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**HOUSE OF
REPRESENTATIVES**

STANDING COMMITTEE ON EMPLOYMENT, WORKPLACE
RELATIONS AND WORKFORCE PARTICIPATION

Reference: Employment in the automotive component manufacturing sector

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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON EMPLOYMENT, WORKPLACE RELATIONS AND WORKFORCE

PARTICIPATION

Tuesday, 2 May 2006

Members: Mr Barresi (*Chair*), Mr Brendan O'Connor (*Deputy Chair*), Mr Baker, Ms Hall, Mr Hayes, Mr Henry, Mrs May, Mr Price, Mr Randall and Mr Vasta

Members in attendance: Mr Barresi, Mr Brendan O'Connor and Mr Vasta

Terms of reference for the inquiry:

To inquire into and report on:

Employment opportunities and challenges in the Australian automotive component manufacturing sector with a focus on the following issues:

- Current and future employment trends in the industry;
- Emerging skill shortages and appropriate recruitment and training strategies;
- Labour adjustment measures required to assist redeployed and affected workers; and
- Measures to support skills development, innovation and investment in the industry.

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**WOODBERRY, Mrs Constance, Project Coordinator, Northern Advanced Manufacturing
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Committee met at 9.44 am**KESTELL, Dr Colin David, Senior Lecturer and Automotive Engineering Coordinator, School of Mechanical Engineering, University of Adelaide**

CHAIR (Mr Barresi)—I declare open this public hearing of the House of Representatives Standing Committee on Employment, Workplace Relations and Workforce Participation and welcome our first witness, who is representing the University of Adelaide. Dr Kestell, although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament and consequently warrant the same respect as proceedings of the House itself. I remind you that the giving of false or misleading evidence is a serious matter and may be regarded as a contempt of the parliament. Would you like to make any introductory comments? Can you tell us about your program, the reason that it was started, its level of success and the involvement of industry in the program?

Dr Kestell—It is basically a story of a turnaround. We introduced the degree last year. The reason that we introduced it was that, about 18 months prior to that, we had been meeting with industry with regard to job opportunities for graduates and projects where industry was helping mentor graduates and the like. It was very apparent at that time—and this is going back two to three years ago—that there was a real skills shortage in the automotive engineering sector, to the point where they were looking at recruiting overseas and getting people in from the UK, America and South Africa.

Out of the conversations, it became apparent that, while the industry was extremely pleased with our mechanical engineering graduates, they were not specialised enough. In the automotive engineering sector, in particular, quality is much more of a focus than it is in many engineering sectors—probably only second to aerospace—and they wanted our graduates to have more specialised attributes. It made sense to put together an automotive engineering degree—the reason being that it would attract school leavers into engineering and would attract people who already had an idea of what they wanted to do when they graduated. Everything was looking great. Mitsubishi had a huge cash input from Japan and from the government and they were employing engineers left, right and centre—and everything looked rosy.

The degree was introduced last year with some financial support from the state government and from the industry, to the level that we were able to use that cash injection to employ a new lecturer. We had a large number of applications from high school leavers to enrol in this automotive degree. The TER was in the high 90s—from memory, about 96 or 97—which meant that the school leavers we got were in that top three or four per cent of high academic achievers. In the first year, we allowed for only 30 places. These places were at the expense of mechanical engineering students. We ended up getting 27. This year we allowed 40 applications—again at the expense of mechanical engineering.

One thing we noticed this year was that the TER ranking went down. This is just an opinion but I believe it went down for a number of reasons, including that fact that we offered more places, so we would be choosing more people down the list—from the top down—and this year has coincided with a turnabout in the automotive industry, which I think has made the degree less popular. We are now seeing Mitsubishi having a lot of publicised trouble—which is

obviously in the eyes and ears of school leavers. We are also seeing a lot of news about Holden sourcing offshore and I guess no longer supporting the local tier 1 suppliers as much.

There seems to be more pressure now for automotive manufacturing to move overseas. I have a number of concerns with that. I see the popularity of the automotive degree declining because of the general perception of the health of the automotive industry. My opinion is that, if the automotive industry declines and the manufacturing goes offshore, it will be the tip of the iceberg. If automotive manufacturing goes offshore, all manufacturing will eventually follow suit. Automotive engineering and aerospace engineering tend to be the leaders in engineering. They set the quality standards, they set the trends and they set the practices. If automotive and aerospace engineering find ways of doing things more efficiently and cheaper, other people will follow suit. Currently, I have concerns about the future health of the automotive industry.

CHAIR—Is that in terms of all manufacturing? Is it your assessment that we may not have any manufacturing at all?

Dr Kestell—I was witness to an argument between a senior engineer at Mitsubishi and a senior engineer at Schefenacker. One of the gentlemen said, ‘It doesn’t matter if manufacturing goes overseas; the main thing is that we keep the brains here.’ The issue there is that we are also training the brains. We are very dependent on international students now—so the brains are being trained here as well. I think that if automotive manufacturing and engineering manufacturing go overseas, it will just makes sense for the brains to be with the body and the brawn and I think we will probably end up losing the lot.

CHAIR—Of the 40 places this year and the 30 places last year, how many were for overseas students?

Dr Kestell—Those places are for domestic students. The international students are on top of that. We would probably have only about half a dozen international students in each year level. I am sorry but I do not have the precise figures with me.

CHAIR—So the 30 from last year would now be in their second year. Is it a four-year course?

Dr Kestell—We actually have people graduating this year because, the first and second year of the degree is exactly the same as the mechanical engineering degree. So in the year of introduction, we allowed existing students in the mechanical engineering stream to transfer over and specialise in the third year. Last year we introduced the first, second and third year of the automotive program—first and second were already there and there is the specialised third year—and this year we introduced the specialised fourth year. So now we are teaching all year levels—first, second, third and fourth. We are teaching students at fourth year, and they will be graduating this year.

CHAIR—How many are graduating?

Dr Kestell—The eight students who transferred across from mechanical engineering.

CHAIR—Have those eight already been encouraged by your faculty to go out there and find employment?

Dr Kestell—They do not need to be encouraged. The reason they went across is that, for these guys, the idea of working in the automotive industry designing cars is their driving force. So they do not need encouragement. The whole reason they got into engineering was that their love of all things automotive.

CHAIR—What is their confidence level at getting a job? They might be passionate about it, but there still has to be a vacancy.

Dr Kestell—They are now probably thinking that they might have to travel further afield. Without talking to them about it now, I cannot say for sure. It is hard to speak on their behalf, but I think it would be fair to say that their confidence level has declined a bit. We do have a good track record of getting engineers employment. Within three months, 85 per cent of our graduates find employment. It might be the case that, for those eight automotive engineers, their first position might not be in the automotive sector; it might be in a related sector. Just knowing the way their minds work, they will be looking to get into automotive engineering because that is their passion. That is what they want to do.

CHAIR—Have any of the places taken up last year and this year been taken by existing auto workers who were upskilling to move their way up through the chain of qualifications?

Dr Kestell—There are certainly none in the fourth and third year and, to my knowledge—and with a high degree of certainty—there are none in the second year. I do not believe we have any tradespeople who have transferred across in the first year but it could be a possibility. We do have a history of people doing a trade and then coming in to do a degree, be it mechanical, aerospace or automotive, but I could not say with absolute certainty that they will.

Mr BRENDAN O’CONNOR—You had generic engineering degrees but you said that they were not specialised enough. What had to be incorporated into the degree that would make it industry specific? Did things have to be discarded or was more incorporated?

Dr Kestell—It was made easy as the fourth year of a mechanical engineering degree course is electives—they are student choices—so it is like a shopping list of subjects that they can choose from. The fourth year is pretty easy because we made that choice for them. We introduced new subjects and we said, ‘You have to do this, this and this.’ These were subjects like quality systems that are of particular importance to the automotive sector, road safety, design safety, and advanced manufacturing techniques and methods. We also introduced some subjects into the third year that was relatively easy as well. There was an aerospace subject which we did not feel was of relevance to people who wanted to follow a career in automotive engineering and there was a mathematics subject that was there for people who were looking at doing a higher degree and going into research. We tended to believe that the students looking for a career in automotive engineering were more practically minded and less likely to stay on and do research and more likely to look at getting a nice practical engineering job.

Mr BRENDAN O’CONNOR—What is the likelihood that they would not work in the domestic workplace; they would go offshore, overseas?

Dr Kestell—The chances of some of them going offshore, I suppose, are high. What sort of percentage, I could not say. Obviously, the more students who are graduating the more likely it is we are going to see some going overseas.

Mr BRENDAN O'CONNOR—The industry specific areas would be as helpful in overseas plants as they are here.

Dr Kestell—Yes, absolutely. There is nothing that is particular to the Australian market that would make these students redundant overseas. You are building cars here; I suppose you can build cars in China, India, Mexico or wherever.

Mr BRENDAN O'CONNOR—What role do companies play? Do you have students go on site? Do they undertake pracs or that type of thing in the workplace or do you have company spokespeople coming and speaking to the students? What is the interaction?

Dr Kestell—A little bit of all of the above. I mentioned that industry and government helped finance the degree and paid for our new lecturer. In return, we made it very clear that we did not want the degree to have any redundant material in it; we wanted it to answer their needs. So we put together an automotive steering committee with a number of senior managers from the automotive sector on it, and each year they review the curriculum. It is early days yet, so there is not too much opportunity to be overly critical of what we are doing but they have helped put together the curriculum. We have guest lecturers come in from industry who talk about their practices—the application of theory in industry—and also mentor student projects. The final year project, the fourth year project, accounts for a third of their final year marks and is a big component of the final year. It is very important because in that project they learn to put the theory and the knowledge that they have acquired into practice. In that project, we see industry mentors assisting as well.

Mr VASTA—Now that the South Australian government seems to be able to get these big contracts or there are firms that have got these Defence contracts, can you see some potential with, say, instead of steering them in the automotive area they can go into defence?

Dr Kestell—It is sort of happening. We are having a few teething problems with getting it right through the university but we have designed a masters of maritime engineering, and that is at the request of ASC. ASC would be putting a lot of their employees through that. We are hopeful it will happen but, like all these things, there are a few obstacles that you have to overcome. That is pretty much defence. It would not be PC to have a defence engineering degree where you are designing missiles and the likes. I do not think we would get that off the ground.

Mr VASTA—Building tanks is sort of similar to building cars. I do not know whether all-terrain vehicles or something might be made there.

Dr Kestell—Automotive engineers could probably find careers in those sorts of areas in tank and high-speed vehicle design for the forces and likewise with our aerospace program.

CHAIR—Can you quantify the skills shortage in automotive engineering?

Dr Kestell—I do not think there is one now. About 2½ years ago I was part of a state government task force to try to identify all these shortages. I do not remember what the numbers were, but at that time there were particular shortages in the engineering professions and in the engineering trades—probably more so in the engineering trades than in the engineering professions.

CHAIR—Were we bringing in people from overseas to fill those vacancies?

Dr Kestell—That was the plan. I cannot speak on behalf of each company and what their strategy was, but the talk around the table was that people were looking at recruiting from the UK and the States—basically English-speaking countries. Communication was an initial issue.

CHAIR—Are we still having engineers coming in from overseas?

Dr Kestell—You would have to speak to the human resources managers of the various companies. I can only speculate on that.

CHAIR—Do you have any involvement in the recognition of overseas qualifications?

Dr Kestell—No, my interests are in getting our students qualified—to be an attractive proposition for companies to employ. I do not think it would be fair for me to comment on the actual recruitment practices of companies.

CHAIR—Being pessimistic for a moment, does the future of your course have a very finite timeframe?

Dr Kestell—It all depends on the way things go. If you can believe everything that you read in the press and see on TV, it looks as though the writing is on the wall for the industry. Ultimately, it would be silly to have an automotive engineering degree if there is no automotive engineering sector locally. We are finding that some of the subjects, the courses we have brought in, will have a much broader appeal. For example, one of the subjects is advanced computer engineering, because a lot of the engineering design and the manufacturing process are fully automated in the automotive sector. You never leave your computer, basically. You design on the computer and it goes down the line, and the next thing you know the machine is making it. The design skills for manufacturing that our students are learning can be applicable across the broader engineering sector as well. Quality systems can be applied as well.

CHAIR—I am surprised that you do not have a handle on the current state of vacancies and demand for engineers, because I was under the impression that this course was being put together as an industry partnership with the university.

Dr Kestell—It was. At the time, there was a high demand. Mitsubishi were recruiting significant numbers, but I am not getting the—

CHAIR—That is only one company, though. You still have—

Dr Kestell—Mitsubishi was the dominant driver for this degree. There were a number of other companies as well: Bridgestone, Cooper Standard, Schefenacker, Air International.

CHAIR—So the automotive component manufacturers were part of the partnership as well?

Dr Kestell—Basically. I had a lot of assistance from a gentleman from state government, who took me around to the tier 1s. At 90 per cent of the doors we knocked on we were offered money. When we got the money we needed to employ a new lecturer, that is where we stopped. At that time—and this is going back two to 2½ years ago—everyone believed that the future was rosy, that things were growing and on the up and that they would be needing engineers. I do not have a handle on the numbers now. All I can say is that I am not getting inquiries now for students to do work experience. About this time of the year people contact you via email and say, ‘We’ve got positions going; do you have any students you can push our way?’ The inquiries are not coming in now. To know what the vacancies are you would have to look at each company.

CHAIR—What other universities are offering this course in Australia?

Dr Kestell—RMIT in Victoria is the only one. We tried to get Holden more interested in the course, but this is at an engineering level, not a trades level, and Holden made it quite clear that their brains reside in Melbourne and their brawn resides in Adelaide, so we could not get Holden interested.

CHAIR—Do you have an association as well with any of the TAFE colleges in terms of assisting them on their curriculum?

Dr Kestell—Not really assisting them. They assist us with our students. We like our students to be fairly practically minded so our students go to the Douglas Mawson Institute of TAFE for a week in a year to learn the practical skills of fitting, turning and the like. But we do not actually assist TAFEs. To put things in perspective, I am a lecturer; I am not an administrator. I lecture in and coordinate the subjects that constitute the automotive engineering degree. Obviously, given the fact that I am not an administrator, I am not going to have my head around a lot of facts and figures and statistics. I lecture; I teach engineering.

CHAIR—Colin, are there any other comments that you would like to make?

Dr Kestell—No, not really. A lot of what I have said is opinion. I would like to reiterate that.

CHAIR—We understand that.

Dr Kestell—I apologise for not having facts and figures in front of me.

CHAIR—If you do have some back in your office, would you send them through?

Dr Kestell—Yes. If you actually say what you want, I can dig those out for you and get them to you.

CHAIR—Thank you, particularly on some of the opportunities that are out there. It seems to me that while there is a concentration here on tertiary-level skills development, which may have been needed two or three years ago, some of the skills development at the lower end has not been as well attended to.

Dr Kestell—That concerns the trades. I really cannot speak on their behalf. When this whole thing kicked into play there was a roundtable. I was part of a task force or workgroup working with the state government. It was very evident that there were skills shortages and that more training was required right across the board. My area of concern is the degree programs at the University of Adelaide.

CHAIR—How much of your curriculum, if any, involves teaching these students about alternative fuel sources for cars, so that we start looking at next-generation hybrid, ethanol or solar cars or whatever they might be? It was actually said to us yesterday, by someone who is far more positive about the industry, that, rather than being pessimistic about the decline, what we should be doing is looking at what we can do well and then start to develop a niche and become world leaders in that particular niche area whether it is in terms of alternative energy sources for cars or something else. Do you have a view on that?

Dr Kestell—Yes. One thing that I should say is that I hope I am not coming across as a doom and gloom pessimist.

CHAIR—No, you are one of the most optimistic people that we have seen so far.

Dr Kestell—You cannot help but be gloomy. Every day you open the paper and every time you look at the TV you see doom and gloom about the industry, so I have got concerns. But to answer your question, one of our subjects studies combustion theory and in that subject we look at alternative fuels, so they are part of the curriculum.

I mentioned earlier that our final year project forms a significant part, a very important part, of our students' curriculum. I have 10 students designing and building a biodiesel motorbike. That motorbike will be entered into the world solar car challenge next year, in the green fleet class. The beauty of that project is this. Engineers Australia is promoting sustainability. You get a lot of these pushes and all too often they become cliched and people tune out of them and lose interest, although something like sustainable engineering is very important. It is my belief that to really have the knowledge ingrained in students' minds you have to make them excited about it. I really chose this project because it is sexy—a nice high-powered motorbike that runs on a sustainable fuel, biodiesel. The students have designed a 400cc motocross style motorbike. It is going to be supercharged. It is going to be a very lean looking beast and it is going to show that alternative fuels are not namby-pamby, very expensive and unaffordable. Biodiesel is a genuine option. I think it accounts for 10 per cent of Germany's diesel usage.

With that project we are not just telling students about alternative fuels; we are getting very excited about it. If they get excited about it, it stays up there in their heads. That is also leading onto a lot of research opportunities. We have a German engineering company setting up shop in Adelaide as well that are very interested in doing research with us. At the end of the month I have gentlemen from Japan coming over to meet me. They are senior executives from Yanmar Engineering. They are coming to talk about the research opportunities in diesel engines. Yanmar are one of the world's biggest diesel engine manufacturers.

Mr VASTA— Is that the ZF—the German gearbox people?

Dr Kestell—I have not spoken to ZF about gearboxes in particular but I have spoken to them about contributing to the automotive program. Recently, they agreed to contribute to the automotive program by supporting it financially. They are enthusiastic and optimistic about the future of engineering in South Australia. But I have not spoken to them about the gearbox.

To cut a long story short, we are looking at alternative and sustainable fuels. I am doing a joint project with electrical engineering students where we are designing a concept—and we will be building a space mock-up—of a solar hybrid. This will be a high-performance car covered in solar cells that will assist charging batteries. There will be a diesel engine on there that will be driving a generator. The generator will keep the batteries topped up as well, and there will be electric motors on each wheel. At the moment it is at the concept evaluation stage. At the end of the year the students will have designed and built a space mock-up. It will be like the sort of car you see at a motor show—a concept car. It will be a car that you can sit in and it will look good. It will demonstrate that the concept is feasible. So we are looking at solar hybrids and biodiesel. Biodiesel for mechanical engineering is becoming a major focus for our school.

CHAIR—If we want to be really optimistic about the future of the industry we have to start embracing the concept of being different rather than having the ‘me too’ approach in our car design and production. What we do is perhaps make a different body shape or a different type of interior or look about it but at the end of the day we are still dealing with similar type products that you can get anywhere in the world. They will probably hate me for saying that as they are trying to sell the new VE Commodore. Getting that specialisation might be a way of rescuing the industry from international competition.

Dr Kestell—I think you are right. It is also keeping it once you have done it so it does not go overseas as well. We can be a little bit special; we can be a bit different. The world push seems to be on hydrogen fuel cells at the moment. That would not be suited to Australia because, first of all, you have to generate hydrogen and you actually have to burn more fossil fuels to generate the hydrogen than you would be burning if you were just running petrol driven cars. So the idea of a hydrogen fuel cell economy in Australia is nonsense. You are going to have 10 times more clouds over the cities because you burning more fossil fuels to make the hydrogen than you are to drive the vehicles.

Biodiesel seems to be locally extremely popular. You now have SAFF, who are advertising their produce on TV. You also have ARF setting up the transesterification plant at Port Adelaide. They are going to be churning out 40 million litres of biodiesel every year. I believe a lot of that is intended for export; I do not believe any of that is currently for retail sale to the public. It will be sold to governments and for export. When you look at what is happening locally with biodiesel that seems to me to be the sensible area to do research in.

CHAIR—Thank you. It was very enlightening. Hopefully, it was not McCarthyist in its approach. We appreciate you coming to talk to us.

Proceedings suspended from 10.14 am to 10.37 am

GAFNEY, Mr Stanley, Member, South Australian Panel, Institute of Mechanical Engineers

CHAIR—Welcome, Mr Gafney. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are proceedings of parliament and consequently they warrant the same respect as proceedings of the House itself. I also remind you that the giving false or misleading evidence is a serious matter and may be regarded as contempt of parliament. We invite you to make some introductory remarks before we launch into questions.

Mr Gafney—I am a retired engineer. I have been in engineering all my life. I served an apprenticeship in the UK and went to evening classes at technical colleges in order to qualify for membership of the institute. I came to Australia in 1974 and had a variety of jobs in the techno-managerial area including in white goods, agriculture, the automotive industry and plastics. In 1983 I set up my own business and was self-employed until I retired about three years ago. My business was the design and manufacture of special-purpose machinery for a variety of industries including the automotive industry. However, we had the recession that we had to have and I closed the small factory we were running and moved back to an office in my home where I did computer aided design for various companies including one which manufactures rear vision mirrors—and shall be nameless. I did a lot of work for that particular company. So I know a little bit about the automotive component business.

In recent times I have been a little horrified to see that some of the major motor companies will be sourcing some of their major components from overseas. The real thrust of our submission is that we should have a viable motor industry, which includes automotive components. In times of threat we should be able to manufacture our own trucks and vehicles in order to stem any possible international threat, and that is the basis for the thrust of our submission.

I would like to apologise for the submission, which has quite a few spelling and grammatical errors. It was a draft and it does not seem to have been upgraded, and I apologise for that. I will be meeting my colleagues who are coming here later this month, and I shall be telling them how unhappy I was about that. I hope you will see the message rather than the grammar.

CHAIR—Do you want to talk to your submission now?

Mr Gafney—The submission was largely drafted by a gentleman from the Ford Motor Company of Australia, and the rest of us tacked on our thoughts as we went. One of the things that we are unhappy about is the fact that we are employing project managers rather than project engineers. The emphasis appears to be on managerial skills rather than on technical skills, and we feel that the technical skills base is being eroded by this particular move.

CHAIR—Is that due to the high level of automation in the industry these days?

Mr Gafney—I still think you need engineers to master the automation. If you project manage something, you tend to stand back and do the administrative bit rather than the hands-on, technical detail of how the machine works and whether it works effectively. I certainly feel that

we should have more technical people rather than managerial people in the automotive component industry.

CHAIR—I understand that as a wish statement, but those jobs have to be there to begin with. If the positions lend themselves more to project management rather than to project engineering then it is going to be skewed that way.

Mr Gafney—Maybe we should focus on getting the engineering skills back onto the shop floor.

CHAIR—How can we do that?

Mr Gafney—We have to change the whole culture of the industry and the way that government views the industry.

CHAIR—Can you explain that stand. That is a very glib statement, to be honest. What does that mean? I do not know what ‘culture’ means. The culture in the industry is to make cars and to sell them.

Mr Gafney—If a company decides to build a motor car by importing tyres, seats and axles from China and Brazil then ultimately the car industry here will be just an assembly line. There will be no manufacture here in Australia at all. That is the bottom-line dollar thing: everybody wants to buy cheap motor cars, so they will buy the Chinese motor car rather than the Australian car. What we are saying is that if we do not have a viable automotive industry then we will see ourselves under threat if there is any international threat—if the automotive industry is being degraded by sourcing components from offshore. In World War II—

CHAIR—I can have this conversation with you, Stan, because you are retired and you can speak some objectivity and also without any fear or favour. The fact is that companies are under pressure, based on consumer demand, to produce a cost-effective, value-for-money product. If that means that they have source products from overseas, that is what they will do. How can you actually prevent that? Either as a CEO of a large auto manufacturing company or as a government, how can you prevent that if that is the right business decision to make?

Mr Gafney—What needs to happen, speaking quite frankly, is that the government needs to recognise that if we cannot make things to save ourselves—rather than relying on the Americans or whoever to come to our help—then we have a bit of a problem.

CHAIR—I still do not know what ‘the government needs to recognise’ means. I think the government does recognise that. That is why we have the ACIS scheme and why we have the various assistance packages. What more, therefore, should the government be doing?

Mr Gafney—I would have thought that somebody needs to say, ‘Do we need an automotive manufacturing industry in Australia or don’t we?’ Has anybody asked that question at government level?

CHAIR—The question has been asked and the question has been answered. The answer is yes. Otherwise we would not be spending billions of dollars on ACIS.

Mr Gafney—Right.

CHAIR—You are saying that that is not enough. I am asking you, as an observer, what else therefore should we be doing?

Mr Gafney—I am sorry, I am not fully familiar with ACIS. Perhaps you could tell me what it is.

CHAIR—It is an industry assistance scheme. At the moment it is basically being used to help with research and development and the various costs of manufacturers. It runs out in 2010, but there is a review taking place at the moment.

Mr Gafney—Okay, so there is an assistance scheme.

CHAIR—It is tied in with the reduction in tariffs.

Mr Gafney—Okay. But this then is not holding its own. While companies are going offshore to buy parts like tires and seat frames and windscreens, then the assistance package—

CHAIR—The assistance package is also available for the first tier suppliers.

Mr Gafney—But that does not appear to be working if we are going overseas to buy components.

Mr BRENDAN O’CONNOR—My impression of what you are suggesting is that rather than allowing the global market to determine whether an automotive industry continues to exist, Australia, via its governments, should be intervening in the market in a series of ways—which of course already does occur to an extent—to maintain or sustain the industry, even if that means subsidising it. Clearly we had an industry sheltered by very high tariffs throughout much of its life. There was an effort to 20 years ago to see the decline of the tariffs to create an environment in which competition would thrive and which would also make industry itself more efficient, innovative and the like. You are saying that whether it is through industry assistance or other mechanisms, the country has to look at the actual net loss of industry and the consequential effects of that loss if it were to occur upon the economy and upon Australia’s capacity to do other things than just make cars. Is that what you are saying?

Mr Gafney—Yes.

Mr VASTA—Is national security the issue as well?

Mr Gafney—Yes.

Mr BRENDAN O’CONNOR—The chair has indicated to you that there is already a level of assistance by government and other bodies in order to enable the industry to protect itself. Let us accept for a moment your contention that we need to maintain the industry and that there is merit to that argument. I guess what were hoping, if it is possible, is for you to articulate a particular set of—

Mr VASTA—Recommendations.

Mr BRENDAN O’CONNOR—views that would assist in that objective. In other words, what else is to be done? Do you legislatively compel consumers to purchase a certain proportion of domestically built cars, do you bring back tariffs, do you increase subsidies? These things, of course, are heresies in today’s economic world. Could we hear some specific examples, if you have any?

Mr Gafney—I feel that the first thing is that the government of the day needs to recognise that we must have a viable manufacturing industry, specifically with the motor industry as well.

CHAIR—I think you have got that from the South Australian government, the Victorian government and the Commonwealth government. I think those three governments in particular, where the automotive manufacturing is located, do recognise the importance of the automotive industry and the flow-on effect down the chain to other manufacturing. The question then becomes, as the deputy chair said: how much does the government then interfere in the marketplace to hold that at all cost versus providing assistance so that the industry can then sustain itself?

Mr Gafney—Yes, that is the question. How much does government intervene?

CHAIR—That is what I was hoping you would be able to tell us—or that you might make some recommendations!

Mr Gafney—You want me to tell government what to do?

CHAIR—No—

Mr Gafney—Or what I would do if I were in government?

Mr BRENDAN O’CONNOR—What you would do, yes.

CHAIR—Maybe a couple of recommendations on various aspects, whether it be on employment or skills. Can I just be mindful there, Stan, that we are not here to review the auto manufacturing industry but the auto component industry. But I understand the interconnection.

Mr Gafney—The auto component industry, of course, supports the automotive industry, so the two are inextricably linked, in my book.

CHAIR—They are linked, but the effect is varying. For example, right now, I think 72 or 74 per cent of all components in the Commodore are locally manufactured. In the VE Commodore it is going to drop down to 54 per cent. So we could still have auto manufacturing in this country but not have component manufacturing in this country.

Mr Gafney—So what would we do if we were under threat and we needed to manufacture some vehicles, for example? Would we be on the phone to Brazil to say, ‘Send us some windscreens,’ and things like that?

Mr VASTA—Stan, you remember when we used to have the big Malvern Star factory there where we used to make bicycles. We used to make the tyres, the spokes, the wheels and all the rest of it, and that had to go. You could say that in times of war we all need bicycles to go around as well. That left. That went from there to Hong Kong. Now it is into China, India. I think a lot of bicycle manufacturers—and maybe even Raleigh—left to go on there. That was one kind of big industry that left. With the automotive industry, you really see it as strategic for national security if we cannot do it, but a lot of our components there—I think we make a few tyres, but a lot of the tyres are coming from overseas as well now. I do not know whether or not that kind of national security, to make those kinds of things, is going to be part of, say, a new strategy of war, where it eventuated with World War II as well.

Mr Gafney—I think somebody ought to be looking at all these issues. At government level, we should be looking at, if you like, the threats that exist, how we would tackle them, and how we would support ourselves if we were cut off from the rest of the world.

Mr VASTA—I have no doubt that our Department of Defence would be looking at those kinds of issues.

Mr BRENDAN O’CONNOR—There is no doubt that a whole set of skills might disappear if an industry collapsed. That is a real concern, obviously.

Mr Gafney—That is right.

CHAIR—In auto component manufacturing—we have heard from others, but we have our own views as well—why do you believe we are losing some of these industries to the overseas markets?

Mr Gafney—Why are we losing them?

CHAIR—Yes.

Mr Gafney—I guess it is a cost thing—cost and quality. If you go off to—

CHAIR—You are saying cost and quality?

Mr Gafney—Probably, yes.

CHAIR—I would have thought quality would be undisputed in Australia—that we have high quality.

Mr Gafney—No, what I am saying is that, if you want to source offshore, you make sure that the cost is right and the quality is right, for a Chinese component, shall we say.

Mr BRENDAN O’CONNOR—Yes. The quality is comparable but the cost is much less.

Mr Gafney—That is right.

CHAIR—We heard yesterday from one of the component manufacturers that perhaps we are being too pessimistic about this and that we need to work out exactly what we are good at doing and to do that. He cited the example of being able to manufacture something in Australia at a cost and of a quality that is comparable to, or if not better than, the same product in China. Obviously, across the board he would not be able to do that, but in this particular component he was able to do that.

We are trying to be all things to all people when, after all, we are a market of only 20 million people. Is the answer to be good at what we are doing? Is the answer just simply to grow our export base so that we have manufacturing taking place here? Or is the answer to provide high-level incentives to prevent companies from going overseas?

Mr Gafney—You mentioned the situation with Holden, who are going to source their next model parts overseas. I personally feel that is very sad. We should try and keep our manufacturing base here for as long as possible. People say, ‘We can’t sell motor cars if we source all of our bits and pieces in Australia, because that will put the price up.’ I think there needs to be some sort of government watchdog looking at the effect of sourcing components overseas and in, its wisdom, deciding whether or not that is a good thing.

CHAIR—So you would say that the government should intervene and tell General Motors or whoever: ‘No, you cannot buy those tyres from overseas. You’ve got to buy from Australia’?

Mr Gafney—I do not know that the government is empowered to tell General Motors what to do.

CHAIR—That is exactly right we are not.

Mr Gafney—But I certainly think there should be a strong recommendation and a strong concern at government level regarding this situation of where we are sourcing lots of components overseas.

CHAIR—Stan, do you have anything further that you would like to add to the body of evidence that we are receiving based on our terms of reference? You have seen our terms of reference. What more can you add to them, apart from your general concern about the state of the industry?

Mr Gafney—I think that is basically it.

CHAIR—That would be very similar to a lot of other people.

Mr Gafney—Talking earlier, I noticed a comment about alternative fuels. I do not know whether you have had before you a representative from the University of South Australia, but they have an electric car that uses batteries recharged by a solar system. Have you had anybody here from the university?

CHAIR—No, but we are aware of these things.

Mr Gafney—They are looking at alternative fuels. I am also the chairman of a small group which organises lectures in Adelaide for engineers. We are having a meeting in September on alternative fuels for motor vehicles. We are looking at those sorts of areas as well.

CHAIR—Why, in your view, haven't large manufacturing companies taken up the large-scale production of alternative fuelled cars? I know some of them dabbled in models here and there.

Mr Gafney—In all these things there is a terrific inertia to take up alternative fuels. We should have been starting to look at it 10 years ago. It is only now, with the sudden shock of the increase in the price of fuel, that people are beginning to think about it.

CHAIR—Necessity often does that, doesn't it?

Mr Gafney—Yes. I am sure that the process of looking for alternative fuels will be accelerated. We need to do that otherwise inflation will take hold, I am sure. I happened to be living in the UK at the time of the Israeli-Arab war. The price of fuel rocketed and it had a terrific effect on inflation in the UK.

CHAIR—We have heard various comments and views about one of the reasons why the industry is in its current condition—that is, the drop-off in sales of large domestic vehicle. People are moving to small vehicles, which are essentially imported vehicles. Yet, Australians have not shied away from buying the big six-cylinder cars.

Mr Gafney—But the sales are slowing, aren't they?

CHAIR—Yes.

Mr Gafney—They are dropping off for the big cars. Mitsubishi is in a little bit of trouble with its new model, possibly because of the engine size and so on.

CHAIR—Stan, thank you very much.

Proceedings suspended from 10.59 am to 11.28 am

CINNAMOND, Ms Annette, Chairperson, Northern Advanced Manufacturing Industry Group

HOGARTH, Ms Claire, Deputy Chair, Northern Advanced Manufacturing Industry Group

WOOD, Dr Lincoln, Founding Member, Northern Advanced Manufacturing Industry Group

WOODBERRY, Mrs Constance, Project Coordinator, Northern Advanced Manufacturing Industry Group

CHAIR—I call the representatives of the Northern Advanced Manufacturing Industry Group. Although the committee does not require you to give evidence under oath, I should advise you that these hearings are formal proceedings of the parliament. Consequently, they warrant the same respect as proceedings of the House itself. I also remind you that the giving of false or misleading evidence is a serious matter that may be regarded as a contempt of parliament. Each of you is welcome to make some opening remarks.

Ms Cinnamond—I would like to make an opening statement about the objectives and the purpose of NAMIG. The Northern Advanced Manufacturing Industry Group project is funded under the Australian government's Sustainable Regions Program. As an overarching objective and philosophy, it is about facilitating an enduring culture of industry engagement with education and training providers. I think the most unique thing about this particular project is that it is industry led. I am sure that you will have some questions about that which the other industry partners will be able to answer.

But certainly this project came about and arose from the identification of a substantial skills need and high unemployment dichotomy in northern Adelaide. A group of industry people got together to see how they could address this issue. So it is industry led, conceived and managed. We work very closely with education in facilitating a program called 'Concept creation' in northern Adelaide secondary schools. The program has as its basis three important objectives: the development of career awareness, and what careers are available within advanced manufacturing; the development of employability skills—certainly that issue was identified by the industry partners in their initial discussions about what they hoped to gain from their involvement in the project—and applied learning, which is the basis of the 'Concept Creation' program that we apply in the schools.

The industry partners who are involved in the project are BAE Systems, Dana Australia, Futuris Automotive, Holden, IMP Printed Circuits, NTS Global and Tenix. We have worked together with industry associations, the education sector and local governments in Playford and Salisbury to conceptualise and introduce a unique approach to the promotion of science, maths and technology in secondary schools and in skill development within northern Adelaide schools. It is funded by the Australian government's Sustainable Regions Program.

The Concept Creation program introduces a product life cycle approach to science, maths and technology education by helping schools and students to develop the knowledge, understanding and appreciation of advanced manufacturing processes and possibilities through a problem based learning approach. It is interesting to recognise that it certainly is not about bringing education close to industry; it works the other way. It is about taking industry to education, so a student can identify what career opportunities are available for them in advanced manufacturing, but also provides them with the understanding and ability to gain some skills to be flexible in terms of their career choices going forward. We are currently funded until December 2006 this year. We are in the second year of the program. At the moment a number of northern Adelaide schools are implementing the Concept Creation program.

CHAIR—Dr Wood, do you have an opening statement?

Dr Wood—Annette has made her opening remarks on behalf of all of us. I would endorse what she said and underline the fact that it is very much an industry led activity, bringing industry close to schools and aiming to address some of the longstanding systemic problems that have existed in the north in relation to skills development and skill shortages.

Mrs Woodbury—It has been my privilege to work on this program for a number of years. I have watched the genesis of it by working with the industry partners. I now coordinate the project itself. Watching that genesis was to watch a group of people whom initially, as you can see with the industry partners' names, you would think on the surface did not have much in common. Why would Holden and BAE be sitting around talking about skills needs and how they could address some of the issues of high unemployment in northern Adelaide as well as their own organisations' needs as they move forward into the future? But what has emerged from this is an astounding—from my experience—level of industry commitment. Annette sometimes spends two or three hours a day on this and certainly Lincoln and Claire have both made that sort of effort, as well as the other industry partners. So the level of commitment to this is extremely high. That is evident in the outcomes we have had. Last year 120 students went through the program, and we only started in April. We had a universal response from those students that this was an experience that they would never forget and that it had had a great impact on their life.

That was great, and in fact we had already met all our KPIs by that stage. This year we have now seven schools and 450 students. We currently have 70 working and all of the year 10s in one particular school are going to be going through this program this year and in the future. So it is quite special. I think it is part of my role to make sure that the special quality, the uniqueness and effectiveness continues and that a lot of people get that information.

Ms Hogarth—I think that everybody has managed to say a lot of what I would say. One thing that makes NAMIG unique in comparison to other projects or things that are going on in the northern region is that there is a commitment from industry. It is not necessarily a monetary commitment. A lot of these programs happen and money is given and that is the involvement that industry has. I spend a lot of time discussing things with Connie, attending meetings, talking to schools et cetera. The commitment from industry is not necessarily a monetary commitment but a lot of time commitment is given to this program and I think that makes it unique. We can be flexible with our time as well as the school so it is a fifty-fifty arrangement between the schools and the industry bodies.

CHAIR—Yesterday we met with some of your industry partners. We had a visit to Edinburgh Park and had an opportunity to talk to some of the people there. Are you located somewhere? Is there actually a base or premises? I know there are seven schools—

Mrs Woodberry—The parameters of the region's funding are the Playford-Salisbury council areas. I am not sure whether you are familiar with the criteria for sustainable regions but Playford-Salisbury was one of the sustainable regions ideas. I think that Campbelltown in New South Wales and Playford-Salisbury council areas were the two outer urban regions that were chosen. The rest were in the country, so to speak. Our criterion for operating is that schools have to be bound by those council areas and so do the businesses within those council areas. All of these businesses reside in the Playford-Salisbury council areas.

CHAIR—As for the program delivery, is it at each school or is there a central location where you are delivering your programs?

Mrs Woodberry—The schools deliver the program with our assistance. That is one of the best parts of this.

CHAIR—One of the comments that was made to us yesterday by a number of the automotive component manufacturers was that because of the high level of unemployment in that Playford-Salisbury area—I think it was up to 14 per cent—and a very low participation rate—

Mr BRENDAN O'CONNOR—It is higher among some people—

CHAIR—Even though there is a high level of unemployment they were finding that they were not getting the numbers of applicants for jobs and whatever applicants they did have, by the time they had weeded them out through various tests—police tests, drug tests et cetera—they would get down to a handful. Is that something you have seen slowly turn around because of your involvement? I know that it is only two years and that is nothing when you are trying to change an entire region, but are the early signs positive from your perspective?

Ms Hogarth—From my experience with NAMIG I went through an open day that we had at Dana in which the students were demonstrating some of their projects that they had worked on. From my company's perspective we do struggle a lot with recruitment and getting the right people and, as you said, when they go through the selection process coming out the end is a limited number. We do not want to reduce the recruitment process and water it down to get the wrong sorts of people through our doors. This type of program, and from the evidence I have seen from the projects that they have delivered, really does home in on problem solving, which is a real issue for us. They can get the literacy and numeracy but they do not think for themselves. They do not have that problem solving initiative.

That was something that was very evident when I went to the launch at Dana. They were proud of what they had done with the projects that they had driven. You could see the amount of work that they had done through problem solving, mapping it out and speaking to various sources to put that program together. From my perspective, something that came out of that as a positive was that some of those young students are starting to think outside the square. They are starting to use their initiative. They are starting to use some problem solving. When they go into the marketplace those people will stand out from the rest of the applicants, I would say.

Mrs Woodberry—Going back to what Annette said earlier about the three things that we are on about in the Concept 2 Creation Program, the industry leadership is the unique factor, but so is the Concept 2 Creation Program itself. We have included in our submission a fairly basic manufacturing flow chart which shows problem based learning over the top of that. The core of how we are delivering this idea of concept to creation is having the students work through, as Annette said, the product life cycle. In doing that, those generic employability skills are inherently being built up. They have to take responsibility for their project, they have to document it, they have to work on occupational health and safety issues and they have to work on quality assurance. They also have to problem solve and project manage. We have tried not to tell students what careers are available or what generic employability skills are or what applied learning is. We are trying to give them an experience, which means we are, in a way, sneaking up on them with all this information. By visiting BAE, Tenix and Air International they find out what jobs those companies and their people do. They work on applied learning through their projects and they are developing their generic employability skills. Certainly, the generic employability skill issue was something that was identified early in the piece by Dr Wood and other colleagues—back in the early days in late 2003 and early 2004 when they were developing NAMIG.

Ms Cinnamond—What we are seeing from the students that are involved in the Concept 2 Creation Program is a level of engagement in the project that perhaps has not been seen before within the teaching of maths and science in these schools. The students are becoming really engaged in the project because it is a hands-on experience. That engagement has a whole range of other benefits in terms of school retention and ongoing commitment to their studies, so it is manifesting itself in a whole range of other areas as well.

CHAIR—Is the Concept 2 Creation Program part of their curriculum in the school or do they do it outside the school curriculum?

Mrs Woodberry—That is an interesting question, because in some ways it is becoming part of their curriculum. It is more of a framework and methodology of teaching. But it is definitely within schools. Every school has chosen to interpret this in a different way. We, as the coordinators, honour and respect that, but they keep the general framework. Career awareness, generic employability skills and applied learning are, I suppose, the non-negotiables for our assistance, but how schools interpret that is up to them. Some of them have actually written that in to the years 11 and 12 curricula. We also have a number of workshops. We have developed a lean manufacturing workshop, based on Holden's lean manufacturing workshops, and occupational health and safety workshops. They have been built into certificate programs.

Although we say we have been doing this for two years, we have actually had one full year and are into the second year now. But those sorts of mainstream education products and curricula are emerging from this as we go. One good thing is that the teachers are taking responsibility for that, so we are not imposing it upon them.

CHAIR—Have those schools that have a pre-apprenticeship program or vocational education—I think Salisbury High is often listed as one of the pre-eminent schools in that regard—adopted this as part of those programs?

Mrs Woodberry—We are trying to encourage the difference between design and technology VET and science and maths to blur a bit so that they are doing it as an integrated learning type of experience. So it is not so much identified specifically as a VET program, a science program, a maths program or a technology program; it is about understanding that you take all of those things and put them together. That is the kind of learning that students get the most out of.

CHAIR—In terms of the industry's commitment to it, you have 120 students who were in the program last year. So those 120 would be in their—

Mrs Woodberry—Year 11.

CHAIR—They are in year 11 now?

Mrs Woodberry—Yes.

CHAIR—Are they separate from the 450?

Mrs Woodberry—Yes.

CHAIR—So there are 450 in year 1 at the moment?

Mrs Woodberry—Yes.

CHAIR—So it is a two-year program?

Mrs Woodberry—No, again, it is how the schools interpret it. Some schools interpret it as more than one year.

CHAIR—That is fine. So let us take the 120 then. What is your expectation of employment for those 120? Have your industry partners made any form of commitment to making places available to those 120? Or is it a commitment and a partnership in name and at the level of an involvement in education rather than at an employment level?

Dr Wood—There is no formal commitment that any company will take a particular number of graduates out of that program. The reality is, though, that, with the skills shortages that are there, if we can develop the skills to meet the roles we will definitely recruit. Each organisation varies as well. In terms of BAE Systems, and I think Tenix is much the same, we would like to see these students go on and do TAFE diploma courses and university courses, because that is where we recruit the most heavily. But other companies have a stronger manufacturing base and are more likely to recruit directly out of the program. We would recruit some. To go back to the original question: there was no commitment for numbers, but there is a skills shortage, and we did not see that it was a necessary thing to do.

Ms Cinnamond—I think that one of the unique things about the program is that the industry partners are able to be involved in this program to meet their individual needs. As Lincoln was saying, BAE and Tenix certainly derive our new recruits from mainly engineering grads; whereas for Futuris automotive it may be a different level, so we are able to be involved in the program for our particular needs, not necessarily directly recruiting people from the program but

at least having an impact, certainly from BAE and Tenix, encouraging students to take up further study and to continue further study.

CHAIR—So you are a Tenix employee?

Ms Cinnamond—I am Tenix, yes.

CHAIR—BAE?

Dr Wood—BAE Systems

Ms Hogarth—Futuris.

Mrs Woodberry—And I work for my own company, which is Regional Breakthroughs. I am in partnership with the City of Salisbury too, to administer this program.

Dr Wood—I think it is also fair to say that there is a sense of community service from the companies that are involved in this as well. It is as much a long-term strategic view as it is a short-term tactical employment view. There is a long-term commitment to the region. We as responsible employers, I guess, want to support and help the region to thrive in the longer term, and we see this as one modest means of doing that. In the longer term, of course, we all get the benefit.

CHAIR—With the Australian Submarine Corporation winning the tender for the AWDs, are you going to try and get them on board as a partner as well?

Mrs Woodberry—Again, I will just add that, when the funding finishes, we are not constrained by the Sustainable Regions boundary, so to speak, so we will be in a position to move outside of that at that stage.

CHAIR—So you are not seeking further funding then?

Ms Hogarth—We will be, yes.

CHAIR—Which means you will be bound by the boundaries.

Ms Hogarth—Our funding will not be Sustainable Regions, though.

CHAIR—It will be some other funding?

Ms Hogarth—Yes.

CHAIR—Which bucket of money?

Ms Hogarth—Perhaps you can suggest something!

CHAIR—No, because if you know one I might use it for my own region! So it will not be through Sustainable Regions?

Ms Hogarth—That funding finishes in June this year, actually. We were given permission to continue our activity—not to expend any more money but to continue our activity—past June. We have special permission to do that. We are one of the few Sustainable Regions projects to do that. It was just acknowledged by DOTARS, which is our funding body, that this is important enough to allow us to continue.

Mr BRENDAN O’CONNOR—You came together in 2003; you received funding for 2003 and until now. When does the funding expire?

Ms Hogarth—It technically finishes on 30 June, but we are allowed to go beyond that.

Mr BRENDAN O’CONNOR—There were students involved. Were they involved in 2004, 2005 and 2006? You were established very late in 2003.

Dr Wood—The history is that the industry got together under the prompting of the Electronics Industry Association, one of the local industry associations, and that brought a number of organisations together. They submitted an application for Sustainable Regions funding. I guess you would argue that is what really brought the industry together in the end. The first year of the program was a scoping and planning study. Incorporated in that was a submission for further funding to implement it. We are now in the implementation phase. The implementation phase started last year.

Mr BRENDAN O’CONNOR—It went from 120 to 450 students this year. Is that right?

Dr Wood—That is correct.

Mr BRENDAN O’CONNOR—I know it varies. In the blurb I have here it says that it may vary from school to school because of the autonomy of the schools to determine their level of involvement, but what would be, for example, the number of hours spent by a year 11 student on this program?

Mrs Woodberry—Most schools choose year 10s because that is a pivotal year for decision making and you are not bound up in what they call, in South Australia, the SACE system and the constraints of that. I will give the example of Valley View Secondary School. All of their year 10 students will be involved in the C2C project this year. They had 45 involved last year. They have nominated to have Wednesdays, which they call a day of inquiry. Within that they work on the Concept 2 Creation program. It is a big step for schools. I do not know how familiar you are with school timetables, especially in high schools, but they are very precious things and they do not muck around with them that much. They have allocated that full day because they think it is so important.

Mr BRENDAN O’CONNOR—For how long throughout the year?

Mrs Woodberry—Every Wednesday. We are doing half the year 10s in the first semester and the other half in the second semester. There are other schools. Para West adult campus is one of

the schools we are working with. They have 12 students in an electronics class who were part of this last year and are continuing with their projects this year. They are at a very high level of electronic ability. Referring back to employment prospects, they are the most likely to be employment candidates. Advanced manufacturing itself means that it is not an easy entry level, straight out of school without further training kind of industry to enter into. It does require additional skilling and education, and that is one thing we encourage.

Salisbury High School and Craigmore High School both chose their year 10 science classes and there will be 50 students from each one of those schools involved. For Salisbury it will be during their normal science time for the second semester. Craigmore started midway through first term, so it will be for three-quarters of the year. They again have quarantined most of the day on a Friday—from 11 o'clock on. We encourage that quarantining of a full block of time, especially for project development, industry visits and things like that.

We have another school, St Columba, that is looking at the year 6s. We are at that pathways, as Lincoln mentioned, between education and further education, be it training courses, TAFE or university. All of the year 6s in St Columba in this one group are going to work on solar energy and energy sources, and develop a program around that. So you can see there are a lot of levels.

We also have one school where year 12 VET students are working on this, again from about the middle of first term so it is for three-quarters of the year. There are 25 students there. I could go on because there are more. There are also extension programs for year 11 and 12 students who did this in year 10. They can do specific projects with Tenix and BAE.

Mr BRENDAN O'CONNOR—Of the time allocated, what is the breakdown between classroom as opposed to practical? Is there that division?

Mrs Woodberry—It is all practical. I am not sure whether you are familiar with the problem based learning approach. It takes place within applied learning. It is not a lecture and then activity—the activity is the learning experience.

Mr BRENDAN O'CONNOR—Who are the training providers, and how are they appointed?

Mrs Woodberry—There are different training providers at this stage. We are using TAFE SA to do some oc health and safety workshops. They are also providing something we are very proud of—an electronics course for science teachers. That starts next week. The University of South Australia assists us through their robotics peer mentoring program. Training Prospects has assisted us with short courses in electronics. Also, the industry partners assist through internal training programs. We have adapted a manufacturing workshop straight from Holden's staff training. Right now, I am delivering it. Investigator Science is another partner that is delivering some of the training and education.

Mr BRENDAN O'CONNOR—Has there been any evidence of dampening of enthusiasm as a result of decisions to retrench people in the industry?

Mr VASTA—Like at Dana—the loss of contract.

Mrs Woodberry—No. That has been an interesting thing. If you do not mind I can speak about Dana. They are obviously in a period of turmoil.

Mr BRENDAN O’CONNOR—Before you continue, Ross can ask his own questions. Perhaps you could stick to the one I was asking. I am not talking just about losing contracts but about when there is a net loss, when rumours abound about the industry being potentially precarious. It does not have to be company specific. I just meant the general perception.

Mrs Woodberry—I understand what you mean. I do not want to be judgmental about a company. There are two things. No, it is not an issue, and there is certainly no dampening of enthusiasm. One thing that we do do, and you can tell by the breadth of the industry partners and the companies that they come from, is that we emphasise a healthy workforce in the future is one that is flexible and that continuously learns. It is a message that we are giving to the students constantly in everything we do. There is no sense that it is nonsense spending time doing this because there will be no work in automotive. There is no sense of that whatsoever.

I will use Dana as a very good example: even though right now they are in some difficulties—that is quite clear—their level of commitment has remained at least as high as it was when they had a perception of skills needs. It really is a good example that when industry has leadership and ownership and, as Annette has said, is taking what they have to offer to education they will stay committed even in very difficult times. That has not been the case in the past. Again, it is one of the things about this project that is quite unique and worth keeping.

Mr VASTA—You have just answered my question. Thank you for that.

CHAIR—You mentioned that you achieved your outcomes last year. What were those outcomes?

Mrs Woodberry—The KPIs?

CHAIR—Yes.

Mrs Woodberry—The plan Concept 2 Creation dynamic is based on a type of business operations plan. Within that we develop KPIs. We had that 25 students would be going to workshops and 100 students would be doing tours in a two-year period—those sorts of things. We exceeded that in the first few months.

CHAIR—The KPIs are mainly participation in the program?

Mrs Woodberry—And program delivery.

CHAIR—Have there been any subsequent studies, even if they were qualitative, on the attitude of those who have gone into a manufacturing career? Has it inspired them or have they an ongoing interest in it? We hear a lot about the difficulty in getting young kids into the traditional manufacturing apprenticeships and traineeships and that there is an aversion to it. Through your program, are you starting to see some evidence of, ‘This isn’t so bad’?

Dr Wood—It is probably too early to make any substantial judgment on that, but I think the earlier evidence is that the light is switched on for quite a few of these students and that is the most gratifying thing about it. When the students presented their projects at the end of last year, what fascinated me was the sorts of things they talked about were the same sorts of things that very experienced project managers in BAE Systems talk about: ‘Gosh, this was hard, organising these people to do this. We had to do this—we wanted to do this, but we only had this budget and we had to make it work.’ These are the same real world issues that our very senior, very experienced, highly qualified engineers and project managers have to work with, and here they are in high school saying exactly the same thing. That was quite interesting. The sorts of things they were saying were: ‘We didn’t know that this is what it’s like in industry,’ and ‘This is interesting.’ There was this level of enthusiasm and reality, the body language—you cannot hide body language. These students had extremely positive body language when they were presenting these projects. To me, it can be summarised by saying that, for many of these kids, the light is switched on. That is my personal observation.

CHAIR—It also seems a clean environment that some of these companies are working in. There is not dust, oil and metal filings.

Ms Cinnamond—Exactly. To build on what Lincoln has said, it is really about making that unique link between the students experiencing challenges and also the difficulties that they would face in the work environment so that transition from school to work is not such a huge divide that it seems to have been in the past. We are actually making those linkages and it is making for a smooth transition from school and education to work.

CHAIR—Has the uptake of work experience placements—the two weeks that some students do in some of these companies—increased?

Ms Cinnamond—It is too early to tell at this stage. It is something that we are working on.

CHAIR—That is year 10 level?

Ms Cinnamond—Yes. It took about three months for the schools to get fully involved last year. It is still early days. I point out that one of the good things about the operations plan that was put in place is that we have a continuous review process—just like you do in business—and a simultaneous review of this project is being undertaken by Flinders University. We are tracking where students go, tracking the impact on them, surveying the industry partners, the education participants, the students and that is a continuous process over the entire life of the project under the Sustainable Regions funding. That will provide us with some hard detail about attitudinal changes. We have a long-term plan for a destination-tracking survey that has commenced already, so we will be able to tell. But certainly the comments and the behaviour of the students thus far is very positive.

CHAIR—It would be great to hear the results in, say, two years time, when they have left school, as to whether they have been inspired and gone on to TAFE or university to take on some of these courses or actually gone into the workforce.

Ms Cinnamond—Yes.

Dr Wood—Also, I would add that we have talked a lot about the students—obviously, that is the major stakeholder group. However, there is another stakeholder group which is also important in sustaining the program and that is the teachers. I think the light is also switched on for teachers. It has given them a real lift of enthusiasm. They are engaged with the students, and that is very important in terms of getting career advice, as well as preparing them for careers. That is the second major stakeholder group. The third major stakeholder group is a really tough one—that is, the parents. We are working with the groups that we can influence.

CHAIR—Do they make the presentations to the parents as well?

Mrs Woodberry—The parents were invited to the first expo, but not many came to that one. What we are finding is that schools are now doing a presentation.

CHAIR—It is a tough area, though, in terms of getting parents involved.

Mrs Woodberry—I have to say that the people who were guests at the expo in November—and the expo was quite an event—and who had their own children came back to me. I had at least 15 people come back to me to say that they hoped their child would go to one of the schools that had a C2C program, because they know their child would enjoy school there. That was a pretty powerful comment; it certainly was not something we solicited.

CHAIR—Can you paint a picture for me of the type of student that is putting their hand up to participate? It is obviously voluntary for the students, isn't it?

Mrs Woodberry—In a sense it is, but, say, with Valley View Secondary School, all the year 10 students are doing it this year. What they do choose, though, is what projects they are going to work on and how they are going to work on those. So it is really a mixed bag, and if I could just share—

CHAIR—The point I am trying to get at is: are you getting the cream of the crop in each school participating, or are they students from right across the board?

Mrs Woodberry—We are creating the cream of the crop.

CHAIR—Would some of these kids traditionally have been identified as perhaps being at risk?

Mrs Woodberry—All of the above. We have the top science classes and we have classes for students who struggle. We have students with behaviour problems and we have students who are the ideal, I suppose; and they actually all work together, just like they would have to at work. It has been interesting. We were a bit apprehensive at the beginning that the schools would all choose their top students and it would not be a very good reflection of what we were trying to achieve, but that has not been the case. It has really been across the board. Sometimes they let the students volunteer and sometimes they are part of the class. The adult students are a good example. They range in age from about 22 to 60, I think. There is, I suppose, a reason if you are an adult and not in employment, and their experience with C2C has lifted their confidence to a degree that we had not really expected either.

CHAIR—Great; that is excellent. I think perhaps some of you are of my generation, and years ago there was a program in schools that was similar. I should not say similar; it demeans you, but it was similar at the base level. I think it was called youth enterprises. Kids would be put into groups to manufacture a product and they would have a sponsor organisation and they would go in there to do that.

Ms Cinnamond—Yes.

CHAIR—Do you remember that?

Ms Cinnamond—Yes, that was—

CHAIR—I used to work for Kodak and we used to have these kids coming in from the school. There was a school there called Kodak high school. The students were from a fairly low socioeconomic group. The students would come in and manufacture a product, and work with a marketing team and some of the technical teams and manufacturing teams. But it kind of died.

Dr Wood—There are a number of similar programs that are run at various levels in various parts of the country. Some are focused on certain industry sectors, if you like. Some are focused on trying to get the elite from the schools. There are a number that are focused on the universities, doing a similar sort of thing but at universities. It is about developing business skills, project skills and so on. But there is nothing totally new under the sun. There is always a certain development of a good idea and it is implemented in a slightly different way in different places. This just happens to be what we are doing here. It is certainly generating a lot of interest.

CHAIR—This is a home-grown model we are looking at.

Dr Wood—Yes, but we always learn from previous programs, which may or may not have succeeded. You could not argue that it is totally unique, but it has unique elements.

Ms Cinnamond—I would like to quickly pick up on something that Connie was saying, and Lincoln as well, in terms of teacher development. This is providing teachers with a new way of teaching maths and science. For many years teachers have taught the same model and this is actually providing teachers with an opportunity to learn a new methodology for teaching science and maths. We are providing them with some development through an electronic course that we have developed with TAFE to provide science teachers with some electronic skills that they are able to take back to their schools and teach.

CHAIR—The education partner has been quite positive about it all?

Ms Cinnamond—Very positive.

CHAIR—It sounds good. I would love hear about the results in a year's time.

Ms Cinnamond—Good.

CHAIR—That is excellent. Thank you very much for coming. I congratulate you on what you have created.

Resolved (on motion by **Mr Brendan O'Connor**):

That this committee authorises publication of the transcript of the evidence given before it at public hearing this day.

Committee adjourned at 12.11 pm