

PLAYING TO STRENGTH

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Thank you for your kind welcome. It's an honour and a pleasure to be with you today.

The Canadian Club has a long, proud tradition of hosting speakers from various fields and disciplines which, at one time or another, have found themselves in the vortex of political, social or economic upheaval. The industry that I represent -- information technology -- is no exception. It's fair to say that few business sectors are in the throes of more exciting or challenging transition than those in which our company, Hewlett-Packard, operates.

For HP or any company or country to be successful, it must play to its strength -- which means both the private and public sectors must be pointed in the same direction. Let me tell you what I mean. On a recent trip to the Far East where I visited Hong Kong, Taipei and Singapore, I had an opportunity to meet with other HP people representing places like Vietnam, Malasia, Thailand, and the Phillipines. One message was extremely clear. In every case, these governments recognized that the fastest way to improve the long-term prospects of their citizens was to invest in Information Technology usage in Government, Industry and the Education System.

In other words, they are committed to becoming strong players in the knowledge-based society toward which the entire world is moving. It's something which HP is familiar with world-wide.

Let me tell you a little bit about us. The name Hewlett-Packard may, no doubt, be a familiar one to many of you. After all, it's been around for 57 years. But few people know much about the Company behind the name.

John Young, our former chief executive, once remarked that "HP is proof that an elephant can dance." Bill Hewlett and Dave Packard probably didn't realize that when they started making test and measurement instruments in a garage in Palo Alto, California, in 1939, they had spawned a giant. Since then, HP has grown into a bona fide multinational. Its 1995 revenues totalled 31.5 billion U.S. which was generated through the efforts of 104,000 employees, 1600 of whom work here in Canada.

When people hear the name Hewlett-Packard, they usually think printers. We are indeed the world's leading supplier of laser, inkjet and colour printers. But these products are merely the tip of a large, multi-layered iceberg.

We produce and market some 23,000 products and services that include consumer products, like PC's, Palm-top PC's, and sophisticated held-held calculators. As well, we produce test and measurement instruments which sense and analyze everything from drugs in an athlete's blood to the quality of microwave transmission. We are a world leader in stethoscopes, cardiac ultrasound imaging systems, atomic clocks, and much more.

HP's size and diversity bring us face to face every minute of the day with the competitive realities of global markets. A year or two ago, we came up with a visual metaphor that we could

use to convey the turbulence of these markets. Our choice was a whirlwind. And what a whirlwind it's turned out to be!

It's no exaggeration to say that the most far-reaching revolution in the history of information is currently underway. That's because this revolution is about much more than a single new invention like the printing press or the telephone. In fact, several technologies which for years were assumed to be quite separate from one another -- computers, telecommunications, information handling, consumer electronics and broadcasting -- are now swirling together to form the metaphoric whirlwind I just mentioned.

At the same time, each of these technologies is itself being re-invented. The performance of computing devices is expanding exponentially even as their size keeps shrinking. In communications, there is a rapid movement from analogue to digital systems. Vast new information networks, most notably the Internet, have emerged. These advances are opening up new horizons across a wide field of human endeavour. The revolution has scarcely begun. Only the most imaginative and courageous would dare guess how devices such as the computer, the printer, or the TV set will evolve over the next decade or two -- and how consumers and businesses will use them.

But some trends are gradually becoming clear. One is a growing demand for these technologies to be packaged in versatile, low-cost, easy-to-use "information appliances." New applications are opening up as these devices are linked to one another in innovative ways. We expect that printers will soon be attached not only to computers but to other consumer-electronics products, such as televisions, VCRs and photographic equipment. In the office, multi-function devices are appearing that blend the capabilities of printers, scanners, copiers and fax machines -- not to mention computers. In the future, these devices will be taken for granted as toasters and microwaves are today.

The rapid convergence of different technologies has translated into fierce, unremitting competition on a scale never before experienced in our industry. For a start, the number of players has increased dramatically. Established companies that previously operated in quite separate fields now tread on each other's toes in the rush to find products that will grab the consumer's imagination. And then there's a horde of agile newcomers who are able to nip the heels of even the biggest players by finding innovative and lucrative niches in areas such as software and network systems.

The advantage that a company gets from bringing a successful new product to market is therefore much more fleeting than it used to be. Consumer expectations are constantly rising, quickly making new products obsolete and increasing pressure to develop newer and better ones. We at Hewlett-Packard used to assume that a new product had a lifecycle of three to five years. Today, the average lifespan is only about 12 months.

Competition has been intensified by a dramatic compression of the product development process. In the past, product development moved in clear, sequential stages like a relay race, in which the baton gets passed from one runner to another. A more appropriate analogy today would be a hockey game, where the puck gets passed frequently among players in a very interactive and

(hopefully) collaborative way. This enables new products to be devised and brought to market much more quickly than in the past.

Competition no longer respects national frontiers or time zones. I'm reminded of John Donne's famous line: "No man is an island, entire of itself". What applied to ordinary people in 17th century England applies equally to countries today. Falling trade barriers and stunning advances in communications mean that few, if any, countries are immune from the pressures of the global marketplace.

Any business hoping to succeed in the global marketplace has no choice but to be truly global itself. HP aims to be just that. Our computer manufacturing division, for instance, operates in 10 different locations in four countries. Its employees work in five different languages and operate in six time zones -- whose business hours don't overlap.

Electronic mail and phone voice-mail break down the barriers imposed by time and geography. Shared databases and terminals enable our plants to collaborate on design and production. The extent of our worldwide data network and the volume of daily traffic it carries are truly enormous. The network serves 400 sites and transmits 3.4 billion characters of information each month.

We do more than 500 thousand electronic data interchanges a month with more than 3,000 external partners. We also send 21 million electronic mail messages monthly, and at times I think I get them all. These networks and devices enable the organization to operate seamlessly 24 hours a day. As the sun sets on one location, our engineers, manufacturing, marketing and sales people can pass a problem or project onto their colleagues halfway around the world. And they can do so instantaneously.

These capabilities and the flexibility they provide are simply logical extensions of a corporate culture that prizes nimbleness and responsiveness to the market place wherever it might be located. They enhance our ability to move with our markets, a strength that has contributed significantly to our success over the years.

The need to design, produce and sell on a global scale means that investment decisions can also no longer be compartmentalized by country, or even by region. Competition among producers for the consumer's dollar is matched these days by competition among countries for the investor's dollar. As a result, global companies such as ours base almost every major investment decision on proposals from several different countries around the world.

The decision where to locate a new plant or a new research facility is seldom a simple one. Labour costs in China or India, for example, may be compared to the tax advantages of Singapore, Ireland or Puerto Rico. Depending on the level of sophistication required in research or product engineering, the decision may also include consideration of broader issues, such as access to universities and other sources of advanced knowledge and skills.

Where does Canada fit in this competitive arena?

The information technology sector already makes an important contribution to this country's economic well-being. According to Industry Canada estimates, it makes up about 6 percent of Canada's total gross domestic product. Our industry employs some 312,000 talented people, excluding the 35,000 who are self-employed. Exports of manufactured information technology goods exceeded C\$16 billion last year, while software sales contributed another \$1.3 billion to the balance of payments. However, the IT industry's role cannot be measured only in terms of output and exports. We are a substantial consumer of goods and services produced by others, ranging from plastics and metals to legal, marketing and advertising services.

This economic growth is VITAL to Canada and -- trust me -- the industry didn't get there with a focus on cost reduction alone. We have never taken our eyes off the need for strong and sustained investment in R&D. And if you look at HP specifically, we invest about 8% of our Global Revenue in R&D. While here in Canada, over the past 3-years, we invested at a rate of 20% of our manufacturing revenue per year. The fact is Canada has to fight harder than many other countries -- such as the U.S., Japan, Germany or the emerging powerhouses of Asia -- for its share of the investment pie.

Hewlett-Packard's sales in Canada make up barely 3 percent of our worldwide revenues. Promoting a major investment in this country on the basis of how it would position us in the domestic market is a non-starter. In order to invest in Canada, we need to demonstrate that products made here are worthy of a global mandate.

Since I arrived in this country three years ago, I've been struck by the numerous strengths that Canada possesses to attract investment in the information technology field. In research and development, a crucial part of our business, Canada is regarded as a highly cost-effective competitor with the U.S.

According to the Conference Board, Canada has one of the most advantageous R&D environments in the world. HP's own studies indicate that engineering talent costs about 35 percent less here than in the U.S. The amount of R&D that we are able to buy for one dollar south of the border costs just 52 cents here.

The quality of Canadian talent is also impressive. According to data compiled in 1993 by the National Education Standards of Los Angeles, Canada's top engineering schools are every bit as good as the top 25 in the U.S. The University of Toronto, McGill and McMaster rank among the top six in North America in electrical engineering. The U of T holds the number three spot in computer engineering. It's almost conventional wisdom that Microsoft hires more computer science grads from the University of Waterloo than from any other university in the world.

Canada also offers an excellent infrastructure, ranging from modern telecommunications and transport networks to an attractive lifestyle. The public policy environment, a crucial part of any investment decision, has become increasingly supportive in recent years.

Tax credits are a critical reason for Canada's competitiveness in research and development. The North American free trade agreement has led to an explosion of exports to our partners.

Deregulation of telecommunications services is stimulating both competition and collaboration in the information technology field, as well as helping users to cut costs.

The recent budget reflected recognition of our industry's contribution to job creation and economic growth. We welcome the creation of Technology Partnerships Canada, a \$150 million fund to enhance the competitiveness of high-technology companies, especially if it is targeted at entrepreneurial, export-oriented companies, and also used to promote linkages between small and large players. The program is an excellent example of the kind of cooperation and partnering between government and business that can produce long-term benefits for the economy. We endorse both the program and the concept strongly.

Even more welcome is the drive by Ottawa and the provinces to put their fiscal houses in order. Balanced budgets should help keep down interest rates, which in turn should enhance Canada's overall growth potential and its long-term competitiveness in international trade and investment.

We at Hewlett-Packard are doing our bit to build on these strengths. HP Canada celebrates its 35th anniversary this year. Since our formation in 1961, we have developed a highly-trained workforce of some 1600 people. In the past four years alone, our annual sales have almost doubled to over \$1.2 billion, and our employment is up 20%.

One tangible measure of our success is that HP Canada has competed for -- and won-- five global product mandates in the past ten years. These mandates stretch across the entire product development process -- from research and development, through manufacturing, to marketing. Four of the five mandates fall into the fields of telecommunications and networking, which HP Canada has chosen as its specialties. Each unit has been kept compact to preserve its entrepreneurial and competitive spirit.

We are especially proud of HP Canada's success in the international marketplace. Our overall exports have soared by 40 percent over the past three years. And our R&D operations in Canada are almost totally dedicated to world markets. More than 96 percent of the products and software they design and develop are exported. These achievements would not have been possible without the fruitful partnerships that we have forged with many local businesses, in particular software suppliers. Many of these small and mid-sized Canadian companies have carved out a strong reputation far beyond this country's borders. Their presence assures investors in Canada of a world-class supplier chain during a product's life-cycle. And cooperation between foreign investors and local suppliers creates enormous benefits for the domestic economy. The more competitive Canadian suppliers are, the more business we can push their way, enabling all of us to expand, create jobs and contribute to the country's overall well-being.

Several years ago we established an International Procurement Office here to help us find world-class Canadian companies and to promote their products and services to HP divisions based outside the country. The office serves as a highly efficient sales channel for these companies into the heart of HP's worldwide operations. It has helped them to rapidly develop offshore markets and gain invaluable international experience. The qualities we look for include the use of technology, the implementation of total quality management, a demonstrated responsiveness to customers, a record for on-time delivery, financial stability, sound business planning, and excellent personnel programs. A lot of Canadian companies meet these criteria, and we are benefiting from what they have to offer.

Reaching out to outside suppliers is an important part of the way HP does business. Not even the biggest companies today can afford to engage in complex production processes alone. Whether the process is driven by customer input or the need to match or better a competitor's new product, outsourcing can make an invaluable contribution towards improving the quality of our products and the speed with which we are able to develop and supply them. One of HP Canada's five world mandates, for sophisticated electronic switching products, involves no manufacturing or assembly capability within the company at all. We develop and market the products, but they are put together entirely by an outside supplier.

We also never forget that HP is an integral part of the communities where we do business. I have already mentioned the world-mandate for technology and the HP procurement program. In addition, we actively recruit highly qualified graduates of excellent Canadian universities, and provide financial support for those institutions' basic research capabilities.

And our co-op programs let us reach out to young university students and even into high schools, giving these students valuable work experience. In addition, we focus a large component of our donation budget at the primary school level.

The relationship has been mutually beneficial.

However, neither companies nor countries can afford to rest on their laurels. It helps occasionally to look back on history. Remember the fate of the Spanish Armada? The Invincible Armada - as it was known -- sailed from Spain towards England in 1588 with huge, three-storey tall galleons. The 9,000 sailors and 16,000 infantry on board were ready for the traditional strategy of man-to-man combat, with ships side-by-side. But the British changed the rules. They had smaller, more agile ships. And they had cannons that could shoot from a distance. We all know the outcome of the battle. Spain's control of the seas was over, and England became the new ascendant power.

The danger of complacency is as real today as it was on the high seas four centuries ago. Change can quickly and without warning turn winners into losers, whether they be companies like Hewlett-Packard or countries like Canada. In both cases, we can't afford to ease up in our drive

to remain ahead of the pack. As far as HP is concerned, we continually seek ways not only to build on existing strengths, but to develop new ones.

It seems to me that Canada faces the same type of challenge. Several areas spring to mind where vigilance will be needed to protect gains made in the past few years. Keeping costs under control must remain a high priority. We in the business community are especially encouraged by Bank of Canada governor Gordon Thiessen's determination to hold the annual inflation rate within a 1-3 percent band.

For the first time in more than two decades, all the provinces as well as the federal government now appear committed to nursing the country's public finances back to health. They should be encouraged to sustain this commitment at every opportunity. But, by themselves, deficit reductions (and in the private sector -- downsizing), won't take us where we need to go. A company's vision and a Country's vision must be built on long-term growth.

In an economy as open as Canada's, where exports have recently contributed over 40 percent of total output, it's imperative that government and business continue to encourage a high level of productivity. Progress made in deregulation, removing protectionist barriers and training workers, to name just a few, will help determine to what extent Canada is able to maintain its competitive edge into the 21st century. And I want to emphasize that business needs to take a leading role in retraining the workforce, and moving to life-long learning. It is as much our responsibility as others. Quoting Eric Hoffer: "In times of drastic change, it is the learners that inherit the future".

We're enthusiastic, even excited, about our future in Canada. If we can each play to our strengths, HP's investment in this vibrant and attractive environment is bound to grow for years to come.