QUESTIONS & ANSWERS

A Collection of the Best from the ANZ Water Webinar

LVI ASSOCIATES

Introduction

On 20th April, LVI Associates has hosted a webinar named "The Day After Tomorrow: ANZ Water Market Update". More than 100 participants registered for the webinar. LVI Associates has invited expert speakers in the industry, including:

- Lino Oddi – General Manager at Hach
- Daniel Lambert – Australasia Water Leader at Arup & Technical Advisory Board at Operation Water
- Elaine Pang - Australasia Water Skills Leader at Arup
- Richard Lynn – Managing Director at Proxa Australia
- David Middleton – Executive Director at Jacobs & Chairman of City West Water

The webinar recording is available now online. Please visit this page

During the session, we have covered:

- The growth areas in Australia and New Zealand water industry.
- The main trends in 2021 in the water market.
- Qualities to make key players/companies successful in the ANZ water market.
- New and emerging technology.
- Countries that lead in terms of technologies and innovation in the water industry.
- Skills that water talent should develop to stay competitive in the market.
- Elements that water experts are looking into from professionals for expanding their team.

During the webinar, our highly engaged audience asked pressing interesting questions about the ANZ water market. For the benefit of our wider network, we have collected the responses in this report. We hope you find our insights valuable and useful.

Content

Our Expert Speakers

Hosted by:

Elizabeth Pugh

Principal Consultant at LVI Associates

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Lizzie started her recruitment career in 2019 in the Singapore LVI Associates office, specializing in the Water Treatment market across the APAC region. Since 2019, she has been promoted to Principal Consultant and is helping to build the Australia team at LVI Associates, where she is responsible for the water and transportation recruitment consultants for Australia.

Lino Oddi

General Manager at Hach

Lino has over 35 years of experience in the field of instrumentation, chemical metering equipment, and scientific analytical products within the water industry. He has worked in various industrial sectors, including power plants, breweries, wineries, & fertilizer plants, with specific expertise in the area of laboratory testing, water treatment and process analytics. Lino's latest position was General Manager, covering Water Quality for Australia & New Zealand in Danaher. Before that, he held the position of Sales and Marketing Manager for Sub Saharan Africa at Hach and Channel Manager for Hach Ultra Analytics for the Asia Pacific Region.

Our Expert Speakers

Daniel Lambert

Australasia Water Leader at Arup & Technical Advisory Board at Operation Water

Daniel leads Arup's water business in Australasia, is a founder and director of a key water NGO and an Officer in the Royal Australian Engineers. He is passionate about developing water and sanitation solutions for communities that deliver positive social, environmental and economic outcomes.

Recognised through numerous awards and as an industry thought leader, Daniel's contribution to engineering and the water sector has been profound. He has delivered industry-leading projects, provided leadership through key industry roles (locally and internationally), mentored and supported the development of water professionals and actively promoted the industry (in the media, through schools and universities).

Elaine Pang

Australasia Water Skills Leader at Arup

Elaine has 30 years of experience providing strategic and detailed water planning advice in urban infrastructure, water resource management, flood risk management, and dam safety. She works in emerging practice areas for resilience, innovation, foresight, digital transformation and integrated water cycle management. She collaborates with peers, stakeholders and clients to deliver shared value.

As Arup's Water Skills Leader for Australasia, she works with Arup's leaders globally to identify and promote the actions required to ensure Arup is 'best in class.' Elaine is a Fellow of IEAust and an Engineers Australia committee member.

Our Expert Speakers

Richard Lynn

Managing Director at Proxa Australia

Richard has more than 25 years of experience in Water Utilities in the Resources, Mining, Oil and Gas and Chemical Processing industries in various technical, project and management roles. He has worked extensively in the energy, desalination and industrial water sectors since 1998; gaining wide experience with membrane technology in the areas of design, construction and operations.

Richard has worked as a consultant, business manager and director in Australia and South East Asia assisting with improving client's water systems in the industrial sector and developing a better understanding of the impacts of process design on operations reliability and costs.

As MD of Proxa Water Australia Richard is responsible for all aspects of Proxa's business from consulting through design and construction to operations and aftermarket services. Richard is based in Perth, Australia.

David Middleton

Executive Director at Jacobs & Chairman of City West Water

David Middleton has 30 years of water industry experience and has held Executive and Board Chair roles in both the private and public sector. He is currently Executive Director Water APAC for Jacobs and in 2015 was appointed the Chair of City West Water, a metropolitan water retailer serving over 1 million people in Melbourne's CBD and western suburbs.

David's passion is connecting the public and private sectors in the delivery of water infrastructure and services to enhance customer outcomes. He holds a Bachelors Degree in Civil Engineering, a Masters of Environmental Engineering and an MBA.

The ANZ Water Market Update

What are the growth areas you have seen in Australia & New Zealand? – Either by State or by projects?

Richard Lynn:

In the industrial sector, we have witnessed pronounced growth in mining and mineral processing of rare-earths and other precious metals including gold, nickel, and lithium. Alongside that, there has been a higher demand in food and beverage overall, but most significantly, in the agriculture sector in relation to irrigation of wastewater and desalination.

This reflects the evolving global market in these commodities.

In the automotive sector, the electric vehicles market has rapidly progressed, with notable trends and ongoing developments emerging, such as the advancement of more efficient battery methods.

Not only has the opportunities for water in the respective markets accelerated, but we have also observed an uptick in water recycling. While there has always been an economic driver behind projects, currently, the focus has shifted to environmental sustainability projects that drive greener initiatives and reusable water strategies.

What do you think will be the main trends in the water market this year? (Technology, Skills, Project Types)?

Lino Oddi:

In comparison to the market that Proxa operates in, at Hach & Danaher, the focus is primarily on the municipal market.

Regarding instrumentation, filtration, and other technologies, what we see and continue to expect in the municipal market is a pathway for reform in wastewater infrastructures. National objectives in Australia are progressing water plants, with many companies following suit and prioritizing Class A water for irrigation purposes.

In our space, in terms of technology, customers are searching for more than just a piece of equipment – they want to see how the complete solution is used. Today, our customers are looking to obtain not just the equipment, but also the data and information that allows us to make the informed decisions on how to run the plant.

The ANZ Water Market Update

Which companies are breaking trends in the water market in ANZ – What are they doing that's different and making them stand out?

David Middleton:

Post-pandemic, a couple of trends we're seeing around customer engagement is obviously 'digital'. When we think of 'digital', we are not only focusing principally on digital engineering, but the overall digital transformation of a water company business or water utility business.

There are emerging start-ups that operate in artificial intelligence and the intelligent machine learning space, figuring out how to do more with less. I came across an impressive company called VAYPAR, who built an artificial intelligence engine that essentially inspects sewage footage. It completes the task in around 1/10th of the usual time with a high level of accuracy; finding the breaks and providing a report as to where is best to spend your money. So, it's that concept of using technology to work smart, not harder.

The second thing I am seeing, and probably the biggest trend, is around water industry decarbonisation. Here in Victoria, Australia, many companies had to make a pledge to get to 0 emissions by 2030, which is therefore driving a range of innovative technology, particular in the solar space. Hydrogen is starting to be used as a breakout technology – that in the years to come, is going to be heavily aligned with what the water industry is already doing to preserve wastewater.

The ANZ Water Market Update

How will Australia keep up with the global water markets advances?

Daniel Lambert:

David touched on some of the top trends around 'digital' and decarbonisation.

But it's important for us, as an industry, to understand the emerging trends and challenges, as well as how we should respond as individual utilities, consultants, technology providers, and as a collective. There are some excellent examples evident in what Australia has done to safeguard water security, and how that has been shared in the United States, specifically in California.

Through the connectivity that we have globally, in addition to how we leverage the international organizations, consultancies, and technology providers, we can observe what's been happening across the globe and draw those best practices into Australia.

In the water sector, trends and opportunities such as resilience of the customer, circular economy thinking, efficiency, and operation, can help shape the future of cities and regional environments, and we have the unique opportunity to play leadership in that. As leaders, we should think about the outcomes we want to achieve; how to utilize digital solutions and think outside of our silo as just a water industry – to respond and solve through the water challenges that we're faced with.

How does the ANZ water market compare to other countries in the APAC region? Is it falling behind or stagnant?

Elaine Pang:

Drawing on a few concepts articulated by my fellow speakers, Australia is leading water security developments at the fore because of the pressing climate issues that the country is under.

I'd argue that Australia is world leading in this space, but more needs to be done in SEA for pacific islands who are undergoing climate stresses for their own various reasons, whether that be rising sea-levels or droughts. The two extremes are issues that we've dealt with across Australia and New Zealand, so we are leading in that area.

We have direct access to the best developments around the world; our clients are now looking to gain the top international practice and be equipped with high-tech digital tools.

The ANZ Water Market Update

Which other countries are leading in terms of technologies and innovations in the water industry?

Daniel Lambert:

Not so much technologies but I would ask the question: where should we be investing next? How can we position ourselves to be the leaders moving forward? How can we influence and drive change?

There are many areas to focus on, so businesses should identify those inhibitions. Looking at the bio-energy industry for example, there is real success in Europe and California. However, firms should be more progressive in enabling and facilitating new technology to ensure that water, waste, and energy is safeguarded.

Richard Lynn:

From my point of view, it's driven by the requirements and criticality of the issues that dominate the marketplace. Take Singapore for example – the country has developed the water industry because it had to.

If you look at Western Australia in comparison, the lack of rainfall in the last twenty years has driven the desalination industry and requirements for more research and development. To conclude, where we respond to needs is where we see development taking shape.

What global water market would you replicate for Australia and why?

David Middleton:

At Jacobs, we exist to sustain life and public health – our business model is fundamentally built on regulating water.

Through the lens of a customer, as a business, we want to provide safe drinking water, protect the environment, maintain public health, and enhance life and liveability.

We live in a place where water is valued – a precious resource that we continue to invest in. We pay a price that we believe people can afford to pay, and that drives infrastructure, investment, protection of the environment, and a high level of customer service standards.

At Jacobs, we continue to learn and operate in the technology space, more specifically, how to deal with water scarcity through recycling, desalination, ground water, and so on.

We've learnt from the best, but I think what we've been able to do is to take the best in the world and mould it to a market that suits our unique conditions.

Elaine Pang:

I would just like to inject and provide a little bit of realism which is; if you scan around the world, you'll see that every place has one unique selling point that you'd probably like to take home. So, let's give our successful model to other places and let's bring their great processes over here as well.

Daniel Lambert:

I think most of us would whole-heartedly agree with David, in that we don't want to adopt another global market.

Australia is leading in a lot of ways; so how do we continue to tap into that, to learn from each other – and the global best practice – to develop in a bespoke way.

In Australia, with different regulations comes different enablers, state governments, and areas of focus which can drive excellent outcomes. How do we share those lessons we have learned and how do we export them globally? All of these are opportunities for us.

Tips for extending footprints in the growing water space

What are the qualities that make some key players and companies so successful in the water market in ANZ?

David Middleton:

In my opinion, the market has become more collaborative.

During the 2000s, firms were primarily focused on alliance contracting, etc. In recent years, our clients demonstrate continued interest in how we collaborate to achieve the best outcomes for them, and by extension, their customers.

So, this drives the bigger players to acknowledge, on the one hand, how to better collaborate with customers and secondly, through co-locating, how we can become more deeply embedded in what they're doing.

This leads simultaneously to the second part; we've become more astute by working closely with our clients, through a partnership, to facilitate their purpose.

The partnership approach is therefore fostering engagement in a different way. For example, we speak in-depth about the social value that we're creating through the water and wastewater infrastructure. This in turn, creates an understanding around infrastructure investments; one that drives better liveability outcomes in different cities and environments.

We strongly align with the values and purposes of our client network by prioritizing inclusion, diversity, and the First Nations water declaration. Aside from engineering, which is not going away, these prominent issues are driving the industry forward.

Tips for extending footprints in the growing water space

What are the qualities that make some key players and companies so successful in the water market in ANZ?

Daniel Lambert:

I suppose the question from my end is: to be successful, how can we partner with collaborators and clients more effectively? That is, how can we share knowledge and become trusted advisors?

In many ways, we can achieve this through a relational approach rather than a transactional one. As engineers, this is a continual reminder that the industry is not solely about concrete, steel, pipes, and pumps. We exist to drive economic value and solve social and environmental challenges, for both our clients, the broader cities, and ecosystems that they operate within.

Currently, one of the opportunities in the water space is the nexus around how we are not just a water utility, commodity, or asset. In other words, how can we think holistically around circular economy and drive successful outcomes in energy, waste, and broader ecosystems?

We have a key role to play which is exciting.

Lino Oddi:

From my point of view, companies that can quickly adapt to market changes are the ones to prosper. This is a fundamental area of focus for corporations like Hach & Trojan who drive technology and operate in the water space.

Firms in the technology market must be nimbler in understanding not only the technology to bring forward, but to fulfil the needs of customers with more pronounced agility.

We have a tendency, in the water market technology sector, to be a little risk averse; we stick to what we know when we launch new products. Companies that innovate, try new things out, and are prepared to fail-and-try, are the ones that will succeed.

Lastly, in my opinion it's about finding that niche in technology and building that value proposition to help solve customer's needs.

Tips for extending footprints in the growing water space

What advice would you give to start-up companies or international companies looking to enter the Australian Water Market?

Richard Lynn:

At Proxa, we primarily operated in Africa for the past twenty-seven years. We recently switched into the Australian market because of a business opportunity; a market that was continuing to be penetrated by several European companies.

What differentiated the firms that were successful from those who were not was their choice in local partners. If the international company chose a strong local partner as either a joint venture or investment vehicle, that resulted in more success.

To elaborate, this partnership cultivates a combination of international expertise, technology together with local know-how, experience, and relationship – all fundamental to business. At Proxa, we formed a joint venture and synergized engineering capabilities with local relationships, which in turn, has crystallized the market for us.

The second point I wanted to bring to light is that it's important to consider Australian standards and the different states, and therefore not treat the country as one market overall. Each state varies dramatically and requires a different approach, partnership, and relationship.

Lino Oddi:

I agree with what Richard said - Australian conditions are very different. In Australia, we have a relatively small population (25million to be exact) for a vast geography, so it widely contrasts to international markets such as Europe, which is more densely populated. Companies that operate in the Australian market should look to partner with local expertise to get their foot in the door and achieve the traction they require.

Shifting the discussion back to the previous question, international companies need to find that niche, craft their value proposition for the customer, and not compete with other companies.

Tips for extending footprints in the growing water space

What are some of the things that you would look out for to help expand your team?

Daniel Lambert:

Generally speaking, the principal benefit of having a diverse workforce is that it broadens ones thinking, challenges the status quo, and shapes a wider network.

We've witnessed diversity on multiple fronts. For example, the different ways that digital is being applied to the transport or energy sector. This raises the discussion: how do we share those lessons learnt with our clients so that we can challenge them from 'this is the way it's always been done' to 'what is the next evolution for their business and for our industry'.

Lino Oddi:

If I look at the team that we had for the water quality group - we've hire professionals from many different countries around the world.

In my opinion, the key thing that stood out was that the ones who surpassed expectations were the ones that took the time to learn the digital piece, digital protocols, and the various processing equipment. Individuals who did not necessarily have a background of specialization, but rather took the time to learn, were the ones to succeed.

Unveiling in-demand skills for water professionals

What new and emerging technology are you seeing in the market?

Elaine Pang:

An important point to remember is that emerging technologies do not necessarily mean a step change.

Quite often, combining technology in new ways may reach a better outcome. For example, with modelling, normally we would model water and energy separately, but both could be used together. When looking at the economics of water security planning, integrating this into one model can generate a successful outcome because all the inputs are consistent, they make sense alongside each other, and they speak to the same conclusion.

In terms of other new and emerging technologies; blockchain was originally developed for banks, but it can now be adopted for water transactions. It's exciting that you can take technologies that already exist and apply it to other industries to serve different functions.

What skills are in high demand, what talent within the water industry is able to stay competitive?

Elaine Pang:

To answer this question, individuals and smaller companies could look at what the government is sponsoring right now. For example, in Queensland, the government has sponsored a 'Queensland Water Modelling Network'; a top clue indicating what is hot off the press and in-demand right now. To be more specific, the government is clearly searching for ways to make the water market sector stronger, organised, and better aligned. A further clue for firms or individuals securing their niche and unique value proposition.

In terms of other skills, I think individuals should look to play to their strengths. We can talk in lengths about how in-demand modelling is, but if it's not the way your brain works then don't make yourself go there – that would be my other piece of advice.

Unveiling in-demand skills for water professionals

What skills are in high demand, what talent within the water industry is able to stay competitive?

David Middleton:

To me there is a couple things at play here.

The emerging markets are continuing to evolve. For instance, companies like Jacobs are bringing different employees into the organization that wouldn't have necessarily hired before.

On top of that though, we should recognise that hard-core engineering work has not gone away, and in some cases, there is more of it out there.

From a planning, design, and construction perspective – as our population expands, we need to build more infrastructures to service the growing population or rehabilitate the infrastructures we've already got. Consequentially, we need more design mangers, project managers, program managers, and people that specialise in this skillset.

Reverting to the discussion around obtaining a multi-skillset, as an individual, it enables you to see more broadly than simply putting a pipe in the ground and pouring concrete.

Richard Lynn:

From my end, I wanted to bring to the table issues surrounding diversity and moving the dial on equality. As leaders, we talk in-lengths about diversity, but I think diversity of experience is incredibly important.

When recruiting in the water industry, we are in effect, searching for talent that has a plethora of experience and an extensive career. So, a professional who has experience in design, project management, but has also most importantly understands construction and how to build things.

I would encourage organizations to tap into a diverse pool of experience and thought.

Unveiling in-demand skills for water professionals

What approach or advice would you give to individual who are not familiar with Australia water regulations and policies?

Richard Lynn:

There are several roles in the water industry, a number of which have been filled from overseas. In this sense, many companies are extremely open to bringing in talent and experience from across the globe.

When I was at GHD, I worked with engineers from Iran in our water space, and they were some of the best engineers I've had the pleasure of working alongside!

Being a female engineer, what advice would you give to another female looking to get into the water sector?

Elaine Pang:

I'm part of the Engineers Australia committee for Women and this question is something that I grapple with personally.

The question is often raised: why should there be a special focus on women in engineering? First of all, it's not a matter of gender, but more of a discussion on persistence.

In my experience, there is still cultural bias that the industry is overcoming. As a female engineer, I've often been asked by some of my younger peers why they don't get the chance to speak out in meetings. My answer is this; it's not a gendered question, but individuals should remember what the point of a meeting is – primarily to help the client. If you always keep that outcome in mind and pitch yourself towards that, you will get your voice.

Renewable Energy & Water

In water and wastewater treatment, 70% is pumping and motors. Is there any energy optimization that can be done?

Elaine Pang:

Energy trends, cost trends, and monitoring your pumping to match at the less expensive times – that's an easy no-brainer. As an asset owner, if you have a lot of space over your assets you can start to introduce solar.

Daniel Lambert:

There is two parts to any energy optimization, but also, what is your source of energy? Solar is one of those opportunities, another being bioenergy. We've got to look at the outcome of what you're trying to achieve holistically and how do we deliver that.

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How can solar energy be used in water treatment?

David Middleton:

If you look at what's happening in Victoria, Australia, regarding the decarbonisation pledge, we are using solar arrays to replace energy from ground coal.

So, about 30% of the energy that's needed to run the metro operations will come from a variety of solar farms that have been put together through joint ventures with water companies.

There are all sorts of opportunities to look at where you have space, the right land, and where to build solar arrays and solar farms that you can then use to power various processes.

Richard Lynn:

Also, I wouldn't take it away from remote locations; off-grid opportunities in the agriculture sector, in addition to irrigation power, can be very expensive. That's a growing trend globally, irrigation costs and crop optimization energy is gaining significant prominence globally.

Elaine Pang:

To compliment what Richard mentioned regarding remote communities, battery technology has advanced dramatically – there are certain batteries that work well in hot environments now whereas they didn't exist before – another technological advancement that will certainly help remote communities.

About us

LVI Associates is the leading specialist recruitment agency for the infrastructure sector. We were founded to give candidates and clients peace of mind that the recruitment process is in expert hands. Today, we provide permanent, contract and multi-hire recruitment from our global hubs all over the world.

Infrastructure plays a critical role in creating a future that works for everyone. As a specialist recruitment agency, LVI Associates places professionals who make a profound difference in our everyday lives. Our placements ensure that the public has access to everything from clean drinking water and reliable electricity to safe housing and roads for self-driving cars.

We pride ourselves in keeping our professional network up-to-date with any changes that will shape the future of work or affect the hiring process. Visit our website to discover more invaluable insights, including exclusive research, salary guides and market trends.

www.lviassociates.sg

Talent Drives Growth

During the pandemic, we have not stopped for helping our clients to find mid-to-senior business-critical talent. We have already helped **over 530 mid-to-senior infrastructure & engineering professionals** to find a new opportunity. We are here to help.

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