



MetalBase

June 2019

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Cover:

Attendees at our 2019 intake of our Innovation READY program which kicked off this month.

Overleaf:

Opening of our Innovation READY program with our CEO Dr Troy Coyle.



From our CEO, Troy Coyle

June was a month focused on HR innovation and Women in Engineering.

Our Stirring the Pot podcast episodes featured **Rowan Larsen** and **Alia Bojilova**. Both giving us some great insights into the importance of HR strategy, attraction and retention, resilience and wellbeing, as well as retaining “top-graders”.

We also had **Renita Reddy**, who is a Director at Reddy Dimond Group - one of the biggest roll-forming companies in Fiji, join us. Renita gave us some great insights and tips for women in leadership.

Continuing the theme of women in Engineering, we showcased a number of women from amongst our membership leading up to International Women in Engineering Day.

#INWED19 #TransformTheFuture

This included:

- **Ting Wang**, Civil Engineer at Tonkin + Taylor,
- **Mikaela Keir**, Process Engineer at NZ Steel,
- **Joanna Wilce**, Regional Manager & Engineer Surveyor at SGS Group,
- **Deb MacCauley**, GM People & Culture at Longveld,
- **Amy Williams**, Structural Team Leader at GHD,
- **Niusha Navabian**, PhD Researcher in Civil Engineering at AUT,
- **Sue Bradley**, Business Management Strategy & Emerging Technology at BECA
- **Pam Roa**, Managing Director at Longveld,
- **Liz Frost**, General Manager at Weld *i.t.* Ltd,
- **Anya Valyashko**, Marketing Manager at Tectonus,
- **Karen Robertson**, Senior Mechanical and Piping Engineer at Jacobs,
- **Negar Gharahshir**, Structural Engineer at Structex, and last but certainly not least,
- **Audsley Jones**, HERA Scholar & PHD Candidate at the University of Canterbury.

HERA is also excited to announce that we will be creating a new HERA Innovation Centre, which will be focused on next generation technologies. This will include AR/VR, industry 4.0, automation relevant to metals manufacturing, fabrication and building and

construction.

As part of that new capability development, we are planning an extension to HERA House. We have recently advertised for an Innovation Centre Manager to oversee this new venture.

We are also seeking a new GM of Structural Systems who will replace Stephen Hicks, as well as a new Structural Engineer and Welding Engineer - so a lot of changes amongst the team are coming!

This month we also commenced the Innovation Ready program for 2019. This year’s cohort including participants from:

- Dixon Engineering,
- Jensen Steel fabricators,
- MJH Engineering,
- Atlantic Engineering Co,
- Otahuhu Engineering, and
- Stainless Engineering Co.

We also hosted Arrie van Niekirk from South Africa, who is an expert in Theory of Constraints. Seminars were held in Auckland and Christchurch. Participant feedback was so positive that we are planning to bring Arrie back again!



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!



HERA Future Forum

Author

Brian Low | Manager Membership Services & Support
brian.low@hera.org.nz | +64 9 262 4845

Be the disruptor, not the disrupted

The third industrial revolution changed the way the previous generations worked – and very soon, the fourth industrial revolution will do the same again for us.

It's a question that is well worth considering. Though, I'm not sure the answer is one that we all want to hear.

Inevitably, we'll always have the ability to access powerful resources previously unavailable or uneconomic. HERA members now need to be able to innovate and change to counter or utilise those resources.

Why the need to care?

The rise of technologies – such as machine learning, automation, augmented reality and virtual reality looms over the horizon. In other word, 'business as usual' will soon be 'business no longer'.

But, we get it. Some of these technologies seem too far reaching to ever affect our industry. Or just plain overwhelming, expensive or impractical to uptake. And although innovation can be promising, it has several aspects which makes it challenging to be implemented in different systems or organisations.

What we can say, is that Industry 4.0 and digitalisation are the future of manufacturing. Companies may not survive in a competitive and fast-changing market if they aren't agile and flexible. That means understanding these concepts and eventually finding ways to adopt them is critical.

Governments and some academic institutions are already struggling to keep up with the changes Industry 4.0 is bringing. In order to cope, our members need to step up and be more agile. Be they fabricators, consultants, product suppliers or services providers.

The Fourth Industrial Revolution will affect strategies, structure, business models and operational processes

in the engineering sector.

Even we at HERA have aligned our vision and mission to keep up with changing contexts. Our structure, training and research have and will continue to adapt as well. Especially as we find ways to serve our membership meaningfully and effectively.

Similarly, our members will need to adapt to survive.

HERA Future Forum

That's why HERA is launching our [Future Forum series](#) next year on 21 February 2020.

It's about getting all of our metalheads in a room together! Because we know the best ideas, experiences and adoption of new concepts happen better when there's critical mass – and with the right people!

The day is split into three key events.

Kicking off 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 this!

Next will be the main event for the day – 20/20 VISION. Come to gain insights into what will affect you in the next three years, understanding of what you'll need to do to pivot or prepare and what as an industry we need to do to futureproof ourselves.

You'll learn how a steel pedestrian bridge on the other side of the world was 3D printed, how a pioneer in Australia has turned his fabrication business into a profitable digitally-enhanced business, and how HR innovations attract new blood to our industry.

We've hand picked experts to speak on topics that absolutely have the potential to disrupt your current business. These experts have been there, and done it. They've either owned traditional businesses that they've pivoted in a completely different way, or explored new ideas from the start.

Their brief? To share their real life experiences and

- how they adopted these innovations into their business,
- the challenges they had to overcome,
- the value of doing so, and
- how it was all possible.

And lastly, we'll close out the day in celebration at our Nation Dinner. A night of recognition, celebration and connection.

Plus it'll be very different to what we've done in the past! Our goal is to make it fun, exciting and inspiring as well. It'll be held every three years... so this is also another reason to make sure you're there!

Ignorance is NOT bliss!

You can't afford to be left behind, and it's why we've organised this forum – to give you an edge in your strategy looking ahead.

The fourth industrial revolution is coming. And, much the same way the internet, GPS, smartphone and mobile computing has changed the way you work – the next revolution will do the same! [So register to attend today!](#)

And if you're keen to help build up our tribe of passionate metalheads... consider becoming one of our disruptive sponsors. Contact me to find out how, or read our [sponsorship prospectus here](#).

HERA | FUTURE FORUM

20/20
VISION

20/20 Vision

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.

Please note - places are limited!

HERA | FUTURE FORUM nation breakfast

We're kicking off 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 this!

HERA | FUTURE FORUM 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.

HERA | FUTURE FORUM nation dinner

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!

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.



\$75

Nation breakfast only

\$230

Nation dinner only

\$1150

Nation breakfast & 20/20 VISION

\$1265

All three events package deal!

Places are limited - so ensure you secure your seat today!

20/20 Vision

Visualising our future
20 - 21 February 2020

HERA | FUTURE FORUM

Register now

HR innovation

Retaining top staff – are you being empathetic?

If there's one word that embodies the spirit of team leadership, it's empathy.

Empathy is often little valued, yet critical for bettering workplace culture and performance.

Frequently we hear our members talking about their skills issues. Staff are leaving or being poached. It's creating an environment where organisations are loathed to invest in training someone... to have them leave, and they're also finding it difficult to hire the right talent in the first place.

Where does the problem lie?

An honest introspective would quickly reveal if your organisational culture is driving staff away.

We're quick to tag the 'job-hopper' label on millennial's, but if given true purpose in their roles, they probably wouldn't live up to the name.

When staff do leave, how often do you ask yourself, why? Did you do everything right to make sure they didn't want to leave? Did you appreciate them enough? Was training really for them or you? Did you make them feel part of the family?

Sweat the soft stuff

Empathy can be developed and nurtured.

- Start by listening to each other. Demonstrate you value feedback by implementing their suggestions,
- Ask questions with a genuine interest,
- Embrace diversity in thought and opinion,
- Be open to positive and negative feedback,
- Have a flexible approach to gather ideas and feedback from your teammates. And lastly,
- Keep practicing empathy regularly. It means when staff do leave, they're more likely to give you honest feedback in their exit interviews.

Author

Dr Boaz Habib | General Manager Industry Development
boaz.habib@hera.org.nz | +64 9 262 4848

What about the hard stuff?

Performance and profit is absolutely important, but you won't get them if you're mismanaging your team.

To get a good bottom line, you have to give more time to the 'soft stuff' because shifting to an empathetic culture only increases performance and output from your team. It's about balancing the hard metrics with caring about the people.

Communicate!

At all times keep your communication lines open – and with everyone. Only speaking to certain people breeds a culture of distrust.

Start by assessing your culture and where it is at. What qualities do you want your company culture to exhibit and where do you want to be?

A convenient tool to use is a culture map which positions your culture on the scales of independence versus interdependence, and flexibility versus stability. You can map where your culture sits currently, where you'd like it to be, and what values you want your culture to represent.

The seed of innovation needs the soil of empathy, vulnerability and collaboration to grow.

Empathy creates connection.

Any environment where empathy is missing will continue to bleed talent – with their star players the first to go.

Share your stories of empathy with us, and join our HR innovation cluster, by contacting me at boaz.habib@hera.org.nz.

I'd also highly recommend listening to our [Stirring the pot](#) podcast on 'How to attract and retain top staff', which is a fantastic conversation with The Human Resources Project Executive Director, Rowan Larsen.

Here he explores what practical steps our members can take to address their skills gap challenge – and why it's so important to create a clear culture, company purpose and strategy for staff.

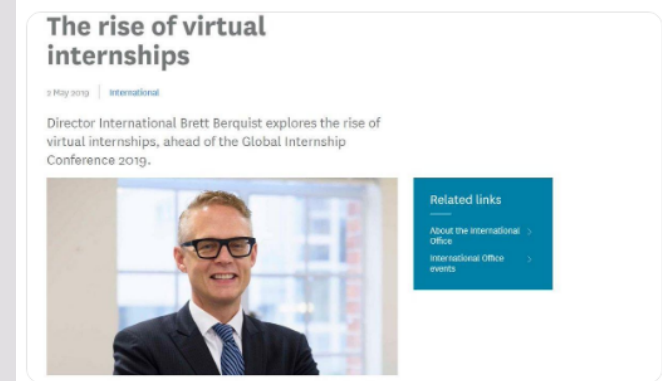
#HRinnovation #staffretention



NZHERA @NZHERA · Jun 6
We're facing a #skillsgap so ensuring a great work environment is offered to employees is key. This doesn't just mean a nice staff room but an inspiring place to be. After all, its said employees join companies but leave managers
#workculture #HRinnovation bit.ly/2lBF8i6



NZHERA @NZHERA · 24h
The rise of #virtual #internships is coming! Traditional internships are being 'kicked into the 21st century' to address access challenges. The new approach recognises our rapidly changing world where working remotely, in project-formed teams, is frequent. bit.ly/2KE910P



NZHERA @NZHERA · Jun 4
Attracting & keeping top #millennial #talent is a burning issue for leaders. They're 35% of the workforce & by 2020 will be 46%. So why do we struggle to attract & retain them? If we dig deep - we'll probably find its the work environment we're offering! bit.ly/2EhAOz7



NZHERA @NZHERA · Jun 26
Struggling with disengaged young workers & a weak response to changing market conditions? A #shadowboard helps! A group of non-exec employees working with senior execs to leverage younger group insights to diversify perspectives strategically #HRinnovation bit.ly/2KOk8GP



Career opportunities at HERA...

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

We're currently seeking someone to fill three 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 infrastructure.

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-Systems-at-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 team.

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>



Innovation Centre Manager.

HERA is planning to create a purpose-built innovation centre focusing on Industry 4.0, automation and AR/VR technologies that are suitable for advanced welding and steel-based structural engineering.

And, we're seeking the right person to manage it.

To be successful you must be a driven, entrepreneurial self-starter, with a flare for communication and ability to influence and inspire.

You should have demonstrated experience in business development relating to innovation products or innovation management; research, innovation, training project management and/or management of an innovation centre and have had experience working in a research or training environment with industry.

Applicants should hold post-graduate qualifications in a STEM related discipline, with 5+ years experience in working in a STEM related business unit. Familiarity

with Industry 4.0, automation and digital technologies likely to impact the metals industry also valued.

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

Want to discuss the role further?

For our **GM Structural Systems** and **Innovation Centre Manager** roles, please contact our CEO Dr Troy Coyle

troy.coyle@hera.org.nz

For our **Welding Engineer** role, please contact our General Manager Welding Centre Dr Michail Karpenko for more details:

m.karpenko@hera.org.nz

June 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 to your favourite podcast app - it couldn't be easier!

This month's podcasts are all focused on HR innovation to attract and retain top talent, and women in engineering.

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 July's podcasts featuring experts on pre-fabrication, as well as our announcement of panel project focuses for FY20's research at HERA.

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



12 June | Episode 8

How to attract and retain top staff. A conversation with The Human Resources Project, Rowan Larsen.



26 June | Episode 9

Getting rid of the 'fluff' around resilience and wellbeing. A chat with Industrial and Organisational Psychologist & 2020 Vision Speaker, Alia Bojilova.



26 June | Episode 10

'Role forming' ethical leadership. A talk with Reddy Diamond Group Director, Renita Reddy.



International Women in Engineering day was on 23 June.

Inspired by #INWED19, we wanted to share some of our tips to help broaden your female talent pool!

Ten tips to attract and retain talented female staff

01 Language drives communication and communication drives culture.

Think about how your business language is driving your culture. It may seem like a small thing. However, language is the basis of communication and our communication says a lot about our business culture and how we envisage the role of women in it.

02 Facilities can be inviting or off-putting.

Do you have suitable female bathrooms? This is a basic that many companies haven't considered. Does your PPE fit well on women? There are many options now for clothing that have been designed with women in mind. Are there posters, calendars or similar hung up around your workshop or staff rooms that objectify women?

03 Show the career path.

This is a tricky one as people usually aspire to be what they can see. If you don't have a plethora of female leaders as role models, you'll need to make it clear to newcomers that your company supports progressing women.

04 Accept diverse leadership styles.

Almost all of us have an unconscious bias towards leaders with a certain presence. Volume or pitch of voice, mannerisms, stance, stature, hobbies, and many other attributes impact this. However, other than appealing to our unconscious bias, none of these inherently indicate leadership success.

05 Engaging pleasantries.

Shake everyone's hand. Make eye contact with everyone. Take an interest in everyone. Even when they aren't like you. Make sure everyone follows this rule so

that no one feels unimportant.

06 Instead of shooting the messenger, encourage the courier.

Sometimes it is hard to speak up. Accusations of being sensitive, a stick-in-the-mud, lacking a sense of humour, and being a feminist all create a culture where women are made to feel uncomfortable about giving true feedback about workplace culture and why they would stay or leave a business.

07 The four 'ships'.

Think about offering internships, returnships, cadetships, and scholarships that will support women to see the positive and attractive aspects of working in this industry and your business in particular.

08 Affirmative action and merit based appointments are not mutually exclusive.

Implementing processes that positively encourage the appointment or promotion of women does not mean that you will be employing the wrong person for the job. It just means you are acknowledging and addressing some of the inhibitors.

09 Benchmark yourself.

If you want to recruit the best talent, have a look at where the talent is currently going. See what is working elsewhere. The talent pool only gets smaller each time your competitor takes someone out of the pool.

10 Make your pitch to prospective employees truly inspirational.

If you want to find and keep the best person for the job, consider all of the above and implement change. Make your business an inspiring and motivating place to work for all. Consider investing in innovation in your HR department, as much as your product development department.

We want to help our members with their concerns around attracting talent.

That's why we strongly encourage you to listen to this month's podcast on HR innovation, and to register to attend our 2020 Vision Future Forum next year in February.



#INWED19

Check out our showcase of women in engineering!

For more details on each profile, head to:

www.hera.org.nz/people - #INWED19 profiles, or click images below.

"Being an engineer gives me great satisfaction when I see my design built. Engineering is constantly changing the world for good, and it provides me the opportunity to have a direct impact on the world and to solve problems that are important to society."

TING WANG
CIVIL ENGINEER
TONKIN + TAYLOR
#INWED19
#TRANSFORMTHEFUTURE



"A key challenge women face in engineering is the outside perception that they are hired over men on the basis of improving diversity. For me, this led to a feeling that I had to go above and beyond to prove my place."

MIKAELA KEIR
PROCESS ENGINEER
NZ STEEL
#INWED19
#TRANSFORMTHEFUTURE



"At more senior levels in business, masculine traits are still very much linked to effective leadership - competitiveness, assertiveness, dominance. Businesses are starting to understand that more feminine communal traits are as effective, if not more. We need to be encouraging this and role modelling positive outcomes."

SUE BRADLEY
BUSINESS MANAGEMENT,
STRATEGY & EMERGING
TECHNOLOGY
BECA
#INWED19
#TRANSFORMTHEFUTURE



"I was told from a young age that women have to do a job better than men in order to be treated as equal. Any woman buying into this type of thinking is going to be limiting themselves on so many levels."

LIZ FROST
GM, WELDING SUPERVISOR
& WELDING INSPECTOR
WELD I.T. LTD
#INWED19
#TRANSFORMTHEFUTURE



"The worst thing you can say to me is 'but it's always been done this way'. That's guaranteed to make steam come out of my ears!"

PAM ROA
MANAGING DIRECTOR
LONGVELD
#INWED19
#TRANSFORMTHEFUTURE



"As an engineer, you always face new challenges and should be able to propose appropriate solutions for them."

NEGAR GHARAHSHIR
STRUCTURAL ENGINEER
STRUCTEX
#INWED19
#TRANSFORMTHEFUTURE



"When I meet new customers, I still get asked if I have an engineering degree and what my qualifications are."

This stereotype is slowly changing, but it takes time to build rapport and respect."

JOANNA WILCE
REGIONAL MANAGER &
ENGINEER SURVEYOR
SGS
#INWED19
#TRANSFORMTHEFUTURE



"Our biggest challenge is attracting women into Engineering!"

That's why I want to create a positive work environment that increases engagement, and ensure there is future relevance by challenging traditional mindsets and work practices."

DEB MACCAULEY
GM PEOPLE & CULTURE
LONGVELD
#INWED19
#TRANSFORMTHEFUTURE



"I love working alongside talented, passionate and creative people, and having an environment that supports problem solving and thinking outside the norm. It's so inspiring and motivating to be part of a team that is bringing innovation to life."

ANYA VALYASHKO
MARKETING MANAGER
TECTONUS
#INWED19
#TRANSFORMTHEFUTURE



"Women think differently to their male counterparts. This is an asset to any company to have this diversity."

AUDSLEY JONES
HERA SCHOLAR + PHD
CANDIDATE AT THE
UNIVERSITY OF
CANTERBURY
#INWED19
#TRANSFORMTHEFUTURE



"I'm sure creating a diversity of career paths that allows for different life stages and work life balance would be a benefit to all involved in the engineering community."

AMY WILLIAMS
STRUCTURAL TEAM
LEADER
GHD
#INWED19
#TRANSFORMTHEFUTURE



"I'm really passionate to be a successful and efficient structural engineer for the design of civil structures, and contribute to large-scale civil engineering projects internationally."

NIUSHA NAVABIAN
TEACHING ASSISTANT &
PHD RESEARCHER FOR
CIVIL ENGINEERING
AUCKLAND UNIVERSITY
OF TECHNOLOGY
#INWED19
#TRANSFORMTHEFUTURE



"I want my daughter and my son to see that as I work as an Engineer they are moving to a world that is moving away from traditional roles for men and woman, and that they know that they can strive to do anything they want to."

KAREN ROBERTSON
SENIOR MECHANICAL &
PIPING ENGINEER
JACOBS
#INWED19
#TRANSFORMTHEFUTURE



Check out Troy's video on how to attract and retain female talent! Click this image, or go to this link: <https://youtu.be/Qk8ooVKtoRE>

TROY COYLE
CEO
HERA
#INWED19
#TRANSFORMTHEFUTURE





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.

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



#InnovationREADY
#innovation
#disruption

#INWED19 #TransformTheFuture #Diversity #DiversityAgenda #WomenInEngineering #WomenInStem #equality #wahinetoa

NZHERA @NZHERA · Jun 24

After showcasing so many amazing #womeninengineering for #INWED19 - I bet you're curious how to attract & retain female talent into your business! Thought you would be! Check out this video from our CEO @DrTroyCoyle to get her tips! #TransformTheFuture 🎥



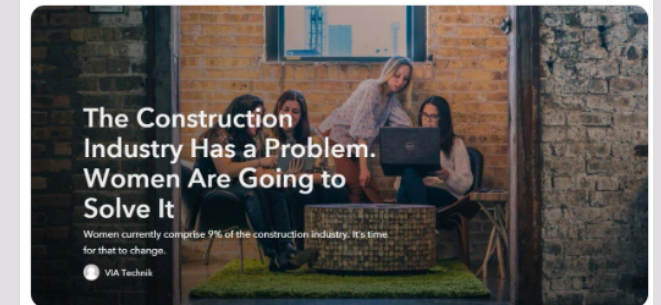
How to attract and retain female talent

Join our first female CEO Dr Troy Coyle as she takes us on a journey of her career path to date. We discover how she became a leader in steel innovation, and...

[youtube.com](https://www.youtube.com/watch?v=...)

NZHERA @NZHERA · Jun 24

The #construction industry has a problem & #wahine / #women are going to solve it! We don't have enough people to meet demand worldwide & retiring #babyboomers are leaving a gap. A way to combat that is to stop alienating half of our potential workforce! bit.ly/2WLFkIP



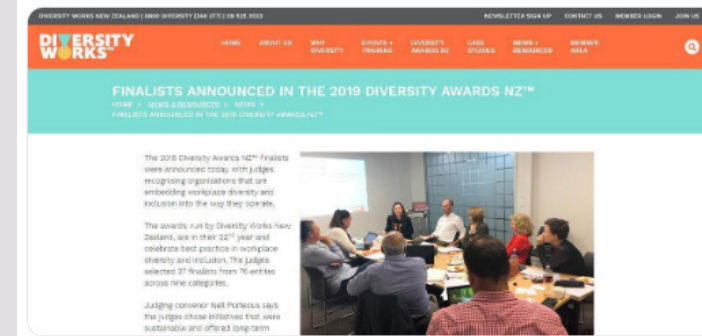
NZHERA @NZHERA · Jun 26

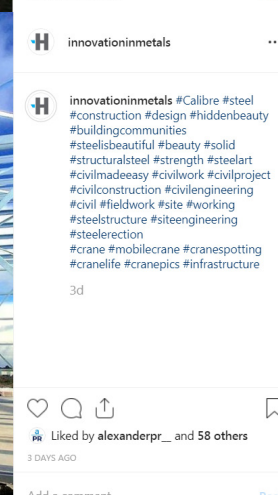
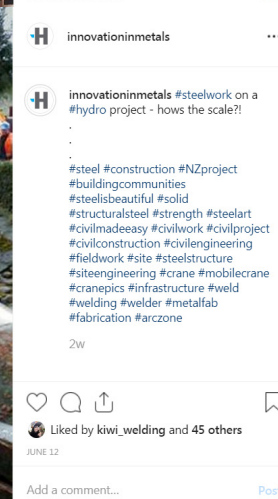
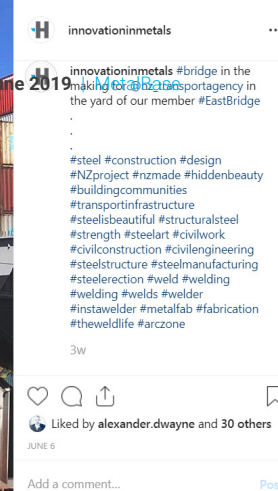
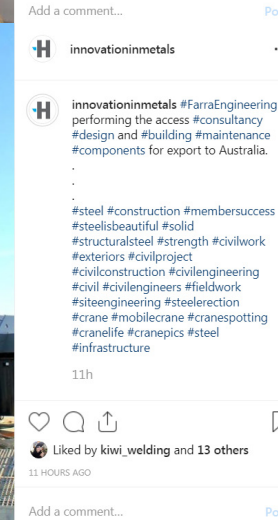
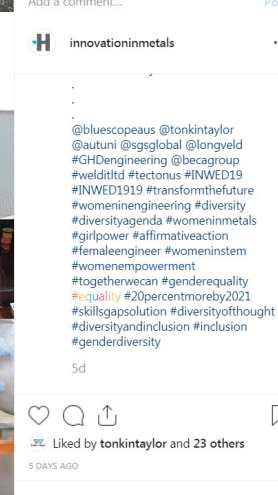
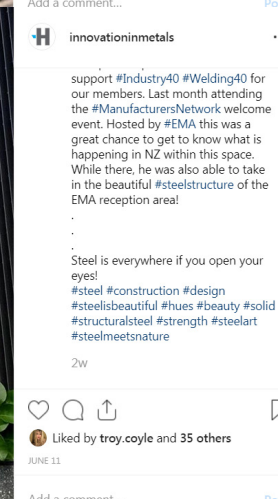
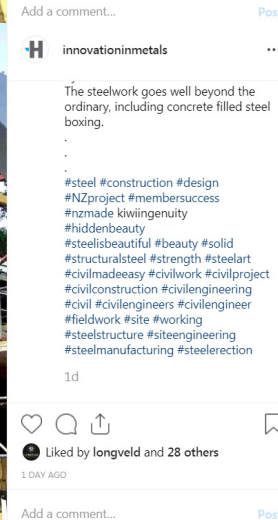
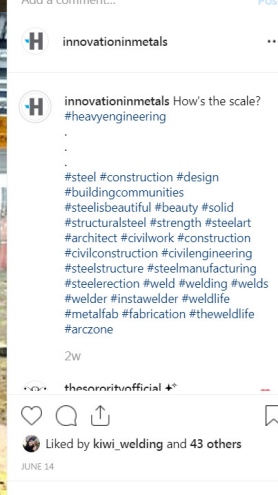
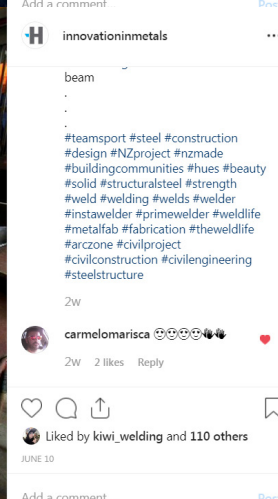
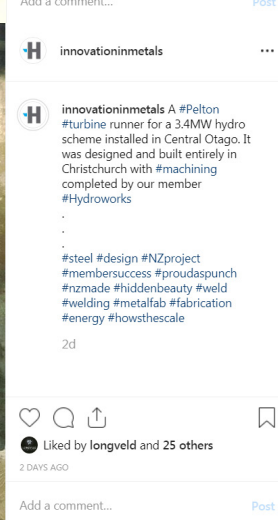
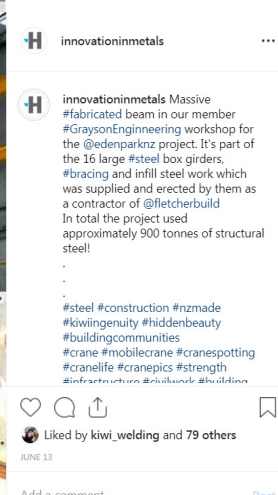
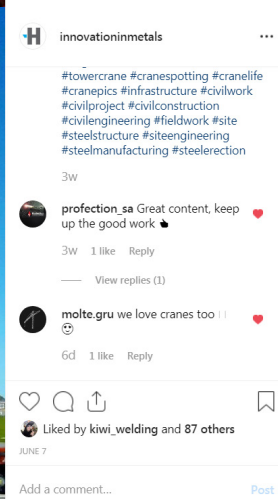
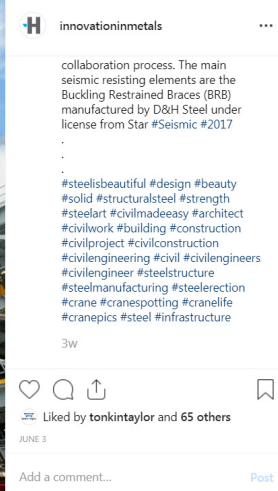
We're celebrating #INWED19 & of course we couldn't resist doing a #doubleepisode release of our #StirringthePot #podcast - featuring 2 amazing ladies from industry #AliaBojilova a #Industrial Psychologist & Renita Reddy on #rollforming & #femaleleadership hera.org.nz/podcast/



NZHERA @NZHERA · Jun 25

So proud of our members nominated for the 2019 #Diversity Awards NZ. It strongly demonstrates the increasing importance of diversity & #inclusion to build a future focused industry. @Infra_NZ @GHDspeaks @DownerNZ @HGConnects @EngineersNZ @FisherPaykelNZ bit.ly/2R1qIbS





And your photo's from your projects can be next!

Send us your client approve imagery to share on our social media platforms and our annual report. Send to Manager Marketing and Communication: kim.nugent@hera.org.nz

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.

[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:

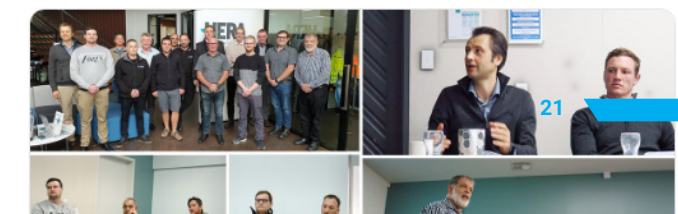
- [Auckland: Part 1, 19 - 23 Aug, full day](#)
- [Christchurch: Part 1, 26 - 30 Aug, full day](#)

And, Welding Inspection Part 2 courses during December - which at this stage are fully booked. You can request to go on the waitlist by emailing admin@hera.org.nz

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



NZHERA @NZHERA · Jun 14
We've had an amazing week running our #Bottleneck #Analysis workshops in AKL & CHCH with Arrie van Niekerk. Helping our members improve their #fabrication businesses by becoming more #productive & #streamlined in their processes using #TOC! #Innovation bit.ly/toc-hera





Meet Reza Hamzeh – the researcher focused on Welding 4.0 for us!

Last month we let our members know what our strategic focuses for 2020 and beyond look like. Part of that strategy being to deliver solutions that supported our members in technical excellence and knowledge transfer.

A major target to achieve this, is to drive industry understanding and adoption of automation, productivity and Industry 4.0 in their workplace.

To achieve this we've attacked the goal from several angles.

Kick starting [welding productivity and automation assessments](#) to identify common issues we could assist our members to overcome.

Developing out our [in-house capability in automation of welding fabrication](#) to lead the way in helping our industry explore opportunities in 3D scanning, virtual-reality assisted fabrication planning, CAD data driven tool-path generation, robotic cell setup, and 3D printing.

And, this month we ran a [Bottleneck Analysis](#)

[workshop](#) in Auckland and Christchurch with the world renowned expert Arrie van Niekerk to develop a skilled workforce in this space. Exploring how those in the fabrication business can use Theory of Constraints (TOC) to overcome roadblocks that slow productivity and drive profit margins down.

Last, but certainly not least – we recently engaged Reza Hamzeh to collaborate with us on a number of research projects in the space of Welding 4.0.

What will Reza be concentrating on delivering for us?

Reza came to us via our strong relationship with the University of Auckland, and will be with us for the foreseeable future to assist us in developing our Welding 4.0 capabilities.

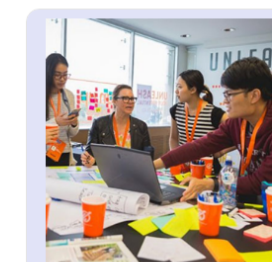
He holds a Bachelors in Mechanical Engineering from the Polytechnic University of Tehran, Iran. And worked for DibaDATA Co. as a production engineer and project manager, before moving to Malaysia to continue his education in Manufacturing System Engineering at UPM University.

Since 2017 he's been based in New Zealand working on his PhD research titled "Smart factory design and technology selection in the context of Industry 4.0". Making him the perfect fit to collaborate with us.

He'll be exploring the development of a Welding 4.0 readiness assessment tool for our New Zealand metals industry, and will also be supervising several undergraduate students working with us to develop a Welding 4.0 roadmap and design of a testbed for

NZHERA @NZHERA · Jun 3

The Centre for #innovation & #entrepreneurship needs volunteers from the business community to develop #transformative #mindsets - get involved in a way that suits - speak, lead a seminar, share experiences, #Sponsor or become a #mentor or judge! @AucklandUnihttp://bit.ly/2wqXnxC



Support the next generation of innovators and entrepreneurs

The Centre for Innovation and Entrepreneurship needs volunteers from the entrepreneurial and business communities to bring their programmes to life.

Find out more

NZHERA @NZHERA · Jun 10

Is the #wellbeingbudget 2019 #transformative for NZ? Significant investments in #mentalhealth, child #wellbeing, Māori & Pasifika, hospitals & schools is great, but will take time to generate visible benefits. A sense of urgency is missing @BERLEconomics bit.ly/31o5SYC



smart welding.

He'll also be looking to facilitate a technology management course which explores the future of welding inspection.

Of this opportunity saying, "HERA has a good reputation for consultancy, education and advocacy, and has a large group of members from NZ's metal-based industries. This excites me, as it means I'll be able to engage in research that's not only interesting from a scientific point of view, but also has real world application."

"I'm highly motivated to work on the challenges that HERA's members are facing. From ideation to launch, I'm looking forward to finding optimal solutions for them!"

Reza's thoughts on Industry 4.0...

To me, innovation is bringing new idea, methods or technologies into a system to improve a process.

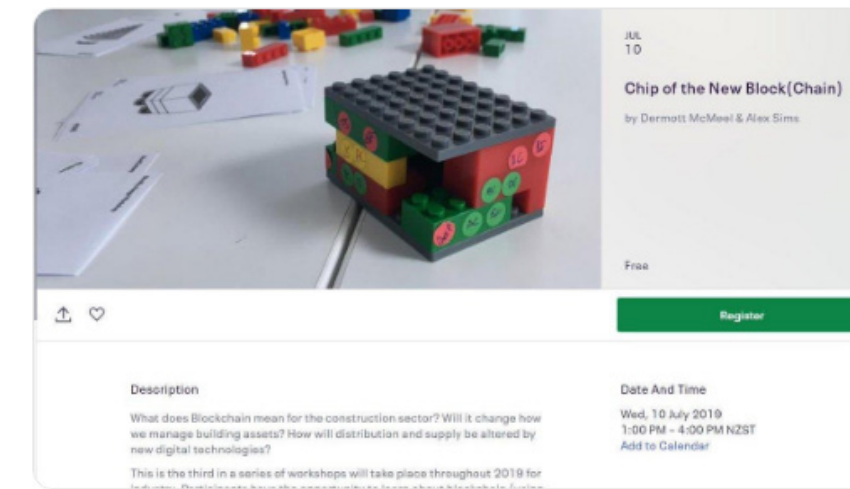
Although innovation can be promising, it has several aspects which makes it challenging to be implemented in different systems or organisations.

What I can say with certainty, is that Industry 4.0 and digitalisation are the future of manufacturing. Companies may not survive in a competitive and fast-changing market if they are not agile and flexible.

It's this thinking that led to me collaborate with Callaghan Innovation and The Manufacturers'

NZHERA @NZHERA · 2h

Ever wondered what #Blockchain means for the construction sector? Will it change how we manage building assets? How will distribution & supply be altered by new #digital #technologies - then the Chip of the new block (chain) might be a workshop for you! bit.ly/2QZFDT8



Network, to carry out research on Industry 4.0 readiness in New Zealand.

It showed that while kiwi industries are interested in the Industry 4.0 concept and are motivated to start their journey toward digitalisation, they lack the technological support and knowledge to do so.

The work I'll be doing with HERA will help address this. By exploring Industry 4.0's benefits and the practical ways in which we can facilitate innovative disruption for their members.

“ A construction industry survey showed

that 49% of large businesses of over 50 employees are committing resources this year to investigating machine control and guidance/grade control, 25% to Building Information Modelling and 21% predictive analytics.

Join our Automation Innovation cluster to keep your finger on the pulse with Industry 4.0.

Contact our Welding Research Engineer Holger Heinzl on holger.heinzl@hera.org.nz

NZHERA @NZHERA · Jun 12
Great to have our @DrTroyCoyle meet up with staff from the Development Office & Office of the Vice-Chancellor (Maori) - Em Lewis, Marie Cocker & Claire Carruthers at Te Herenga Waka Marae. The Universitys planning an amazing Living Building Challenge nearby which is so exciting!



NZHERA @NZHERA · 1d
Great to have our work on developing composite column software featured in the latest #BuildersandContractors Magazine, pg22. It's a chance to share the advances we're making for the metals industry to increase the uptake of #steel solutions! @shicks0 bit.ly/2IElg4



NZHERA @NZHERA · Jun 18
Last week we farewellled our Structural Systems team member Jing Cao. Although he'll be missed... we're equally excited for him & his new journey in Perth where he's leaving the #research & #development world behind to get more hands on in #civlengineering bit.ly/jing-hera



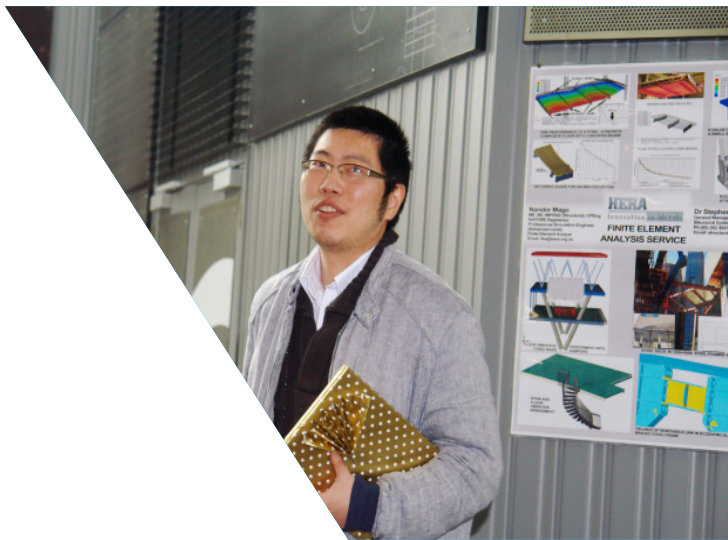
NZHERA @NZHERA · Jun 20
Last week it was so great to have our 2nd round of #InnovationREADY kick off with our first session! As @callaghannz #RossPearce said on the day "Leadership is not about performing on the stage, its about setting the stage!" #innovation #disruption #innovationandimpact @BoazHabib



NZHERA @NZHERA · Jun 11
Interested in what the advances in #corrosion #science & engineering are? Then head over to #Melbourne next month to attend the @AustCorrosion 2 day #Symposium from 24-25 July. It has an amazing line up of 15 speakers delivering insights in this space! bit.ly/2if2VAX



NZHERA @NZHERA · Jun 3
Registrations now open for the Coatings & Corrosion 2019 conference. It's great for all levels of coatings professionals to hear from industry & academic experts, be inspired by case studies & walk away with a practical roadmap for corrosion prevention. bit.ly/2QJ35Wl



Farewell lunch for our Senior Structural Engineer, Jing Cao.

Social Stream June 2019



Guest feature - Metals NZ

Author

Nick Collins | Metals NZ CEO
ceo@metals.org.nz | +64 9 262 4846

Metal industry's journey to zero carbon

New Zealand is on a journey to low emissions because it's the right thing to do for future generations.

New Zealand also wants to build resilience to the impacts of climate change, to reduce waste, lessen our impact on the environment and sustain and enhance our economic and social wellbeing.

Some might say the metals industry, which contributes a share of the 6 per cent of total New Zealand CO2 emissions produced by industrial processors and product users, is a problem in this vision - keeping in mind, energy and transport produce 41 per cent.

True, there is not yet a commercially viable technology to make steel and aluminium without carbon.

Emerging innovation is showing potential solutions, such as replacing coal with hydrogen, but it's a way off and, in the case of hydrogen, requires abundant reserves of cheap natural gas, which New Zealand no longer has.

Meantime, metals are a key ingredient in enabling our low-emissions and climate-resilient future. One hundred per cent renewable energy will require more wind turbines, solar and geothermal, all of which need metals.

We also need metals to upgrade our ageing water, energy and mass transit systems. Indeed, metals will be crucial to delivering on Budget 2019's \$1 billion investment in KiwiRail, as well as development of the Auckland City Rail Link - both pivotal to reducing transport emissions.

If New Zealand cuts metals production to reduce domestic emissions, we would need to import a lot of steel and aluminium to meet demand - exporting our problem and creating more emissions to boot from the freight.

We are already importing a lot of steel and generally have no idea about its embodied emissions,

environmental credentials and working conditions of the businesses that produce them.

New Zealand metals manufacturers have Environmental Product Declarations, environmental choice or CEMARS certification and exemplary health and safety and workforce conditions.

NZ Steel's Glenbrook plant generates up to 70 per cent of its electricity on site from co-generation and waste products such as gases are harvested, separated and sold.

Further, metals manufacturing generates more than 30,000 full-time equivalent jobs in small to medium-sized businesses in our regions, generating some \$3.3b in GDP annually.

Using more steel in our buildings will also help keep our trees in the ground to embody carbon. Research has shown that trees grow faster as they age, sequestering more carbon than smaller trees, and faster.

Yet, New Zealand is harvesting plantation forests at around 18 years old to meet export demand and for use in low-value construction uses.

Metals such as steel and aluminium are also infinitely recyclable and easily re-used and repurposed so don't end up in our landfills. Adopting more of these "circular economy" processes is also estimated to reduce greenhouse gas emissions in some manufacturing sectors by 79 to 99 per cent, according to a recent report from United Nations Environment Programme.

So, there's a clear role for New Zealand's metals industry in a better future.

The industry supports the Zero Carbon Bill and is ready to work with the Government to ensure we are part of the solution.

What will that take? We need to see policy developed which ensures New Zealand metals products are treated equally in the carbon market. Imported metal products should be subjected to the same carbon emissions taxes as those made here.

We would also like to see support programmes for small and medium-sized businesses to become

carbon zero, excluding raw materials.

To reduce some CO2 emissions, the industry could invest in technology to increase use of scrap metals in producing steel with some incentivisation. There is a lot of potential given we currently export most of our scrap such as car bodies.

Indeed, there's enough steel in six scrapped cars to make studs for a typical 600sq m house, without the need for chemical treatment as steel is not affected by insects, dry or wet rot or fungi.

Last, but not least, there is the innovation opportunity. New Zealand pioneered the process of making iron from iron sand so we should be looking to develop new technologies to remove fossil fuel from the

equation.

The Government has signalled it wants to work with industry in moving away from fossil fuels. The Wellbeing Budget has delivered \$27 million to set up the National New Energy Development centre to work with industry in testing and trialling technologies. And a further \$20m over four years to establish a new science research fund for cutting-edge energy technology.

The reality is that global demand for steel and metals like aluminium is growing and production will continue as long as the world needs it. It's about making it as sustainably as possible. As an industry we support that journey and are on board to play our part.



Nick Collins says there is not yet a commercially viable technology to make steel and aluminium without carbon. Photo / Michael Craig

NZ Herald
By: Nick Collins



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