[Chairman: Mr. Kowalski] [2 p.m.]

MR. CHAIRMAN: Good afternoon, ladies and gentlemen, and welcome to another meeting of the standing committee on the Alberta Heritage Savings Trust Fund. This afternoon we have with us the Hon. Hugh Planche, Minister of Economic Development. Welcome, Mr. Planche.

After welcoming the witness before us, it is our custom to invite them to give an overview statement on any activities they would like to make such a statement on. Prior to doing that, just to alert all members, if they're looking at the annual report of the Alberta Heritage Savings Trust Fund, members will find paragraphs on page 9 identifying the new Prince Rupert grain terminal and showing that the investment under the fund as of March 31, 1985, is $129 million; on page 10, a description with respect to rail hopper cars and identification of the investment as of March 31, 1985, of $54 million; on page 12, identification of the project known as Electronics Test Centre, with an investment at March 31, 1985, of $4 million; and identification also of Vencap Equities Alberta Ltd., showing an investment at March 31, 1985, of $200 million.

Mr. Planche, welcome this afternoon. If you would like to make some overview comments and introduce the gentleman with you, please be our guest.

MR. PLANCHE: Thank you, Chairman. With me is Herman Young from the department, and possibly Doug Neil from my department will be joining me some time through the piece. As you can tell, there are only five projects that I have some responsibility for, including the Electronics Test Centre, which actually falls under the Research Council and my colleague Eric Musgreave. In order to facilitate the kinds of questions I hope we'll be able to respond to today, I'd like to throw the meeting open, other than to say that in addition to the four or five issues I'm responsible for in a formal way, there will likely be a wide-ranging bunch of questions associated with those that I'm happy to answer as well.

MRS. CRIPPS: Mr. Chairman, I'd like to ask if the minister would give us a report on the Prince Rupert terminal. I know there may not have been any current investment in '84-85. Oh, yes there is. I'd like to know how it's operating and if he is pleased with the results.

MR. PLANCHE: I am. In anticipation of the question I was hoping Doug Neil would be able to tell you the number of tons that have been put through the terminal since the commencement of its activities early this year, and perhaps I will be able to before the day is over. On the financial side we've done very well. I was just reviewing our commitments. If you will remember, the Heritage Savings Trust Fund was $106,250,000. That was struck as a firm number because those are commercial debentures. The balance was out of the Alberta General Revenue Fund, because they're performance bonds. Because there was some uncertainty as to whether or not the consortium was going to be able to yield commercial numbers on it, it was decided that that split would be made. In a global sense we're very close to being on budget. I think we could in fact be expecting a refund, perhaps of something in the order of $2 million, on the General Revenue Fund side.

In addition to that there is still the question of the receiving tracks for CNR. It's been ruled that CNR is responsible for payment of those. The dispute centres around about $6 million. CN is appealing that decision, and we won't know till later this fall whether or not CN is in fact responsible for those.

On balance, the project was well done. It was on time and on budget or maybe slightly under. Those of you who were there when it opened know that there had been shipments out of it by the time you were there. We were concerned early on about the efficiency of the computer system. We're now satisfied that the bugs are out of that. The only remaining problems are those that you'd expect with any start-up of a major facility, so we're pleased.

MRS. CRIPPS: Mr. Chairman, I'd like to ask some questions on throughput, but maybe I'll wait till the minister has somebody here.

MR. MARTIN: Just to follow up on some recent developments in Vencap. Again, I recognize that the minister doesn't make the investments; it's arm's length. I guess my question flows from the announcement yesterday about

BioTechnica forming into a Canadian company; 42 percent, as I understand it, and 42 percent from the United States. When we set up Vencap, was there a policy directed about what percentage of Alberta ownership should be involved before they look at a policy? Or is there a policy here, to the minister's knowledge?

MR. PLANCHE: Chairman, if my memory serves me correctly, this was one of the long, difficult discussion points when the conception of Vencap was under way. Rather than giving them a mandate within which to work, we decided we would tell them five things they could not do. I think you're all familiar with them. They are conventional real estate, conventional banking, conventional oil and gas, water diversion, and nuclear energy. At the same time, we said that the projects must be deemed to be of benefit to Alberta, meaning that we did not preclude investments anywhere as long as there was going to be a benefit to Alberta.

When that was happening, we hadn't, of course, anticipated this specific investment, but it's important to have intelligence in market areas outside Alberta. It's also important to do what you can to transfer that kind of activity here. So it was thought at the time that over the life of Vencap it may be appropriate to become involved in co-venturing in the Silicon Valley area, for instance, so that we could not only get intelligence about what kind of activity was going on there but be on the inside in terms of branch plant start-ups or transfers for whatever reason, sectorally or geographically, that might be required.

In the case of this specific one, not only will it afford us an eye on the world in terms of probably the foremost group of plant geneticists in the world but it will also afford us future transfers of their activity to the province. In that this is agriculture-oriented and is stemming from an area that isn't necessarily agriculture-oriented, it could be presumed that over time there will be some activity that will be moved. Of course, by having a representation in the capital of the American company, we should be in a favourable position to be the recipient of that activity.

MR. MARTIN: A supplementary question, Mr. Chairman, to follow up. Of course, the purpose of Vencap ... The minister is aware — certainly, he voted for it. I think it was an excellent idea to be used as a tool, as I understand it, for diversification in the province. The minister talked about the necessity of having a window into some of the high tech. My question, having to do again with policy and the branch plant phenomenon, is: if we don't put some more guidelines on what has to be Alberta-owned, is it not possible that the actual transfer can go the other way? In fact, the main beneficiaries could be foreign-owned, whether it be in the United States or some other place. That has been the case in some instances of branch plant philosophy, if you like.

MR. PLANCHE: Chairman, that's always a worry. Presently, because of the lack of a pharmaceutical policy in the country, for instance, and because of the enormous size of the American space and defence program, we tend to be losing a great deal of proprietary engineering from our universities, and it's leaving the country for a very small sum. So it's a worry. The other side of the coin, however, is that we're also badly in need of foreign investment in this province, because we have such enormous capital projects that need to be developed over time. I guess you can't be on both sides of the issue.

The purpose of Vencap was really twofold. It was to diversify the economy, but it was also designed to balance the debt equity ratios of our young, growing Alberta companies. Our real and sincere belief, Chairman, is that if we're going to diversify this economy over time, the best hope for it is in homegrown activity, because people have a sentimentality to stay where they were born and raised and educated. We hope that others will stay as well, but we really think that's our long-term, most favourable outlook for diversification.

The restriction on the thing: we thought the mandate for Vencap at its inception should be flexible enough that the "of benefit to Alberta" by the people on the board, who represent all sectors and who, at least at the beginning, had had experience with venture capital in the formation of their success in business, would probably be an adequate enough safeguard and that the commercial negotiations, as best they could, would ensure that Alberta would benefit from the investment without having a global restriction on the issue.

MR. MARTIN: Just to follow up, if I may, Mr. Chairman. Of course, "how much foreign investment" is a debate that's been going on in this country. You and I may tend to disagree on that. I understand that as a policy — because, as I said, this is a recent example — it's arm's length, and in fairness, I think it has to be that way; otherwise it wouldn't work. Is there an example of where Vencap could be going in all the wrong directions as far as the government is concerned, that after a judgment is made it might be moving over and actually helping the American economy more? Or are they investing in things that they shouldn't, where the government would intervene with the $200 million? Do we have any clout with them at all, or are they basically going to do their own thing for many years ahead?

MR. PLANCHE: The insurance is that there is a stock structure such that we as a government can buy back control of the company if we find they're wandering well outside the mandate and intention of the Vencap design. Frankly speaking, $240 million is a great deal of money. It was never forecast that that would be invested in one project. So if it's disseminated in investments in a lot of smaller projects, in the continental scheme of things you can't really move very much with the kinds of sums that are going out project by project. For instance, it isn't going to be anything that's going to disrupt, move, or change perceptibly anything the Americans are doing.

On the other hand, there is ample reason to believe that we may be able to attract some very skilled technologists from other areas of the world, and some from the United States, to settle here because of Vencap and its ability to provide equity capital in the short term. The disadvantage we have in Canada is that we have a branch banking system, and the banks traditionally don't take equities. That isn't true in other parts of the world. So Vencap's role was designed to be a source of equity that could balance that inequity. For that reason, those areas of the world where there is not an opportunity to get equity capital from their traditional institutions would look very favourably on locating here. So, again, I guess there's a balance.

On your initial comments that we might disagree, I think that would be fair.

MR. R. SPEAKER: Mr. Chairman, my question is with regard to Vencap too and the announcement yesterday. The only comments I have seen is what was presented on CFRN television last night: Mr. Mills indicating that he felt it was a good investment and Mr. Jim Gray making a comment. That's what I'd like to ask about. He said that the reason we brought this research facility to Alberta was so that we could actually experiment on location. I also gathered from his comments that the same kind of research in terms of canola was already going on in the United States but that it was relocated here for the purpose of being on location. I wasn't quite convinced by his remarks. I felt that was the supporting evidence that he gave as a reason for coming here. I also thought that the capital that's available through Vencap was certainly an incentive, and I was wondering if the minister could comment on that and clarify it.

MR. PLANCHE: Unfortunately, I didn't see Mr. Gray's public comments, so I couldn't correct what he said. I can tell you, though, that this kind of research being done by the private sector is directed at the market. It will be the intention of this investment to make canola-growing in Alberta a very much different industry than it is now, because if the DNA activity they're involved in is favourable, in the future it will not be affected by herbicides.

So what we have here is an opportunity to become the home for four of the foremost plant geneticists in the world. It will clearly be a lead in Canada in biotechnology, something that if we aren't in by 1990, we probably won't even be able to get in. I think Vencap played a crucial role in it. But more than that, having watched this thing develop over some time, I think it would be fair to say that because Jim Gray and Mr. Masters are solid Albertans and were investors in this activity in Massachusetts, their say-so at the board table had a great deal to do with bringing the thing to Alberta, and Vencap was the facilitating part of it. So I'm very excited about it. Not only is this the right place for us to be in agricultural research but it is market-oriented, and we should quickly see the benefits of it in terms of return on investment for the farmers.

MR. R. SPEAKER: Mr. Chairman, to the minister. As a canola grower myself, I could

certainly endorse the benefits in terms of what the chemical could do. Following the discovery of the right kind of chemical that would distinguish between canola and the various kinds of weeds, what are the steps at that point? Would the hopeful part be that we would develop the chemical in Alberta for marketing?

MR. PLANCHE: I'm not handicapped by any knowledge of plant biotechnology, but I can tell you that it is not necessarily a chemical. It is a restructuring of the seed grains, so that you would have a strain that would be effective in terms of growth while herbicide was being applied. My view continues to be that every year we have the same problems in agriculture. Every year we're sitting there with grain in swath and snow on it. Every year we have the same problems with drought and the same problems with moisture. Instead of attacking it a little bit at a time, you've got to attack it at the root cause. I think the opportunities in biotechnology and genetics are going to see us very well through other things besides canola.

It's true that these people are down the road on the canola thing and the change from basic research to applied research is going to take place in Alberta. Of course, we will be able to export this technology. This company will be a world leader in the export of this technology for the seed strain if it turns out to be successful. But they have the capacity to get into all kinds of feedgrains and other things as well, so I think it augurs very well for the future of plant research in the province.

MR. R. SPEAKER: Okay. Thanks.

MR. COOK: Mr. Chairman, I'm delighted to have the minister here. He is doing some exciting things that I think are making a significant difference to the economy, and I'd just like to say: well done.

Secondly, I'd like to ask him for some advice. Last year we had a resolution approved by the committee that dealt with the concept of agricultural and other scientific research. The suggestion was made that there would be a $300 million endowment fund. I'd like to ask the minister if the opportunities are great enough in the biotechnologies. I went out to the Alberta Research Council facility, and there's an exciting team headed up by Dr. Gerson, and the announcement you've just made with Vencap. Are there research opportunities significant enough for us to restructure agriculture that we ought to commit a similar amount of funding to a fund like that, as compared to, say, AOSTRA, which has enjoyed $300 million worth of investment, and the medical research foundation, which has enjoyed a similar dollar value?

MR. PLANCHE: I don't know that we're far enough along to begin to throw money at an issue. This is a change for us. This is commercial research. This is not research for research; this is research for profit in the market. The people who will be involved in this will be of that orientation. I think the first thing that will happen is that you'll see some of the activities from the Heritage Savings Trust Fund medical research endowment, which covers biotechnology, albeit peripherally, start to tend toward commercialization as this thing begins to take hold. I think this is a really good nucleus of a beginning and that the white paper on science and technology, industrial and science strategy, which will be a published document in the fourth quarter, I would guess, again brings forward the idea of an endowment for science. Its present orientation, as we took it from the hearings we had, is that it should revolve more around electrical engineering and computer science, with the social sciences being brought in under the same umbrella to comment on the effects of this activity. I see no reason why it couldn't be broadened to include biotechnology as a science in its initial stages.

I think it's a little early to plan for money until we see what kind of reaction we get from our universities as this thing begins. I sure am excited about the prospect, and I think the thought process you have is certainly on the right line as I see it.

MR. COOK: Mr. Chairman, Dr. Gerson at the Research Council is working with a number of people who are in the fermentation technology area. I'm told that we have a lock-on, a bottleneck, in the marketplace, that there aren't any custom fermentation centres where a guy in a research lab in California or Massachusetts or anywhere can come and run up his bugs from, say, a 100-litre bottle to a semicommercial model, and that we have just

that kind of facility. Is there any way we can take that expertise that is starting to be assembled and commercialize those bugs that Gerson and company are working with?

MR. PLANCHE: It's the old technology transfer problem. I think my colleague Mr. Musgreave will be coming forward shortly with a solid proposal on a fermentation toll-through facility, and I'm of the view that's a great thing to do. Once you have a number of people active and you start to inter-relate between the private sector, which this BioTechnica thing will be, and the solitude of academia, through a facility like the Alberta Research Council, all that kind of thing begins. I think it's fair to say that the focus of the scientific world will be on this Vencap investment of yesterday, particularly the agricultural world. Alberta will then have a major profile in this activity, because, after all, it is an activity for the '90s. We're taking a running start at it with something that has commercial possibilities right off the bat. I'm very encouraged.

What we've got to be sure is that we have the right infrastructure to aid and abet and not force the direction this stuff is taking. It's going to have to be some serendipitous, because I think that's how this will develop.

You'll notice that on the campuses in Calgary and Edmonton there is now a very serious thrust toward technology transfer in the dean's office and in the president's office. There is now increased activity toward incubation facilities, and we have one or two more building blocks to get in. One is the very early, beginning, rough-and-ready funding of $25,000 or $30,000 to take these things into some business plan that a venture capitalist can do. That's a competitive activity we're going to have to get involved in. The Alberta government Nova syndicate is starting a spurt fund for that. I hope Vencap will be an investor, or may already be. There are yet some interesting building blocks to put in place, but I think they're coming very well.

If I may, Mr. Chairman, over the last year and a half we as a government have done a lot of things that are fragmented, one at a time, but they're really shaping into a nice mosaic of building blocks within which this stuff can happen. I'm greatly encouraged by the amount of interest we're getting, and I think it will turn out to be exactly the right strategy.

MR. COOK: Mr. Chairman, if I can ask my third question, I'd like to focus in a little bit on electronics. The minister touched on it. Again, some exciting things have been done there with the test centre, the chip design facility. There was a report out of the University of Alberta last year which suggested that they ought to be going on to a program of computer literacy, trying to get all the students going through the system to become literate in computing science. Would the minister have any views on whether or not that's a desirable thing and, secondly, if it's desirable, if putting resources behind it should be a priority? We'd have to dramatically increase the amount of equipment, for example, and instructional staff. There seems to be a bottleneck in that area.

MR. PLANCHE: It gets into the area of sort of directing the universities, and you know what a touchy kind of situation that is. It probably more properly falls under the mandate of my colleague the Minister of Advanced Education. But it is interesting to notice that you can effectively redirect university activities two ways without dabbling in the integrity of the institution. One is to dangle extra funds in front of them, providing they are prepared to do the following things, and the other one is to get chairs funded. I'm attracted to the idea of having chairs funded simply because it seems to me that that's one way the business community can express its interest in the sector and courses that graduates come out of school in. I think there's a dangling participle there. In our travels we have uncovered some amazing success stories in chair funding. I don't think we've done that very well in Alberta, and I've admonished the presidents of the two schools, because I don't think it's good enough for them to just hope that something nice is going to happen from the government. At the University of Texas, in Austin, in the last six or eight years almost 800 chairs, as I recall, have been funded by the private sector.

If you're an alumnus of this university over here, you get a letter that says, "Please send in some funds." The difficulty with that is that you don't know how many dollars to send in or who's going to see your contribution. The natural tendency is to simply pretend you didn't get the letter and throw it in the can. What they're doing in Texas that I think is of some considerable interest is that they're encouraging

codicils on wills so that people who pass on can send something to their alma mater. Of course, they're then past caring whether their contribution is big or little, and it's a painless way of giving. The second thing is that as a graduate of the school you can also take out term insurance and write off the premiums of the term insurance against your income tax. Of course, the math of it is that every year the same number of people die as graduate, so you have ongoing funding from your graduates.

The third thing is that testimonial dinners in Texas have taken on the flavour of rather than giving a guy a gold watch, they invite further eminent citizens, many of the key players around the state, at a fairly expensive per-plate price and donate a chair in his name. That's a very nice gift for an eminent citizen to leave his activities with. They've done it aggressively and successfully. For instance, I think they have three chairs in free enterprise, which should be of some interest to you. [interjection] You might want to see if you can get one of those. They have a great many chairs ahead of us in electrical engineering and computer science. By doing this, the business community is saying, "These are the kinds of graduates we want from that school," without interfering with the integrity of the institution. I'm really attracted to that.

MR. THOMPSON: I'd like to ask a question on the Electronics Test Centre. As I understand, it's sited at the Alberta research facility. Our interest in it, of course, is the investment in the equipment more than the building. What kind of arrangement do they have as far as rent or that concerned with the Alberta Research Council? Is it a donation by the council, or does the test centre pay rent? What's the score on that?

MR. PLANCHE: Chairman, I can't answer that question. I'm not sure whether there's a fee for service. The point of it was that if you were to bring forward some kind of microelectronics project, in order to make it saleable it had to pass some standards that are set by industry in Canada and the United States. Many of them involved hostile environments: taking them to destruction, vibration, heat, a variety of things. So for us to do that early, we were driven to going to either central Canada or a couple of places in the United States. We thought a necessary building block was a facility where someone who had developed a prototype could take it in, test it, and get comment from some folks who generally understood the industry, what the impediments to its success were. We felt that was important locally.

It was housed in the Research Council because they have the best scientists on the public payroll and because they had a facility that was adequate to take care of the needs and space for this. My colleague tells me that there is, in fact, a fee by the Alberta Research Council for the testing of these prototypes. For precision I'd have to get back to you with a letter outlining the fee schedule. The point of it was not as a money raiser. It was more as a facilitator to reach standards for sale of prototypes outside the province.

MR. THOMPSON: My second question is: what kind of relationship is there between the Electronics Test Centre and the Research Council itself? Do they use each other's equipment? Are the same people working in both areas? I don't have a feel for the relationship between the two operations over there.

MR. PLANCHE: The way we did this, Chairman, was that we made the decision that rather than give grants and sort of a sense of direction from a government to an activity, we would get involved in putting in building blocks in an infrastructure sense. When Northern Telecom built their lab in Edmonton, they kindly offered to work with us in terms of their sense of priorities for building blocks. So the route taken was that Northern Telecom together with the Research Council would develop these priorities as they saw them, and then they would be staffed at one or the other place with input from the universities and manned by appropriate people who were members of the staff or had to be brought in for special expertise.

Alberta Research Council is charged with the management of this facility; that is, its physical, financial management. I suspect they would have people involved in it, but if necessary they are also free to hire people who have a narrow excellence in that kind of activity from outside the Research Council.

The same thing applies to the Laser Institute; the same thing will apply to the variety of

building blocks we have. Some are managed at Northern Telecom, some at the university, and some at the Research Council, and some will be institutions that are free from all three, managed like the Centre for Frontier Engineering Research, as a unit itself, although it's on the campus.

MR. THOMPSON: Thank you, Mr. Chairman.

MR. ZIP: Following on what the hon. Member for Cardston said on the Electronics Test Centre, what stage of development is the centre at? What results has it already produced?

MR. PLANCHE: This is now operative, Chairman. The electronics industry itself is fragmented in the province. You know that its primary genesis came from a lot of people in middle and upper management in the oil industry who lost their jobs through the difficult times starting in 1981 and began by themselves to do things. We've gradually been able to encourage — and I don't mean to say that we led any activity, but we've encouraged any way we could — associations that represent the electronics industry. We're in continuous dialogue with them, as necessary, on the efficiency and usefulness of these building blocks.

They agreed that this has been, since its inception, a very useful activity. We'll be getting ongoing comments, because the industry itself moves quite rapidly. If the machinery in the institute becomes redundant, we'll be called upon to replace it. If the people are not responsive, we'll be called upon to replace them. If it is no longer of any use, we'll simply close it. That's the only way we can monitor the activity. My sense is that it's what it's supposed to be and is useful and effective.

MR. ZIP: Thank you, Mr. Minister. I'd like to ask a general question. The enigma of the Canadian economy and part of our problem here in Alberta, with a low population base of 2.4 million people and 25.3 million in Canada, our relatively narrow economic base, stemming partly from the accident of climate, geography, and our political system . . . Comparing ourselves to the United States, with their vast population, their massive capital resources, and their massive amassment of technology — comparing, for example, the state of Iowa, which has a larger agriculture base than all of Canada and the state of California, which has a much stronger economy than that of all of Canada combined, with the same population — we've got a tremendous problem. We simply have to reach out to the United States in order to develop and enhance our own technology and our own competitive position. Would you not agree with that premise, Mr. Minister?

MR. PLANCHE: The information and technology revolution we're in really has two facets as it affects us: one is to develop that activity in a way that employs people and that you can export, but secondly, it's important to buy technology. It seems to me that there is nothing shameful about buying technology when you only have 2.5 million people. We can't be all things to all persons. For instance, we are going to build, I believe, 45 double-stacked railway cars for hauling containers. Initially that doesn't sound like a very big deal. Railway cars are not particularly sophisticated. At least that was my view. Well, that's wrong. They're very sophisticated. First of all, they're going to have three-axle trucks; that's to prevent rail wear. So we have access to technology from Belgium. Forty-five cars are enough to begin to manufacture that specific car here. I think there is a big future in North America for double-stacked container cars, particularly if the Alberta government is going to buy the first 45 from someone who has the courage to begin building them.

Then when you go looking for the technology to put on the trucks, there are only a couple of companies that have it. So we intend to buy that. We intend to pay a premium to buy it so that we're not fettered by royalties or geographical restrictions in our market area. We will buy that, offered for sale to whoever is going to finally look after this container company when it breaks even. We hope we can do it in such a way that whoever manufactures them here can have a licence to market the most advanced triple-axle truck, double-stacked container car in North America. That's a case where I think it's appropriate to go out and buy it rather than spend the time and money doing it here.

The farming industry here desperately needs technology. We're just not going to have either the capacity or the time to catch up. We're

going to have to buy it.

Part of what I'm trying to put together is a technology transfer out and also the facilitation of buying technology that's suitable for us or facilitating it in some way. We've got to be up to speed on the things that we're trying to do well. Many of them we don't do here in R and D; we'll have to buy. I don't have any aversion to buying.

When you're talking about the United States, you simply have to understand their space and defence budget. There is no way we can compete with either the attraction of scientists or the kinds of activities they do unless we are very careful that we have a balanced environment within which these people can live and concentrate our resources competitively and effectively on narrow niches where we show some natural strength. That's where I think government leadership is going to really be important.

MR. ZIP: Thank you very much, Mr. Minister.

MRS. CRIPPS: I guess from the report you've given, Mr. Minister, there are some tremendously exciting developments and opportunities taking place in this province, and I just hope the message will get out to Albertans what an excellent job is being done.

I'd like to go back to your comment on a lack of pharmaceutical policy in Canada. I was listening to a phone-in show a couple of weeks ago, and they were talking about developing a pharmaceutical policy for Canada. The Consumer's Association says that this would result in higher drug fees. What kind of assessment do you have of that?

MR. PLANCHE: I think it's a fair debate. The consumer groups and others who are advocates of this policy say that the people who develop drugs in this country should not recover an excessive amount of money through the pricing system for drugs to fund their R and D. The other side of the coin is that we surely are living in a country where we should be developing our own health care, not buying it, and that employment in pharmaceuticals is a good, honest base, not only for great jobs for our children but for exporting a product.

What's happened is that because this law is in place we have lost all but Connaught, I think, which is an indigenous company, with the exception of two or three others that are still working their way through the final end of their amortization process on plant. In losing those, we have lost the folks who went with them, but worse than that, we are now out of the mainstream of the marketing network. If we are going to reverse that, we've got to build all over again from scratch and take on the world in trying to elbow our way into, primarily, the U.S. market.

There are a couple of things involved. First of all, the Food and Drug Administration in the U.S. is going to require a great length of time to access that market. Secondly, we're going to have to change the law in such a way that the people who take medicines here are going to get the best medicines in the world, but they're going to have pay a little more for them in their early stages. So the debate rages.

From Alberta's point of view, because of our petrochemical presence and because of the Heritage Savings Trust Fund medical endowment, we have the capacity, in my judgment, to be players in pharmaceuticals, because it's high value, lightweight and is therefore not geography specific, which is where we need to be if we're going to burst out of the mold we're in. So we have taken the view, with the minister, that we are proponents of change but that there have to be some safeguards that a fair return to the pharmaceutical company is going to be adjudicated by a panel including the pharmaceutical companies. We're trying to strike a balance, and the pharmaceutical companies have agreed to that.

But it is a fair debate. It's just that from Alberta's perspective it's an opportunity for us that I think it would be a shame to lose. I think any developed country should be making its share of contribution toward health care, in science, and we aren't.

MRS. CRIPPS: As a follow-up to that, I understand there's a Bill proposed, and you indicated that we've already lost some companies. Have we lost the opportunity, and is it possible to recoup these losses? What kind of time line are we looking at?

MR. PLANCHE: The pharmaceutical companies are gypsies, because they're not geography specific. They tend to go where there are tax havens for the manufacturer of drugs. They

tend to go anywhere in the world because they can ship by airplane. I'm not so interested in people putting granules into capsules. I'm talking about basic research, proprietary engineering that can be developed in our schools, and having people meaningfully engaged in that activity with the prospect of recovering the cost of research from their work. That's what I'm angling for. From that, of course, you'd hope that there'd be some manufacturing, some rote jobs, and other kinds of jobs that go with it. Primarily, it seems to me a natural opportunity for us to develop and export a high-value, low-weight product.

MRS. CRIPPS: Thank you. I agree with you a 100 percent.

My last question has to do with the three-axle trucks you just mentioned. I understand that apparently Alberta Transportation does not at present recognize three-axle trucks in the distribution of weight . . .

MR. PLANCHE: Excuse me; I'm talking about trucks on railcars.

MRS. CRIPPS: You're not talking about the transportation system within the province.

MR. PLANCHE: No. I will if you like, but when I was making my earlier reference to three-axle trucks, I was talking about the conventional trucks that presently have two axles and sit on the railcars; in other words, four wheels. These would have three axles and six wheels at both ends of the railcar.

MRS. CRIPPS: But don't they have to get to the railway?

MR. ZIP: No. The railcars.

MRS. CRIPPS: You're talking about the railcars themselves.

MR. PLANCHE: I'm talking about the railcars that we are going to contribute to the container economics, but I'm happy to talk about the truck thing as well. It's a fair question. It's all part of the package.

MRS. CRIPPS: Then I'll go ahead and ask it. When the Minister of Transportation was in Drayton Valley, I remember a number of questions were asked about the distribution of load limits on our highways, and the implication was that Alberta Transportation does not recognize three-axle trucks. Does that have any consequence in your development of the container ports and the transportation system here?

MR. PLANCHE: Yes it does. It's an important question, because the presumption is that Calgary and Edmonton will be the base points for container shipments and that you will gather there. So it's important that we have the same kind of weight limitations for containers on our highways as the railroad will accept on their system; otherwise we have a bottleneck.

But more importantly, if necessary, we are going to access the Burlington Northern through Coutts. In order to do that we will likely have to use trucks that will carry two 40s. In other words, they will be very long, heavy trucks for Alberta roads. It's going to mean another look at the highway from Nanton through Lethbridge to Coutts. It will need to be a four-lane, divided highway so that it's safe for trucks and cars to operate together. We're going to have to look weights that are compatible with the maximum freight economics we can get on the Burlington Northern out of Coutts or Shelby so that the ability to restructure the bearing surface of wheels on highways is a crucial part of it.

In the container port thing we dedicated some money to the research of trailers for that purpose. We didn't say that the government was going to do that. That's available to anybody who is prepared to undertake that activity. We think that it's important to have government or Economic Development involvement because the final adjudicator is going to be the Motor Transport Board, and we'd like to have a good hearing.

MR. CHAIRMAN: Thank you very much. Mrs. Cripps, I think you stretched imagination to the limit in getting that last question through to the floor. The basis of the mandate of this committee . . .

MRS. CRIPPS: But I like the answer.

MR. GURNETT: Mr. Chairman, I just want to come back, with one question, to our earlier discussion with BioTechnica and the Vencap

investment there. I wonder if there's been any thought yet or what your opinion is about the province's stand in encouraging, promoting, or supporting plant breeders' legislation. It seems to me that if we're going to be encouraging this company to operate here, somehow they're going to have to be able make money out of products they develop. Where is the province then going to stand, with Vencap having the investment, in being aggressive in that area?

MR. PLANCHE: Vencap is a private-sector company. We are only creditors. We don't have a board member; we don't own a single share. They will operate for profit. When you're operating for profit, both the buyer and the seller have to have a good deal. That means that on one side the agricultural community will be the recipient of these new seed genetics, and on the other side they'll be recovering the cost of research. So the natural tension between buyer and seller will prevail. They'll try to optimize their profit, and the agricultural community will try to optimize their crops. I don't see that the government would have a role in that.

MR. GURNETT: I asked the question, though, because you spoke very positively about the need to move forward really aggressively and strongly in the whole area of technology and agriculture. Since that's going to be a large part of it, I'm wondering whether we're going to then — in your opinion, would you like to see the province more strongly promote action on legislation in plant breeders' areas? If there isn't the legislation, I don't see how we're going to see the action take place. Yet, as you said, there's always going to be that tension between the farmers and the people who are developing the new products.

MR. PLANCHE: I don't know that I can follow that argument very clearly. The wheat strains that we're growing here now transferred from the lab to the field without any legislation in that regard.

There are two ways of approaching this research business. Again, I can only repeat to you the distillate of seven years of conversation on the issue, because nobody is of a firm view. One is that you fund the person who is making the invention, and he continues to do whatever it is he does. Usually he's back for more money after he paints it a different colour and puts bells and whistles on it. The other one is to fund the people who are the users of the technology. You do it in a three-way mode, so the person who is developing the product is driven to the consumers' approval. Okay? You see what I'm saying? You can take it either from the lab side or the consumer side. You can drive the guy who is beginning this thing to the consumers' approval. That cuts out the bells and whistles and moves it along very quickly. Or you can fund the guy who's doing it. He doesn't have the market signals, nor do you as he keeps returning to you because the thing is not yet ready for marketing.

The best way to cure this thing, in my view, is exactly what happened. You have someone who is doing research for profit and he therefore must access the market. On the other hand, the buyer has to have a better product than he has now or he's going to continue with the malaise of farm economics. So it seems to me that those are the two driving forces that will cause this thing to work. I think it will happen better without legislation, but there's always room to discuss that as it shakes out. My intuition tells me that the combination for success is right.

MR. GURNETT: I raise the question, though, because as we move into a company like this case, the difference seems to be that you now have a company for profit. In the past new strains have tended to be the result of publicly funded research by and large. So it seems that now this company . . .

MR. PLANCHE: I have to correct you. With respect, it's not publicly funded research.

MR. GURNETT: Well, research that's been done through government funded institutions, universities, or research councils.

MR. PLANCHE: This was done by private-sector investment research. It was done primarily on the east coast of the United States by two Albertans funding it.

MR. GURNETT: I'm saying that new agricultural varieties in the past have come out of that kind of situation, that kind of environment. In this case, it seems to me we've got a different situation, because, as you're

describing, this is a company that wants to make a profit from its biotechnological work. So I wonder whether at some point they're not going to reach a place where they're going to have to say: "In order for us to be able to make a profit with products we've developed, we also need the guarantee that we have a protection on those products. We're the owners of the results of our research." Therefore, there's going to be more encouragement to have legislation that gives them protection than there has been in the past.

MR. PLANCHE: My thought process hasn't taken me down that road. I'm not familiar with patenting biotechnology as such. I would judge, though, that it would probably be a royalty thing, but I can't speak to it. I hadn't thought that through, the case being on one hand or on the other hand. I appreciate the question.

MR. R. SPEAKER: Mr. Chairman, my question is again related to Vencap, but this time related to Motion 183, which I requested in the Legislature some time ago. It's with regard to a General Systems research loan of $2 million. My question is: are they at the point of manufacturing? Would a company such as that be capable of using the Vencap facility for diversification in this province?

MR. PLANCHE: You're calling on my memory, so the caveat on my answer will be that my numbers might not be quite correct, but I'll talk about the issue. They have sold machines. My memory of the last briefing I had tells me they've sold three and that there is considerable interest in machines four and five. It is our intention to recover our money from the sale of those machines. Machines went to textile cutters: one a mammoth department store chain and the other an automobile manufacturer, both of whom would be harsh critics of new technology and both of whom bought. So we're greatly encouraged by that.

At the time this technology required an injection of funds, Vencap was not in place. We have never, that I can remember, given a grant for anything. We tend to cost-recover. Sometimes the creative financing is quite soft; I agree with that. As I recall, in this case we put money in preferred shares and were to recover the cost of that paper from sales over time. They have been back since, indicating that they would prefer we renegotiate the contract and that the sales don't come out of machine three but come out of machines four and five because, as usual, they understated their costs and overstated their income. We agreed to that because the purpose of the thing was to cause it to work, not to cause it not to work. So we have renegotiated the recovery of our costs. My memory tells me that four and five are either committed or sold and that the technology is improving as they go.

MR. R. SPEAKER: The other part of my question, Mr. Chairman, is with regard to the use of Vencap as such. Would they be eligible for a submission to Vencap for equity capital?

MR. PLANCHE: Yes, they would, and of course they're free to go there. The loggerheads they find themselves at are twofold. First of all, if you go to Vencap as a venture capitalist, you've got to come to terms with the value of the shares. Vencap may think they're worth 10 cents; the inventor might think they're worth $10. So that accommodation has to be made. Secondly, Vencap is not a lender; it is a partner in your business. So it might be a hands-on activity, where they could put their own nominees on the board and have some considerable say in the direction the company takes. That's subject to negotiation.

I think the problem that particularly the media had with Vencap in its inception was that they didn't understand that that accommodation had to take place. Everyone saw it as an automatic place to get money. Vencap, of course, has a responsibility to its shareholders to sift through all this stuff and accommodate those two.

In specifics, there is not any reason in the world why General Systems could not go to Vencap now or anytime it needs an injection of funds. We might take a different view than Vencap on the injection of funds. If Vencap rejected it, we might accept it if it were in a smaller centre, for instance. If it were a dead equity problem in a town of 4,000 or 5,000 in the province and employed 100 folks, that would have a very different meaning politically than it would commercially to Vencap. You would then expect that we might pick up some that Vencap would not, but we would fund them differently. All right? We're not so caring about the equity part as we are about the

success part.

MR. R. SPEAKER: Mr. Chairman, this is not quite on subject. As a comment from the minister, in terms of what General Systems is doing, are they leading in that field in terms of the world market? They have broken through. I know the companies you're referring to are world competitors. Would it be a fair statement to say that we certainly have someone here in Alberta that's cutting waves?

MR. PLANCHE: Yes. On the issue of General Systems, as I recall, that was a spin-off from a major aeronautical manufacturer, maybe Hughes. It's interesting to notice that oftentimes a team of people in R and D within a corporation get a long way down the road on something that's outside the corporation's general mandate and direction. The management of the corporation will then say: "We're not really interested in that thing; that's not what we do. So you have an option as a group to buy it and run with it or drop it and stay in the corporation." Often they take it and run.

As I recall, at that time this carve-off from Hughes was forefront world technology. I can't speak to whether it continues to be in August 1985, because often that kind of stuff is plagiarized and the R and D is then reinforced by a very major corporation that can then step ahead. At the time of its inception, certainly at the time of the three sales, it was the best in the world in laser technology for textile cutting. I don't think there's any question about that. That's one of the reasons we were attracted to it.

MR. MARTIN: Just to follow up some more on Vencap. It follows from the discussion with the Member for Little Bow. As I recall, and I'm sure the minister remembers, last year there was some criticism in this committee of the way Vencap was operating. I had the feeling that the minister wasn't overly impressed at that particular time about some of the investments — or lack of investments, if I can put it that way. As Minister of Economic Development can you give us an up-to-date analysis? Are you more satisfied with what they're doing now in terms of, say, the previous year?

MR. PLANCHE: The answer is clearly yes. I think they're very much closer to my perception of their level of activity. I was impatient with the start-up, but I guess there were good and valid reasons why they did what they did at the speed they did it. Last year I think about $74 million or $75 million worth of venture capital activity took place in the whole of Canada. Vencap, with about half a dozen things, totalling $6 million or $7 million, that were approved by the board that aren't announced, will be just short of $50 million.

In fairness, they've now been active for about 18 months. They started officially in November 1983 and for the first three or four months had growing pains in getting staff and so on. They were effectively operating sometime around the first quarter of '84, so give them 18 months. They have almost $50 million committed or out in projects. The projects number something in the order of 17. They cover almost every sector that's of interest to Alberta. Some of them are more risky than others; some of them are more technological than others. But they all had one thing in common: they caused companies to be better balanced in their financial structure, and they caused employment and opportunities. I think that's what it's about.

MR. MARTIN: To follow up, looking at the section under Broadening Alberta's Economic Horizons — Jobs, are there any other new things dealing with the trust fund that may be coming out of the minister's department? It may not be a Vencap or the Electronics Test Centre, but can we look forward in the immediate future to any new announcements about some other ideas that might fall under this title?

MR. PLANCHE: The decision of whether or not it fits under the heritage fund, Chairman, is whether or not the funding for the project is commercial funding. As a rule, that's how it splits out. If it's not, it goes into general revenue expense. I am working on three major investment and employment possibilities, each in a different sector, none of them oil and gas related. Some of those may eventually find a home in the heritage fund, providing that we can get them here and get them going, and everything about them makes sense. We have a sort of ongoing inventory of projects of varying ranges of likeliness, but right now we're

fortunate enough to have three that look like they're remarkably interesting.

MR. MARTIN: Just to follow up with one more question. I take it that it would be premature to tell us at this particular time what they're looking at. I know that just because you're looking at it, doesn't necessarily mean you'll do it. If that's the case, I'll ask about something the minister has discussed before. Is there any thought about a capital projects investment sometime in the near future dealing with fast light rail transportation between, say, Calgary and Edmonton?

MR. PLANCHE: I remain very optimistic about that. There is no question whatsoever in my mind. Our studies indicate that it is economically possible. I've had a great deal of encouragement from the transportation authority out of the Calgary chamber and from several Edmonton businessmen, although not consolidated under the auspices of the Edmonton chamber.

In order to understand the concept, first of all you have to understand that railroads are the only mode of transportation that are required to recover their fixed and variable costs and that when we build a highway in the province, we only collect some 20 cents out of every dollar we invest before the highway has to be replaced. It's important that you have that mentality, so you can see how to work at this thing. If we have identified a ridership between the two cities that will, at a projected tariff structure, make some business sense and if you take the fixed cost portion out of the train and do it in a creative financing way that's something very much better than highways — in other words, it will return, but it will return over an extended time — and you put that in place and allow the private sector to put rolling stock and terminals on that infrastructure at some kind of a commercial rate, and then they pay over and above some rate of return into the fixed rate portion that we invested in, split the way I describe, we see it as commercially attractive for the private sector and recoverable for the public sector right now, based on our forecast of ridership and fees.

This is the fifth busiest corridor in North America, and we think that this is not only ingenious but it's going to be necessary. The problem that my colleagues in the next government, or maybe your colleagues in the next government — God forbid — will have with this is that in order to get involved in these great sums of money and creative financing, we're going to have to be a little more comfortable with oil pricing, because this is an elective proposition. It hasn't got a precise time frame for need, so that it can be comfortably deferred. We're continuing to work because all of the activity we're involved in has a good shelf life. The engineering studies, the logistics of ridership, the selection of route, the reasons for the selection, and the selection of the type of transportation equipment: all those kinds of things have really not been too expensive in terms of studies and have a good shelf life. The heavy expenditure comes into the access to the cities at both ends. When you start to preserve your right-of-way in a densely populated area, right to a downtown core, you get into a commitment of very large sums of money.

A second large consideration if you use the CPR access at both ends is: are you going to fall under CTC? We don't want to be there. This is the kind of thing that lends itself to high speed and low manpower, and we wouldn't want to be involved in the interprovincial rail, bureaucratic, legislative jungle. We'd want to have a dedicated corridor, as straight as possible, preserved for this use.

MR. R. SPEAKER: In terms of the routing of a system like that, has any consideration been given to the middle of the split-lane highway? Has that possibility been looked at too? As I drive from Calgary to Edmonton, I note that with our overpasses, it has some capability in terms of access. Certainly there are some structures that would have to be changed.

MR. PLANCHE: It's ideal, and the study began there. The problem is twofold: the gradient of the slopes and the radius of the turns don't lend themselves well to the speeds you need to attract passengers from downtown to downtown. So the next thing would be to put it as close as you could to the highway. There's a natural east-west closing in place for Highway 2 now that would simply be transferred to this right-of-way so that the two-level intersections would be identical and sympathetic with the ones on Highway 2. Then your economics are drastically improved. So you need to be

adjacent or as close as possible to Highway 2 to preclude east-west travel. If you do it that way, you have almost the same cost/benefits as you have going down the median, but you have the benefit of better radius and a better gradient.

MR. CHAIRMAN: We're really starting to stray away from the mandate of this committee.

MR. MARTIN: Of course, this is capital projects.

Just to follow on that, while I agree with you about getting into the jungle, it seems to me that eventually we have to have a rationalization of our transportation system, so that in the medium distance — that's what we're talking about — people are encouraged to go on something like light rapid transit. That means tying in some of the bus routes so people could use that if they wanted to get from Vegreville, say, to Calgary, so the buses are coming in and they don't have to wait for four hours. Then in the longer range, the planes are tied into that. If all those things work well, more on the European model, then you're going to get more people using it. I think that's a relatively important point.

MR. PLANCHE: It would certainly be our intention at this stage of the concept that the people who are presently moving passengers from Calgary to Edmonton and back would be afforded the opportunity to participate in the investment on a pro rata basis. I was never one who thought that because you ran an airline, you had to live with that. It's a question of moving people. Lufthansa certainly moves people in the air and on the ground in their system; it's fully integrated. The real difficulty here is that people don't have a train mentality.

That gets you into the issue of why the train doesn't stop at Red Deer. You can stop the train wherever you like, but the more times you stop it, the fewer people will ride on it. The experience in England was that when they put in an intermediate stop, it was full to the intermediate stop and empty there on. The people who wanted to make the full trip couldn't get on the train because it was full. Then you started moving people out because they were commuting rather than using it as a business/government, Edmonton/Calgary corridor. I think you could arrange to have the thing stop where it was appropriate, maybe twice a day during the not-so-busy morning and evening hours. But the ridership on the CPR train from Red Deer was around nine a day, I think. If the Red Deer rail is going to be relocated, it's going to mean that the old CPR access to the VIA thing would be two and a half or three miles from the city centre, which would probably have dropped that ridership in half or less. It would be nice to have the train stop there, and if I were the mayor of Red Deer, that's something I'd want to have. But in the concept, it's not useful to have it stop very frequently, because you lose the ability to draw the ridership you need.

MR. CHAIRMAN: Will there be additional questions forthcoming from committee members?

Mr. Planche, I do thank you once again for your enthusiasm, ebullience, and wide-ranging perspective on a whole series of issues. I must repeat once again that I believe we really covered the waterfront this afternoon. Thank you very much.

Members of the committee, just to alert you again to our schedule for tomorrow, the airplane that we'll be taking will depart Edmonton Municipal Airport at 7:50. I've just been advised that there may have to be an adjustment in the early morning portion of our agenda. It seems that the Oil Sands Interpretive Centre is still not completed in terms of its construction, so we may have to make a minor adjustment tomorrow morning. If we have a longer coffee break, nobody will be too disturbed about that, I hope.

To those of you who are planning on going to the Paddle River dam on Friday, we left it such that each individual would make his or her own travel arrangements and, if need be, co-ordinate through Miss Conroy. I don't know what the response of committee members is to going to visit the Paddle River dam, this enormous investment of public moneys amounting to some $41 million. It would be a nice outing in the country, and I'm sure they would like to see members of the Heritage Savings Trust Fund committee, but that's your decision. If there's a problem in terms of arrangements, just see Ann with respect to that.

I draw to your attention again that we'll reconvene as a committee on Monday, August

26. The Premier will be here at 2 o'clock in the afternoon.

AN HON. MEMBER: Agreed.

MR. CHAIRMAN: Thank you. See you tomorrow morning.

[The committee adjourned at 3:12 p.m.]