# National Biosecurity Forum

Day 4 Session 2

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## Introduction

This is the transcript the National Biosecurity Forum, presented by the Department of Agriculture, Water and the Environment.

## Transcript

[Webinar begins]

Nick Housego: Good morning. I'm Nick Housego. I'll be facilitating this session, the final session in the National Biosecurity Forum. It's been a long week, it's been a great week. We've had many, many contributions coming in from people firing in questions about the presenters, about the topics, about the issues they wanted to raise. We've covered a wide range of people. This time last year we'd really only been able to get 100 people into the rooms. We've really contacted close to 400 in these sessions, so it's been very successful from our point of view, and we've saved the best until last.

Nick Housego: Here we go with this one. This should be quite a striking session. These are very interesting speakers. They're all smiling now but they're going to be nervous as we get into this process. We'll see how we go. Professor Paul Arbon, the director of The Torrens Resilience Institute. You're going to have to give us a bit of an insight as to The Torrens Resilience Institute and what that's about. He's going to be here speaking on the one health approach, his work in developing applications to support the first responders for health emergencies and managing misinformation during a crisis. I wonder if he's been busy during COVID. I suspect he has.

Nick Housego: Melinda Hashimoto, the CEO from Egg Farmers of Australia will be then sharing her experience on the importance of collaboration to support emergency animal disease preparedness, drawing on examples of the recent avian influenza outbreak in Victoria. And finally, we have Barbara Cooper, Assistant Secretary from the Department for the Biosecurity Operations Division. Happy to have you onboard. And to all those who've joined us, thank you. And to those who've been with us right through the course of the four days, special thanks, but this is going to be an engaging session where we're tackling the issues around working under a crisis during a challenge.

Nick Housego: Paul, I'm going to hand over to you to open up and give us your insights. I'm going to put you to about a 10 minute process.

Paul Arbon: Sure. Thank you, and thank you to everyone for logging on and taking an interest in this important work. I'm a bit of an outlier in terms of engagement with agriculture and environment industries and so I'll talk a bit about emergencies and I'll talk a bit about the work we're trying to do in health and animal biosecurity as we go through. So hoping to raise some key points and then in the panel you can unpick some of the things that I might have said.

Paul Arbon: The first thing to say I suppose is that Australia has shifted its emergency management, crisis management over the last decade or so. To take a much greater interest in the frontend, in the resilience piece. There are several reasons for that. One is that we do tend to over the years, have focused our risk assessment approaches on individual hazards or threats, and we've assessed the risk associated with those particular hazards and constructed plans and policies to deal with those things.

Paul Arbon: But what we've found, of course, as you would have seen over the years, is that our community is complex, is very interconnected, and indeed we have dependencies across states and obviously communities, but also outside of Australia, as well. We have a system that is complicated. The upshot of that has been over the years, as we have a wildfire or flood, or a COVID-19 outbreak, we see that the consequences of those things are often unexpected, and often cascading. If one piece of the system breaks, if you like, another piece is affected and so on and so on, and we have that kind of cascading effect.

Paul Arbon: That may not be new to many of you, but it's worth starting this conversation but underlining that fact, that it's often not the thing in front of you that is the most difficult thing to manage. That would be the first, most important point. The second point to make is that our environment has changed. The context has changed, as well. So that in addition to that complexity that I've talked about, we are now seeing an environment in which our interests, our concerns, are not the only ones. We're in an environment of contest, if you like. People talk about the contest spectrum, which is that idea that there are all sorts of partners out there, it's a multi-polar, multi-actor world in which we're engaged.

Paul Arbon: And some of those actors are collaborating with us and cooperating with us and trying to build with the same kind of priorities and interests that we have, and others may be working against us in that context, in competition, and of course in the foreign affairs and defence context, sometimes in conflict. The contest spectrum talks about that move that might occur from collaborating, cooperating, to contest and conflict. Sometimes actors in the world are working in various parts of that spectrum at the same time. So, there are many examples of that. Some of our biggest trading partners provide examples of territorial shifts and political shifts, and changes in economic policy that are to our benefit and sometimes not at the same time. It's a complicated situation that we're in.

Paul Arbon: When we start to drill back into where Australia is in the context of health security and animal security threats, we need to I think sometimes start at the top end, to think about what our national interests are, and to articulate them well. That's important because it allows us to work across whole of government and into civil society. With a joined up understanding of what it is that is most important to us. That's a changing, consensual, developing kind of conversation. But it's important because those national interests drive how we think about the national systems that we need to protect.

Paul Arbon: In my space, we talk about essential societal systems or essential societal functions as big, catchall categories, such as governance, for example. So, governance captures good government, functioning government, elections, influence, and interference, all of those kinds of things that you will have heard about. Health and public health, at the moment, is a particularly important one. But the health system protects Australia, it keeps people safe and healthy. Logistics and communications, infrastructure, there are all sorts of systems that interact to produce the kind of nation-state that we want to have and need to have in order to secure our future.

Paul Arbon: So national interests, national systems or essential systems is a kind of pathway to thinking about what we then might do, and how we interact with other people. When in our health context, we believe that we have a health emergency, and again, COVID-19 is a great example, and has truly helped me to talk about these issues in these kinds of forums. We have a real example that we can all see. But this health emergency is a health emergency in a public health sense, and people are responding to that, but it's also an economic emergency, it's also an emergency in terms of influence and interference, as our competitors help to circulate disinformation about what is happening in Australia, or what good public health measures are, those kinds of things.

Paul Arbon: You see this complexity that I'm talking about. Emergencies are not simple to manage anymore, and they're often about partnership and collaboration in places where you might not have worked before. They're whole of government kinds of responses often. In our space, we've been working particularly in the bio threat reduction area, in what we would probably refer to as man-made or deliberate events, as distinct from natural events. Now, they're very false distinctions. Man-made is a false distinction because we know that the so-called man-made events, landslides for example, or flooding in floodplains, are natural and man-made, of course. They're a mixture of our actions and the environment which we live.

Paul Arbon: They're false distinctions, but the distinction between a natural event, an event that is accidental, environmental, and a deliberate event, is an interesting one to consider. Because the clues that an event is deliberate are sometimes different, and most importantly, if an event is deliberate, then very quickly the agency that believes that it is the lead combatant managing this event, is overwhelmed by other agencies that also believe that they have a key role. Particularly in public safety, security, intelligence, Prime Minister and cabinet, or Premiers departments, and so on, so on.

Paul Arbon: So health becomes somewhat ... It becomes complicated for health to have a health response, or agriculture and so on, in those deliberate events. So we've been working on projects that try to look at what those events might be and how to manage them. I'll very quickly run through three of them to give you an idea of the scope.

Nick Housego: 2 minutes.

Paul Arbon: Thanks for that, Nick. First of those is a smartphone application for frontline responders. We've tried to build a thing, or we have built a thing called Smart Suspect Ed, which provides frontline responders on their devices, with access to information about how to deal with a deliberate event that is unusual and an event that they're not familiar with. Not used to responding to. We provide feedback into WHO and OIE and CDC, information about what presentations might look like, what protective equipment might be needed, those kinds of things, in an application.

Paul Arbon: But also it's an application that makes that link between health and security, which is essential because it allows people to collect information that is forensically viable, that maintains chain of evidence, so again, quite important. Second one just as an example, is an AI based web crawler of social media. Because when these events occur, there's a whole lot of early warning signs in social media, that the event is taking place, and with a suitable taxonomy of search terms, we can geo locate and search global social media for information about particular events.

Paul Arbon: That was developed with an Italian group recently. And finally, some work with ASIO, and we've tried to build with ASIO a better form of cooperation when a deliberate event occurs in one country, and then perhaps in another country, and how you exchange information, how you allow lab samples to move around, how you develop the skillset that people will need to work with each other in those environments. So they're the three examples that you might want to ask questions about when we get to the end.

Paul Arbon: My last final 15 seconds of comment. It is important therefore, to remember that the most important part of managing these emergencies is the societal or societal resilience part. It's not so much about response capacity and capability anymore. It's much more about information, it's about trust, it's about networks, it's about science, and the position of science in your policy. Those kinds of things, which are political and social and community based, much more than they are based in technologies and equipment, I suppose. Thank you for that. I know that's a very quick introduction and obviously there'll be questions later. Thanks, Nick.

Nick Housego: A quick one for you straight away. The Torrens Resilience Institute, could you give me a quick overview of that?

Paul Arbon: Sure. The Torrens Resilience Institute was established 11 years ago by the South Australian government, in response to the COAG National Strategy for Disaster Resilience. So the various states and territories, when the strategy was launched, were interested in what contribution they would make. And for South Australia, part of that was TRI. TRI's transdisciplinary, very broad attempt to bring academic disciplines to face real impactful project work. Out of the backroom and into applied research, I suppose.

Nick Housego: Fantastic. Thank you. That helps clear the matter up. Melinda.

Melinda Hashimoto: Thank you. So look, I hope that this presentation, although I'll run through it very quickly, will be food for thought for those people from government, also for those participants that might be on from industry, and some of the other support people, people that I ... Vets, that certainly help with disease responses. I guess the most important thing is for industry, we think we have some pretty good ties into working with departments from a policy point of view. But when it comes to an emergency disease response, quite often we're dealing with a lot of operational staff who we've never met before, for the first time.

Melinda Hashimoto: It's really important that we can have that really good relationship right from the get-go, and certainly I undertook the livestock liaison industry training in March of this year, and couldn't believe how soon only a few months later we'd be faced with avian influenza. The first steps really I find from government is the notification to industry when the actual control centre is set up in those first initial day or so, once a notification has been made.

Melinda Hashimoto: It's really important that industry's linked in very early on, so as essentially they'll be one of the first port of calls to be able to get information out to their members and to their farmers. I think also we found that although departments follow the [inaudible 00:15:15] plan, for farmers themselves it's quite difficult for them to wade through a lot of documents and understand just what's going to happen on their farm. That's why together, Egg Farmers of Australia, with Australian Eggs, made an avian influenza checklist, specifically for farmers which you can find online to try and help them navigate through the steps once their farm's quarantined.

Melinda Hashimoto: What is the role of the LLI? This is something that we found which some department officials were not aware of. There was an ILO role, an industry liaison officer, but this role extends further to be able to get information from industry, for government, specifically feeding in to help them with some of the difficulties working through the response. So, there's more information on Animal Health Australia's website, around the LLI role that would be useful for people to have a look at if they're involved in that emergency response.

Melinda Hashimoto: I think too, the other thing that's really important to think about is from a government's angle, what can be provided to LLI? Be this way of documents. So, things like certainly when we've been doing this role remotely, and not sitting in the control centre physically, things like maps of the actual properties where there has been drone maps taken, really helps the LLIs if they're not familiar with that particular property. Also Gantt charts are used a lot by the department to work through the process for each farm, and that's also another area where for the LLI, it's really helpful to be able to follow those steps.

Melinda Hashimoto: And just to make sure that your LLI has a template for their log, to record all their information starting off. Confidentiality arrangements are really important, particularly when it comes to compensation and cost sharing, and I'll talk a little bit about that later on. But understanding the structure of the control centre is really important for the LLIs and also you may have an LLI that is not from your particular state.

Melinda Hashimoto: The meetings that are put in place generally are daily briefings and debriefings through the day, but in working with Agriculture Victoria, they've done a really great job in seeing the need in working with industry to have an LLI meeting weekly, and also to have industry farmer meetings. These are considerations for states who are looking at how they're going to engage in industry. States have different legislation, and this does impact essentially on the way that decisions are made, and also for areas like compensation.

Melinda Hashimoto: So, it's very important that certainly industry understands what the arrangements may be in the particular state that you're working within. Industries certainly, for the role of LLI that I've been working in, not being a qualified vet, it was very important for me to have a vet to be able to go to, to speak further about technical issues. The rotation of the LLI is very important too, so from an industry point of view, have you got enough LLIs? Have you budgeted for the LLI amongst your actual industry? Because obviously with the avian influenza situation that began beginning of July and has followed through right to continuing until now, so we've done the role remotely, but certainly that's a consideration for cost if we were sitting in the control centre, and also to rotate LLIs.

Melinda Hashimoto: And also how the LLI liaises with farmers, so sometimes you may have a farm where they are a supplier to a much bigger farm, and quite often that larger farm that they work with find that they're happy to actually be the liaison point, and to provide support to that, the basically manager or the person that's leased the farm, if they're under a lot of stress. You need to look at how you may work directly or with the person that may supply to a bigger company that they're linked in with.

Melinda Hashimoto: I guess the way that we can support the department, we deal with the ACCC, so there's links in there when it came to the housing order, and also being in touch with the agricultural commissioner. Is industry ready? We need to provide information on those that may be able to do valuations on things like the actual value of the birds and value of equipment. Decontamination contractors, that's something that it's great if you're an industry to have a list in every state that you can provide to the department or to give them some advice on who may be able to help.

Melinda Hashimoto: Certain cleaning procedures and also assistant hotlines for farmers should they be feeling the strain economically. I think, too, looking at I guess information provided out to farmers, Australian Eggs, and Egg Farmers of Australia have worked really carefully to provide information from our organisations. The role of media is quite different. The department is often putting forward information to the general public around what's happening or to farmers around housing orders and the like, and we certainly back that up, but of course, our media is also making sure that consumers understand that eggs are safe. The role of media can be quite different.

Melinda Hashimoto: Obviously there's liaising between industry and peak bodies and in the last LLI training, I was lucky enough to have Trevor Weatherhead who joined me from the plant industries, and it was just really quite interesting to see the difference in the AHA often has to pull 20 groups together to look at the cost sharing of an arrangement, whereas at the moment for us it's eggs and chicken meat, so we talk to one another. It's a little bit simpler, I guess in the number of people that are involved. Certainly cost sharing is an area that we have to consider.

Melinda Hashimoto: So, how can government be better prepared? And I guess industry, as well. Does your state have a plan that can be set in place with industry, should an incident occur? What is your procedure, your standard operating procedure with industry? Certainly [inaudible 00:21:33] plan is what you're following, but what is your plan for how you're going to liaise with industry right from the get-go? Industry obviously can be better prepared by working through information that we can record, and provide to government. So, from an industry point of view, if you're from an industry body, do you have the information ready around contractors, valuers, and this kind of thing?

Melinda Hashimoto: Communication is key, and it's necessary to get the best outcomes. So, the quicker that government and industry can be working in collaboration for the response and in turn assisting farmers, the quicker the job can be done. Thanks, Nick.

Nick Housego: Melinda, thank you very much. We will certainly have some questions piling through. They're already hitting the table. So Barbara, I'm going to hand over to you now to give us insight as to basically what it is you do and how you handle those incidents that you so regularly don't have.

Barbara Cooper: Thank you very much, Nick. I guess as I've been listening to the other speakers, there's crossover obviously in terms of what we do. I think that the majority of what we're responding to, I would possibly put in the category that Paul was talking about as accidental. This year's been a very jampacked year for us. Particularly with COVID-19. I will always remember January the 18th when it all started for us, from the perspective of new measures and as we started to become aware of the spread of COVID-19 and the consequences.

Barbara Cooper: We went very quickly, having to board flights from certain countries, which meant we needed to mobilise more people at airports. We also needed to provide the necessary scripts and training material, develop inflight announcements, arrival cards, different things like that, in a very, very short space of time. It is one of those areas where it is always very impressive that groups of people come together across both the airlines and government, and other associated industries, and just get the job done.

Barbara Cooper: It never ceases to impress me and amaze me with the capacity of people to respond in these situations. We went from having to surge a number of people to airports, to then virtually no planes, so then having to redeploy people. As well as that, we have also now had an increase in one of our major pests, which is khapra beetle, so khapra beetle is the number one pest for the grain industry, but number two from Australia's perspective in the plant space.

Barbara Cooper: So, this year alone, we have had about 14 incidents of detection of khapra beetle, and in some respects, COVID-19 for us has enabled us to respond reasonably quickly to those detections, because we have had staff redeployed. In some ways, we've had in terms of COVID-19, has been both one of those things that has taken a lot of our resources and effort and focused us in the human biosecurity space, which really has not been a huge issue for us in the past. We have had things like MERS and SARS, but both of those ... And Ebola, of course, but all of those have been more regionalized, and more controlled and contained, and not necessarily with the same spread and consequence of COVID-19. That's been a huge learning experience for us, as well. I might leave it there, Nick.

Nick Housego: Fantastic. Really good insights from all three of you. It's fantastic. Paul, could the app that you mentioned be expanded beyond health and applied to other types of responses? The one that's in development.

Paul Arbon: Certainly it could. It is currently designed with a steering committee from OIE in Paris, and WHO in Geneva, and Interpol and folks on the steering committee for veterinarians and health responders, principally public health, when they stumble across an event. But not for other ... Well, for agricultural issues, for example. But the underlying principle is that people who don't normally see these things, don't often or ever see these things in their career, can quickly get some information about what it might look like and what they're seeing.

Paul Arbon: But also so that they can record information and quickly get it confidentially, back to their base if you like, so that it allows video, photo, text recording, and a template guidance about what to record. But also sampling and chain of evidence sign off on samples, those kinds of things. The idea I think is transferable.

Nick Housego: Transferable and very trusted as a device, as an application.

Paul Arbon: Yeah, it's been one of the big questions. We're dealing with a Caribbean group at the moment about just that question. But the application, it's a bit about trust, but the application is designed so that no information apart from the number of downloads of the app goes to the Android or Apple store, or to us. We don't get any of those reports or we can't access any of that. It stays on the device actually. And then is sent from the device by a messaging application, whether that's Outlook or whatever it is, and therefore we don't see anything.

Nick Housego: Okay. Melinda, in outbreaks that have been happening and your avian one recently, is it the voice of government that your members want to hear from first up? Or, is it the members want to hear from your association first up? Is there more comfort in hearing from people nearer to the trade than that great big voice of government?

Melinda Hashimoto: I think really the farmers are looking at the risk to their farms. From that point of view, definitely Nick, it's that they want to hear from their industry voice, because they're trying to work out exactly where these farms are, how close are they to my farm? What are the biosecurity things I can do? Definitely they're scanning the department website, but anything that we can provide them is always helpful. They do really want to have an understanding as early as possible, from the department, they talk about I guess disposal and things like that. They want to understand, "I need to know if this route goes past my farm."

Melinda Hashimoto: It's definitely a combination, but they're looking for different information from their representative body, I guess to what they are from government. I guess they're wanting a little bit more detail and that makes it very tricky at times, in the role of working between the department and the farmer, as to the information that they're seeking.

Nick Housego: The meat in the sandwich, the classic sort of assumption. Barbara, in your space, how important is it for you to have strong links with the industry bodies, with the growers, with the producers, if there's a breakout happening and you've got to respond to it? The voice that they want to hear first up is probably their industries, so the linkage between government and the industry is quite important in getting that communication rolling. Give us some examples of how you've done that and done that well.

Barbara Cooper: Okay. I think for us, we're often dealing with a different group, and sometimes they're not naturally represented by an industry group. Where there's an industry group, I think the department has very good relationships with those industry groups from the point of view of knowing who to contact. And information can be readily provided to them. I think in a couple of the cases that we've been dealing in terms of the khapra beetle, we have been dealing with retailers and retailers of product which wouldn't necessarily be subject to biosecurity profiling or concerns.

Barbara Cooper: What's been really important is to establish contacts to provide regular updates and to be as transparent as absolutely possible, while still maintaining our role as a regulator, and making sure that we all know what the escalation contacts are. That's worked very well once we established those. In the first days of an incident, sometimes we are all kind of stumbling a bit through that, but within days, we do get into what I refer to as a groove, where we've established the contacts, we've identified who we need to escalate to, who we need to speak to, and where we're sharing information.

Barbara Cooper: I think it eventually works well and we're getting much better at it, but each time this year we've had a very, very different stakeholder group to work with.

Nick Housego: Give us an example of that challenge. That's the COVID group, I take it you're talking about there?

Barbara Cooper: No. Well, at the moment, I guess because I'm very much in the midst of a response in regard to khapra, with a retailer. And so we have, because this is the second retailer space we've been in, in the last few months, we learned a lot from the first. The first one we didn't actually find out and talk to the CEO of the company, if you like, to give them the expectations. So, what we will be doing, what it's likely to look like for you, what it's likely to look like for your customer, and I think the real difference for us in this one, in the retail space, particularly I guess in the COVID environment where we're in the process of trying to stimulate, or the government is trying to stimulate the economy, is opening up the retailer, and making sure that we don't have them closed for months on end. Identifying the person in the company we need to speak to, once we did that it worked very well.

Nick Housego: Okay. Fabulous. Paul, in this world of misinformation, fake news, fake, almost disruptive behaviours, you talked about some of the bigger actors that you're working with across international space. How will artificial intelligence help make us manage misinformation better from your insights? What are you seeing? It's a constant state, it's getting bigger, misinformation, fake news. How do the general public, how do we know what to respond to in a more accurate way? Is artificial intelligence going to play a role?

Paul Arbon: It's a really difficult space. It is the current most topical, most important space in emergency management. That's because often governments and in particular democracies are being challenged about how much trust a community can place in government and government responses. That's sometimes part of a deliberate influence campaign from other ... Been driven by other actors, and I did see a question on the forum about traditional military defence roles, and I can say that defence and as I understand it, some of the other obvious federal departments are already thinking about how they can coordinate their efforts to deter, to do deterrence in the region against those efforts to disrupt Australia's systems.

Paul Arbon: It's a really difficult question. Will AI help? Yes, it does. It already has. Particularly in the COVID outbreak, because at the same time there were various surveillance systems being produced across the globe using AI and taxonomies. What they do is to alert you sooner to the questions or gaps in your response. So, when people started talking about whether they could still go to the gym during COVID-19, certainly that question emerged on social media and was noticed on social media well before you saw governments responding to it.

Paul Arbon: But that's where they found their information, so if you can surf through so much data and call out the few things that are relevant to your response with some AI support, that's really useful for planning. Because they're the things that will trip you up, I think.

Nick Housego: That ongoing one with mask, no mask, that seems to have gone ... It's something you can do to safeguard yourself to the point where nah, it's turned into a political issue. It's a very strange one the way that's evolved, and that almost verges on misinformation being put out about why you would or wouldn't use it. It's grown up in the community space to the point now where there's a level of distrust.

Paul Arbon: Sure. It's science getting in the way of itself, as well. We haven't helped ourselves in that scenario. But the best evidence early on in the outbreak suggested that COVID was more likely contact spread and in any case, mask wearing for infectious diseases has had minimal effect. Because there isn't much aerosol transmission, without going too deeply into that. WHO and others, a month, two months into the outbreak, did an about face on that issue, as more science started to be available.

Paul Arbon: While that's an appropriate thing to do, following the science, the community generally may have felt that people didn't know what they were talking about, and that they were flip flopping around these decisions. So, very difficult one to manage and again, it comes down to some of those EM principles. A consistent, senior spokesperson, who is trusted, giving these kinds of messages. Good explanation, all those things that you guys will understand.

Paul Arbon: Yeah, but masks tripped us up, because people across the globe were saying don't wear them in the health industry, and then we all changed direction once we understood the virus a bit better.

Nick Housego: Yeah, okay. Melinda, a question that's come in for you from Patricia Ellis. You mentioned assistance hotlines for farmers suffering from financial strain. Was it also necessary to support mental health amongst your members and how did you go about doing that?

Melinda Hashimoto: Look, really this was one that was kind of very simple in the questioning where the department had I guess Beyond Blue and Lifeline, and hotlines like that. They asked us was there any other hotline we were aware of, and we provided just the number for the federal rural I guess support hotline. And certainly that service includes wellbeing, so I guess it was more in just being able to, again, put heads together and decide if there were other things out there that could really support farmers, and again, it shows the really, the gap that goes into our guide going forward, that at both ends our information is strengthened.

Nick Housego: There's been a significant investment by the government in mental health over the COVID process. There's been a big lift in that space. There's a lot greater awareness of the condition, so that makes it easier for people to talk about in general purposes, rather than hide it back. Another question that's come in, Melinda, you mentioned ... Melinda, great presentation. How do we best encourage peak bodies to invest time and resources into having liaison officers trained? I think that also hinges a bit over to Barbara, as well. How do you get that training right?

Melinda Hashimoto: I think that certainly we have taken on the role in Egg Farmers of Australia, looking after the LLI for our industry. That comes from Animal Health Australia send us a list regularly to say, "This is your list of LLIs" and it's important that we make sure that we have LLIs across our states. That was one of areas where we didn't have LLIs in Victoria, and now we have three trained LLIs for our industry. It's really a matter of ensuring across the industry body, ensuring across all of the states, that you have who you need. I think talking at forums like this certainly allows people to think, "Well, I could actually do that role."

Melinda Hashimoto: I have done probably about five talks, certainly since the AI started, to talk about my experience, and I hope that that is helpful to other industries to think about getting people trained. I think, too, that it's also about the commitment. We had a number of people that were, "Yes, I'll be an LLI," but they are full time farming. They're not in big businesses where they have staff who are in a position to look after the farm, and I have to admit other than a couple of small rotations, I have done the LLI role for this whole time and was this at the control centre, we would need to have more rotations.

Melinda Hashimoto: It's just not a role that someone could do that has a busy egg farm, because it takes them away from that, and they need to be full time, committed to the response. I think as far as farmers who want to do the LLI training, to have an understanding of what's involved in the process, that's great that they have that background. But certainly I think for industries, they need to ensure that they're not getting people who are putting their hand up, but when the times comes and they're called upon, won't be able to do the job.

Melinda Hashimoto: I think making the time as an industry, certainly I could see the gaps in our industry. I've been in the CEO role for 12 months and I think this is great that we've got an understanding of what needs to be done and where our gaps are now for AI and my state organisations have a lot of homework that I check up on them so that we're making essentially someone else walking into the LLI role from our industry has a guidebook.

Melinda Hashimoto: Not only just the LLI training materials, but what is our guide for if we have Newcastle disease? What would be different and what would we need essentially for that, which would be different for AI? The work doesn't stop just with one area. Certainly I think we've now got more of I guess a stock standard that we can add onto. But it's really seeing the resources that you need, like the farmers' checklist, and industry just taking the initiative to make some of those things. That would be-

Nick Housego: I'll just pick up on a point of clarification that both you and Paul have been mentioning AI, but they're two very different AIs. One is avian influenza, the other one is artificial intelligence. Just to let know, because it's been rolling pretty easily and I'm going, "Wow, what are we doing there?" If I could Barbara, training, and what you're seeing, how effective was it? How do we get better at doing training for all these crisis that are surfacing? You would have had to have put a lot of people on the ground in late January, early February. How do we go about that?

Barbara Cooper: Yeah. I guess one of the things that we need to do and is as we start to review our response, is look at how we're training and whether that's traditional training, because we're all moving away from those face-to-face type trainings, and more to online training. So, we do need to look at how we are training and supporting our people, and one of the things that I think ideally for me, with a very small team to respond to these things in a lot of ways, is to actually have some form of shadowing, so that you've got people sharing-

Nick Housego: Like a buddy system, yeah.

Barbara Cooper: Yeah. Buddying, or yes, okay, buddying, shadowing. So you're actually sharing information and people become experienced in terms of what worked, what didn't work, because you can always improve through these things. And then perhaps for the next crises, which for us we've had very quick succession. We've gone into response very quickly following the last one, is then allowing the people that have been somewhat working very long hours in terms of the response, them being able to rest and prepare for the next one. And I guess in some ways, doing, which comes more from my previous meet experience, these postmortems, where we can sit down and do either hot debriefs or postmortems, and work out what we do need to do better. What worked? What needs to improve?

Nick Housego: Okay. I've got a question in here from Kathleen Ploughman. How does an LLI determine which function in a response they are performing if they are doing more than one function? E.g. LLI as opposed to a slither stock specialist advisor, or interfacing with producers on behalf of their organisational peak body. I guess that one's for you, Melinda.

Melinda Hashimoto: Thanks, Kathleen. Certainly I think the LLI role is decided upon by the industry body, so in that regard, you're aware of what your role has to be. I have found, though, that if someone else was doing the LLI role for the avian influenza situation, I would still need that person to be feeding a lot of information back to me, so that I was able to take that to my board for the cost sharing arrangements. In our industry, of course, as you know Kathleen, Australian Eggs is the member, but it's Egg Farmers of Australia who make the arrangements around the discussion with cost sharing.

Melinda Hashimoto: This is another thing, too. It can be difficult at times. Four of my five board members are egg farmers, and so calling a meeting at very short notice to try and get answers on things is not always straightforward or easy. But I think certainly it's that clarification I think, very early in the beginning, "This is the person that's appointed for the LLI role," for me I see the specialist advisor around technical vet things for our industry, is Peter Scott, so I call him when I have queries. I think the department, in the beginning trying to work out the roles, they felt it was more a liaison officer role, but now I can see that they're coming to us with things that we can help them with, which really help with the decision making.

Melinda Hashimoto: I'm really pleased that from the initial stages, now I feel that the role is much more substantial, but I think that kind of is the split as to how I see it. Certainly the department have their understanding of what you're doing, and you talk through that as the relationship gets closer. You have your job as the LLI. Then I also have that additional job with CCEAD and National Management Group, being on those teleconferences and speaking with my board, and also liaising with the chicken meat industry. If I wasn't the LLI, then in my role as CEO, I would be doing that liaising and needing to link in very closely with the LLI in that way.

Melinda Hashimoto: It has kind of, in some ways, the role for me, it's been a little bit quicker because I've been doing both the LLI and doing the liaising with the board, but certainly if you had an LLI who was not the CEO, there would be a lot of back and forth there.

Nick Housego: Great response. Very detailed. Thank you. Paul, question that's popped up for you. A lot has been spoken about the need to move to an all hazards type approach. What do you think this might look like operationally at a national level? I.e. what is your vision for the future, for the EM space, under a one health, all hazards type umbrella? That's from a guy called Rupert Woods. Away you go.

Paul Arbon: Thank you, Rupert. That's a big question. Several things to say. One is that we should in an all hazards context, remembering that we're still planning and have plans for specific threats. Because the actions you might take are different. Sometimes plans for the provision of services that support that threat, so you may have an air and evacuation plan for Australia, or something. So those things do happen. However, in the all hazards space, what we're trying to do, of course, is to make more robust the things that we need to respond to any emergency.

Paul Arbon: So that's our cooperation and our communication, our logistics, is often the same regardless of what the event is, and how do we strengthen those systems? That's I guess an all hazards approach to responding. The other really important thing I think is that I constantly hear people express surprise that their emergency plans might be not only plans for preparation and response, but also plans for prevention. So that in addition to planning what you would do if it happened, you might plan how you would stop it effectively.

Paul Arbon: That's part of that story about the event isn't the disaster. It's not the emergency. The emergency is the damage caused by the event to the things that you care about. You can have the same event occur in two different jurisdictions, and one severely affected, and another not at all. Great example is wildfire. Wildfires in the Northern Territory we often let burn, and so on and so on. It's that kind of story.

Paul Arbon: So, how do you plan to prevent emergencies impacting significantly on your business or your jurisdiction? You do some work around making systems more robust, you do lots of work around training and networking amongst people, so they know each other and work together better before. There is a kind of of hit list, a dot point list. I won't go into the detail. A dot point list of the strategies inside of an organisation you might adopt that would make it more robust when it is impacted by any kind of threat. Affected in any kind of way. There are some basic things that you just need to have to continue to provide the service, or most importantly, maintain your reputation.

Nick Housego: And a bridging question for you, Paul. What is the timeline for when the app will be ready and deployed?

Paul Arbon: The app is on the Google Play Store and the Apple Store as we speak. If you download it, you can also click on a link to a page, landing page that tells you how to use it and what it does, and so on. It is live. It is largely in our view, designed for the region, because in Australia, veterinary and health services have joined up surveillance and reporting systems, that are good and don't need to be replaced by someone deciding they'll use an app, right? But if a whole organisation in Vietnam wanted to adopt the app for its organisational use, those kinds of things we'd strongly encourage. But yeah, if you want to download it, have a look at it, you can do that this afternoon.

Nick Housego: Fantastic. Okay, for Melinda and Barbara, what are a couple of the key things we need to do better to prepare for future outbreak of issues? Such as avian influenza, or any other issue that pops up. What are the things that we've got to improve in that preparedness space? I'll start with Melinda.

Melinda Hashimoto: Certainly just preparing and how do we do that? I guess in the experience of Victoria, there's been discussion about having a working group going forward, so that we can work much closer with the department, and work through some of these issues as we prepare. Rather than get to crisis point. I think too, it's looking at the risk. So, for our industry, biosecurity, I've got farmers who are saying, "Well, I'm looking at doing some expansion and I'm just going to be going into barn, because to me, that's less risk than having free range where wild birds can essentially be mingling with the birds outside, so that reduces the risk."

Melinda Hashimoto: Certainly the farmers are looking at their own preparedness on farm, and then from an industry group, I guess we are looking at well, biosecurity, what are big risks like? On sell of spent hens is a really big one for our industry. Quite often you might see on Gumtree and Facebook and things like this where people are selling hens and recently we had an instance where someone was doing BYO cage. You don't know where that cage has been going onto that property, or what species has been in it. I think it's definitely from both our organisation, as well as the farmer, on their property, looking at well what are the risks in biosecurity around disease, that we can reduce? And that really comes back to having that very close relationship with the department in working through the issues, and also I have to say New South Wales, as a department, have been very proactive and have been in touch with us, and have worked through what are the things that they can essentially put in place now in their department?

Melinda Hashimoto: That's helped to work between department and industry, in looking at that industry plan. I guess salmonella enteritidis is another really big issue for us, and so state plans looking at the national plan, but how does it work in the context of their state is really important, too. Things like if you have SE, how will you dispose of the birds? What will be your standard operating procedure in your state? These are all things that I think both it's not just government's role or just industry's role, we really do have to work more closely together.

Nick Housego: Okay. Barbara, how would you improve preparedness?

Barbara Cooper: I think Melinda's probably covered the majority of it, because all of those things would apply no matter what the incursion or disease or response was. I think it is going back to some of those things where we perhaps do have an opportunity to look at how we're training people, or I guess to some extent, having them involved so that we have a broader ... We have a greater capacity that we continue to keep these sorts of things in the forefront of people's minds. But not only ours, because a lot of us are quite familiar with what goes on and potentially what we need to do.

Barbara Cooper: I think for us, our last couple of detections have been through the community, reports through community, and they've been really critical to the management of this particular pest. I think we need to continue to do that. And just continue to I guess have the opportunity to look at these things after each one, or during each one, to actually work out what we do need to do. I think we are reasonably well prepared for the things we know about. I think it's also being able to keep a lookout, not only for the next emerging pest or disease or virus, but also the pathways that these are coming in.

Barbara Cooper: Because we're starting to see a lot more detections, just in the last couple of weeks to months, of brown marmorated stink bug, for instance, which we're in the season of, in the air cargo pathway. Just also being very much aware of how the industries are changing how they are freighting all their logistics, and how that might change our risk.

Nick Housego: I've got a question here from Ron Glandville. It'll be the last question I'll put to you. A feature and a problem of biosecurity preparedness in Australia has been the cyclical nature of the funding. How do we, going from lows and highs, how do we actually try and even that out? And Barbara, I'd have to say that's a question that I'd land on you first.

Barbara Cooper: Thank you, Nick.

Nick Housego: Being with the department. Being with the department.

Barbara Cooper: Funding I think is an issue. I think that it's probably not that dissimilar across government and industry and research organisations, because we tend to put the funding where the problem is. It is about how do we actually ... Well, how do we actually get a little bit smarter in terms of what we're learning from the experiences we have? And what other information we are, as we connect up, as we've all been talking about partnerships and liaison and things like that, to manage the emerging risks, so we're actually prepared. So, we are thinking about that, because this year has been one where we have had a lot of responses, and where we've had to mobilise people very quickly, and they've been in very quick succession. I don't know whether I really have an answer for that. I think it is a very, very good point, and I think it is something that collectively we all need to consider.

Nick Housego: I'm going to have to call it quits there. We're right on time. You've been fantastic, it's been really engaging. I really appreciate the level of just thought and consideration you've brought to the program. I can see by the many, many, many questions that we've yet to answer, that we'll answer post the session, that there's been a great deal of interest. We had about 90 people who have joined into it at the beginning, and I think the numbers have gone up and down. It's been really, really good. This is the last session of the forum, so we actually close on this session now.

Nick Housego: I want to thank all those who have been participating throughout the duration, as well as those who've come in for bits and pieces, cherry picked the best bits that they needed to learn about. And now we're at the sense where the final one has come through. This last session, which I think saved the best until last, was putting on this sense of how do we manage in a changing environment when we've got all these threats and issues surfacing in terms of outbreaks? It's been wonderful. I just want to again, thank the team. Amanda Kingston, Shane Faulkner, Alex Blandon, Claudia Rodriguez-Delgrado, Kate Ulrich, Jessica Arlia, Rebecca Goss, and our two technical people, Ben and James from the contentgroup. It's been magnificent. Thank you all for your patience, and I'm going to be saying thank you to the presenters. We're signing off here in Canberra. Bye for now.

[Webinar ends]