



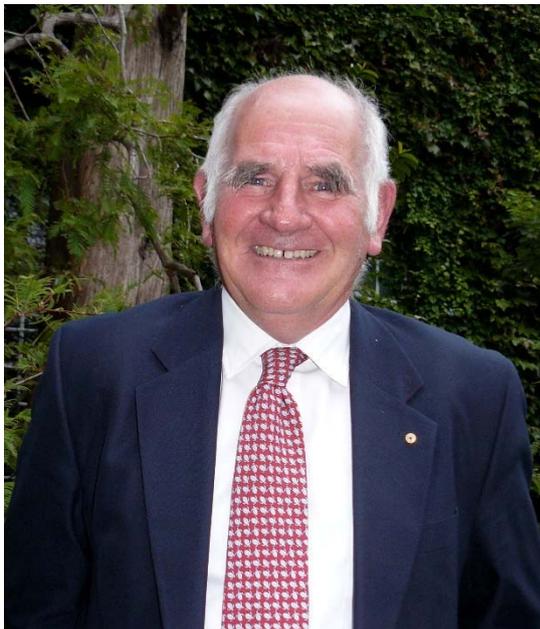
CSIRO Oral History Collection

Edited transcript of interview with Tony Gregson

Date of interview: 12 April 2017

Location: Swinburne University of Technology (Hawthorn campus)

Interviewers: Professors Tom Spurling and Terry Healy



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Dr Anthony Knight Gregson *BSc (Hons), PhD, DSc (Melb), FRACI, FTSE*

Summary of interview

Tony Gregson was born in Melbourne on 31 March 1945. In the early part of the interview he tells us about childhood growing up on the family farm in Warracknabeal and his secondary education at Warracknabeal High School and Ballarat Grammar. He highlights the contribution of Kostas Rind to his education.

He then talks about his experiences at the University of Melbourne, where he resided at Trinity College. He recalls the influence of his PhD supervisor, Ray Martin, and the other members of the group, particularly Samaresh Mitra.

Tony went to Oxford as a Post-doctoral Fellow with Peter Day and recalls this as one of the great times of his scientific life.

Tony then gives an insight into how a young academic builds a research career in a regional university, the University of New England.

In 1981 Tony and his family returned to run the family farm in Warracknabeal. He talks about his first involvement in public policy matters and his recruitment by Barry Jones to the first CSIRO Board.

There follows an account of how the Board functioned in its early years with Neville Wran as the Chairman. He recalls his early interest in priority setting, the selection of the Chief Executive and the Chris Schacht affair.

In the last part of the interview he talks about his post CSIRO Board activities and his views on the place of CSIRO in modern Australia.

NOTE TO READER

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Introduction and early life

So thank you very much, Tony, for agreeing to be part of this CSIRO oral history project. It's the 12th of April 2017 and we're sitting in Swinburne University of Technology, and I'm Tom Spurling, and Terry Healy is here as well talking to Dr Tony Gregson about his interest in science and his experiences on the CSIRO board. Therefore, Tony, we could start at the beginning. Therefore, you are a country lad from Victoria, born in 1945. What happened? Where did you go to primary school and what sort of family did you come from?

Oh, that is an interesting question, Tom. My grandfather on my father's side was a very, very prominent Melbourne businessman who basically started Hardy Trading in Victoria, and was very prominent in the Liberal Party, and he and Menzies were very great friends. He was a typical Collins Street farmer - he had farms, one at Echuca and one at Clarkefield, just north of Tullamarine, and I was brought up on a farm next door to Sir Rupert Clarke's Bolinda Vale. So I went to Bolinda Vale State School and I rode my bike five miles, and my boys now cannot believe that I rode a bike so far to - and I was only, you know, five or six years old. In 1953 or '4, my father was sick and tired of - he'd come back from the war and was positioned on his father's farm. He wanted to be independent and he wanted to be north of the divide. So we shifted to Warracknabeal in '53 or '4. And that's where I basically grew up, just west of Warracknabeal.

So you went to the primary school there?

Actually, I went to the Brim Primary School, which is just north of Warracknabeal, and 1960, we shifted to another area, near Warracknabeal. So I went to Warracknabeal High School until third year and then went to Ballarat Grammar.

Warracknabeal High School and Ballarat Grammar

In 1960.

In 1960. I was meant to have gone to Melbourne Grammar in 1959, but there must have been a drought and my mother had rung up Melbourne Grammar and said, "Look, we can't afford it. We'll just put it off for a year." "Not a problem, not a problem." So when 1960 came around, Mum sort of said, "Well, here he is, he's coming down," and they said, "Sorry, place is gone." And so she rang up Ballarat Grammar and headmaster sort of went, "Oh, send him down." And so that's where I ended up, at Ballarat Grammar, and it was a wonderful place.

And did you have siblings?

I had a brother who was three or four years younger than me. Unfortunately, he was killed in a farm accident in 1972.

So, essentially, you ended up being the only child.

Yes. Yes, indeed. Yes, certainly beyond '72.

And at Ballarat Grammar, is that where your interest in chemistry started?

<laughs> Well, my teachers at Ballarat Grammar were extraordinary. I had the headmaster who was a grumpy old so-and-so, but he was a wonderful person.

What was his name?

GFJ Dart and he was a very famous educationalist. He used to give talks on the radio about education and so on. My teacher of chemistry was Geoff Tunbridge who played on the half-forward flank. I think he was number 23 for Melbourne. And how times have changed. Every Saturday morning, he would jump in his Hillman Minx and drive, play footy at the MCG and drive home again. None of this training or anything like that. But he was a wonderful sportsman. But in retrospect, his knowledge of chemistry, you could basically put on a postage stamp, you know. He was a wonderful fellow, but anyway, he was my chemistry teacher. But most importantly, my teacher of mathematics and physics was a Lithuanian refugee called Kostas Rind and he was a wonderful, wonderful person, and it's said that he started a PhD in Germany, before the war with Geiger. And then the war came and he was transferred to Eastern Germany somewhere, somewhere maybe on the Black Sea where he was a fluid dynamicist, amongst other things, and he told me once that he developed a whole lot of fluid dynamics of German U-boat conning towers and so on, had to redesign them to make them go better through water. But he escaped and ended up in Australia. And the headmaster, it must have been the early '50s, was driving through central New South Wales and stopped to have a cup of tea somewhere and looked over the fence and saw this guy chopping wood, you know, he had broad shoulders with an axe. Got into conversation and it turned out to be Kostas Rind. And within a few months, he was teaching physics and mathematics at Ballarat Grammar. No Dip Ed or any nonsense like that. But he was fantastic. "Look here, we look at the problem this way."

So you did - you had a good background in mathematics and physics, as well as chemistry?

Oh, well, sort of, Tom! But when I went to university, I happened to do best in chemistry. So I kept getting first class honours in chemistry so I just kept going in chemistry. So, yeah, that was easy.

And at Ballarat Grammar and at Trinity, you were an athlete of some - you were in various - the first 18 or something. So were you a sportsman as well?

A little bit, yeah. The headmaster was famous for his unbelievably brief comments when he wrote references. And I saw mine once. He said, "Tony - Anthony Gregson. Good quality, average games player." <laughs> End of story! "Take him." This is the reference for me to get into Trinity. And he was famous. And if he said, "Take him," well -

They took him!

They took him. And so, I was a good cricketer, I played cricket, I opened the batting in cricket, I was in the high jump, I was not a particularly good footballer, I did make the firsts once, but that's about all!

Trinity College and the University of Melbourne

But you played tennis at Trinity.

I did play tennis. I was a good tennis player, a very good squash player.

That's pretty good!

And this is not really relevant to the story, but I noticed that Max Crossley was a graduate of the University of Melbourne when you were there.

Yes. I knew Max quite well.

You knew Max quite well?

I did. He was in Trinity.

Yes.

And he was a year behind me, I think. I think that's right.

So he went on to become a famous chemist.

Oh, absolutely, absolutely. And presumably he's retired now, is it?

I think he's still working. He's still a professor at Sydney University.

Sydney University, that's right. The other one in my year in Trinity was Alan Bond.

Oh, right.

So we were in the same year.

He didn't make any of the football teams.

Well, he was a Melbourne guy rather than from the country or Ballarat.

OK. So at Melbourne University, you started work on the magnetic properties of inorganic compounds.

<laughs>

Your honours supervisor was Ray Martin, was he? Or S. Mitra?

Ah, the wonderful Samaresh.

Samaresh?

Samaresh Mitra, who - he came from the Indian Association for the Cultivation of Science in Kolkata, he had done his PhD in magnetism, and he came and it was a postdoc to Ray Martin. So I joined that little group and there were three of us, and it was fantastic. Samaresh was a wonderful guy.

So that was your honours year, as well as your PhD?

Yeah, that's right. And you know, Ray Martin was fantastic. But Samaresh was a terrific fellow, and he ended up doing a lot of - after all the Melbourne stuff, he went back to India and became a big-time professor at the Tata Institute that I visited a lot. He worked at Monash for a couple of years with Keith Murray.

Oh, did he?

Yeah, so he and Keith Murray are good mates as well. But I was Samaresh's first student. It was great.

And that was - your PhD, the papers that you wrote with -

Gregson, Martin, Mitra.

Gregson and Mitra.

Gregson, Martin, Mitra was -

Well, this one is -

Oh, Gregson, Mitra - OK.

Is your most cited paper.

Oh, is that right? <laughs> Which one's that? What's that one on, Tom?

It's on Magnetic Susceptibility, Anisotropy -

Anisotropy -

And ESR Studies of Some Copper Dialkylthiocarbamates.

That's right. I remember that.

A 1968 paper.

OK.

So was that your honours or your PhD?

That was my honours year, basically.

It's an amazing achievement for an honours -

Oh, yeah, that was General Chemical Physics.

Yes.

That's right. No, no, we were very productive, very productive. It was fantastic. I published 14 or 15 papers for my PhD.

Yes. So then did your PhD and Ray Martin - did Mitra leave during that time or something?

He would've left about the same time as I left, to go back to India, so he would have had 3- or 4- or 4-year postdoc of some description. He went back to Tata Institute and I finished my PhD.

Oxford University

And then you went to Oxford to work with Peter Day as a postdoc.

<laughs> Yes!

What was that like?

Oh, that was just fantastic, Tom. Oxford is, in my view, still the centre of the universe! Peter was a wonderful, wonderful guy and I had a marvellous time.

Where did Keith Murray fit in? Did you know Keith Murray then or was he later?

No, I knew Keith, because Keith was doing similar sort of work at Monash. He was interested in magnetic stuff. He worked for Jack Lewis in Manchester and had come out -

He'd come out as a postdoc probably.

I think he came out as a lecturer, I think, Tom, you know, as a very junior lecturer, and he started his group at Monash and we talked, because we were doing similar sorts of things and Keith Murray would have interacted a lot with Ray Martin because Ray Martin, at the time, was the guru in this sort of area, along with - do you know Brian Figgis?

Yes, I know Brian Figgis well.

OK, so Brian was the other guy.

So he was more of a theoretician.

Oh, sort of, sort of. And I became more a theoretician as well. So, understanding that. And I'd say I was the sort of modern version of Brian Figgis. Brian Figgis examined my thesis.

Oh, did he?

Along with - did you ever know Ron Nyholm?

I didn't know him personally. I know who he is.

So he was my -

He was a very influential Australian inorganic chemist.

At University College.

Yes.

Therein lies an interesting story. I put my thesis in, went to Oxford and didn't hear a thing for - not years, but months and months and months, and I was getting worried that I might have to pack my bags and go home because I didn't get my PhD! It transpired that when Ron Nyholm read my thesis, he dictated a report to his secretary, got in his car and drove to Cambridge to give a lecture. On the way back, he was killed in a car accident. And this left my thesis report in limbo. And the University of Melbourne didn't know what to do. After a lot of to-ing and fro-ing, they accepted the secretary's word that this is exactly what he had said, because he never signed it. So therein lies an interesting story. The trials and tribulations of getting a PhD, Tom!

So you continued on with magnetic - with Peter Day with magnetism?

Well, sort of, sort of. I was the only one who knew anything about magnetism, and I actually went to do something completely different. I went to do photoelectron spectroscopy.

That was the beginning of photoelectron -

That was the beginning. And I was earmarked to do that. But that was with this guy, David Turner, in physical - in the PCL - physical chemistry lab. And for some reason, I transferred to Peter, probably because - I know - does Lucian Dubicki mean anything to you?

No.

Lucian Dubicki was a theoretical person who worked for Ray Martin, and he'd worked for Peter. And when he came back said, "No, no, you shouldn't work for David Turner, work for Peter Day. He's far better." So that's how I ended up there. And Peter was interested in transparent ferromagnets. I'll never forget the very first experiment I ever did in the inorganic chemistry lab - we had this crystal of K_2CrCl_4 , put it on the probe, put it into a spectrometer, took it down to 4 degrees Kelvin and the spectrum was dead flat, nothing there. Crystal's fallen off. Took it out, crystal's still there. That's odd. So then we followed it carefully and the optical intensity just went to zero. And over dinner that night Peter, who was in St John's College with Roger Elliott, who was the Professor of Theoretical Physics at the Clarendon lab, explained to him what had happened and Roger said, "Hmm, sounds to me like a thermal depopulation of magnons," whatever the bloody hell that meant. And he was right. So we looked into sort of physical theory, and that's how I was drawn back into magnetism! So, you know, these magnons are little sort of magnetic packets rather than optical packets of energy. It's coming back to me, Terry, I haven't talked about my PhD for 30, 40 years! <laughs>

So that's very interesting. So you were there for a couple of years and then you came back to the University of New England as a Lecturer in Chemistry.

Lecturer in Chemistry at the University of New England

Correct.

Was that a bit of a culture shock?

Yes, it was. It was a culture shock, but it was a job. Jobs were very hard to come by in those days. And Armidale was an interesting place.

Robin Stokes was there?

Robin Stokes was there. A totally eccentric guy, but fantastic. And I only discovered, he only died last year, I think it was, or the year before. He was 90 something or other.

Yes. Not long ago.

And three or four years ago, I saw he had written a letter in *Chemistry in Britain*, Robin Stokes. Bloody hell, the old guy's still alive. Because there was a famous time, in my time, so I'm talking about the middle '70s, when he had a visitor to the university and his car, they parked opposite Mary White College¹, and the car went over the cliff and, you know, because he's eccentric, and they took him to hospital, gave him some X-rays and his whole lung was black. Because he smoked like a chimney, "You've got lung cancer." I remember he called us into his office, all the staff, and he said, "Well, this is it, chaps. I reckon I've got a couple of months to live. And Ken Marsh, I want you to do this, and Tony, I want you to do this, and John, he rattled off all the things we had to do. He said, "That's it." We all walked

¹ The Stokes family have since indicated that the accident occurred near Dorrigo, NSW.

out thinking, "Bloody hell!" You know. The guy's going to be dead in a couple of months. Well, step forward 30 or 40 years - no, sorry, then they discovered that it wasn't cancer after all, it was just a collapsed lung, which gave up this crazy black image. So he lived on for another 40 or 50 years.

And highly distinguished physical chemist.

His book at the time was in the top 10 ever most quoted textbooks, *The Theory of Electrolytic Solutions* by Robertson and Stokes. Unbelievable.

Yes, and still used, still there.

And still!

And Barbara Levien was there.

Barbara Levien was there. God, I haven't thought of her for a long time! <laughs> Yes, indeed. She was - did she ever make a lecturer?

She was a lecturer at the University of WA and then went to New England, but she wasn't - I don't think she was a lecturer.

She was a senior demonstrator for years and years and years and years.

Very good teacher.

Oh, fantastic teacher, Tom. That's right.

She taught me a lot of chemistry.

You? Is that right?

Yeah, well, she was at the University of WA.

Ah, OK, OK, OK.

With Robin.

Yep - sorry -

With Robin Stokes, at the University of WA.

Oh, came from WA.

Came from WA to New England.

So he went - he started life in the University of New Zealand it was called then in Auckland, then went to Cambridge.

Anyway, so that was -

Perfect recall.

Only on some things, Terry! <laughs>

So Tony, can you - the University of New England probably didn't have the equipment that you had at Oxford or Melbourne. Did you collaborate? I mean, how did you get on? I noticed, some of your papers with David Doddrell and with Robin Bendall.

Yes, yes.

So they weren't at New England, were they?

Building a research reputation at UNE

Well, David and Robin Bendall were all at Griffith University, and they were the foundation members of Griffith University. Interestingly, I was interviewed for a job, for the founding members of Griffith University when I was still in Oxford. And, oh, what's his name? John Emsley, you know Emsley, the MR (Magnetic Resonance) guy, was the person dedicated in England to interview people in England to go to start Griffith University. I didn't get a job there. So that's OK. But I don't know how I got to know David first up. David was doing a postdoc in Armidale with Noel Riggs in MR, so David and I were together in UNE for a year or so, and we became good mates. And so, you know, I was doing a bit of theory, and we got interested in Carbon-13 and all that sort of stuff, so that was one part of my work. The other part was I convinced Ian Ross - remember Ian Ross?

Yeah, I remember Ian Ross very well.

I convinced him - because he was chairman of the - whatever the ARC was then, he was chairman of that. I convinced him to get the ARC to buy me a SQUID - a Superconducting Quantum Interference Device magnetometer.

Probably one of the first in the country.

It was the first in the Southern Hemisphere, OK.

At New England?

At UNE, and it came from Superconducting Technology - no, the SHE corporation was the opposition. Bill Goree was the guy from California, from Palo Alto that made those things. He actually came out and installed it. It was fantastic. The only problem was I had to have liquid helium. So I used to have this little sort of DHL or whatever company it was truck carry

a can of liquid helium up from Sydney to Armidale, and we'd wheel it in and we'd have about a week's work. So we had everything organised, you do a solid week's work and then start analysing all the results. It was fantastic.

And did you go on study leave to North Carolina?

<laughs> God, you've done your homework, Tom! That was an interesting time, Tom, because it was a year earlier than I deserved, but Bill Hatfield - you wouldn't know Bill Hatfield.

I didn't know Bill Hatfield, but he was the senior author of that paper.

That's right. Well, Bill Hatfield was the magnetism guru in North America. Frankly, didn't know very much, to be honest, you know, and many of those Americans didn't. They worked like Trojans and got in at 06:00 in the morning and left at midnight, and as a friend of mine in Oxford said, they bloody well had to! Cutting! Typical Oxford commentary! <laughs> But actually, that was about somebody else, but that's another story. So Bill Hatfield had invited me to go specifically at a particular time, and for that particular year of 1979. And so I convinced the head of department who was then Ray Stimpson

Yes.

That I should go, and he said, "Yes, OK," and the deal was that when I came back, I couldn't resign, I had to stay an extra year to make up the five or six or seven years to be eligible for study leave.

So that paper - Single-crystal magnetic study on ferromagnetic manganese(II) phthalocyaninate -

Phthalocyanin?

Phthalocyaninate.

Oh, yeah -

That was the paper that came out of that, published in 1983, so some time later.

Yes, yes.

And that's very highly cited, that paper.

Is it really?

Yes.

Oh, OK! <laughs> Well, Bill Hatfield was a marvellous fellow, completely crazy. His name was Hatfield. Have you ever heard of the Hatfield-McCoy sort of feud?

Oh, yeah.

And Bill used to say, "My granddaddy up in the hills of the deep valleys of Virginia."

That's right.

Virginia? Was it Virginia?

Yeah, well, West Virginia -

Sorry, sorry.

West Virginia.

West Virginia. So it was his great uncle or great-great uncle that got caught up in all this, all over hogs. And Bill was a bloody character and he was a marvellous fellow and I had a great time. But, you know, to be fair, I taught them a hell of a lot.

OK. So that was in - you went there in 1979.

'79.

And by then, you're an Associate Professor?

Yeah, yeah.

Back to the farm

So your highly distinguished career in chemistry, ended in 1981, you went back to the farm.

Exactly.

So tell us that story.

Oh, well, you know, as I said before, my brother had been killed, the farm was -

So your brother was on the farm, he stayed on the farm?

He went to Longerenong, he went to Ballarat Grammar a couple of times, went to Longerenong, was on the farm only for a couple of years before he was killed. And so my father carried on for half a dozen years by himself, employing people. It was getting difficult and tough and so on. And, you know, my wife and I, we agonized over this for two or three years as to what we would do.

Was your wife a country lass?

She came from Hobart. Her father was a very famous yachtsman and a local doctor in Hobart. But she was very rurally oriented, and in the end, we said, yes, we'll give it a go. So I got three years leave without pay.

From New England?

From UNE. Because they were desperate for me to go back. OK, well, I'll have three years with leave without pay. So after 2.5 years on the farm, when we came to consider it, no way were we going to go back to the university.

So you got to enjoy the -

Oh, yeah, it was marvellous. And, you know, these days, times are much tougher now. Whether we would've done it again, God knows. But in those days, we had lived through - '81 was a very good season. I was always a bit concerned about Jane's attitude to drought and having no money, as farmers do on many occasions! And so we lived through the 1982 drought, and in my view, she came through with flying colours. You know, drought's a drought. We just knuckle down and do what we have to do and didn't go off the deep end.

Jane was your wife?

Jane was my wife, that's right. And so, and 1983 was a fantastic year. And that's when we had to start making decisions. We're going to stay on the farm. Jane was teaching at the local high school, settled in, you know, it was marvellous.

You became part of the community. What, the farm was a - what do you grow there?

Oh, it's a normal Wimmera farm, Tom.

Barley?

No, we grow wheat, barley, canola. Well, no, sorry, in those days, it was wheat and barley and field peas and some sheep. And as the years have gone on, we've broadened that out to become a proper mixed farm with wheat, barley, canola, lentils, fava beans, chickpeas sometimes, and still plenty of sheep.

So, and you've been on the farm ever since?

Basically. That's right.

Involvement in public policy and the CSIRO Board

So, I think we'll now come to 1986, and the government of the day had decided to change the management structure of CSIRO and have a board, and you're one of the first - you're in the first members of the CSIRO board. How did that happen?

Um, you have to go back to 1985, I think it was, when there was a -

The ASTEC inquiry?

No, no, I'm just trying to think - how did it happen? How did it happen? I remember. At least I think I do. In 1985, I was on a review. , The secretary of the grains group in the VFF in Victoria, was a guy called Peter Cook, and he kept saying to me, you know, "I want you to go on some of these sort of, you know, reviews, and use your science and so on." I said, "Look, Peter, I'm not going to do it for three or four years. I've got to get my eye in." It took me five years to get my eye in on the farm, and how to run it. Anyway, in 1985, he rang up and said, "Look, I've had enough of this crap. You're going to do it. You're going to do it." So, "I want you to join this review. I'm going to nominate you." So I joined this review.

And the review was a Commonwealth review?

Ah, yes, sort of. It was a review of barley research council and wheat research council projects across Australia. We started in Toowoomba and spent two weeks going right around Australia, reviewed all these projects. It was a fantastic experience. First time I'd ever done anything like that. And in some cases, I knew more about the bloody stuff than these researchers did. It was embarrassing. Anyway, out of that, Peter Cook rang me up and said, "Look, the Federal Government is changing it all and they're creating councils and I want you to put yourself up for a council." So I went along to the wheat research council interview, and in the end, I didn't get on the wheat research council, they put me on the barley research council. But on that interview panel, Kevin Foley was the presiding member. And I remember the interview, you know, we talked about wine, we talked about Oxford, we talked about North America, we talked about all sorts of things! Anything but bloody research council! And so that was fine. So I was on the barley research council. Kevin Foley's great mate was Barry Jones, as you know. So that's how Barry Jones got to hear of me, through Kevin Foley. So that's fine. So then, it was hilarious. One evening, about 6:00 or so, the phone rings and I'm out on the tractor. Jane is there. "Hello. Barry Jones speaking." "Barry who? What's your name again?" "Barry Jones." "Excuse me - Barry who? Who are you?" "Barry Jones." "Who are you?" "I'm the Minister for bloody Science! I want to talk to Tony!" "You can't. He's on the tractor." "OK. When can I catch him?" "Ah, well, he's leaving early in the morning. You'll catch him about 5:30, 6am." "Oh, OK, all right." 5:30 the next morning, the phone rings. "Barry Jones." He said, "Tony, I want you on the CSIRO board. I've rearranged the whole CSIRO structure, I'm creating a board just like we have done for the ABC." "Oh, OK." And he said, "I want you on it." "Oh, all right. Well, if that's what you want. OK. See you, Barry. I'm off on the tractor." So that's how it started.

I'm sorry - under Peter Cook? Is that the guy that became the Minister?

A: No, no, no, he was the executive officer of the Grains Group for the VFF in Victoria. Really nice guy. I think he might have died of a heart attack, but I don't think he exists anymore, Terry.

So Kevin Foley wasn't on the CSIRO board, was he?

No.

At that point? Or was he?

I can't remember, Tom, because the CSIRO Executive of the day had two or three external people on it, one of whom was Adrienne, and I'm not sure - Kevin Foley might have been one of those extra -

He was hanging around.

He was on it. Yeah, he was already on the CSIRO as a part-time executive.

That's right. There was Adrienne.

Adrienne, Graham Spurling and Kevin Foley.

Were the three external? OK. So I was right.

And you were the new – Nossal, Carnegie, David Hoare, Tony Gregson and Bill Mansfield.

And Bill Mansfield. That's right, that's right. And don't forget the Chairman.

Yes, Neville Wran, the new Chairman.

Marvellous.

So you got on it through connections and Barry personally rang you up.

Yeah, absolutely.

Said he wanted - I mean, I've been rung up by Barry many times, and you say, "Tom Spurling here," but in my experience, he says, "Barry here."

<laughs> Well, maybe that's what fooled Jane! She'd never heard of Barry. <laughs> He was fantastic. I'll never forget afterwards, some, quite a number of years later, I must have been coming back from an ANSTO board meeting. And I got on the plane and I was sitting on the far right-hand side and who should get on the plane but Barry Jones, who walked down the other aisle. And he saw me and he stood up in front of the whole plane. "Comrade, comrade, how are you?" <laughs> How embarrassing could it be? Oh, dear.

Great guy.

Oh, fantastic.

OK. So your first board meeting in the -

Yeah, it was in the parliamentary offices in Spring Street.

At the end of - in December of 1986.

Yes, that's right.

What was your impression of that?

Well, Barry Jones was insistent that the first meeting had to be in the '86. Absolutely had to be. I don't remember much about it, to be honest, Tom, except to say, you know, I was shivering in my boots because I was brand-new, I had never been to any board meeting, I had absolutely no background whatsoever, I certainly knew about CSIRO, or a little bit.

From the reviews.

No, well, my first interaction to CSIRO was when I was doing chemistry. Remember George Winter?

I don't remember George Winter.

George Winter worked in minerals chemistry and he was a Titanium(III) chemist. And he came up, he used to do all his work at Melbourne University with Ray Martin, and he used to always talk about CSIRO and Fishermens Bend and all that stuff down there. So I sort of vaguely knew a little bit about CSIRO, but not much. And so here am I, congregating with these super heavies, you know, Sir Gustav and Sir Rod - oh, my God. So we were hanging around in the foyer of this place, and I'll never forget Barry Jones appeared. "Oh, yes, minister, how are you? Yes." And we were all pacing. Barry Jones is pacing up and down. "Oh, I'm sick of waiting for this token woman." Adrienne! Because Adrienne's late. And so, anyway, we all assembled and Barry gave us a pep talk, I remember. I don't remember much about it. Although having said that, my partner is Edwina.

Yes.

You know that. She's now on the CSIRO board. And last week, or the week before, no, a month ago was the 200th board meeting, and they produced Barry Jones's talk, and I haven't read it thoroughly, but basically, nothing's changed.

That's true.

From what Barry gave us, you know, good for the nation and intellectual profit and all that stuff, it's all exactly the same. You know, it's scary.

So the record -

So, scary in what sense?

That we don't seem to have made a great deal of progress, Terry!

Or, it was right then and is still right.

And still right now, oh, absolutely.

So it could be, you're not say one way or the other?

No, I'm saying it was right then, it was right now. That's why nothing much has changed.

Priority setting

So the first thing that the records show is that at the third board meeting, or at a meeting that you discussed research priorities, and at the meeting in March of 1988, you presented a paper on National Research Priorities and Overview in which you proposed a way of developing research priorities. So, can you start from the beginning of your interest in research priorities, and how that paper, which is a quite - I mean, it's a very insightful paper, on how this should happen.

<laughs> You're very flattering, Tom!

How did that all -

Well, I remember at the previous board meeting, there was a lot of discussion about this, and I remember thinking, you know, it's all pretty woolly and, really, something serious has to be done about this. And it also seemed to me that CSIRO was the leading national science organisation. It should be showing a lead. So coming back from that board meeting, I can remember driving up the road, thinking about -

So this was a board meeting in November of 1987.

Or it was either that one, or the one before, whenever it was. And I remember driving home, thinking about what CSIRO should be doing and who should be setting priorities and how you should be doing these things. And I mapped out a few things in my head, and when I got home, I remember just writing it all down and then refining it slightly and then sending it off to Ted, Ted Cain, who by this time was the secretary of the board. And so that's how it got to be in the board papers.

So what role did Neville Wran play in this priorities discussions? Was he - what sort of a Chairman was he in the first few times?

I think he was feeling his feet as well, because he admitted that he didn't know much about science, he knew smart people when he saw them and so he was very happy to interact and play with smart people, and I can't remember when he said his famous lines about, "Give me the people and give me the money and we'll fix everything." That was his famous statement. And I guess the principle's still the same. But he was very open, he was very supportive of me, personally, he was a very inclusive chairman and I never felt in anyway, and I was clearly the most junior and the most inarticulate, the most naive board member of all by a mile, but he still accommodated me and listened and he was terrific. And on several occasions, I said, "Stop, Neville, you can't do this." And he paid attention and, you know, I'll give you some examples later about exactly that. So I thought he was wonderful.

So this priority issue, so how did that arise?

I agree.

Sorry, Terry?

I agree, and I was thinking you were going to say something, which was my recollection of him, which is that he would let the discussion run around the whole board meeting. And then after a period which he chose, he would say, "OK. Thank you very much. Now, this is what I think we've decided." And always, everybody said, yep.

That's right. No, he was a master, he really was. And I wish to hell I could be as good as that! No, you're spot on, Terry.

So the paper presented at the March 1988 board meeting about national research priorities, and then the board set up a subcommittee.

That's right.

Which consisted of you, I think -

Me, Gus, Adrien

And Keith.

And Keith - that's right. My impression was that Keith was not terribly keen on pushing this in any way, and he wouldn't actively oppose it, but he wouldn't go all out to actually do things about it.

You think he was afraid of offending the Chiefs?

I don't know, Terry. I wondered about that. But my distinct impression was that he wasn't - and bear in mind, he was from the old school, where chiefs were chiefs and they did what they wanted to do. And so this subcommittee, we talked a bit on, for a couple of board meetings, I remember, but nothing came of it. I think, when, was Ralph part of that? No, Ralph came along afterwards. But it was only when John Stocker come along as chief executive, when he took this as his new thing, and this was the first thing that he was going to show us, that he was a real chief executive, and that's when all this attractiveness and feasibility and all that stuff came to be.

And McKinsey was hired.

And McKinsey was hired. But McKinsey was hired for a different reason, though, wasn't it?

We'll come to that in a minute. Can I just ask you - so Keith was the - when you joined the board, Keith had already been appointed as the chief executive?

No, no.

He was an interim chief executive?

Keith was the interim chief executive, and I think at the very first board meeting - it was at the very first board meeting, we decided that we would appoint Keith as the chief executive. And I remember Keith saying that was the nicest Christmas present he's ever had. I remember that.

So were there alternatives?

No, there weren't.

So the board -

The board was happy to continue on.

Happy to continue on with Keith, and he had a fixed term? Or did he go to his retirement age? In those days, there was a retirement age.

No, it was a fixed term, I think. You might remember this more than me, Terry. But it was only for three years. I don't *think it was five. I think it might have been three years.*

I think it was three years.

Three years. And Keith must've been getting close to 65 then anyway after those three years.

So he'd been the chairman of the old CSIRO, and I think he probably served out his term.

Oh, look, I can't remember the details, but, yes, it was certainly true that he was acting. Then he was -

Yes, he as invited to be chief executive for a 3-year term.

And in the discussions, the board, the interaction between the chief executive, who was a member of the board, and the rest of the board and the chairman, what was your memory of that with Keith?

Oh, nothing untoward.

That all went smoothly?

All went very smoothly.

Dr John Stocker's appointment

So we come to the end of Keith's term and the board has to select a new chief executive.

<laughs> Yes.

Were you part of that process?

Yes, I was, actually, and I don't remember who the other candidates were. They will be in my barn somewhere. But I remember clearly, the interview, that there was Neville Wran, me, and I don't know who the other members of that selection committee were, but we met in Neville's office in Sydney in the Chifley building or whatever it's called, and John Stocker came in, and John Stocker just laid it out like you wouldn't believe. I remember Neville saying, "Well, that's that then, isn't it? How could you not appoint this guy?" He'd done this, he'd done this, he'd done this, but he just laid it out. It was unbelievable. It was one of the best interviews that I've ever witnessed.

Is that right?

You know, John just - everything you asked, you couldn't expect more.

So he got the job?

He got the job. There was no argument, there was no discussion about you or you or you or you, he's the man, end of story.

And discussion with the minister?

No, I wasn't part of that, Terry.

OK.

That didn't seem to be an issue, that you're aware of?

I don't think, not that I remember, no.

It would have either been Barry Jones or Simon Crean at that point.

I don't remember. No, Neville would've done all that stuff, as only he could.

Oh, absolutely.

And that was another advantage of having Neville as chairman.

Simon Crean would've been the minister at that time.

OK. No, no memory of that, Tom. As I said, I think Neville would've done all that interacting with the minister. I mean, there was always a tricky arrangement.

Maybe Barry was, Stocker, no, Barry Jones would have been the minister, and Simon took over after the election.

OK. But it was always this triangular relationship between the board, the CEO and the minister, and I think it still exists, doesn't it?

Yes.

Which is always a tricky business.

That's right. When you get your politics right, it's as smooth as butter.

And if you don't, you're in deep doo-doo.

Yes. So John Stocker came in and he started the - continued your interest, he took up your interest in research priorities.

Well, yes, because in my view, and it still is, it's a national issue. And who else to do it but CSIRO? And I remember Adrienne used to always say, "Who else is there to do it? It's us. The buck stops with CSIRO."

So Neville was the chairman till 1991, and then Adrienne took over.

That's right.

The McKinsey restructure

So there were a number of transitions, a new chief executive, a new board chairman. So I'll just remind you of the McKinsey thing. The first McKinsey proposal was to look at research priorities, look at how to determine priorities and research, and it was to do mainly with magnetic materials. So there was an investigation into super magnets at the division of applied physics then, and the production of rutile. So the two projects that McKinsey did were to do with magnetic material. How does the organisation decide what it's going to do in those areas? So it was a case study in prioritising some research. And I was a member of that group that did that.

OK. Interestingly, Tom, I don't remember anything about that. If you ask me about McKinseys, I would have said that McKinseys came in to help redefine the structure of CSIRO. That's when all the institutes came into being.

Their first project was magnetic materials thing, and Adrienne Clarke, and Alan Reid were involved in that, and our little committee reported to them.

OK. No, I don't remember that at all.

OK. It was the board subcommittee.

<laughs> OK! Some things I don't remember, Terry. I'm sorry!

I know you're pretending.

And after that project, they then did -

OK. OK.

And was the board involved, you remember that restructuring process?

Oh, yes, indeed.

So what was your involvement in that? Because that was a major change.

It was a major change and the board discussed it a lot, and I remember - what was his name? Rob - the McKinsey guy - Rob McLean.

Yeah, Rob McLean.

So he used to come along often and talk to us about how best to restructure the organisation, and this is what we think we should do, and set up these new institutes and so on, and I remember appointing or being part of the selection committee for animals and plants. They were the two that I was involved in. Alan Donald and Ted Henzell were appointed as the new institute directors.

The new directors of the -

That's right. I remember that quite well. I think by then, had we shifted the headquarters down to Melbourne?

No. 1987 to 1988, when the new structure took over, so Stocker wasn't there - Keith Boardman was still the chief executive when that restructuring took place. So the new structure started on the 1st of January 1988.

1988. And Keith was still CEO?

Keith was still the chief executive. So he overlooked that, or he did that first restructuring.

Because I remember interviewing Ted, certainly Ted here in Melbourne, up in where the headquarters used to be, I thought.

Would it have been 343?

343 - that would have been in the old division of protein chemistry.

Yeah, no, I remember that.

Because that head office move didn't happen, not till the early '90s.

Yeah, that's right.

The organisation had an office in Albert Street, had a regional office in Queens Road.

Yes, I remember that one.

And it had the meeting in Parkville.

Parkville was often used because it was easier to get to the airport from Parkville.

Maybe that's what it was. But I seem to remember it was in that building where the board was. Anyway. Maybe my memory's -

The board often did meet at 343.

Yes, indeed it did. That's right. I reckon - yeah -

Anyway, so you were involved in that, and the other new directors were Colin Adam and Bob Frater and Alan Reid.

That's right.

And Roy Green.

And Roy Green - that's right.

But you were involved in the selection of the -

I was involved in the - Alan Donald and Ted Henzell appointments.

And did the board have some notion of what problem they were solving with the restructure?

That's a good question, Tom, but I think probably not. <laughs>. I think it was all - Doug Shears wasn't there then, was he? Because Doug was very keen to try and - clip chiefs and try and pull them into line a bit. And so, this was one way of starting to do it. But Doug hadn't arrived by that stage, I'm sure.

But you'd had the ASTEC Report that had been the spark of the change to the new board structure.

I remember an ASTEC Report, but -

It wasn't a big part of your thing?

No, not at all, Tom. Not at all.

OK. So the board, of its own initiative, decided that the organisation needed some more - it basically went to an industry focused structure.

Well, yes, and to try and sort of pull things together in a more coherent way.

Bigger projects, bigger programs?

Well, yes, pulling sort of like things together to have a bit more control over what was going on in the organisation.

From the board or in order to do them better?

I think probably both. Because I think the board felt that it needed a bit more control over what in the hell was going on. And that certainly came to pass when Doug came onto board.

But was that also the beginning of the movement to try to make sure that CSIRO moved from a whole lot of small projects to ones of really major national significance?

I think that's a fair statement, yeah.

And during this time, what was the interaction of the board and the minister in - was the political side of the organisation involved in any way in this restructure, or was that sold to the minister?

The only time that ministers really had any impact, Tom, I remember once, and I wasn't actually at this meeting, but Barry Jones said, "Unless you do this, I'm going to give you a written directive to do it." OK. So that was one time. The other minister that had a significant impact on CSIRO was Schacht, who tried to do all sorts of things.

We'll talk about it later.

I don't remember Simon Crean having any real input into saying, "You'll do this or that. Ross Free, exactly the same. You know, nothing. Schacht, yes, he had a major impact, or tried to. And most of that ministerial sort of interaction, the chairman did that, much more than I probably thought. And, certainly, when Neville was chairman, it transpired afterwards that he had a lot of interaction with Hawke and Keating about the future of CSIRO. And he told me once that we, as a board, had all resigned I think three times.

<laughs>

You know, to put pressure on either or both of them, "Unless you do this, this is what's going to happen."

Well, famously, he rang up Keating and said, "The budget you've just - or all the draft budget you've suggested is hopeless for CSIRO. Fix it." And they did within 24 hours.

I know! And who else in the country could do something like that? I have still got great admiration for Neville and what he did for CSIRO. I think he's grossly underrated in terms of his position as chairman and his position in the Australian scene to be able to influence a whole lot of things like talking to Keating. And they could use Labor Party language that they each understood. *<laughs>* I tell you, Tom, I arrived early to a board meeting in Sydney. Remember we used to meet on the top floor of that electricity generating building in Sydney?

Oh, yeah.

And it was the top floor. And I walked in, I was early for some reason. Neville's sitting at the head of the table by himself on the phone. I thought, "Oh!" He said, "No, come in, come in, sit down. It's all right." I listened to the greatest tirade of invective that I have ever heard. A reporter for The Australian had written a snappy article about CSIRO, and Neville in particular. And he got both barrels like I have never heard in my life before. Unbelievable stuff. Typical Labor Party gutter language, worse than anything I've ever heard on the farm. And he put the phone down.

From a QC.

From a QC! Exactly, Terry! "Well, Tone, how you going?" He used to always call me Tone.

Tony, we've been going for more than an hour, so we'll have a break.

[music]

So, thank you, Tony. We're resuming the discussion and we were just talking about Neville Wran and his influence as the chairman of the board of CSIRO and the appointment of John Stocker, and we were just trying to get your impression of the influence that John Stocker had on the organisation when he came in, apart from the research priorities. What was your - what was the board's interaction with the chief executive?

Oh, we interacted a lot and well. I think near the end of John's tenure, there was some interaction with the chairman, they both had similar interests!

So polite!

Who wanted to be the spokesperson on this particular thing or this particular thing, because they're both basically biological scientists in one form or other. So that was always a bit tricky. In the end -

Just on that, was it your understanding as a board member that Stocker was going to have two terms?

No.

No? OK.

No, I don't think so, Terry. There was a term and a term, and I remember the meeting very well, when John announced that he was going to resign, or retire whatever the correct word was at the time. It was at the Lancefield Conference Centre, when we had a planning retreat or something like that. And I remember we sat around - I can't remember whether this was part of the retreat or part of an actual board meeting, but I remember we all went around the table, saying various things, and I think John got the impression that maybe he should leave! So that's when that happened at Lancefield - the only time we ever met there.

And he made the announcement then that he would not seek another term?

He told us then, after that round-table discussion that we all had about the future of CSIRO.

And, Tony, I'll just skip to this because we mentioned John resigning. Were you involved at all in the selection of John's successor?

Ah, that was Malcolm Macintosh. Not really. I was getting ready to leave the board then. It was all happening, because Adrienne was running that in her own inimitable way! And I think - I certainly left the board by the time Malcolm actually came and sat in the seat. I think, you know, all the announcements were made and I did meet him on several

occasions, but I don't think he had sat in the seat when I was still there. From all accounts, an absolutely marvellous, marvellous person.

So Roy Green was appointed the acting chief executive. So you would have been involved with that appointment.

When I saw Roy Green acting, that had completely slipped my mind, Tom. I really - I can vaguely remember it. I remember I actually clashed with Roy Green before then! When there was a famous board meeting again, I think, in Sydney when late in the afternoon, Roy came in to give his institute director's report and then at the end he said, "I've got a restructuring thing in mind. I want to close down Marmion, Louth and Griffiths - research stations. I thought to myself quickly, "This can't happen." And Neville was still the chairman. I said, "Neville, Stop! You can't do this." And Neville would say, "Well, everyone agree with that?" "Stop, chairman. You can't do it." I said, "Look, without even thinking, Griffiths is the centre of water research in the middle of the Murray Darling Basin. It is clearly the number one water research place in Australia. You can't close it down." Neville said, "It's not unanimous. We'll talk about that in the next meeting." OK. No, I think I said, Louth was way up in outback NSW.

I don't remember.

Oh, Louth is up west of Wilcannia somewhere. It was a big, big open free-range research station.

And Marmion is in Western Australia.

Marmion is in Western Australia. And I said, "Well, I don't know about Marmion, yeah, question mark, [Louth], yes, but Griffiths, absolutely not." And Neville said, "No, no, it's not agreed. We'll deal with that next meeting." My technique then, Tom, and I admit to you now, my technique in these sorts of things at the board, all I had to do was convince Gus that my way was the right way, and if Gus said yes, the game was over. Because as he has been described many times as 'the great persuader'.

So he was on the board to start with, he joined the board with you, and was there for quite some time.

Yes, he was there - there were 3-year appointments, 4-year appointments and 5-year appointments, and I got a 3-year appointment and Gus got a 5-year appointment. Gus was marvellous. And if I convinced Gus, and I remember, I faxed Gus my simple reasons of why this couldn't happen. He wrote back and said, "I agree." Game's over.

I mean, as an aside there, the Marmion laboratory was a very important laboratory, as it turned out, for Marine and Fisheries research in Western Australia.

Absolutely.

And, in fact, was known for a long time as the Bernard Bowen Laboratory, Bernard Bowen being my brother-in-law.

<laughs> Oh, is that right? Oh, OK! Well, I saved it, Tom, and I saved Griffiths. But, alas, it has closed down now, hasn't it?

I think so, yeah.

And Marmion is closed down, but the whole lot has shifted to the campus of the University of WA.

Right, right.

So quite a good outcome in the end. So I think what we'd like to do now briefly, Tony, is talk about SIROtech and what your recollections are of the way that the board interacted, and the chief executive interacted with SIROtech and, eventually, the closing down, you becoming a member of the SIROtech board, and what's your memory of that?

It's pretty hazy, Tom, I was a babe in the woods, you know, I came from a zero base. Whereas Adrienne came from a very strong position and John came from a very strong position, and they knew a hell of a lot about that whole business IP and commercialisation and I knew very little. Now, having said that, it also was pretty clear that the people who knew were very unhappy with what SIROtech was doing and how it was working and whether it was a bloody disaster or whether it was good or bad, you know, it was not good. And I remember the board -

So the people who knew, was that the chief executive or board members or people outside?

Both. In fact, I think everyone. And I never quite understood quite why it was not regarded well. I think some of John's salary came through SIROtech. It was all a bit complicated. But as a commercialising arm, people said it was not doing what it should do. And I have to confess, I never completely understood exactly what the issues were. The board became quite involved, and I remember, we sort of went to -

So that's the board of SIROtech which is -

Well, that's what I'm saying. The board became quite involved, we became totally involved by the look of it Terry! And I haven't - I can't read what that says.

Oh, OK. I'll just read the critical bit for you, which is, "The operations of SIROtech Limited be wound down as proposed by the chief executive, the chief executive being Don Gibson.

Oh, yes, yes, that's right.

But presumably, having been instructed to do so by Stocker or someone, and, I mean, in terms of a wind-up of a company, and this is all the record that there is.

Is that right?

It's amazing. And the amount of record in the board minutes about this wind-up is very sparse as well.

Oh, probably - that was probably by design.

I'm sure it was.

And as I said, I don't remember much, except to say that people were not happy, it was not doing its job and, therefore, as I said, the board became very involved, I remember that. I didn't realise the extent to which that took over the board!

You were a board member.

A board member, that's exactly right. And I think people cheered and clapped when it disappeared, frankly.

So the interesting question for me is that the restructure that you, the board overlooked, the McKinsey restructure, took as one of its - the elements of the advance of that was that the divisions or the institutes and divisions where you'd come closer to their commercial partners, so that'd there'd be a lot of business interaction. And so in a sense, that restructure made SIROtech less important.

Yeah, clearly.

And presumably, that was one of the reasons the board wanted - the board decided that SIROtech - the commercialisation activities could be wound back into the organisation. So you're saying that the board was - that that was obviously discussed at the board meetings, but not, wasn't one of the things that you were personally highly involved with.

Not really, Tom, because, you know, as I said, I was a babe in the woods when it came to all that stuff. I remember people being very unhappy about it and I remember people saying, "I think we should just get rid of it." And that's what happened in the end.

Yes. Yes, it all happened very quickly.

It all happened quite quickly. Yeah, well, it happened. I'm sorry I can't be more forthcoming on that. I'm sure I've got that in my barn, Terry!

Yes! <laughs>

So then the whole 30% external earnings and the way that the organisation interacted with the external customers came up. And what was the - how did the board view all of that in the way that the organisation went about that 30% external earnings?

Well, I'm not quite sure where the 30% number came from, but the board was very keen on that and supported it. I remember clearly Kevin Foley and I, we were the two board members that had spare time, and we used to travel a lot. I reckon we travelled to not all, but nearly every CSIRO lab in the country. And one of the most important issues that staff were wanting to know about was what this 30% business really meant and how it was going to affect them. And Kevin and I often made the point that it was 30% across the whole organisation. So in some Divisions external earnings might be 50% and some might be 10%.

That's just the way the cookie bounced. Now, I was going to say, a good or even a bad example, I think you've got there somewhere, didn't I see wool technology?

Yes.

Well, wool was an interesting case where the external funding was 50 or 60%.

You were part of the wool industry Research Review Committee.

That's right. But I remember we had a board meeting down in Geelong and I remember walking around with John, talking about this, and the extent to which industry funded the wool technology division. And it turned out to be 50 or 60%, it was something very high. And I remember asking John, you know, were industry's priorities the same as CSIRO's priorities? And John said, "Clearly not." And that was the downside of having too much industry support, because it just swamped out what CSIRO thought was the best thing. Now, who was right? God knows. But industry wanted all this work done. Now, in the national interest, it might have been better for something else to happen, and that will always a little red flag to me, that external funding is good up to a certain level. But beyond that, the tail's wagging the dog.

Yes. But the wool funds were starting to reduce by then too.

Ah, yes. That was another issue. But in its heyday, the industry drove what CSIRO did.

And were you connected to the wool industry in terms of -

No, not formally, Terry. I remember once someone twisted my arm to go onto the wool R and D Corporation or whatever it was when John Landy was the chairman, and I was doing too much and in the end I said, no.

So you weren't - you had sheep on your farm.

I had sheep and I produced wool, but I was not part of AWRAP or the R and D Corporation or -

All those fights.

All those fights and all the bloody shenanigans that went on with the wool industry, well documented in Charlie Massy's book, whatever it's called. And John Kerin comes in, not so much for scathing comment, but he features prominently in that book.

Yes. So after the wind-up of SIROtech, which took place around about the time -

SIROtech was wound up at the end of early '93.

'93.

'93? Oh, as late as that? OK.

And then the organisation had the task of funding itself by getting external earnings, and during that time, it was the time of the 1993 election. I notice that in the discussions, you met with the Liberal Party's review committee, with Ian McLachlan. Do you remember that?

Ian McLachlan. No - yeah, I remember - I don't ever remember meeting him. I remember we met with John Hewson.

Right, OK.

We met with - <laughs> There's a wonderful story about Gus and his words. Where was the meeting? It was somewhere in Melbourne, I reckon, and we met with someone, and someone came along to present something to the board and he was a bloody idiot, whoever it was, and at the end, everyone's looking around, waiting for Gus to - Gus had all the words, could open up the conversation. I'll never forget, "Doctor X," he said, "I find your arguments most beguiling." <laughs> Words that I have never heard anyone ever use before or afterwards! Oh, deary me. And then there was another time afterwards when Gus was not on the board, and everyone, something similar happened, and everyone was looking around, saying, "God, I wish Gus was here." <laughs> Oh, dear!

So you had a meeting with John Hewson, then opposition leader. What do you think an incoming - was there any discussion on the board of what an incoming Hewson government might do to CSIRO?

No, I can't answer that, Tom. I have no recollection.

There was no - I mean, internally, we were worried that an incoming Hewson government might split up the organisation. Like the New Zealand -

Was that Hewson or was that -

That was Hewson.

That was Hewson.

Well, we didn't know what they were going to do, but that was a -

Well, I remember discussion about splitting up CSIRO, and I can't remember when it was, but I remember that, and I remember people mounting the arguments about the whole is better than all the bits, and then what a disaster it was in New Zealand, and how CSIRO couldn't muster a whole lot of expertise across a whole wide range of areas to hone in on the particular, you know, all the arguments, and I remember them quite well.

Minister Schacht

OK. So then we come to the election of the Keating government, and Chris Schacht becoming the Minister for Science in the new government, 1993 to '94, and his proposal to split off the marine and do a range of things. So the board was very much involved in that. Can you give us your story about that?

<laughs>

And when did you get on the board of ANSTO?

I'll come to that.

I'll come to that.

So Adrienne was chairman. Adrienne was furious that this bloody minister should try and tell her what to do, or tell CSIRO what to do. And she mounted every argument, and every moment she could, she got it into Schachty. And, you know, there were Councils of War, we had meetings in the Ansett whatever lounge it was called, manager's lounge, plotting how to do in Schachty and all the rest of it. I have to say, you know, when I stood back and took a global view of it, you'd have to say, in some respects, Schachty was right in the sense that he was putting in \$450 million of public money, and all he was asking, in many ways, was for it to be accountable. And so I used to say to Adrienne, you know, maybe he's got a right to ask how the money's been spent and so on. "No, no, you can't tell the scientists -". So it was like this for a year or two.

So he had the - I mean, the idea was that it's the marine part of CSIRO, and AIMS would join up, wasn't it?

Well then, one of his ideas was to combine all the science agencies and have one science agency. [AIMS] fought back dramatically and strongly and the Minister was convinced that [AIMS] was so separate and so different that it could stay by itself. Then came CSIRO and ANSTO. And I remember the Minister coming to the board and saying, "Look, you know, I want you to combine. And this is what's going to happen." And of course, Adrienne was absolutely dead against it of course. And then he came along once more and said that he had sacked the ANSTO board, sacked them. And he said to Adrienne, "Unless you can find me a new ANSTO board tomorrow or by tonight" - this is at a board meeting - "I'm pushing ANSTO into CSIRO." Well, did that really put the cat amongst the pigeons. I'll never forget the board meeting. Adrienne's there saying, "Well, OK, who's going to be on the board of ANSTO? We have to form a new board. Ralph Ward-Ambler put his hand up and said, "I'll be chairman." "OK, Ralph, you're chairman." Gus said no, but someone looked at John de Laeter and said, "Well, you are a physicist. You're on the board." "All right," says John. Gus looked at me and said, "Tony, you've worked in a reactor. You're on the board." "Oh, OK." So there's two or three board members. There were already two union people on the ANSTO board that were not sacked, naturally enough. And everyone looked around the table. Who's going to be the final person? Someone looked at Colin Adam and said, "Well, you're an employee. We're telling you, you're on the board." And that's how it happened! It was fantastic! <laughs>

And the board was presumably had to be appointed by, agreed to by -

The Governor-General.

The Governor-General.

Whatever happened, that all happened. And I've got a famous letter at home that, because Adrienne said to Schacht, "Well, look, we think Dr Gregson should be on the board, but he's got to drive four hours to the airport."

Oh, this is about the plane? Yes!

<laughs> "We think that Dr Gregson should have access to a charter aeroplane from Warracknabeal to Tullamarine Airport." And Schacht said, "OK." So I've got the letter at home, signed off by Schacht, that I can have a charter plane.

We've got it.

I've got that.

You've got it, have you? <laughs> It's a classic.

And how long were you on the board of ANSTO?

Oh, God.

Was that - when you ended the board at CSIRO, did you continue on the board of ANSTO?

I was on it for five or six years, Tom. I can't remember whether it went on or not. I don't remember. I think it did, did it?

We don't have that information.

Um, I reckon I stayed on the ANSTO board after I'd left the CSIRO board, I reckon.

And yet all of those people, Colin Adam, did they all stay on, or eventually -

Oh, they all eventually left and Rafe retired and Max Richards became chairman of ANSTO. I think that was the last of the CSIRO people on it. After that, they were just people in their own right came along to be board members of ANSTO.

So Chris Schacht was the minister from 1993 to '94, for about a year only. So he - in a sense, the scientific community and the bureaucracy and so on defeated his ideas.

Oh, absolutely. Strong rear guard actions from all over the place, really strong.

What was John Stocker's role in this? Do you remember?

No.

In the fight?

No, no.

So Adrienne led the charge.

Adrienne led the charge, no question about it. And some board -

And Gus.

And Gus, and I think Doug Shears would have been on the board by this time. The whole board was up in arms about it, and the whole board was totally united, but led by Adrienne. We were all going to Perth for some reason.

I remember that, yes.

And there was statements, we drafted a statement in the lounge of Melbourne airport, and when we got to Perth, Adrienne sort of produced this statement about - I can't remember what it was about now, but it was all high-powered and high drama, all the time! <laughs>

So in retrospect, for the national interest, what do you think would have been a good outcome? I mean, the outcome was the status quo. You were saying in retrospect and during the time that there may have been an outcome that could have benefited the nation.

No, no, I'm not saying that, Tom. What I am saying is that I think Schachty was within his rights to ask for some justification, for some transparency, just wanting to know how his money, the public money, was being spent. That's what I'm saying. And I think that's - I still think that's a reasonable question for a minister who's responsible for a large sum of money, how it's been spent. That's all.

Presumably, he had some sort of plot in mind that, "Well, if I can't combine them, if I have a lot of cross membership of the boards of the two organisations, CSIRO and ANSTO, that that would then cause the two organisations to work together more closely.

Oh, I'm not sure whether he had that in mind.

Or was he just face-saving it by the end?

I think he was just face-saving. I don't think that he thought that having cross membership was going to solve some of his problems. And from that point of view, my experience in a whole lot of other places tells me exactly that - having cross-board membership is a complete waste of time. And I can give you a quite a number of examples of where it just doesn't work, for all sorts of reasons.

And so, do you feel free to talk at all about your experience as a board member of ANSTO, and how that all went and the attitude was towards CSIRO?

Um, there was no - when we started the new ANSTO regime, there was no antagonism whatsoever. There was cooperation, collaboration, we had good relations with everyone, the then CEO was Helen Garnett, who then, I thought, was a very good CEO, and did well for ANSTO.

I think she did, yeah.

We all thought she was terrific. I think we did a good job on ANSTO. I think there was some tricky issues about -

The new reactor?

Well, the new reactor came at the end of my tenure, and I was on the board when all the stuff was initiated, but I'd left the board by the time the new reactor came into being. But there's a whole lot of PET pharmaceuticals and all that stuff, which was quite controversial, and whether we continue with the production from those little cyclotrons?

The medical cyclotron?

The medical cyclotron, and I know Rafe wanted to close it down and had tied it all up, and I remember Colin Adam and I were the ones that said, "No, no, you can't do it, Rafe. It's very important for medicine." And there was that one in Sydney where the beam goes under the road into the scanner on the other side of the road, and we went and actually had a look at that, and I can say, well, I think we saved that, for better or for worse, but at the time, we thought it was pretty good.

And environmental concerns, you know, because the houses were getting closer to the boundary around then, weren't they?

Oh, yeah, but that didn't -

So you weren't -

That didn't fuss me at all, Terry. Bear in mind, you know, I had come from Harwell in England, I had actually done some work in Grenoble, you know, I don't know whether you've been to Grenoble, but the reactor's in the middle of town, you know, right bang in the middle of the city, there's this huge bloody research reactor, the ILL, the Institut Laue-Langevin, and Peter Day was the director.

And John White.

And then John White worked there. Absolutely. And so, you know, having a reactor close by houses and buildings and city didn't faze me in any way whatsoever.

Right. And the environmental - local protests weren't such as to impinge upon you that much.

No, no, no. We spent a lot of time thinking and talking about - Ted Ringwood's synroc, and all that stuff, you know, which all seemed to me to be pretty good stuff at the time, but I don't think much has come of it. But at the time, it was on the right track. Yeah.

So while you were on the board, the organisation had a number of controversies. So the Charter Pacific stuff, I think, was around that time, to do with the, you know, the banknote controversies, the Cassegrain debacle.

So I just need to mention, Tom, that we need to think about what we talk about here because this occasion is not legally privileged. So if you keep it, if it's all just general stuff you want to say, that's fine. If you want to talk about more specific stuff, we might have to go off the record.

I don't have much specific things to say about it all, Terry. I remember it being an issue. I remember Adrienne and Doug Shears spent most of their time on the board dealing with that, and we, as board members, knew that it was a tricky issue, we knew that CSIRO probably wasn't blameless, although I won't say exactly what or how or why, but -

In both issues - Charter Pacific and Cassegrain?

I remember them as issues about the banknote, but I was never close to that at all, Tom. But Cassegrain, I was closer to, because it was to do with soil and deep banding, and all that stuff, which I was actually interested in. But again, Adrienne and Doug did most of that behind the scenes solving of the problem. I think Adrienne will say that they solved it satisfactorily. Now, again, I was not privilege to all that stuff and I didn't want to get involved.

So the board itself had heard reports of it, but wasn't involved in the nitty gritty.

Not in the nitty gritty, not at all, Tom. And Adrienne would just say, "Doug and I, Doug's put a lot of time in it," Doug had only just got on the board and I think he was determined to show that he knew something about this and he knew litigation and he knew the inside of courts and so on. So he was extremely valuable to Adrienne in helping solve that. You would know more about it than I do.

Unfortunately. Just before you leave it, any comments about Stocker's role at that time, or those issues?

No, not really, Terry. No. I think all that, I'll just leave sleeping dogs lie. I, in some ways, deliberately didn't want to get involved in that stuff. Except as a board member, we knew it was happening, we knew, we were told by the chairman that this had happened and that had happened, and at the end of the day, the chairman said it's fixed. End of story.

Activities as Board member

So when I look through the co-research records, it gives a lot of examples of you, as you said yourself, you visiting divisions. So that clearly was something that you thought was a useful thing for you, as a board member, to do. Was that your own initiative, that you did that?

Well, I guess, basically, Tom, I'm an inquisitive guy, and I like visiting and I like talking to people and I like understanding what they were doing and why. And I found it a fascinating time.

And how did that help you, as a board member?

Oh, it's invaluable. There's no way that I could have saved three areas without actually, "Look, I've been there, chairman, I've been there. I know what's going on and you can't do it. I've been to Kapalga, whatever it's called, Kakadu, and I've been there, and I know this is happening, I've been to this lab. You can't do it." And I feel quite strongly about the business of - not all board members, they don't have the time, nor the inclination or maybe even the money, it's expensive to travel around the place, but some board members have to do it, in my view. And there's nothing like bringing a personal experience to the table, saying, "Well, you know, I've been there, I've talked to those people, and this is what they say and this is why they're saying it." And when I was on the CIMMYT board, I used to always lament the fact that the CIMMYT board -

What is the CIMMYT?

Oh, CIMMYT - that's the International Maize and Wheat Improvement Centre of Mexico. Centro Internacional de Mejoramiento de Maiz y Trigo – there you go. Acronym CIMMYT. It's the only Spanish I know, Terry! But the CIMMYT board, in my time, never travelled. They only went to headquarters and that was it, and I used to always say, "You should be travelling around." And when I joined the IPGRI (International Plant Genetic Resources Institute), now Biodiversity International - board, they had a policy of two board meetings a year - one in Rome headquarters, that's fine, and the other one in September was always in one of their five or seven regions of the world. And it was absolutely invaluable.

When you were on the CSIRO board, did that meet around the place too, in other centres?

Yes, it did, it did, but maybe not as much as it should have. Sorry, Terry. I didn't put this on.

It's all right. I'm sure we're picking it up.

We met in Hobart a number of times, we obviously met in Sydney quite a number of times. I can remember meeting in Perth. Did we meet in Darwin? I can remember going to Darwin, but I can't remember if it was a board meeting or not. I don't think -

There was one in Katherine, but I can't remember whether you were there.

No, no, I don't think I've ever met - oh - did we meet in Katherine? I don't remember the whole board being there. I remembered Kevin Foley and I being there.

It was a side visit to Kakadu as part of that got a little aircraft.

As a board? Oh, yes, yes, yes. I think so. But whether I did that with Kevin or not or whether it was the board, I don't remember. We spent time in Western Australia and we went up to Karratha as a board. So we did travel around a bit, Tom, but, you know, carrying a whole board around is quite expensive.

It is an expensive activity, but from the point of view of a person who's been in a division and been on the board, I think it's extremely valuable.

Yes, indeed.

For the board to be seen by the troops.

But it is also important for individual board members to go on -

Absolutely, Terry.

Can I - you and I interact because you came on the Dunlana Board for a short time.

<laughs> That's right! For a short time, that's right! I can remember the DuPont people vetting me left, right and centre!

They were suspicious that you might be against crop protection.

That's right. But I was a farmer and I used them all the time, and I used the DuPont products all the time. But that was very interesting stuff, very interesting. And when it changed to paint coatings or whatever, that's when I left.

Well, there were two - CSIRO had two agreements with DuPont. One was the crop protection chemical one, which ended some time, and there was this strategic alliance for controlled radical polymerization to do with producing automotive paints.

That's right, that's right.

But that wasn't – Dunlana had nothing to do with that.

Dunlana had nothing to do with the paint?

No, no.

OK, sorry.

But you would have heard about both of them because they were both with the same people.

Yes, yes, OK.

And you got some involvement with Doug McGuffog about organochlorine.

Doug McGuffog? Who's he?

Well, he was somebody who wrote to you, he was to do with crop protection chemicals, organochlorine things, and he wanted you to intervene with the regulators to McGuffog and Company to try to get CSIRO to argue in favour of organochlorine. And you handballed it to someone else.

Oh, that's why I don't remember it because I don't remember anything about that! I was always very conscious of being a board member and the extent to which I should be getting involved in this or that or whatever, and I always took the view that I should be hands off and flick it to whoever really was responsible for it. Because I was very nervous about

entering into things that are going to provide embarrassment to either the organisational to me or the CEO or the chairman.

Yes, or conflict with your role as a board member as opposed to the role of manager.

Exactly right, Terry. Exactly.

Not everybody was as meticulous as you on that point.

No, well, I've always felt very sensitive about that point, and I'm not quite sure where it's come from, because I learnt my board roles and responsibilities mainly from my early years on the CSIRO board.

So another issue that you may or may not remember, but you got involved in a bit, was the management of ex chiefs. So there was a series of correspondence between you and John Lowke about how the organisation went about what happened to chiefs when they retired.

Finished their term. But still working.

And you wrote, you were clearly involved in that. You wrote a letter saying that you were interested in it.

Did I now? <laughs>

I mean, when I saw your file, I looked at this because it was something that I was interested in. But you don't remember it?

I don't remember writing this, but I remember discussion because I think it started maybe with John Philip, because he was a famous chief and no-one wanted to see him kicked out into the street sort of thing, and I think -

Some of us did. <laughs>

Yes, I know, I know, but he was a very eminent person, and I think the end result of all that was that - that's when CSIRO Fellow or CSIRO - what was the -

Yes, CSIRO Fellow.

Fellow came into being. I think he was the first, wasn't he?

Possibly, yeah.

And further that - as happened, because I think I might have brought my Oxford experience here, where a retired professor of Oxford, I think, nearly automatically gets a desk somewhere in Oxford, but not in their own department. They had to go somewhere else, not to cause trouble. And I think - I don't know whether that became CSIRO policy, but it was my view it would always be that John Philip could have a desk somewhere, but not in - what was it - water management or water, whatever it was?

It was at the Pye laboratory.

It was in the division of environmental mechanics.

Environmental mechanics. That's right. Not in that division. Somewhere else. Fine. But I don't remember writing letters, though, Tom!

So anyway, it's an ongoing issue. It became, in the old days, chiefs were appointed for life, so it wasn't a problem. The organisation had some responsibility to provide them with something. When they had fixed terms, then that started.

Yes, yes.

And as the terms became shorter and chiefs became younger, that became -

A bigger and bigger issue.

A bigger issue.

Yes, yes.

Anyway. So that was just something that we found in your file. So you finished on the CSIRO board in 1995, I think. You'll find the final extension to March 31st, 1995. So you got a 3-month extension to presumably, in the transition for -

Don't remember.

To McIntosh

When John retired and there was some sort of extension of all the board members for a few months until the new - until Roy Green started. And after the CSIRO board, which was in 1995, a long time ago, you've continued activities in various agricultural and scientific research boards and so on. So, first of all, what is your - how do you see your role as a CSIRO board member influencing your posts in your career? I mean, clearly -

Oh, you know, it's clearly a very strong background, Tom, and even today, it's a very privileged position to be on the CSIRO board. As I said, strong background to step into all sorts of things. And these days, you know, it still carries some prestige and some real interest.

Post CSIRO Board activities

So what have you done? What did you do after?

I'm trying to think.

You're the chairman - at the moment, you're the chairman of the -

Well, when I left the CSIRO, I joined the CIMMYT board in 1996 and that's based in Mexico, and that was my introduction. Have you come across the CGIAR? The Consultative Group for International Agricultural Research.

I have, yes.

That used to be based out of the World Bank in Washington. And there are 15 international agricultural research centres scattered around the world.

And one in the Philippines.

And there's one in the Philippines called IRRI. IRRI and so on, and I became -

And I think there's a timber one in Jakarta, the forest one.

There's CIFOR in Bogor. There's also ICRAF, the World Forestry Centre in Nairobi. I could rattle off the 15 for you if you want me too, Tom. But that was a major - I won't say turning point, but opening for me, to be part of international agricultural research. It was fantastic. And my learning curve was nearly vertical. The International Maize and Wheat Improvement Centre, you know, 80, 90% of the wheat varieties in Australia have pedigrees to Mexico. I remember clearly when my father got this new variety of wheat called Oxley, it was a Mexican semi-dwarf wheat. Well, I never knew anything about Mexican semi-dwarf, OK, it didn't go quite as high. But when I joined CIMMYT, you know, the first person I meet there is Norm Borlaug. And I used to - and I said the other day when I was doing something, you know, I used to have breakfast early in CIMMYT. I used to go down to the cafeteria at 6:00 in the morning and have breakfast. And here's Norm sitting there having breakfast by himself. "Come and join me, young fella." "Young fella from Australia," I was. And to be bear-hugged by a Nobel Prize winner was fantastic. He's the guy that did it all. Just wonderful. And then I had some really good mates who were actually on the board of CIMMYT, you know, Cary Fowler, I don't know whether you've ever heard of Cary. The architect of the Global Seed Vault in Svalbard. OK. He had influence and he got me onto the board of IPGRI as it was then, which we changed the name to Biodiversity International. So I was chairman of that for five or six years. That was based in Rome. So I used to go to Rome. And in 2009 or '10, I went to Rome seven times in a year and it nearly bloody killed me. So that was my seed, you know, I spent 12 or 13 years in the CGIAR system. So I know it well.

And is that associated with United Nations?

Only through, oh, FAO's sort of involved, but it's mainly through the World Bank, and early on the Rockefeller Foundation.

So that's where the money comes from, is it?

Well, the money comes from donor countries like Australia. And the irony - well, not the irony - the interesting thing is now I'm a commissioner for the Australian Centre for International Agricultural Research, you know, ACIAR in Canberra?

Yes.

So now, I give the money out rather than go begging to Australia for more money.

And you're the chairman of Plant Health Australia?

Yep.

Is that a big task?

Oh, yes, that's as big as you want to make it, Tom. But Plant Health Australia is a very interesting organisation in that it's a company, but it's a third Commonwealth Government, a third all the state governments and a third all plant industries. And there's an equivalent Animal Health one. And it's the only - Animal Health Australia and Plant Health Australia are the only two organisations I think that exist that have Commonwealth Government, State Government and industry all in together. And so, increasingly, PHA and AHA are being used as a way of furthering industry and government interests together. It's a very interesting model and looked upon now around the world as being a very interesting one and one that actually works.

And does that have some influence in research at all? So what's your impression of the way that research for the plant industries in Australia is going at the moment? When you were on the CSIRO board, CSIRO spent a large percentage of its money on plant industry research and animal industry research. It still does. So how have the research priorities of that now decided, in your opinion, how is that all going?

Do you know Bruce Kefford? He used to be Deputy Secretary of Agriculture here in Victoria.

OK.

Excellent, excellent person. He's the guy that drove the RDE Strategy in the rural sector across Australia.

RDE?

Research, Development, and Extension Strategy. And so in the grains industry, for example, one I know better, is that there is a strategy that brings together all the R&D providers in Australia to home in on particular issues, getting rid of duplication, making sure it's all efficient and so on. And the grains industry one actually works quite well because it's a single industry. The ones that are difficult are the cross-sector ones, and biosecurity is really a cross sectorial thing.

That's your Plant Health Australia.

That's where PHA fits in. Now, PHA itself doesn't do research. It orchestrates research, it says, "You should be doing research here or you should be doing research there," and PHA has now just about implemented an RDE strategy for biosecurity. So it's pulling it all together and saying, "This is a rational view of what should happen in the country" from the point of view of biosecurity. And there's ones for water, there's ones for many of the

commodity industries around. So CSIRO is part of it, but not actually leading it. And Bruce is the guy who started the RDE Strategy idea across the whole rural sector.

CSIRO is part of Plant Health Australia, isn't it? It's an associate member?

It's an associate member, that's right, that's right.

So what does Bruce Kefford -

Bruce Kefford was the guy who introduced this sort of idea of the RDE strategy across the whole rural sector for the country. Because he was sick and tired of seeing all this money frittered away, things being duplicated, things not being dealt with efficiently. And so he drove it at COAG.

And is he still doing it?

No. He left the department about two years ago. He's on the board of PHA now. I got him on the board of PHA. He's a consultant that roams around. He's terrific. He's very sharp and fearless and he's a big bruiser of a guy. You don't want to pick him. He's extremely good. He did a lot of work with Brumby and, you know, you've heard of AgriBio out at La Trobe University?

Yes.

He was the architect of that. He is now the chairman of the joint venture that runs it all.

And so, sorry, I just want to follow up on that point. In terms of organising research in Australia and support of plant industries or animal industries, does that include trying to have some control over the direction of research in universities?

Not really, Terry.

So it's only the public research organisations?

Well, I think universities are involved, and it's a sort of a fairly loose arrangement, but universities are involved. In terms of trying to be a little more efficient and getting rid of duplication in research. Now, as I say, I'm talking about the grains industry. There is a 50-page document on grains research in Australia. And the interesting thing - you've heard of my involvement with Svalbard, you know, the plant genetic resources area and putting seeds into the Global Seed Vault. Now, the reason - one of the reasons that happened is that on page 52 of that RDE Strategy, it says, "Victoria will take the lead in plant genetic resources." That's agreed. And can you remember PISC?

No, don't remember that.

Primary Industries Standing Committee. It was a committee of all the chief executives of agriculture departments, chaired by the Commonwealth. Doesn't exist anymore, but PISC used to pronounce on these things. I happened to be at the meeting where PISC said,

"There's the grain strategy, let's agree, everyone agree, that's it." OK. That became, in inverted commas, "law". Because, well, I'm going off on a tangent now, but because it said on page 52, that Victoria takes the lead in plant genetic resources, that meant that Victoria can sign on behalf of the Commonwealth anything to do with plant genetic resources. And when you put seeds into the Global Seed Vault, you have to enter into a contract with the Kingdom of Norway and the depositor. And it's complicated by the fact that this all happens under the auspices of the International Treaty for Plant Genetic Resources for Food and Agriculture, which is ratified by the Commonwealth, not the states. And so one of the reasons that seeds have never gotten to Svalbard is because the Commonwealth has ratified the treaty, but the states held all the germplasm. It was a classic case of Commonwealth interaction that never existed. This Grains Industry RDE Strategy fixed it. I pointed out to the then Commonwealth Secretary, "Listen, Secretary Connell, this is what's needed to happen." He said, "Oh, I don't know about that." Anyway, he came back later and said, "That's all right."

So, Tony, the CSIRO has a huge investment in plant industry - what we call the plant industry - cotton, wheat and so on. How does that interact with all of these things that you've been talking about? Do any of these bodies that you're familiar with have any influence on the direction of CSIRO research? That's my first question. My second question, which is related, is as the CSIRO has evolved, agricultural companies have increasingly been the customer of CSIRO's plant search in day, probably when you were on the CSIRO board, they weren't. But they now are. How has that influenced - how is the role of these large agrochemical companies influencing research in the area?

Well, the first question I think you have to ask, Tom, is why is it that CSIRO needs to be involved with Bayer, for example? And the answer is that even CSIRO is not big enough to be able to take on the world, to commercialise, particularly if it's GM of any form. And so you have to get into bed with a multinational. Even if it happens to be Monsanto, you know, the nasty Monsanto. It's just a fact of life. And if you do the deals correctly, that's fine. And the CRC that I was chairman of, molecular plant breeding -

Was CSIRO part of that?

I think it probably was.

No, I don't think it was, actually, Tom. I don't think it was. No, I'm sure it was not. I'm sure it was not. How are we going for time?

OK.

One of our major partners was BASF, and we dealt with BASF, and its plant division was BBS, BASF plant science. And we did a deal, and it was a very simple, common sense deal about who should commercialise what where. And it was complicated because we had CIMMYT involved. So CIMMYT looks after developing countries and so we said, "OK, we, in Australia, have commercialising rights for Australia, end of story." CIMMYT can give away its stuff for free, which is incumbent upon to do so for developing countries. BASF can make us money from the rest of the world. It seemed a very simple thing to do, and we wrote it up. The only

complicating factor was basically, how do you define a developing country? And there were some arguments about that. And Mexico was a special case because that's where CIMMYT sat. I'm more than happy with that sort of stuff. But you have to deal with multinationals to, in my view, get any progress of actually getting stuff out into the field.

I guess my question is - do the priorities of Australian agriculture always fit in with the priorities of the companies?

Oh, well, in general, in the main, yes, would be my view, Tom. Because what is a farmer want? It doesn't matter if the farmers here in Australia, in England, in America, or in Uganda. We want better varieties, faster with better disease resistance and better qualities and all the rest of it. Now, there might be specific things in specific countries, but in general, that's fine, would be my view.

So you mentioned the term "Research Development and Extension" and the state departments used to have a lot of extension work. Do they still have it?

No.

So who does the Extension?

<laughs> That's a very tricky question.

And what role should CSIRO have in that?

Oh, God. Well, Extension first. State Departments are slowly getting out of all that. It's wound down a lot. And, interestingly, I am a board member of FAR - Foundation for Arable Research in New Zealand. So I'm the Australian person on the New Zealand board. But FAR New Zealand has an Australian arm called FAR Australia that Tim Reeves is the chairman of. And we've just had a review of it all. And do you know, you know Mick Poole.

Yes.

So Mick was one of the reviewers. And Mick's view, FAR Australia potential is very high because it's slowly filling the void in terms of extension and doing trials and trial plots and so on, that's been left behind by State Departments. So, you know, the private sector, in a way, is filling the gap, a bit slowly, but that's what's happening. So the private sector's moving into that. And I guess, to be fair, to the Victorian Department of Agriculture, and again, this is Bruce Kefford, when he was deputy secretary, he said, "OK, let's have the Victorian department do things that the private sector can't do." The private sector can't do high-powered research like German Spangenberg does out of AgriBio. But, you know, simple trials and simple things the private sector's moving into, and that's what's happening. And I think it's a good model.

And the consultants all around -

The consultants have appeared from nowhere, Terry.

Yes. So they take the place of the Extension offices.

Yes, indeed, they do. That's right.

And farmers have to pay and the farmers pay.

That's life. And some are good and some are not so good. That's the nature of the private sector. So you choose and so on and pay accordingly. I have no problem with anything like that.

So while you were on the CSIRO board, I think cotton research in CSIRO developed, and has become one of the big success stories of CSIRO. How do you view that interaction of CSIRO and cotton?

Well, the thing you have to remember about cotton, Tom, is it's a relatively small industry. It's relatively concentrated in a particular area. So it's much easier to interact and control and do business with, so there's a small, relatively small, a small area of northern New South Wales and Queensland. And they're very focused and you mentioned before about setting priorities, well, for agriculture, well, the priorities are set from commodity to community, and the cotton industry is a really good example of a small, concentrated area. "This is what we want," and CSIRO stepped in and did it.

And there's not many organisations that CSIRO has to interact with in respect to cotton.

Exactly. There's the cotton R and D Corporation and the cotton CRC and CSIRO, and that's it.

And CSD. Cotton Seed Distributors.

Cotton Seed Distributors. the industry body. That's exactly right. And so, it's relatively simple. Whereas to interact with the wheat industry, you know, it's bloody nearly impossible. You've got wheat growing all over Australia, you've got all the states having their own bits and pieces, all interacting and creating havoc, frankly. So it's, you know, agriculture is very broad and trying to set priorities there is quite difficult. But it does depend on commodities.

I'd just like to ask about - I'm really pleased about how much we've got into just in this last 10 or 20 minutes, about your experience. It seems to me that thinking about CSIRO, CSIRO have still got an enormous amount to learn from you, personally, because of all the international and national connections you've got. Does CSIRO consult you at all, except by your partner?

No. There was a time when I was on Jim Peacock's advisory committee, and that was good. But I haven't been part of CSIRO for a long time.

But CSIRO doesn't reach out to you at all?

No.

Right. Should they?

Oh, I'm nearly a has-been now, Terry.

But no, you're not. I mean, you're still actively involved with lots of connections, a huge network.

All true, all true.

Future role of CSIRO

So, Tony, given all that we've just said, what is now your message to CSIRO? What is your impression of CSIRO in 2017 and the way that, its place in the national innovation system?

When Edwina first joined the CSIRO board, one of the first things she had to deal with was the strategic plan. And one of the things which I have learnt over the last many years about strategic planning, the most important question, to me, is purpose. What in the hell are you there for? And I don't think CSIRO has refined its purpose correctly or enough. Is it meant to do basic research? Is it research that's closer to industry, is it meant to do Extension, is it meant to get into bed with business? God knows. And so, trying to define exactly what CSIRO's purpose is, I think, is number one. And I'm not sure it's been done correctly.

Was it done correctly when you were on the board?

That's a good question, Tom, and I think people were just sort of coming to grips with all of this sort of stuff. I think I said right at the beginning, strategic planning in the middle '80s was not terribly important or thought about greatly and, you know, I think you said, Terry, the chiefs did what they wanted to do and many chiefs had a right and they just did stuff. And so all that strategic planning is all relatively new in my view. I don't even think we really had a proper strategic plan in those days, Tom! I don't know! What's your recollection?
<laughs>

Well, I think you did.

Yes, I think we did, but -

From the time of the Birch report in - the implementation of the Birch report, CSIRO started having, developing plans, and Terry Healy was involved in some of that.

Yes.

And Don Weiss was the planner and then you had various professional planners came in. So the organisation had started doing strategic planning in those -

But -

But not as - it wasn't as well developed as it is now.

No. And, again, every organisation I've been involved in, I've always tried to get the powers that be to distil down a strategic plan to one page. You know, just what are we here for? Just bang, on one page. And that forces a whole lot of discipline, which people find very difficult. And then when you look at a strategic plan, 50 pages of really high-powered stuff, it's bloody turgid stuff that you're never going to get anything out of it, really.

So what is the purpose? What is, in your opinion, is the purpose?

<laughs>

If you were a chief executive.

Oh, dear, Tom, that's a difficult question. And I know Edwina finds it difficult as well, because the role of universities and what universities do now is really quite different to what it was, certainly back in '26, and even right up to the '70s and '80s. Universities were not doing what they do now. And so there's this huge change in what universities -

Well, Monash University's research budget is similar to CSIRO.

Exactly. And they do a whole lot of stuff.

That thing fell off.

They do a whole spread of stuff. And also, getting close to industry, and also doing basic research. Ended question is, you know, the extent to which CSIRO should be involved in basic research. And you have to say, well, maybe it should be in some things. But what's its real purpose? Is its real purpose to translate science into industry? Is it to help make money for the country? Solve national problems that universities might not be able to do? Universities are - I'm discovering more and more, that universities are very selfish and they just want to do their own thing and academic freedom seems to be all the rage, and to try and buck that and tell the university researcher what to do is just an anathema. And I've been hearing stories about those sorts of things from Bruce, who's the chairman of the joint venture between La Trobe and the Department of Agriculture. The culture differences are just stark. And how you get around that is very difficult. And where that leaves CSIRO, God knows, Tom. It's an extremely important organisation, it has been important, it should still be important, but it needs to be there to tackle national issues, which I don't think universities are - it's in their remit.

Yes. That's clearly - the act says that's what its purpose is.

That's the best interpretation of it.

What - the act?

Well, if you interpret the act, then CSIRO should be concentrating on national scale problems, which can be addressed through science and technology.

Exactly right.

And which is partly why you had a discussion a little while ago about the CSIRO getting the right inputs from the community and people like you to enable that they make sure that it actually identifies those problems, prioritises them correctly and get onto them and does it in consultation and collaboration with wherever it needs to work with, and that's a huge question in its own right.

And it strikes at the very heart of scientists wanting to do their own thing. And, you know, should - so the board tells the chief to do this and the chief then tells his scientists or her scientists, "This is the area you've got to work in and this is the problem we have to solve."

But it's got to be a backwards and forwards, up and down, and I think that was in your paper.

Which is exactly what you said in your 1988 -

1988! Well, there you go, Tom! <laughs>

Because people sitting up here can't tell scientists what to do because they don't know enough.

Exactly.

Never can.

Yes. No wonder I want to read this in again, Tom!

So, I mean, I think - this is my experience, is that the greatest fun I had as a scientist in CSIRO when I was doing, working on a very interesting scientific problem that had a well-defined application.

Yes.

With people to talk to on the other side.

People to talk to. So that is, in my mind, that is what CSIRO should be doing, solving those sort of problems or working on those sort of problems. And that requires - this is the argument for CSIRO - that often requires a very broad disciplinary base.

Yes. Yes, indeed.

And large-scale.

And large-scale, that's right. But it's the broad disciplinary base. And, you know, you've just precipitated another thought that - Kevin Foley and I used to have talks about this sort of thing, particularly with the restructuring of the institute model. And Kevin used to often put up the model of, I think what happened in Sweden where you pull people around, created a task force, solve the problem, put them back and start again. And Adrienne and I were the two who were much keener on having disciplinary homes for scientists. So if you happen to

be a plant scientist and your home was plant industry, you might be dragged off to do all sorts of things, but your discipline home was there. Now, you know, I'm not sure how that sits with the current structure, Tom.

Well, it sits very well with the current structure. People have good disciplinary homes. And I think that you're absolutely right. That multidisciplinary research requires strong disciplines for them to interact.

Yes.

I think that's - I think we agree on that.

In other words, we mightn't agree on other things! <laughs>

All right. Well, I think that we've pretty well covered all of our issues, Terry.

And it's just 11:30.

Oh, goodness. I haven't talked enough!

Well, no, I thank you very much for spending all of this time with us, and if we think of other things, we might call you back again. So thank you very much again for spending this time with us.

Yeah, I agree with that.

[End of transcript]