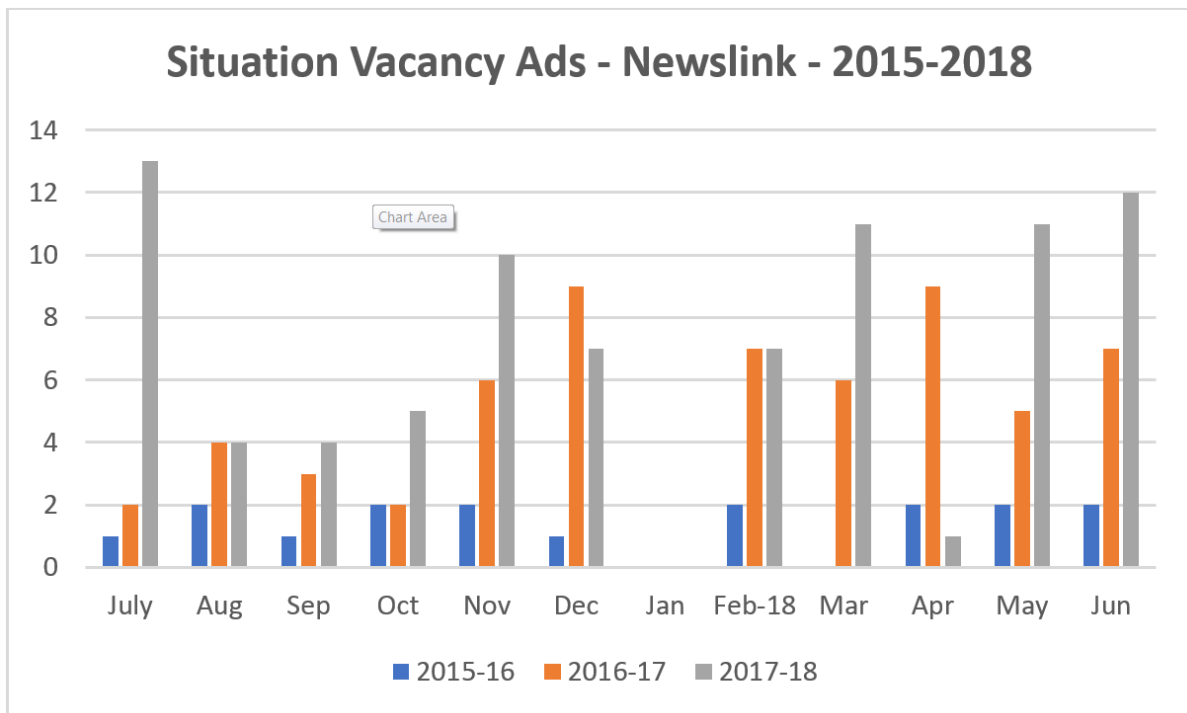
Of the current vacancies we are trying to fill, quite simply we can only poach from other organisations meaning we’re not increasing outputs as a profession. We’re also actively attempting to bring more Kiwis home, going as far as making a trip to London next month to hold a recruitment event.

The land development industry is in desperate need of these professionals to keep up with current demand, let alone a major increase in construction and land development activity which is fast approaching with Kiwi Build and private sector development. This not only affects the land surveying and spatial sector, but we are also seeing an exponential skills shortage in all other associated professions within civil engineering, construction/project management and land development design and construction-related professional consultants.”

*“Of the current vacancies we are trying to fill, quite simply we can only poach from other organisations meaning we’re not increasing outputs as a profession. We’re also actively attempting to bring more Kiwis home, going as far as making a trip to London next month to hold a recruitment event.”*

*Mark Fisher - Eighty4 Recruitment*

In our recent NZIS survey of members, Question 3 asked, “have you experienced a skills shortage in the last 12 months”, 195 indicated ‘yes’ to a shortage. Survey and spatial situations vacant advertisements in our membership magazine have grown from 17 to 85 in just three years:



We also note that NIWA officially launched the South and West Pacific Centre for the Seabed 2030 project on the 21st of June. This project aims at generating a definitive map of the entire ocean floor in less than 12 years. The South and Pacific Region, covering 123,000,000 km<sup>2</sup> between South America, Australia and South Korea, will be managed by a centre established at NIWA, Wellington. NZIS hydrographic surveyors see a major gap in servicing climate change issues and major projects such as this with current limited Australasian resources.

NZIS demographic analysis of the membership indicates that we will see significant numbers looking to retire over the next five to 10 years. A lot of skills and experience will disappear.

NZIS has committed to undertake a detailed analysis of the skills gap with any input from your office and we will report to you later this year. From there we would be looking for your support for an action plan to address identified shortages.

### 3. Local Government Leadership Mandate for LINZ

The NZIS view is that New Zealand needs LINZ to have a strong mandate to lead the adoption of new spatial technology and best practice within local authorities for the benefit of New Zealanders.

A case in point is the NZ Vertical Datum 2016. This is a world-leading vertical datum that covers the whole country and offers a large number of improvements and efficiencies over the existing official regional datums and the specific local authority datums that are currently used. As the pressure of adaptation to sea level rise increases the value of having everyone on the same datum will become significant. Some progressive local authorities have already made the move to change their level datum to NZVD2016. These local authorities should be congratulated and held up as case studies for the others to follow. There is however, currently no requirement for other local authorities to make the change.

At NZIS we are concerned that a patchwork response to the new datum will occur where some local authorities change, and others follow over an extended period of time. This will result in incompatible datasets, the possibility of expensive construction errors resulting from confusion between level datums with similar values and the efficiencies that are available from early adoption of the new datum will not be achieved. We see NZVD2016 as an important test case for how LINZ can lead and how local government responds. Other matters where LINZ will need to lead, and New Zealand could benefit from early adoption by local government include the adoption of data standards and access to local government property data sets.

We think this is an important issue for the Minister to raise with ministerial colleagues including the Minister of Local Government.

#### **4. South West Pacific – An Opportunity for LINZ**

The Pacific Geospatial and Surveying Council (PGSC) is a recently formed body representing the geospatial and surveying authorities of Pacific Island Countries and Territories (PICTs) as the core membership.

NZIS has just signed an MoU with PGSC signalling our intention to work together to:

- enhance capacity and professional support in the Pacific Islands;
- support efforts to implement the Sustainable Development Goals; and
- share information that benefits members of both organisations.

PGSC have also launched their Strategy 2017 to 2027. Refer attached strategy document. MFAT, NZIS and LINZ are listed as development partners in this strategy.

The Minister for Foreign Affairs (Rt. Hon. Winston Peters) recently recognised the need for greater engagement by New Zealand with our neighbours in the South West Pacific. NZIS proposes to raise a discussion with MFAT Pacific Desk about funding action under the PGSC Strategy 2017-2027 and giving a high priority to geospatial and surveying needs. Currently there are significant problems in the South West Pacific regions where few countries have modern geodetic datums which severely limits the use of modern geospatial technologies and the implementation of hazard warning systems. New Zealand has a lot of ability to contribute to a modern regional geodetic reference frame and at a UN level NZ has acknowledged some shared responsibility for the reference frame in the SW Pacific.

We believe that there is clear scope for the Minister to provide LINZ with a mandate to include the South West Pacific reference fame as a priority in its work programme and seek funding through MFAT.

There are also New Zealand territories like Niue and Tokelau which do not have a cadastre. A working land market is a fundamental need for an economy and we believe that an assessment of cadastral systems and needs in the Pacific would be valuable. This is something that the Surveyor Generals office could lead.

Scholarships for students to study surveying in New Zealand is another area of concern as Pacific Island governments prioritise training for doctors and lawyers and the surveying and spatial skills base in the Pacific needs investment. This is an area where NZIS is aiming to influence MFAT.

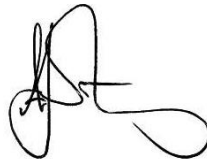
NZIS proactively advocates on behalf of the survey and spatial sector on complex and topical issues and we appreciate the opportunity to meet and brief our Minister. We are happy to independently brief any of the parties if the Minister would find it helpful.

We look forward to regular meetings in the future and the benefits that will be gained through the sharing of knowledge by government and the sector.

Your sincerely



Rebecca Strang  
NZIS President



Andrew Stirling  
NZIS Chair