



CSIRO Oral History Collection

Edited transcript of interview with Beth Heyde

Date of interview: 21st November 2017

Location: Black Mountain, Canberra

Interviewers: Tom Spurling and Terry Healy



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Dr Thelma Elizabeth Hyde *BSc (Hons) (Qld), PhD (ANU), Grad Dip Admin (CCAЕ)*

Summary of interview

Dr Beth Heyde first talks about her early life in Queensland as the daughter of school teachers, her education in Innisfail and other parts of rural Queensland, her interest in biotechnology at the University of Queensland and then at the Australian National University in Canberra, and her later marriage and career.

Beth then talks about her time in England in Sheffield and Manchester, followed by her return to the ANU for an extended period – 1968 to 1980. After a short time in the Department of Health, Beth joined ASTEC – from 1981 to 1987.

In January 1988, Beth joined CSIRO as Principal Secretary. In that and subsequent roles she served six Chief Executives of CSIRO – Keith Boardman, John Stocker, Roy Green, Malcolm McIntosh, Colin Adam and Geoff Garrett. She provided policy advice and administrative support, focusing primarily on CSIRO's relationships with governments, including Ministers and Departments.

NOTE TO READER

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Introduction

So, thank you, Beth, very much, for agreeing to take part in this CSIRO history project oral history collection. We're in Canberra talking to Beth Heyde, and it's Tuesday the 21st November 2017, and we're at a very good office in Black Mountain, right in the centre of the organisation's Canberra laboratories. So, Beth, in this interview we're going to talk about your early life and experiences, your career before and after CSIRO and your views on the evolving role of CSIRO in the national innovation system. So, let's start at the beginning. So, you were as I eventually worked out from reading things, you were Thelma Elizabeth James.

That's right.

Family background

So, can you tell us a bit about your early life, your parents, siblings, primary school experiences and so on?

Right. Well, I'm the daughter of two teachers, both primary teachers. My mother was an infants/entrance teacher. My father a primary school teacher, and I was born in Brisbane. Lived there for the first four years of my life. I can remember exploring the back yard for tree frogs and all sorts of things like that, and when I was four and a half, my father was appointed to his first independent school. He'd been teaching scholarship level at Junction Park School in Brisbane, and he was appointed as the head of a little school in the dairying country north east of Toowoomba, at Ravensbourne. There were 27 students at the school. Everything from kindergarten to scholarship which was age 13 or so. There was a radio line from the school house to the school, and my mother used to switch on the school broadcast for health issues and this would be broadcast up to the school. There was nothing around. You could see one house if you stood in just the right place. So, I spent a lot of time exploring nature. So, then after being there for about three and half years...

So, were you at the school?

Yes. I started school there. I went into kindergarten there, and because it was one teacher for all those classes, my father prepared books to help a student ask questions from a previous lesson of a certain cohort, and the answer would be given or the answer or the brackets, it would say, see me which means this is too complicated for you - I'll come and deal with it later. So, then we were transferred to the sheep country, Tara which is a CSG hotspot these days. At the end of a little railway line, a spur line from the Roma line I think. This was a promotion for my father. He got promotions every three years, which was the minimum time you could...

This was still a one teacher school?

No. This was a three teacher school, and at that stage, because there was only the one school in the town, my mother was permitted to teach at a school where her husband was the principal, and so she was at the lower end of the school. He was at the top end, and we

had another teacher who taught the middle of the school, and we provided quite a bit of social support to whoever that was. I can remember one...

We being your family?

Our family, yes. Oh, I should have said I've got a brother. My brother was born in Brisbane. He's three and a half years younger than I am. When we set off from Brisbane in the first stage, he was only about a year old, and we had to buy a cow. Our own cow, in order to supply the necessaries for the young children, and my mother said if they bought the cow, she'd learn to milk it, and they bought the cow and my father learned to milk it, but mum made butter and all those sorts of things. There was no electricity. Rain water. In a drought you took your washing down to the creek at the bottom and did it there. So, next was Tara, the sheep country. There was still no electricity. We had an Aladdin lamp on the dining room table, and a Tilley pressure lamp in the kitchen, and we had the delight of a kerosene refrigerator, and my mother made ice cream for the first time. It wouldn't pass as ice cream by modern standards, but it was very welcome, and I do remember my mother saying – on a Sunday afternoon she would put a lovely starched table cloth on it, and she'd make scones or lamingtons from scratch, and we said, "Why are you doing this mum?" And she said, "I don't want us to forget the civilities."

So, was that a wood stove?

Yes, wood stove.

Great in summer.

Sorry?

In summer, it would have been rather warm.

It would have been hot, and in winter we had to remember to get water in the kettle the night before because the pipes might freeze. From the rainwater tank. So, that was the sheep country. It was a prosperous time.

That was Tara?

Tara, yes. We're talking 1950, '51. The graziers were doing very well. There was a picture theatre, and I remember seeing Henry the Fifth from the front row there, and thinking wow. And I remember seeing Marlon Brando in some film and thinking, that's different. So, it was quite a social place. I learned to ride a bike, and there was a library train that came...

A library train?

A library train, which came probably about once every couple of months, and sat at the Tara station at the end of the line for a week, and I at that stage was reading the Mary Grant Bruce books. A Little Bush Maid, and the ones that followed. There'd be more than a dozen of them.

The Billabong series.

Yes.

The Billabong books. Yes, I read all of those.

Yes, and I loved them, and I was desperate to read the lot. They had them all and I had one week in the hours after school, and of course I couldn't do it, but I do remember that library train rather fondly. The only copy there that I owned of that series, which was the first one. I had planned to give it to my granddaughter when she got to the age of 10, and I thought, when she got there – she's now 13 - she still doesn't have it. I read it again and I couldn't give it to her at that age. I thought, this requires some conversation, because the attitudes to Aboriginal people were kindly but so paternal. You know, it was embarrassing. So, it gave a feel, being set in the early 1900s, and the boys went to the First World War, and so quite exciting. So, that's Tara. Then there was a preference list that teachers had to fill out for where they were prepared to go. Sometimes they were sent where they didn't prefer to go, but anyway my parents decided to be courageous and they were prepared to go as far as the southern bank of the Burdekin River, because they knew that the river flooded every summer and they didn't want to be on the wrong side. So, they put Home Hill on their preference list. It was a school that fitted where my father was eligible to be promoted to next, and lo and behold, we got it, and I remember my parents' families were in Brisbane and Maryborough. So, this meant we were going to be a long way away, and I remember being on the train on our way there. The car was on the train. The furniture was coming afterwards, and we were approaching Home Hill, and it was fairly barren looking. It wasn't sort of lovely green tropical forest like you might think in North Queensland, and I remember my father trying to keep the morale of the family up by making lame jokes, and there was a sign where it said whistle, and of course it was meant for the engine driver to blow the whistle, and he said, "Oh, now we've reached Whistle," and I remember thinking, that's a very bad joke, but he was trying to reinforce our morale because we were really going a long way away.

Did you say you had a car at that point?

Yes, we had a car. We had a car from about 1944 – my parents had a Whippet when there were just the two of them, and they had a dog that used to ride in the dicky seat. When we were shifting to Ravensbourne, we bought a second hand 1934 Ford. One of those very square ones, and had that while we were there. In Tara, we bought a new car. It was a Ford Custom. So, that was quite a lovely big car, but the roads were very bad once you got north of about Bundaberg and unsealed and quite difficult in wet weather, and of course we were travelling up at the beginning of the year, so the roads were basically impassable. That's why the car was on the train. Stayed at a hotel.

So, Home Hill was a small town?

It had electricity, it had a pharmacy, it had a bookshop.

So, the town was called Home Hill?

Home Hill, two words. It's opposite Ayr - Ayr is the big brother. We stayed in the hotel until the furniture arrived. The house was opposite a cane field. You crossed the road...

And that was a house provided by the Education Department?

Yes. The head's house was next to the school. It was quite a good school, quite a big school. I think there was staff of about 10. Unfortunately for us it was growing at a rate that meant it went through that classification and into the next one before my father had been there three years. So, he had to be shifted until he'd fulfilled his three years of that size of school, and they shifted us to Tully, which was the wettest place in Australia.

And that was called the Tully Rural School or something?

Yes, that's right. That's right.

The Tully State Rural School.

That's right. I don't know where you got all this, but yes. So, I really loved...

And what year were you then?

I would have been almost 13 and entering the last year of primary school.

So, the scholarship exam in Queensland was a 12 plus exam, not an 11 plus?

Most people were 13 when they did it. Four years of secondary school only, that's all. So, it was short change I think in terms of general education. Yes, so 13.

So, how many years of primary school did you have in Tully?

One, one and so, that's where I finished my primary school.

And you won the Lilley Medal?

Yes, yes.

And the Lilley Medal – so, you were the top girl student in the State?

Top any. There were a boy's and a girl's medals, and I think...

1953, Thelma E James.

Yes, that's me.

And your other person was Alan D Baker.

Right, yes. I didn't know him, no.

So, that was probably a bit of a coup for Tully Rural State School?

It was, and it was a great thrill for my parents. I think that my father in particular realised I probably had a chance of doing it, and to cut a long story short, they looked at my maths paper after I'd handed it in and saw that I had got it all right, and I remember dad saying, "This could come off you know," and it did, and it was a great thrill for them as well.

As indeed for you?

Yes well yes, but I think probably more for them.

And by then were you interested in mathematics and science at that point?

I was very interested in science.

Was your father?

I don't think so.

He presumably taught, did he?

He was a great teacher, a great encourager. I'm very grateful to my parents. Well, they were non-judgmental people. You didn't hear them gossiping about people, and I never felt that there was anything that was closed to me. They didn't push me, but I felt that I had every opportunity and I would be encouraged and supported.

So, you said that you were very interested in the rural biology I suppose?

Well, that was what was around me from Ravensbourne to...

But what about the other? Physics and chemistry and mathematics.

Well, I quite enjoyed mathematics, and in secondary school I quite liked trigonometry and things like that. I mean there's something really nice about getting a problem out, and the logical nature of that.

So, after you went to the Tully Rural State School, did the scholarship give you anything?

No, a medal.

A medal. The honour and the glory.

The honour, that's right. Yes, yes.

So, that didn't get you into some school?

No.

Secondary schools in Innisfail, Townsville and Brisbane

So, what secondary school did you go to?

I had to board. I had to go to Innisfail and board. I used to go up on the train Monday morning, come home on the train Friday afternoon, because the Tully Rural School had a high school top, but it was very much technical.

So, the Innisfail school, is that a public part?

Yes. Innisfail State School, state high school.

And you boarded?

I boarded with a private family and rode my bike from their place to the school.

But went home at weekends.

And went home at weekends, and I had to do that because the Tully school did not deal with chemistry, physics or the standard academic repertoire.

So, Innisfail had the full curriculum?

Yes. It must even have had Latin, because I did Latin right through my secondary school, but it had chemistry and a lab and all of that.

So, that was four years of secondary school?

No, six months only at Innisfail, because by then my father was eligible for his next promotion, and he got it straightaway, and we went to Townsville. So, Mundingburra State School was the school that he was appointed to there, and so then I attended Townsville State High School which was four miles away by bike. And so, I rode four miles each way each day, which was very good for my fitness.

And so, in the Queensland system then, did you have some exam between when you went or the final exam, or was there just a final exam?

There was the Junior examination at the end of two years of secondary school. So, most people would have been 15 to 16 at that stage, and then there was the Senior examination at the end of secondary school where people were 17 to 18.

And that was matriculation?

Yes.

So, you did your matriculation at Townsville?

No. I went to seven different schools. It was character forming. I did junior at Townsville State High School, and then my father pleaded with the education department. He said, "My daughter's getting towards the end of leaving school. I want her to be able to attend university. I would like to be transferred back to Brisbane please," and they transferred him back to Brisbane. So, I spent my last year and a little bit in Brisbane. So, I had six months at

Innisfail, about two years in Townsville, and then the remaining year and a third at Brisbane State High School.

Were all these schools co-ed schools?

Yes.

And Beth, in those schools, do you think you were influenced by any particular teacher? Was your interest in science sparked by a teacher, or was it your general background?

I think it was mainly my general background, because I was really hooked, but I think it was a time when there was just a tremendous degree of interest in science. I do remember Mr Heron.

What year did you do your final year in high school?

'57. So, that was Sputnik time.

So, you ended up the same age – I mean, I had five years in high school, but I did my matriculation in 1957.

Yes, yes. So, same year. Yes, that's right.

Mr Heron?

Mr Heron was a science teacher at Townsville State High School, and I enjoyed his teaching very much. I enjoyed the English teaching at Brisbane State High very much. I really did enjoy the English teaching, and the maths teacher, Stumpy Russell at Brisbane State High School was a great teacher. I do remember, one day we were talking about permutations and combinations, and I remember getting quite a thrill out of – he gave this problem to the class and said basically what's the answer, and the answer was half what a lot of them thought, because early in what he'd posed, it was possible to turn this thing over and give you the other one, and I remember thinking that it really felt good to be able to just notice that. And one day he came in and he said, "Right, we've fulfilled the syllabus." He said, "Today I'm going to read to you from HG Wells, History of the World." So, the science teachers at Brisbane State High School I don't remember in particular, and I never got to do any biology at school. Chemistry and physics, double dose of maths, English, French and Latin. So, that was quite a heavy academic program, but I was of course very interested in nature, and so I really regretted that the stream I was in which was the academic stream, did not permit me to do what some of the people in the other streams did in some of the biology. So, I ended up at university having never studied biology, but having a tremendous interest in it, and so my first year at university...

So, if we just go back to matriculation for a second?

Yes.

You won the Lilley Medal as a 13. How did you go in your matriculation?

There were 25 open scholarships and I got one of those, and I was third on the list, and if I do say so myself, I carried a heavier load because I had seven subjects, and the people ahead of me had technical drawing and things like that, and only six.

So, was Alan D Baker?

I don't think so.

We've lost track of Alan D Baker.

Yes. Well, I never really knew Alan D Baker at all, but I think there was a de Jersey who might have been one of the people in that top group for the open scholarship. The de Jersey family produced a lot of famous people in Queensland.

Well John de Jersey won the Lilley Medal in 1957. So, he was a bit younger than you.

Yes. There were a couple of other brothers. Anyway yes. So, I had the open scholarship.

And you were talking about your interest in biology.

Yes.

Are you talking botany and zoology?

Zoology. Yes, I am.

Because it was very different those days to what it is now.

It was. Very different. Well I'll tell you an interesting...

University of Queensland

So, you went to Queensland University?

Yes.

Was that the only university then?

Yes, it was. And I turned up to enrol in science at the Dean of Science's office, and he looked at my record and he said, "I'm not going to enrol you in science today." He said, "I want you to think about doing medicine or dentistry." He said, "You will probably marry, and if you do, it will be a lot easier to maintain a career in those than it ever would be in science. You've got a week before the deadline. Go away and think about it."

So, who was this Dean?

I can't remember his name, but the year was early 1958, and I didn't feel I wanted to do medicine or dentistry, and I did want to do science, so I came back and enrolled in science, and he allowed me, because of my physics (physics in Year 1 was basically a prerequisite for

a lot of science courses, but I had done well enough in leaving level physics that he allowed me not to do physics) he allowed me to do both botany and zoology, and then maths and chemistry were my four first year subjects.

And did you do well?

Yes.

Then second year, what did you do?

The second year I did organic and physical chemistry. I did not enjoy organic chemistry. Zoology again, because I liked it so much, I wanted to maintain the possibility of a major in zoology. Biochemistry and physiology, I carried one extra unit. I can't remember exactly. I might have left something out, but I did carry an extra unit, because I had to do three units of zoology in order to keep the path open, and I remember talking to the zoology staff about what research was like in zoology, because it seemed all very taxonomic. The botany and the zoology were almost pure taxonomy, and looking back now, I can see if I had gone that route, it probably would have led to some really interesting things further down the line, but the people in the zoology department, when I said, "What sort of research is being done?" said it was all taxonomy, and I said, "What about some biochemistry related to some of these things," and they said, "You'd have to go to the United States straightaway." So, I thought right oh - and so I stayed with biochemistry.

So, you did a lot of extra subjects. You did an extra subject in the second year, and in the third year, what did you finally major in?

I thought I was heading – when I came to university, I thought I was going to be a biochemist, and then that's what I did do. So, I had six units of biochemistry in various kinds and four of chemistry, and I think it was six and four.

So, you did a sort of double major in chemistry and biochemistry?

The major was biochemistry, and as for the chemistry it was physical chemistry that I really felt the affinity with. So, I quite enjoyed that, which was reasonably mathematical.

At the same time, the structure of DNA was discovered?

Well that was '53, and I can't help feeling, although I have no distinct recollection, I'm pretty sure that that was one of the things that was in the back of my mind, this is really exciting stuff, and sputnik was overhead, and science was what people did.

So, the record says that you got your bachelor's degree and graduated in 1961.

But then I did honours over two years part time as a teaching fellow.

First academic appointment

Oh, honours part time?

As a teaching fellow.

In the department?

In the department of biochemistry, yes.

So, you started as an academic after?

Yes.

So, you must have done very well.

And I had a research project that I worked on, and that took two years, and then there was an examination at the end of that.

And a thesis.

Yes. A project report basically. Thesis is a bit too grand, and I got first class honours and a university medal.

What did you do then?

Well, I can't remember how I first found out about the biochemistry department at the John Curtin School, but they were offering scholarships. I applied, and I got one.

So, you went directly from the University of Queensland to the ANU?

PhD at the Australian National University

To ANU, yes and lived at University House.

So, you got a General Motors scholarship or something...

Yes, that's right. That's right, yes.

... you had to go to the ANU? Or you could take that anywhere I think.

Well, that replaced the scholarship. I think it replaced the scholarship. I don't remember that it depended on getting that. I think I had the offer of the scholarship, and then I got the other one.

Oh, yes that's right. So, you got the scholarship to go to the ANU in '63, and you got the GMH one in '64 and '65.

Okay, yes.

And that was a Ph.D. at the John Curtin School of Medical Research in biochemistry?

That's right, in biochemistry.

And who was your supervisor?

John Morrison. Now, I think they took another student from Queensland, Margaret Grant, and there were three of us who did honours. The third one was Doug Horgan, and Doug actually got first class honours and Margaret got second class honours which is really interesting, but she had the personality. So, I think they would have looked at Margaret and myself and thought, right - well there's Bill Elliott who has this sort of research project, and John Morrison's got this sort. This candidate has a strong interest in physical chemistry. That's a good fit. So, that's how they did it, I'm sure.

So, you didn't choose John Morrison?

No, I was offered the project with him, and it was a great project. I was so fortunate. It was well set up. Although there was a lot of work to do, I was very lucky because after Chris and I got to know each and realised we wanted to get married, there was an issue because he was a year ahead of me. He had his next job lined up in the States, and here was I, basically a little more than one year into my Ph.D. but it had gone very well, and the back of it was broken. So, I remember Chris saying to me, because we were thinking, what do you do and there would have been a lot of expectations that I would just drop it and go, and I hadn't made my mind up. I hadn't really faced it to see what would happen, and then Chris said to me, "I think you should stay and finish it, and we'll put up with the separation for a year and then I'll come back." So, that's what I did. So, I bargained with my supervisor to be able to put my thesis in after two and a half years which was the minimum time, and that's what I was able to do.

So, as you said just then, you did that Ph.D. very quickly.

Yes. It was a very good project and it went well.

So, after two and a half years.

I got five papers out of it.

Yes. And let me ask you this question. When I looked up the data bases, there are no papers under the name T E James...

No.

... that I could find. Out of your work as an honours student, did you publish something?

No. There was nothing out of that.

There are a couple of papers, T E Heyde, and then the rest of them are E Heyde. So, you tricked the searchers.

Did I? Oh well, you did all right by the sound of it, yes. I think there were 27 altogether. There are even two that Chris and I did together. We basically wrote off a field so that other people would not waste their time on it, which I thought was very good of us.

So, let's go back. You came to the John Curtin School of Medical Research. Stayed as all Ph.D. students had to at University House.

Yes. If you were unmarried, you had to stay there.

And you met Chris there?

Yes. I met Chris there.

And pretty soon you decided to...

Sorry. Can we just clarify before you move on? If you were unmarried you had to..?

You had to stay there.

At University House?

Yes.

If you were a Ph.D student.

You're not allowed to go renting around Canberra.

No, no. It was required, and there were even people whose parents lived in Canberra who had to have accommodation at University House. Why? Well, because Australian universities needed new staff. They were rapidly trying to produce people who would staff them. University House was set up on the Oxbridge sort of college system, and there were 120 residents. Twenty were academics already established. A hundred were Ph.D. students, half from outside Australia and from all subjects. It was meant to be a very broadening experience, and it was. It was fantastic. The conversations that you were able to have there. Across fields and so forth.

And was it gender biased? In other words, if males were unmarried, did they have to stay there?

All people who were unmarried. All people, yes and women were outnumbered well and truly.

Yes. Because one of the things Tom and I are looking at is gender policies and practices in the CSIRO back from you know, the post war and so forth and all of the business about if you get married you've got to get fired.

That's what happened to my mother, yes.

So, when you came to the ANU, you met Chris. So, you came there in '63.

Yes.

'64, you got engaged in May of '64 and you then as you told us, that it was decided that you'd stay there and finish your Ph.D.

Yes.

Marriage to Chris Heyde

Whereas Chris had already submitted his Ph.D. and was going to Sheffield.

No. He went to Michigan yes, and then at the end of his commitment there, he came back. We got married and we went to Sheffield.

Sorry. So, you went to Sheffield together?

Yes.

Now just for the record we all heard you saying that when we say Chris, that's Chris Heyde.

Christopher Charles Heyde, yes.

Who was one of Australia's most distinguished mathematicians and...

Yes. Probability theorist, yes.

And Chris and Beth got married in 1965 in Brisbane at St Colomb's Anglican Church, Clayfield.

That's right.

You and Chris were both very much involved with the Anglican Church.

Yes. We were active Anglicans all our lives, yes.

And so, you went to England on a boat, the Orsova?

Yes, that's right.

Was that good fun?

Yes, it was. It was four weeks, through the Suez Canal before the '67 war. Various ports of call. Yes, it was great.

University of Sheffield

When you got to Sheffield, your Ph.D. had been accepted by then or was it still being examined?

ANU at that stage had live examinations, and there were two examiners came to examine me at the University of Sheffield. One was from Oxford. Dalziell was his name. I can't remember who the other one was. So, I was examined there.

And when you got to Sheffield, you did some post-doctoral work.

That was set up before I left. I'd set that up before I left Australia, and so I worked with Stanley Ainsworth on a grant that he had, and I was doing the research. Similar sort of stuff to what I had done for my Ph.D. but with different systems.

And just looking, there weren't a lot of papers from that with Ainsworth?

No. There would have been a couple.

And then after Sheffield, what happened after that?

At the end of the grant, the timing was spot on.

This is Chris' grant or your grant?

No, no my grant. At the end of the grant that supported my research, Neil was born. So, it was very well timed, and so I spent the next year without being at the bench at all, and we came back to Australia towards the end of 1968 to Canberra. So, Chris shifted to Manchester where he was in charge of a little unit still connected to Joe Gani at the University of Sheffield, but he was basically running it, and he had a choice of three positions in Australia and he chose the one in Canberra.

Manchester

Did you go to Manchester?

Yes.

So, the family moved from Sheffield to Manchester with your first child?

That's right, yes.

And then after Manchester?

We came back to Australia.

Back to the ANU

To the ANU?

To the ANU yes, and I started work part time as a research assistant, because that was the only way...

Was that with Morrison again?

With Morrison again in the Morrison group, and so that was the only way in which I could do part time work. There was no possibility of a part time research fellowship or anything like that. So, while I had small children, and our second child was born two years after the first, I worked part time until both of them were at school age, and then I took a research fellowship. There was a limit of five years for a research fellowship. After that you knew you could not have another one. I was not going to return to research...

So, you had a research fellowship at the ANU?

At the ANU, yes, but I was a research assistant while I worked part time, but they paid me at the two-thirds rate where I worked 50 per cent, but it was very efficient at 50 per cent because I was doing enzyme kinetics, and I could...

You set up the experiments there?

Yes. I could do the experiment one afternoon, work out what the results meant that night. Work out what I needed to do next, phone up the technician and get various solutions and so forth made up, and then I'd come in and I could be ready to do the next experiment that next afternoon. So, it really worked quite well.

So, that was from about 1968 to 1980?

'68 to 1975, and then the research fellowship from '75 to '80, but the writing was on the wall and I knew that I had to do something different. It wasn't a hot field. So, I didn't feel I was walking out on some science that I just couldn't bear to leave, and I looked at what was available in this town and there was quite a lot. There was the public service, and I actually wanted to work with ASTEC

Can I just go back to 1975, because in 1975 did Chris...

He moved to CSIRO.

In Canberra?

In Canberra, that's right.

So, in 1975 he went from – so the family stayed in Canberra?

Yes. We stayed here, yes.

And eventually Chris was at the University of Melbourne?

Yes. What happened there was the nature of the Division of Maths and Stats was changing. It had had a very important emphasis on research and consulting too, but quite a good academic standing. Times were changing. It was no longer going to be a good fit for Chris, and there were two positions in Australia that he was interested in having for the long term. The one he really wanted was at the ANU in the Research School, but the one in Melbourne came up first, and not knowing whether he would be certain to get the other one, we

decided it was important that he try for the Melbourne one, which he got, and at that stage I had left the bench and I was working my way up in the public service. The kids were in secondary school. So, we just spent a lot of money on air fares.

So, he commuted to Melbourne?

Yes, that's what happened.

That was one of the mysteries of this.

He commuted. We bought a place, 360 Royal Parade. A two-bedroom unit. It was pre-1985 when we bought it. We paid \$60,000 for it. When he came back to Canberra, we sold it for \$120,000 and there was nothing to be paid to the government out of that, and so all the airfares were covered.

By capital gains.

Yes.

Sorry. Before you move on, I understand that you were sort of finishing in science and moving into another completely different career.

No. There was always a science thread.

But you were finishing on the bench?

But research?

Yes, finished with research.

Expanding the forefronts of knowledge, was that difficult to leave?

No, because I guess I had plenty of time to come to terms with it. I have always appreciated the support that I got from Frank Gibson, who was head of the Department of Biochemistry at the John Curtin School, because Frank came and said to me one day, "The bottleneck is coming on tenured positions. I would like to try to get you a fellowship, which would have had tenure, if you would like that?" I said, "Yes, I would." And he actually went to the Director of the John Curtin School, explained the situation and of course there would have been processes to go through, but that guy 'put the kibosh on it', and said it was inappropriate for someone who'd worked so long as a research assistant part time to be going after a few years, a couple of years as a research fellow straight into a fellowship. So, that's what happened there.

That was politics.

That was politics yes, and now I'm not saying that it would have happened anyway, but the Head of the Department tried to do that for me, but as I said...

And you wanted to do it? You would have liked a future of going...

I would have done it, I would have done it. At the same time, looking back and reflecting on it, as I mentioned before, I didn't think it was a hot field and I think I would have needed to make some substantial changes to make it something that it would have been really worth doing for the rest of my working life, and I'm not sure how well that would have worked. I can't be sure. So, in a way, looking back on it now, I have no regrets about what happened, because I think I had a far more interesting life by leaving when I did, and there was a bottleneck and a lot of other people were facing the same issues.

And that bottleneck was caused by funding constraints or just politics?

Opportunities, building up you know, you know university departments were building up, people were appointed, were tenured, and the trouble was that they were filled with people who were tenured and there was going to be no movement.

I remember.

So, just before we leave your academic careers. Looking at your record, there are a number of papers, single author papers in your record. So, in science, that's a sort of unusual to have a career with so many single author papers. So, you were obviously a completely independent worker doing your own work?

Oh, I was independent. Well yes, I was capable of doing that, sure.

So, I for example have only one single author paper in my career. The second thing is, I did notice that one of your co-authors was Peter Andrews.

Yes.

So, how did that come about?

Well Peter was in the Physical Biochemistry Department, and he's an entrepreneur if ever there was one, and this actually links with Ted Cain as well, because I was working on an enzyme that Peter was interested in and he wanted to look at it as well in a collaborative sort of work, and we needed a compound made and Ted Cain was the organic chemist who made the compound, and Peter was the person who interacted.

So, Ted Cain then was in the Research School of Chemistry?

Yes, that's right. I didn't know him. So, Peter was quite a spark.

I notice that 1979 paper of yours.

That was towards the end of my time, yes.

Career in the Department of Health and ASTEC

So, we've now left being an academic, and you decided to go into the public service.

I did.

So, why did you do that?

Well, Chris was president of the Australian Statistical Society at the time, and had been asked by ASTEC, the Australian Science and Technology Council, which only came into being I think about 1978, but they were doing an analysis of fields of research in Australia, and they wanted his statistical stamp on what they were doing. I remember he had some of this paperwork and he was working on it at night, and I looked at this and I thought, gee this is interesting stuff, and I thought, I would like to work there. Well, there was a freeze on appointments into the public service, and a year before I actually left the bench, I think it was a year before, I thought if I turn up as somebody who's nearly 40 and all I've done is test tube stuff, they're not going to take me very seriously. I had better get myself some other qualifications. The ANU was not producing any courses that were suitable for me. They do now, but the CCAE as it then was, had a graduate diploma in administrative studies, and it had economics and politics and administration and stuff like that. So, I decided to sign up for a graduate diploma, which I could do while I was still working. The lectures were often at 5pm and so on. Lots of assignments, and so I started that, and I was watching the advertisements in the Gazette, and there were very few coming up and there were two that came up that I applied for at about the same time. One was in the Department of Health. It was a very mundane job. It was in the poisons information centre, and I knew it would be as boring as could be and it was a salary cut of about a third, but it would have got me in, and the other was a base level officer but doing interesting work in ASTEC. I applied for both. I got interviewed for both, and I remember I turned up to the ASTEC interview with a letter in my pocket from the academic who'd run the administration unit in the CCAE course, and it was a letter congratulating me on my paper for the examination. It was basically saying, you know this is good stuff. So, I produced this, and I said, "Look, this is just to prove that I can do other things than test tube work." Anyway, I didn't get that job. There was an inside person who got it, but I got the poisons information centre job, and so I just gritted my teeth and did that for the year. The people in the office that I was working with were very nice people. So, I enjoyed their company and I just did it, and another job came up at ASTEC and I applied, and this time I got it.

It says in here that you serviced committees of the NH & MRC in that health job?

That's a bit of an exaggeration actually, yes. I don't know where you got that from.

Well, I got it from your CV.

Let me have a look at what I said. Oh, yes okay. Yes, all right. So, that was part of what I did there, yes, there was some servicing of committees reporting to the NH&MRC, in an acting capacity, but the main job was assessments and administration for the National Poisons Information Service.

But that was just more of a mundane job?

Oh, very mundane. Very mundane.

But you stayed there from September 1980 to December 1981, and then you got the job. Was it another job or did they recruit you, ASTEC?

ASTEC recruited me. I actually had a choice. There was a Science three position in the Therapeutic Goods Administration/NH&MRC. I was a Science two. I would have moved inside. Yes, I'd forgotten that. I was a Science two. I would have gone to a Science three, which was a serious job in that area, and fortunately I got offered the ASTEC one at the same time, and I took it...

At the same rate?

Near enough.

Similar?

Near enough.

And, can you remember your first interview you had with ASTEC and the discussion? Who were the people interviewing you? Was it Roy Green and Bruce Middleton?

Well, Bruce Middleton would have been there. The chair at the time was Geoffrey Badger. So, Geoffrey Badger. Roy wouldn't have been there. Oh, wait on. No, Bruce Middleton was later. Roy was certainly. He was the head of the ASTEC secretariat when I got the job, and it was actually with the Technological Change Committee to start with, although I moved across to the more scientific stuff. So, there was social policy and they had had an unfortunate experience with my predecessor who was a social scientist, and had got the committee offside by the way stuff was written, and I do remember at very short notice I had to go into a meeting with Sir Geoffrey Badger with Roy Green, and Roy hadn't seen what I'd been writing, and I remember Roy reading this and I'm sure he was thinking to himself, you know, is this going to cause another conflagration, and he realised it wouldn't. And we went in, and Sir Geoffrey Badger was quite happy with how I was proceeding, and that was the beginning of a quite a good relationship with Roy as well as Badger.

So, you started there in 1981, December 1981 but already by '83 you were the author of the technological change in employment, or you were a part of the secretariat?

Oh, Secretariat yes. All Secretariat, yes.

So, Technological Change and Employment.

And was it the custom for the Secretariat to do the writing?

Yes. The Secretariat basically did the work under the supervision of these eminent people, and that's where I met Justice Michael Kirby and other really very interesting people. It was a lovely place to work, because they were all people with standing who didn't need to put other people down. They were very supportive of good work from the Secretariat. It was very rewarding.

So, Technological Change and Employment, what was the impact of that on public policy?

It would have been initiated by the Labor government and it was probably to, I don't know for sure, but probably to placate the unions about the taking up of technological change to improve economic efficiency, but losing jobs. So, it was meant to look at that impact.

When you say it would have been by the Labor government. The Hawke government came in in '83, and this stuff started in '81.

All right. Well, Malcolm Fraser, when did he come in?

Well, the Hawke government was elected in 1983. March of '83 wasn't it?

And before that it was..?

It was the Fraser Government.

Okay, all right. Well, I'm wrong then in saying that it came from Labor, but we had people from unions, and we had one unionist, he was a very sensible unionist.

Who was that?

I can't remember.

Bill Mansfield?

No, no. It came from concern about technological change and the effect on jobs.

And to be effective in that role, you would have had to have understood economics at a reasonable level to be able to do the review and write the report.

Yes.

Did you get that from the Canberra College course?

Well, I got enough that I was literate you know, but I think more it was just straight thinking. I always enjoyed English, and I think I wrote quite well, and one of the things that I quite enjoyed about that job was getting back into that sort of writing. Not papers. Papers are different. So, straight thinking, analytical skills. I think there's a lot that's transferrable without needing expertise in other fields. I think it's possible with that sort of good training to almost tackle anything and do it sensibly.

Can you just reflect a bit on the impact of that work on public policy? So, how was ASTEC viewed by the Government?

Oh, ASTEC was in a very influential position.

With the Prime Minister?

Yes. It reported directly to the Prime Minister. It lasted a good decade.

So, it reported directly to Prime Minister Fraser and then Prime Minister Hawke?

Yes. It was a statutory authority. It put recommendations in its reports and they had to be responded to by the government. So, you got a formal response from the government, and that same thing applied to the technological change area. I can't remember what the recommendations were.

But your impression was that you were doing useful work?

Oh, yes. It was a very influential area to be in.

And you had various other ones. I notice the report on the role of government purchasing an offsets policy and assisting innovation in Australian industry.

Yes.

What was that about, and was that influential?

Well, yes it was. I mean it's in the same sort of policy area as getting CSIRO to have an external earnings target. So, the government was going to be spending a lot of money on purchasing defence equipment, and they wanted to build up Australian industry capability.

This was now the Hawke Government?

Yes, it would have been at that stage, yes. But it probably would have applied for the other government as well. They were interested in getting some of the work done by Australian industry. So, there were incentives for that.

You may not remember this, but the first time I ever met you Beth was in October 26th 1983.

Really?

When you came down to a conference at a symposium that Peter Andrews and I organised called alternative industry models for developing a research based pharmaceutical industry, and you were there representing ASTEC at that conference.

Well, you got great opportunities to go and hear what was going on.

So, would that have been as part of the role of government purchasing and offsets policy? We were arguing that even in those days, that the government has some purchasing power in pharmaceuticals, and it would be useful to have a research based pharmaceutical industry.

It might have been more general than that. It might have been, because one of the things that the Secretariat would do, it would have the antennae out, and so proposals could be made to the council. It wasn't all the Council sort of saying, oh we should do this. So, there

was quite a broad role there, and going to something like that would have informed something that might have been put as an idea.

So, your CV says that in about June of 1984 after you'd been there for a few years, two or three years, you started going into the Executive Development Scheme.

I was 43, 44 at that stage, and the Executive Development Scheme, the public service really invested in that substantially. It lasted a year, and there were supposed to be three placements. It was really quite a big investment in individuals. So, I was nominated by ASTEC to participate as somebody who was likely to be in the workforce for another nearly 20 years and might be useful. So, that was a great opportunity.

So, you got to meet people in other departments? The Department of Science and Technology and in the Department of Defence Support. So, was that useful in your sort of networking in a sense for your later career?

Yes. The Defence Support placement - well they were both interesting. I mean it made me feel I wouldn't in a way really want to work in the Department of Science and Technology as opposed to something like CSIRO for example. I'd rather be at the coalface, but working in the Department of Defence Support enabled me to see more of how industry interacted with the technology.

And so then, after you'd done that for a year you went back to ASTEC?

Well I was always an ASTEC officer. They release you to do it.

Yes. But you weren't actually working in there?

No.

So, in February of 1985 you returned to your substantive position of senior advisor in the briefing and administration branch. Was that a promotion?

Right. Now, that was different. Well it might have been a promotion, because it was one level up from where I'd entered ASTEC, but I'm not quite sure where the promotion occurred. But it was a different role because ASTEC got to see all the business that went before the government that we thought was of interest to ASTEC, on which it could comment. So, I had a primary role in getting hold of the cabinet submissions, looking at what these were doing. Perhaps turning up to any departmental committees, and then when I thought I could see what ASTEC would want to say in response to this, we'd put co-ordination comments in so whenever these submissions went to cabinet, they would see what ASTEC's comment was. So, then I would ring appropriate members of ASTEC depending on what the topic was and talk them through what was happening. You know, in those days we didn't have email, which was probably a good thing. You wouldn't send it anyway. So, there was a lot of that sort of work went on, and there was sometimes very interesting participation and interdepartmental committees. I do remember one. Have to be careful what I say, but to deal with overseas cables, and I remember feeling furious

about the negativity of some of the departmental representatives around the table, and I took a positive line because that was what ASTEC wanted, and in the end, it succeeded.

So, what was the issue?

Oh, it was something to do with the overseas telecommunications cable.

Oh, a cable as in a bit of wire? Not cable as in a..?

No. But I did get a letter from the scientific person who had attended that as the protagonist thanking me for the way I'd spoken at the meeting.

Tom, I'd just like to follow up a little bit on what Beth's saying there. Working for CSIRO, I was acutely conscious over the years of the discomfort felt by departmental officers about the participation of statutory authorities in the inner workings of government, and CSIRO went from being in a situation where it routinely saw lots of cabinet submissions and did as ASTEC did, commented where it thought it could have something useful to say, to being almost entirely excluded.

That didn't happen while I was there. I don't remember that change happening. While I was there, we were still able to...

While you were in CSIRO?

While I was in CSIRO.

As well as while you were in ASTEC?

Oh, yes.

So, there was a fair bit of acceptance still of the role of the so-called outsiders in the cabinet process?

Well yes. CSIRO couldn't put in co-ordination comments in the way that ASTEC did. ASTEC was gone by then. The Prime Minister's Science and Engineering Council replaced it, and the Chief Executive of CSIRO was part of that, and part of my job at CSIRO was briefing the Chief Executive for those meetings and making sure that the important policy stuff and what CSIRO's contribution was, was in there, but CSIRO never had what ASTEC had, which was the opportunity to make co-ordination comments. Oh well, I don't think it ever had the capacity.

In the early days it did, because it was the only source of advice on scientific matters.

Yes, but certainly I think later on it didn't have that.

So, can you comment from your period in ASTEC, which was from 1980 to 1987 or 1981 to 1987, what was the attitude of that ASTEC community as it were to CSIRO?

I don't recall anything in particular about that. I don't think there was a lot of interaction. One of the things we looked at was national facilities. So, clearly we went and had a look at the Antarctic ship and we got information from the telescope and all that sort of stuff, but I don't have a clear recollection of any sort of studies of CSIRO per sé. I don't think so. It was very much, CSIRO is part of the science scene. What's it doing? How does this fit with the issues we're looking at?

So, that was the period of time when research in universities started to expand.

Oh, yes. They were on the up. Very much so.

And CSIRO was...

Well this report has an interesting graph in it which you've probably seen, and that summed it up quite nicely. The scientific institutions like CSIRO and ANSTO and all those others were sort of level pegging. Lucky to hold the line. The universities were on the way up.

And Beth, just for the record, can you cite what you've just been talking about? So, the title of the book?

Yes. So, the graph I'm referring to is in the book, 'Icon in Crisis' by Ron Sandland and Graham Thompson, and it's page four, figure 1.1, Australian government support for science and innovation by main component, 1981 to 2007.

Thank you.

And so, CSIRO in 1981 was about 30 or 40 percent of the Australia government's research, and by 2007 it's four or five percent?

Yes. I mean, that's the line and that's the university.

So, that reference that you just pointed to is on – are you still on page four?

Yes, yes. That's it.

So, you personally while you were at ASTEC, did you have any interaction with CSIRO?

Through the national facilities projects. So, projects like that, and perhaps hearing people at conferences and so forth, but I never walked – I don't believe I ever walked through the door at Limestone Avenue.

So, can you reflect on your achievements at ASTEC? What would you say that you contributed to public policy development at ASTEC?

That's not easy to answer. I think serving the Council really well with good writing, good analysis of the issues and the recommendations that ASTEC made very often were accepted. So, I don't think I should claim the credit for that, but it was an influential body. It was a good body.

And you were a part of the discussions that went on in the ASTEC bureaucracy?

That's right. As project officers, we worked pretty much on our own with our group of council members, usually about three.

And during your period at ASTEC, what sort of chief executive did it have, or what was the title of the head bureaucrat?

Secretary. Secretary of ASTEC.

Was that Roy Green?

Roy Green was there when I started, and then Bruce Middleton came after that.

So, you got on well with Bruce? He's an organic chemist.

Bruce was very different from Roy. I mean I have the greatest admiration for Roy as an individual and for his professionalism. Bruce was much more cut and dried, and not such a pleasant person to work with as Roy.

Bruce and I went to university together at the University of WA. We were contemporaries. We've been going for more than an hour, so we'll have a break.

Right.

Okay, thank you. So, we're just resuming our talk after lunch, and Beth has decided to leave ASTEC and to get a job in CSIRO. So, why did you do that Beth, and were you head hunted or did you apply?

I applied. At ASTEC we used to talk around the tea trolley and say this is a wonderful place to work, but it's very hard to get out of and none of us really want to spend the whole of the rest of our lives here, and so it was recognised that finding somewhere interesting to go to after ASTEC was quite a challenge. I had a colleague, Marie Keir, who came into me one day and she put...

So, was Marie Keir at ASTEC?

Marie Keir was at ASTEC, yes. She came across from New Zealand to ASTEC, and she was working on the social side of things. The technological change etcetera area, and Marie came in and she put this down on my desk and she said, "Beth, that looks like you," and it was the job that I applied for, and I looked at it and I thought, yes it does look like me, and as I said before, I didn't feel I was the sort of person who would enjoy working in the department of science and technology particularly. So, the more I thought about it, the more I thought, I would love to work there, and so I applied, and I think they interviewed eight people and I was the last interview for the day. I know that because it was an ASTEC meeting day. When they were looking at times for me I said, "Look I can't come until after such and such, which was the last interview," and they do say that quite commonly, people

who interview first or last get appointed. So, Keith Boardman was chairing it. Alan Donald was there, and I think there was a secretary person, but that was it.

And you got the job?

CSIRO

Yes.

Were you familiar with Keith Boardman and Alan Donald before the interview?

Not Alan Donald, but I did know Keith from biochemistry times, and I know that Ralph Slatyer, who by then was the chair of ASTEC, gave me a good reference. I was not the only person from ASTEC who applied for that.

Your referees were Slatyer and Tanner, Professor Tanner.

Oh, right. Of course, as a member of ASTEC, and I worked under him a number of times.

And 'Doctor B S Middleton is in the best position to comment on your administrative performance'?

Yes. But talk to the others if you really want to know what I'm like.

Yes. What was the job about? Were you the first person to have that job, or were you replacing someone?

And I was hoping you would be able to refresh my memory on this. The CSIRO Institutes were in place. The scientific institutes were already in place I understand.

Let me just recount some of the history of this. The old institutes had been in place since the Birch report, but then you're talking about the new institutes.

Yes, new appointments.

The new appointments, and the board had already been established and was up and running. So, Neville Wran was the chairman, and Ted Cain presumably was...

Ted came in I understand as the secretary to the board. That was significantly before I turned up, and I think I was still at the ANU. No, I must have been at ASTEC when that happened. Anyway, I think certainly my position was new. It was very different from Grattan Wilson's position. He was sort of the head person over all the personnel and finance and all of that, and really quite powerful. And so, there'd been a review. It was by KPMG or some...

Yes, PCEK

That's right, yes.

Pappas, Carter.

Pappas, Carter, yes, and I think that what they had envisaged for the position that I was appointed to, was a right-hand person for the chief executive who knew how the interface with the government should work, and would be able to help the Chief Executive with that kind of thing as well as other matters which were more administrative.

So, is it developing strategies for enhancing the scope and effectiveness of the organisation's external interactions?

That's right.

Co-ordinating advance submissions and responses and preparing for meetings. Providing policy...

You really have it all there.

... advice on general principles of public administration.

Yes.

So, they were the three main tasks according to your application letter.

Well, I would have responded to what was put in the advertisement, and Don McCrae came in as the planner for strategic planning, and Peter Langhorne as the head of...

So, Peter Langhorne sort of took over some of Grattan Wilson's..?

And I took over some, yes, but his position was more senior than mine. He had the finance and the human resources and all of that sort of stuff under him. There were 12 in the office when I got there. It had the ministerial liaison and other things like that. Well, Terry you'd know this too. You weren't in that, but you were nearby.

Around about, yes.

But it ended up being quite a bit smaller than that. It didn't need to be particularly large to do its job. So, I did that with Keith. I mean we got on very well. Basically, I think he trusted me. He knew my scientific background. Colin Adam once said that he had said to Keith, "Keith, appoint a woman to this job. It'll work much better if you do." And I think what was meant by that is, that he thought women would be less likely to have power agendas of their own, and I think that's true.

Was that a comment on Grattan Wilson?

No. It was Colin's wisdom I think.

Not a reflection of how powerful Grattan had become?

No, no I don't think so. I don't know how much Colin knew about that. There was no suggestion that it was politically targeted, but Colin told me that he'd said that. That's where I got it from.

So, you walked into the organisation, what was your impression then? Can you reflect on how you actually saw the organisation from the inside now that you got there?

Really different from a university, and really different from the public service. It was another culture. I had the feeling...

When you say it was another culture, what were the characteristics of the culture that made it different from those other two?

Well universities are not corporate. This was attempting to be corporate, but it was coalface stuff where the public service isn't, and I was glad to be there because I really appreciated the kind of work CSIRO did. I thought it was really important work, and I was glad to be there and to be playing a part in making the executive committee efficient and that sort of thing, and being a righthand person for Keith, because Keith, I don't know whether you've ever seen his portrait that was painted when he left. I think that artist really captured Keith. There was a sort of faraway look in his eye, and I think he needed a sharper edge on the way to deal with government and so forth, and he had a good relationship with me where I could talk very confidentially with him, and I could say anything I wanted to.

Did he have somebody else? A sort of right hand person or something?

Yes, he did.

What was that person?

Yes, Brian England. Brian, and his PA was very good.

That wasn't Aileen at that point was it?

Yes. It was Aileen.

Aileen Donoghoe?

Aileen Donoghoe, yes. So, yes and it was a bit awkward for Brian, because basically I was coming in and going to be doing some of what he had done, but extended.

So, Kevin Thrift was the third person on that interview panel?

Was he? Yes. He was taking the notes. Yes, okay and I remember Alan Donald asked me what I – I'd been asked some questions about what I thought about the future and where CSIRO ought to be contributing and the Australian environment, and Alan Donald asked the question, and I was sort of going some way down the hi-tech answer to this, and Alan Donald said, and I didn't know who he was, "What do you think about the role for

agricultural research?" And I remember saying, "I'll give you the same answer that every other candidate for this position will give you. It will always be important for Australia." So, he didn't blackball me anyway, I know that.

So, the report on this interview said that you had a very clear idea of where CSIRO should be heading in the future, and the organisation's success would depend largely on its ability to contribute to Australia's economic and social wellbeing, which is what you just recalled that you said. So, coming from ASTEC into CSIRO, what did you think the role of CSIRO was in the national innovation system?

Well, in a much more targeted way than universities to identify where needs were and try to address them as directly and co-operatively as possible.

And how did you try to implement that idea as the Principal Secretary? What was your role in the development of CSIRO's strategy for the future?

Well, as I said, Don McCrae was the person appointed to do strategic planning, but I think the model that was introduced through Don was a very good one, and that was the matrix where you had attractiveness on the Y axis and feasibility on the X axis.

Yes. My recollection is that Don didn't have anything to do with it.

Well whoever did. You probably had a lot to do with that.

I did.

All right. Well, you can have whatever credit is fair with this, because I thought it was really good, and I remember being able to use that very effectively talking with bureaucrats in the department of finance and so forth who had some influence over what was going to happen to our funding, and I took, well Don along. The two of us fronted up and we basically sold that model as a really good way to show that CSIRO was addressing things that were needed and feasible and doing it efficiently.

You joined the organisation in 1987 when Keith Boardman was...

January '88.

January '88?

Yes.

Keith Boardman was the Chief Executive. John Stocker became the Chief Executive in...

Five years later.

No, no. John became the Chief Executive in 1990 I think, and that national research priorities framework was introduced by John Stocker. So, you worked for Keith and that was the time of development of his thinking.

Yes. And then feeding in through the Prime Minister's science and engineering council which Keith was sitting at. So, making sure that what CSIRO was doing was well packaged and able to be conveyed – so that Keith was well briefed to be able to jump in on a whole lot of issues – and we'd go down the agenda and say, "Look, here's a good place to make sure you say this," and so we really coached him on that. Informed him, briefed him well.

So, we being you and your office?

Yes.

And were you able to go along to those meetings?

No, no.

You just had to rely on his report afterwards for what he'd done?

That's right, that's right.

Did you get comprehensive minutes do you recall?

I don't recall.

So, then after a while John Stocker became the..?

Yes.

So, there was a transition from your biochemistry friend to an outsider.

Yes.

New Chief Executive

What was the reaction of head office to the appointment of someone from outside the organisation? The first time in the organisation's history that an outsider had been appointed.

Yes. The word show pony was used, but I think on the whole people were prepared to see him as somebody who had charisma, and if he was willing to do it, would be able to be a good ambassador for us.

You were retained as the Principal Secretary?

I was for some time. It began to change when John moved to Melbourne. I think that was the trigger for the change, and I'm a bit hazy on exactly how it happened, but yes, I was still for some time briefing him in the same way that I had for Keith.

So, can we just go back to the Keith Boardman years? At that stage the organisation had a board and an executive of some sort.

Executive committee, yes.

Executive committee. Ted Cain serviced the board and you serviced the...

Yes. The Executive Committee.

Was there a time when Ted started doing both?

No. oh, wait on. I don't know the answer to that. You'd better ask him. If that happened, it happened very late.

So, you provide all the papers and the briefings for the executive committee:

Yes. I had good backup for that. I didn't have to do it all personally, but we gathered things from the institutes and so forth, yes.

And do you remember who did the minutes for executive meetings?

Geoff Wines did for quite some time, and it was at the stage at which John Stocker was reorganising and heading off to Melbourne, that Geoff Wines left and I believe John Stocker was genuinely reluctant about it. He was made redundant.

So, in that period of the Boardman, the first few years, you say that you had strong interactions with the bureaucracy. So, what was your impression in those times of the way that the Commonwealth bureaucracy viewed CSIRO?

Moderately positive. I think they would have been listening to what the politicians were saying about get closer to industry, and Australian industry is jolly hard to get doing that research and development. So, CSIRO had a hard row to hoe. So, I think there might have been a few people who really appreciated the ground-breaking research. I mean who are we talking about? The department of science and technology and the department of finance basically. Oh, and environment.

And the agricultural departments.

Yes, agricultural, that's true but a lot of the time you would be depending on the people with a scientific background to appreciate what was going on. Whereas the more higher-level bureaucrats probably weren't very interested in that. I just don't think there was a lot of interest.

So, the role that Keith had as the chairman and then the chief executive, I think when you came he was the chief executive?

He was.

Did he have interactions with the bureaucracy and the politicians? Did he see part of his job as liaising with the Commonwealth?

He didn't, unlike Malcolm Macintosh who's the shining example and I don't think John Stocker did a lot of it either, but he was more social. Keith was not a social interaction person. It wasn't natural for him to just pop in and have a talk to the ministers. He did some of it, but it was not something that was a strong suit for him.

But did he have good relationships with the politicians?

As far as I know. I mean I can't imagine why he wouldn't have. He was a quiet sort of professional.

And you would have done his briefing, and then do a debrief after the...?

Yes.

Would you have visited the minister's office with him?

No.

His tendency was to go alone?

I don't think he did a lot of it actually. He didn't do a lot of it. So, the Prime Minister's science and engineering council was the prime place as far as I could see for having an impact, and our input to various inquiries. So, we kept our eye on that and made input to those sorts of things, and when there was a topic that was being addressed in a cabinet submission or something like that, making sure our input went to the minister.

And you co-ordinated the writing of the input or you wrote things yourself? How did that work?

When it was to do with the science policy sort of stuff, I did it personally. Marie Keir came across to CSIRO and headed up the ministerial liaison. I was so delighted that we could get her. She came from ASTEC, and she was very good, and she did a lot of wandering in and out of minister's offices.

So, that was her job was it?

And handling the briefings that had to go with the work. There were a lot of briefings required. I remember when Chris Schacht came in as Minister. He asked for a briefing on string theory, and we're thinking oh, didn't think he was as keen on science as that. Well, it turned out it was basically a joke. He wanted to be able to impress some of his ministerial colleagues with what he knew about string theory following in Barry Jones' footsteps. Where Barry would have been genuinely interested. Chris Schacht with his photograph with AK rifle and whatever on the wall and so forth. Very different person.

So, in terms of ministers that were in charge at CSIRO during your time, you would have started off with Barry Jones I suppose?

Yes.

And then you had Simon Crean

Yes.

And then Chris Schacht?

Yes.

Ross Free. So, did you interact with their offices or is that mainly Marie?

A lot of it was done just with paper and not personal. Once Marie came, and that was a couple of years after I came. I can't remember exactly when. She would have done that, because she came not straight from ASTEC. She'd gone into John Kerin's office, and so she'd already got to walk around Parliament House. She was a particularly good recruitment for CSIRO because she had all that experience, and she did it very well. She was very well respected. John Kerin said to her that he wanted her to get close to CSIRO. Well she got a bit closer personally than he might have had in mind. So, Marie was a great colleague.

We have Keith and then John Stocker and then Roy Green is active and then Geoff Garrett came, and you left.

Well Colin.

Malcolm.

Malcolm and then Colin.

Sorry. Malcolm and then Colin, and then Geoff.

And then Geoff, yes.

So, can you give us a sort of reflection on the different management styles of those chief executives that you've worked with, and looking back how the management style and personality of the chief executive reflected on the performance of the organisation starting with Keith?

Keith was the scientist, so he was respected because people knew he'd been through it, but he was no ball of fire and people sort of recognised that he would do as good a job as he could, but he was not the wonderful charismatic leader. John Stocker arrived, and I remember being in a lift with one person in head office, and that person was organising a welcome for John Stocker and was very enthusiastic about it, and I remember saying to them, "Is there going to be a farewell for Keith?" And that hadn't been given any thought, and I thought to myself, well it showed that Keith was not regarded as a fantastic leader. They thought John Stocker might be, and of course in many ways he did do a good job for us, but my feeling was, and I'm being recorded on this, but my feeling was that he didn't have a deep commitment to CSIRO. I remember one time I was briefing him about the CRC program. It was brand new, and I remember saying to him that this has potential for CSIRO, but I also see it having quite big risks for CSIRO.

So, when you said John..?

John Stocker.

Oh, okay. So, it was Stocker that you thought maybe didn't have the deep commitment?

Yes. Well Keith did, and I remember saying to John Stocker, I just said sort of, "This has got a lot of potential for CSIRO, but I think it also has some big risks." And he said, "What do you mean?" I said, "Well, it could even replace CSIRO." And I remember just the expression on his face sort of said to me, maybe that wasn't such a smart thing to say. Because I wasn't too sure where his loyalties would lie.

John shook up the organisation a bit, and from the troops' point of view, he came around to sites and to talk to everybody, and he gave a lot of enthusiasm to people about the future of the organisation. So, he was a charismatic character.

He was charismatic, yes.

Were you involved at all in the move to Melbourne and what did you think of that?

I wasn't. I thought it was a bad idea. I thought it showed self-interest.

So, did you argue about it? What was the process that went on within Limestone Avenue about that, or was there no process?

There wasn't any real process. There was talking. I mean, amongst the people on the fifth floor, there was a lot of talking and I don't think there was anyone who thought it was a good idea. The best argument was, our masters are the government. They are here in Canberra, and we need to be able to be interacting with them easily, and it just smacked of self-interest.

So, when you say our masters were the government. Your pitches to the principal secretary was that to some extent CSIRO's future depended on its interaction with the economic and social players in the country, industry and so. So, was there not a conflict between those two views?

Well, the government wanted us to interact with them.

Interact with?

With industry and produce stuff.

So, why wasn't it a good idea for John, the Chief Executive to be closer to industry?

Well, that's the counter argument I suppose, but why Melbourne when the divisions that interact directly with industry weren't all in Canberra. You know, plant industry was in Canberra, but your division for example and a lot of the others were in Sydney, Melbourne. So why is Melbourne any better than anywhere else?

That was a major change in the organisation obviously during your time. What effect did that have on the morale of the head office?

I think there was a gritting of teeth, and well we're just going to have to do our job as well as we can and try not to let this damage the organisation.

Did Ted Cain go to Melbourne?

No.

So, the board secretariat, much of the secretariat stayed in Canberra?

Oh, yes.

So, did John have an office in Canberra still?

I believe so. I can't tell you where it was, but he would have yes.

At Limestone Avenue presumably.

Yes, yes. The chief executive's office would still be there.

So, he would come to Canberra?

Yes.

Minister Schacht

Let's now go to the Chris Schacht affair, which was during John's term as the chief executive.

What do you understand by the Chris Schacht affair?

Well Chris Schacht wanted to halve off parts of...

Oh, minerals and...

No, no. He wanted to halve off the marine laboratories to give that to AIMS and then there was another proposal to merge ANSTO with CSIRO. So, there was a whole business of Chris Schacht wanting to change the organisation, and there was tremendous resistance to that too. Were you as principal secretary or how were you involved in those discussions? How did the sort of interaction of Marie Keir and yourself and so on with the bureaucracy work out in that?

I don't think it was being done at the level of the bureaucracy. I think it was political, and I think it was Chris Schacht wishing to make his mark in some way. He was that sort of person. There were a lot of cartoons in the Canberra Times at that stage, and when I retired, at my farewell I produced, which I made up myself, a framed set of these cartoons from political events in the life of CSIRO, and Chris Schacht figured quite prominently in those. And I actually had some of those pinned on the notice board just inside my office,

and one day Chris Schacht appeared at my door, and I was thinking, don't come in and turn around.

That's right.

No, but I think he was a bull in a china shop and could have done a lot of damage, and I think it was good that it didn't happen.

Alan Griffiths was the senior. Alan Griffiths, I think was the senior minister in the industry department, and Chris was the junior minister in charge of CSIRO. Do you have any recollection of much interaction with Alan?

No, I don't.

So, CSIRO mainly interacted with the minister in charge of CSIRO?

Yes, that's right, and that was not a senior minister, no.

Would Marie done much of that sort of thing?

I don't think so, no. I think this is where the board would have come into play. I mean this is where somebody like Neville Wran, I would think, I don't know...

Well Adrienne Clarke was the chairman by then.

Was she by then? Yes, okay but I would say a lot of this fighting would have been done by the board.

At the level of..?

At the level of board, chair and members to politicians.

And so, Peter Cook became the minister?

Interaction with the Commonwealth bureaucracy

Yes.

Do you have a recollection of how your CSIRO bureaucracy interacted with the department's bureaucracy? John Bell was the deputy secretary. Was he much involved with the bureaucracy that you were in charge with?

There were a lot of interdepartmental committee meetings that I attended. A lot. That was one of the major ways in which I interacted with the department. Now I had a thought there and it's just disappeared for the minute.

David Charles was the secretary I think, and John was the deputy secretary.

Yes. Well John was the person who turned up to all the science and technology stuff, and at one stage they were trying to take a lot of CSIRO's land and so forth, and I was in the front line on the fight against that with...

Colin?

Well yes, but George Harley. George Harley, and George and I were running the line to try to avoid losing anything that was important not to lose, and I remember John Bell I think was somewhat sympathetic to CSIRO in regard to this, and on one occasion he said to me, "Yes, I can see from the minutes that you're managing to nudge it back in the right direction." So, there were things like that that went on. Another place where there were interactions was through the senate estimates committee.

So, was your job to prepare briefing for the..?

Briefings for new ministers. Huge job. Our offices, you know the folder was like that. When John Stocker came in as new chief executive, we prepared briefings for him, and I remember walking into his office with this to take him through it and I said, "Oh, these are briefings we've prepared for you." And he looked at it and he said, "Briefings!" It was that thick, and he was one of these people, you know he'd just take a flick and you'd think, isn't that amazing. He's done all that in such a short time. Well, he used to just skate over the top. He did not get into the depth of it, and that was very different from somebody like Keith or Malcolm Macintosh.

Okay, so John Stocker went to Melbourne and eventually left the organisation after his five-year term?

Yes.

Roy was the acting chair or the chief executive until they found a replacement.

Yes, yes until they got Malcolm.

So, what was your interaction with Roy, and what's your reflection of Roy's job?

Good safe hands. Did a good job. Again, because I respected him greatly from the ASTEC days, and he didn't have the charisma to sort of do a wonderful job as an ongoing chief executive, but he was a very good pair of safe hands.

How was the interaction with government at that point?

Well, Roy of course knew how to interact with government. I think it was sort of steady as she goes, yes.

So, then we had – Malcolm came?

Yes.

Malcolm McIntosh

And you say Malcolm [phone call]

Well Malcolm had – well, as you'd all know, he's an exceptional person.

So, what was the reaction of the Canberra bureaucracy to the appointment of Malcolm?

We thought it was great, because he was somebody you could just see who would know how to interact really well with them. He said he was surprised to find that there were two people like myself and Marie in the corporate centre, and when he got his first briefing to go to one of these meetings, he was clearly impressed with it and this is what we'd always done, but it was the sort of thing as a bureaucrat, he knew that we were doing it well, and he actually said to me when he looked as if he was not going to be there very much longer, he asked would I stay because I was thinking of retiring before too long, and he asked me to stay and he said he'd love to see Marie stay with me to see the new chief executive through his first year. That was the Garrett transition.

So, Malcolm was actually there from 1996 to 2000.

About 2000, and then Colin filled in until Garrett came.

Colin was in close for a year.

Malcolm was the chief executive for a considerable period of time.

Oh yes, about four years.

What effect do you think Malcolm had on the organisation?

Oh, Malcolm walked through politician's doors in a way that probably the others hadn't. He had the gift of drawing out – you didn't have to feed him everything. He got to know what was going on in the organisation so well that he could draw on examples. He didn't just have to depend on what we prepared for him. He just knew it, and he could you know, sort of wax lyrical about CSIRO's contribution on pretty well anything that came up. It would have been very good for CSIRO, but they would have known that he was superb at it and they might have discounted it a bit because he was so good. I don't know.

Obviously by the time he became the chief executive, he was already having the...

Yes. It was after he was...

... kidney problems. So, he was having dialysis.

He was appointed just before he found out he had the problem. Both kidneys were removed. He was on dialysis every third day or so.

How did that affect his interaction with the office?

The chiefs would come in. He'd be in his office and the chiefs would come in, and he would spend half a day with each of the chiefs, and I reckon that's probably more good time than a chief had with a chief executive for a very long time, if ever.

It was certainly the main time that I ever had with the chief executive was with Malcolm.

And the time that the office had with him. I mean you'd go in and have your conversation, and sometimes it would digress, but it was always a really good conversation.

Do you remember briefing Malcolm for each chief?

No, I didn't. Didn't. I don't know whether the divisions would probably have been asked to do some of that.

They brief the chief, that's right.

Yes, yes.

But Malcolm would have played it by ear.

He would have, yes. No, we didn't brief him for those, no.

So, Malcolm, he kept working during his secondaries development.

He did, yes.

But Colin, he was the acting chief executive and took over some of the functions or not?

I don't recall that. I don't recall that. I mean, Malcolm, the downward slope...

Colin was the sort of senior deputy chief executive.

Yes, the most experienced.

He was, and he did take over while Malcolm was in Royal Melbourne where everyone was hoping that he would recover, and then he suddenly fell over. Now Colin had been already working.

As the acting. So, Colin's office was in Melbourne at the time wasn't it, but you were operating in Canberra?

Yes, but by then my role was government business and international scientific liaison.

So, you weren't the principal.

I was still kept principal secretary, but it was commonwealth government business and international scientific liaison. So, I picked up I think around about the time that John Stocker went to Melbourne and the executive committee side of things moved out of my

area, and I picked up the international scientific liaison, and so did that and the government business remained with us.

So, the job of servicing the executive committee, that went to the board office?

And Phillip Moore was a key person in that. He'd be worth talking to.

So, once John went to Melbourne, the actual operation, your job changed?

Yes, it did. So, the government business stayed, and I picked up international.

But when Malcolm Macintosh was appointed his office was back in Canberra, but your job...

Anything to do with the external interactions with the department, I was still there.

So, you were the government..?

Yes.

Can I just check this with you Beth? My recollection is that it was Roy Green that moved the office, head office back to Canberra?

Yes, it would have been. That's correct. Yes, that's right. Yes, he would have.

Just as a matter of interest. The Victorian government paid a fair bit of money to CSIRO to move to Melbourne, and to the best of my recollection, nobody ever told the Victorian government that it was sneaking quietly back to Canberra. Do you know anything about that?

No, I know nothing about that, no.

So, when it moved back to Canberra, the Canberra bureaucrats were obviously pleased with that. What effect did that have on the interaction with the government?

Well, we just kept on doing what we were doing right through all this.

So, in a sense you're saying that where the chief executive had his or her office didn't actually affect you.

It didn't make a lot of difference. Unless you had someone like Malcolm Macintosh who was going to wander around and knew how to use a senate estimates hearing to deliver something that you wouldn't dare say in public otherwise. You know, he was special in that regard.

He used to go to lunch did he not? Like to Commonwealth Club and places like that? Is that your recollection?

I don't know.

I imagine he would.

But he would find it very easy to interact with people in that situation.

And then Colin came as the acting chief executive. Fellow Queenslanders.

Right. I hadn't realised that. You lose track of these things. I think Colin battled a bit in terms of coping with the very big role. Very well meaning. Inclined to be a little bit off the cuff in a way that didn't go down well with the bureaucracy.

So, you're saying in fact that sometimes Malcolm appeared to be off the cuff didn't he?

Oh, yes.

But he never was.

Well, I think he knew what was going on in the organisation so well, that he could do it without making errors and he would do it to target a particular point and you know, he'd just sort of say, oh this is relevant. Plug it in.

So, were you involved in briefing Colin?

Yes. For things like I had always had, yes.

For senate estimates and that?

Yes.

And how did that work?

Well, really interesting. When I first joined CSIRO, I remember the chief executive didn't turn up to senate estimates. Senate estimates was represented for CSIRO by me and the finance guru. I've forgotten his name now.

So, Bob?

No, pre-Bob.

Bob Garrett.

Pre-Bob, and the two of us were the ones who turned up, and when you look now at how seriously all this is taken and has to be, it was very different in those days. I remember we had to turn up about 11 o'clock one night. Got the call about 10 o'clock saying they're going through, you'd better come. It was raining. Parked in the senate carpark underneath, and that building is designed to be difficult security wise, and I was having trouble finding my way through to where I had to get to. All the corridors were empty. It was almost the middle of the night, and I saw this person down the end of the corridor and I thought, hurray. Somebody is able to help me. It was the other CSIRO person lost as well, and

anyway we did find our way through. But yes, taken very lightly. It was nowhere near as inquisitorial.

And when did it start being inquisitorial? When John was the chief?

Probably yes. I don't...

So, the mid '90s?

Yes.

But remember, the change came from the politicians.

It did.

And originally it was consistent with its name. It was senate estimates, and so finance and those sorts of things was what it was all about. It only became general policy and much more interesting later on when the polis turned up and started all sorts of questions which were ruled in order as opposed to potentially being having ruled out of order in terms of the role of the committee in previous years.

And they were scoring political points wherever they could.

Absolutely. And so, before we leave this. With Colin Adam, did you brief him in relation to his meetings with John Fahey about the property problems with CSIRO?

I don't recall specifically doing that, but the property problems were very high on my agenda, and George Harley and I as I said, turned up in various places to defend.

Right, but there were some crucial meetings, in particular a big one between Colin and John Fahey in John Fahey's office.

I don't remember.

So, let's go briefly to Malcolm again. So, in your estimation what were the activities and achievements of CSIRO that Malcolm was most proud of, and what do you think Malcolm was the most worried about in CSIRO? What were his concerns?

He did say to me once, "We're going quite well superficially, but it's a bit fragile." He did say that, and I think he was perhaps a bit worried about what would happen when he went, because he knew that he was a good front for us. I don't want to sound as if I've really thought this through because I haven't, but the world was changing and very much more like you've got to get a return for the investment, and the value of the marine research and the telescopes and a lot of the environmental research was just being downgraded, and things were becoming much more focussed in a way that meant that a lot of the good research that underpinned so much of what Australia needs was at risk, and I think that's what he would have been concerned about. We all were.

How much was he worried? How much was your Canberra group worried about the effect that the 30 percent external earnings had had on the organisation? When you came in in 1987, I don't think that was a requirement. I think that came in soon after.

Yes, that's right.

So, what is your opinion on that, and how do you think your successive chief executives thought about that?

I don't think any of them really queried the need for CSIRO to work with industry, but they all recognised how jolly hard it was to find industry that was at an appropriate sort of technological level to work with, and there was concern that focussing too much on getting a bit of money when you have to drag so many other resources in behind it away from more important longer-term stuff, that that would have a bad effect. So, there was concern about that, and I think the CRC program had some similar concerns, because they give some data in this book, *The Icon in Crisis* about the CRC program and the total resources from CSIRO that were pulled into that. It actually wasn't as much as I had thought it might have been, but the CRC program really concerned our leadership. Our office and the leadership of CSIRO, because it had the potential to pull a lot of CSIRO's resources into other areas and CSIRO not getting the credit, and then of course the people in the CRCs would look at CSIRO and say, "Oh, they want credit all the time." Yes, well we did because we had to demonstrate this. The government wants us to do that, but there was a lot of antagonism to CSIRO from the CRC program, and particularly the minerals area. Some nasty stuff. I had to turn up to a few of the CRC meetings, and I ended up making a presentation on our priorities. You know, our good method for setting priorities, and I remember people said, "Oh, it was really good to hear that, because we didn't know how you went about these things." So, that was a plus, but there was also a lot of sniping at CSIRO, and on one occasion I was...

When you say from the CRC. Sniping by the universities or the industry or the bureaucracy?

Sniping by chief executives of CRCs who were in the minerals area. In particular, the example of Mike Hutch. I don't know. Anyway, I was given a heads up by people I didn't really know to say that there was going to be a bomb thrown at CSIRO in one of these presentations. At one of these CRC meetings, and it turned into a tirade against CSIRO in public at a meeting that was supposed to be about what the CRCs were doing, and because I was given the heads up, I started taking notes and I took very comprehensive notes, and at the end of the speech, they asked for comments and I remember standing up and saying, "Well, I'm the lucky person from CSIRO who has to respond to that, and I can tell you that CSIRO contributes to such and such, a number of CRCs and in virtually all cases excluding this and one other, the relationship is very co-operative and collaborative and works well." That's basically what I said, but it was so bad that I went back to the office and I wrote up a summary of what was said, and I went into Adrienne Clark and showed her this and said, "I don't think this is acceptable, and do you think it's worthwhile me drafting a letter for you to send to the chair of the CRC Committee just to say that we think this was not appropriate?" she said, "Yes." So, we did.

That would be a quite good letter to find. So, I forgot to ask you this Beth. So, let me go back to the John Stocker era. So, there were two things that I remember about John Stocker being the chief executive. One was the move to Melbourne. The other was the demise of Sirotech and the transferring back to divisions and to head office responsibility for technology transfer. Did your office have much involvement in developing policies about that?

No. We didn't have anything to do with that, no. No, we didn't. No.

So, by then your activities were focussed around government liaison? Not so much about internal.

Yes. That was pretty much always the case, yes.

Tom, can I just do a time check. We've been going for another hour now, and do you want to have a break or are we getting close to the end?

Let's have a break for a second. Start again.

Starting now.

Geoff Garrett

So, thank you Beth. I just need to go back briefly to your interaction with Geoff Garrett. We had Boardman, Stocker, Green, Macintosh, Adam and Geoff Garrett?

Yes.

So, you weren't there for very long with Geoff Garrett?

No.

So, what was your impression about the effect that Geoff Garret had when he came into the organisation?

Well, we'd seen him with others from CSIR in South Africa visiting a couple of years earlier, but he said very little on that visit, and so we didn't get much of an idea of what he would be like. I think there's some good reflection in this Icon in Crisis book on him, and some of it's quite nicely expressed. He, I think had an idea of where he wanted to go. He wanted to get there without too much subtlety and he wanted it to be up in lights, and I think according to this book that the trigger for going quite hard was that CSIRO didn't get any money noticed at all in the Backing Australia's Ability program. So, I would think until that happened, there was no need to turn the apple cart upside down, but I can understand why with no mention of CSIRO in that, they felt something new was needed. The CRC program is there, but it needed something that was going to be more purely CSIRO, and that's where the flagships came from.

So, you were still the government liaison person there?

Yes.

What was your impression about Backing Australia's Ability and the absence of a CSIRO mention in Backing Australia's Ability? Did you think the CSIRO was in crisis?

I didn't think it was in crisis, but that said, things had changed in a way that was not good for CSIRO, and so there was a need to do something.

So, why do you think that CSIRO wasn't mentioned in that?

Well, I don't think it was just CSIRO. I think it was all those institutions. You know, the government was interested in competition. Giving money to CSIRO is giving it to an institution that's already there. You know, you don't have that mantra that a competitive society likes to see of everybody competing for everything, and so I think, like the universities on the whole are competing for what has been a greatly increasing pool of research funding, but they're competing for it. Now, you can argue that CSIRO had a competitive process inside the organisation, but it was internal, and I don't think that was respected as much. So, I just think all of that probably came together and there were people who didn't like CSIRO, and all it takes is a couple of those. In the university system, you know if you can get more money for the universities and it comes from not giving some to CSIRO, well they would regard that as a good thing. So, I think there was probably quite a bit of that going on.

And, was it invisible or were there some active players that you can recall?

I can't sort of say that person did it, but there was a general feel that the university – well, I came from the universities system. I did have a gap, but I ended up in CSIRO, and there was a feeling that the universities had higher prestige in terms of the quality of research. I don't know that at all that that's true, but there was a feeling like that. So, I don't think that helped.

Yes. But you're not conscious of individuals, either politicians?

No. I can't name anyone that I would be sure was a problem. I can't.

So, this is not on our list of questions, but it just occurred to me. Did you in your time as the principal secretary in charge of government liaison, the role of the chief scientist appeared. When you were in ASTEC there wasn't a chief scientist.

No, there wasn't.

When ASTEC disappeared and the Prime Minister's science council came along, there was a chief scientist, Ralph Slatyer and that person changed. I think Michael Pitman was and then John Stocker.

Jim Peacock.

No, no. Just Stocker and then...

Robin...

Robin Batterham.

I think it went Slatyer, Michael Pitman, John Stocker, Robin Batterham and then Jim Peacock.

Yes. Of those, I would say they'd all be pretty positive about CSIRO except Batterham.

Yes. So, in a sense the importance of that person increased I think during your time.

It did, because that person...

Because of the Prime Minister's science council.

Yes, exactly. It was one voice as opposed to the voice of a council, and certainly like ASTEC it was the council speaking. PM and C, the Prime Minister's science and engineering council was really the chief scientist on behalf of the council speaking. So, they had an in route.

So, in your time within the organisation, were you essentially organising things or were there any major policy initiatives that you played a role in developing?

I don't think I can identify anything in particular, no. I mean we were involved in a lot of different things, and CSIRO's basically a team player I think. No, I don't think I've got anything to identify.

So, how did the changes of government affect your – I mean there was only one change of government? Well there was the change from the Hawke government to the Keating government, and then Keating to Howard. How does the change of government affect CSIRO in your opinion?

I don't think that there was a lot of difference actually. I couldn't put my finger on anything in particular, no because Howard came in in 1996, didn't he?

Yes.

Yes, that's right. Well CSIRO under Malcolm Macintosh was pretty stable. The world was changing. See, I don't think the Howard government was particularly gung ho about increasing money for universities or anything really. They weren't that sort of government.

And Howard was very keen on Macintosh and wanted him to go back to defence.

That's right. We were aware that we could lose him to that, yes.

And were you involved in discussions with Malcolm around that and how he would manage that transition?

No, not really. No, I wasn't but I knew it was a possibility. Probably Ted would have been more involved in that at that stage and the board.

The future of CSIRO

Can you reflect on the changing role? I think you've mentioned it a bit in what we're doing. CSIRO's changing role in the national innovation system, and including do we need CSIRO. If you were starting from scratch, would you have CSIRO?

Yes, I would, and it's not just loyalty to the organisation. I think that there is a real place for an organisation that specifically looks at what it can do to benefit the nation, and in a broad way. The marine research, and a lot of those other things, it's done not just like AIMS might do it or a university department just because it's really interesting stuff. It's always done with some idea of why this could be of benefit to understand it better, and universities, although many of the people in universities may well have that sort of motivation as well as the interest in what they're doing, I think CSIRO has a lot of horsepower. You asked me what it felt like when I first walked into it. It felt like an organisation with an awful lot of horsepower, and I think sometimes you need that in order to be able to make an impact. So, I feel very sorry when I see the staff numbers going down. I was very angry when I saw what the current chief executive apparently was doing with the marine research and the climate change research. To the extent I looked at that and I thought, gee I wonder whether he really consulted the board on that, and I wrote a very strong letter to the chair of the board and I told them where I'd worked in the organisation, and said that I was concerned that the board might not have been adequately consulted on this. That I thought it was a short-term outlook that was very damaging for Australia. I decided to write the letter when I was looking at The Conversation that morning, and I saw a lovely comment on an article by Professor somebody or other from I think it was Sydney University, but anyway he had a good title, and he basically said he thought this was the chief executive responding to Tony Abbott, and that it was very short term and for political purposes, and without claiming that that was my view, I put in this quote from this person, and then I said that I encouraged the board to fiercely retain its independence in deciding what CSIRO should do.

Independence from the government?

From the government yes, and making the best decisions free of political pressure, and for what it was worth, I thought that research on climate change was perhaps the most important thing the organisation could be contributing to, and off it went, and I got a serious reply. A two-page reply. My letter was two pages. I got a two-page reply.

Signed by?

David Thodey, the Chair of the Board, and it wasn't all that long after that that Minister Greg Hunt came out and basically said they should be doing it. Now, I'm not saying that my letter did it, but I could not let that pass without a serve.

Have you still got copies of those letters?

Yes.

Would you be happy to send those to us?

Obviously both of them.

All right.

That would be very interesting. Thank you.

Okay. I'll post them to you.

So, you were saying that these long-term research programs for the benefit of Australia to the future is the role that you see CSIRO playing?

Yes, I do. I do.

All right. Well thank you very much Beth. That was a most interesting discussion, and so we thank you very much for giving us your time in this.

And the answer to question five is, I'm old enough. I can put up with anything that happens. So, it's okay.

Excellent. Thank you. So, we'll get that signed up.

Now, what do you want me to do?

Just sign it.

So, I'll take you through it in a moment. I'm going to turn off the recording now.

[END OF TRANSCRIPT]