



AFI Industry Report

A Beginning – Where To Now ??

1

Industry Headwinds – Last 10 years



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Relative Stability – with Challenges



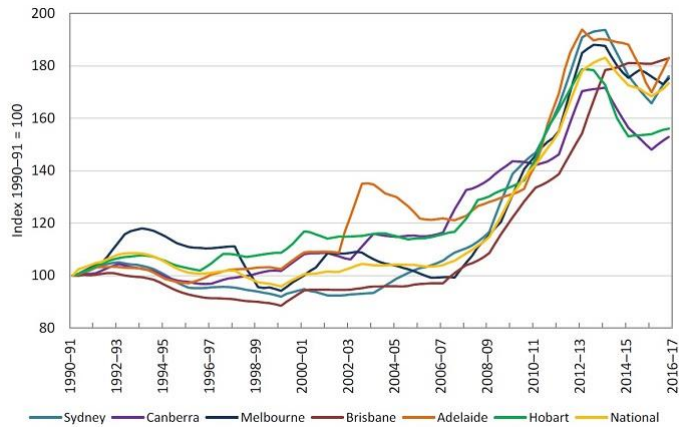
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Skilled Personnel / Training



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Energy Pricing



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Advocate and Influence – how ??



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Industry Report – Quantify Who We Are

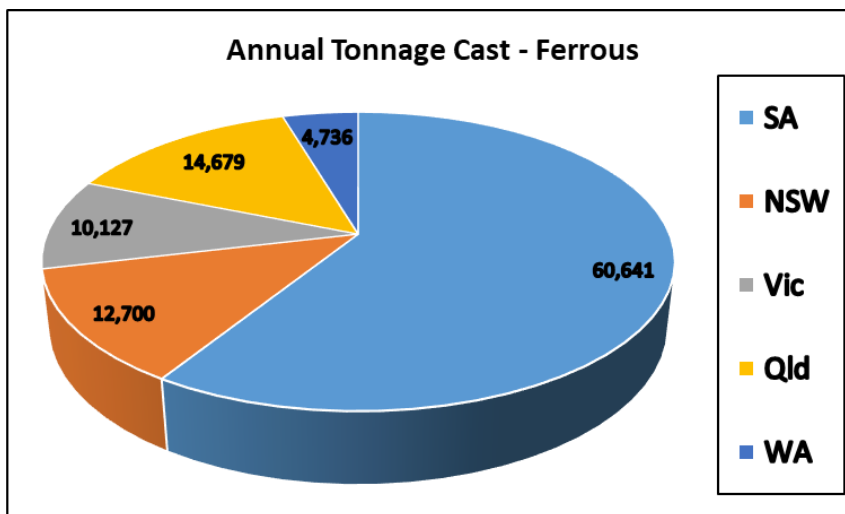
- Blockers



- Tonnage of metal cast (Ferrous and Non-Ferrous)
- Number of Employee's
- Number of Apprentices
- Electricity cost per kWh
- New sand cost per Tonne
- Annual sales value of Castings

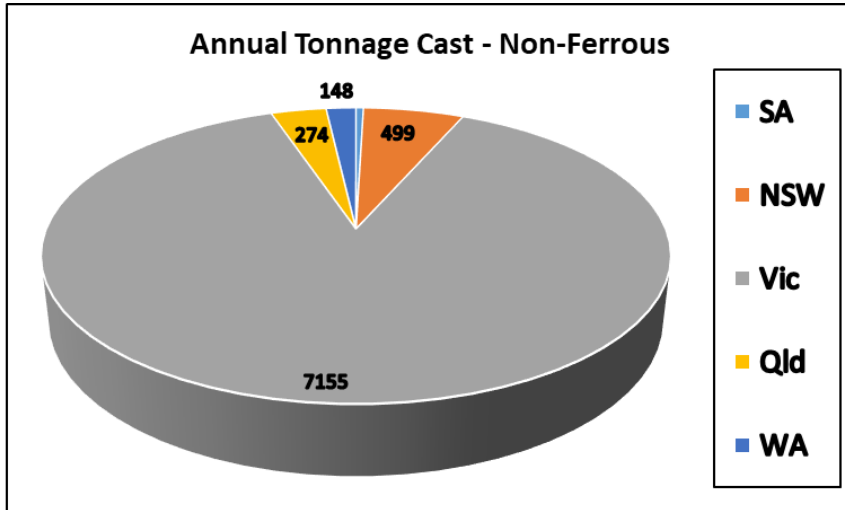
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Annual Tonnage of Metal Cast - Ferrous



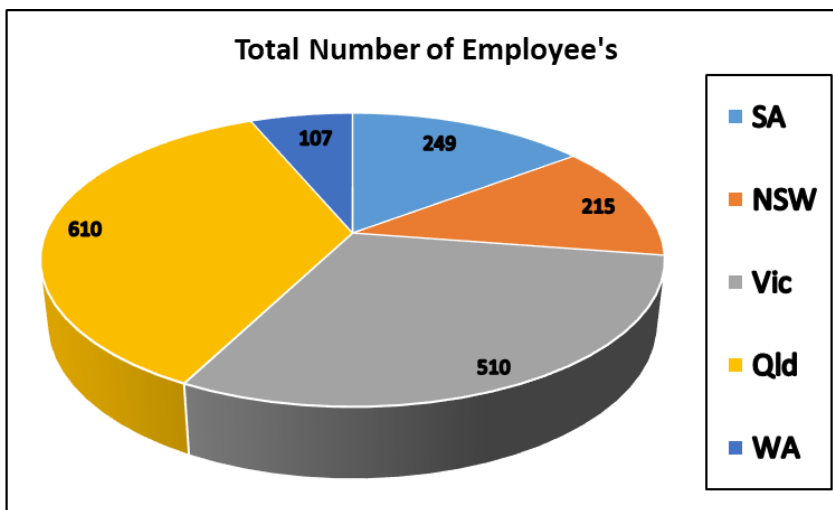
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Annual Tonnage of Metal Cast - Non-Ferrous



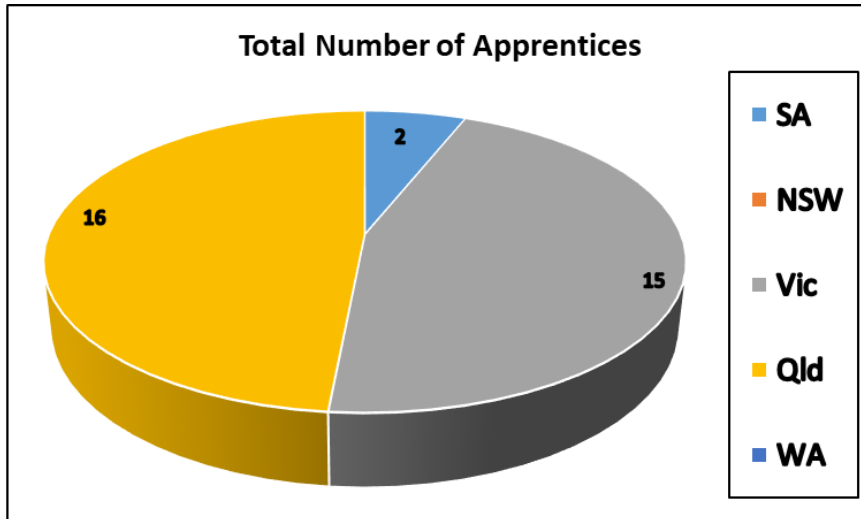
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Total Number of Employee's



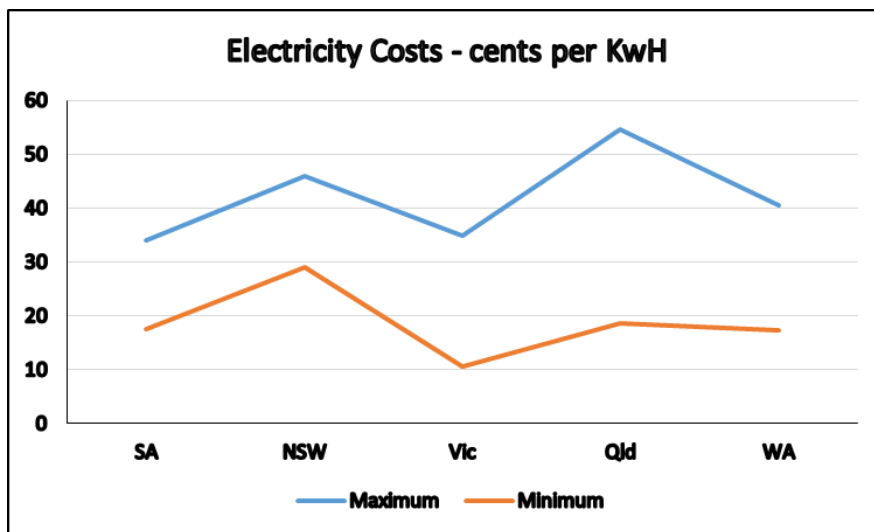
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Total Number of Apprentices's



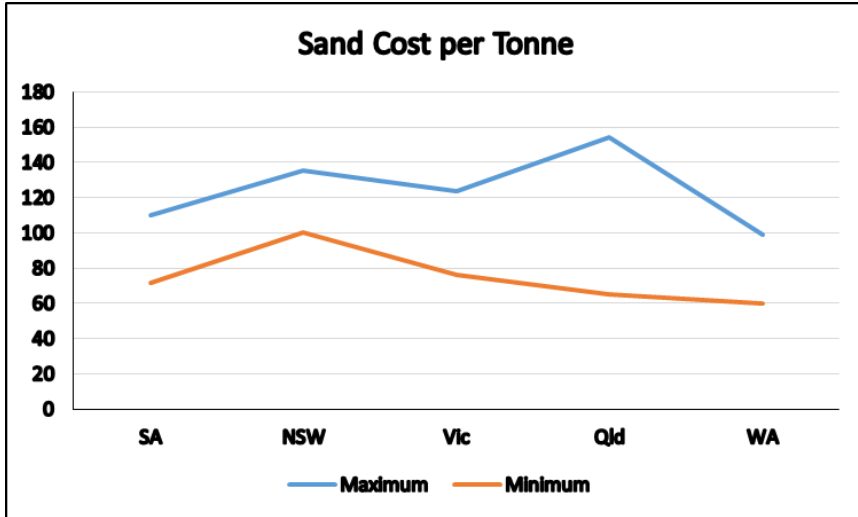
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Electricity Costs – cents per kWh



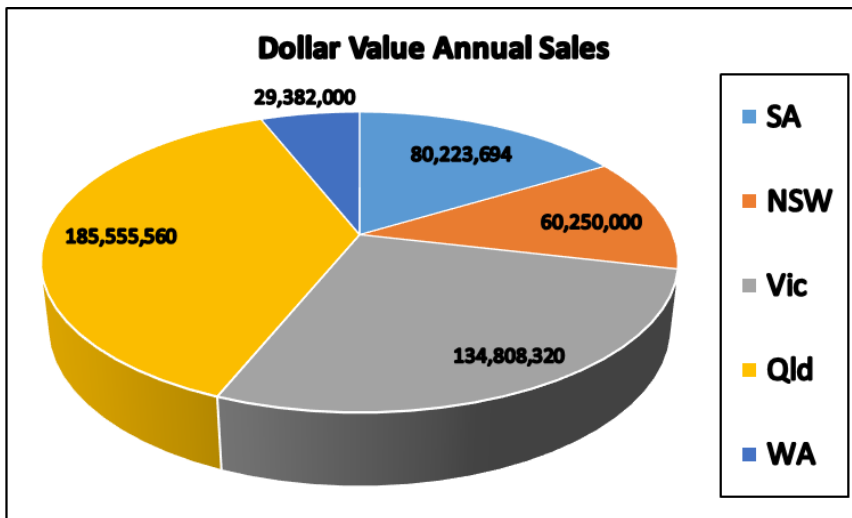
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New Sand Cost per Tonne



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Annual Sales Value of Castings



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Summary of Metal Casting Industry – Base Level Data

- 2000+ employee's
- 35+ apprentices and growing
- \$0.75+ billion in annual sales
- Supporting customers in Mining, Agriculture, Defence, Rail Transport, Road Transport, General Engineering, Energy and Automotive industries
- Strategically important

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Summary of Metal Casting Industry – Base Level Data

- Significant State to State variance and within State variance in electricity costs
- Significant State to State variance and within State variance in new sand costs

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Industry Report – Where to Now ??



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Industry Report – Where to Now ??

- Expand
- More nuanced
- Develop with one of our Tertiary Partners
- Engage with AIG through AFI member companies

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AFI – Where to Now ??



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Rebranding

- General public view is low tech, dirty, polluting industry
- Technology savvy, innovative, problem solvers required !!
- USA: AFS – American Foundry Society
- NZ: CTNZ – Casting Technology New Zealand
- UK: ICME – Institute of Cast Metal Engineers – professional members
CMF – Cast Metals Federation – trade body



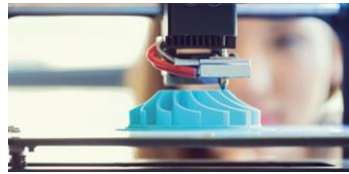
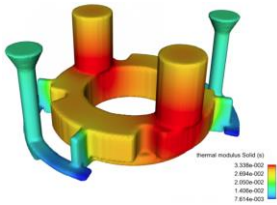
Not just about the name – we need to change the general public's perception of the Casting Industry.

We need our political decision makers to value our industry – we need to give them reasons to do so !!

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Career Destination of Choice

- Casting Industry – the career choice of makers, creators and innovators.
- Combine intricate manual skills –
- With cutting edge technology -



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Carbon Emissions “How To” manual

- Why ??
- AFI branded
- A tool for Foundries to quantify their businesses carbon emissions
- Managing perceptions - a clear indication that the casting industry understands the current environmental challenges and is prepared to address these challenges.
- AFS – Green Foundry Project database. Examples of cost saving (including carbon emissions reduction) actions in US foundries.

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Sustainability Statement

- A web site based statement that is supported by all AFI members.
- Demonstrates and highlights the recycling credentials of our industry.
- Will not shy away from the fact that we are a high energy use industry.



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SSC work programme – its not just about carbon



THE GLOBAL GOALS For Sustainable Development



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Sustainable Steel Charter

Members of the Sustainable Steel Council are committed to a vision where steel is valued as a critical enabler in New Zealand's journey to a low emission economy. The vision is achieved by a financially sound industry taking leadership in delivering to the living standards framework, measured across human, social, natural and financial / infrastructure capitals.

The Sustainable Steel Council's materiality assessment has identified the following critical issues for our sector, which are linked to the corresponding UN global goals for Sustainable Development.

Safety and Health

Foster well-being of employees. Provide them with a safe and healthy working environment enabling them to return safely to their families at the end of each working day.

Climate change

Taking a holistic approach based on the Living Standards framework. Climate Change is a global challenge that affects everyone, everywhere.

Waste and the Circular Economy

Strive to optimise the eco-efficiency of products throughout their life cycle. Design for upcycle, re-purpose, reuse and recycling. Separate the technical from the biological.

Diversity, inclusivity, engagement with Iwi and life-long learning

To reduce inequalities, policies should be universal in principle, paying attention to the needs of disadvantaged and marginalized populations. Create the conditions that allow people to have quality jobs.

Product quality and resilience

Fit for purpose to meet future challenges of climate change and our shakey isles

Transparency, ethics and legal compliance

Build our knowledge of sustainability and willingly share it with others



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Sustainable Steel Council NZ

- **STEEL IS THE IDEAL 'CIRCULAR ECONOMY' MATERIAL**
- Infinitely recyclable without product degradation
- Easily reused and repurposed
- Adopting circular processes significantly reduces steel's carbon footprint
- Read more about steel's contribution to a circular economy and low carbon future

[Steel's contribution to a circular economy low carbon future](#)

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Sustainable Steel Council NZ

- **100% OF STEEL INDUSTRY CO-PRODUCTS CAN BE USED**
- Slag is used in cement, road construction, fertilisers and hydraulic engineering
- Process gases are used to produce heat and/or electricity – New Zealand Steel’s plant at Glenbrook generates around 60% of its own electricity on site
- Emulsions and oils are used as reducing agents
- Iron oxides and zinc are recovered from dust and sludges
- Chemicals are used as inputs for the chemical industry

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Sustainable Steel Council NZ

- **Sustainable Steel Charter**
- Members of the Sustainable Steel Council are committed to a vision where steel is valued as a critical enabler in New Zealand’s journey to a low emission economy. The vision is achieved by an industry which has a strong history of being financially sound, taking leadership in delivering to the living standards framework, measured across human, social, natural and financial / infrastructure capitals.

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Training and Development

- Qld based apprentice training long established.
- State based funding model a blocker.
- GOTafe apprentice training (Cert III) now begun in Victoria.
- New model of training opens potential for expansion of apprentice training.
- Next step Cert IV level training.



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Attracting the Brightest and Best

- As an industry, how do we engage today's youth ??
- Foundry in a Box / Casting the Future Foundry Kit
- Ideas ??



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AFI – Where to Now ?? Discuss

- Improve our voice through rebranding
- Casting Industry – the career choice of makers, creators and innovators
- Carbon Emissions “How To” manual
- Sustainability Statement
- Further develop training opportunities – Cert IV and beyond
- Foundry in a Box / Casting the Future Foundry Kit
- Industry Report update ??
- Engage your local MP’s