

INFRASTRUCTURE UPDATE

An Occasional Newsletter from the National Infrastructure Unit

Issue #19 February 2015

Welcome to the latest *Infrastructure Update*, the occasional newsletter from the National Infrastructure Unit. It's been a busy month with work going into updating the Infrastructure Evidence Base as well as the usual preparation for the Government's annual Budget. The Evidence Base will help underpin the discussions and resulting actions for the 2015 New Zealand Infrastructure Plan. A key element in developing the Plan is the two-day New Zealand Infrastructure Forum on 31 March and 1 April. The Forum represents a unique opportunity for stakeholders to be involved in exploring and developing responses to the long-term challenges confronting infrastructure in New Zealand. There is no charge to attend the Forum, with further details provided below. Please join us in making this event a success.

Elsewhere in this edition of *Infrastructure Update* we:

- profile the January McKinsey report *Global growth: Can productivity save the day in an ageing world?*
- find out about infrastructure developments in New South Wales courtesy of a contribution by Infrastructure NSW;
- highlight some key insights from this week's 2015 New Zealand Business Resilience Forum; and
- profile NIU staff member, Naomi Bennett.

National Infrastructure Unit

Register for the New Zealand Infrastructure Forum

The New Zealand Infrastructure Forum 2015 is being held in Wellington on **Tuesday 31 March** and **Wednesday 1 April**.

The Forum is an opportunity for stakeholders to focus on the specific challenges facing New Zealand infrastructure and develop the actions to address these. The input from delegates at the Forum will directly shape the 2015 New Zealand Infrastructure Plan, due for release in August.



The forum will include a large number of presenters from New Zealand and abroad, including the Hon Bill English, Minister of Finance. If you or your organisation is involved in providing, funding, managing, or advising on infrastructure then you will have significant interest in the development of the New Zealand Infrastructure Plan and should take the opportunity to attend the Forum. There is **no charge** and both public and private sector participants are most welcome.

Click [here](#) for online registration or [here](#) to view the programme and a registration form.



NIU website and mailing list

Keep an eye on the NIU website for our latest papers, presentations or reports:

www.infrastructure.govt.nz

To provide feedback or be added to the mailing list for this newsletter and other publications, please send us an e-mail at:

info@infrastructure.govt.nz

Collaboration is a key principle of the Plan and we are regularly around the country working with and talking to the infrastructure sector. Please contact us if you would like to share your thoughts and ideas.



Global Growth: Can Productivity Save the Day in an Ageing World

Released last month, this McKinsey Global Institute Report is based on a 50 year historical analysis of the G19 Countries (the G20 minus the European Union) and Nigeria, together generating over 80% of Global GDP.

From this analysis, the report finds that GDP growth was “exceptionally brisk” over the past 50 years, fueled by rapid growth in the number of workers and their productivity.

In contrast, the next 50 years will be impacted by the declining working age population. Even if the same productivity growth continues, labour expansion will slow sharply, resulting in 40% lower growth overall. The report notes that this is slower than in the past five years of recovery from recession.

To compensate fully for this slower employment growth, productivity growth would need to be 80% faster at 3.3% annually.

The report discusses 5 sector case studies - agriculture, food processing, automotive, retail, and health care – and suggests that annual productivity growth to 2025 in the G19 and Nigeria could be as high as 4 percent, more than needed to counteract demographic trends.

About three-quarters (55% for developed countries) of the potential productivity growth comes from the broader adoption of existing best practices – catch-up productivity improvements with the remaining one-quarter coming from technological, operational, and business innovations that go beyond today’s best practices and “push the frontier” of the world’s GDP potential.

The report goes on to detail 10 key enablers of growth, broadly falling into four groups. One of these enablers is “Invest in digital and physical infrastructure”, within the “Enabling catch-up by creating transparency and competition” group.

In the infrastructure enabler, the report notes that while there is not expected to be a shortage of capital, governments will need to be smarter about financing infrastructure but just as important is how that money is spent. Three approaches are identified:

- ▶ governments need to make better choices about which infrastructure projects to pursue by evaluating the costs and benefits of every project systematically.
- ▶ governments and the private sector need to streamline the delivery of projects.
- ▶ governments need to make the most of existing infrastructure

In summary, a useful and interesting report that raises some interesting questions as we work towards the 2015 New Zealand Infrastructure Plan and reinforces many of the key messages from the 2013 McKinsey Report *Infrastructure productivity: How to save \$1 trillion a year* (profiled in *Infrastructure Update* #5 – April 2013, available [here](#)).

The report is available at: http://www.mckinsey.com/insights/growth/can_long-term_global_growth_be_saved?



National Infrastructure Advisory Board

The Board held their first meeting of the year in Wellington last week. The major focus of the meeting was the development of the 2015 New Zealand Infrastructure Plan with Board members reviewing and providing input into both the proposed development process and the initial high level content and shape of the Plan, including the draft vision.

With Board members playing a prominent role in the upcoming New Zealand Infrastructure Forum, time was also spent planning these two days to ensure maximum benefit and value for both stakeholders and the Plan’s development.

The Board also heard an update on the NIU’s resilience work from Roger Fairclough.

Other standing items on the Board’s agenda include the environmental scan – a valuable source of intelligence on issues, trends and the mood of the infrastructure sector.

The day finished with the Board’s regular meeting with Hon Bill English, Minister of Finance, and was an opportunity to tease out and discuss the strategic direction of the infrastructure work programme.

From an NIU perspective, the Board has been invaluable over the years in providing a regular sounding board and providing robust critique of, and advice on, thinking and direction for a large and complex infrastructure work programme.

The board is scheduled to hold five meetings this year. The next meeting is on 29 April and will include the Board’s regular meeting with the eight Building Infrastructure Ministers.

More information on the Board is available on the NIU website at:

<http://www.infrastructure.govt.nz/advisory-board>

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Over the ditch – full steam ahead in New South Wales

A guest article contributed by Infrastructure NSW

A transformation is underway in New South Wales, Australia, with an unprecedented level of infrastructure investment in the State's 2014–15 Budget to rebuild the economy—\$61.5 billion over the four years to 2017–18. A number of major infrastructure projects have begun including the \$8.3 billion North West Rail Link, the \$14.9 billion 33km WestConnex motorway, the 9km \$3 billion NorthConnex motorway, the \$6 billion redevelopment at Barangaroo in central Sydney and the \$3 billion redevelopment of Sydney's Darling Harbour to create a world class major events precinct. There is also more than \$1 billion in funding allocated to infrastructure in regional NSW for improving transport, health and community facilities.



Planned new investments over the next 20 years in Sydney alone include a second airport, light rail projects and additional road and rail crossings under Sydney Harbour, as well as more hospitals, schools and housing. They will support a further 1.6 million people, with more than 27.5 million journeys occurring every weekday, as well as around 1.6 million freight and commercial trips.

It's an exciting time for the state, currently number one in Australia with a half a trillion dollar economy and investments in jobs, housing and infrastructure driving growth across NSW.

Infrastructure NSW is a central player in this progressive agenda, which is being led by the NSW Government in partnership with the private sector to ensure the state has the infrastructure it needs to support a growing population, and liveable communities, well into the future.

In November 2014, Infrastructure NSW made more than 80 recommendations to Government on the next round of critical infrastructure for NSW — set out in the 'State Infrastructure Strategy 2014'.

The report targets three priority areas: Global Sydney's competitiveness; supporting population and economic growth in Greater Sydney, including Parramatta and Western Sydney; and ensuring productive regional industries and connected regional communities.

It addresses infrastructure priorities around urban roads, bus and light rail, passenger trains, international gateways, regional and interstate transport, water, education,

Monthly Round Up

Budget day announced

The Minister of Finance announced that the Government's Budget 2015 will be presented on **Thursday 21 May**.



Water Sensitive Wellington

Sam Thomas from the NIU was one of four panelists who presented at the Sustainability Society's *Water Sensitive Wellington* Forum this month. The Forum's speakers included Wellington



City's Mayor Celia Wade-Brown, Wellington Water's CE Colin Crampton, and Greater Wellington Regional Council's Whitua Project Leader Alastair Smail.

The forum explored the governance arrangements around urban water at the local, regional, and national levels and whether they were optimal to tackle the challenges facing the water sector.

There was broad agreement on the need for open-mindedness when determining the most effective governance structure, including regional-level governance where this made sense. There was also a desire to see central government playing a greater role in supporting local authorities having the tougher debates with their local communities on future levels of service.



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health, culture, sport and the environment. Specific projects are identified along with broad recommendations for ensuring productive infrastructure and value for money.

The strategy was prepared at the direction of the Premier to guide how proceeds from the NSW Government's Rebuilding NSW initiative could be spent — that is, the proposed partial lease of the state's electricity network business (poles and wires).

The Government accepted all of Infrastructure NSW's recommendations for bringing forward projects and delivering reforms to accelerate growth and deliver benefits to the community sooner.

Key to this is tackling congestion in Sydney, which has some of the most congested roads in Australia. Congestion imposes costs on the economy and the community through longer commutes, higher operational costs and restricted access. Sydney's congestion costs are currently around \$5 billion per year — equivalent to annual losses of \$1,100 per Sydneysider — and are forecast to increase to around \$8 billion per year by 2020. Without corrective action, congestion will worsen — and the costs to business and the community will escalate — as the city's population grows.

Infrastructure NSW is an independent statutory agency that is uniquely positioned to provide objective and evidenced-based advice drawn from a sector-wide view of the state's infrastructure needs. Infrastructure NSW was created to help achieve best value for money infrastructure investment by overcoming weaknesses in the approach to capital investment identified in 2011 by the incoming NSW Government and confirmed by the NSW Commission of Audit in 2012.

A small specialist agency, Infrastructure NSW plays a vital role in the state's infrastructure framework, which includes:

- long term strategic planning through the 20 year State Infrastructure Strategy
- locking in project selection into 5-year State Infrastructure Plans, which are updated annually
- through the Restart NSW Fund, systematically approaching funding decisions that use the proceeds of recycled assets dedicated for reinvestment in major infrastructure
- delivery assurance through independent reporting on capital expenditure and project milestones to the NSW Government.

Since Infrastructure NSW's inception, the NSW Government has completely overhauled the way infrastructure decisions are made and projects are delivered, giving certainty to the community and the market on a pipeline of major infrastructure investment. It's a move that has been welcomed by the people of NSW, who directly benefit from projects that help them to live, work and move about their local communities, and applauded by the private sector, providing a sound foundation for continued prosperity in NSW.

For more information visit www.insw.com



Challenge to be more customer focused

The Minister of Finance emphasised the need for the public sector to have a strong customer focus in a speech to the Institute of Public Administration New Zealand.



The Minister noted that the word 'customer' "... feels a bit uncomfortable because it implies someone who might have an opinion about our service, or might want a choice, or might have aspirations of their own that don't suit us".

Consistent with what we see in the infrastructure space, getting better results for customers by continuously improving public services will require systematic measurement, information sharing, contracting and evaluation of interventions.

A new social investment budget process incorporates five changes:

- more population specific information for ministers;
- the purchase of results instead of inputs;
- tests for spending effectiveness;
- reprioritising funding to providers that get results; and
- buying what works (including from external providers).

Ministers are keen to see the application of tools such as cost-benefit analysis and return on investment to Budget bids. Consistent with this, the Treasury will shortly be publishing an updated guide to cost-benefit analysis and promoting its wider use in the Budget process.

The Minister's speech is available [here](#).

A focus on the customer will be an important aspect of the forthcoming New Zealand Infrastructure Plan.



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2015 New Zealand Business Resilience Forum

The Business Resilience Forum was held in conjunction with the 2015 Emergency Management Summit. Minister Nikki Kaye opened with a plenary session welcoming the new Director of Civil Defence Sarah Stuart-Black to her role and highlighting a desire to more actively engage the public and communities in civil defence arrangements, for example by engaging more at the school age level.

This message was reinforced by Dr. Jo Horrocks of the Ministry of Civil Defence and Emergency Management (MCDEM) on the topic of "Future Directions and Opportunities for Emergency Management in New Zealand".

Dr. Horrocks introduced a near term holistic approach to resilience spanning social, economic, infrastructure, environmental, organisational, social and governance aspects.

The recent shift of MCDEM to the Department of Prime Minister and Cabinet shows the stronger linking of emergency management to broader national security.

Clive Manley from Auckland Council made strong references to the people aspects of resilient communities and organisations such as the 100 Resilient Cities Challenge with the global Rockefeller Foundation initiative. Clive drew on recent examples of approaches to incorporating resilience into Auckland's projects and communities.

Steve Brazier from Brazier Consulting chaired the Business Resilience Forum involving a range of topics and contributions from infrastructure service providers such as Watercare Services, business continuity practitioners, social media and managing reputational risk.

Dr. Sven Hansen of the Resilience Institute delivered particularly insightful data under the topic "Mastering Human Factors: Leadership and the Biology of Resilient People". Sven demonstrated using global case studies that resilience can be a learned ability to demonstrate bounce, courage, creativity and connection.

NIU's Roger Fairclough opened day two on the topic of "Empowering Business to Drive Improved Resilience Outcomes". An attribute of infrastructure resilience is "Community preparedness", with the case made that infrastructure providers need to become much more transparent with their vulnerabilities such that communities, and businesses within communities, can actively contribute to ongoing dialogue on appropriate levels of resilience and investment. Interdependencies are critical in dealing with the complex inter-related systems we now have. The value of Lifelines, the amalgam of infrastructure providers under the CDEM Act, was highlighted. The point was made that driving robust conversations between users of infrastructure and their providers, as well as between providers, was an effective way of revealing resilience issues.

Investing in business resilience was another theme touched on by Mary Sue Critchlow from Critchlow Limited, who discussed preparation for top-level management conversations about business resilience. Nalin Wijetilleke, Auckland Regional Forum Leader, Business Continuity Institute – Australasia Chapter, ably demonstrated the importance of physical infrastructure as the foundation stone for the resilience of business in New Zealand.



Cost benefit analysis guide

The Treasury intends publishing a new guide to cost benefit analysis (CBA) in June. Ahead of this a draft will be available in March for feedback. Treasury is also considering adjusting discount rates for several categories of infrastructure-related projects.

The new CBA guide will include:

- An explanation of when to do a multi-criteria analysis (MCA) and when to do a CBA;
- How to do CBAs with difficult to measure costs or benefits;
- The use of ranges rather than single point estimates;
- Explanations on the use of option values and the analysis of finance leases;
- Guidance on frequently encountered difficulties; and
- Guidance on how to present CBA analysis to decision makers.

A number of presentations and courses will be available to both publicise and provide training in the application of CBA.

The final guide will be available on [Treasury's website](http://www.treasury.govt.nz) later in the year.

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5 minutes with

This series features short interviews with members of our infrastructure community, to highlight interesting projects underway across the sectors. Today we interview **Colin Crampton**, chief executive of **Wellington Water**. Wellington Water was established in September 2014. The company is owned by the Greater Wellington Regional Council and the four urban councils of the Wellington Region. Its job is to consult, plan, improve, operate and maintain the provision of 3 Waters (potable, waste and storm water) services to roughly 400,000 residents.



Kia ora Colin!: What are the main areas of focus for Wellington Water at the moment?

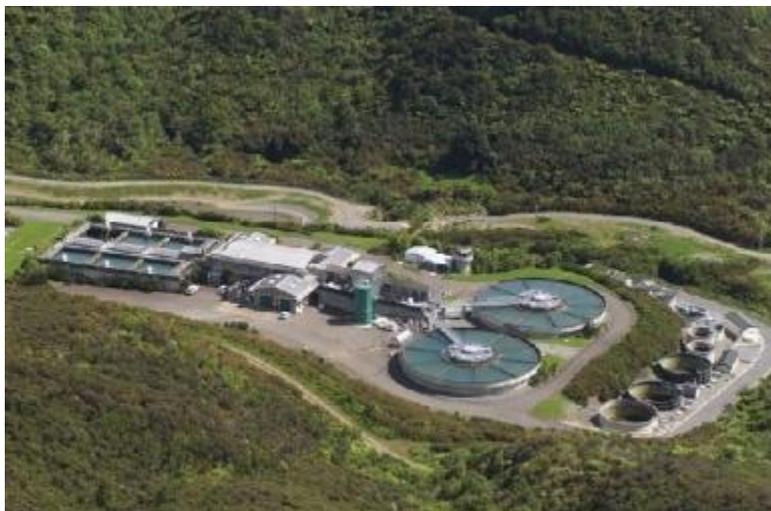
Leading up to Christmas 2014, we reorganised ourselves into a more efficient network-based structure and appointed a new leadership team. This structure goes live on the 2nd of March and the key focus then will be to transition to the new structure while delivering all the day-to-day services we do.

As part of the reorganisation of water services in Wellington a Water Committee was set up. The Committee is comprised of one representative councillor from each shareholding council. Its job is to provide governance oversight to the Wellington Water Board and to provide an environment where councils can take a regional approach to some water issues.

What do you see as the main challenges in the 3 waters area facing your company?

As the company looks forward we see the main items to address are:

- Steadily building a 3 Waters and catchment based approach to asset management so each individual council knows its assets are being properly managed and they are playing their part in a bigger regional network;
- Helping bring the reality of the national policy statement on freshwater into operational relevance. Setting limits for what we take and put back into freshwater must be backed up by workable, funded plans.
- How can we save money and improve environmental outcomes by educating our community better about how they interact with water bodies; and
- Ensuring the region can continue to provide potable water to all residents after natural disasters.



In your opinion, what is the one thing with the potential to raise performance further in the industry over the next decade?

Underlying all this work is the need to keep working on developing the technical capability of staff to collect the right data and use this data to improve the predictability of our forward investment. It is too easy to talk in generalities. So I think all infrastructure providers must continue to develop and invest in the capability of staff to meet the technical challenges we face. I also see great merit in the idea of sectors sharing best practice and developing national standards so what we are trying to achieve is made as simple and easy to understand as possible.

If you have a project that you would like to feature in a future interview, or know someone who would, please let us know.



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A day in the life of... Naomi Bennett

In this feature, we introduce members of NIU and NIAB, and show you what a typical day working in NIU entails. This month we have Naomi Bennett. Naomi is an analyst in the NIU and joined Treasury after completing a PhD in Old English Literature at Cambridge University.

"My primary role in the NIU is as vote analyst for communications and transport policy. I work alongside a lot of people with different roles in Treasury, as well as the Ministry of Transport and the Ministry of Business, Innovation and Employment. Issues I look at range from maritime safety regulation to Ultra-Fast Broadband. I'm one of the first points of contact for these agencies whenever they have a question that needs Treasury's advice, although I have to ask a lot of other people here for some of the answers!"



At Treasury we are also expected to provide second opinion policy advice on everything the Minister of Finance will need to consider – that means all the papers that go to Cabinet, and a lot of other technical briefings. It's always a good idea to keep on top of the news as this can have a large impact on what we do.

In a typical day I might critique 3-4 cabinet papers from departments and provide Treasury's input on policy, or assistance with financial implications. Sometimes this is just by email or phone; other times it might be in meetings. Some papers I see only once, whereas other times I might see many iterations over a long time period and get to be very familiar with the policy. I also provide advice on regulatory impact assessments which accompany cabinet papers.

Cabinet and cabinet committees meet for about half the weeks of the year, and whenever a transport or communications policy paper comes up on the agenda I provide a briefing for the Minister of Finance. If there are several papers in one week it can be a bit hectic getting everything done.

Besides my vote work, I administer the meetings of the National Infrastructure Advisory Board, and provide input into the work my team is doing on the New Zealand Infrastructure Plan and a range of other workstreams, as well as providing input into other projects going on around Treasury and the public sector. Needless to say a 'day in the life' is pretty busy, quite variable, and nearly always keeps me on my toes!"

Forthcoming Events

- ▶ Downstream, Energy Conference, Auckland, 4-5 March <http://www.nzdownstream.co.nz/>
- ▶ IPWEA's Road Infrastructure Management Conference, 25-6 March <http://www.rims.org.nz/>
- ▶ Local Government Infrastructure Management Forum, Wellington, 30 March <http://www.ipwea.org/newzealand/home/>
- ▶ **New Zealand Infrastructure Forum, Wellington, 31 March - 1 April, www.infrastructure.govt.nz**
- ▶ National Infrastructure Advisory Board, 29 April, Wellington
- ▶ Water New Zealand's Asia Pacific Stormwater Conference, Auckland, 20-22 May <http://www.stormwaterconference.org.nz/>
- ▶ Combined IFME World Congress on Municipal Engineering and IPWEA International Public Works Conference, Rotorua, 7-10 June <http://www.ipwea.org/home>
- ▶ Local Government New Zealand annual conference, Rotorua, 19-21 July <http://www.lgnz.co.nz/home/events/>
- ▶ NZCID, Building Nations Symposium, Christchurch, 20-21 August <http://www.nzcid.org.nz>
- ▶ Water New Zealand annual conference and expo, Hamilton, 16-18 September <http://www.waternz.org.nz/>

