

## **Collaboration Creates the Difference**

Mr Peter Burke, Communications Manager, Foundation for Research, Science and Technology, [peter.burke@frst.govt.nz](mailto:peter.burke@frst.govt.nz)

### **Abstract**

Conceptual developments in public communication of science and technology

Science and innovation have played a huge role in the growth and development of New Zealand as a trading nation. Improvements in transportation, refrigeration, pasture management; animal and plant genetics, manufacturing and technology generally have all contributed to the nations growth. Currently, the government is placing even more emphasis on the role innovation and science as a means of creating further growth and improving the wealth and well being of the nation.

But despite the contribution that science has, and continues to make to the growth of the New Zealand economy, some members of the public are afraid, sceptical and concerned about some of the directions that science is taking and the possible consequences to them and future generations.

De-mystifying science and focusing on the benefits of education and innovation are critical to gaining public support for science. To this end the New Zealand government agencies involved in science have set up a number of formal networks so that they can collaboratively promote the benefits of science to the general public. This concept of 'smart government' is being widely applied, and in a relatively short space of time some major success have been achieved.

The most significant one is the development of a national television campaign called 'Innovation in a Minute'. This will see the production of a series of one-minute commercials highlighting different aspects of innovation broadcast, Monday to Friday in the main television news bulletin of the day between 6pm and 7pm. Several other projects have also taken place and others are being considered.

In a small country where resources are limited, the range of people to be communicated to is wide, collaboration and the pooling of resources is both desirable and necessary and has produced some highly successful outcomes.

### **Paper**

Paper by Peter Burke, Communications Manager, Foundation for Research, Science and Technology, Wellington New Zealand presented to the 7th PCST Conference, Cape Town, Friday December 6, 2002

Collaboration Creates the Difference

Kia ora - greetings from Aotearoa New Zealand

Ko Peter Burke - au no Otaki | Aotearoa kei te mahi au e te Tuapapa Rangahau Putaiao.

My name is Peter Burke, I live on a farm near the township of Otaki New Zealand. Otaki is approximately 75 kilometres from the Capital city of New Zealand, Wellington and is a rural area with a population of 7,000 people. I'm employed as the Communications Manager for the Foundation for Research, Science and Technology.

My thanks to the conference organisers for inviting me to address you today. During the next 20 minutes I will: 7 briefly outline my background and tell you about the organisation that I work for. 7 Outline the issues facing the science fraternity in New Zealand 7 Look at the concept of collaboration and its importance in the NZ context 7 Present some case studies relating to the success of collaboration

My background is journalism and for 20 years I worked in Radio and Television in New Zealand, specialising in agriculture and international trade. For the last 15 years have been in public relations working for local and central government agencies. I have a lifestyle farm with sheep, cattle and chooks, and I enjoy sport especially golf, .for the rugby fans, I'm a Hurricanes supporter.

The Foundation for Research, Science and Technology is a government agency that employs about 60 people and its role is to invest \$400 million of government/taxpayer money in a wide range of research projects undertaken by universities, government and private research organisations. We invest a further \$50million in R&D projects with businesses and fund some elite scholarship programmes. Our mission is to Invest in innovation for New Zealand's future. Incidentally the Foundation's Maori name Tuapapa Rangahau Putaiao has a strong scientific meaning

Tuapapa a terrace, flat rock, platform i.e. Foundation

Rangahau seek, search out, pursue i.e. research

Putaiiao Taiao - world

Pu - origin, source, cause, precise, exact  
together they are taken to mean 'science'

What is collaboration? I could, in very simple mathematical terms it could be described as  $- 1 + 1 = 2 = .$

The challenge for me today is take one of the oldest and best used concepts and life-skill tools and in some way repackage or re-invent it, or at the very least demonstrate to you that there are new ways of collaborating that will create a difference. In a perverse way, I am of the view that frequently we have to remind ourselves of the obvious. Collaboration or if you like leveraging, is about thinking, mostly laterally, and one of New Zealand's greatest scientists, Lord Rutherford, once said "we have no money gentlemen so we have got to think". How right he was. Rutherford was one of many well known New Zealanders whose intellect and collaborative achievements have won international acclaim. We are a small country, geographically isolated and yet internationally our people have played significant roles in major scientific discoveries. Rutherford, for the splitting the atom, Nobel prize winner Professor Alan MacDiarmid for his successful research into developing polymers that conduct electricity. In 2003 we are celebrating the achievements of Maurice Wilkins for being part of the team of three that discovered DNA. There are many more. Collaboration was the key in all these major success stories. ..it created the difference. New Zealand by virtue of its size and location can do little else but collaborate - but we have a lot to learn and long way to go.

Just on the issue of isolation, draw two circles of a radius of 2200kms. One is centred on Wellington NZ, which captures 3.8 million people in one country. Base the other around Helsinki in Finland and you capture 300 million people in 39 countries. That's what I mean by isolation.

For a moment can I acquaint you with some of the key issues concerning science in New Zealand right now On the one hand the government sees RS&T as a key economic driver and is heavily promoting the development of biotechnology, Information communications and Technology and the Creative Industries as a means to enhancing the nations economic position. It says it wants the New Zealand economy to be globally connected among other values. This clearly points to

collaboration. But the private sector is still a 'bit player' in terms of investment in RS&T - most of the dollars for R&D come from the taxpayer or government. A report by the international consulting company, McKinsey, says that if New Zealand is improve its economic performance it must turn to 'smarter technology'. On the issue of collaboration, McKinsey's also noted that while New Zealand was above average in terms of authoring international scientific papers, it was failing to capitalise on such linkages. We are also slow to commercialise ideas according to an NZ government commissioned report

Science has been a key tool in the New Zealand economy from day one, without refrigeration, aviation, plant and animal genetics and now the power of computing we would struggle as an exporting nation. However some of the new processes, in particular, genetic engineering are causing doubt to be cast on science and scientists. This has been matched by a dramatic increase in media interest in research, science and innovation. There are no specialist science pages in our newspapers, but science is very well covered in the business, agribusiness and general news pages and of course in the myriad of specialist magazines.

The issue of genetic engineering is now a major political issue in New Zealand. A number of lobby groups are involved including Life Sciences Network representing the pro GE group while at the other end of the spectrum there are a range of anti GE NGOs and the Green Political Party. Somewhere in the middle you have the Royal Society of New Zealand representing the whole of science together with the public confused and perplexed by the arguments. There are also some genuine cultural issues for Maori surrounding some aspects of GE. The key player is the government who sets the ground rules for approving GE development via a government agency called the Environmental Risk Management Authority or ERMA.

Without getting too dramatic, the GE issue has not been without incidents in NZ. A trial crop of GE potatoes was destroyed, and one scientist working in the GE field has had his house damaged by protesters. Some scientists have expressed concern for their personal safety. It was interesting this year that for the first time, the major issue of our parliamentary elections was GE. Science in New Zealand is in the front line as never before. It's these issues and set of circumstances that have created new challenges for us in the science fraternity to have our voices and messages heard. I am not so concerned about changing peoples attitudes to a particular point of view, but rather ensuring that certain key facts about GE and other science issues are acknowledged. Sadly this has not been the case with emotion leaving facts way in the background.

Now lets look at the kiwi science communication scene. There are eight universities, nine government research institutions, three funding organisations, two agencies that assist businesses and government policy agency. There are other privately funded research associations and organisations and other government departments with strong links to science. Most of these organisations have their own public relations departments \_ but they are small in size, have high workloads and limited budgets. They are also spread around the country and without any formal science network in place there are limited opportunities to coordinate activities. That's been my biggest challenge as a public relations professional in the public sector.

One of the first things that I did when I took up my role with the Foundation was to contact some of these people and within weeks an informal network involving Trade New Zealand (who assist exporters) Industry New Zealand (who fund business start-up) The Royal Society and the Health Research Council (funders) and the Ministry of Research, Science and Technology (the policy agency) and ourselves formed a network of PR people. In the past year the Government Research organisations have become involved as well. It's very low key, just a monthly lunch and a chat to tell each other what we are doing, oh and by the way, it's based in Wellington.

We all face the same problem, time, money, resources. The pressure is on all of us to raise the profile of science and innovation by having success stories published or broadcast. As an aside to this, I have found that while politicians are dead keen to get publicity, many scientists are often

reluctant or ambivalent about providing such success stories to us PR types. As science communicators we have the skills to change this and we have an obligation to apply ourselves to this task.

The simple network that we have formed with the communications people is based entirely around collaboration and without wishing to dwell too much on the subject it is perhaps worth reminding ourselves about the concepts of collaboration, and the drivers. I am not going to dwell on these, rather more note them mainly to put the case studies in context. The drivers as I see it are:

Size - an organisation lacks the resources to undertake a project  
Skills - limited for the nature of a project  
Circumstances - timing, imperatives  
Altruistic - a genuine desire to help others

Successful collaboration is not just luck. As the famous South African golfer, Gary Player once said "the more I practice, the luckier I get". Collaboration is a partnership and like any relationship requires time, effort and commitment. The key personal skills required by successful collaborators, aside of their natural talent and intellectual grunt are:

- 7 Strategic fit with all the partners
- 7 Attitude \_ good people skills
- 7 Commitment \_ success driven
- 7 Openness
- 7 Not protective of their own patch or ideas

Collaboration has few downsides that I can see, but if you feel strongly about control and your identity or a desire for personal recognition, then collaboration may not be for you. The upsides are obvious and just like being in a winning team, more people share in the glory of success, and generally it's fun.

I have already mentioned some of the internationally famous New Zealanders whose collaborations have earned them a place in history. As one of the themes of this conference is about communicating to diverse cultures I would like to take a moment to tell you about a very special new collaborative scientific venture in New Zealand. It's an ethno biomedical project that involves calling on the expertise of a traditional Maori healer who uses extracts from native plants to make remedies for therapeutic purposes. That person's knowledge is being matched with that of mainstream European science to look for new bioactive compounds, an interesting example of cross cultural collaboration.

Getting back to our network and the solutions that we have come up with to change the public perception of science, innovation and entrepreneurship. We had limited funds but a lot of good ideas and knowledge, and some good contacts in the media. We looked at the media options, radio, television, daily newspapers and specialist magazines. Our collective experience was that television was the most influential media, especially in peak time zones such as news programmes. We felt that radio was largely ineffectual and expensive. Selected daily news media was ok, as were certain specialist publications. But for us TV was tops.

We got together and talked through the options, a documentary series was mooted, but we quickly realised that the date when it might be broadcast would be out of our control, in other words it could be screened late at night and outside prime time and as it was just a one-off playing, we questioned the value of this option. We met again and went over the options and still were not totally happy with what was on offer. We had approaches from documentary film makers who also had ideas, but again nothing appealed.

And now to the connection between food and science

One day while I was walking around Wellington, I chanced to meet an old television friend who had set up his own production company and was making a series called 'Food in a Minute'. This

highly successful cooking series consisted of a 60 second long infomercial played nightly just before the news on TV-1, the main national station. Prime time and a great idea that had given him a business for life. He actually syndicates this series and others like it throughout Australasia. In the course of our chat about life etc, I mentioned our discussions about looking for a way to present science on television and almost jokingly said "wouldn't it be great to have a programme on science just as you have one on food. "Not a silly idea" he enthused, and suddenly I knew we had a winning idea, all we needed was lots of money (which we didn't have) and the clout to get TVNZ to run the series and perhaps to provide some funding.

That chance meeting led to further meetings, my TV filmmaker friend involved a colleague who'd marketed the food series and he took on the role of brokering deals with TVNZ and other sponsors. A group called the Knowledge Wave Trust based at Auckland University which promotes innovation took the project under their wing to give it administrative support. Our group all committed funds to the project, but this was not enough. Our marketing expert, then went in search of sponsorship from the private sector, and the final deals are now being signed.

It's turned into a multi million dollar venture, actually about \$NZ4.5million at this stage and it has the potential to grow further. This includes some significant bonus from TVNZ as part of their contribution. The original plan has been though some changes and was initially called "Innovation Waves" but is now called "Spirit of Enterprise". The plan is to produce 30, one minute 'programmes' or 'paid commercials' on various science and innovation success stories. Each story will run for six nights and a new one every week for 30 weeks. The programmes will reach 700,000 people daily or 20% of the population. The format will be the same as the cooking programme and at the conclusion of my address I will play you some of the initial pilot programmes.

Three themes for the series have been identified:

'creativity and knowledge', covering great ideas, clever people, young achievers, entrepreneurs and winning women. 'Science and Technology' including information and communication technology and biotechnology ' Innovation and enterprise' encompassing innovative solutions that create added value to more traditional based industries especially around exporting.

A very effective sponsorship package has been devised. Naming rights to a theme cost around \$NZ400, 000 while sponsoring an individual programme for six days costs \$NZ40, 000. This allows both large and small sponsors to participate and increase the dollars that can be applied to the project.

The challenges are far from over, selecting the stories to broadcast is a bit of a mine field with dozens of ideas being submitted to an editorial board comprising the Knowledge Wave Trust, the marketing company, the major sponsors and member of our staff who is there to ensure that the people and companies proposed are well established and are not likely to be in any sort of trouble. This is a major issue and we recognise that one wrong decision could cripple the project. Credibility is a key issue.

The other key factor is to make sure that the public can easily understand the stories, jargon and science speak will not be included in the commentary. Highly visual, very simple, are the key ingredients and we believe that we have got it right.

But it's not just the television series that will come from this idea. The programmes will be posted on the most visited internet site in NZ, nzzoom.com, the stories will also feature in magazines and newspapers and there will be major media coverage of these stories. It is envisaged that the programme will stimulate other media activities and generally raise the positive profile and awareness of RS&T.

In terms of collaboration what does this mean. It means that from a gem of an idea floated over a cup of coffee and a chat in the street, there has emerged a multi million-dollar publicity campaign

for science. More than 100 organisations are collaborating in this project. Some as funders, some as ideas people, others in marketing and PR roles, but all working for the same positive goal. No one individual could have conceived or put this package together. It came down to some key principles of collaboration

This is the major project that I have been involved in, another and quite significant one has involved holding a single event to present two quite separate sets of awards. My organisation presents a series of awards for excellence in developing and applying new technologies. In 2001 we had a very modest outcome for the dollars invested, in fact we were almost invisible. I became aware that TradeNZ, the government agency charged with promoting New Zealand exports presented a series of awards for excellence in exporting. Arguably, good application of technology leads to export and my counterpart from TradeNZ and I decided that there was considerable merit in presenting both awards at the same function. The result of this collaboration meant that we were able to stage a bigger event because the combined dollars went further. We also got more influential people along because we combined both the technology and export sectors (we had the Prime Minister and two senior cabinet ministers there) and the resulting publicity was much greater given the whole nature and size of the event. It also showed that government agencies were working together and by doing so making savings, a point not lost on the business people attending the function. It was all win win.

One collaborative venture that is ongoing for me relates to a project undertaken in 1991 when I was Communications Manager at the Wellington Regional Council, a local authority responsible for environmental issues. In the region there was a major problem with streams being polluted by industrial waste and by people pouring pollutants such as oil down drains. I called nine smaller local authorities together to discuss this problem and we devised an awareness campaign across the region. It consisted of a colourful poster that was sent out to schools and a small aluminium plaque with a picture of a fish on it with the words \_drains to streams, which was glued to grates or stormwater drains \_ therefore highlighting the fact that pollution put down a stormwater drain ends up on a beach or in a stream. These plaques are still there today. Again a reminder of collaboration on a small scale.

There is now a strong 'culture of collaboration' within many of the key government agencies in New Zealand. A number of supporting events based around the America's Cup are being organised in the next few months and all are collaborative ventures.

Collaboration in a technological sense is easier now than ever before. When I started writing this paper, I accessed the web site of Wellington's Victoria University to see how many references I could pick up. I found 256 on collaboration in science and 119 on science in communication. These references extended to all parts of the world including England, Asia, North America, Africa and even our Aussie mates across the Tasman. But all the computers in the world will not in themselves achieve successful collaboration. It's up to people, their attitudes and commitment. Collaboration on a small scale is just as worthy as that on a larger scale.

Collaboration in science communication is both logical and simple and there is tremendous scope for it. This conference is an example of it. Communications are so much easier, we are better educated and hopefully there is a better understanding of different cultures. It's state of mind that we as communicators should and generally do embrace. For my part I hope that when I return to New Zealand I plan to set up a formal network of science communicators and that in two years time, New Zealand will have its own proper network when New Zealand attends the next PCST conference. That's my next collaboration project.

Finally I would like to play you a couple of video clips, the first of which shows the presentation of the Technology Commendation Awards and the second, a couple of the one minutes programmes. These are the pilot programmes, but are likely to feature in the final thirty selected.

If you would like to know more about my organisation, you can visit our web site [www.frst.govt.nz](http://www.frst.govt.nz)  
. Thank you for you time.