



**Casting Industry –  
the career choice for  
makers, creators, and  
innovators**

## **Melting Moments – March 2024**

### **Presidents Report**

Welcome to the first edition of Melting Moments for 2024.

As we have almost navigated our way through Q1, many members are still reporting solid workloads ahead. Although there are some reporting a slowdown in enquiries, generally we are a busy industry and are excited about opportunities and perhaps diversification.

The challenges of cost of living/doing business remain. However, we will hopefully see some relief (albeit small) with recently announced Tariff concessions being introduced. In Victoria unfortunately, increases in Land Taxes is seeing some business considering a move to other states where the cost of doing business is significantly lower.

At our February meeting the Industry Capability Network (ICN) presented. Many thanks to Katherine Smith and Andrew Mannering who not only shared ICN's current capabilities and services but also introduced a new and exciting platform soon to be released. (see full details later in this edition). If you are not already registered on the ICN Gateway please take the time to check out this service and register.

I was lucky enough to visit Hycast Metals with AFI(NSW) members (President Keiran Slattery, Treasurer Glenn Thiele) and MP Justin Clancy, Shadow Minister for Skills, TAFE and Education. This visit introduced Mr Clancy, first hand to our industry, its critical contribution to manufacturing and our sovereign capability and at the same time some of the issues that we face. This was followed by an extremely well attended tour of Weir Minerals, Artarmon by AFI(NSW) members. The scope and diversity of this facility is quite remarkable and they continue to invest to expand their capabilities and capacity. The day ended with a presentation from Foseco and the AFI(NSW) AGM.

Over the Labour Day weekend, several of our members Stuart McCorkelle - Heritage Patterns, Dave Tatti -Outlaw Castings and Neil Wellington - Golden City Lace along with Alan Cooke and I, representing the AFI, attended the Lost Trades Fair <https://www.losttradesfair.com.au/> for the third

consecutive year. See complete article later in the newsletter.

Just last week ADCA and AFI collaborated to present our members with the opportunity to tour the Nissan Casting Australia Plant - located in Dandenong South. Please check out Gary Savages report on the event.

Progress continues by the Team at CTNZ with planning of the 2024 Conference in Christchurch, New Zealand. A fabulous destination, not only for a conference, but also a wonderful opportunity to extend your trip for a few extra days (or a week) and take in the amazing experiences on offer. See further details later in the newsletter.

### **Amber Maxwell – AFI Victorian President**

#### **AFI National**

Here's wishing a very productive & fruitful 2024 to all our members.

Sadly, from a global perspective the Russia Ukraine war coupled with the Israel – Palestine conflict continue with impact on business (shipping etc) having some impact but this pales in comparison to the human cost in each of the affected regions.

In the domestic setting we have the rate of increase in CPI decreasing significantly with forecasts for the March quarter expected to see the reported numbers in the low to mid 3% range. This should be better news for cost-of-living pressures & be a relief for household budgets. Our industry appears fairly busy despite some continued softening of order books.

The electricity & gas pricing and supply for every State except WA has continued to see significant decreases in pricing compared to the equivalent period for 2022 following Federal & State Government intervention through the implementation of a gas & coal price cap. However, the energy regulator (AEMO) has forecast generation shortfalls over the next 2-3 summer periods particularly for SA & Victoria. The 23/24 summer has not seen the significant shortfalls forecast by AEMO but the heatwave being endured in the SE early March '24 and the Feb '24 Victorian storms has certainly put additional pressure on the network. This coupled with the Federal opposition beginning to

argue the case for nuclear reactors to be part of the solution for base load generation means the next year or so of energy policy will be worthwhile to try to influence actions that supply the NEM with consistent and inexpensive utilities.

From an AFI National perspective we look forward to the 2024 conference which is planned to be hosted by CTNZ in Christchurch. In addition, at the October '23 meeting we appointed Alan Cooke to assist the AFI National Body in terms of advocacy with various State & Federal government bodies for topics ranging from training and apprentices, government procurement policy, energy and environment / safety in addition to the normal Industry Report and website optimisation.

Please remember we need to know the issues each member is facing to enable the State & National bodies to advocate on your behalf, to enable the AFI to represent the industry effectively.

I look forward to the opportunity to see you all in 2024 refreshed & ready for another big year of making, creating & innovating!!

**Brett Lawrence – AFI National President**

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## **FOUNDRY IN A BOX ACTIVITY**

### **LOST TRADES FAIR - March 9 – 10**

#### **Bendigo Racecourse**

The Lost Trades Fair is a unique, captivating, inspiring and authentic event. This year marks its 11th year of celebrating craftsmanship manual work, ancient arts, heritage crafts, rare trades and the knowledge passed down through generations.

The hot weather this year did not deter the crowds who attended over both days to watch true artisans and talented craftspeople demonstrate skills and share the knowledge of their trade.

The metal casting industry were again well represented. Stuart McCorkelle - Heritage Patternmaking - spoke to hundreds of interested people over both days, including two daughters of one of the original owners of Davies and Baird (the Davies family). Dave and Nikki Tatti - Outlaw Castings - along with Neil Wellington - Golden City Lace - mesmerised those who stopped by the stand making moulds and (with special permits) casting small aluminium castings. Alan Cooke and Amber Maxwell were there with the Foundry in a Box kit demonstrating on a smaller scale and speaking with Parents, Grandparents and children about the exciting and fulfilling career opportunities in the Metal Casting Industry.

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### **Melbourne Career and Employment Expo - March 14 – 16, Melbourne Showgrounds**

AFI(Vic) were able to have a presence on the AIE booth at the recent Careers Expo at the Melbourne Showgrounds.

With AIE having a 3D printer operating and the AFI with our FiaB kit making sand moulds, there was plenty of activity to attract enquiring young minds to the booth. Multiple school groups were present on the Thursday and Friday. The Saturday had much less traffic but those that were present had a genuine interest in learning about the metal casting industry.

*It is anticipated that from these 2 activities plus the upcoming Technical and Trade Fit Expo in May, we will receive bookings for FiaB workshops.*

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## **APPRENTICES AND TRAINING**

The Australian metal casting industry is – and will continue to be – the epitome of a “thin market” in training organisation terms. There are 2 trades that are specifically related to the metal casting industry – Moulders and Patternmakers. Many of our business owners and managers began their careers in either of these 2 trades.

MEM31719 – Cert III in Engineering - Casting and Moulding trade largely delivers the skills that we need to replace our ageing workforce of Moulding tradespeople. The Qld, NSW, Vic and SA State governments all have funding agreements in place for either SkillsTech (Brisbane based TAFE) or AIE (Vic based private RTO) to deliver this qualification. The Tasmanian government has had the practice for many years of funding costs associated with interstate travel for apprentice training.

This Cert III level course does not include a computer aided design (CAD) component. With solidification simulation, 3D printing, Industry 4.0 all being common practice today, the industry considers that an entry level CAD unit at a Cert III level course is an absolute necessity. This combined with the practical hands-on skills gained, delivers a tradesperson that is more fitted to today's work environment.

MEM31622 – Cert III in Engineering – Patternmaking trade is similar to Casting and Moulding, in that the course delivers the practical hands-on skills needed in the industry but lacks a CAD component. Currently only SkillsTech in Qld offers this course.

We have the added barrier that many of our non-Qld based businesses will not support sending apprentices on block release to Qld. The private RTO, AIE, fill this gap for us by offering a non-traditional training delivery model which is (in over-simplified terms) the

trainer goes to the apprentice, rather than the apprentice going to the RTO.

AIE have just begun an alternate pathway to a trade Patternmaking qualification, which has been discussed and accepted by the industry in Vic and NSW.

Patternmaking apprentices enrolled with AIE begin in MEM31719 for the base level units that are common for metal casting related Cert III courses, then transfer into MEM40119 – Cert IV in Engineering.

Appropriate selection of units within MEM40119 assures that on completion the apprentices are fully equipped to perform Patternmaking duties with the added bonus of having CAD training as well.

It's been flagged that this pathway may be of concern to the NSW authorities. AIE (with AFI support) will pursue this.

Currently the Victorian authorities have not funded MEM40119. AIE (with AFI support) will pursue this. Another gap in the training needs of the industry is for furnace operators and metallurgists.

MEM31719 does cover molten metal handling and furnace operation at a base level, however there remains a need for a non-trade course (possibly Cert II) that delivers personnel competent in these skill areas.

The larger concern is the lack of a Metallurgy course on offer. This training gap is impacting on many more industries beyond metal casting. For many years now, the skills gap in our industry has been covered by in-house training. This approach is not adequate ongoing. Last year MEM50522 – Diploma of Engineering – Materials was released. This qualification includes a metal casting stream that could deliver reasonable metallurgical training. However, there is currently no RTO's even considering offering this course. Being a "thin market" is a blocker. Any RTO that does take this on would need to offer the course online and the AFI would need to work with the RTO to secure State based funding across all the State authorities – a daunting task. These same comments apply to the previously mentioned Furnace Operator training.

#### **FUTURE TRAINING**

A proposal has been floated to combine the initial training of Moulding and Patternmaking apprentices into a Cert III in Engineering – Casting Technology qualification, with the apprentices transferring to a Cert IV in Engineering to complete either a Moulding or Patternmaking stream.

This model is favoured by AIE and is being considered by the industry.

#### **CONCLUSION**

The "work skills cliff" is a real and pressing risk to the Australian metal casting industry. All parties with a vested interest – State and Federal governments, RTO's, the AFI and individual businesses – need to work together to develop the training systems that

deliver the skills that are required for a healthy industry.

#### **Alan Cooke - AFI National Vice President**

#### **VALE – TREVOR BOYLE**

It is with great sadness that we learnt of Trevor Boyle's recent passing at the relatively young age of 73. As many of you would know, Trevor was the owner and operator of Austral Brass Foundry, Sefton until he sold the business to new owners Simin and Mohsen in 2014 who at the time, relocated portions of the foundry to Milperra where they still operate from today.

Trevor was a part of the Boyle family that have operated foundry businesses in Sydney for several generations. Trevor was well known throughout our industry as being an excellent and extremely capable foundryman whose business created an extensive range of both small and large and often complex non-ferrous castings for Australian industries over many decades.

Apart from Trevor's life-long connections with foundry operations, he was also a passionate collector of historic military vehicles and as such was an extremely active member of AMVCS (Australian Ex-Military Vehicle Collectors Society Inc). As one of the longest serving active volunteers of the AMVCS, Trevor was honoured with Life Membership of that association.

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#### **AROUND THE TRAPS**

Part of the Australian vernacular, the word "furphy" describes a story that may be untrue or an embellishment.

Its origins date back to World War I, when troops in military camps would gather, swapping tales, around water carts manufactured by the company Furphy.

On November 27<sup>th</sup> 2023, collectors, enthusiasts and community members alike will gathered to celebrate Furphy's 150-year anniversary of operating in Victoria's Shepparton region.



Originally setting up operations in Kyneton, John Furphy moved the business to Shepparton in 1873. Furphy went on to invent and produce a horse-drawn water cart with cast-iron ends, which was used for many things, including carting water for troops in the

military camps prior to being transported to the Middle East and Europe in WWI.

The long partnership between the Shepparton region and the Furphy name still survives today, with fifth-generation descendants of John's — Sam and Adam Furphy — running J Furphy and Sons and Furphy Foundry respectively.

Managing director of J Furphy and Sons Adam Furphy said the 150th anniversary was an exciting milestone. "There is a lot of people internally in the organisation that are proud to work for a company that has been around for that long," Mr Furphy said.

Malcolm and Danielle O'Toole from Corowa are the proud new owners of a commemorative Furphy tank end after purchasing it at a charity auction that was a highlight of an event celebrating the 150<sup>th</sup> anniversary of Furphy manufacturing in Shepparton. Produced especially for the 150 year anniversary the tank end is one of only 15 ends manufactured and is the first of only 4 that will be offered for sale to the public. The tank ends are coveted items and are prized by a growing and enthusiastic group of collectors from around the country.



### Harvester Tech

Wednesday 22/5 has been set for the Harvester Tech visit to Beckwiths. All students participating will have a hands-on experience of producing and machining a bench vice that they get to keep. Full report in the next edition.

With steady production numbers, Furphy Foundry has made the decision to convert from hard sand moulding to gravity die casting.

Similarly, Backwell IXL are expanding to a 2-shift casting operation.

In good news for our NSW based members, a recent review of the rates provided by the Vocational Training Assistance Scheme (VTAS), has resulted in an increase in rates provided. The scheme provides financial support for some of the travel and accommodation

costs to apprentices and trainees required to travel long distances to attend formal training.

### ICN Presentation – Wed 21/2

The first AFI Vic presentation of the year was from the Industry Capability Network (ICN) regarding the service and opportunities they can offer. This is much broader than many of you might think!! This event provided information on funding, grants, advocating for increased local content for Government and large projects and of course, an overview of the ICN Gateway and how your business can benefit by registering on this platform.



### From ICN:

***Introducing Gateway Topics by ICN, the smarter way to manage your procurement data.***

Industry Capability Network (ICN) is a network of experienced industry procurement and supply chain specialists who connect Australian and New Zealand businesses to projects large and small.

Our core platform, ICN Gateway, is the pivotal connection between major projects and the best suppliers in the regions. It is a simple, easy to use tool for major projects across Australia and New Zealand to promote upcoming procurement and contracting opportunities.

With our soon to be released newly designed and developed Gateway by ICN, we are excited to offer



Government, Industry Bodies and Community groups the ability to streamline your supplier data processes by utilising our new 'Gateway Topics by ICN' powered by ICN data, to showcase companies and projects on Gateway by ICN using your industry, sector or membership base with your own customised wording and imagery.

Gateway Topics by ICN can help you save time and reduce process costs all in one easy to use platform. They can also help you manage your data through centralisation of data entry for the supplier, without the time and cost resources associated with individual platforms. You can remove your backend overheads and improve the integrity of your data by tapping into ICN's proven verification management system.

Your Topic instantly uses supplier information from profiles on Gateway by ICN, making it easy for you improve the quality of your data. Each supplier in our database has undergone a rigorous verification process, ensuring your data is clean and up to date.

For more information on how Gateway Topics by ICN can help your business, call ICN's National Products and Services Director, Andrew Kiloni on 0407 866 748.

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### **AFI/ADCA tour of the Nissan Casting Australia Plant (NCAP) 20<sup>th</sup> March 2024.**

<https://www.nissan.com.au/about-nissan/about-us.html>



Over 40 people were treated to an eye-opening tour of Nissan's casting plant in Dandenong South (NCAP). With over 40 years of producing automotive castings, initially low pressure but now dominated by high pressure die castings and some value-added activities like machining, sub assembly etc, plus welded steel towbars. The plant continues to innovate and win work within the Nissan global network. They get no favours, and have to compete with countries like Thailand, China and Mexico.

NCAP currently export all their castings with Japan and North America being the major markets. They have succeeded in becoming the Mother Plant for electric vehicle components (Leaf (fully electric) and ePower (ie Hybrid)), ie inverter and stator castings. NCAP's product mix has shifted to the larger and more difficult

castings because they have the engineering expertise to take on the challenging jobs. They have the ability to do simultaneous engineering and design work in consultation with R&D in Japan and Korea then being able to launch the product by themselves. Cost optimization strategies and quality control measures are critical to remaining competitive. These include Poke Yoke and validation plans to ensure part quality, integration of fettling cells and automation with quality checks and fail-safes in place to prevent defects.

The tour concluded with a meal and drinks at the Dandenong RSL with about 36 people attending and everyone had a great time. If another tour to Nissan comes up in the future - don't miss it.



Thanks to Gary Savage for the editorial.

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### **NEXT AFI VIC Meetings**

#### **SAVE THE DATE**

**Wednesday 17 April 2024**

**AFI April Meeting @ The Village Green Hotel**

Sourcing skilled staff: Onshoring versus offshoring  
Dan Engles, Managing Director of Visa Solutions, provided information on:

- skills shortages around the country affecting every industry and sector of the Australian economy
- two options for employers – bring skills onshore, and offshoring;
- recruitment from overseas and immigration solutions; and
- which visas to use and what are the risks and timing of onshore options

#### **AFI May Site Tour**

Wednesday 15<sup>th</sup> May – for a site visit to Goldacres - agricultural equipment manufacturer

<https://www.goldacres.com.au/>

Ballarat Head Office

3 Morang Cres

Mitchell Park ,VIC3355



Learn how Goldacres is an industry-leading manufacturer and supplier of world-class agricultural chemical spray equipment for farmers. A successful company driven by a philosophy to provide farmers with equipment and technology that delivers, strives for innovation, quality and adaptability through a courageous approach to the research and development of its versatile range of sprayers.

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### **Justin Clancy MP NSW State Member for Albury visits Hycast Metals, Sydney**

NSW MP Justin Clancy, Shadow Minister for Skills, TAFE and Tertiary Education joined AFI NSW President Keiran Slattery; NSW Treasurer Glen Thiele and AFI Victorian President Amber Maxwell for a tour of Hycast Metals, Sydney works. Hycast General Manager, Annie Keeler conducted an extensive tour of their investment casting operations including pre-cast and after-cast operations and meeting many of Hycast's long serving and very enthusiastic employees.



*Mr Kung Fu - one of Hycast's ceramic firing kilns*

Annie's father John Kell who is still active in the business that he acquired over 40 years ago is still very active in the business.

Annie Keeler spoke of her passion for the business and her wonderful team of workers some of whom have had more than 40 years of service such as Kung Fu, their furnace and spectrometer operator -pictured here.

Annie said this of her team. *"I feel very fortunate that I really enjoy the work, the challenges and the opportunities! It's a privilege to be a part of the business and the strong culture that has been nurtured over many years - a credit to Dad and the rest of the team."*



*L to R: Keiran Slattery; Justin Clancy; Annie Keeler; Amber Maxwell; Glen Thiele; John Kell*

Hycast Metals maintain a NATA accredited metals analysis laboratory enabling them to investment cast a large range of alloys of steels and stainless-steel alloys as well as nickel alloys, cobalt alloys, cast iron, brass, bronze, aluminium and other alloys to suit most purposes. Hycast's high strength stainless steel architectural castings have been exported to unique building projects all over the world.

[www.hycast.com.au](http://www.hycast.com.au)

This foundry visit that was organised by AFI NSW Treasurer Glen Thiele as an opportunity to bring to the attention of a State Member of Parliament, some of the many issues and challenges that many of our foundry members face in these increasingly difficult times. AFI NSW Committee members were very pleased that Justin Clancy accepted our invitation to not only visit Hycast Metals, but also attend and speak at our AFI NSW AGM held later that evening. It was very pleasing to see Mr. Clancy's sincere interest in our industry and his talk at our AGM was very well received with almost 40 members and guests present.

### **Keiran Slattery - AFI NSW President**





# AFI/CTNZ 58TH NATIONAL CONFERENCE

“SHAKEN BUT NOT STIRRED”

WEDNESDAY 16TH OCTOBER -  
SATURDAY 19TH OCTOBER

## REGISTRATIONS OPENING IN APRIL



**Keynote speaker**  
**Mr Bob Puhakka**



**Site Visits**  
**CWF Hamilton**



**A W Fraser**



### Venue

**Crown Plaza, Christchurch**

Discounted accommodation rates for the conference can be reserved now using this [link](#).

Dates available for the discounted rates are 16th – 20th October 2024.

If you want to arrive early or stay on after the conference, make your initial booking then contact Phobe:

[Phoebe.Zwarts@ihg.com](mailto:Phoebe.Zwarts@ihg.com) and she will extend your booking at the discounted rate.



### Dinner Venue

**Sign of the Takahe**



### Timeline

Wed 16/10 – AFI National Meeting  
Thur 17/10 – Jet Boating and Industry tours  
Fri 18/10 - Conference sessions, CTNZ and AFI AGM's and evening entertainment

Sat 19/10 – Conference sessions and banquet at Sign of the Takahe



### Video

**Christchurch 2024**



# CTNZ/AFI 2024 58<sup>th</sup> National Foundry Conference

## “Shaken but Not Stirred”



### Important dates:

- Fri 22 March 2024** Call for papers opens
- April 2024** Registrations open
- Mon 3 June 2024** Call for papers closes
- Mon 1 July 2024** Notification to authors
- Thur 1 Aug 2024** Early registration closes

## Call for Papers

**Casting Technology NZ invites submissions of abstracts for papers for the 58th CTNZ/AFI National Conference to be held in Christchurch, 16-19th of October 2024.**

### Topics can include, but are not limited to:

- Technical related to foundry operations
- Future Trends
- Resources
- Government Charges / Tax / Grants
- Energy savings
- Methods / Simulation
- Environmental Impacts / Pollution
- New Technologies
- Cost Reduction
- Waste Minimization

## Guidelines

The theme for this year's conference is “Shaken but Not Stirred” and we want to focus on building a solid foundation so that foundries can grow and thrive into the future and become resistant and resilient to future “shocks”. We prefer papers with a technical content related to improving foundry operations, but all submissions will be considered.

### Presentations:

Oral presentations will be allocated 30 -45 minutes speaking time with an allowance of about 5 minutes / discussion time in an appropriately themed session.

### Abstract submission:

Abstracts are to be submitted via email to Mickael Deroncourt at [mickael.deroncourt@hamiltonjet.nz](mailto:mickael.deroncourt@hamiltonjet.nz).

You will also be required to submit a biography of no more than 150 words and email a current headshot in JPG format, no larger than 1MB. Closing date for abstract submission is Monday 3rd June 2024. Applicants will be notified of the outcome of their submission by Monday 1st July 2024.

### Registration fees:

Successful presenters are required to register for the convention as delegates and must pay the relevant registration fee in order to ensure their abstract is included in the final program. The Conference Committee is unable to provide financial support to paper presenters with regards to flights, accommodation, registration or other expenses relating to their participation in the convention.

### Audiovisual requirements:

The convention will provide speakers with a laptop (including Microsoft Power Point, USB port and sound), **projector, screen, lectern** and microphone. Please bring your presentation on a USB drive.

### Full papers:

Once the paper is accepted full papers need to be submitted to the Mickael by Monday 2nd September 2024. It is the committee's intention to print or be made available electronically all successful author's contact details, biographical details and abstracts and/or full papers in the convention proceedings.





Check out the 2024 AFI(Vic) Program. Note that we plan to live stream all presentations, so that wherever you are in Australia you can participate. Lock in the dates now!



### Australian Foundry Institute (Vic Branch) 2024 Program v2

Month	Date	Location	Topic	Presenter	AFI / ADCA Contact
Feb	Wed 21st	The Village Green Hotel	ICN Presentation	Kath Smith Andrew Mannering	Amber M
Mar	Wed 20th	Dandenong	Nissan Diecasting – site visit		Craig A (Lost Trades 9/3 - 10/3) (Careers Expo 14/3 – 16/3)
Apr	Wed 17th	The Village Green hotel	Skilled Migration - presentation	Dan Engles	Alan C/Sean B (School Hols 29/3 to 14/4)
May	Wed 15 <sup>th</sup>	Ballarat	Goldacres - agricultural equipment manufacturer Site Visit	<a href="https://www.goldacres.com.au/">https://www.goldacres.com.au/</a>	Adam H (Trade Fit Expo 8/5 – 9/5)
June	Wed 19th	The Village Green Hotel	Choice Energy		Alan C (School Hols 29/6 to 14/7)
Jul	Wed 17th	Deakin University, Geelong	ManuFutures Automation (site visit) plus Richie Smyth – Al Casting (presentation)		Sean B / Alan C
Aug	Wed 21st	The Village Green Hotel	Casting Developments		Gary S
Sep	Fri 6th	Sovereign Hill, Ballarat	Annual Technologists Picnic		Gary Bunn – Materials Australia
Sep	Wed 18th	Moorabbin	Parish Engineering Metal machining Site Visit		Amber M (School Hols 21/9 to 6/10)
Oct	Wed 16th – Sat 19th	Christchurch NZ	AFI / CTNZ National Conference, Christchurch, NZ		CTNZ and AFI
Nov	Wed 20 <sup>th</sup>	The Village Green Hotel	Legends Night and AGM		Amber M/Alan C
Dec	Wed 4 <sup>th</sup>	Errols Nth Melb	Planning meeting		Alan C