



Presentation to BEES Seminar, Christchurch

Robert Finch, CEO STIC
13th July 2012



The STIC Stakeholders

MSI Research Consortium



STIC's Overall Aim

Solutions for the non-housing market



Concrete multi-storey



Pre-stressed timber



Steel portals



Quick-Connect timber portals



World class research



Portal frames & roofs



World class research



Timber and Timber Concrete Composite floors



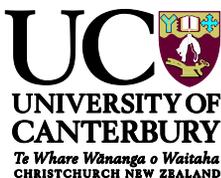
World class research



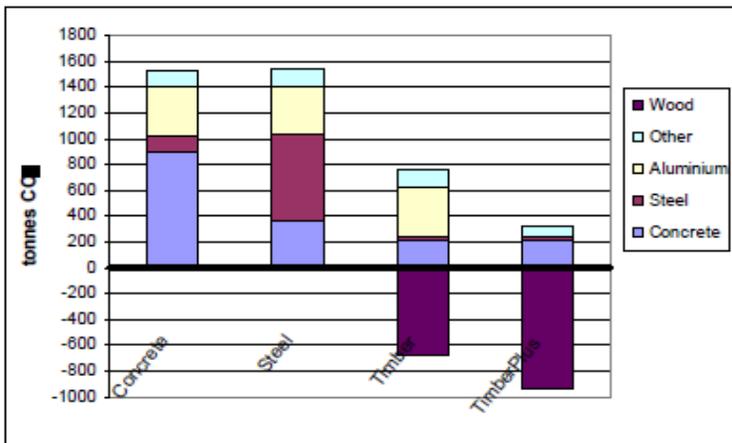
Post-tensioned frames & walls, fire performance, sustainability



World class research



Post-tensioned frames & walls, fire performance, sustainability



World class research



Durability specification of EXPAN buildings

J S Betz

Gluing of structural sections





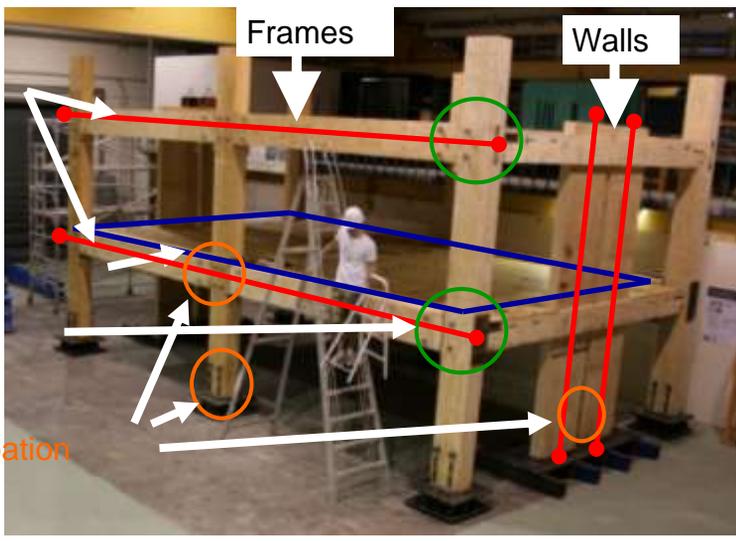
Post-tensioned – how does it work

Post-tensioning tendons

Floor diaphragm

Beam-column

Energy dissipation



Delivery – First Design Guide

Workshops in Australia

Workshops in New Zealand



Delivering R&D to the Marketplace



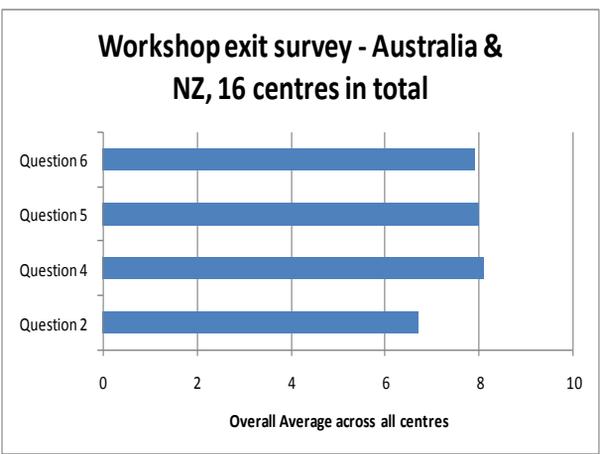
R&D outcomes delivery - NZ



R&D outcomes delivery - Aus



Feedback from Workshop Series (2011)

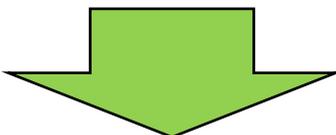


- Q6: did w/s fulfill your objectives?
- Q5: how would you assess quality of presentations?
- Q4: how would you assess the skill & ability of the speakers?
- Q2: how valuable is what you learnt for your day-to-day work?

Success in the Marketplace



First Design Guide delivered (2011)



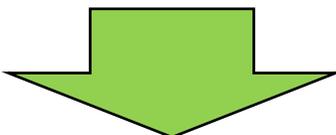
160 new Australian licensees
(engineers, architects, constructors)



Success in the Marketplace



First Design Guide delivered (2011)



75 new NZ licensees
(engineers, architects, constructors)



Recent Review



MSI Mid-term review

- Review completed in Nov 2011
- **Overall summary was very positive, with no major issues identified:**
 - "...After almost 3.5 years of operation STIC's progress has been impressive. Their approach, centred upon building awareness, ... has resulted in the construction of 8 high profile buildings that will serve as valuable case studies and proof statements for their technology ..."
 - "...STIC has assembled a powerful network of collaborators including the major engineering firms of Arup and Opus..."

Recent EXPAN Multi-Storey Post-Tensioned Buildings (NZ)



NMIT Arts & Media - Nelson



Massey University CoCA - Wellington



Carterton Event Centre - Carterton



EXPAN Office - Christchurch

Recent Portal Frame Buildings (NZ)



Tumua ITM - Hastings

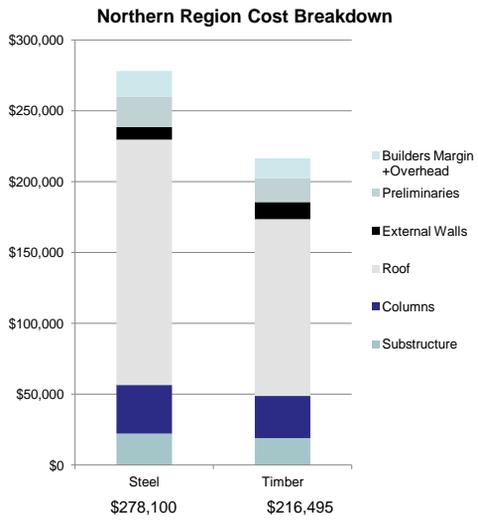
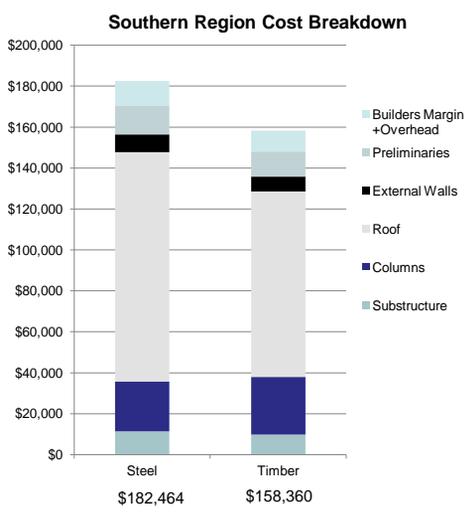


BRANZ Nikau - Wellington



Wairiki Institute

Costs – Q-C in Australia



New Opportunities



Building opportunities at present

Country	New build opportunities
New Zealand	~18
Australia	~12



Snap-shot of Future Design Guide Completion



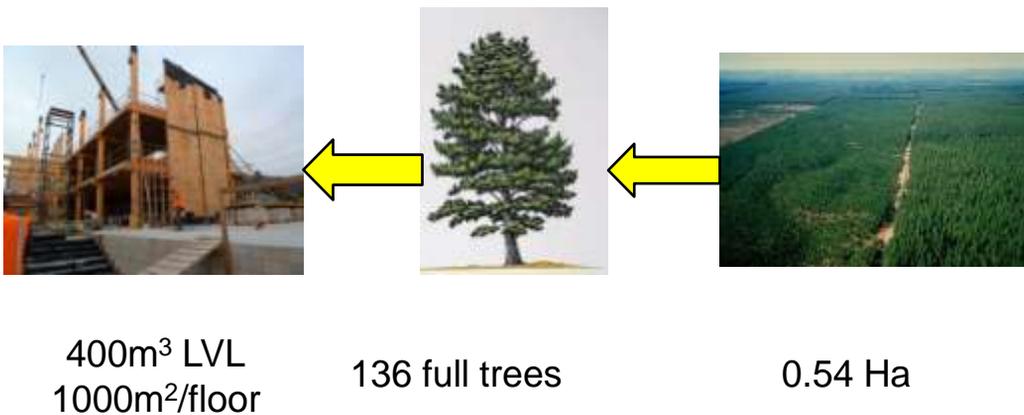
Scorecard to date



Description	Target	By When	Achievement
Roll-out workshops	Deliver workshops in Aus & NZ to introduce new DGs	Mar 2011	Workshops delivered in 16 centres in May / Jun 2011. Total participants over 400
Licensed users	2 architect or engineering companies in Aus & NZ & 2 fabricators	Sep 2010	Total of 230 licensees (151 Australia & 79 NZ) by Aug 2011
Post-tensioned multi-storey design guide	Design guide for seismic regions using post-tension techniques prepared	30 Nov 2011	New draft post-tension design guide prepared Feb 2012



The case for the urban forest NMIT – a dense forest!



Building footprint = 18.4% forest footprint!





Massey CoCA Bld – a dense forest!



300m³ LVL
1000m²/floor

102 full trees

0.41 Ha

Building footprint = 24% forest footprint!



Merritt Bld – a dense forest!



~340m³ LVL
617m²/floor

116 full trees

0.46 Ha

Building footprint = 13.3% forest footprint!



Thank You. Questions?



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