Presentation Notes – Witness at the Productivity Commission – Steel Safeguards Hearing Wednesday 13/5/2026.

Attn: Catherine de Fontenay and Barry Sterland.

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Technoweld is a welding consultancy supporting fabricators in compliance, optimisation and training. We are not a steel fabricator.

Context

- I am passionate about the industry, volunteered 1000's of hours and of the opinion we must defend sovereign capability and capacity in the steel industry.
- To do that we must pull back the curtain and identify the root causes of the issues.
- We need to separate steel production and steel fabrication as issues. I am not sure we can save both. Anti-dumping measures is what has fueled imported 'fabricated steel'
- The 'strong-arming' to use 'Australian steel' is one of the biggest problems, cost drivers that steel fabricator face.
- Tariffs / Safeguards are a myopic view, and I would suggest selfish, the potential retaliation has far greater consequences for our wider economy. Think beef, seafood, wine
- Our biggest exports are iron ore, coal (metallurgical and thermal) and LNG. Raw steel ingredients.
- A significant sector of the welding industry relies on this mining industry for work.

Root Causes of Lack of Competitiveness

- **High input costs**: Closed loop certification schemes by industry bodies, Raw material – Steel, consumables, Energy costs - power and gas, insurance, wage pressure, workers compensation etc.
- **Low Productivity:** We need more output per hour. Factors are Misguided Government decisions and Funding, Low competence of workforce, VET sector failing, welding management competence decline, no focus on optimisation of process or design for manufacture, limited incentive for trades to do extra work.

1. <u>High Input Costs</u>

Power and Energy Costs

- Significant 'knock on cost' for every part of steel production and fabricated steel. This is an obvious factor but outside of my wheel to discuss in this forum.

Closed Loop Certification and Standards - Industry Bodies and Steel Producers

See attached image of the current 'closed loop steel industry'

- Two main ***NFP industry bodies*** Australian Steel Institute (ASI) and Weld Australia (WA) sitting in the same office in North Sydney, actively pursuing exclusive arrangements, through regulation and standards influence. The NFP's have sort to have commercial positioning by

writing 'themselves' and their products / services into the mandatory requirements (National Construction Code and Standards Australia). Additional Body Australian Certification of Reinforcing Steel (ACRS) Scheme also part of the puzzle.

- ***Linking of key stakeholders.*** ASI – Founding members of ***ASI are the Steel Producers*** - BlueScope, Liberty, One Steel Manufacturing, Stramit. ASI and WA sit in the same building in North Sydney.
- ***Steel Producers*** (BlueScope, Liberty, One Steel Manufacturing, Stramit) do currently and historically have held positions on both WA and ASI governing boards.
- ***ASI:*** Set - up a subsidiary Steel Compliance Australia (SCA) and the National Structural Steel Certification Scheme (NSSCS) which is a proprietary scheme (Only SCA can offer certification) to NSSCS. The mandatory requirements for AS/ZS 4100 and therefore AS/NZS 5131 was written into the National Construction Code (NCC) by ASI Influence. ASI Trains Engineers and strongly encourages the specification of NSSCS. SCA conducts the audits and administers the NSSCS. https://www.scacompliance.com.au/ and https://www.scacompliance.com.au/certified-companies/
- ***Weld Australia (WA):***
    - The interrelationship of services is far too complex to explain in detail in text, see attached image as Appendix A.
    - In summary WA is the International Institute of Welding (IIW) Delegate (Sole Agent). This means WA administer and control the IIW products and services in Australia for company and personnel certification. Other IIW countries cannot offer the same services in Australia, limiting or controlling competition in an exclusive market. IIW was once described to me as 'The only organization you join that restricts your market.'
    - WA is the IIW Authorised National Body (ANB) that is intended to set up Authorised Training Bodies (ATB's) WA is the only ATB in Australia.
    - This ATB trains, certifies, qualifies welding management personnel. WA has the largest 'team of International Welding Engineers in Australia' trained by IIW, that commercial engineering services. https://weldaustralia.com.au/engineering-services/welding-engineering/
    - WA is the IIW Authorised National Body – Company Certification (ANBCC) that is administers the IIW- (Manufacturers Certification Scheme) (IIW-MSC) for company certification in Australia. WA is the only body that conducts audits for IIW-MSC in Australia.
    - The IIW-MSC specifically references and relies on having IIW personnel qualifications which ONLY WA offer through their ANB/ATB.
    - On the back of this WA training, qualifications that they have advocated for the insertion into Australian standards (which are effectively mandatory) with their 'Principal Welding Engineer and Technical Publications Manager' being the Chair of some of the main Australian Standards https://weldaustralia.com.au/about-weld-australia/our-team/bruce-cannon/

- WA have exclusive commercial arrangements for the Xiris weld camera and attempted but were declined exclusivity for the Seaberry – SoldaMatic Augmented Reality Welders.

- ***Restrictive Practices:*** The 'steering' and 'commercial positioning' by the NFP's Industry bodies and their supporters is restrictive and counterproductive for the Steel fabrication Industry. In effect killing the goose that lays the golden or in this case the steel egg.

Australian Steel

- The concept of 'Australian steel' is a fallacy, and an expensive one.
- Through clever marketing, positioning and insinuation the Australian Steel fabricators are influenced to use 'Australian Steel'. The world steel such as EN, ASME, GB holds the world's structures up. Our Australian standards have excessive unnecessary barriers to the use of these steels.
- 'Australian Steel' is a marketing façade –
  - BlueScope: 40% owned HSBC (Chinese Bank) and 20% JP Morgan (American) https://www.bluescope.com/investors/results-presentations/annual-reports
  - Liberty: Owned by, Sanjeev Gupta Group UK.
- Australian Steel Producer found guilty of 'cartel like behaviour and price fixing' and fined $58 million. https://www.accc.gov.au/media-release/court-upholds-record-penalty-in-acccs-cartel-case-against-bluescope
- Sanjeev Gupta – embroiled in controversy, including SA government stepping into to take over Whyalla. https://www.abc.net.au/news/2026-01-16/whyalla-steelworks-onesteel-owed-millions-in-royalties/106209554
- Currently in administration – One Steel Manufacturing and GFG Liberty
- Combined effect of Steel Producer influence: steel input costs sit 50-70% above international benchmarks.
- Imported Steel Tariffs (Anti Dumping) cases brought by Steel Producers and ASI 'See Appendix B' average increase cost to Steel Fabricators is 20%.

Standards and Specifications

- The NFP Industry Bodies heavily influence AS/NZS (often holding chair positions on committee's), and offer professional commercial services 'audits, training, certification' against the requirements they have advocated for.
- The fabrication industry and asset owners operate under the 'pretence' that the industry bodies are the regulated 'authority'.

Compliance and Audit Schemes

- The Industry bodies lobby asset owners and government departments such as Transport for NSW (TfNSW) and Department for Infrastructure and Transport (DIT – South Australia) to specify their schemes into specifications and therefore contract documents.

- This has perpetuated into a closed loop system for the steel fabrication and welding industry increasing cost of doing business.

Government Procurement - Defence

- Government's recent focus on Defence workforce development and the use of cost-plus contracts with the primes has dramatically depleted local fabricating companies access to people, particularly South Australia and Western Australia.
- This has made it increasingly more difficult to attract and retain the people necessary to run a fabrication business, this trend is going to continue or as most suspect increase.
- The depletion of the available workforce and the 'poaching' of skilled workers from wide industry to defence has 'unfairly' shifted the cost of workforce development to structural steel industry'.
- In South Australia, the defence primes have been given priority access to graduates of the new 'Technical Colleges'. https://www.technicalcolleges.sa.gov.au/our-colleges/tonsley-technical-college/advanced-manufacturing-and-engineering

2. Low Productivity

Misguided / Misinformed Government Funding Decisions

- Government based on 'advice' have spent a significant amount of tax payers funds, much of which in my opinion is misguided.
- Government has spent $30+ million on Augmented Reality Simulators (Sold by WA) over the last 10 years, through various government funding options. The basis of the funding is these AR systems are a proven way to reduce training costs. Anyone that has spent time 'under the hood' (welding helmet) knows this is not the answer. The systems lack the fundamentals elements required to develop genuine welding competence. The 'pub test' is 'if they were any good every fabricator would have one'. They don't! These machines have a shelf life of a computer 3-5years. The ROI case does not stack up.
- Targeted government spending should focus on optimisation, rather than purchase 'virtual welders' they should fund;
    - Actual advanced equipment for VET sector
    - Optimisation programs for industry
    - Capital equipment grants for optimisation and capital equipment.
    - Wider Industry (outside of defence) 'customised skill uplift training'
- Government focuses on funding programs specifically for defence, forgetting the very industry that underpins it.

VET Sector is a failed experiment

- The current output of the VET sector in the main is not aligned to industry needs. There is no confidence that the VET sector is producing 'competent' people. The Manufacturing and Engineering (MEM) Training packages are cumbersome, expensive and ineffective. https://www.mskills.org.au/wp-content/uploads/2025/12/V2_MSA-Report-for-PDF-Distribution.pdf

- The industry urgently needs to find a solution to ‘competence development’ of the workforce.
- Having a qualification and being competent are vastly different things. True competence breeds efficiency and low levels of rework. These are both factors for increasing productivity.

Decline of welding management competence,

- The front line to optimisation and welding process improvement is welding management / welding supervision. The introduction of IIW schemes and the underpinning training of personnel has diluted the existing, very effective welding supervision qualifications (AS1796 and AS2214) which ‘were’ highly sort after and respected globally.
- Welding supervisors, that have progressed from the shop are those best placed and more likely to be genuinely competent in ‘welding supervision’. It is this ‘competence’ that minimises rework, is able to improve welding processes and increase efficiency. Unfortunately the current system has failed to focus on this critical factor and there is limited support for welders to bridge the gap to welding supervision.
- An engineer, typically does not have the foundational knowledge or know how to ‘manage welding’. Operating from a position of theory, rather than practice, know how or learned experience is a limiting factor.
- This has a direct negative effect on productivity

No Systematic Optimisation focus.

- Optimisation or driving down costs of fabrication and welding does not automatically mean capital expense and automation or cobots. Often application of sound technical judgement coupled with deep ‘know how’ is all that is needed. Think reduction of weld metal volume, better selection of wire, smarter machine set up.
  https://www.linkedin.com/feed/update/urn:li:activity:7460470274107416576/
- So many fabrication business owners do not have the ‘know how’ to optimise their operations as they may not be from the shop floor, often their team have limited exposure on ‘best practice’ and lack the necessary ‘know how’ to optimise.
- Government should assist industry to drive down cost and increase competitiveness the strategic funding for the benchmarking of best practice, optimization of processes and implementation of process improvement.

Design for Manufacture is largely absent

- Design for manufacture is essentially filling the gap between what is easy and cheap to manufacture and what the design intent requires. This is sadly lacking in the industry. The current and next generation of engineers do not have either the ‘know how’, competence

and willingness, or all three, to design the components to ensure they are efficient to manufacture. It is difficult to explain to a non welding person how important this is. To provide context 1hr in the design office can save 10-50 hours in consumables, time and therefore money. https://www.linkedin.com/feed/update/urn:li:activity:7454811120227209217/

- There needs to be a greater focus on 'what matters' to designers and offer incentives for reduction of cost through smart design.
- It is all too easy for the designer to say 'that will do' make them all 6mm fillets. The cost implication is significant. Time spent changing a line on a drawing typically pays massive dividends in manufacture. There needs to be a focus placed on bridging that divide and ensure fabricators get a seat at the design table.

No incentive for trades to do more hours.

- We need those making the decisions that effect productivity to start to look through the lens of a tradie. It is easy for me, as it's a path I have worn. As an industry, we need to lift productivity, whilst minimising fixed costs. If the fabricator has more work, the fabricator can employ more people, but this increases fixed costs and lacks the necessary flexibility in workforce demand.
- Many tradie's do not want to do overtime anymore due to the perceived tax burden. I often hear 'there is no point doing overtime, most if it gets taken in tax'. A logical solution the government can implement, with minimum effect on tax revenue is to abolish 'tax on overtime'. Instantly there would be an uptick in output, without the burden of increase of fixed costs to fabrication companies.
- There needs to be a greater respect for 'what a tradie does' and appreciate the 'lived experience' if we are to instigate positive change. Ideas from a boardroom do not translate to improvement without shopfloor buy in. Buy in comes from respect, perspective and empathy for the workforce the industry so desperately needs.

Exclusive arrangements of imported equipment and consumables ,increasing cost

- Currently elements of the supply chain to the fabrication industry are 'killing the goose, that lays the golden / steel egg'. Certification schemes and steel producers aside, as these have been articulated earlier in the document, the supply chain in general is dominated by groups that often have exclusive arrangements to supply welding equipment, consumables, spares and in doing so increase cost to fabricators and restrict access or practical access to technology as it is unviable.

The Way Forward

- Tariffs and safeguards are counterproductive and miopic.
- Pull back the curtain, understand the root causes.
- Investigate the exclusive arrangements that exist.
- Separate steel producer issues from steel fabricator issues.
- Address input costs: steel, power, compliance.
- Drive productivity through competence development, design for manufacture, optimization and provide an incentive for trades to work overtime again.
- Engage with those in ‘industry’ that are impartial and have International experience and ‘know how’
- Develop a more sustainable competitive industry through strategic change, targeted government funding to drive towards global best practice.

Yours Truly and Sincerely

IIW International Welding Eng. #GB/IWE/00529
IIW International Welding Tech. #GB/IWT/00284
IIW Welding Inspector Comprehensive #AU0013
CSWIP 3.2 Welding Inspector #58470
AWI Welding Inspector #AWI/B3/001

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