

INDUSTRY SKILLS 360 SERIES – RAIL WEBINAR

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Panellists:

Victoria Kent, Rail Industry Reference Committee Chair

Carol Hedrick, Rail Industry Reference Committee Deputy Chair

Ron Horne, Industry Skills Manager

Paul Walsh, AIS CEO (facilitator)

Q & A with the panel

1. As part of the ATMS are we also expanding to cover CBTC as this is core to the new and operating metros

Victoria Kent: I'm happy to jump in. For anyone who doesn't know I am quite immersed in the automation technology having worked for RIO for the last few years. Absolutely Jonathan, we're very aware of that and it's probably something I didn't call out when I was talking earlier. There is a real element of being able to be a systems thinker now and understanding how systems work. It's not just for technology but sits on the train of a track machine. Because I probably also failed to mention the technologies that are being introduced into track machines at the moment which are equalling the technologies that are being introduced onto the locomotives and rail cars. So, it's not just that in-cab ATP and those systems. It is the systems that sit along the wayside and track side. You'll probably experience more obstruction detection systems in level crossings and how they need to maintain and how they integrate. And also, what the train controllers and asset health or network support roles can tap into and view remotely as all of our wayside equipment and track machines and locomotives and rail cars now can basically communicate live and share information live. So absolutely we're aware of that. We talk about that with various IRC and Ron with the TACs and there's usually IRC members on the TACs as well to help support bring this to the forefront. So, this is where the wording in some of the elements and performance criteria's or performance evidence, like Ron mentioned, we're trying to tweak them and make sure that it allows for the networks that still have legacy operations and haven't embraced the technology yet. But also, future proofing for the networks that are introducing the technology, so how can we word it in a way that encompasses the whole industry. So, I hope that helps and I hope that answers your question.

2. Lack of gaining a full qualification. Will industry change or will skill sets be a way of the future?

Paul Walsh: So open that up. Who would like to jump in on that one because I think there's a bigger policy question here that's coming through around the recognition of Skill Sets within the VET system. That was certainly something that was looked at in the recent AQF review and

it's certainly on the minds of policy makers around the country. So, this is not a rail specific issue and I certainly know from my experience in this organization in the rail industry that the rail industry was actually at the forefront of the adoption of skill sets many many, years ago. So, looking at how they can complement pathways but also look at how they can address specific skills needs. So anyway, that's enough for me. I'll get out the way. I'm not the rail expert here. I'll let the rail experts talk about it.

Carol Hedrick: Thanks Paul. I was pretty much going to say basically what you've said in so far as I guess Skill Sets are there to be able to provide potentially the beginning of a pathway but also as add-ons. If we do have those that have already got qualifications but now, they're moving into a specific role and having a Skill Set just actually support them and qualifications. So personally, I don't think necessarily that will be there'll be a move away from full qualifications. I think it's a combination of using both together. There are certainly lots of operators out there that are that are totally dedicated to having full qualifications but yet are still embracing the use of Skill Sets. I think we'll definitely see more use of Skill Sets, particularly as we're really examining those within the TAC and making sure that they are revised and really meet the new and upcoming skill requirements of our workforce. So, I think we'll actually have both.

Ron Horne: I can just add to that Paul and Carol. [You're] 100% correct. The rail industry has something like 110 Skill Sets. When we design them, as Carol said, it's the step up as well as a step into qualifications. What we also try and do is have the Skill Set, so if there's a stream or a nest of skills required, the Skill Set is developed so that if someone does, as an example a Certificate III in Rail Infrastructure, there's multiple skill sets that they can do that pick up the different disciplines so that they don't have to go back and do the whole qualification again. The skill set's there to link to it and what we try and do is not have barriers related to prerequisites or entry requirements. We try and develop the Skill Sets, so they're fit for purpose for a task or a skill and hopefully at the end of the day, with building those building blocks it moves the person to a qualification. And maybe then they'll obtain the qualification with just a minor leap or a little bit of gap filling. So, there is a method in the madness, and we do try to add to qualifications with skill sets. Thank you, Paul.

3. When we talk about training and competency packages, are we more looking at the 'Blue collar' work force or is there also consideration of the 'White collar' i.e., the engineering contingent like linkages to the Diploma in Rail Engineering through UTAS / EEA / Transport for NSW

Ron Horne: I'll start off if that's okay. The rail engineering type diplomas - there's accredited courses in Victoria because of the need in that area. What we are finding is a couple of issues. There's a lot of rail systems that want engineers as a qualified engineer for certification purposes. We've looked at the Diploma of rail engineering a couple of times and because of the certification process, the rail network's requirements in that area, a diploma may not be suitable. Victoria has adopted that based on their systems and apparently it works very well and is very robust type material. But as I said we have tried this a couple of times and the rail infrastructure tends to stay at Certificate III for a supervisory level, then they go into other disciplines. I don't know if Carol or Victoria have more in that area.

Paul Walsh: No, sounds to me like you've answered that effectively.

4. Funding supporting Skills Sets?

Paul Walsh: I know you've pointed that question to Ron, Helen., Obviously again this comes back to states and territories. Certainly, IRCs can make recommendations around funding and apprenticeships and what should be traineeships. Ultimately those decisions are made by states and territories. Going to the point earlier that there is a lot of discussion happening at the moment around the way that we recognize Skill Sets within the system or Micro credentials as they're often being called. How do we bring that into the full recognition of the suite of ways of skilling and learning and where does that fit within a funding provision. So, there are occasions where funding is applied within a state or territory, but again that comes back to that particular jurisdiction. I don't know whether there's anything that any of the panel would like to add.

Ron Horne: Well answered Paul.

5. Is there interest in the future to expanding to look at G04 operational for signalling and maintenance?

Victoria Kent: Ron you might be better positioned to answer this, but I'll just jump in to begin with if that's okay. I guess what we were trying to do so far is integrate into existing qualifications, so it didn't cause too much disruption to the industry and didn't cause too much disruption to RTOs delivering because obviously any time a qualification is updated RTOs have to register to be able to deliver that and improve their content. So, this is where we've been working with them at the moment or guiding the TAC to work with them at the moment, with tweaking the wording instead so it's still got a legacy and a futuristic element to it. But probably an example is the Skill Set that was created for autonomous train operations Ron, last year or the year before, where it was a Skill Set that sat alongside or which was purely around the autonomous operations. So, I might pass to Ron now to maybe answer that question more.

Ron Horne: Thank you. That was a good background, Victoria. The interface from autonomous, which is no human interface, being locomotives running without a driver, to zero human interface. [When] you drive a manual car basically the human controls it all. What we have is a mixture of all five levels in the industry and we're very conscious of autonomous operation, automatic operation, semi-autonomous, semi-automatic, remote control and no technology involved. And as Victoria said we try and bridge the line between both. What we have done in the example of train driving, which is autonomous operation, so no human interface, we've developed the Skill Set and put the units in as general electives so they can be selected depending on the operation. But what we find is in areas like stevedoring, when we wrote some of the units in the semi-autonomous or semi-automated environment, we deliberately kept out stevedores. We deliberately kept that industry specific so that equipped, manual handling equipment type units can be moved in rail and there is a quite a suite of units now available in that area. Not only in our area but other Training Packages as well, what we can start bringing in depends on the human interface and that's what we come with all the time. The age-old question we get asked [about] an autonomous train - what skill, what Units of Competency do you need. Well, the issue, as there's no interference or no inter human interface with that, well there's no need for a Unit of Competency. But where the Unit of Competency has come in is in the setting up, the closing down, the network controller's responsibility from a safety point of view. And then if things go wrong, you need a person to go out and fix it. So, there's units in those areas and we've tried to marry that up with a

maintenance type role that's been developed now. So, it depends on the network and the technology level as to what units you can use in that area. I hope that's helpful.

6. Are Skill Sets used for upskilling existing workers to transfer workers?

Victoria Kent: Great question and Ron I think you're about to jump in and answer that. But for example, Michael and thank you for your question, the Cert II in Rolling Stock Maintenance which Ron referred to earlier on, that is being set up that if you come across with an existing trade you could just do the rail specific units as a Skill Set to build onto your trade. That kind of qualification came about because there has been nothing in rail to acknowledge the maintenance of rolling stock and we've kind of relied on electricians and boilermakers and trades and people coming in in the past. So very cognizant of that our whole existing workforce in that space, sitting in that position. So, creating the Cert II with Skill Sets aligned, so that people with existing qualifications from other areas can just do the rail specific Skill Sets to merge in. Ron I will pass to you to flesh that out more.

Ron Horne: Picture perfect answer Victoria, thank you.

7. Getting access to rail training has been an issue for us in WA, relying heavily on RTO's located on the east coast. How can you influence / assist with increasing this capacity in WA?

Victoria Kent: This is such a great question and a frustration for us all in Western Australia. I do not have the answer where we are influencing and where there are projects going on. North Metro TAFE in Western Australia has been nominated as a rail academy. The state government have wanted to push that so that they can provide more training. So, I know certain members of rail networks are trying to get alongside them and support that getting up and running so that there is greater flexibility. We've got RTOs that we work alongside in WA, and I don't want to start calling out specific RTOs because I would hate to miss one, but yeah there's a number of RTOs over there in WA we work alongside. So, point taken and it's a discussion point always - the shortages for signal maintainer signal technicians how we go around upskilling those areas. If you have the answer, please let us know, we would love to get alongside you and see how we can support better opportunities in Western Australia.

8. Is there a push to try and align common UoCs across multiple qualifications - for example like type units that fall across train control/network control, train driving and even customer service?

Victoria Kent: Okay sorry, no I'm very passionate about skills transferability and even across industries not just across qualifications. But a classic example probably for that is the rail safety critical comms which Ron spoke to earlier on where the RISB guideline was being created and the TAC were working hand in hand to align to that guideline. It was a great project because the guideline and the Unit of Competency align and now that Unit of Competency sits across multiple qualifications in rail. So, you take it with you regardless of whether you're a track machine operator or a train driver and network controller, network fault support. I think likewise there's been human factors units created. I see Carol nodding so I'm happy to pass over to you Carol to continue that.

Carol Hedrick: Thanks Victoria I was just going to say from a TAC perspective, certainly when we're looking at Units of Competency if there's something that's already exists it's about looking at that one or potentially [building] that particular Unit of Competency, instead of

creating a whole new one just to suit a qualification. So, in general I think we're all very cognizant of not increasing the number of Units of Competency just for the sake of increasing the number of Units of Competency. If there's ones that exist that work, they're the ones that we're going to use regardless of which qualification it's in.

9. The major issue that RTOs have is engaging and retaining trainers in all disciplines. Are there any thoughts about how we can encourage more experienced rail workers to become trainers?

Victoria Kent: Thanks Paul. No, it is a tricky one isn't it because, Carol, I'll let you go because you're an enterprise RTO so you can probably address it better than I can.

Carol Hedrick: I really was probably just going to support what Paul said. This is not an issue that's contained purely to the rail sector and it is certainly an ongoing discussion that we have at IRC and across I'm sure everyone else's interactions with various operators. Again, as Victoria said with the other question, we don't have the answer but certainly it is something that we're well aware of and we continue to talk about, and we are trying to look at whatever interactions and networks I suppose we have across the rail sector. Actually, I guess it's probably more about trying to promote the opportunities, promote the industry and I guess raise the issues and the concerns that we do have. Certainly, as an enterprise RTO we do consistently have those issues with getting the qualified trainers into the areas that we need them. Because in all honesty in some areas they actually earn more whilst they're on the tools rather than being a trainer. So, it's an ongoing issue. It's certainly something that's at the forefront of a lot of our conversations, that unfortunately we don't have the answer for.

10. Can you become a third party to an RTO?

Victoria Kent: Yeah, we've done that in the past, absolutely we get alongside RTOs. I guess something that's happened with the industry, and this is where skill sets have come in a little bit I think as very useful, is in the agility to be able to respond to new skills and technology. Just to kind of close out with Helen's questions and Michael's questions a little bit there as well, around the use of Skill Sets, it is a way of being really agile for new technology and what we find is industry is working with the technology and RTOs are struggling to find trainers then to train that technology because it's brand new and industry are the first ones to use it. So absolutely that third-party auspicing arrangement is a solution. And Paul this is possibly one that I think Carol, through the chairs meeting every year [can address] I don't know if people are aware, every year there's one or two meetings a year where all the chairs get together and push up these issues to be considered. [It] is kind of where we are hamstrung as RTOs and industry. How can packaging rules, how can rules around qualifications be better utilized to allow more of these arrangements and auspicing arrangements, for industry and RTO to get alongside each other to address these skill shortages. And that is definitely a way we've worked around it at the moment, those auspicing arrangements and third-party arrangements between RTOs and us.

11. How closely does the IRC work with Rail industry and recognise older qualifications?

Ron Horne: I'll jump in here. A lot of the recognition process is governed by the RTOs and their work and the standards for RTOs. In the rail sector, some of the certification skills, the operators have a requirement to be assessed every one-year, two-years, three-years. And that's an organisational requirement, it's not a training package requirement. The recognition process is as a good RTO will know and have a process in place for that, but as Helen is saying,

if the person is working in industry that goes a long way for not only their currency but also the validity of their skills and knowledge within the organisation. thank you. Do Carol or Victoria have anything to add from a practical point of view?

Carol Hedrick: I think I was really just going to say that I'm sure there are many representatives engaged in the rail industry worker forums who have connections with members on the rail IRC. So, there are connections in that perspective. From that perspective, my understanding would be that the matrices would normally refer to the current Unit of Competency. But as we all know as RTOs, if somebody holds the previous qualification, they're not going to be required to do the new one as long as they're maintaining their current competency within the industry. So, I'm guessing it's probably more that they might stipulate what's currently available and currently being issued. It's not that they would not recognize previous qualifications or Units of Competency that somebody holds.

Victoria Kent: And just to add to that Carol. I can only speak to my experience so far as we introduce new technologies and new things into industry. We're training them and because obviously industry want to plough ahead, and RIO wasn't going to potentially wait to roll out an autonomous train network before a national qualification was created for it. Because we learn as we go for skills and what we need in those skill sets and what knowledge requirements a workforce has. So, the workforce is tended to be taken on a ride from their old qualifications for new qualification as they're trained in-house and brought up to speed with the new technologies. But it's one reason why we're really cognizant when we go back and then how do we bring those skills into the qualifications. That we use existing qualifications as much as we can and just create that openness on them. Like Ron said, there's five levels of automation now active in Australia on our rail network, so how can those units and those qualifications still be used that integrate all of that technology. So, we're not pushing our workforce or our RTOs into a position where they're having to retrain and reskill. You know they can use their existing qualifications that they've earned. And then it depends what network you work on as to what in-house training is delivered to you to work with the technology or the systems on that network. I hope that makes sense and I hope that helps answer the question.