



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

Melting Moments – December 2023

Presidents Report

Welcome to the final edition of Melting Moments for 2023. Firstly, let me begin by thanking and congratulating Wolfgang Maier on his tremendous tenure as AFI Victorian President and for his leadership and tireless work during this conference year. Huge thank you once again to the Metal Casters across Australia and New Zealand for your support via sponsorship, conference attendance and excellent presentation.

With booming to busting order books for many over the bulk of the year, some have seen a couple of lumps slip in as we entered Q4. Increasing costs of doing business and living in general, and some economic uncertainty may be part of our immediate future but those challenges do not have to define our pathway forward. Over the next 12 months, as a result of some solid work behind the scenes, AFI Vic now have Australian Institute of Engineering (AIE) as our RTO to deliver the Casting and Moulding Apprenticeship Course and they expect to soon be in a position to deliver the recently updated Patternmaking Apprentice training. I am elated to advise that our very own Alan Cooke has agreed to take on an official position with AFI National. This position will raise the profile and general awareness of the critical and essential products and services the Australian Metal Casting Industry provides. It is vital that we reach the eyes and ears of the decision makers for assistance, and to be consulted and considered in policy making areas. The list is long, however here are just some of the numerous challenges we are facing that we hope to address. Energy, Import Competition, Local Content Compliance, Limited availability of Skilled Labour and Training, Large Infrastructure Projects, Availability and Access to funding and support both at a Federal and State level. We need a voice, to reaffirm our relevance and importance.

I wish you and your families a wonderful time together over the holiday period. Rest, relax and re-energise for a fulfilling and prosperous 2024.

Amber Maxwell – AFI Victoria President

AFI National

Now we're all in sight of the end of 2023 it's time to reflect on the year & ready ourselves for 2024.

From a global perspective I don't think too many 'experts' believed the Russia Ukraine war would still be going but the more recent Palestine Israel conflagration reminds me how grateful I am to be living & working in Australia. My thoughts & prayers are with the innocent bystanders in each conflict zone who unfortunately pay the price for having the 'bad luck' of living in those zones.

In the domestic setting we have the RBA concerned about discretionary spending continuing to drive inflation despite the cost of living 'crisis' putting extreme pressure on a multitude of household budgets. However, our industry appears fairly busy despite some softening of order books. The likelihood of higher-than-normal wage increase claims will need to be factored into forecasts for the next 12 months.

From a foundry perspective, the National Conference in Melbourne hosted by AFI Vic was extremely well organised with excellent attendance numbers and from a personal perspective was an excellent time to catch up with trends & industry peers.

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 consequence for high energy using businesses such as our industry is the potential for higher pricing or decreasing demand in peak periods. From an AFI National perspective we look forward to the 2024 conference which is planned to be hosted by CTNZ in Christchurch. A reminder that an international conference - the 16th Asian Foundry Congress coordinated by the Japan Foundry Engineering Society is planned for Muroran, Hokkaido 1-3 December 2023.

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. In addition, AFI will be requesting an update of key data for the 2024 Industry Report via Alan Cooke – please support this request at your earliest convenience.

On behalf of the National Council, I wish all members, their family and friends a safe and happy festive season. See you all in 2024 refreshed & ready for another big year of making, creating & innovating!! 😊.

Brett Lawrence – AFI National President

Apprentices and Training

It's done – our apprentices that were previously enrolled with GoTafe have now been transferred to AIE!! As previously mentioned, we consider this to be a good outcome for the industry. We now have 2 excellent RTO's that are willing to work with our industry to deliver the training outcomes we need. There is still much to be done before we can pop the champagne though. Right now, SkillsTech remains the only option for Patternmaker training in Australia. AIE are working through this with the aim of offering Patternmaker training by mid-2024.

Vale Jim West – AFI Legend 16/02/1940 - 22/10/2023



Jim commenced his working life in foundries in 1957 as a Cadet Metallurgist with Hadfields Steelworks in Sydney, studying at

Sydney Technical College and gaining broad experience in the parent group's five Australian foundries which included Hadfields – Mitchell Road & Bourke Road sites in Alexandria, Industrial Steels in Lidcombe, Queensland Electric Steel and Scotts of Ipswich.

By 1969 Jim was Group Steelmaking Superintendent for the Parent Company A.E. Goodwin for the manufacture of Diesel Locomotives, Railway Rolling-Stock and General Engineering castings.

As part of A.E. Goodwin's employee development program Jim spent 2 years studying metallurgy and steel making in the U.K., Europe and the U.S.A.

Jim into a new phase of employment taking on the Foundry Managers position at J & E Ledger Foundry in Perth from 1972 to 1976, where they predominantly produced NiHard mill liners for the mining industry.

In 1980 he re-joined the Vickers Group at Vickers Ruwolt in Melbourne, initially as Chief Metallurgist and later as Quality and Technical Services Manager until their closure in 1985.

In 1986 Jim formed a consortium to purchase Steel Castings P/L jobbing foundry in Port Melbourne, where he served as Managing Director and Technical Director. Jim considers this as his greatest achievement, in taking a business which was dead but didn't know it and turning it into what was considered at the time to be the best steel foundry in Australia.

A lifetime of achievements and a truly remarkable man, friend, uncle, husband, father and foundry Man - RIP

Foundry in a Box Activity (FiaB)

This last quarter has seen a significant drop off in FiaB activity as schools wind up the year's program. I did have a trip to the Shepparton Show at the request of Patternmaker, Kevin Winch. Shepparton is home for the Furphy Foundry.

Interest from the general public was high at the Show, with many keen to "have a go" at making a mould. However, there was no great expectation that this interest would translate into new employees for the industry – with one exception. Late on the Friday

evening an extremely athletic looking young man wandered over for a chat which has resulted in him gaining employment at the Furphy Foundry.

Such random outcomes, demonstrates and reinforces to me that you need to have a presence at all sorts of public events to raise awareness of the Australian metal casting industry. I see this as an opportunity and great role for our recently retired cohort.

AFI(Vic) have begun to lock in FiaB activity at Career Expos and school workshops for 2024. An enhancement for these activities is to have material on hand that highlights the various career paths available in our industry. Is anyone available to help with this task?

57th AFI National Conference

And that's a wrap –

The 2023 AFI 57th National Conference is now done and dusted, and what an incredible event showing the enthusiasm and commitment to the Foundry Industry..

After a shorter than normal planning term the Victorian Committee delivered 3 days of site visits, social events, exceptional presentations from local and international guest speakers and a finale that will long be remembered.

With 122 registered Full, Day and Limited Ticket delegates this by far surpassed our wildest expectations. The uptake was not only limited to the official Conference days but also to our extra special precursor events, “Bifilms for Beginners” and the Site Tour of the extraordinary Beckwith Group expansion. Our official opening “The Presidents Reception” saw some very special and highly regarded industry guests in attendance, none more so, than our Centurian Legend and OAM recipient Bill Pratt. Professor Geoff Brooks from Swinburne outlined why, as manufacturers we should be confident of our future.

Day One kicked off with the first of two Keynote Presentations by John Campbell and by measure of its success, was standing room only. This exceptional attendance continued on throughout the following two days with no less than 90 delegates seated or standing, whichever the case needed to be, in the Melbourne Marriott's Exhibition Room.

Day Two followed similarly in the footsteps of the previous day, with further standing room only presentations, lead by Keynote Speaker John Campbell. The room remained almost full for the balance of the presentations up to, and including the review of the 2023 Industry Report and final address from National President – Brett Lawrence on the State of the Industry.

The finale - “The Banquet Dinner “ was one not to be forgotten, with the Honouring of our newly appointed Industry Legends, our up-and-coming Industry Achievers, followed by an unforgettable appearance by the internationally acclaimed and award-winning Melbourne based comedian Marty Fields, who had the whole room in hysterics.

Finally, our friends from across the ditch previewed just some of the events they have in store for us at next year's Conference to be held in Christchurch, New Zealand October 17-19, 2024.

Thank you to all who have provided us with positive feedback on the event, without the support of our industry businesses for sponsorship and attendance these crucial events would not be able to occur. Further without the commitment, diligence, tenacity and copious amount of time provided by the Conference Committee the event would not have been the enormous success it was.

As promised the presentations are now available by clicking on the link below and heading to the Program tab and opening the Speakers Profiles and Presentations section where you will find a link at the end of each Abstract

<https://www.australianfoundryinstitute.com.au/conferences/57th-annual-national-conference/>

Many have enquired about the obtaining a copy of the Conference Delegate attendance list which is available in the following link - [attendee list](#)

Photos taken throughout the event have been uploaded onto the Events Photo tab also on the Conference Page. Again, thank you for your participation and support of this Conference and our Industry. See you all in Christchurch!

CTNZ / AFI National Conference 2024

On behalf of CTNZ we are proud to be hosting next year's AFI National Conference to be held in the garden city of Christchurch next October 17th – 20th.

Mr Bob Puhakka is our Keynote speaker and he will be supported by an exciting range of speakers. The venue for the conference is the Crowne Plaza with the main dinner to be held at the Sign of the Takahe <https://signofthetakahe.co.nz> which is a unique heritage building in Christchurch. Some exciting activities are planned with tours through the world class manufacturing facilities of CWF Hamilton <https://www.hamiltonjet.com> and A W Frasers <https://www.awfraser.co.nz> Conference participants will also get the unique experience that is a ride on a jet boat in Lyttleton harbour and a chance to take the controls to test out the advanced control systems. It is said that a ride in a jet boat is "the most fun you can have with your pants on" but I will let you decide that!

Christchurch offers many fun activities in and around the city and it is the gateway to the wider South Island including Queenstown and the central Otago wine region. Arrive a few days early and take in some of the fun activities Christchurch has to offer, go punting on the Avon River through the city centre, enjoy a gondola ride to the top of the Port Hills, visit the Ferrymead Heritage Park, Airforce Museum, City Arts centre and many more stunning venues. We look forward to meeting you all again next year.

See the Flyer below containing promotional video and links to plant tour sites, conference sponsors so far and accommodation.



CTNZ Flyer PDF.docx

Gordon Muldrew, CTNZ Board Member

AFI (Vic) 2023 Legend – Steve Scott

On Wednesday November 15th 2023 AFI Victoria inducted our newest Legend - Stephen Scott. Stephen who has only ever work as a Patternmaker- began his career in the Foundry Industry at Bradken in



January 1990. He was there for 2 months when they announced they were closing – during one of his blocks at RMIT. When the doors closed mid 1990 he got a job at CT Kells and Associates. Stephen worked there for 13 years and in 2003 bought the company and renamed it The Pattern Shop. This December Stephen has been running his business for 20 years.

There are a number of things that he is proud of, ranging from making the pattern for one of the heaviest castings produced in the Southern Hemisphere at 60 tonnes, to reverse engineering the iconic Holden 253 engine block and making the patterns without drawings. He also



made inlet manifolds and cylinder heads the same way to suit this engine.

His involvement in and contribution to the industry spans more than 30 years as an AFI Victorian Member, Committee Member 1998 – 2014, Treasurer 2000 – 2014 and AFI National Committee Member.

His involvement also extended to AFI National Conferences.

- 2003 – Treasurer & Organising the Patternmaking Apprentice Competition
- 2009 – Treasurer

Stephen was heavily involved in rewriting Patternmaking Units to suit National Broad Based Training Requirements 2005 – 2007.

One of Stephens proudest achievement's was employing a number of patternmakers over the years in a pretty demanding trade. In fact, one of his protégé's has gone on to run his own patternmaking business.

Over 25 current members and Legends came together to celebrate and recognize the wonderful and long-time

contribution of Stephen. Another memorable and very successful evening honoring our newest AFI Vic Legend.



C O N G R A T U L A T I O N S !!!

Energy Users Association of Australia (EUAA)

We are pleased to announce - with special thanks to Guy Cunard, CR Mining – that the AFI are now Members of the Energy Users Association of Australia (EUAA).

In essence, EUAA operates to support its members, helping them to achieve their energy objectives through a range of services that focus on key areas of Policy Development, Advocacy, Networking and Information Sharing and Support. A full run down of what this membership to the EUAA can offer to AFI can be found on their website www.euaa.com.au.

Dobbie Dico – Metal Seated Gate Valves

Dobbie is an Australian owned foundry and engineering business located in Malaga, Perth. Though incorporated in Western Australia in 1940, they trace their history in the Australian foundry industry back to 1862.

Dobbie focus on precision engineered castings for Waterworks Valves, Civil Infrastructure, Mining, Rail, Heavy Industries, and the Defence sector. As champions of Australian sovereign manufacturing capability and supply chain resilience, they are proud to have produced the largest Metal Seated Gate Valves ever manufactured in Australia!

The successful manufacture of these valves (DN1800) is testament to Dobbie's Australian design and manufacturing expertise.

- The valves were manufactured to specification for the Western Australian Water Corporation.
- The valves are part of a package of DN1000mm, DN1200mm, DN1400mm, and DN1800mm MSGVs required for a large water treatment project in the Perth southern suburbs.
- Water Corporation undertook a preliminary technical review of bids, comparing critical component strength, corrosion resistance, and mitigation of known failure modes.
- Technical analysis and comparison of bids was undertaken as part of Water Corporation's due diligence process during the early weeks of COVID lockdown.
- Dobbie's valve design was developed through their extensive experience in gate valve manufacture and validated through Finite Element Analysis, which was undertaken by independent, Perth-based Mechsafe Engineering.
- Customisation requirements of the design specification were confirmed by Water Corporation's Engineering Advisory.
- Dobbie's manufacturing contract award was based on technical merit and commercial competitiveness.
- The valves were designed and manufactured with specialty materials selected for long-term durability and suitability specific to the project application.
- The majority of manufacturing activity took place at Dobbie's Malaga facility in Perth, with some of the larger castings produced interstate.
- The main valve components were cast in SGI 600/3 and provided with a specialised, corrosion resistant, protective coating.
- Other components were cast in LG2 or machined from SS316.
- Specialist services, e.g., coating, were contracted locally.
- Machining, assembly verification, and testing took place at Dobbie's Malaga facility, enabling the engagement of several new employees, including three new apprentices in the engineering department.
- The DN1800mm Metal Seated Gate Valves are the largest of their kind ever manufactured in Australia!!
- At completion, the DN1800mm valves weigh almost 20 tonne each and stand at approx. 5 meters high.
- While a key element of design selection was technical merit, local manufacture was an additional

consideration, especially during the lockdown-impacted economy.

- Local manufacture enabled Water Corporation to physically witness verification of required tests (e.g. hydrostatic pressure, sealing retention, coating continuity, etc.) firsthand.
- Real-time feedback and face-to-face interactions were vital to success and regular features of the process.

The production of these high-quality, large-diameter valves enhances Dobbie's national reputation as Australia's leading Metal Seat Gate Valve experts

Around the Traps



On Saturday 4/11, Amber Maxwell and Alan Cooke met with a representative of the Indonesian Foundry Association, Gustaf Armstrong. He was keen to explore how our 2 organisations can collaborate and has offered an open invitation for the AFI to present to their group at one of their quarterly meetings.

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25th Annual Technologists' Picnic -Friday 24th November 2023

"Cochlear Implants: past, present and future"

A strong AFI contingent of David Sykes, Ron Guerts, Paul Friswell and Alan Cooke attended the annual Technologists Picnic at Sovereign Hill.

These annual dinner-meetings held at Sovereign Hill Ballarat are attended by five industry associations: Australasian Institute of Mining and Metallurgy, the Australian Foundry Institute, Materials Australia, Engineers Australia, and the Australasian Corrosion Association.

The topics are varied and reflect a focus area in rotation from each of the associations. This year we have an interesting speaker Claire Hartmann on "Cochlear Implants: past, present and future"

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WorkSafe Victoria has announced that the long awaited Code of Compliance update has been delayed yet again. Draft is now due for release in Q1 2024.

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Our deepest sympathies and condolences go out to The White family on the recent passing of Yvonne White. Beloved wife of Bob and much loved mother and mother-in-law to Bruce, Karen, Neil, Tracey, Debbie, Chris, Craig and Donna and adored grandmother and great grandma.

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The AFI(Vic) Annual Report was tabled at the AGM on Wednesday 15/11. This report is available on the AFI website.

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

NEXT AFI VIC Meeting.....

SAVE THE DATE

Wednesday 21st February - for the first AFI Vic presentation of the year- from ICN (Industry Capability Network) regarding the service and opportunities they can offer. This is much broader than many of you might think !! This event will provide 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. In a tightening market an event not to be missed.



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	Kathryn	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		Sean B / Amber M (School Hols 29/3 to 14/4)
May	Wed 15 th	Ballarat	Goldacres - agricultural equipment manufacturer – site visit	https://www.goldacres.com.au/	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 – AI 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 – MA
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 th	The Village Green Hotel	Legends Night and AGM		Amber M/Alan C
Dec	Wed 4 th	Errols, Nth Melb	Planning meeting		Alan C