



MARTIN TOOMEY

Accelerating better decisions

that has a strong focus on advocacy, training and of course organising the Brisbane Truck Show. I think this change has worked out for the best. HVIA are a well led association, with excellent governance and have a keen interest in seeing a thriving Australian transport industry. Meanwhile ARTSA-i has grown a pipeline of projects and research opportunities that are pulling together teams made up of ARTSA life members, industry suppliers, young engineers, other industry associations and the Commonwealth to deliver much needed and useful programs.

As the newly formed ARTSA Institute (ARTSA-i), we are ready to assist industry players to face the challenges and shifts that are likely to occur at pace. Whilst it may be said that 'data is the new oil', we have a view that oil, in its crude form, is not a useful substance at all unless it is refined into something more practical. The value of this refining process is to create insights from the data that otherwise would not be found or would be revealed only when it's too late. One source of data that ARTSA-i use is called the NEVDIS data. It is supplied to us through a contract with Austroads and the data reveals a lot of information about the road transport fleet that we can present in many ways. Like the oil analogy, the NEVDIS data in its raw unrefined state, is not useful at all. But, with applied algorithms and many practical filters, the data becomes a

genuine source of insights. The data reveals registered vehicles over 4.5 tonne and the corresponding trailer car parc. It can be interrogated to uncover where the car parc is located, the age profile, the country of manufacture or the country of technology that the vehicles have adopted, such as Japanese, European or American. Some assumptions can be applied to the data to estimate emissions by area, down to post codes, or to look more deeply into vehicle applications. The data can be viewed through software tools like Tableau analytics to really bring it to life. Any supplier to the industry would recognise the value that accessing the ARTSA-i data could bring to their organisation.

As we start to see commercial vehicle platforms transition away from fossil fuels, we will no doubt see many new suppliers enter the industry. The traditional field of mechanical engineers and diesel mechanics will still be relied upon but will need to learn new skills and at the same time some new trades will emerge. Driveline electronics, hydrogen fuel cells, batteries and charging technologies will all play a key role in the everyday transport fleet of the future. Being able to make a well timed and better decision will provide competitive advantages as well as speed up the modernisation of the industry. ARTSA-i wants to assist suppliers to navigate how best to adopt these new technologies and when. Under high demand, a new generation of engineers will enter the industry with an entirely new skill set. To be of use they will need to be mentored and given exposure to the industry and we want to offer them opportunities to work on real time funded projects alongside industry experts and ARTSA-i life members. ARTSA-i invites potential project sponsors and partners to start a discussion with us to understand if we can help you to navigate a pathway into the industry or to grow your presence within it. Bring us an idea to test or a

strategy to navigate and we will structure a team to work on it. One case in point is the current project that is tasked with revisiting the safety of couplings on high performance vehicles. You may have already read some media releases on this important project already? Through the Commonwealth Heavy Vehicle Safety Initiative funding ARTSA-i are the applicant for this project that brings together the resources and experience of the ATA, HVIA, TIC and ARTSA, along with an array of subject matter experts and industry players. For the young generation engineers that will be involved in the road testing and dynamic laboratory testing, this will be a significant milestone in their careers. By background, the first time this work was undertaken was in 1987 by Dr Peter Sweatman, an Australian engineer who went on to become Chairman of ARTSA and is now a life member of the ARTSA-i. Peter's work was ground-breaking at the time as it provided D Value standards for vehicles up to 125t. At that time this was in preparation for B-doubles to be approved on roads in Australia. Our project plans to build upon this work and to provide evidence-based guidance to support engineers, regulators and fleet managers so that couplings can be safely specified, inspected and maintained. Australia has always been a world leader in high GCM and we are already seeing heavy high productivity vehicles on the road with PBS approvals above 125t with quad roadtrain combination types in particular. Today in Europe the maximum GCM that I know of is in Finland with 76t and Sweden 74t, so both are well inside the 125t research by Sweatman. Another Australian icon in this space is Bob Pearson, also a life member of ARTSA-i and a contributor to this page last year. Bob wrote about the 'Implementation of High Performance Freight Vehicles in Latin American Countries' and how high performance freight vehicles (HPFVs) had been on the agenda for most Latin American countries, but the work was being driven by private companies that had achieved a varied level of success reaching



BAA quad trailer combination.

operational legislation. We are fortunate that in Australia we have a legislative framework in place with the PBS scheme to allow for a structured implementation of high mass combinations. Within our project, understanding the role that inertia plays in dynamic forces, versus manoeuvring forces, and the forces of traction and braking will all be explored in Australia on Australian roads with a few cattle grids, causeways and bumps thrown in for good measure. As well as the topography, other variables are at play when trying to gauge the stresses on a coupling, such as axle loads, suspension type being air or leaf spring, tyres and draw bar lengths can all contribute to the overall measurable forces on a combination vehicle. Testing this on a BAA quad combination, for example, will be ground-breaking work and I can't help but sense that the knowledge gained in Australia will be of an international relevance, particularly as we enter the next emissions wave of

decarbonising transport. Fewer vehicles that are longer, heavier and more productive will have an important role to play in the overall decarbonisation of transport and it will be Australian research that helps to support this endeavour. ASRTA-i wishes to be at the forefront of the heavy vehicle transport industries willingness to adopt an Australian solution to a global issue. Our doors are open to partnerships, collaborations, shared research and data services. We are particularly proud of our reputation and heritage of being a "useful" body that wants to see the acceleration of better decisions and welcome your interest in our institute. If you have a project that you would like to discuss, please contact me directly chair@artsa.com.au

Martin Toomey,
Chair, ARTSA-i

