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Cover:

A shot at the National Manufacturing Week in Melbourne of a Ram3D laser printer in action as one of the displays during this time.

Overleaf:

| 1 - 2 | Our Manager Marketing & Communications Kim Brian Low at the recent AuSae Membership, Marketing & Communications Symposium | 3 | Our General Manager Welding Centre Michail Karpenko on a member visit at EastBridge in Napier, and then at |4| Razos Engineering in









From our CEO, Troy Coyle

In May we delved into all things procurement, and took a look at business models for future success as well.

This month also getting a head start on the Women in Engineering focus for June by announcing that Sarah Lewis was the successful recipient of our Whanake scholarship.

We're really looking forward to developing our Maori in Engineering engagement plan - with Sarah taking the lead on this for us.

I was also fortunate to join an awesome Panel at the MaD Conference 2019 to discuss diversity in manufacturing, design and engineering. And I was really glad that my interview with the NZ Herald got to focus on unconventional leadership in a positive light.

I visited some of our members in Napier with our General Manager Welding Centre Michail Karpenko over May. It's obviously a very active area with some really innovative and thriving companies. We know that we don't engage as much with our regional members as we should, so we are thinking of new ways to do this.

Our Stirring the Pot podcast overviewed Government procurement issues, in a discussion with Nick Collins, CEO of Metals NZ. We also discussed Industry 4.0 with Jan Polzer, from the University of Auckland and our very own welding engineer, Holger Heinzel.

Our General Manager Structural Systems Stephen Hicks also announced his move to the University of Warwick. We're very excited for him, and hope this is the start of a new collaboration! We are already looking for his replacement so please forward the advertisement to anyone you think would be appropriate.

I have been going through our database, comprising over 1800 people, to see who is using social media and identifying HR, Women in Engineering and Maori in Engineering (only one so far) contacts.

Interestingly, about 60% of our contacts are on LinkedIn and judging by people's profile photos, the demographic is reasonably young! We would certainly encourage anyone who isn't on this social network to join up as this is the main way that we release news and updates.

We know that our members hate being bombarded by emails so we are trying to only release all member emails once per month (i.e. for Metalbase).

We are on LinkedIn, Facebook, Twitter and Instagram and we've come to learn that welding metalheads love Instagram... they are prolific on there!



Connect to your industry, clients and stakeholders via social media!

It's a step in the right direction to market your capabilities, share major milestones and news and promote your projects. And the best part is, it's completely free!

We've been working hard to do just that - so, follow us today!











GM Structural Systems Stephen Hicks moving on to exciting new role

After 11 years at HERA, our GM Structural Systems Stephen Hicks is moving on.

Heading back to the UK to pursue a career as Professor of Civil Engineering at the University of Warwick.

Stephen came to us from the Steel Construction Institute (SCI).

He'd been working there on a variety of design tools for steel and composite buildings to provide support to designers when the structural Eurocodes replaced the UK national standards back in 2010.

As fate would have it, he'd be an invited speaker at a NZ seminar series sponsored by Corus as part of this work – crossing paths with Steve Stickland, who let him know about the opportunity at HERA.

And, looking for a new challenge, Stephen never looked back – that is, until now!

A tenure of collaboration and advocacy

Having worked in an environment where industry was actively seeking to harmonize national standards with 27 other countries, coming to New Zealand was a shock to the system for Stephen. This was because New Zealand still had many of its own domestic standards rather than joint ones with its closest neighbour Australia! So, it's no surprise that this would set the tone for a strong standards focus during Stephen's time with us.

To do this, he leveraged his experience as a member of

both the UK and Eurocode Committees for composite construction (BS 5950 and Eurocode 4) and tirelessly collaborated with key stakeholders. A move that has ensured a wider range of experts could be tapped in to – reducing risk in succession planning or individuals dominating the process, as well as removing technical barriers on trade.

This not only has facilitated greater export of products and services to Australia, but opened up the door to international software providers to create sophisticated electronic design tools for us due to the increased market size they're now be able to service. An outcome that in turn, has increased productivity and cost-efficient designs, as well as the potential to open up opportunities for other electronic tools such as BIM too

Stephen has also worked hard to improve New Zealand's sustainability credentials. In 2009 collaborating with the New Zealand steel industry to establish the Sustainable Steel Council to ensure that steel construction was treated fairly in the revision of the New Zealand Green Building Council steel credit. Work that paved the way for the uptake of Environmental Product Declarations (EPDs) by manufacturers of steel products.

Work to be proud of!

With over a decade under his belt at HERA, there is a lot that Stephen has to be proud of achieving.

From being the drafting leader and Chair of the first joint Australian/New Zealand design standard for steel and composite bridges AS/NZS 5100.6 that catalysed further harmonization activities for AS/NZS 2327 and AS/NZS 5131, to strongly advocating to mandate third-party product certification and traceability schemes such as SFC and his Directorship of ACRS.

Stephen saving, "It's been immensely satisfying to see

third party certification being embraced by specifiers and asset owners. Not only has it changed the way they do business, but it's also effected change to local manufacturers and suppliers as well."

He's also actively supported our members directly through product development activities such as ComFlor SR. And, providing specialist consultancy for projects like the vibration response of the dancefloor to the Duo building in Singapore which led to structural steel being the material of choice in its construction. Most notably, working on seven product development projects that utilised high strength steel to provide cost efficient solutions for multi-storey steel construction.

Where to from here for Stephen?

Stephen will be leaving towards the end of July. Before he goes, he'll be focused on completing the new AS/ NZS 2327 design software for composite slabs and beams and updating HERA's DCBs.

He'll be heading to the UK to become a full Professor of Civil Engineering at the University of Warwick, which has a strong heritage in steel-concrete composite structures. The focus of his research will be in the area of resilience, and he'll also be participating in the development of the next generation of the European steel-concrete composite design standard for buildings and bridges (Eurocode 4), which is expected to be published in the next four years.

On his move saying, "Having achieved most of the goals I set myself when I started at HERA, I feel this was time for me to move on to a new challenge."

"I'm incredibly grateful for my time at HERA. It's allowed me to gain expertise within a wider range of disciplines from evaluation of safety factors for design standards, to light steel framing design,

development of product standards, conformity assessment of products, quality management systems and sustainability in steel construction. It's also enabled me to participate in a number of board and governance roles including being an Executive Councillor for SCNZ."

"I've been honoured to have worked on projects that I'm very passionate about. The only thing I wish I could have achieved before departing is to have brought together the steel structures standard NZS 3404 with the Australian AS 4100. Whilst this is now very close to being realised – I'm hopeful that my successor will be able to get this over the finishing line!"

Our thoughts from the HERA home base

We're extremely sad to see Stephen go, as his work has led to a number of key milestones to innovate and future proof our NZ metals industry. But, we're equally very happy and excited to follow his new journey!

Our CEO Troy Coyle saying, "There are two fairly significant acknowledgments we give to Stephen."

"The first one is it is a massive achievement for someone from industry to go into a tier one university at professor level, and a real indictment of how they're viewing the contributions he's made to industry."

"And, the second one is that while it's a UK gain, it's a significant loss for not only HERA but New Zealand. The legacy that Stephen leaves in terms of the standards development and composite work at HERA is considerable, and will remain ongoing."

"Moving forward, to ensure continuity we'll be making sure that his panel projects are handed over to our existing team during his remaining time with us. We hope this will mean there will be little to no delays in moving these along once a successor is appointed."













Career opportunities at HERA...

Could you be the next metalhead to join our HERA tribe?

We're currently seeking someone to fill two positions. So if you're a passionate metalhead and have what it takes to create, & be part of a performing team - pick up that phone or email us!

General Manager, Structural Systems

Want a career future-proofing the structural steel industry in New Zealand? Great! Because we're seeking the right person to lead our Structural Systems division.

At a minimum you must hold a MSc degree in Structural Engineering with at least 5-years' experience in the design of steel-framed buildings and

If you have a reputation and profile for delivering large complex projects, experience in seismic, fire and/ or composites engineering, a collaborative style and previous experience as a team leader - then we want to hear from you.

Experience in steel related sustainability and standards development are an advantage.

Find out more about the role here - https://www.hera. org.nz/wp-content/uploads/GM-Structural-Systemsat-HERA-May-2019.pdf

Welding Engineer, Welding Centre

Think you have what it takes to be part of a team focused on future-proofing the welding industry in New Zealand? Then this could be the role for you!

We are seeking an experienced Welding Engineer to support our Welding Centre.

You'll need to hold an advanced trade qualification and an additional International Welding Technologist or Inspector qualification. And have 15 years industry experience, and a track record working as part of a

We're looking for someone with practical experience developing and delivering industry training courses, and exceptional interpersonal and communication skills. Additional NDT qualifications and ability to train in this field is also an advantage.

Find out more about the role here - https://www.hera. org.nz/wp-content/uploads/Welding-Engineer-HERA-May-2019.pdf























HERA team out and about!

1 & 2 | Our Welding Engineer Holger Heinzel attending the Callaghan Innovation Trek | 3 | And at the TMN welcome event with Executive Board member Dieter Adams, UoA Prof. Jan Polzer & Welding Scholar Recipient Reza Hamzeh | 4 - 6 | Attending the National Manufacturing Week in Melbourne for our Industry 4.0 focuses | 7 & 11 | Our CEO Troy Coyle at the MaD2020 conference as part of their diversity discussion panel I 8 - 9 | Holger with Plantech CEO Mark Begbie for their opening officiated by Hon. Dr Megan Woods | 10 | Our Manager Marketing & Communications in studio with Sheffield HR Innovator Alia Bojilova for an upcoming podcast recording!



What's HERA's strategy for 2020?

What the heck are we about and what's our plan for the future?

Two very good questions – and we're excited to tell you the answer! Because for the first time, we're releasing our strategy publicly.

We're doing this because we are really focused on building a tribe within our industry. We want to create a stronger voice when it comes to advocacy and telling the heart story of our industry.

Our new three year strategy also includes a refreshed vision and mission, and identifies how our services will lead to a future-proofed NZ metals industry.

The strategy was developed by our Executive Board and lead team, and was based on the key issues and trends impacting our industry.

Previously, our strategy was primarily used as an internal document. However, one of our core values is integrity ("We're responsible for our actions and deliver on our promises"). So, we think it's important that we share this at a high level so our members know where we are headed

Now you'll be able to see how our actions will lead to the overarching outcome that "HERA members look forward and are prepared for the future".

Outcomes = casting our eyes to the future to forge a

In order to future-proof our industry, eight outcomes need to be achieved:

- 1. Our members' steel solutions are the best choices because they are: the most sustainable, cost competitive, safest, beautiful, low risk, easy to use and/or innovative.
- 2. Our members are employers of choice within our industry.
- 3. Our members are aware of, evaluating and adopting new technologies and following global best practice.

- 4. Our members are optimising cost effectiveness through productivity and efficiency.
- 5. Our members are recognised for their outstanding commitment to quality.
- 6. Our members are innovating for commercial success.
- 7. A New Zealand that supports the steel industry.
- 8. HERA is known as the thought leader for our industry.

What is our role in delivering those eight outcomes?

Working backwards from the outcomes that we need to deliver, we identified three core strategic activities for HERA to focus on. You can use our strategy matrix to understand how each of these three key strategic activities will contribute to each of the eight required outcomes.

Our formula for success is:

Delivering solutions + developing and maintaining a skilled workforce + connecting and inspiring = future proofing

Delivering solutions = HERA members are supported in technical excellence and knowledge transfer

Key activities include:

- Panel projects that support key messages and reflect current and future requirements;
- Making steel the material of choice by simplifying design through electronic tools and guides; and
- Measuring our value.

Developing and maintain a skilled workforce = HERA members have the right skills for their needs.

Kev activities include:

- Establishing a national qualification framework for key technical personnel;
- Training for new manufacturing and fabrication context;
- Continuing professional development program;

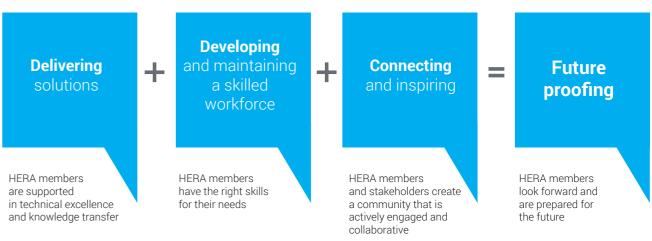


HERA vision and mission

Vision = Securing tomorrow's industry by innovating today

Mission = Build a passionate tribe of metal heads who innovate successfully

HERA strategy



Three year HERA strategy...

- HERA House upgrades to support future training requirements and to create technology demonstration;
- · Innovation Ready, Set, Go and
- E-learning and distance learning ramp-up.

Connecting and inspiring = HERA members and stakeholders create a community that is actively engaged and collaborative.

Key activities include:

- Key messaging used through communications;
- Creation of technology clusters, HR innovation cluster and social media for metalheads clusters;
- Targeted scholarships.
- Innovation in Metals portal.
- · 2020 Vision Conference; and
- Thought-provoking digital content, including our Stirring the Pot podcast.

NZHERA @NZHERA · May 1

Once again our team is busy out & about! With our #BrianLow & @nugent_kim heading to an @AuSAENews conference last week to improve our membership capabilities & our CEO @DrTroyCoyle & GM Welding Centre #MichailKarpenko heading to #Hastings yesterday to visit our member #RazosEng



$\textbf{NZHERA} @ \textbf{NZHERA} \cdot \textbf{May } \textbf{17}$

Zero tolerance for bullying #PinkShirtDayNZ @NZHERA At HERA our values for a positive and safe environment shows as our team proudly supports Pink Shirt Day and stand together against behaviour that puts anyone down. #SCNZ #steltech





Join us in spreading the word!

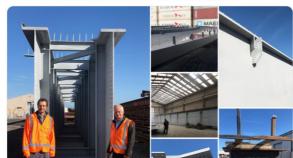
We hope that making our strategy more transparent helps you to understand the value that we provide and what our role is in maintaining a successful metals industry in Aotearoa.

If you think the strategy is too high level, rest assured. We have created divisional roadmaps that go into much more detail about how we are going to achieve these high level outcomes and activities.

There are some exciting activities on the horizon, with some clear direction on where we need to get to. And, we hope that you love our new vision, mission and strategy as we do. We're very excited about what we have planned. And, we want to make our actions more visible to you so that you feel just as excited as us.

With this in mind, we'd like to encourage you to subscribe or follow us on our social media platforms and podcast. This ensures you get the most out of your membership as we use these forums to share our latest research outcomes, profile our members and reinforce the value of metals to NZ.

Great to have had our GM Welding Centre @KarpenkoMichail & CEO @DrTroyCoyle out & about visiting members in Napier! This time catching up with #Eastbridge to view their amazing #steel #fabrication work for #bridge #infrastructure which is featured in many #transport routes in NZ!



NZHERA @NZHERA · May 23

Last week saw our #Welding Research Engineer Holger Heinzel head to #Melbourne to attend the National #Manufacturing Week. It's part of our focus to prepare industry strongly in the area of #automation #Industry40 future global trends & more. Interested to know more? Get in touch



Delivering solutions: Developing and Connecting and Future-proofing: maintaining a skilled inspiring: and shared the future to forge a workforce: knowledge you find and united Panel projects support Key messaging used members' in communications solutions/products are the key messages hest choice because they are: Making steel the material The most sustainable of choice by simplifying The most competitive design through electronic · The safest tools and guides Beautiful Product development · Low risk and new steel solutions. · Easy to use Establishing sustainability The most innovative credentials for steel solutions Establishing national Creation of HR Our members are employers qualification framework innovation cluster of choice within our industry and offer training for the key technical personnel Student category of membership Training for a new manufacturing and Targeted scholarships fabrication context Diversity Agenda membership Continuing professional development program Panel projects reflect current HERA House upgrades Creation of technology clusters Our members are: and future requirements. to support future training Aware of, evaluating and requirements and to create Technology White Papers adopting new technologies Establishing national and technology demonstration (e.g. automation, cloud international technical support computing, internet of Inspirational speakers framework for HERA members things, block-chain, VR/AR) delivering presentations on new technologies/projects Following global using steel best practice Automation, Productivity and Bottleneck and Design Innovation Our members are Industry 4.0 assessments optimisation training cluster optimising cost effectiveness through productivity and efficiency Extending the lifespan of steel structures through re-use Our members are Ongoing support to Training to prepare **HERA Certifications** industry for certification recognised for their outstanding commitment Development and maintenance Performance based to quality of national standards certification for key technical personnel Demonstrating compliance with standards HERA verified Innovation Ready, Set, Go Innovation in Metals Portal Our members are innovating for commercial success. 2020 Vision conference Market research A New Zealand that Industry digital strategy Ongoing support to Metals NZ on societal views supporting industry and Sustainable Steel Council supports the steel industry communications E-learning and distance Thought provoking digital HERA is known as the thought Measuring our value

content, Stirring the pot

podcast

learning ramp-up

leader for our industry



HERA Future Forum is coming 21 February 2020...

So do the smart thing and come along so you can prepare yourself for the future, and be the disruptor - not the disrupted.

HERA is giving you a glimpse of 'what's next' for our NZ metals industry.

We've split the day into three core events designed to deliver you optimum value. With different price points, and focuses, there's something there for everyone.

Who can attend?

This is an exclusive event for our membership only. All prices are per person, and are inclusive of gst.



We're kicking of the HERA Future Forum with our Nation breakfast. A forum that connects our current workforce and it's leaders, with our future generation of engineers. It's a dynamic mix designed to spark open conversation, and to build a tribe of metalheads. It's also the first time we've ever hosted an event like

Become a disruptive sponsor and change maker!

And make it clear that you stand for something bigger than yourself - the future of our NZ metals industry.

From content, to layout, food, intent and more - this will be an experience that will challenge every sense. every comfort level, every step of the way.

So if you're brave enough to back something different, this sponsorship choice is perfect as it'll give you meaningful wins not only for yourself, but your customers, potential customers, staff, communities and other stakeholders as well.

Be part of the mechanism that helps us lead change to shake up our industry and prepare them to see what's ahead. So what are you waiting for? Put your money where it matters and be one of our 'disruptive sponsors'.

Download our sponsorship prospectus: https://www.hera. org.nz/wp-content/uploads/ HERA-2020-Vision_Sponsorship-Prospectus.pdf

Want to chat first? Contact Brian today! Email on brian.low@hera. org.nz or phone +64 9 262 4845.





20/20 VISION

20/20 VISION let's you get a grip on trends that will affect you in the next three years. We're bringing together five of the world's thought leaders to challenge you to explore digital fabrication processes, 3D printing of large scale steel components, HR innovation, future technology impacting the engineering industry, and business innovation culture.

Visualising our future

20 - 21 February 2020



We couldn't let the day end without some sort of celebration! So, come along to our Nation dinner for a night of recognition, celebration and connection.

Come have a great night out as we reflect on the achievements of our members – and bring along your key clients as well as we network & connect!

Nation breakfast & 20/20 VISION

\$1265 \$1150

All three events package deal!



Two great speakers announced for Innovation Ready in June!

We're on the count down for Innovation Ready to kick off on 13 June 2019!

If you haven't booked your place yet, be sure to register to attend as we've got some amazing speakers lined up.



Judith Jamieson | Thrive Facilitator and Coach

I'm a passionate innovation leader with 25+ years of innovation leadership and product development experience focused on identifying, creating and delivering compelling value.

Through my extensive functional and business expertise in Human Resources and General Management I've been fortunate to work with a wide range of people, cultures and industries.

I've been an executive coach for 15 years with both large and small organisations, founding Thriveatwork in 2017 which is certified in New Zealand to deliver Multipliers® coaching and leadership programs. This is based on the bestselling book Multipliers by Liz Wiseman – How the best leaders make everyone smarter. These are the leaders who inspire the people, with whom they work, to stretch themselves and surpass expectations. These leaders use their smarts to make everyone around them smarter and more capable.



Ross Pearce | Callaghan Innovation Program **Manager Design**

I'm a passionate innovation leader with 25+ years of innovation leadership and product development experience focused on identifying, creating and delivering compelling value.

I established Konstrukt, a full product development consultancy and built it into a successful and leading consultancy. From the outset Konstrukt was an early champion of diverse collaboration and the use of emerging digital design technologies that included advanced parametric CAD, digital visualisation and 3D printing, and have since taken up various executive innovation leadership roles throughout Australasia.

I've also led innovation and design efforts across a wide range of technologies and HVMS sectors including medical, scientific, automotive, consumer, computer, electronic, security, refrigeration, marine, heating, juvenile, gaming, communication, furniture, retail, logistics and vending.

I have a passion in understanding new thinking around Innovation practice and how to effectively adapt and apply that to help New Zealand businesses deliver profitable growth.

Listen to Ross on our Stirring the pot podcast:

How innovation drives the global economy. http://bit.ly/stp-procurement

This course is exclusively for our members only!

Start date: Thursday 13 June 2019

Location: HERA House, Manukau Auckland Register online: www.bit.ly/innov-ready2019



Contact: Dr Boaz Habib Phone: +64 9 262 4753 boaz.habib@hera.org.nz





Innovation Ready, Set, Go!

A leadership program designed to prepare you for your future.

If you can answer 'yes' to any of the below questions, then this course is for

- Do you want to do more innovation, but don't know where to start?
- Are you being disrupted by competitor products?
- Do you need to change direction in your production development?
- Do you want to learn more quickly about what works and discard what doesn't?
- Do you have great ideas but don't know how to get them to market?
- Are you spending a lot of time on ideas that are aoina nowhere?
- Do you have a bureaucratic innovation process slowing things down?
- Has your innovation process gone stale and in need of a refresh?

What you get

Attending this course gives you exclusive access to world renowned speakers in areas of design thinking, innovation mindset, culture for innovation, innovation metrics, strategy, best practice innovation capabilities and more!

Why attend?

Focused on innovation, this program is based on lean start up principles and is an ideal vehicle to inspire entrepreneurship within your company so you can stop wasting time, get products to market faster, and maximise

Prepare a next generation of innovation managers for your company or become one yourself - by connecting with high quality presenters who are the perfect tool to help take your ideas to the next level and convert them into reality!

Dates for 2019

Innovation-READY - 6 days over 6 months

Day 1 13 June - Creating the innovation mindset

Day 2 11 July - The innovation process

Day 3 8 August - Innovating through ideation

Day 4 5 September - Innovation metrics

Day 5 31 October - Preparing an innovation strategy

Day 6 28 November - Building innovation & productivity culture

Innovation-SET and Innovation-GO

Following the completion of Innovation READY, attendees then have the opportunity to do Innovation SET and GO modules the following year.

This looks to put theory learned into action through strategic plans and support to commercialise an identified 15 product using lean start up methodology.

May 2019 | MetalBase MetalBase | May 2019

Social media updates

NZHERA @NZHERA · May 13

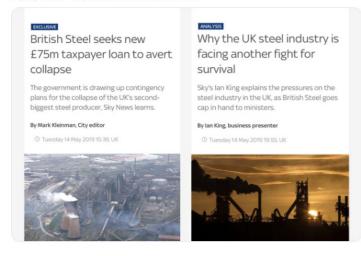
This months all about #procurement - a big topic for our NZ #metals industry! Its clear we need guidance on balanced #decisionmaking #fairtrade & #fairtrade - & we need to consider #digitalisation of this process too. Why not? Its going on everywhere else! bit.lv/2HepYwC



Digitalization is occurring across all areas of business operations, and if you have not done so already, you need to begin exploring how you can move toward digital procurement in your operation.

NZHERA @NZHERA · May 17

This week the news of @BritishSteelUK hit the news via @SkyNews - & it had us reeling all the way over here in NZ! Why? Because it shows #disruption can happen @ anytime & from anything - global markets, competition, politics, supply chain - anywhere! 😯 bit.ly/2HlUMKI



NZHERA @NZHERA · 19h

Government's proposed changes to #procurement rules could skew things so it spends too much to achieve too little. Contracting & supply chains that favour some businesses over others seems a poor choice & doesn't support business development more broadly. bit.ly/2VWS4kg



NZ Treasury has launched the first iteration of a national #infrastructure project pipeline valued @ approx \$6.1b with data from @CorrectionsNZ @nzta_ onGovtNZ @minhealthnz & @NZDefenceForce filterable by sector.



NZHERA @NZHFRA · May 20

Have you registered to attend the @Infra_NZ 14th Annual #buildingnations symposium - #building regions? If not, make sure you #SaveTheDate date 21-23 Aug 2019 for it! Held in Rotorua, it'll be focused on advancing national #infrastructure #development 1 infrastructure.org.nz/BNS-2019



Building Nations Symposium 2019 - Building Regions

NZHERA @NZHERA · May 22

Latest NZ Manufacturer is out! #WellbeingBudget #productivity #SmartManufacturing #AI #zerocarbon #robotics #QuantumMechanics #AustralianDefence #innovation #technology #researchanddevelopment



NZHERA @NZHERA · May 23

According to #Treasury #SocialCapital is the norms & values that underpin society. New #IRANZ #indicators help measure #wellbeing in this context. @BERLEconomics also suggest #economic #freedom - #FoodForThought when it comes to #procurement & #funding 👺 bit.ly/2VPFXZW



Did you see who was announced as this years winners for the Procurement Excellence Awards? This was established to lift the standards of NZ's procurement profession to improve long-term #social #g

Winners of this year's Procurement Excellence Awards named



gy is now NZ's third largest export sector. In 2018 it was worth \$11b, ain are highlighted as the two areas where NZ could be a global centre



Stirring the pot podcast, Episode 6: Procurement's part to play in industry challenges.

#procurement #businessmodels



A conversation with Metals NZ CEO, Nick Collins.

We're doing this because we are really focused on building a tribe within our industry. We want to create a stronger voice when it comes to advocacy and telling the heart story of our industry.

May's trend focus:

In this episode of Stirring the Pot, we talk with Metals NZ Chief Executive Nick Collins, to gain clarity around government procurement and how metals as a material currently sits within their plans.

We delve into industry concerns around fair and free trade, imported steel and global competition against NZ fabricated steel and in the NZ context why government urgently needs to provide clear guidance on balanced decision making.



May 2019 | MetalBase MetalBase | May 2019

We need your project photos!

We're gearing up to start doing our annual report and we want to showcase to government and other key stakeholders the great work that you do.

If you'd like to have your imagery shown in this report please send through to us over the next coming

You'll need to ensure:

- It is a project you're working on and/or have completed in the last financial year,
- You have client approval to share these photo's

We'll also need:

· The name of the project

stirring the pot Created by Metalheads for Metalheads **HERA**

Hosted by

- Client you were working for, and
- A brief description to use as a photo caption. This may include detail such as tonnage of steel used, location of project, fabrication hours, project value or what is happening in the image itself.

Please send through as many images as you like. We'll make sure at least one of them is used in the report, and the rest we'll use on our social media accounts throughout the coming year.

So far, some of our images have had over 600 views on instagram - so this is a great opportunity to gain free exposure for your company!

Email all imagery to kim.nugent@hera.org.nz and if you have any questions you're welcome to call on +64 9 262 4759.



May podcasts for **#StirringthePot**

And great news - you can now listen to us on Spotify, iHeart Radio, Stitcher, **Listen Notes and Tune In!**

Join us for practical conversations that get to the nuts and bolts of the metals industry here in New Zealand.

Simply download the iTunes app to your mobile, or connect via your desktop computer - it couldn't be easier!

We hope this strikes a chord with our industry and challenges, informs & inspires you! We certainly think it's an amazing & free resource.

We'd also like to encourage you to let us know of any topic ideas or speakers you'd like to hear from. We want to make sure we're talking about the things that are of interest to you. Just contact our Manager Marketing and Communications Kim Nugent at kim. nugent@hera.org.nz or via phone on +64 9 262 4759.

Subscribe to Stirring the Pot so you don't miss out on June's podcasts featuring experts on HR innovation!

And of course - rate, review and share with any metal heads you know - let's spread the word!

1 May | Episode 5

Ensuring you're a factory of the future. A conversation with HERA's Welding Research Engineer Holger Heinzel & Industry 4.0 specialist Dr. Jan Polzer.



29 May | Episode 7

The new breed of smart industry - advanced manufacturing. A chat with Callaghan Innovation Application Development Engineer, Emily Allison.



Call for attendance

Do you want to improve your fabrication business? See how bottleneck analysis can help!

This concept works around bottleneck analysis and covers many aspects such as:

- improving your ability to meet targets
- facilitating you offering faster and more reliable delivery dates
- giving you visibility on how you're doing with project due dates
- helping you assess if your output is stable and reliable or erratic, unpredictable and unreliable
- identifying if your unit costs are getting lower or higher
- addressing issues around being under pressure to do more with less
- moving you away from having to put out fires constantly, and
- ensuring you and your people experience a well aligned culture rather than a blame shifting one.

That's why I recommend both this program and speaker as "not to be missed" and "best in the field". As this program will provide the basic skills to overcome bottleneck issues in a novel way that is not commonly used in New Zealand.

If you have tried Lean, this is an ideal complement and may be a very good alternative too.

Once you've completed the workshop, our team can also provide support for you to embed the practices in your own business. So, we're pretty excited to be able to bring Arrie van Niekerk, to New Zealand in his capacity as a leading specialist facilitator on Theory of Constraints (TOC).

Evidence to back TOC up

Arrie says improvement of more than 20% is experienced regularly within the same infrastructure with the same people – but with a different mental framework. Where he has implemented TOC production flow successfully into more than 80 mining operations and over 20 other industrial operations.

So, we're anticipating this program to be massively impactful for our industry.

The Theory of Constraints (TOC)

TOC is a methodology for identifying the most important constraints that stand in the way of achieving a goal, and then systematically improving that constraint until it is no longer the limiting factor.

There is always at least one limiting factor or constraint, and TOC uses a focusing process to identify the constraint and restructure the rest of the organisation or the process around it.

TOC takes a systematic approach to improvement. It assumes that every complex system, including manufacturing processes, consists of multiple linked processes, one of which acts as a bottleneck upon the entire. It can be described as a "weakest link in the chain".

Dr. Eliyahu Goldratt introduced TOC to a wide audience through his bestselling 1984 novel, "The Goal". Since then, TOC has continued to evolve and develop, and today is a significant factor within the world of management best practices.

The bottleneck

In manufacturing, the constraint is often referred to as a bottleneck. TOC provides a powerful set of tools to eliminate the bottlenecks helping (fabrication) businesses to optimise their profitability.

In fabrication or manufacturing, the bottlenecks can vary as the load and nature of the work varies, while in repetitive manufacturing, it remains more or less stable. For example, welding is one of the bottlenecks in fabrication.

A successful TOC implementation will have the



Theory of Constraints (TOC) 3 Bottle Oiled Wheels Demonstration

Watch this video by Arrie van Niekerk on his work with TOC. It captures the essence of the enhanced process, presenting three different ways to get water out of a bottle - the fastest way being four times quicker than the slowest.

following benefits: increased profit, fast improvement, improved capacity, reduced lead times and reduced inventory.

The enhanced process

TOC can be enhanced by rapid results and some unique leadership and engagement processes. Instead of trying to optimise every component of the business through cost and efficiency, the total operation can be analysed to find unique ways to create bottom line value for the whole company.

The 4 Pillars

Tavanec CC demonstrated that the efficiency of the bottleneck analysis can be further enhanced by focusing on four Pillars.

- 1. Flow of the whole,
- 2. Buffer management,
- 3. Leadership, and
- 4. Operational conversations.

These concepts are integrated into a powerful, tailored approach for each client, based on their specific nature of business, infrastructure, bottlenecks and management culture. With the improved approach, the throughput can be improved by more than 20% and delivered sustainably within a few months, with essentially the same infrastructure and people.

What's our take from HERA?

We believe that TOC offers a robust tool that can deliver a significant productivity gain for our member companies.

That's why we'd like to invite you to attend an exquisite two-day workshop that introduces the Theory of Constraints (TOC) concepts to give you a strong grasp of its application and potential.

This workshop demonstrates how TOC can lift productivity through systems thinking – so you can

significantly improve delivery time, production lead time, cost, quality and excellence.

Covering TOC for operations, project management, logistics and making financial decisions, this workshop is enhanced through practical case studies, and design templates for practical application.

It'll demonstrate why and how it's possible for the same factory, infrastructure, people and equipment to produce at least 20% more by doing things differently.

Ultimately, attendees will be challenged to change the way they think, plan, measure and execute their operations. The physical work will be the same, but the way it is streamlined is different.

Arrie van Niekerk, Tavanec brings over 25 years' experience with the application of the TOC Production Flow approach – so its expertise you know you can trust.

There are limited seats available, so be sure to register as soon as you can.

We're holding two workshops, one in **Auckland** from 10 - 11 June, and the other in **Christchurch** from 12 - 13 June. See you there!

NZHERA @NZHERA · May 2

In a time of shrinking budgets, squeezed contractors spreading themselves thin & pressures to deliver to tight timelines, how confident are we that whats being delivered is of the required quality? #HolmesConsulting #quality #HERAcertification #SFCscheme bit.ly/2SzLmPu



Hamish Nevile + Fo





Coming back from the holiday break is always a bit of a shock to the system, but this year it wasn't just because I had to leave the jandals at home – driving up the Southern motorway I was struck by the sheer number of cranes that now fill up the Auckland skyline.

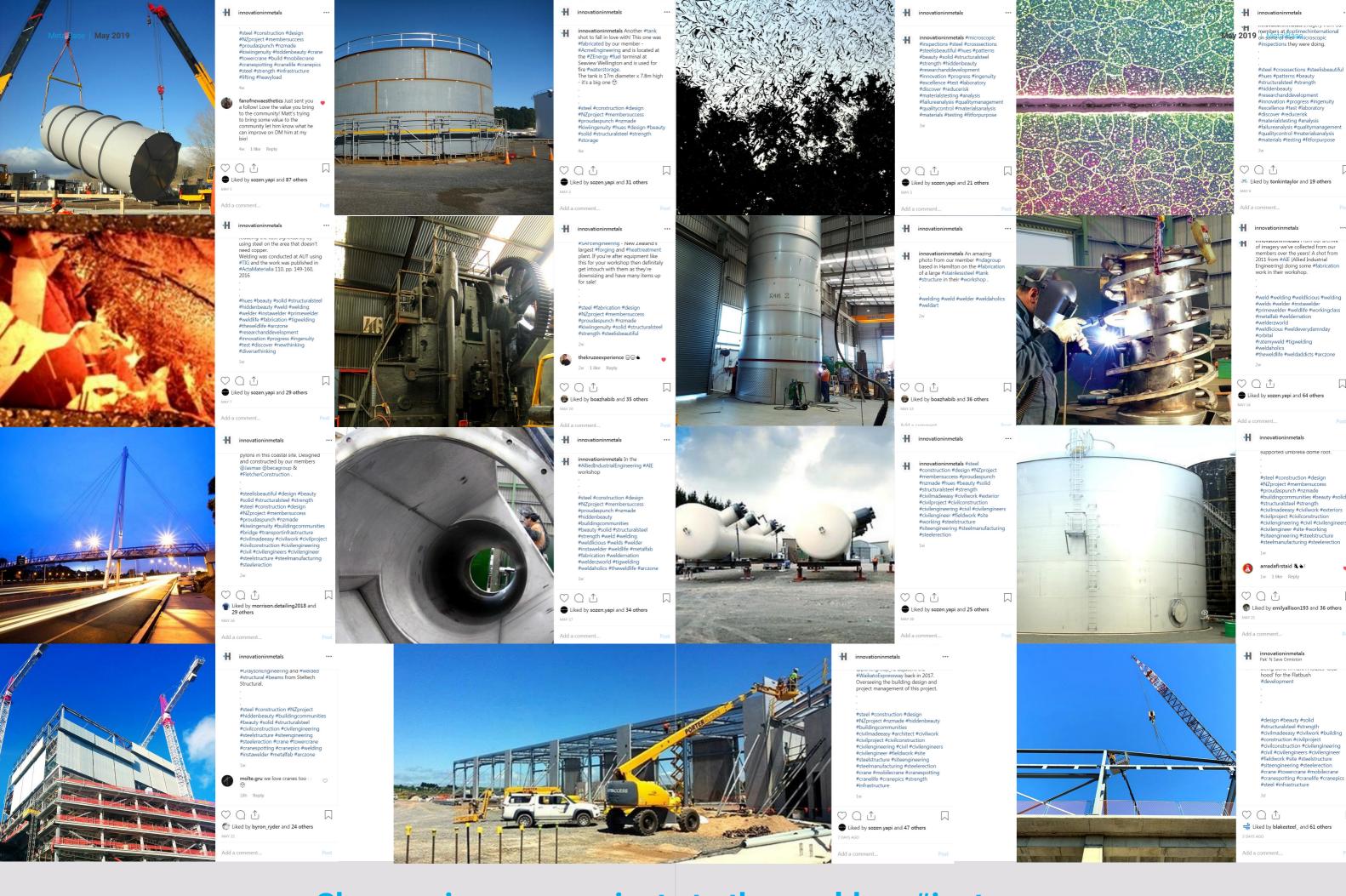
If you've seen the latest Rider Levett Bucknall Crane Index, you'll know there are around 90 cranes in Auckland alone, a number greater than in any city in the USA. This ought to be

NZHERA @NZHERA · May 7

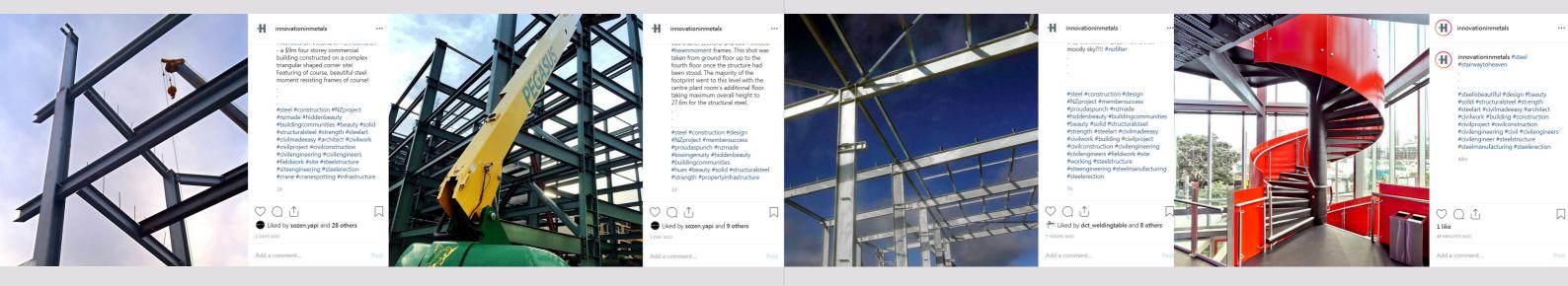
Have you booked to attend our IIW International #Welding Inspector Basic Course (IWI-B) or Standard Course (IWI-S) in Auckland, 13-22 May? Take your #Welding #qualifications to the next level! Secure your place ASAP as spaces are limited!







#Instagram #SteelisBeautiful



Welcome to our new Platinum Ordinary members!

Stainless Engineering Co. Ltd - Auckland. A stainless steel fabricator for industrial processing equipment.

WestArc Engineering Ltd - Auckland. A fabrication and welding company.

Engco Consulting Engineers Ltd - Christchurch. A consultant for structural design.

And, our new Gold Associate member!

CALD Enterprises Ltd - Northland. A fabricator for end to end precision engineering solutions.

And certainly not least, our new Reciprocal member!

The Manufacturers' Network - Christchurch. An industry association for the manufacturing sector.

New resources now available in our online library.

Every month our Librarian Musarrat Begum will be letting you know about new resources available for your use in our digital library.

We're also always looking for suggestions on resources we should consider acquiring for our membership - so if you have something in mind, feel free to touch bases with Musarrat by email at mbegum@hera.org.nz or by phone +64 9 262 4844.

Welding Centre

 Fracture mechanics: fundamentals and applications / T L Anderson (2017)

Structural Systems

- Seismic design of reinforced concrete buildings / Moehle, Jack (2015)
- Structural steel for Canadian buildings: a designer's guide / Metten, Andy & Driver, Robert (2018)

All listed items can be found in the 'new items' section on the home page of our digital library.





Our search is over! Sarah Lewis is our successful Whanake Scholarship recipient!

And we're so excited about it.

Sarah is studying a Bachelor of Engineering, majoring in mechatronics at Massey University in Palmerston North. She is also a graduate of the Puhoro STEM Academy.

Why is it important to support Māori and female engagement with engineering?

There wouldn't be a member that I speak with that doesn't raise the skills gap as an issue.

I don't have the statistics for New Zealand, but I believe we are entering a skills crisis. In the US, for example, by 2025 2.7 million baby-boomers will be retiring leaving an unfilled manufacturing workforce of 2 million people. Currently it already is in the vicinity of 800,000 unfilled positions.

Currently, in New Zealand, women comprise only 16% of the Engineering workforce. And Māori wahine probably comprise a very small fraction of these.

How Māori participate in a high value STEM economy of the future is a challenge we should all embrace. He waka eke noa (we are all in this together).

"Despite being a first world country, our education system is like a leaky pipeline that bleeds Māori potential at an alarming and unsustainable rate. Many young Māori are failing within the system to achieve or attain sustainable qualifications, limiting their future options, income and opportunities" according to the Pūhoro STEM Academy.

Māori make up just 2% of the science and technology workforce, wahine would be completely under-represented. Only 8% of Māori are going into academic STEM related pathways at schools. There is a massive issue here and HERA believes it is a challenge for everyone to proactively work together to address.

Why did we choose Sarah?

Sarah understands well the diversity of skills that are required to make an Engineer successful.

Saying "To me, being creative and flexible when approaching problems is just as important as communication and teamwork. It allows engineers to think of new innovative solutions that may not have been considered before."

In our interview with Māori graduate, Byron Konia, on our Stirring the Pot podcast, we also identified some of the challenges facing Māori entering University and in applying for scholarships.

We certainly experienced these in promoting the Whanake scholarship. It is said that men will apply for role if they meet 60% of the criteria, and women if they meet 99%... it seems like Māori won't even apply when they meet 100% of the criteria! This creates an additional challenge as it means we need

to think of new ways to encourage participation and engagement.

What plans do we have for Sarah and how can you play a part?

We've already lined Sarah up to spend her first annual internship at HERA. She'll assist with a technical project as well as developing our Māori student engagement program. We'll regularly check in with her on her progress and experiences as a student... and we're also thinking to maybe even create a blog.

Due to her unique position as a wahine in Engineering, we want to profile her as a role model for future women and Māori in Engineering.

For us, our Whanake scholarship is one step forward in our journey towards more meaningful engagement with Māori in Engineering. Having Sarah on-board is definitely an exciting opportunity to learn first-hand how we can make more of a difference.

If you're interested in engaging with the development of our Māori in Engineering program, please don't be backwards in coming forwards. Make contact with me today!

If you have any Māori employees that you think we should shine a line on, please let us know. Also, if you'd like to create or support a scholarship for Māori in Engineering or Manufacturing, please contact the Māori Education Trust, who'd be happy to manage this for you!



A shout out to the ladies!



And what better way to do this, than to profile some of you out there and share the amazing things that you do!

If you'd be interested in partaking in a short interview, we'd love to hear from you! This is a great way to profile your contributions, but also inspire those girls out there who are looking to enter a career just like yours.

Email kim.nugent@hera.org.nz for more details.



Whanake Scholar



HERA House has a prime office space available for rent!

A 14.5m² office space in the downtown Manukau district, it's a stone's throw from Westfield Manukau.

This space is ideal for independent workers who are looking to create presence in their business by developing a hub to operate from.

And, if you're in the metals industry - what better place to start than surrounded by like-minded organisations like HERA, Steltech, Metals NZ and SCNZ who are also based here!

Tenants also benefit with access to facilities such as meeting, seminar and conference rooms at discounted rates. This means you're able to host your key stakeholders on site to numbers up to 60 people!

Rental also includes kitchen facilities, tea and coffee, printer and network access (at a usage cost rate), one car park space and office furniture and storage. We're also willing to provide basic office support.

If you'd like to find out more, or register your interest – contact our Manager Member Services and Support Brian Low by phone at +64 9 262 4845 or by email brian.low@hera.org.nz



H&S + Environment

This 7 - 13 May was Road Safety Week.

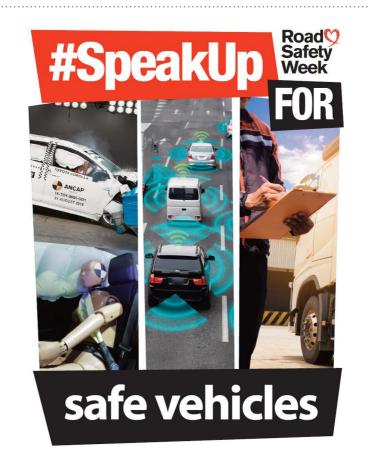
It's an important health and safety focus to ensure everyone is a fleet champion in their organisations.

We know that our members take this very seriously as part of their day to day operational practices, which is why we'd like to let you know that Brake is calling for nominations for the Australasian Fleet Safety Awards.

This award recognises organisations working to reduce incidents involving at-work drivers. And is sponsored by NZ Transport Agency.

The awards are announced at Brake's annual reception. The evening provides an opportunity to meet other fleet professionals, as well as Brake supporters and volunteers. It includes a networking reception and dinner.

Apply today. The deadline for entries is Friday 21 June, 2019.



Thank you to everyone who joined the #PinkShirtDay movement!

A campaign to prevent bullying and spread aroha & kindness on 17 May.

It's a fantastic cause that kicked off back in 2007 when two students took a stand against homophobic bullying, after a peer was bullied for wearing a pink shirt.

In Aotearoa, our Pink Shirt Day is led by the Mental Health Foundation with support from some amazing associations. Our team at HERA House was proud to support the cause!

Speak up, stand together, stop bullying! It's not too late to donate!



HERA is introducing a new student membership category!

And we want to start rewarding our members first with the support that we have available for this membership type.

Why? Because we're dedicated to helping our future engineers connect with our metal-based engineers and to become part of our future workforce.

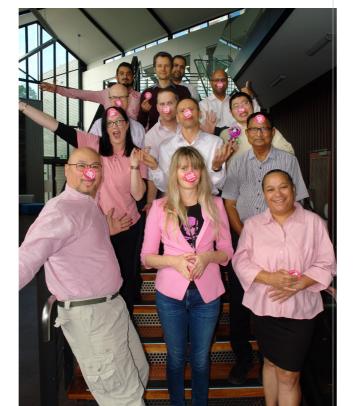
That's why we're asking you to let us know about any new interns, students, graduates and similar who may be working in your midst at the moment to join this membership.

We'll be providing them with tailored development to provide them with opportunities to improve their soft skills and technical skills in collaboration with you.

It's free - and a great resource you can tap into to build a professional development scheme for them without financial outlay. It's a great way to invest in their growth, tell them they're important to your business and provide a work environment they want to stay in.

If you have staff who would be appropriate for this membership – contact our Manager Member Services and Support Brian Low by phone at +64 9 262 4845 or by email brian.low@hera.org.nz to discuss further.

Find out more about our student membership offering here.



Pipeline opportunity.

Do you have a track record in transport infrastructure for 'sea' related projects?

The Australian Future Submarine program is seeking to establish industrial capability to support the build, operation & maintenance of their future submarine program.

Project detail

The Australian future submarine program is a massive, multi-decade endeavour to build 12 submarines for the Royal Australian Navy in Adelaide, South Australia.

French company Naval Group is the lead Prime contractor for the design and build of the submarines. Part of Naval Group's obligation to the Commonwealth of Australia is maximising the value to Australia and New Zealand industry from the build program and sustainment (maintenance) over the asset life without compromising capability, cost, schedule or risk.

The first submarine will commence service in the early 2030s with construction of the last submarine in the 2050s. Sustainment will continue into the 2080s. Click HERE for further information on the Program and naval shipbuilding plan.

Naval Group have a portal on the ICN Gateway system for the registration of suppliers looking to enter the program. As the program develops there will be significant opportunities across a range of engineering, technology and services.

Supplier firms need to register using the portal to get access to future tenders. While general registration will be open for years ahead, Naval Group is specifically calling for EOI in a series of work packages designed to start building a supply base for key components. This includes a substantial part of the construction and engineering services needed for the build program.

EOI in the work packages is open to 6 June 2019. so engage early so that you can be identified to Naval Group!

Register on the gateway here:

Join our Defence Innovation cluster to get these pipeline calls for interest ahead of others.

Contact our General Manager Welding Centre Michail Karpenko on m.karpenko@hera.org.nz

Get qualified to become a Welding Supervisor or inspector!

If you aspire to take your career to the next level - why not book in to our 'Welding Supervisor or Welding Inspection' courses.

Designed for those already working in the industry it delivers the learnings necessary for you to upskill and broaden your understanding of your current role

It's also perfect for those wanting to progress to a supervisory role, or get the necessary qualifications to become a welding inspector.

Providing an in-depth understanding of quality management systems for structural steel welding and its associated standards, and the necessary metrics to meet SFC certification requirements.

Find out more

We're holding Welding Supervisor Part 1 courses during August:

- Auckland: Part 1, 19 23 Aug, full day
- Christchurch: Part 1, 26 30 Aug, full day

And, Welding Inspection Part 2 courses during November:

- Auckland: Part 2 IWI-B, 11 15 Nov, full day
- Auckland: Part 2 IWI-S, 11 20 Nov, full day

NB: There are limited spaces available and places book out quickly, so secure your spot as soon as you can!



NZHERA @NZHERA · May 14

If you haven't seen it - the latest issue of #NickelMagazine - 'nickel the great enabler' is out! It's full of interesting applications of #nickel #stainlesssteels from engineers guides, to longer lasting batteries & a case study on the Garrison Crossingl his by/IGCOuch



Interested in blockchain technology or AR/IoT in your business?

Our Automation Innovation Cluster Lead, Holger Heinzel would like to let you know about two events of interest for you.

Chip of the New Block (Chain)

This workshop explores what blockchain means for the construction sector, how it'll manage building assets, and its impact on distribution and supply chains.

Find out more and register to attend here:

https://www.eventbrite.co.nz/e/chip-of-the-new-blockchain-tickets-62288491555

Auckland's AR/IoT Hackathon 2019

Want to jump start IoT or AR in your business? Submit a challenge to the upcoming #Hackathon and get a bunch of students working on it!

Find out more and register to attend here:

http://www.thingworxhacks.com/auckland/



HERA House, 17-19 Gladding Place PO Box 76-134 Manukau, Auckland 2241 New Zealand