

CASTINGS

NEWS & VIEWS

SEPTEMBER 2017

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Message from the Chairman

It was with great pleasure that I had the opportunity as Casting Technology Chairman to accompany John Redman to the Metals New Zealand Gala Awards dinner mid September at Addington Racecourse. About 250 people from HERA, SCNZ, MRM, NZSSDA, NASH, and GANZ attended dinner and prize giving, and presented their industry awards on the night .



John was presented with our industry award by the **Hon Nicky Wagner**, Minister for the Regeneration of Christchurch city. The evening was hosted by media personality Andrew Mulligan which also had a comedy interlude with Gary McCormick. It was a great opportunity for John and myself to network and share what our industry is doing to further our apprentice training and mentoring.

Dean Armiger
Chairman

CTNZ Industry Champion Report

In my last newsletter I reported on an interview I had with Sam Charlwood a writer for Metal Casting Magazine with questions relative to the New Zealand foundry industry. His opinion is in the latest MCT magazine where he states that Australia's ever shifting market conditions have forced foundries to embrace change, often at a faster rate than their Asia Pacific counterparts. The same can be said for NZ.

For so long a relative minnow in the global casting network, New Zealand maintains its foothold in the world hierarchy on a healthy though relatively strict domestic supply chain. Unfortunately the demise of A & G Price had not unfolded at this stage. We cannot compete with high volume low cost castings so we have to find niche markets with more specialised product with new relevance to the global casting market. At our recent conference speakers emphasised this point to the delegates and as a member's group CTNZ needs to show that it will support technology advances.

Bill Lovell
Industry Champion

CTNZ Conference 2017

Our conference this year in Dunedin was once again successful although the attendance numbers were slightly down. I suspect that the destination is not as suitable as the airfares are expensive and the taxi fare from the airport almost equal to the cheapest airfare. Our sponsors this year have been very generous and have contributed to the success of the conference. For the second year in a row we added a Sunday morning session after the AGM and due to the popularity of our keynote speaker, Professor Mark Jolly this was well attended. The theme of the conference was 'Sustainable Foundries – the Future' and our speakers followed the lead of our keynote speaker, in adopting the theme.



The industry tour on Friday afternoon to Scott Technology in the Kaikorai Valley proved to be extremely interesting. Scott specialises in the design and manufacture of automated production, robotics and process machinery. A leading expert in automation & robotic solutions globally that improve productivity, reliability, yield, and safety for manufacturers and processors in industries. Scott Technology is widely recognised, as a world-class builder of advanced automation systems, particularly for the appliance, meat processing, mining and superconductor industries globally. My interest was particularly in how far a New Zealand company can establish itself in the global market by thinking beyond the local market i.e the low hanging fruit.



Our partners had an interesting Saturday morning tour of Olveston House interrupted by a maid popping out of a doorway and offering a high morning tea. Olveston House



is a time capsule as little has changed inside the house since it was occupied and all who attended were very impressed.

Socially we always enjoy the Friday night drinks and canapes and the opportunity to catch up with our colleagues in the industry. This same atmosphere continued on prior to the Saturday night banquet dinner. Our excellent local Jazz musicians could not compete with the level of conversation throughout the night. A focal point is the Chairman's welcome and acknowledgement of our sponsors followed by the presentation of the Foundry Award. This year's award for dedication and excellence in foundry work was presented to John Redman from CWF Hamilton Jets acknowledging his work for the company, the industry and his dedication to reform of the NZQA unit standards with Competenz.



The Sunday morning AGM was well attended and followed by Mark Jolly's session three prior to all departing.

Employment - Job Vacancies

This is the first time that I have had no employment application enquiries. I would be interested in hearing from any member who has successfully employed someone from the previous applicants.

MetalsNZ Proposal

Metals NZ Proposal to Showcase Foundries At our conference in Dunedin Gary Hook touched on the Government Purchasing rules and how they can affect NZ industries.

Subsequent to this presentation I was invited by Gary to discuss this further. Gary outlined a recent project to showcase the aluminium extrusion and manufacturing facilities in Hamilton which purports to be the second largest Aluminium city in the Southern Hemisphere, yet this fact is virtually unknown within NZ procurement circles. The proposal was a bid to create awareness amongst potential users, particularly those supporting the Government Procurement Rules. A similar but smaller project could be developed for the casting industry and Kiwirail was suggested as a potential customer who needs more awareness of the local casting capabilities. As an SOE, Kiwirail falls into the schedule 4 category which states that whilst not mandatory it is preferable that they source in NZ and that if required they

can be asked to prove that they have made every effort to procure within NZ.

The backbone of the proposal is as follows;

- Situation Appraisal

Future success will be strengthened by in market supply chain communications & relationships. Early engagement on product development is essential Technical interactions with customers on what's possible with castings is essential We need to tell our story; who are we, what can we do for customers such as Kiwirail

- Agenda Introducing CTNZ

Global Castings & Foundries NZ

Manufacturing Casting Innovations

How we see the market in NZ including Kiwirail. Engaging with our customers & supply chain early. How can we support Kiwirail's strategic agenda?

- Meeting Industry meeting with KiwiRail Facilitated by neutral Metals NZ

CEO Metals, 2x or 3x CEO's from Foundry's plus technical/Bill Lovell

- Location at a Foundry likely to be a supplying company...or one demonstrating what is possible

Engagement to assist to build relationships

- About Us. Casting Technology New Zealand exists to promote the casting Industry through:

- Championing development of World Class Foundries using technology, Marketing and recognised best practise.
- Marketing the productive capabilities of members.
- Organising Technical, Business and Networking Activities at branch level and Australian Foundry Conferences.
- Encouraging active participation in quality training at every level.
- Creating publications useful to the industry including a dynamic website.

- Forming partnerships with Government that strengthen the prosperity of the industry.
- Keeping abreast of proposed legislation that will affect the industry, clarifying current issues and representing the metal casting industry's position to Government.
- Recognition of the Professional Foundryman.
- Encouraging operational activities that respect the personal wellbeing of members and their staff.

Bill Lovell presented this proposal to our board at the last meeting with that the cost would be above \$5k. After discussion it was decided that this was use of the member's funds and for your benefit and should be presented to them to decide if this is efficient use of CTNZ funding. If you are interested or oppose this proposal please let me know.

Conferences and Events

World Foundry Congress

Where: Krakow, Poland

When: 23rd - 27th September

AFI National Conference 2017

Where: Adelaide Oval Function Rooms

When: 27th—29th October 2017

Asian Foundry Conference

When: 7th – 10th November 2017

Where: Songdo Convesia, Incheon, Korea
www.afc14.org

International Metal Technology

When: 16th – 18th November 2017

Where: Kaohsiung Exhibition Center, Taiwan

Foundry Die Casting Conference

When: 17th November 2017

Where: The Westin, Pune, India

The China International Foundry & Casting Expo

When: 20th – 22nd November 2017

Where: Shanghai New International Expo Center, China

VIMM 2017 – 4th Vietnam International Metal & Metallurgy Expo

When: 29th November – 2nd December 2017

Where: Saigon Exhibition & Convention Center, Ho Chi Min City, Vietnam

1st Asia-Pacific International Conference on Additive Manufacturing

Where: RMIT Melbourne

When: 4th – 6th December 2017

www.apicam2017.com.au

AFI Conference 2017

2017 AUSTRALIAN FOUNDRY INSTITUTE NATIONAL CONFERENCE

“New Methods - The Key to the Future”

The Adelaide Oval, Adelaide, 27-29 October 2017

AFI Conference Schedule

Friday 27 October 8.00am - 10.00am National Council Meeting 10.30am - 3.30pm

Conference Golf Day - Adelaide Shores Golf Club

4.00pm Registration Opens

6.00pm - 7.30pm President's Reception

Saturday 28 October 8.30am Registration

Opens Welcome & Introduction

9.15am - 10.15am Session 1 SACA Committee

Room Professor John Campbell OBE,

Birmingham, UK Description of the

fundamental issues in casting. The nature of

turbulence and the creation of the

entrainment defects, biofilms and bubbles.

How these fundamental defects relate to

porosity, tears and cracking which we suffer

in castings. Improved filling system designs

can eliminate porosity, hot tears and cracks,

producing essentially perfect castings for the

first time.

10.15am - 10.45am Morning Tea
 10.45am - 11.30am Session 2 SACA
 Committee Room Professor John Campbell
 OBE, Birmingham, UK Continuation Session 1
 11.30am - 12.30pm Session 3 SACA
 Committee Room Tracey Murray, Glasshouse
 Advisory, QLD, Australia Utilise government
 tax incentives and grants to maximise your
 investments. Learn the importance of putting
 R&D incentives to work for your business to
 stay ahead in a competitive market.
 12.30pm - 1.30pm Lunch
 1.30pm - 2.30pm Session 4 SACA Committee
 Room Andrew Lister, Principal Consultant,
 Energetics, NSW, Australia Manage energy
 more efficiently and productively, prepare for
 changes years ahead of your competitors,
 and unlock new business opportunities in the
 emerging low carbon economy.
 2.30pm - 3.15pm Session 5 SACA Committee
 Room Professor John Campbell OBE,
 Birmingham, UK Details of filling system
 designs to eliminate entrainment. The detail
 of the 'naturally pressurised' filling system
 design. Latest devices such as Vortex gates
 and Trident gates, and latest approaches to
 filling technology using different varieties of
 contact pouring.
 3.15pm - 4.05pm Afternoon Tea
 4.05pm - 4.45pm Session 6 SACA Committee
 Room Professor John Campbell OBE,
 Birmingham, UK Continuation of Session 5
 4.45pm SACA Committee Room AFI AGM
 Evening 6.30pm - 7.00pm Pre-dinner drinks
 7.00pm – 11.00pm Conference Banquet
 Dinner
 Sunday 29 October 9.30am - 9.45am
 Welcome and introduction
 9.45am - 10.45am Session 7 SACA Committee
 Room Professor John Campbell OBE,
 Birmingham, UK The future potential for
 casting. The melting and casting route is the
 only production route for metals which has
 the potential to produce perfect products
 (competitive routes such as powder
 metallurgy, spraying etc all contain
 populations of entrained defects. Even
 additive manufacture will not be easy to
 avoid entrainment limitations). The potential

for uncracked and uncrackable metals is a
 whole new concept for metallurgy. It will
 fundamentally change existing metallurgical
 understanding. The implications for the
 understanding of so-called deoxidation of
 steels, and compositional approaches to
 eliminate entrainment defects will be
 presented. The new approach emphasises
 that the origin of failure of metals (failure by
 tensile cracking, fatigue, creep etc) all
 originate from cracks introduced in the
 casting process. Improved casting processes
 and their understanding is critical to the
 development of new-age materials incapable
 of failure by cracking.

10.45am - 11.45am Morning tea

11.45am Farewell

For further information please contact:

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MESNZ National Conference

Been sucked in by health and safety gravy
 train?

You can save money immediately by reading
 the following.

Test and tagging of electrical appliances and
 leads is NOT a legal requirement in NZ
 industrial plants.

If you Google it you'll find any amount of
 references convincing you that it is a legal
 requirement, but follow those links and you
 will always come to the test and tag industry
 many of whom are cultivating this fallacy and
 who ultimately benefit financially from your
 confusion.

"In the view of the MESNZ this is but one
 example of the unhelpful 'smoke and mirrors'
 rubbish that gets seized upon and promoted
 by health and safety advisors and HR
 practitioners, particularly within larger
 organisations" said Barry Robinson, Chairman
 of the Maintenance Engineering Society of
 NZ.

"What is happening is these misleading H&S
 processes become de-facto norms and get

mimicked by the media and smaller organisations who think that because the big plants are doing it, then it must be the specified standard that needs to be adopted in all industrial operations large or small". Robinson, who has spent over 30 years safely and healthily running NZ's largest hot forging and heat treatment plant, makes no apologies for his confrontational approach. Other examples are: Compulsory wearing of safety glasses, hard hats and hi-viz vests in industrial plants; proliferation of orange cones; Stress-inducing beepers on machinery, and banning of ladders. These things waste time, money, and productivity. Worse, in many cases they can actually expose us to greater risk.

"Don't get us wrong", he said, "at MESNZ, we are all for keeping people in plants safe and healthy – but we achieve far better results by using simple logic and keeping it real."

Don't put up with BS in H&S!

Come to the MESNZ's National Maintenance Engineering Conference in Hamilton this November 15 & 16, and learn of many other things that you don't have to waste your precious resources on (www.nmec.co.nz).

Have your eyes opened by the enlightening presentation 'The Emperor is wearing Fluoro Clothes' – along with

Take the learnings back to your plant and benefit from immediate increases in staff H&S engagement and workplace safety.

Barry Robinson, Chairman of MESNZ

Call Chris 027 297 9643 or Leanne 021 34 6315.

Virtual 3D Printing Workshop

Damian McGuckin and Dr Gui Lang presented a paper at our conference and are now interested in running a workshop either in Melbourne or New Zealand. I have indicated that either Auckland or Christchurch would be preferable and CTNZ could be interested in trying to facilitate this with the help of Callaghan Innovation or AUT.

Virtual 3D Printing Workshop (Blown Powder and Powder Bed)

Using simulation to model the process to provide a better understanding of the process with which to improve how it is used. Damian ask's; *"if we held a workshop on this in Melbourne, would there be sufficient, or indeed any, interest from people in New Zealand that people would fly over here to attend? What sort of workshop cost would people accept?"*

I am not looking to make a profit, just cover costs.

Alternatively, how would I gauge the interest of holding one in New Zealand, and if so, where?"

People would be provided a 3 month free trial licence of the software subsequent to the course to try on their own systems.

We could also look at a similar workshop but just using simulation software for casting. If you are interested in this course possibly in the New Year please email Bill Lovell.

NZMEA Name Change

The NZMEA (New Zealand Manufacturers and Exporters Association) has a proud history of supporting New Zealand manufacturers since 1879. Today, manufacturing in New Zealand faces many challenges. Manufacturers need to hold their own and want to grow their business in an increasingly interconnected and highly competitive global environment. Whether it's through exporting or competing with imports, it's all about remaining globally competitive! To achieve that, manufacturers need to overcome a chronic shortage of people with the right technical and leadership skills.

They need to improve productivity through the adoption of advanced manufacturing technologies that are evolving at an ever-increasing rate. And they still need to cope with an overvalued exchange rate that eats into their margins.

Before this background, we felt it was time to signal more clearly through our name what the focus of our organisation is. Our motto remains the same: We Support – We Connect – We Speak Up. As many of my conversations with members and others interested in

becoming a member have confirmed, that is the right order of priority, and a lot of the 'Support' happens through the connections we make. Connecting members with other members through workshops, factory visits and other peer-to-peer learning platforms, for example, or connecting members with experts in various areas through our Leadership Network events, or the study tours like the one to Germany we organised earlier this year. In other words, we are and act as The Manufacturers' Network – and that's exactly what we are going to call ourselves from now on!

THE MANUFACTURERS' NETWORK

21 September 2017

The NZMEA signals an even stronger focus on supporting globally competitive manufacturers with the launch of a new name: THE MANUFACTURERS' NETWORK

We make stuff - real, tangible, lasting products that contribute significantly to a strong New Zealand economy. And through that, we are making New Zealand what it is today, and pointing to the future of what New Zealand can be tomorrow.

As a nation, we need to "get off the grass" and increase the value of our exports. That won't happen without the contribution from a strong and growing manufacturing sector, producing and exporting sophisticated, high-value products and services to the world.

EMEX 2018

Coming up next year is the bi-annual EMEX show at the Auckland showgrounds from 1st to 3rd May. CTNZ has supported members exhibiting for the last 2 shows and has committed to a stand for the 2018 show. The deal is that CTNZ shares the stand with as many members' exhibits as possible and the cost will be shared equally. The 2014 show attracted several foundries who returned to exhibit in the 2016 show. An early expression of interest in exhibiting will be helpful as there is quite a bit of planning this event. Please contact Bill Lovell.

Board Members Email Contacts

Should you have any queries or require assistance, please feel free to contact a Board member.

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