



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

Melting Moments – June 2023

Presidents Report

Welcome to the midyear edition of Melting Moments - half the year has already passed!

Planning for the October Conference is progressing well, with a dedicated webpage launched. Please check out the AFI National website and register. Accommodation at the Marriott Hotel is limited - please make sure to book early.

The Technical Program is also coming together, Professor John Campbell is our Keynote Speaker and we have also locked in a presentation about an Iron Foundry in the UK that has adopted John's methods in their operations.

I would like to thank the Victorian Committee for the great work they have been doing and are continuing to do, so we can be assured of having a great conference.

We continue to have great demand for Foundry in a Box presentations. Amber and Alan attended the Australian Manufacturing Week and Trade Fit expo, and this has resulted in several enquiries for further presentations and has also expanded our network of contacts. I would like to thank Hayes Metals for their continued support in helping us secure the Tin we need for the display.

With the closure of AVK Currumbin, we have lost yet another local Foundry. On a positive, all Foundries continue to be very busy with the order books only getting longer.

While raw material prices out of China have eased off somewhat, they continue to be high out of Europe and the USA due to the high cost of energy in both these markets. Shipping has also improved somewhat but is still not back to 2019 levels.

Our monthly Program continues to be well attended, with 30 people attending the May site visit and presentation in Geelong.

Wolfgang Maier – AFI Victoria President

AFI National

Wow – already the middle of 2023 ... where did that time go? Despite the concerns over the cost of living for a reasonably large proportion of the country our industry appears fairly busy.

From a foundry perspective, the order books for the 2nd quarter are generally fairly strong, with many foundries continuing to quote 15 - 20+ weeks lead time for many products.

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 competitive advantage that Australian businesses enjoyed for most of the past 60+ years has now been eroded such that in many cases our electricity & gas prices are not globally competitive. For a resource rich country this can only be seen as a failure in public policy by the full breadth of political parties over the past 25 years. Therefore, we will continue our contact with Chis Bowen, Ed Husic, Madeleine King and Assistant Minister for Energy & Climate Senator Jenny McAllister and the relevant Departments as members of the committees' addressing changes in the medium to long term policies to decrease costs & CO2 from industry.

From an AFI National perspective we look forward to the 2023 conference being coordinated by AFI Victoria. The 2024 conference is to be hosted by CTNZ. Support from the majority of members attending these conferences will make the conferences worthwhile for both participants & sponsors. From an international conference perspective GIFA 2023 is planned for 12-16 June in Dusseldorf & 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.

Brett Lawrence – AFI National President

Apprentices and Training

In the March newsletter we focused on the Cert II and Cert III level courses on offer, that on completion delivers the Casting and Moulding tradespeople and Patternmaker trades that our industry so desperately need.

But where do our Technicians, Metallurgists, Methoding people get training and qualifications? How can the shopfloor people develop their skills and knowledge and become our future leaders? To varying degrees, all businesses in our industry give in-house training and development. However, this does not deliver a formally recognised qualification, which can be achieved through courses offered by SkillsTech and AIE.

Skills Tech offer an Advanced Diploma of Engineering (MEM60122) and a Cert IV in Engineering (MEM40119).

They are also preparing to offer a Diploma of Engineering – Materials (MEM50522), which incorporates a Metals Technology stream. This newly released qualification has had industry input into course content, which assures that by selecting the right combination of units, will actually deliver skills and knowledge that is needed.

AIE are also preparing to offer Cert IV and Diploma of Engineering courses and creating a course around Industry 4.0.

The Certificate IV in Engineering (MEM40119) defines the skills and knowledge required for a higher engineering tradesperson working within metal, engineering, manufacturing, and associated industries.

The skills associated with this qualification are intended to apply to a wide range of engineering work undertaken in the fields of, casting and moulding, computer numerically controlled (CNC) programming, fluid power, heavy fabrication, maintenance, plant mechanics, mechatronics,

patternmaking, robotics, toolmaking, welding, and repair, including post-trade work.

The course will provide the skills and knowledge for a person to understand and implement quality control techniques, researching and analysing engineering information, working from complex instructions. The course will also include skills around applying basic engineering concepts, Creating 2-D & 3D drawings using computer-aided design systems and then using these files to develop a prototype.

The Diploma of Engineering- Advanced Trade (MEM50119) is for someone that wants to take their passion for engineering to the next level. The qualification has been specifically developed to meet the needs of existing engineering trade works or other related trade works looking for a career change into an exciting industry of advanced manufacturing.

This course will provide the skills and knowledge for a person to understand the requirements when it comes to setting up and editing computer-controlled machines, integrating processes, writing basic NC/CNC programs, and then commissioning programable controller programs. You will also be Creating 2-D & 3D drawings using computer-aided design systems and write programs for industrial robots.

Engineering skills are in high demand across all manufacturing industries now. Be proactive and contact Skills Tech or AIE (+61 3 9302 1296 - info@auie.edu.au) directly or if you need help with this, contact Alan Cooke, agcooke52@gmail.com

Backwell IXL site visit Wed 17/5

The AFI(Vic) May activity was a site visit to IXL, Geelong followed by a dinner and presentation by Mark Curnow, ManuFutures, Deakin University.

IXL has been a continual part of Geelong manufacturing since 1858, and melting metal on the current South Geelong site since 1968. After an overview of the IXL Group business origins and current business structure from IXL Metal Castings General Manager, Sean Boswell, 16 members undertook a tour of the IXL Metal Castings foundry led by Sean and Foundry Manager Paul Longshaw.

IXL Metal Castings operates over a 2 shift pattern, where during the tour, visitors were able to see the afternoon shift in operations.

Of interest were the induction furnaces, heat treatment oven and moulding area where IXL has made considerable investment towards a recently installed integrated loop line and flood-coat paint system seeking to further automate foundry processes.

The visitors were also provided an opportunity to inspect the metallography laboratory where chemical, tensile, hardness and sand testing is undertaken by the apprentice group as a foundry training experience.



The dinner at the Elephant & Castle was attended by 30 guests including seven "Legends". Bill Pratt our spritely 101-year-old Legend caught up with his much younger associates and friends.

Mark Curnow was our guest speaker. He heads up Deakin's ManuFutures as Director Regional Manufacturing.



Mark has a wealth of practical manufacturing experience, starting from a toolmaking apprenticeship at the Defence establishment at Maribyrnong, and then undertaking further tertiary studies in Engineering. Mark's career then took him into very senior roles within the Automotive industry. ManuFutures is Australia's unique advanced manufacturing innovation hub, that helps businesses to accelerate success through its unique facilities, programs and services. Since its establishment in 2018, ManuFutures has helped create over \$1 Billion in company value, hosting over 500 student placements and creating over 120 direct new jobs.

Mark presented the ManuFutures programs available through Deakin University and provided case studies of businesses engaging and developing innovative products and processes. For existing manufacturing businesses, there are many engagement channels available. The common thread is to combine the practicalities and commercial aspects of business, with Deakin's research capabilities.



Following the presentation, there was a lively exchange of questions and discussion, demonstrating a lot of interest in engaging with Deakin University programs.

Thank you to Sean Boswell and David Sykes for coordinating this interesting and engaging activity.

Omega Sinto Chairman visits Leussink in the Illawarra

27 March 2023 – Omega Sinto Foundry Machinery Limited chairman Mark Fenyes recently visited Leussink from the UK and met with several Australian customers to reaffirm the partnership that was signed in mid-2022.

Commenting on the importance of the relationship Mr Fenyes said “We want to work with a partner who will bring longevity to the relationship. With Stuart (Stuart Ward, Leussink’s Sales & Marketing Manager) on board to strengthen Leussink’s knowledge in the foundry business, it is important for our customers to know they are speaking with someone who has experience in the industry.

Fenyes also commented on the importance of stability in a long-distance relationship. “Leussink has had a very long, stable history, as a well-established family business.”

Omega Sinto is a global manufacturer of chemically bonded sand equipment used in the foundry/metal casting industry. Originally established in the UK, Omega Sinto operates around the world offering a wide range of products which includes sand mixers, mould handling equipment, core-making machines, shakeouts, sand reclamation plants, coating plants, and more.

“Because they’re an engineering company and that’s what we are too, they can add value to support the customers on the ground in Australia compared to just a normal agency.

Fenyes also commented on the challenges facing the industry, “One of the main challenges for founders, not just in Australia but around the world, is the carbon footprint. Foundries use specific grades of sand to mould for castings and these are becoming increasingly harder to get hold of so material costs are rising.

“From an environmental point of view, it’s becoming very expensive to dispose of waste sand so Omega Sinto has developed several solutions whereby the foundry can recycle their own sand to various levels to try and mitigate the waste. We see that as one of the opportunities for us to help the founders in Australia,” he concluded.

Leussink Sales & Marketing Manager, Stuart Ward, says under the partnership, Leussink supplies Omega Sinto’s equipment off-the-shelf, and

provides installation and modifications where required.

For more information contact Leussink on 02 4260 7777 or visit <https://www.leussink.com.au/>

EUAA – Energy Users Association of Australia

The Energy Users’ Association of Australia (EUAA) is the peak body representing Australian commercial and industrial energy users. EUAA membership covers a broad cross section of the Australian economy including significant retail, manufacturing, building materials and food processing industries. The combined membership of the EUAA employ over 1 million Australians, pay billions in energy bills every year and, in many cases, are exposed to the challenges of international trade and the competition in manufacturing faced from low-cost countries.

CR Mining has been a member of the EUAA for several years. Membership of this association has provided CR Mining’s Maryborough foundry with advocacy support to achieve the best possible outcomes for our foundry’s energy inputs and sustainability actions.

Through participation in the EUAA, CR Mining has contributed towards the EUAA’s consultative submissions to the federal government regarding electricity, gas and sustainability policies and regulatory affairs. The EUAA’s bi-monthly Gas and Electricity Committee Meetings provide CR Mining with the opportunity to engage directly with gas and electricity market operators, market regulators and the broader EUAA membership.

The EUAA national conference, held in Melbourne on the 16th and 17th May 2023, was very successful and provided the opportunity for the 200 participants to engage with leaders in government and industry, regulatory bodies and employee and industry representative groups on topics related to the electricity and gas markets, and maintaining competitiveness in the pursuit of Net Zero.

I would strongly recommend that AFI members consider the benefits of actively participating in the EUAA. Please contact me at guy.cunard@crmining.com should the AFI or any of

its members wish to discuss this opportunity or obtain further information.

Guy Cunard – GM Operations, CR Mining

Foundry in a Box Activity-FiaB demonstrations and workshops continue to be hugely popular. The FiaB kit has proven to be a great way to raise awareness of the metal casting industry with educational institutes and career expo's.

Harvester Tech workshops – AFI(Vic) have developed a strong, mutually beneficial relationship with Harvester Tech, Sunshine. Workshops were held with 3 cohorts of students on Fri 17th of May. On Thursday 31/5, I will respond to questions from the Y11 cohort relating to the metal casting industry.

Newcomb Secondary College workshops – Backwell IXL has a strong relationship with the school. They are looking to develop an ongoing stream of apprentices. 2 groups enjoyed the experience of producing their own castings on Mon 1/5 and Wed 3/5.

Trade Fit Expo - Once again AFI Victoria attended the Trades Fit Expo at the Melbourne Convention and Exhibition Centre May 10 and 11 2023.

The Trades Fit expo held at the Melbourne Convention and Exhibition Centre showcases the myriad of rewarding and well-paid career opportunities for young women and non-binary students, providing information and pathways across a range of in demand and emerging industries.

Offering hands-on learning experiences, technology displays, information sessions and panel discussions, the two-day event encourages students in Year 9 to 12 to explore exciting careers in traditionally male-dominated fields.

The event brought together more than 3000 students and almost 120 schools, the expo featured more than 90 exhibitors including the Australian Foundry Institute, Amazon, Ford, Woolworths and Star of the South– supporting more women to consider taking up a tech or trade career by providing an expo experience that puts them first.

The expo included interactive experiences across Metal casting, building and construction, electrical engineering, plumbing, automotive, transport, marine aviation, robotics, mining, agriculture and clean energy, with students able to try their hand at bricklaying, learn virtual welding or even take to the skies in a flight simulator.



AMW 23

Australian Manufacturing Week exhibition was a great success with exhibitors reporting it as the best show ever run in its 23-year history.

Australian Manufacturing Technology Institute Limited (AMTIL), who owns and operates AMW, reported there were 348 exhibitors who put on a fantastic showcase and the 15,914 attendees (an all-time record) – from 29 different countries – visited Australian Manufacturing Week. In addition to the visitors there was over 3,000 exhibitor personnel and over 300 students attend the show, making it almost 20,000 people involved.

AMTIL's aim is for Australian Manufacturing Week to be more than just an exhibition, instead they wanted it to act as the centrepiece of a week-long celebration of manufacturing in Australia today.

There were plenty of reasons to visit Australian Manufacturing week:

- Witness and be a part of technological evolution.
- Be the first to experience innovative technologies, latest machinery.
- Meet and network with the innovators and trendsetting individuals who spearhead this technological revolution.
- Interact with peers and share ideas.
- Gain firsthand exposure to the companies who are at the forefront of technological excellence.
- See all the key industry brands all in one place at the same time.

I experienced this and so much more during my visit and was privileged enough to catch up with a couple of our members - AW Bell and Moss Products. From all reports both businesses found the show well worth the time and effort required to exhibit, and plan to be involved in future shows. Look out for next years AMW which will be held in Sydney 17 -19 April, 2024.

Amber Maxwell



<https://amtil.com.au/amt/>

Stella Young - Journalist, Comedian, Feminist and Fierce disability activist.

On 30 March 2023 Stella Young was immortalised in her hometown of Stawell through the unveiling of a life size bronze statue created by Sculptor Daniel Fraser. The creative brief for the statue was developed by the Remembering Stella Young Project Creative Collective which included Sarah Barton, Fayen D'Evie, Janice Florence, Jillian Pearce and Stella's parents, Lynne and Greg Young. Working alongside Daniel, tasked with bringing the vision of Stella and all that she spoke for to life, the team worked carefully to ensure that no detail was missed.

The sculpture was cast in Cheltenham, Victoria at Perrin Sculpture Foundry. [Perrin Sculpture Foundry Pty Ltd](#) The bronze ingot was supplied by Hayes Metals Pty Ltd.

Born with a genetic condition, Stella did not allow this fact, nor anything or anyone else, to get in the way of achievement. Stella studied Journalism at Deakin University, enrolling at the age of 17, and went on to become an avid and forthright voice within the disability community. Stella revelled in controversy and used this to challenge people and the way they perceived disability, consistently challenging perception by creating the opportunity for conversation and publicly questioning what it means to live as a disabled person. For eight seasons Stella hosted the award-winning disability culture program No Limits, a show dedicated to open and honest discussion surrounding the topic of disability.

In 2010, Stella joined the ABC as the editor of Ramp Up, an online portal and discussion platform that promoted understanding around disability by instigating conversation and working to deconstruct society's habit of turning disabled people into stereotypes.

Stella went on to make her solo debut at the Melbourne International Comedy Festival in 2014, where she was able to use her comedic skill and wit to tell anecdotes about her experiences and to evoke social change.

Stella was a member of the Victorian Disability Advisory Council, the Youth Disability Advocacy Service and Women with Disabilities Victoria.

Today, this legacy continues to challenge, educate, and strengthen society and its perception of disability.

The Remembering Stella Young Project was delivered by the Northern Grampians Shire Council with the support of the Victoria Government through the [Community Support Fund](#).



Dylan Piccolo, Guardian Software Systems



Around the Traps



From 12 to 16 June 2023 Düsseldorf will become the centre for the international casting and

metallurgical industries: the world's leading trade fairs GIFA, METEC, THERMPROCESS and NEWCAST, which are held every four years and together cover the complete spectrum of foundry technology, castings, metallurgy and thermo process technology, are particularly in demand in the energy-intensive sectors this year as current challenges fuel digitalisation in the metal technology sector and its search for sustainable and forward-looking solutions.

More than 2,000 exhibitors from over 50 countries will pick up global trends and showcase the complete spectrum of current technologies and products in twelve exhibition halls. The Hot Topics of the Bright World of Metals read: decarbonisation of the metallurgical industry, ecoMetals, circular economy, digitalisation, additive manufacturing processes as well as e-mobility and lightweight automotive construction.

NSW Apprentice Training – Casting & Moulding

AIE is excited to announce that it has been successful in receiving NSW apprenticeship funding for the MEM31719 Certificate III in Casting & Moulding.

We would like to thank the AFI NSW and AFI National for supporting our application.

AIE are still working through the details of the contract and will send out further information once it is available. The Funding starts July 1, 2023, and enrolments will open mid-June.

AIE now have funding available for apprentices in South Australia and NSW for Casting and Moulding apprenticeship training and are working with other States.

For more information about AIE's workplace delivery you can contact Brett Ambrosio bambrosio@auie.edu.au or call on 0466260795 or Visit the AIE website -

<https://www.auie.edu.au/mem31719-certificate-iii-in-engineering-casting-and-moulding-2/>

****FOR SALE****



EXCESS FOUNDRY EQUIPMENT SALE.pdf



Bianchi TECNO 2ST-A.pdf



WES CB-22 Coreshooter.pdf

**NEXT AFI VIC MEETINGS –
See program below**



Australian Foundry Institute (Vic Branch) 2023 Program v4

| Month | Date | Location | Topic | Presenter | | AFI / ADCA Contact |
|-------|---|--------------------------|--|------------|---|--------------------|
| Feb | Wed 15th | The Village Green Hotel | Training Panel — GOTafe / AIE / Headstart / AIG / Employer / Sunshine Tech | | | Amber M / Alan C |
| Mar | Wed 29th | Errols, Nth Melb | Conference Planning meeting | | | Alan C |
| Apr | Wed 26th | | No Activity | | School Hols 7/4 to 23/4 | |
| May | Wed 17th | Deakin Uni, Geelong | Backwell IXL site visit plus Mark Curnow ManuFutures presentation | | AMCIL Mfg Week 9/5 — 12/5 Trade Fit Expo 10/5 — 11/5 | Sean B |
| June | Wed 21st | The Village Green Hotel | Al / Zn Dross Presentation | ADCA Panel | School Hols 24/6 to 9/7 | Graham W |
| Jul | Wed 19th | Braeside | Hosico Group site visit | | | Craig A |
| Aug | Wed 17th | Thomastown | Deep Hole Drilling Services- Site visit | | Careers and Employment Expo 17 th – 19 th | Alan C / Amber M |
| Sep | Fri 1st | Sovereign Hill, Ballarat | Annual Technologists Picnic Meridian | | | Gary Bunn – MA |
| Sep | Wed 13th | Dandenong South | AW Bell, Titanium Casting Facility – site visit (TBC) | | School Hols 23/9 to 8/10 | Alan C / Amber M |
| Oct | Wed 26 th – Sat 28 th | Marriott Hotel | AFI National Conference | | Beckwith's Site Visit | |
| Nov | Wed 15 th | The Village Green Hotel | Legends Night and AGM | | | |
| Dec | Wed 6 th | Errols, Nth Melb | Planning meeting | | | |