

WA:ERA drives technology innovation

The Western Australian Energy Research Alliance (WA:ERA), a collaboration between the University of Western Australia (UWA), Curtin University and CSIRO, is seeking to further consolidate WA's position as a global oil and gas hub, overseeing the management of a world-class energy technology centre in Perth.

Mark Stickells, WA:ERA's recently-appointed Chief Executive, describes the alliance's function as facilitating 'creative space', providing a vehicle for industry to interact with research organisations and giving researchers the opportunity to see their ideas translated into commercial realities.

Stickells, who is new to the oil and gas industry, believes the fresh perspective he brings will be of benefit to WA:ERA.

"As a non-technical person, I probably am less constrained by what I know—I focus on asking the 'why' questions, not the 'how' questions. In a research environment we work with very intelligent, talented people, but having someone who can ask those questions about why we're doing it, and what's the benefit or the impact, they're important questions that need to be asked", he noted.

"I don't have a particular technical lens that I look through; I'm looking at their research and saying, 'what benefit to industry does that have? What problem is that tackling? How do we translate that opportunity that you're identifying into something that industry will take up?'"

Stickells joined WA:ERA in March of this year, having previously worked as the commercial director of the Future Farm Industries Cooperative Research Centre based at UWA.

"That centre had been running for eight years, and I'd been involved in its establishment and also its successful re-bidding as an incorporated research centre in 2007", he said.

"I have an MBA, and a second master's in educational administration—I did that in the '90s when I first started moving into the tertiary sector, into universities, to help understand



(L–R): Tim Shanahan, Director Energy and Minerals Initiative University of Western Australia; Beverly Ronalds, Chief CSIRO Petroleum Resources; Mark Stickells, Chief Executive WA:ERA; Mark Woffenden, Executive Director Resources and Chemistry Precinct, Curtin University of Technology; David Agostini, Board Chairman WA:ERA; and, Phil Harvey, Independent Member WA:ERA Board.

some of the particular characteristics of working in university businesses, which have elements of public sector, but also, increasingly, are more entrepreneurial and outward-looking organisations. I think that's one of the reasons I enjoy working in this sort of joint venture, where you bring together CSIRO and two universities to collaborate, providing a vehicle to engage with government and industry."

Stickells said his role at UWA has prepared him well for the demanding role of chief executive.

"I have spent a fair bit of my career working at the University of WA, and the last eight years it had been very much an outward-looking job; the CRC joint venture had 16 partner organisations.

"In my last role I was also a chartered company secretary, and I am a graduate of the Institute of Company Directors. I think in these sorts of collaborations, having some commercial skills around governance and business management help to manage fairly complex relationships and are skills that I've been able to bring to WA:ERA", he said.

Stickells noted he has come into the job at an 'interesting' time, with the alliance reaching the end of its first phase of funding—the WA Government has funded \$20 MM into building capacity in the three research organisations.

"In 2009/10 that last tranche of funding flows through to partners. One of my challenges is to create more investment opportunities for research and more relationships within industry to deliver the impact of that research back to industry and to the wider community", he said.

"What I'm really impressed by is the scale of opportunity in the oil and gas industry. Companies make significant capital commitments over long time-scales, and the global reach of the companies is something that I hadn't fully appreciated until I started working in the industry.

"That's very exciting, and I think if I can work with the WA Government and the Australian Government to help raise the profile of WA as a major resource state, and as a major provider of innovation and talent, then we can elevate

our position from one of not just being seen as a physical resource but also one built on intellectual capital."

Stickells said WA:ERA functions as an external expression of the commitment of CSIRO, through its petroleum resources division, UWA, and Curtin University, to collaborate their research and development efforts for the oil and gas industry.

"Broadly, WA:ERA conducts world-class energy research, with a particular focus on delivering impact and solutions for the oil and gas industry, and brings together the researchers from three organisations and provides a framework for industry to engage with those organisations more effectively", he said.

"To give you an example, we have an alliance agreement with Woodside and an alliance agreement with Chevron—those agreements allow for a more rapid contracting and a more straightforward project management arrangement. If you like, bang for buck, the industry's investment in sponsored research is managed more effectively, instilling a more straightforward process of contracting and reporting and so on."

WA:ERA also recently announced a new research alliance with geophysical service



David Agostini, WA:ERA Chairman, and Thierry Le Roux, CGGVeritas President and COO, at the signing ceremony for a new research alliance between the two organisations.

company CGGVeritas, designed to identify opportunities for research, development, consultancy, education and commercial application of advanced geophysical technologies in the exploration and exploitation of energy resources.

"CGGVeritas identified the Western Australian region as strategically important to the industry and to their operations", Stickells said. "They



Dr Horst Zwingmann, Subsurface Technologies Program Leader WA:ERA.

recognise this region as one of its strongest growth areas and its R&D commitment through the alliance reflects this."

Stickells said he is 'aspirational' about the state's potential to further contribute to the oil and gas industry, noting WA:ERA is seeking to establish WA as a place where industry turns to for the best innovation and infrastructure rather than it simply being a resource hub.

He said WA:ERA will continue to play an active role in organising workshops, bringing together industry players, academics and government representatives to discuss relevant issues.

"We recently supported the Department of Mines and Petroleum, as it's trying to help advise the government in developing its carbon capture and sequestration strategy, and work with industry to nominate flagship carbon capture and sequestration projects.

"The built-up capability in the oil and gas industry in WA is significant; understanding how to deal with CO₂, understanding complex reservoir characterisation issues, modelling, seismic acquisition and interpretation capabilities—those things are all things that are tackled in large-scale oil and gas projects.



(L-R): Kate Darby, Executive Assistant WA:ERA; Mark Stickells, Chief Executive WA:ERA; Betty Bright, Business Manager WA:ERA.

"One path to impact for those capabilities is for WA to be recognised as a major leader in carbon capture and storage. We've helped run a couple of workshops, bringing different parts of government together. I'm focused on trying to ensure that we recognise and can deploy the research capability of this state to global issues such as effective management of carbon emissions."

Stickells also highlighted the work WA:ERA has put into the development of tight gas as an alternative resource in WA. He said WA:ERA has

actively been working with the Department of Mines and Petroleum on promoting the potential value of tight gas to WA.

Additionally, he said WA:ERA will continue to place a heavy emphasis on education.

"Over the last four years, the MRF [Major Research Facilities] grant from the state government has helped to fund additional post-doctoral and technical staff, as well as some capital expenditure, and it also part-funded a shared teaching facility", he said.

"So, there's now lecture theatres at the ARCC [Australian Resources Research Centre] site, and at UWA and Curtin, that are linked for tele-teaching. There's some master's of engineering, petroleum engineering units that are co-taught by Curtin and UWA. That commitment to co-deliver those courses is going to continue into next year.

"The other thing that we will do is to continue to support industry seminars, targeting particular issues over a short, morning half-day and full-day events. These events do not in my mind compete with the very technical, accredited programmes, but are a bit more at the leading edge of where industry might be looking, discussing new or emerging issues before they become embedded in the competencies of the next practice or as industry standards."

Stickells reflected that, while challenging, his introduction to the industry has been productive and informative.

"One thing I did in my second month in the job was to go to OTC [the Offshore Technology Conference] in Houston, which was an incredible eye-opening experience for me ... I joined 30 other colleagues in an AmCham trade delegation attending OTC, and at the same time coincided visits to Chevron in San Ramon and San Francisco. That was a tremendous, rapid induction into the industry", he said.

"I have also been invited to speak at Offshore Europe. I'm attending the conference in Aberdeen and will speak at the University of Aberdeen in September, and that gives me the opportunity to showcase WA:ERA and the industry more generally.

"I've been really pleased by how I've been welcomed into the industry. I think that the willingness and enthusiasm of people to engage and to support someone coming into this industry has been very encouraging. And I think that reflects an underlying optimism about this industry that I also find very encouraging.

"I think a challenge, from a WA:ERA point of view, is not to promote WA simply as a state with tremendous physical resources, but as a state that has significant intellectual capital that will become, in our time, a world-recognised research, innovation and industry hub." ♦

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