CENZ NEWS

CONSTRUCTING EXCELLENCE IN NEW ZEALAND

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CONSTRUCTING EXCELLENCE (NZ) LTD

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Sensational!

I was sitting in a meeting recently at which environmental issues were being discussed by intelligent and thoughtful civic leaders. The question of 'fracking' came up briefly and was picked up quickly by several attendees. This was one of those subjects which would have run for as long as the Chair allowed it to.

A number of those present had seen an American "Gaslands" documentary a day or two earlier focusing on attempts to improve yields from existing gas and oil fields; apparently with some bizarre side effects. Already I have been party to water cooler conversations where there is a general belief that fracking is "the thing they do to the ground that contaminates drinking water so you can light it". Consequently, I fear that the fracking process will be damned outright rather than some potentially high risk applications of the process.

Far too often we 'jump to confusions' and drive for blanket restriction on the basis of sensational portrayal of events. In the case of fracking, it might be that the process could be used to unlock a plentiful and sustainable aquifer to deliver water to a dry region without one hydrocarbon molecule in evidence. However, without the process and the application being understood as separate issues, the baby may, as it often does, disappear with the bathwater.

My knowledge of the fracking process is limited and I acknowledge that evidence could emerge to show that it is fraught with fundamental difficulties in any event. However, this is very different to shutting the mind to a process because it may have been used inappropriately and with undesirable outcomes.

Sensationalism continues to fuel the Genetic Engineering debate. An elderly friend of mine said to me not that long ago *"they'll never get me eating food with that GE stuff in it"*. I thought it prudent at that point to change the subject!

The nuclear debate was fuelled in New Zealand in the 1970s by 'nuclear' naval ship visits. The difference between their weapons capability and form of motive power got lost in the noise and nuclear energy was rolled into the weapons debate. In my lifetime there have been three publicised major nuclear power plant failures. Successive public reactions have become more extreme regardless of the relative effect of each on people and environment. With the tsunami-crippled Fukujima plant in Japan, endless hours of film coverage including almost gratuitous documentaries have hardened views on nuclear energy to the point where Governments are planning not only to cease development of new plants, but also decommission operating units. This is when the real issue would appear to be the integrity of risk assessment and risk management processes used by the Industry.

Which brings me to my real point.

Christchurch CBD

We are one year on from the 'big one' in Christchurch. I think the design professionals have communicated extraordinarily well to the general public the idea that 'earthquake proof' is about preservation of life first and capital asset second. Principles such as liquefaction, energy dissipation, elasticity and ductility have all been represented well in the public arena and have built new understanding around what affordable earthquake protection means.

This good communication has been in spite of media still trumpeting that *"someone must be to blame".* On a recent TV news bulletin on a decision to urgently demolish a very new multi-level apartment complex, the interviewer asked *"who is to blame for this having to be done to a new building?"* She was an intelligent woman and I am sure by then would have understood the principles . However, I have this nagging suspicion that re-charging public indignation and maximising ratings took precedence in her line of questioning.

Why am I surprised?

written by the Editor.

Maintaining affordability by Managing Stakeholder Expectations

A Roading Perspective

The productivity commission is currently looking at all areas of the New Zealand economy. It recently reported on the vexed question of housing affordability, of which productivity is but one element.

Another element of the housing affordability issue which is given little airtime is that of rising stakeholder expectations. The average floor area of new housing has increased more than 40% since the early 1950s. Double garages are seen as 'normal' when a modern motor vehicle's longevity is no longer a function of exposure to the weather. Equally multiple bathrooms and larger numbers of bedrooms are being specified at a time when average family sizes are shrinking rapidly.

We demand choice and this is best demonstrated in the number of low-cost housing companies who have broken with their original 'any colour as long as it's black' philosophies to provide a widening range of standard designs and the opportunity to 'bespoke' elements of these.

Housing affordability is generally measured as the proportion of household income needed to provide housing and does not specifically address the effect of changes in housing standards.

The Editor recently had the opportunity to discuss the issue of maintaining highway assets in a 'flat line' funding environment with Murray Clarke, New Zealand Transport Agency's (NZTA) Principal Advisor, Asset Management and Operations. Murray has had 51 years (yes 51 years!) experience in highways asset construction and management in New Zealand with the Ministry of Works, Transit New Zealand and now NZTA. In the course of discussion, the challenges of managing the Nation's roading network took on the same look as the housing affordability issue.

Murray Clarke, Principal Advisor

A 'flat line' funding outlook represents a real reduction of funding for maintenance and operation of the highways by at least the rate of general inflation and probably more given the cost uncertainties around bitumen. A five year continuation of this funding outlook could readily see a reduction in the budget by between 12% and 20% in real terms.

Murray has seen many positive changes in the manner in which roading maintenance has been procured. He has seen improved techniques for monitoring and planning and new methods of small and larger scale repair and reconstruction introduced; all of which have stretched the maintenance dollar further. However, this has generally been aligned with the principle that 'standards' and "Levels of Service" (LOS) will not be compromised.

Murray remembers well from his time in operations the great pride that asset managers had in the look of their network; from the uniformity of the surfacing through to shoulder treatments and even landscaping. He suggests that *"this pride still exists and remains a major influence on standards and LOS and in turn maintenance programme budgeting. This is coupled with an attitude to risk which leans towards a high level of security against failure of any network component."*

To meet current cost constraints, it is no longer realistic to solely rely on productivity gains either through technical advancements or changes in the way the work is procured or executed. This work must now be combined with a critical appraisal of current standards and LOS. This leads to identifying things of lower risk and value and making sure that we are minimising the residual life left in network elements prior to reinvestment. It is possible there will be some conflict with road user's expectations, especially around the look and feel of the network. These will need to be managed.

Reconciling the gap between what network managers want to provide and what road users actually need is necessitating a level of culture change. Murray acknowledges it is a change he has had to accept and now part of his job is to deliver that message across the organisation and support the change process.

NZTA builds maintenance programmes based on knowledge and past performance of the road network aided by using dTIMS; a piece of specialist software out of Canada. This is proving a very useful tool for modelling of a Network but cannot model the wide spread of asset performance which occurs from site to site in practice. In better times the broad network modelling of dTIMS would have been a satisfactory guide, but in tight times, it will be the ability of the network manager to identify where there is residual capacity and then to exploit it which will be key to providing service for least cost.

There is a little of 'back to the future' in changing the approach to pavement maintenance in particular. Skills which were once central to maintenance programmes before electronic databases and computer modelling are now in hot demand again. The ability to eye up a pavement and assess residual life or examine the early signs of shear failure and judge how long it will last before treatment are increasingly in demand as is institutional memory around past asset performance.

Equally important is the application of rational risk assessment when extending asset life close to or occasionally exceeding its limit. Traffic volumes, route importance and ease of closure are but some of the considerations.

In future Murray envisages that the on lower classified roads the network may look like the standard maintenance levels have been lowered too much and that maintenance crews may not be quite as quick to treat imperfections as they appear on the pavement. The odd failure may appear. If he has done a good job, this will not be a sign that the roading network is going to hell in a handcart! Rather it will be confirmation that we are wringing maximum value from the network.

Cement stabilisation of a highway shoulder.

Alliancing provides the confidence to innovate

Peter Millar, Business Development Manager

Peter Millar is the Australasian business development manager for Tonkin and Taylor; a 50 year old New Zealand geotechnical and foundations consultancy. As Managing Director of Tonkin and Taylor until 2009 Peter played a pivotal role in their involvement in the major infrastructure alliances which have been operating in New Zealand over the last decade. Peter is on the Board of the Northern Gateway and Newmarket Viaduct alliances and has a close involvement in the SH16, Basin Reserve bypass and Waterview Tunnel projects. He took the leader's slot with ACE Cohort 8 in Christchurch recently.

Peter's definition of alliancing was concise and clear. It encompasses four major components.

1. **One team with a flexible 'best for project' deployment philosophy**
2. **Collaborative working as second nature.**
3. **Joint ownership of targets and outcomes**
4. **Good faith.**

Peter regarded good faith as the cornerstone and defined it through a set of essential behaviours.

1. **Being fair, reasonable, honest**
2. **Doing all that can be reasonably expected**
3. **Not restricting the performance of others.**
4. **Applying equal weight to self and project interests.**

In Peter's view an understanding and empathy for the concept was at least as important as the expertise that any partner brought to an alliance and noted that companies which had an intractable or inflexible view of their potential role from either a technical or organisational perspective were unlikely to make a good alliance partner. Any resistance to the 'best for project' deployment philosophy was a serious handicap.

Alliancing lends itself well to a relatively narrow range of projects in New Zealand and has developed primarily in a roading infrastructure environment. Notwithstanding this, Peter noted our alliance successes have raised interest internationally and particularly in the eastern USA where until very recently there was no alliancing culture. The writer noted the use of the term 'culture' here where we might have traditionally used the term 'expertise'.

So, what are the factors which align a project with alliancing as a delivery model?

- **Complex interfaces**
- **Difficult stakeholder issues**
- **Tight timeframes**
- **Difficult to define scope**
- **An 'intelligent' Client who can add significant value.**
- **Risk and opportunity both significant and best handled collaboratively.**

Peter noted that alliancing has enabled otherwise intractable issues to be handled innovatively and with cost outcomes simply not achievable under more traditional models. He used as an example the twin tunnels on the Northern gateway which replaced the extensive earthworks otherwise necessary in an environmentally sensitive area.

This sensitivity was a consenting challenge which had not been resolved at the time of contracting and which responded well to Contractor input. The Contractor proposed tunnelling using traditional road-header techniques to hole through and then developed the tunnel profile using asphalt planing equipment which, given the site geology, proved to be particularly cost effective.

Such was the success of the alliance, that it was then engaged as preferred provider on the Newmarket Viaduct. The continuity provided by this arrangement also assisted in the decision to purchase sophisticated bridge gantry equipment designed for the needs of both projects to provide significant productivity advantages which would not otherwise have been available.

Alliancing has been significant in raising industry expertise, providing the financial certainty necessary to encourage capital investment and the confidence to innovate. Even a poor outcome will generally still see the Alliance's direct site costs paid although indirect cost recovery may be eroded under pain/gain arrangements. The collaborative nature of decision making, including Client input, justifies this approach while it also ensures that a single poor outcome is much less likely to threaten the commercial viability of the alliance partners compared with a more traditional approach; especially with respect to risk.

Peter reflected on the area of consenting for Alliance projects and in particular the requirement to have project design well advanced to be able to deal with a very wide range of submissions; many of which have little relevance to effect and amenity on which the RMA is intended to focus.

In his estimation the consenting process could be streamlined considerably if technical questions which would clearly be dealt with in detailed design and which have little bearing on amenity or effect were set aside. The increasing use of caucusing prior to hearings as a means of aggregating and considering issues raised by like submitters was, however seen as a positive move.

In closing his presentation, Peter did sound a note of warning. He had noted growing interest in taking NZTA developed alliancing models and applying them to other infrastructure situations. In his view it is important to evaluate any project proposition to see whether it is even suited to an alliancing concept and then custom building and testing the model against the particular stakeholder structures, drivers and constraints. **One size will not fit all and if the fit isn't quite right, blisters are inevitable.**

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Construction Clients' Group
CONSTRUCTING EXCELLENCE

Introduction

On the 28th March 2012, the Construction Clients' Group hosted its second Annual Members' Event at the University of Auckland's Tamaki Innovation Campus.

The main theme for the event was *Responding to Major Disaster* and we were delighted to welcome the Hon. Maurice Williamson, the Minister for

Hon. Maurice Williamson opens the Annual Members' Event

Building & Construction to provide the opening address. During his address the Minister talked about the importance of the bringing construction into the Cabinet via the new merged super department. He also went on to discuss the Canterbury rebuild programme, the success of the Licenced Building Practitioner scheme and the progress of the Productivity Partnership.

The Minister concluded that the Government would continue to seek smarter solutions and identified that a lowest cost approach to procurement stifles innovation and advised that a market driven approach is required to enable smarter procurement and public sector decision making.

The Canterbury Response

John Hamilton, Director at the Ministry of Civil Defence continued with the 'theme of the moment' – the response to the Canterbury earthquakes. The Ministry's response was broken down into 3 key phases: Phase 1 – assisting casualties, providing shelter, water, food and utilities; Phase 2 – recovery of deceased and welfare of residents; and Phase 3 – economic recovery and well being.

John went on to advise that information and communications has been paramount in the recovery to date and the Christchurch had set a global benchmark in the reconnection of utilities. However, he also cautioned that the earthquakes in Canterbury had been a major wake up call for individuals, businesses and government. A number of lessons have been taken forward with business continuity being a key area for improvement.

CERA's Challenge

Greg Wilson of CERA started by providing some key stats regarding the Canterbury earthquakes - 50,000 tonnes of liquefaction silt have been removed, over 50% of CBD buildings severely damaged, 124kms of water mains, 300km sewer mains and 600kms of roads have been damaged during the earthquakes. 12 schools have been

John Hamilton of the Ministry of Civil Defence

relocated.

Reporting on progress, Greg advised that the demolition phase would be

Duncan Gibb, Alliance Manager at SCIRT

completed by mid-2013. This equates to more than 680 buildings in the CBD alone with over 1300 in total. The draft recovery plan is now in place and the key now is maintaining and managing relationships with building owners and the community as well as providing clear and effective communications to all of the region's stakeholders.

Infrastructure Rebuild Underway

Duncan Gibb, the Alliance Manager at SCIRT (Stronger Christchurch Infrastructure Rebuild Team), advised that SCIRT has needed to find a balance between community engagement and having the 'gumption' to drive decision making. One of SCIRT's key objectives is to create a more resilient infrastructure and reported that there had been no failures of new infrastructure that has been reinstated.

SCIRT are looking to raise the bar across the board by creating new global benchmarks in health & safety as well as growing capacity on the local labour market. SCIRT has an open dialogue with other clients and stakeholders in the region. SCIRT has implemented a high performance team plan that will target innovation, betterment of existing specifications and a more resilient infrastructure. However, Duncan is realistic – we will be judged on our results. One of our key challenges will be to make the Alliance work and also delivering on our promises and commitments will be key.

2012 Annual Members' Event Report
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Lessons for Auckland

Paul Green from Auckland Council Civil Defence opened by advising a number of key lessons had been learned from the Canterbury Earthquakes and Rena disaster. He advised that strategies and policies around crisis management and business continuity and planning had been reviewed and updated. Since the Rena disaster the Harbour Master's Office has now been integrated into the Council's Civil Defence team. Strategies are now structured around understanding the nature of risks and hazards, resilience and continuity plans in place, early warning procedures, procedures for alerting the public of imminent threats, maintaining 24/7 readiness, and how to respond to and recover from emergencies.

Paul summarised that Auckland had learned a great deal from recent events in New Zealand and have since implemented a strategy for to maintain resilient communities with strong leadership, the need for one lead controller, the importance of logistics, and associated co-ordinated planning and exercises.

Industry reform

Bill Smith, the Chair of the Productivity Partnership, the joint Government-Industry reform programme targeting 20% productivity improvement in the sector by 2020 advised that the Partnership has commissioned a number of projects in support of aiding the response to the Canterbury rebuild. Bill went on to provide a comprehensive update of progress that the Partnership has made over the last 12 months which has culminated in the recent publication of the Productivity Roadmap, Research Action Plan and Sector Skills Strategy. All of these publications are available from our new website (launched in April).

Bill Smith, Chair of the Productivity Partnership

Responding to Rena

Rob Service, of the Marine Pollution Response Service at Maritime NZ, has been managing the response to the Rena disaster. Rob started by providing some startling statistics about the Rena's grounding – over 1700 tonnes of oil was still on board the Rena whilst over 1300 tonnes had already been recovered by the salvage team. Over 400 birds and 340 blue penguins are currently in care with over 2000 dead birds already collected. Altogether over 800 people have been involved in the response a clean-up to Rena with over 8000 volunteers registered from the general public. Rob's key lessons from the Rena disaster are to plan for volunteer involvement, more training and exercises/drills for the National Response team required, more comprehensive and robust procedures required especially for finance and administration. Rob concluded that a review of response structures is now required in light of the experience of responding to Rena.

Rob Service of Maritime NZ presents on Rena

Organisational resilience

Suzanne Wilkinson, Associate Professor at the University of Auckland, provided an update on the international resilient organisations initiative and lessons learned from overseas disasters. Suzanne concluded by advising that the key lessons learned from the Canterbury earthquakes are managing for resource shortages and bottlenecks; the impact on different sized organisations; impact of rescheduled work; availability of plant and materials; changes to specifications; delays in waiting for inspections and approvals.

Psychosocial Aspects of Disaster Recovery

Sarb Johal, Associate Professor at the Centre of Disaster Research, cover the psychological aspects of humans dealing with disasters. He looked at 4 key areas – Home (safety, security, refuge and togetherness), Work (people being separated), Play & Rest (people's lifestyles have been affected), Identity. This covered what the future Christchurch will look like and the role that the construction sector has to play in delivering the new City and the role Cantabrians have in engaging with the rebuild. Sarb also covered the impact of bonds being formed between colleagues, the impact of the disaster on personal lives with relationships breaking down.

Ongoing CCG Success

Peter Cunningham, CEO of the CCG, concluded the event by providing an overview of success during 2011 and plans for 2012. This included the success of the events programme and the Annual Members' Event, working with Government and the Productivity Partnership and delivering the CCG Best Practice Guides on Health & Safety, Sustainability and Client Leadership as well as the new membership and governance structure for the CCG.

For more information on joining the CCG and associated benefits from membership please contact Peter on 021 93 2000.

More information

All the presentations from the 2012 Annual Members' Event are available at:

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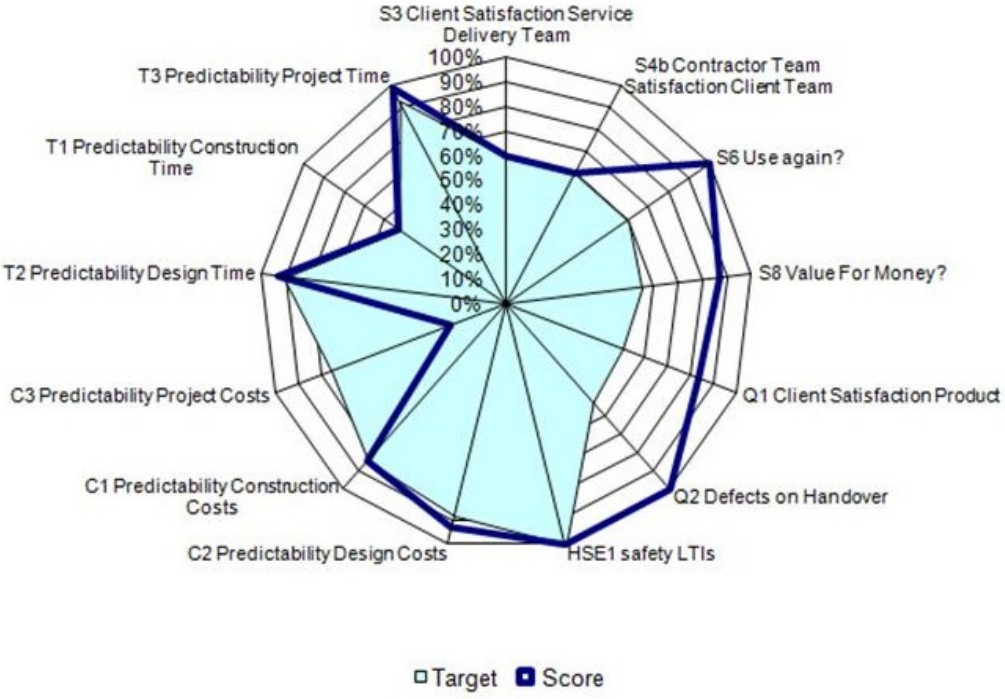
Benchmarking our way to higher productivity

Tim Warren, Director Constructing Excellence

Our current Government is convinced we can get a whole lot more for a whole lot less.

Initially, talk of improving productivity was one of the strategies which would generate wage parity with Australia by 2025. However, current imperatives are somewhat less lofty. The Government now needs to achieve major productivity gains across the whole economy if it is to get back to its planned fiscal surplus in 2014; an increasingly difficult task in the face of the Canterbury earthquake recovery.

Government agencies charged with development and maintenance of infrastructure have been given flat line budgets without inflation adjustment. Local Authorities are being whipped for past excesses and for growth in bureaucracy resulting in unacceptably high levels of rate rise; a little ironic given that one way of reducing costs in the state sector has always been to decentralise and devolve responsibilities to local government.



The Government has set some stiff targets backed by a greater than normal determination to see some results. The Productivity partnership is aligned with its objective to raise sector productivity by 20% by 2020.

Constructing Excellence has observed a growing interest in benchmarking performance across the sector as a means of gauging the success of initiatives necessary to ensure we do more with less. In the private sector this is generally being done on an individual enterprise basis with little opportunity for comparison. However, in the public sector, there is significant movement toward benchmarking clubs.

Tim Warren, CE's Managing Director has been leading a number of benchmarking club initiatives. *"While there are benefits in benchmarking individually, these grow exponentially with the sharing of data and results between similar organisations. Being able to gain an Industry perspective on performance standards is the key to major measurable enterprise and sector improvement."*

Private sector enterprises have largely shielded the scant performance information they had from their competitors lest they use it to their advantage. Tim Warren cites the UK experience where there is a pool of major contractors keen to compare and share on the basis that they will be seen as part of an elite group clearly differentiated from the 'cowboys' and able to access the pool of premium market opportunities as a consequence. *"This was a realistic target; a long way ahead of the 'free for all' procurement scene but recognising that exclusive access as an individual stand-out enterprise was extremely unlikely"*

Good groundwork has been done around benchmarking KPIs in NZ by a number of CCG member organisations and highlighted in the BRANZ Pathfinder Projects. National KPIs were established and published in 2005-06 but have since lapsed. Constructing Excellence is keen to see this initiative re-established on a sustainable basis and see the Productivity partnership as a launch pad for this.

Constructing Excellence provide support for benchmarking frameworks which are equally applicable in the client, design, construction management and specialist supply chain spaces. They are also equally applicable to capital projects and long term maintenance projects.

A senior group of estate holders including NZ Defence Force, IRD, NZ Police, Victoria University, Department of Corrections and Kiwirail have formed a best practice group to share performance management data around a common set of KPIs which will be incorporated in all contracts and link into an extensive international experience pool.

...cont.d Benchmarking our way to higher productivity

New Zealand Transport Agency require the use of standard KPIs by all agencies undertaking NZTA funded or subsidised projects. They are also very supportive of territorial local authorities sharing their data through benchmarking clubs which are being set up in both the North and South islands.

Benchmarking represents an important tool for performance management within an organisation and as a prequalification tool for a specialist supply chain. Naylor love attributed their growth over almost a decade to the integration of benchmarking with their best practice programme while Arrow International are working towards supply chain accreditation; initially through commitment to benchmarking and ultimately on the standards achieved.

Auckland Property are maximising the integration of KPI data taken straight from their project management database with improvement strategies while Auckland Transport now have a mature process for reviewing project performance against international standards for their road corridor maintenance contracts.

The Christchurch rebuild is seen as a testbed for performance measurement with significant differences in procurement practices adding a second dimension. The Productivity Partnership's Evidence Work stream is researching the best productivity indicators for that environment and will collect base line data. Ultimately this may form the catalyst for reinstatement of a national database.

Tim Warren suggests that *"within 5 years, prequalification at all levels in the supply chain will be primarily dependent on the quality of an enterprise's leadership and its standard of performance measured against robust national standards. Not much else will matter".*

Boom & Bust – An Anathema to Productivity
Launch of the Auckland Procurement Forum

BUILDING AND CONSTRUCTION PRODUCTIVITY PARTNERSHIP

The Productivity Partnership's procurement work stream considers New Zealand's 'boom-bust' market cycle as a major impediment to sustainable productivity improvement in the construction sector. It has been focusing initially on central and local government infrastructure programmes and seeking ways of regulating the pipeline of major projects coming to market.

Constructing Excellence has been working with the Productivity Partnership studying the feasibility of bringing agencies together to collaborate and smooth the release of project opportunities. This would provide greater assurance around forward opportunity and allow the industry to rationalise its capital investment around both technical capability and skills.

The Auckland market accounts for around 50% of the country's infrastructure investment and has been used as a pilot. The feasibility study known as the Auckland Pipeline Project was received by Client agencies with considerable enthusiasm and the Auckland Procurement Forum was launched to a large audience of senior industry players by Mayor Len Brown and Hon. Maurice Williamson on 5th March 2012.

The forum's foundation membership includes 11 public or semi-public Auckland organisations keen to get better value for taxpayers' and ratepayers' money through improved procurement practices. With average annual spends of $2 billion each, the potential productivity gains are huge. Further organisations plan to join the initiative at a later date to bring the forum to over 30 members in 2012.

With the sector having an average annual capital spend of around $20 billion and employing around 170,000 workers any efficiency gains it can achieve will potentially have wider flow-on effects across into other sectors and deliver significant economic and social benefits.

Bill Smith, Chair of the Partnership explains his enthusiasm for the Auckland Pipeline Project: *"Successful delivery of a built environment programme of work depends on markets being able to respond effectively, in a timely manner, innovatively and at an affordable price. There is an opportunity in Auckland to develop intelligence around the matching of demand and supply and providing sufficient notice to the supply market of forthcoming work, thus enabling them to gear their businesses appropriately."*

Bill notes that *"No public-private [sector] combined view on future capital investment in the sector is currently available in the industry and there is little or no sharing of strategic procurement plans within government. There is evidence that civil sector productivity is rising faster than the vertical sector and that NZTA's attitude to workload visibility has been a key contributing factor. This is important supporting evidence for the Forum's objectives"*

Once the Auckland Pipeline Project gains momentum, the initiative will be extended to Christchurch around the middle of this year as the earthquake rebuild starts to gain momentum.

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THE ACADEMY of CONSTRUCTING EXCELLENCE

Adding Value to the Construction Industry
Partnering with NZIM

Continuation Cohort 8 Christchurch

2012 BLOCK 3

Sept 27th & 28th	Oct 25th & 26th	Nov 22nd & 23rd
Project Feedback	Business Strategy	Lean Construction
Supply Chain Mgt		
Supply Chain Mgt	Finance	Continuous Improvement In the Supply Chain

Continuation Cohort 10 Auckland

TERM 2 2012 - 2013

26th & 27th Jul	30th & 31st Aug	27th & 28th Sep	25th & 26th Oct	22nd & 23rd Nov	
Leadership	Business Strategy	Performance Measurement	Risk Assessment (Integrated Teams)	Customer Relationship Management (CRM)	Project Review
Communication Skills	Project Feedback	Finance	Perf. Meas.	Managing Change	Risk Management	Customer Relationship Management (CRM)	Project Review

STARTING JUNE Cohort 11 Auckland

TERM 1 2012

26th & 27th Jun	26th & 27th Jul	30th & 31st Aug	27th & 28th Sep	25th & 26th Oct	22nd & 23rd Nov
Course Outline	Excellence	Leadership	Business Strategy	Performance Measurement	Risk Assessment (Integrated Teams)	Customer Relationship Management (CRM)
Excellence	MBTI	Communication Skills	Project Feedback	Finance	Perf. Meas.	Managing Change	Risk Management	Customer Relationship Management (CRM)

TERM 2 2013

21st & 22nd Feb	21st & 22nd Mar	25th & 26th Apr	23rd & 24th May	27th & 28th Jun
Supply Chain Mgt	Project Feedback	Lean Construction	Collaborative Working	Team Building	Project Review
Supply Chain Mgt	Continuous Improvement In the Supply Chain	Integrated Teams	Leadership Skills	Project Review

Note: Modules and dates are subject to confirmation.

Construction Clients' Group CONSTRUCTING EXCELLENCE

Coming Events...

16th May 2012, 9:00 to 1:00pm - CHRISTCHURCH

Contract Awareness

30th May 2012, 8:30 to 12:30pm - AUCKLAND

BIM—an introduction

27th June 2012, 8:30 to 12:30pm - WELLINGTON

Procurement & Supply Chain Integration