

# CORRECTED VERSION

## RURAL AND REGIONAL COMMITTEE

### **Inquiry into the opportunities for people to use telecommuting and e-business to work remotely in rural and regional Victoria**

Barwon Heads — 6 November 2013

#### Members

Mr D. Drum  
Mr G. Howard  
Mr A. Katos

Mr I. Trezise  
Mr P. Weller

Chair: Mr P. Weller  
Deputy Chair: Mr G. Howard

#### Staff

Executive Officer: Ms L. Topic  
Research Officer: Mr P. O'Brien

#### Witness

Cr R. Macdonald, Cheetham ward, City of Greater Geelong.

**The CHAIR** — Welcome, Rod, to the Parliament of Victoria Rural and Regional Committee's inquiry into the opportunities for people to use telecommuting and e-business to work remotely in rural and regional Victoria. I hereby advise that all evidence taken at this hearing is protected by parliamentary privilege as provided under relevant Australian law. I also advise that any comments made outside the hearing may not be afforded such privilege. For the benefit of Hansard, could you please give your name and business address.

**Cr MACDONALD** — My name is Rod Macdonald. I am a city councillor at Greater Geelong with the portfolio for the knowledge economy, which is the relevant topic here today. The address of the council is P.O. Box 104, or 30 Gheringhap Street, in Geelong.

**The CHAIR** — Would you like questions as we go or at the end of your presentation?

**Cr MACDONALD** — I am happy to take them. I guess at the end it would be great to have a discussion. I just caught the end of that one and I think that is really worthwhile because we will be able to flesh things out. But if there is something I say during the course that you are not 100 per cent sure of and would like clarification on, I am happy to answer that because it is important that you understand what I am going to present.

**The CHAIR** — All right. You lead off then.

**Cr MACDONALD** — Thank you very much. I have not got any handouts as such today; it was rather late notice of the meeting, and unfortunately I did not find out until late. But I have got a document of the presentation today, so I am happy to provide that at the end so you have a record of what I went through.

I have had a read of the terms of reference. I have looked at them and I guess I would like to just concentrate on the impact of e-business generally, and telework is obviously an important component of that. I would just like to identify a couple of suggestions as to a way forward in developing a model, particularly for rural and regional communities, but any community could also use it.

In beginning I would just like to comment on the environment in which we live and how it is impacting on our lives. It is really a case of understanding the past as well as the future to get the context of what I am going to say. Obviously at this point productivity is high on the Australian agenda across all industries, and people have been grappling with it. Throughout mankind's history it is the technological changes that have provided that shift in productivity, and that goes right through history from the industrial revolution, with the mass production of goods; the invention of the steam engine, which led to a massive increase in power that changed the very nature of how we do business; and then the advent of electricity with electric light and electric motors — so technology dramatically shifted the way we do business.

Importantly the value of electricity — and I will explain the context later — was no longer what it was worth as a product, based on its own sale price. It was all the additional wealth that was created because of it that changed the world. There are obviously other technologies, such as commercial transport, air travel and motor vehicles, which dramatically shifted and shrank the globe. My contention here is that the ICT world — the internet and fibre-optic broadband technology — is the latest revolution that will completely change the world and shrink it even more than previous technologies have, such as air travel. From a community and a business sense, technology will totally drive massive change.

The single premise I would like to put today is that anything that can be digitised, will be. For anything that we are doing now, if it can be applied to digital technology, that will become true. To be ready for this, our communities and businesses need to be educated around those possibilities. In the beginning they need to be at least aware of the technology and able to use it. When we consider where we are in this revolution at the moment, we know we are effectively about 40 years in. If we look at the expansion of computers since the mid-1970s, which is only 40 years ago, we can see that the only computers that were around then were the pedestal machines with a magnetic coil and about 8 kilobytes of memory; they had to be loaded with a machine punch. That was when I was at school and I can remember that first computer. Some people — seasoned observers I will call them; technology people — believe that we have 40 more years of radical change ahead of us, but I still think it is really the beginning of the infotronics era so there is still a lot of time to come.

The implications of this are that as technology has advanced so have the uses and the spread. I believe it is critical in Australia that we have the capacity to deliver the infrastructure that will be needed. In other words, we

are really gearing up for change, and, for me, the NBN is a critical success factor and will drive whether we are competitive in the world. If we look at the previous comments that were made in relation to technological change and productivity, we can see that we have to adopt these technologies because the rest of the world surely will.

I guess the context is that, and I know over the years we have struggled we were leading the world in the 50s and 60s in technology, computer science, military hardware et cetera but we went with wheat, wool and iron ore, so we are where we are. I think it is really early days and it is important that our communities understand that in terms of infrastructure what we need to be able to do is deliver the right technologies. Again, if we go back to even the mid-80s, which is not that long ago now, the office computers that appeared had 128-kilobytes RAM and a floppy drive of about the same capacity. But in 1989, within five years, I bought a new PC and it had a 80-megabyte hard disk drive on it. That was the humdinger of the day.

If we take it from 1989 through to now, it was only in the mid-90s that we got an internet connection of about 9.6 kilobits, if you were lucky. Twenty years on, we are looking at probably 10 megabit download speeds and 1 megabit uploads, again that is if you are lucky and are in the right area. What I am trying to illustrate is that within the few years that we have seen it, there has been an exponential curve in data usage, and with that data volume has come the need for speed and the broad spread availability of speed. At the moment, our telcos are looking at about 15 per cent a month increase in demand for data — that is, each month, not each year. If we look at the use of cloud storage at the moment, we see that in the broader community it is still very early days. For example, a friend of mine has got one of these. He recently bought it and had some photos and a few other things on it. He went to back it up, put it on his home internet connection and it took two days to back it up to the cloud. He just wanted to see how long it would take; I gave up on mine because it was taking too long.

We have a situation where the capacity out in our suburbs and in our streets is really critical. If we consider that we are just starting to use these things, wi-fi has only been in broad use for a little while and the amount of data involved, we are at a meltdown point with our current capacity. If we consider that, how is it going to impact on rural and regional Australia? My contention is that just as the railroad opened up remote cities and towns, so will technology do the same with rural and regional areas that previously were remote and potentially isolated in a lot of ways. All of a sudden now, with broadband technology, they are becoming connected. What I contend is that the impact on these rural and regional areas is going to be absolutely profound because of this technology. Provided we can keep up with the demand and develop the technology, we will see dramatic growth. Apart from business growth in these areas, we will also have strong impacts on our general community — a much broader community than just the business world.

I only caught the tail end of the last discussion, but I believe the other thing is that commuting will be revisited and there is a great capacity to ease the congestion in our major capitals by pulling back on the amount of travel that is undertaken. As the work continues to change — as more goes online and more belongs in data — we will be less dependent upon commuting. People can live remotely and live their sea change, tree change or whatever, yet still be connected to the world and do business. I have seen this already in Geelong where some people who used to go to Melbourne five days a week have cut down to two or three. They are now pulling back on their travel.

**Mr HOWARD** — What sort of employers do they have or work do they do?

**Cr MACDONALD** — There is a whole range from programmers and accountants to people presenting reports and consulting. The other ones are people doing advertising, graphic arts and that type of thing. I will give you one example. We have Channel 31 in Geelong. They do two weekly shows — this is the Geelong news. They package it and send it to Melbourne. They get up at 5 o'clock in the morning; from Newtown they drive to Lara and drop off the package with a couple of discs in it at Josie's Transport, and Josie's couriers take it up to Melbourne. Once they get access to high-speed broadband, they will be able to email that file at the last minute. It will give them almost another day's production value, and they can email it in a format ready to go. If they come up with a late story or a change, they can even send that through. It is changing the way we do business — not just the speed, but what we can actually achieve. They are just some examples of how it can happen.

We talked about a hub. I was going to mention this at the end, but I will mention now that in Geelong, on Ryrie Street, Todd Hubers — I think he is speaking here later; I just saw his name — has a centre. I will not steal his

thunder, but that is going to change things, too, as an opportunity for people to become engaged in using technology and not having to travel. In terms of that, I think it is going to change the way people decide where to live, because no longer do you have to live in Melbourne or Sydney to have a connection. As businesses grow into the technology, more and more will come online as this digitisation program takes hold, and more and more jobs will come on. The other really interesting thing is that there are actually going to be more and more jobs. If we look back, the types of jobs that exist now never existed 20 years ago — graphic designers, animators and a lot of those computer-type jobs that are there now. There were no web designers 25 years ago. So what we are seeing is a change in business, and at the moment we can only guess what there will be in 10 years time.

This is another thing about needing that technology, because people's inventions and innovations will drive uses. I suppose what I am saying is that you need the capacity and the speed to support that growth in technology. Other cities and countries have got it. I talked about 1-gigabyte speeds, and I have done some work with Chattanooga in Tennessee and other cities which are into 1 gigabyte per second territory, and the amount of new businesses that is driving is unbelievable. It is really critical that we are with them, because as their productivity goes forward, if we do not have it, ours goes backwards and we lose that whole market of technology. We need to be in there.

What I would like to do now is to propose how we set up our communities to take advantage of this technology. I would like to put a model forward that is a measure. It is the Intelligent Community Forum, which is based in New York. Its work is around the use of broadband technologies; that is their reason for existing. That is based out of the New York University Polytechnic Institute with three professors. They have five criteria to judge whether a community is a Smart21, or an intelligent community.

The first one is actually broadband. They judge the penetration rate of broadband into households and policies and programs to increase the penetration into households and the use.

The second point they look at is the knowledge workforce. They look at the education levels of citizens and things that help that, like student-PC ratios in schools and the availability of education.

The third point is around innovation, so policies that encourage business start-ups, business incubation, interactivity on municipal websites and government websites, and the availability of seed capital grants and loans within a region or a city. So for a government that means a focus on outcomes, employment and products, not necessarily the traditional extra machine and a factory. We are seeing, I guess, is more outcome rather than fitting an initial guideline, and it is always challenge to write that.

The fourth point is around digital inclusion. This is about internet availability, public access to computers and digital literacy training for adults. Obviously the kids seem to be able to do most things. They are brought up with it; they are digital natives. It is really critical throughout this whole process that inclusion becomes part of our communities' training, and I will address that in a moment.

One thing we have seen, as I mentioned earlier, is that digitisation will take place across anything that can be digitised. What we are seeing now, and you will all recognise it, is a shift in the delivery of services at a state, federal and local level. More and more is online; your banking is online, as is a lot of your contact with service providers, from telcos to everything else. Everybody wants to go online to make it smoother. What it means, though, is that if people are cut off, if they do not have broadband at home or they are not up with technology, all of a sudden they become cut off from society. They are on the outside looking in. That is a really critical shift in how community life works. Digital inclusion is absolutely essential.

The other thing, the fifth and final point, is marketing and advocacy. What we are talking about here is an economic development strategy, based on information and communications technology, and the task force has voted to carry out the strategies. In other words the first four points are being continually marketed and advocated for, so that really wraps up that approach. I think those five factors are where we need to position Victoria to take advantage of the technology.

I want to talk now about some of the things that are going on at the moment. You may be aware that the City of Whittlesea in the north of Melbourne is among the municipalities that have adopted a strategy like this. They have been named one of the Smart21 cities in the world for 2014. They have been playing in this paddock for a while and they were when I first saw this in Victoria and got involved.

**Mr KATOS** — They presented to us last week, Rod.

**Cr MACDONALD** — Did they? Fantastic, so you will have heard their story. Sunshine Coast Council in Queensland, Prospect City Council in South Australia and Coffs Harbour City Council in New South Wales are the other three Australian cities that are recognised in that Smart21 group. As an aside, by the end of the year or early next year that 21 will be whittled down to the top 7, which will be part of the forum in New York next June. In Geelong, from a city council point of view, we are moving slowly to adopt this approach. We are obviously undergoing a lot of change with Ford, Alcoa and Shell et cetera, and whilst that presents challenges, some enormous opportunities are going to be on our doorstep.

As a city we have advocated for the rollout of the NBN in our region and we have begun a public campaign — an education and awareness program — around the adoption by businesses of digital strategies. It is early days, but we have begun that work. Speakers have been brought to Geelong and we have used them, with various examples of technology, to explain why we need to be in this world and to help businesses, particularly the small and medium size ones that are not common players in this game, to get involved and to understand what it means for them.

I just heard Lyn talk about the audit — I guess the digital audit — for the G21 region. We are about to launch a digital strategy for the City of Greater Geelong, which will build on the work that has been done through that audit, and we will take that and develop an action plan for Geelong. Some of the public education awareness programs that we have run will be part of the digital strategy. We are also working with Deakin University at the moment to establish an innovation and digital hub in Geelong. We are pretty close to that at the moment. We had a few stops and starts through the year and we have moved venues, but we are now working with the university to put that in place. From being an initial digital hub, we are looking to make that digital IT, which will also showcase innovation, inventions and ideas that have come from our region and to enable broader understanding of technology.

The other thing we have done as a city is to support the ICT Geelong cluster, and the state government has also been a great supporter of that cluster group. As a city we also support the Invention Test, which is a competition designed to provide an opportunity for people with new ideas to pitch their proposal in front of investors. There is a prize attached to it, which includes training at the University of California – Berkeley. At the moment we have around 20 ideas that have been produced through the Invention Test undergoing product development testing with investors, so live programs have come from that that are still going. Probably they will not all make it but they are there and we need to encourage that idea.

The City of Greater Geelong is also a member of the national group, which is a local government group based around local government that has RDA involvement. That is the Broadband Today Alliance, which was first established on the northern New South Wales/southern Queensland border. That is really around promoting the use and development of technologies within your own communities. As an example, there is an online program called Get Up To Speed that businesses use to help judge their readiness and which also points them in the right direction with technology. There is another one which we soon hope to broaden out called Lunchbox Webinars, where we have a guest speaker. It is just put out on a webinar, which we pick up in Geelong. We have already done that with various groups. They can sit and just have a webinar. It might be a product, it might be a new idea or it might just be a wrap-up of where IT is heading to keep educating people. That would be something that would run from the digital hub.

**The CHAIR** — We might go into some questions now, Rod, if you are getting close to the end?

**Cr MACDONALD** — Yes, I have just about got there. Just to wrap up if I could, I talked about social inclusion before. The Geelong Regional Library Corporation, of which I am a board member — I believe they are also talking today — have IT training for citizens in the community. ICT Geelong is also working with incubator space. I mentioned Todd before; he is doing some collaborative workspaces. In terms of teleworking, I think that is the logical outcome from the approaches I mentioned before. If we continue to work on those as a model, I think the results will flow. I believe awareness and public education are really critical to this. In conclusion, a strong, well-planned but flexible commitment is necessary to achieve those outcomes. That will change the way we do business.

**The CHAIR** — Thanks very much, Rod. I will ask the first question. You were talking about public access to computers.

**Cr MACDONALD** — Yes.

**The CHAIR** — What is your view about how to increase public access?

**Cr MACDONALD** — We cover four municipalities with our library, which is part of the regional library program. In the past 6 to 7 years we have fundamentally changed; we have tipped the library on its head and invested a lot more money from a local government point of view into that service. The big push has been in the IT area. We have upgraded our IT systems and capacities within our libraries, as well as provided more PCs. We also now have free wi-fi, so that anybody can go along to a library and use the library's wi-fi network. The machines might be full but people can log on to the internet using that network. We also have courses covering the use of iPads and smart phones to help people learn to use them. We also have iPads in the library that people can borrow. That is really driving it.

I will just give you an example of one of the barriers. Because of the current copper network, we are really restricted in the speeds we can offer. In the last year there has been exponential demand as people have learnt about technology. We have found that we had to put extra phone lines into the libraries within the Geelong Regional Library Corporation to cope with the demand — this was just internal — which cost us \$20 000 per year. That is because the copper system cannot handle the demand. As I said, it is still early days in daily use.

**Mr HOWARD** — With regard to rollout of better quality access, that is mainly a federal issue. Obviously we can lobby the feds, as can so many others, to move along. I wonder what you think a state government could do to support any strategy to enhance the opportunities of business, telecommuting and so on in the IT space?

**Cr MACDONALD** — My view is that the things that actually happen in a community are driven by the people who are there. I firmly believe that from a state government point of view if you are just trying to tell somebody to do something, how much sticks is up for grabs. What I think they can do is those five points I mentioned around broadband and the knowledge workforce. Obviously that is very much a state looking at schools with PCs; again, rural and regional areas having good access to internet; higher education; and looking at school retention rates. I think it is things like that — supporting public libraries — because that is the basis of your education. That is where people learn. As I said, kids coming through need every opportunity. I think it is local efforts to drive innovation within communities, and everyone will have a different take on it. When I started looking at this two or three years ago I started to see the different models for hubs around the country, what was overseas and what they were doing. I picked the eyes out of the bits we thought we could use in Geelong and start to build on. I think everyone will have their own model, but I think that if the state government can support those activities that are in line with those five pillars, that is where I think we can really start to kick some goals.

For example, in Lyn's line the RDAs have been very supportive of the search for knowledge and the understanding to get out there to learn about what is happening in the world and how we can fit in. If a state government can support the initiatives of local communities like the City of Greater Geelong or the City of Greater Shepparton or wherever is out there, I think the local DBIs et cetera can look at those activities and be supportive of them and help resource them with the goal of getting that broader community education, because the take-up rate is really critical and because the rest of the world is going ahead. The cities with the high-speed fibre and the people who actually use it will be getting ahead of the game, and we need to make sure that people here understand that. I think the understanding is — we are down the list at the minute, and we need to lift ourselves.

**Mr KATOS** — Rod, does the City of Greater Geelong have a teleworking policy? Do you encourage your employees to telework where it is feasible and possible?

**Cr MACDONALD** — At the moment there is no formal policy, and that is the challenge. I noted from the terms of reference — they talk about any barriers, like OHS and things like that. The city will be examining that. At the moment there is no formal policy I am aware of. It may have been developed, which I am not aware of, in the early days, but it certainly has not been put out there. But there is an opportunity to do that, and I see that there are probably a few areas.

One of the areas that is being explored currently at Prospect in South Australia, for example, is that customer service officers — everyone wants an office in their part of the town. What they are working on is a program where customer service officers are actually on the other end of a computer screen. You actually do a face-to-face mini webinar, if you like, or a teleconference. At the same time with a query the operator, or the customer service officer, has access to a range of videos and self-help information, and people can ask for something. They can put a video up. When it is finished, they can come back to them and discuss, 'Is your question answered?'. So there is that interactivity and provision of services online. That would be an ideal one for telecommuting. Data entry, report writing — I think we need to encourage that because that will save us time, money and congestion particularly. So I think we need to do that.

As I mentioned, the City of Greater Geelong is about to put out — we have already gone to tender, and we are about to announce a successful tenderer to work through a digital strategy for the City of Greater Geelong. I would like to see that as part of the policy. I know there is a federal government policy on the digital economy, and I think we need to take that as a basic start but then look to our city to say how we are going to implement that very thing in Geelong, alongside other advances.

**The CHAIR** — Rod, do you have any final remarks you would like to make?

**Cr MACDONALD** — Just in conclusion, I took some time at the start to talk about where we have come from and where we are now and to say that it has changed dramatically but that has been over a short period of time. The key thing that I wanted to get across today is we have to understand that what we are trying to deal with now will need a lot more technology — very rapidly — to cope with how the world is changing. It is really critical that we get those building blocks in place, that model, so that we can actually bring the community along, otherwise we will get left behind. I mentioned cities having a 1-gigabyte internet speed. When they introduced 1-gigabyte speeds in Chattanooga, the doctors and medical staff took up that 1-gigabyte speed. Within about a month they had 90 doctors hooked up to that high speed so they could use it from home, and that is another saving in the medical world — that you can be anywhere and interpret an MRI or a live video scan of an MRI. That is something that is really critical.

I apologise my voice is — —

**The CHAIR** — No worries. Thank you very much for the very thorough presentation that you have given us here today, Rod. It has been very helpful to the inquiry. In about 14 days time you will get a copy of the Hansard transcript from Lilian. You will be able to make corrections to obvious errors but other than that it will be as it is. Once again thank you, and all the best to the city of Geelong with its endeavours.

**Cr MACDONALD** — Thank you.

**Witness withdrew.**