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1994

# Agenda: Jobs and Growth

**Building  
a More  
Innovative  
Economy**

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# Building a More Innovative Economy



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# Minister's Preface

*A strong economy is the essence of a strong society. My government will focus on a jobs and growth agenda. We will work with all our partners — provincial governments, business, labour, voluntary groups and individual Canadians.*

— Prime Minister Jean Chrétien

In Quebec City on 18 September 1994, the Prime Minister outlined four key components of the government's jobs and growth agenda:

- reforming social security
- ensuring a healthy fiscal climate
- reviewing government programs and priorities
- strengthening the performance of the Canadian economy in investment, innovation and trade.

This paper presents the broad outline and first stages of a plan of action to build a more innovative economy in Canada. The government's agenda for jobs and growth provides for a comprehensive series of practical initiatives to give our economy more strength and staying power. We have to innovate to get ahead.

The plan focuses on four key areas: marketplace climate, trade, infrastructure, and technology. *Building a More Innovative Economy* calls for partnership among all Canadians and their institutions — businesses, unions, professional associations, interest groups, governments — to create jobs and growth in the private sector.

This is the fourth publication in the government's series of major policy papers under the general title *Agenda: Jobs and Growth*. The first three were *Improving Social Security in Canada*, *A New Framework for Economic Policy*, and *Creating a Healthy Fiscal Climate*.

The segments of the innovation plan dealing with marketplace climate, trade, and infrastructure contain wide-ranging initiatives to improve the climate for the private sector to create the new and better-paying jobs that will raise Canadian living standards. Measures for the technology segment of the plan are under intensive study and preparation as part of the government's comprehensive Science and Technology Review. They will be announced in the new year.

The initiatives already planned, and the many more to come, will build, step by step, the conditions for more vibrant and sustainable economic growth. Acting in partnership, Canadians can break through the limits of the present recovery and enter a new period of solid economic expansion.

A handwritten signature in black ink, appearing to read 'John Manley', written in a cursive style.

John Manley  
Minister of Industry

# Introduction: Broad Objectives

Canada is living through a time of economic change unparalleled in scope since the beginning of the industrial age. Not only is the technological revolution changing our way of doing things in everything from mining to banking, but also globalization of the economy is moving us into a more competitive world.

Some have greeted the innovation-driven, global economy in a pessimistic way. They say we cannot hope to escape low economic growth and high unemployment until the year 2000. They fear technology is robbing us of jobs and globalization of trade is giving the advantage to lower-wage producers. They worry it will take years to overcome our economic problems.

## **Optimism justified**

The government came to office rejecting that view. We believe that Canadians working in partnership are fully capable of matching the best in the world. We approach economic issues in terms of challenges and opportunities, rather than of obstacles. Most Canadians, recognizing that their national government can make a difference in creating economic growth and jobs, support this positive view.

On taking office, the government began acting on urgent concerns. Several early initiatives to improve the climate for jobs are described in Chapter 1. The government has taken the route of consultation and deliberation to arrive at the broad proposals for economic expansion set out in this and other major papers on social and economic policy presented to Parliament and the public this fall. These policy initiatives are only the beginning. The government is consulting on the elaboration of further proposals as they are being developed.

The plan of action set out in this paper describes initiatives the government will take to enable the private sector to do the job it does

best — making the economy hum. These actions are grouped in four main thrusts: improving the marketplace climate, expanding international markets, ensuring an adequate infrastructure, and harnessing technology to accelerate economic growth. The technology chapter indicates policy directions, but specific initiatives will flow from the government's comprehensive Science and Technology Review, which will be completed early in 1995.

### **Focus on the private sector**

The federal government is aware that all levels of government in Canada face a huge task in fulfilling Canadians' expectations that government will ensure a climate of law, regulation, and leadership to enable the market economy and private sector to flourish. Provincial and territorial governments have already taken positive leadership on many of the issues raised in this plan, upon which we hope to build. There is much that all levels of government, working together in partnership, can achieve. But we are also aware that the basic responsibility for growth and jobs rests with enterprising people and firms in the private sector.

"The key," says the government policy paper *A New Framework for Economic Policy*, "is to foster an economy that is more productive because that is the only way to provide better jobs and a rising standard of living."

*Building a More Innovative Economy* reflects the five main themes set out in that framework policy. The first theme in the government's policy paper was to help Canadians acquire skills and a base for lifelong personal development. The second was to provide the right incentives to curtail joblessness and exploit more productive opportunities. The third emphasized "getting government right" through efficient management and appropriate policies. The fourth proposed government leadership in partnership with the private sector to build a more innovative and outward-looking economy. The fifth stressed that a healthy marketplace climate requires a healthy fiscal and monetary climate.

A plan to build a more innovative economy has to take into account the government's priority for fiscal restraint to remove the hobbles on economic growth created by excessive debt and deficits. The plan's initiatives therefore reallocate resources rather than increase spending. The chapters on each of the main thrusts of the plan indicate how this can be done. As the first chapter indicates, Canada has the advantage of a strengthening recovery to support its drive toward a more innovative and stronger economy.

# 1

## The Challenge: Cyclical Recovery Is Not Enough

Canada's economy today is a mixture of strengths that are helping us recover from the recession of 1991-1992 and weaknesses that are holding us back from the economic expansion we could and should achieve. Government policies must aim to build on the strengths and remove the weaknesses.

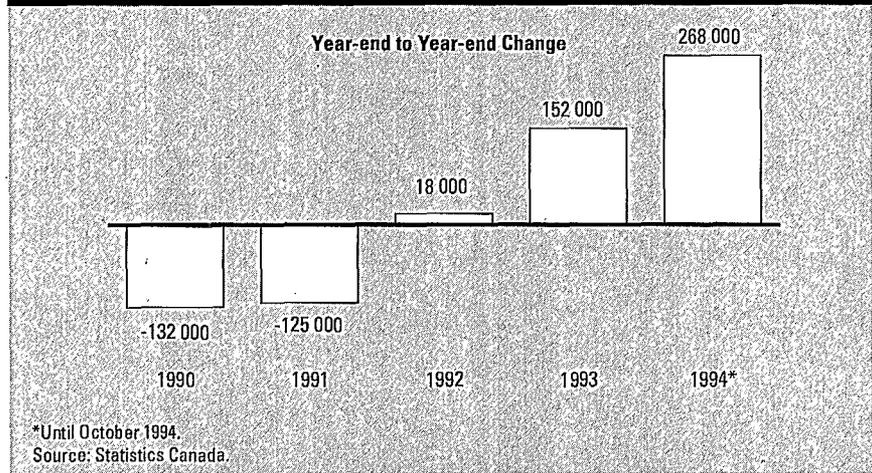
This chapter looks at the progress of the recovery; then it considers the challenges that must be met to transform the recovery into solid, sustainable expansion. The first challenge is to come to grips with two concepts that colour all current economic thinking: the global economy and the innovative economy. The second is to remove the constraints that have caused Canadian unemployment levels to rise, and productivity levels to decline, through all the ups and downs of economic cycles since the 1950s. The final section of the chapter looks at examples of recently announced programs that are serving as precursors of what is to come.

### **Economic momentum picks up**

Recent economic news is promising. Figure 1 shows that about 270 000 new jobs have been created in Canada this year. Employment has climbed back to a level slightly above its pre-recession peak of early 1990. The unemployment rate is down to about 10 percent — still far too high, but well below its level of nearly 12 percent in 1992.

The pace of economic recovery picked up markedly in the first half of 1994, with real output, or gross domestic product, growing by almost 5.5 percent. Like employment, real output has surpassed pre-recession levels to stand some 3.8 percent above the early 1990 level.

**Figure 1. Recent Strong Job Gains**

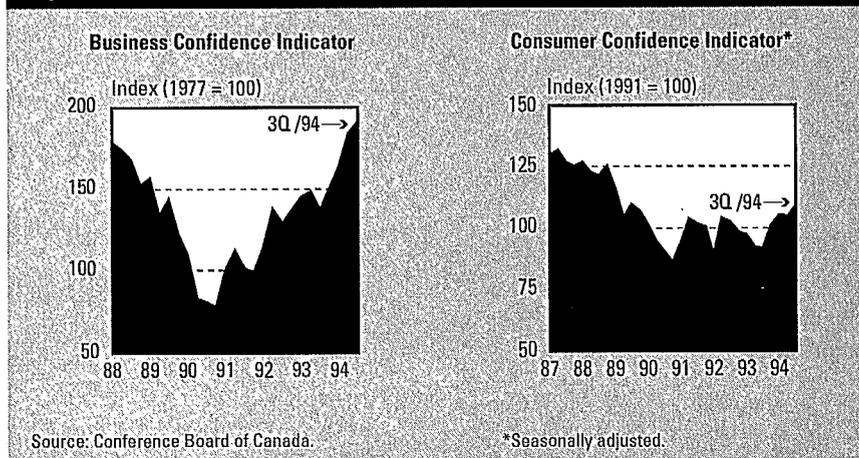


The signs of an improving Canadian economy are spreading. Factories are operating at about 82 percent of their capacity, the highest level in four years and slightly above the average in the 1980s. Inflation is the lowest it has been in decades; the consumer price index is down 0.2 percent from a year ago. The gross domestic product deflator, perhaps the broadest measure of price pressures in the economy, has also declined slightly so far in 1994.

Labour productivity has grown at an annual rate of almost 3 percent so far this year. Combined with continuing wage restraint and the current levels of the Canadian dollar, this improving cost picture has been boosting the international competitiveness of Canadian goods and services.

Business confidence is at its highest since 1979. It turned around dramatically after the early 1990s as firms learned how to reduce costs, improve productivity, build better products, and find new markets. Consumer confidence, however, has yet to stage a similar recovery, having been held back until recently by weak employment prospects. Figure 2 contrasts the indicators of business and consumer confidence.

After the severe economic dislocation experienced by Canadian businesses and workers in 1990-1993, the economic recovery is welcome. Most economic commentators expect the economy to continue strengthening over the coming year. But we must pay attention to the challenges to be met if the economy is to reach its full potential to create more and better jobs.

**Figure 2. Pulse of the Economy**

### Job creation in the global innovative economy

The only source of new jobs is a growing private sector. Growth must take place in the context of rapid change in both the global economy and the innovative economy. Global means freer and more intense worldwide trade across national borders. The innovative economy means the kind of innovation-driven growth in goods and services that is emerging from the technological revolution.

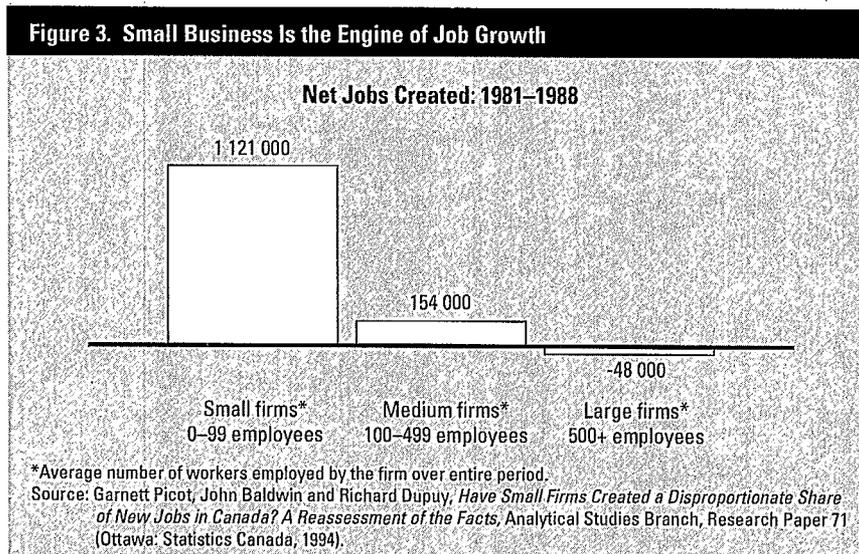
For Canada, as for other industrial countries, success in the global economy comes from advanced technology, improved workers' skills, and the use of knowledge-based techniques to add greater value in all economic sectors. As the Organisation for Economic Co-operation and Development (OECD) put it in its June 1994 *Jobs Study: Facts, Analysis, Strategies*: "The main way to job creation in OECD countries must be through improved productivity in firms that have a solid capacity to innovate and use technology effectively."

How should Canada handle this transition? First we have to understand that the innovative economy covers all industries, not just those known as high-tech industries. Firms belong to the innovative economy when they take advantage of the revolution in information processing, communications, transportation, and other applications of technology to reshape their operations and products.

**Innovation belongs where it's needed**

Take a sector in point. In the past, Canada prospered from its natural resources. The global innovative economy has challenged this advantage by introducing new materials, more efficient use of old materials, and increased competition from the developing countries. Real prices for resources have been declining for 15 years. Yet firms that have upgraded their products, used technology skilfully, sought niche markets, and revitalized their work forces have not only survived, but prospered. As Statistics Canada's *Canadian Economic Observer* reported in September 1994: "The second quarter National Accounts showed that the economy turned in its best performance in seven years.... The most dynamic sectors — whether in terms of output, prices, profits or the stock market — were in the traditional natural resource industries, such as wood, paper, metals and oil and gas."

Within the emerging innovative economy, small business is crucial in creating new jobs. The impressive employment growth of small business firms shown in Figure 3 reflects in no small part their transition to a more knowledge-based economy. Knowledge work gives no special advantage to large firms. The use of computers and factory automation is making it possible to produce goods efficiently in smaller volumes. In many industries, small businesses are proving to be the most innovative. In the 1980s, they accounted for 87 percent of all employment growth in Canada.



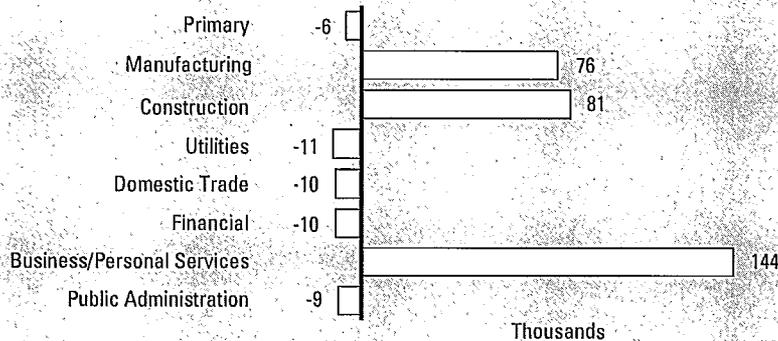
Wherever we look in the economy, jobs can be — and are being — created when firms and individuals adopt innovative practices. Accordingly, government policies are designed to build on these strengths by promoting innovation, with a particular focus on small business.

**The job payoff**

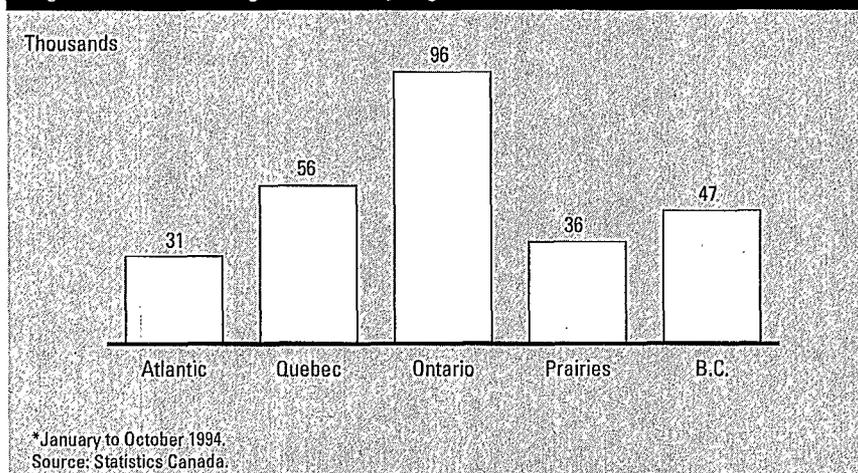
As we have seen, the payoff does not have to be only in the long term; employment growth in 1994 will likely surpass 2 percent, or more than 300 000 jobs — well above most forecasts. As well, the average of Canadian private sector forecasts is for a further gain of almost 300 000 new jobs next year, and again in 1996. This improved pace of recovery in the private sector, combined with actions by government to improve the climate for job creation, suggests that Canadians, working cooperatively, may be able to create a million new jobs in the three years from the fourth quarter of 1993 to the end of 1996.

The importance of these job gains is heightened by what they are and where they are. First, the 270 000 jobs created so far this year are full-time jobs, a sharp reversal of the rapid rise in part-time work during the recession. This is a sign of the growing confidence of firms in the strength of the recovery. Second, the new jobs are increasingly in the goods-producing sectors. This is a substantial cyclical turnaround from the huge job losses suffered in these sectors during the recession.

**Figure 4. Recent Strong Job Gains, by Sector\***



Note: components do not add to total gain due to seasonal adjustments.  
 \*January to October 1994.  
 Source: Statistics Canada.

**Figure 5. Recent Strong Job Gains, by Region\***

As Figure 4 shows, the main sectoral sources of new jobs have been in business services, construction, and manufacturing. Finally, Figure 5 shows that all regions of the country have shared in the strong job gains this year.

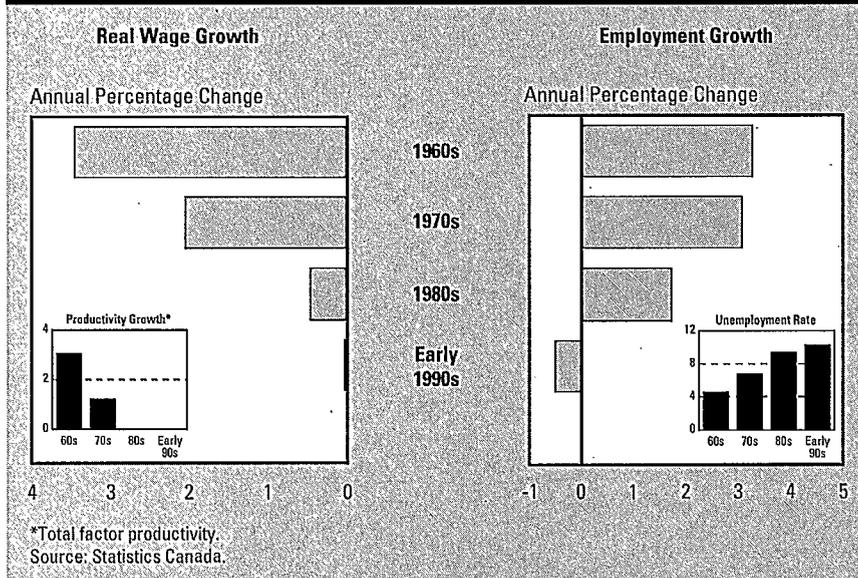
### **Beyond recovery to expansion**

The question we must face is whether the present recovery, largely cyclical up to this point, will be strong enough to produce all the jobs we need and the increases in living standards we want. The answer is almost certainly no, unless we take the actions necessary to remove restraints on the recovery.

Figure 6 shows that all through the business cycles of the past three decades — ever since the 1950s — Canadians have seen employment growth steadily slow and the unemployment rate rise. The same economic commentators who expect the recovery to continue nevertheless talk of a floor for the unemployment rate of between 8 and 9 percent. Thirty years ago, it averaged about half that level.

As well, the growth of productivity, roughly a measure of the value of what we get out of production compared with the value of what we put in, has also been a concern. During the period of gradually increasing unemployment levels since the 1950s, productivity growth sputtered and then stopped, causing growth in our standard of living to stall. We cannot improve real incomes unless we improve productivity.

**Figure 6. The Challenge: Strong Job Growth and Rising Real Wages**



### Advancing on two fronts

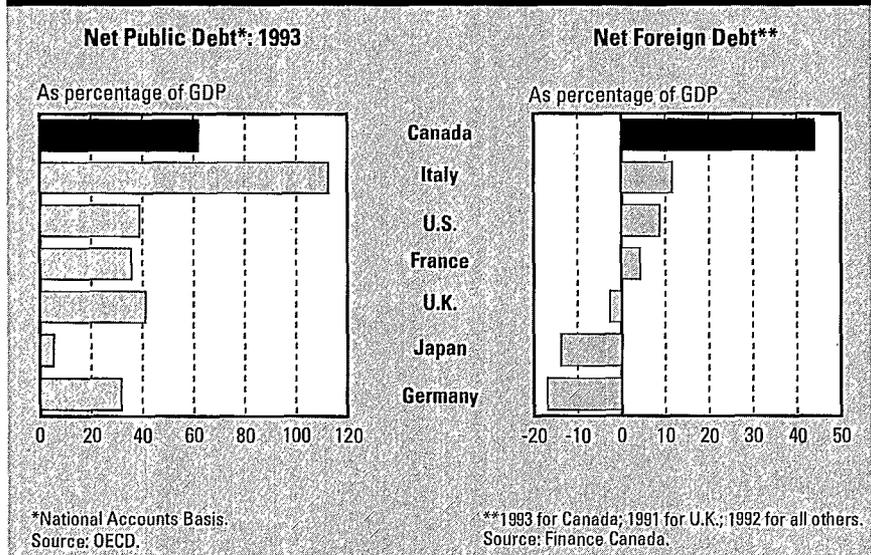
The government does not accept the inevitability of either high unemployment or stagnant incomes. Canada wants neither the United States “solution” of low unemployment, but many very low-paying jobs, nor the European “solution” of relatively few low-paying jobs, but high structural unemployment. The government believes we can advance on both the employment and the income fronts.

To achieve lower unemployment rates, faster job creation, higher productivity, and rising real incomes will take the kind of bold and concerted actions presented in the government’s agenda for jobs and growth. They must be directed at three main challenges: deficits and debt, labour-market distortions, and impediments we have built into the economy. If we are going to do more than merely “recover,” we must tackle each of them efficiently, for all are restraints on the economy’s potential strength.

### Bringing deficits and debt to heel

Government deficits have been too high for too long. Figure 7 shows the resulting debt burden; it has pushed up taxes and real interest rates, both of which place limits on the recovery. The deficits and declining international competitiveness over a number of years have in turn led to a large increase in foreign debt, which is also shown in Figure 7. Servicing the foreign debt puts an increasing burden on the domestic economy, again restraining recovery.

Figure 7. Twin Debt Burdens



As the Minister of Finance stated in the discussion paper *Creating a Healthy Fiscal Climate*, the government is committed to achieving a federal deficit of 3 percent of gross domestic product (GDP) at most by 1996-1997. But this is only an interim objective; the ultimate objective is to balance the federal budget and significantly reduce the ratio of federal debt to gross domestic product. In addition to a healthier fiscal climate, we must also turn our attention to the labour market and more general impediments to economic progress.

**Achieving a smoothly working labour market**

Canada's labour market is under strain. It has not been able to cope with the disincentives built into our Unemployment Insurance and other social security systems. It suffers from serious mismatching of skills and job opportunities. It has to deal with inadequate and inflexible training. We are not equipping the Canadian work force well enough for the global innovation-driven economy.

These issues concern all Canadians, but particularly women, persons with disabilities, Aboriginal people, and members of visible minorities. Other problems to be addressed include difficult school-to-work transitions as indicated by the continuing high rates of unemployment faced by young people, the difficulties of older displaced workers in finding new careers, and the plight of the long-term unemployed.

The Minister of Human Resources Development described the government's approach to these issues in the discussion paper *Improving Social Security in Canada*, which sets out a series of options for public discussion. The goal is to improve job opportunity and access in three ways: by improving employment services and the Unemployment Insurance program, by making available learning programs in the framework of lifelong learning, and by removing disincentives to work from the social assistance system. The government's plan of action for building a more innovative economy also includes measures, described in Chapter 3 of this paper, to improve the labour market.

### **Removing barriers**

Several impediments in the economy's ability to produce more jobs and rising real incomes are found in a less-than-supportive climate for innovation and growth. These impediments include difficulties in obtaining financing, inefficiencies in the regulatory system, inefficiencies in traditional infrastructure, incomplete systems of innovation, and an inward-looking business orientation at a time of rampant globalization. Such impediments, acting together, can hold Canada back from attaining a critical mass of innovative, outward-looking firms — precisely the firms that could pull the private sector ahead by competitive successes and cooperative alliances. The government's plan for building a more innovative economy focuses on economic gaps that allow these impediments to restrain economic growth.

### **Job initiatives already under way**

Since taking office, the government has not waited for the current initiatives to start taking measures aimed at creating a better climate for jobs and preparing people for new types of work. In the past year, it has launched or improved programs that adopt new approaches to help the unemployed find work and young people to join the innovative economy. Many of these programs have been incorporated in the overall plan for building a more innovative economy, and find their place in later chapters.

The following are examples of early government initiatives to pinpoint job-creation needs and meet them with targeted programs.

- **Strategic Initiatives Program.** As part of the 1994 budget, Human Resources Development Canada introduced a fund to be matched equally by contributions from the provinces to find innovative approaches to training and putting people back to work. Federal funding was set aside for two years. Priorities include finding new ways to help people move from welfare to work, and testing new training methods. Examples include the Adult Peer Literacy Project in Prince Edward Island, the Jobs Corps in New Brunswick, jobLink in Ontario, and the "Taking Charge!" Sole Parents Program in Manitoba.
- **Youth Service Canada.** This program hires unemployed young people to work on projects lasting six to nine months. Projects are grouped in four areas: community development and learning, sustainable development and the environment, entrepreneurship, and leadership skills. The program is being piloted in 67 sites across the country. Over three years, some 17 500 young people will get valuable work experience.
- **The Canadian Environmental Industry Strategy.** This environmental strategy is designed to complement existing federal and provincial programs for this priority industry. Funding comes largely from a reallocation of resources from several federal departments to the environmental sector. The program provides financial assistance to firms that exploit and commercialize new environmental technologies. Small and medium-sized companies will be assisted to enter international markets. The government will develop a new single-point-of-access approach for environmental firms to obtain federal services and information.
- **Home Energy Retrofit Initiative.** Under this program, Natural Resources Canada, working with utilities, provincial governments, trade associations, and other organizations, will help improve the energy efficiency of housing, which is responsible for up to 20 percent of our total energy consumption. Recent studies indicate that large potential savings can be made by retrofitting existing structures. The initiative will stimulate the labour-intensive home renovation sector and help to improve the environment. It will be funded from within existing departmental resources.

- **Western Tourism Development Strategy.** The Department of Western Economic Diversification is developing a strategy to promote western Canada as a tourist destination using the latest technology in marketing and promotion. Aboriginal tourism and eco-tourism are among the priority sectors to be developed, in partnership with the provinces and private sector.
- **Canadian Medical Discoveries Fund (CMDf).** The Medical Research Council (MRC) played a major role in developing an innovative source of investment for the growing health care sector. Sponsored by the Professional Institute of the Public Service of Canada, the fund is registered as a labour-sponsored venture capital corporation. The fund will bring investment capital to small Canadian companies developing products for the medical sector. The MRC will play a continuing role through a strategic alliance by which it will advise on the quality of the science under evaluation for potential investment by CMDf.
- **Residential Rehabilitation Program.** This program, which a number of provinces cost-share with Canada Mortgage and Housing Corporation, helps low-income home-owners and landlords bring their dwellings up to health and safety standards. Special program components assist those in rural and remote areas to deal with emergency repairs and new construction. Such renovation work also helps create private sector jobs.
- **Port-Cartier Pulp Mill.** The prospective closure of the pulp mill in Port-Cartier, Quebec, which could have meant economic devastation for the town, was averted when the mayor and community groups were able to interest a new investor in examining the feasibility of taking on and restructuring the plant. As an example of federal assistance without subsidies, the Federal Office of Regional Development (Quebec) financed the pivotal study, which, along with advice on how a deal might be structured, resulted in a decision by the investor to buy the plant. When it reopens in early 1995, the plant will employ some 600 people.

**Getting it all together**

Through programs like these and initiatives to remove the restraints on our economic performance, Canada can meet the demands of the global innovative economy. We have the resources, capital, skills, and geography to power the economy beyond recovery into a new era of expansion. The government's plan of action for building a more innovative economy, described in its main lines in the next chapter, will help achieve this goal.

# 2

## Building a More Innovative Economy: Principles and Approach

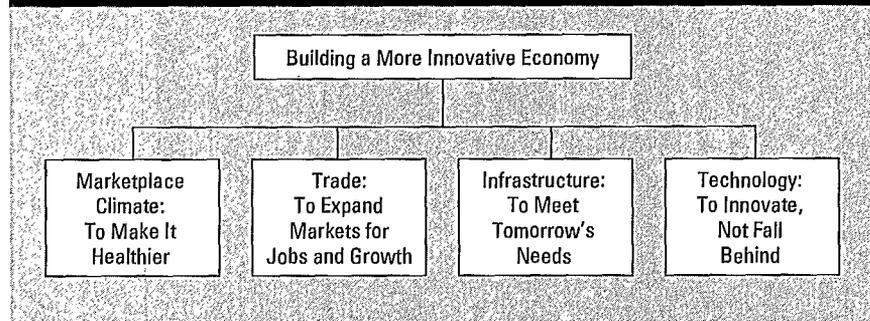
Building a more innovative economy starts with the premise that leadership by government can make a difference. Government action must, however, be targeted on initiatives that are complementary to the role of the private sector and support it as the principal generator of growth and jobs. The plan therefore focuses on areas where there is economic weakness and government leadership can indeed make a difference.

The initiatives already approved are only a beginning. More will be announced as the months go by, particularly in the key area of science and technology.

The case for government leadership is set out in *A New Framework for Economic Policy*. The classic reason has been “market failure,” whereby the private sector has not performed to its potential because of poor information or knowledge, anti-competitive practices, or obstacles to entrepreneurs. A second case is one of “spillovers,” whereby the private sector underinvests in activities whose benefits extend broadly to society but do not provide an adequate return to individual firms; certain types of technology development are an example. A third case is the build-up of rigidities in the way we organize and conduct ourselves; many policies and practices that may have made sense when first introduced are no longer conducive to promoting growth in today’s economy.

Several principles have guided the government in making sure the initiatives in the four key areas shown in Figure 8 — marketplace climate, trade, infrastructure, and technology — make the most cost-effective use of public funds. These principles are outlined below.

Figure 8. Four Key Policy Areas



- **Create partnerships.** The government should prefer the role of catalyst to that of prime mover. Initiatives must promote partnership, so that complementary and coordinated actions are taken by other governments, businesses, workers, and other organizations. Where investments are too risky and costly for the private sector alone to finance, we must be able to demonstrate the payoff to the taxpayer in growth and jobs resulting from any public investment.
- **Reallocate spending.** Spending more on essentials by spending less on non-essentials respects Canada's fiscal constraints. Funding will come through reallocation of resources in the context of preparing the 1995 budget.
- **Help people.** Assisting people to respond to changing skill requirements in the innovative marketplace is a priority. The objective is to assure Canadians that their talents will continue to be in demand. Programs must serve people as consumers too, responding to their demands and providing adequate consumer protection.
- **Support markets.** Reinforcing markets rather than introducing new distortions is an important guideline. For example, many types of business subsidies have had the perverse impact of impeding adjustment, leaving enterprises inefficient and uncompetitive, and reducing, rather than increasing, employment over the long term.
- **Get government right.** Getting the policy framework right is a prime job of government. Good government policy frameworks can have a direct impact on growth and jobs, whether by regulating more adeptly or by opening up new markets.

The choice of four key areas for action is a way of looking at the economy across sectors and across regions; it is complementary to other approaches. Environmental or regional focuses, for example, remain as important as ever and find their place in a number of the initiatives.

A healthy environment is essential for sustained growth, prosperity, and job creation. The Deputy Prime Minister and Minister of the Environment and her Cabinet colleagues are preparing a sustainable development framework in which environmental and economic policy signals point the same way. It will emphasize the importance of “green government,” sustainable management of our natural resources, pollution prevention, and international leadership. An open and transparent process, guided by an advisory committee, will be the basis for concrete action.

The government believes strong regional economies are the building blocks of Canada. To be effective, economic policy must recognize the differences between regions. Regionally based program delivery will build on past success to help firms meet competition in the international marketplace, improving competitive capacity and productivity in all regions. The goals of the initiatives presented in this paper apply regionally as they do nationally.

The chapters that follow take up in detail government intentions in the four key policy areas. Each embodies a broad objective.

- **Building a healthier marketplace and promoting workplace innovation.** The goal is to free the innovative capacities of firms to grow. Government leadership and resources focus on creating the right environment for Canada’s major job creators, which are small businesses, and on promoting skills and workplace practices that meet future needs.
- **Expanding trade.** The goal is to develop new mechanisms and policies to help firms make the most of our domestic market and seize the new commercial opportunities in rapidly growing markets abroad.
- **Building efficient infrastructure for tomorrow.** The goal is to ensure that we have the transportation, telecommunication, and information networks that will allow firms to function effectively in the innovative economy, where moving information, goods and people efficiently and in innovative ways is the key to success.

- **Harnessing technology to support innovation.** The goal is to use the government's resources more creatively to help firms gain access to the leading-edge technologies that are today's determinants of success and develop them. Initiatives in this segment of the government's plan for a more innovative economy will be announced early in 1995, based on the results of the Science and Technology Review.

# 3

## Marketplace Climate: To Make It Healthier

To make the marketplace climate healthier, the government is targeting the three main challenges shown in Figure 9: helping small business grow, reforming the regulatory system, and building more innovative workplaces.

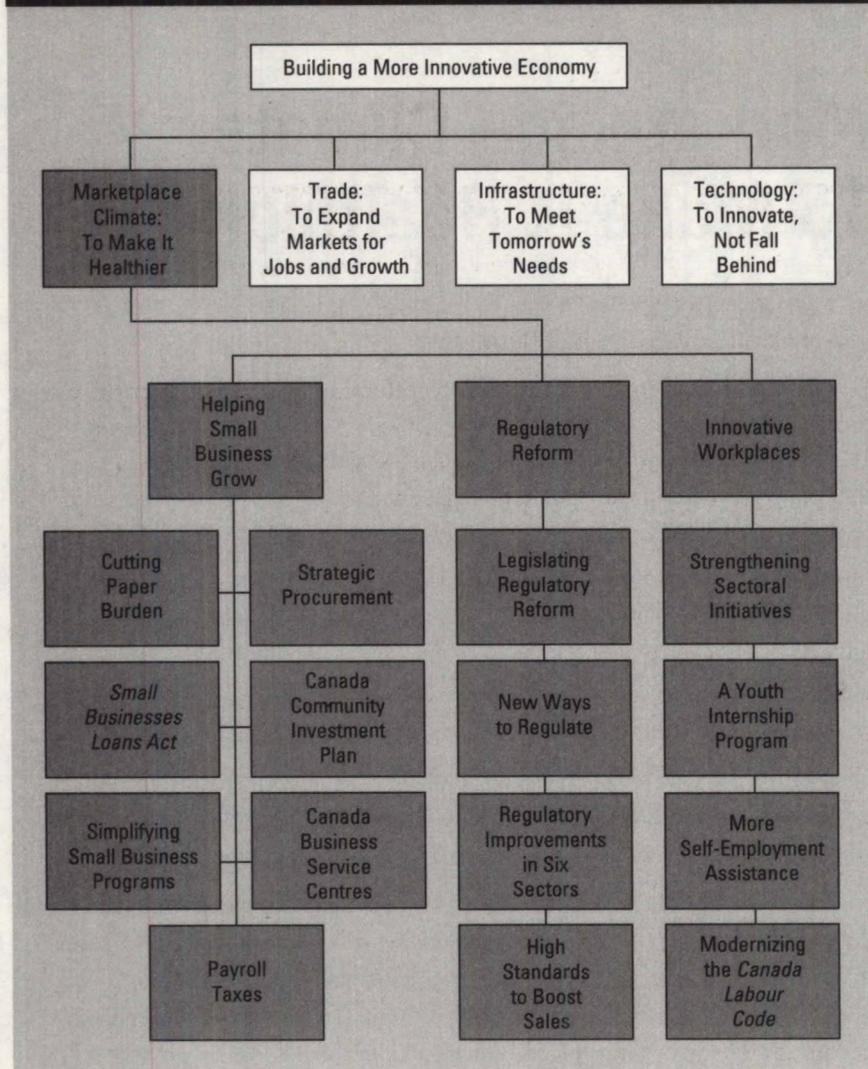
### Helping small business grow

Small businesses accounted for 87 percent of the new jobs created in Canada in the 1980s. The federal government believes they remain a key source of increased employment. They have therefore received priority in finding ways to make the marketplace climate healthier.

Parliamentarians have heard a strong message about the changes needed to allow small business to reach its full potential. The House of Commons Standing Committee on Industry recently issued a report, *Taking Care of Small Business*, which set out a wide range of recommendations. They placed particular emphasis on improving relations between the chartered banks and small business borrowers, reforming small business taxation, improving banking statistics, upgrading small business programs, and encouraging competition in the banking area.

The Small Business Working Committee, an advisory group created as part of the small business policy review initiated in the 1994 budget, was asked to look at a variety of issues that influence the ability of small businesses to grow and create more jobs. Its recent report also made recommendations for developing a climate to encourage innovative small businesses to start up and grow, focusing on taxation issues, access to equity and debt financing, regulatory reform, expanding the number of exporting firms, and improved training.

Figure 9. Marketplace Climate Initiatives



The government is reviewing both sets of recommendations and has included specific responses to a number of them in its plan of action. Further responses will be forthcoming. In addition, Citizenship and Immigration Canada and Industry Canada will be reviewing the Business Immigration Program to find better ways of providing risk capital to small business, and of attracting into Canada the entrepreneurial talent that can help support the expansion of international business.

The following seven subsections outline initiatives of particular value to small businesses.

### **Cutting paper burden**

A recent survey by the Canadian Federation of Independent Business found that over 70 percent of small businesses thought that government paperwork is a significant problem. The government agrees that paper burden is an encumbrance, and one we cannot afford. Reducing the work of satisfying the government's information requests will release time and resources to business purposes, reduce costs, and enhance the job-creating power of small businesses.

The government is committed to effecting a major reduction in the amount of time spent by small business on federal government information requests — the paper burden — by 1998. In delivering on its commitment, the government will address the key issue of information sharing among departments, particularly among the major users of information — that is, Statistics Canada, Revenue Canada, Human Resources Development Canada, and Health Canada. The government will review relevant statutes, policies and regulations. It will propose changes permitting the sharing of information among federal departments to reduce the number of data requests to individual firms. It will also work with the provinces to see whether there is scope for a coordinated attack on paper burden.

The government's review will:

- challenge the need for information currently required
- eliminate unwarranted duplication in data collection
- make the supplying of required information easier and more effective, with emphasis on electronic means.

The President of the Treasury Board will work closely with Cabinet colleagues and the small business community on a timetable and specifications. By mid-1995, they will develop an explicit and simple means of measuring the present paper burden and targets for reducing it. Treasury Board will report annually on progress.

### **Strategic procurement**

Through the strategic use of procurement, government can improve the climate for small business growth and foster innovation. It can also help meet Canada's objective of sustainable development through "green procurement" strategies to support environmental industries and sound environmental practices. To realize these benefits, consistent with our international obligations and agreements, the federal government is announcing the following four initiatives.

#### **Cutting red tape**

As a result of a 1994 agreement between Statistics Canada and Revenue Canada to coordinate the regular collection of employment and payroll data, Statistics Canada has been able to reduce the number of businesses contacted by more than 20 000, thereby eliminating the need for 300 000 enquiries a year.

**Aboriginal success story**

A joint venture between the Ojibways of Batchewana First Nation and Advanced ThermoDynamics Corporation, producing power units, heaters and air conditioners, won a demanding Department of National Defence sub-contract.

This established a track record for them in high-quality products, enabling them to win subsequent contracts from the Pentagon. That certification in turn opened doors for sales to major private transportation firms in the United States and, recently, Japan.

Today this joint venture exports 50 percent of its monthly sales of \$600 000.

- A setaside program for Canadian small and Aboriginal businesses will give them exclusive access to purchases below \$125 000 when qualified, cost-effective suppliers are available. For all but purchases below \$25 000, the setaside will be available nationally to all Canadian small firms through the open and transparent electronic Open Bidding Service. This will be accompanied by complementary measures to facilitate Aboriginal business awareness and participation in federal procurement markets.
- Another program will set aside selected procurement over \$125 000 for preferential bidding by Canadian small and Aboriginal businesses, where potential exists to support or develop innovative firms and where cost-effectiveness can be ensured. Increased emphasis will be placed on requiring prime contractors to provide subcontracting plans to Canadian small and Aboriginal businesses. The preference will require procurements to be advertised on the electronic Open Bidding Service, with the criteria for participation clearly stated.
- A setaside program for Aboriginal businesses for procurements destined primarily for Aboriginal populations, where cost-effectiveness can be assured.
- A pilot project for small Canadian firms will help them develop promising new products or technologies using federal procurement.

The Minister of Public Works and Government Services, working with colleagues in a number of departments, will bring these measures into effect by late-1995. They will make it possible for the federal government to make greater strategic use of its buying power to support small business growth. Up to \$1.5 billion of federal procurement could be targeted to small or Aboriginal businesses. Small and Aboriginal business firms will be encouraged to register with the Open Bidding Service to take advantage of these opportunities, which should increase substantially the number of such firms doing business with the federal government.

***Small Businesses Loans Act***

To grow and remain competitive, many small firms must have a source of loans — usually with their local financial institution — to finance the acquisition of fixed assets. The federal government has been working with these financial institutions to make this source of capital more accessible. One approach is through the *Small Businesses Loans Act* (SBLA), which provides lenders with a government guarantee against losses on approved loans. The government is consulting with both lenders and small business representatives on how to make the program more effective.

Changes to the program in April 1993 have led to an increase in guaranteed lending to \$3.5 billion. The stock of outstanding SBLA loans has now reached the statutory limit of \$4 billion. The net program cost to the federal government has increased sharply, now estimated at more than \$100 million annually.

The government is committed to retaining the SBLA as an essential vehicle for ensuring that small businesses have access to loan financing. This means the program has to be put on a cost-recovery basis, and have an appropriate lending ceiling.

The government has already taken steps to raise the lending ceiling from \$4 billion to \$12 billion. In conformity with its commitment to reduce business subsidies, it is also moving toward cost recovery under the SBLA. To this end, a new 1-percent lender fee, or its equivalent, will be introduced on the outstanding principal balance of loans guaranteed in the new year. Lenders will be able to pass this fee on to borrowers.

### **Canada Community Investment Plan**

To make investment in smaller firms attractive, especially those outside major financial centres, the government will establish, on a pilot basis, the Canada Community Investment Plan (CCIP). Several CCIP pilot projects will be launched to help community-based investment groups match informal investors and other local sources of venture capital with local firms looking for small amounts of equity. The government will provide \$5 million a year for the next four years.

CCIP will share the cost of the support systems required to match approved small and medium-sized businesses with local investor groups. Equity would come primarily from a core group of local informal investors. Investment would also be encouraged from local and national investors, such as corporate and institutional sources of capital.

Under the pilot CCIP, the government will share, up to certain prescribed limits, the cost of pre-investment and post-investment services with investors. Such services include investment selection, business planning, and market assessment.

### **Simplifying small business programs**

Many of the 700 federal and provincial programs involving grants to business are too narrowly targeted or are duplicative. Their sheer number and complexity are major obstacles to firms wanting to use them. The existing approach to grants is terribly inefficient for both government, facing a mounting debt problem, and business, trying to find its way through the maze. Therefore, the federal government will

substantially reduce the number of its small business programs by 1998, and challenges the provinces to do the same.

The goal is a much smaller set of programs that are easier to use, generally available, and flexible enough to meet changing circumstances. The government will report on progress in simplifying small business programs by spring 1995, drawing on the results of the program review. After discussions with small business groups, the government will indicate its approach to further reduction in the number and complexity of small business programs by 1998.

### **Canada Business Service Centres**

To compete in the global innovation-driven economy, Canadian firms need fast and accurate access to a wide range of information. These needs include reliable data on which to build business plans, and intelligence about developing world markets, advancing technologies, and changing business and regulatory environments.

Governments have extensive capabilities for gathering information and analyzing it. But entrepreneurs, especially those in small business or just starting up, have difficulty finding and using it. They are often simply overwhelmed by the amount of information available, or else do not know about it at all.

That is why the government, working with the provinces and, in some cases, the private sector, has begun to establish a network of Canada Business Service Centres (CBSCs) across the country. They offer a single-window service for the business community. No longer will business people have to run around to the 19 federal departments and many provincial, municipal, and private sector organizations that provide business information. Rather, they will be able to visit, phone, or fax a CBSC, where experienced business information officers will be able to give them the information they are seeking.

In the pilot Canada Business Service Centre set up in Winnipeg in early 1993, business demand grew at a rate of 11 percent a month. The British Columbia CBSC, which opened this year, is already forecasting annual growth of 40 to 50 percent, based on the first six months of operation. In Montreal, where the province and the Chamber of Commerce are partners with the federal government, the centre opened in June 1994 and is already having difficulty in keeping up with demand. The existing network of CBSCs is expected to handle over a million inquiries from firms and individuals seeking information on services and business development in its first full year of operation.

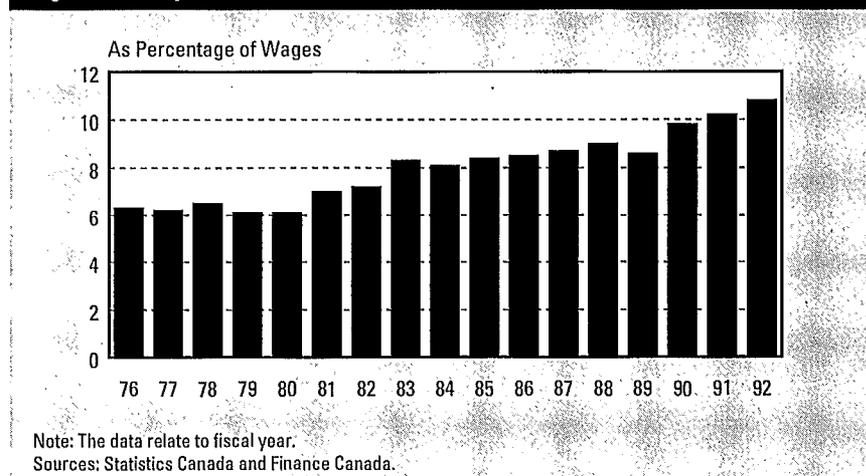
The federal government will meet the increasing demand by raising its investment in CBSCs by \$15 million annually. The plan is to increase access points to the CBSC network by using existing host organizations in the community, such as Chambers of Commerce and Economic Development Commissions. Service will be augmented with improved electronic access, allowing clients to communicate directly from their homes and offices with information specialists in the CBSC.

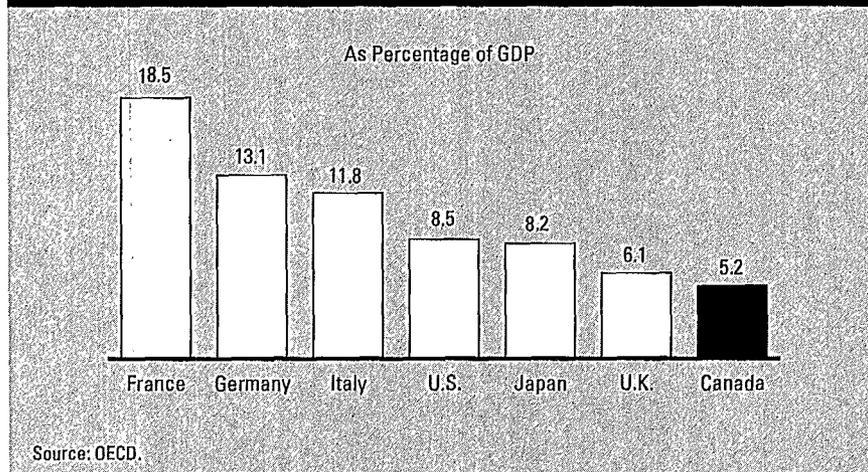
**Payroll taxes**

Payroll taxes raise the relative cost of labour, creating a disincentive for firms to create jobs. Because they are not related to sales or profitability, payroll taxes put additional financial pressure on firms during cyclical downturns. Canada's overall reliance on payroll taxes — measured as a percentage of gross domestic product — remains low by world standards, as Figure 10b indicates. Figure 10a shows, however, that between 1976 and 1992 payroll taxes rose from just over 6 percent of the total wage bill to almost 11 percent; this increase is a cause of concern for job seekers. If we are to ensure strong economic growth, governments, both federal and provincial, should reduce disincentives to job creation.

The federal government therefore intends to reduce Unemployment Insurance (UI) premiums through progressive cuts, once the UI account is back in a healthy state. The improving economy and reform of the UI program will make the cuts possible. As a first step, the government will reduce the UI premium rate in 1995 to \$3.00 from the current \$3.07. Further cuts will be in line with maintaining the integrity of the Unemployment Insurance Fund.

**Figure 10a. Payroll Taxes in Canada**



**Figure 10b. Payroll Taxes in Seven Major Developed Economies, 1992**

### Regulatory reform to unleash business energies

Regulation has become so complex that many businesses, especially smaller ones, apply their most creative thinking to coping with complicated rules. Government measures to radically reform the regulatory system are detailed in the next four subsections.

Finding the appropriate balance between the benefits and costs of regulations is largely a question of efficiency. Regulations play an important role in society, helping us to assure that our markets are competitive, our products safe, and our environment clean. They are an important tool of public policy for improving the quality of life. But poorly designed regulations can damage the economy by increasing costs, reducing access to markets, and making it more difficult to introduce innovative products and services. These costs mean fewer jobs and lower levels of growth.

How can we meet the goals of regulation at the lowest possible cost? Simple deregulation is not the answer, since lowering standards will bring no lasting benefit and potentially much harm. The answer must be found in using regulations efficiently to give Canada the best regulatory system in the world.

The regulatory reform plan, outlined in the accompanying box, will affect every aspect of the way government regulates. A first step is to complete the work from previous regulatory reviews. Consequently, more than 150 revocations and 170 revisions to existing regulations will be made in early 1995. There will be a further 100 revocations and over 200 significant revisions by 1996.

### **Legislating regulatory reform**

The President of the Treasury Board will introduce new legislation to allow regulation to be applied more flexibly and efficiently. The new *Regulatory Efficiency Act* will be introduced shortly. It will cut red tape without lessening the protection that Canadians currently receive.

This new Act will allow companies to apply, under certain circumstances, to enter into agreements to meet regulatory requirements in different ways from those now required, if regulations make it difficult for them to be innovative. Compliance agreements will have to meet the goals of existing regulations and to respect the principles of sustainable development; safeguards will be built into the legislation to ensure equity and transparency. Agreements will be accessible to the public and enforced like existing regulations.

The new legislation will build on the government's experience with the flexibility of certain regulatory programs that work well now. It will allow businesses to affect their regulatory environment directly.

The Canadian Manufacturers' Association estimates that this part of the legislative reform will lead to potential savings for Canadians of over \$3 billion a year, provided regulators, businesses and individuals use it to its fullest, and provinces pursue similar initiatives.

In February 1995, the Minister of Justice will introduce legislation to reform the *Statutory Instruments Act*, which is the legislative framework and authority for making regulations. The reform will aim to simplify and speed up the regulatory process, giving departments greater capacity to respond quickly and effectively to rapidly changing circumstances.

### **New ways to regulate**

The government will improve management of the regulatory system in seven ways to reduce its burden on businesses and individuals.

### **The regulatory reform plan**

- **Legislative Reform.** New legislation will be introduced in Parliament by February 1995 to overhaul the federal government's approach to regulation.
- **Regulating More Skillfully.** Seven reforms will be undertaken to make the way the federal government manages its regulations more efficient.
- **Targeted Sectoral Actions.** Six key sectors of the economy have been selected to start targeted regulatory reforms.

***Regulatory cooperation***

Cooperation with other governments, both within Canada and abroad, benefits all. Under the Agreement on Internal Trade, the federal government will work with the provinces and territories to reduce obstacles to domestic trade caused by differences, duplications, or overlaps in regulatory measures or regimes among governments. The federal government will ask the provinces and territories to begin the regulatory review before the agreement comes into force on 1 July 1995.

***Doing a better job***

Seven federal departments (Agriculture and Agri-Food, Environment, Fisheries and Oceans, Health, Industry, National Revenue, and Transport) are responsible for most federal regulatory legislation. Businesses complain that management standards and processes vary among departments, with the result that regulatory proposals lack consistency. The President of the Treasury Board will work with his colleagues responsible for these departments and with the private sector on standard setting for developing and implementing regulations. Over the next two years, major regulatory departments will be required to meet the new management standards. Regular audits and procedures to obtain feedback from industry will help departments to continuously improve their regulatory performance.

***Resolving complaints***

Canadians want their complaints about regulation dealt with quickly and effectively. Federal regulatory departments will be required to ensure that they resolve complaints about the administration of regulatory programs according to generally accepted management principles that will be developed in consultation with the public. Once approved, the principles will become part of the regulatory departments' management standards.

***Making the law clear in plain language***

A common complaint about regulations is that they are not understandable. Other jurisdictions are using plain language successfully and the federal government has pilot projects under way to improve the understandability of its regulations in two areas: explosives and the transportation of dangerous goods. Given the success of these pilots to date, the government will encourage the use of plain language in the writing of all regulations, starting in early 1995.

***Business Impact Test***

The Business Impact Test, an interactive computer software tool developed by the Canadian Manufacturers' Association and government, is designed to help determine how regulations will impact on business, and where alternatives could be more cost effective. This tool has been endorsed by major business associations. By fall 1995, the seven largest federal regulatory departments will apply the Business Impact Test or undertake an equivalent analysis when introducing major regulatory changes. The benefits of consumer protection will continue to be assessed when the test is applied. By 1996, all federal regulatory departments will use the test or equivalent analysis for all major regulatory changes.

***Accessing information more easily***

Business and individuals do not always know where to find out what regulations apply to them. The government has launched a pilot project at the Canada-Saskatchewan Business Service Centre to make it easier for individuals to access regulatory information on federal agriculture programs. If the project is successful, it will be extended to other areas of regulation and other parts of the country.

***Training and communications***

Experience in regulatory reform shows that officials at all levels in regulatory departments need education and training to make sure that new approaches are accepted throughout the organization and result in real change. By mid-1995, Treasury Board Secretariat, working with federal regulatory departments and private and non-profit groups, will develop courses to help regulators formulate cost-effective regulation, particularly as it applies to small business, to enable field staff to be more effective, and to ensure a common vision of the new regulatory approach among all officials.

**Regulatory improvements in six sectors**

By improving the efficiency of regulation in specific sectors of the economy, the government can help create jobs and grow. The government has selected six sectors as a first group, because of their importance to the economy and the government's ability to make changes quickly in them.

In the past, environmental assessment and review processes contributed to regulatory uncertainty. As a result, the government announced that it will eliminate this uncertainty by proclaiming the *Canadian Environmental Assessment Act*, which will establish a clear mechanism for assessing the environmental impacts of projects and

processes. In addition, the Ministers of the Environment and Industry have agreed that there will be a 12-month monitoring program to assess the impacts of the new Act on competitiveness to detect any unnecessary burdens and to consider measures to correct them.

### ***Biotechnology***

Biotechnology will figure prominently in Canada's future. New and novel food products, new medicines, and new ways of cleaning up environmental spills are just some areas where this new technology is being used. Canada must position itself to be a leader.

The industry has pinpointed regulatory uncertainty and lengthy approval processes as the key impediments to investment and jobs. The following actions will be taken.

- By mid-1995, the Minister of Agriculture and Agri-Food will put in place revised regulations under the *Seeds Act*, *Feeds Act*, *Fertilizers Act*, and *Health of Animals Act*.
- By mid-1995, the Minister of the Environment will issue new regulations under the *Canadian Environmental Protection Act*.
- The Minister of Health will issue new regulations to provide for environmental assessment under the *Food and Drugs Act*, with publication in the *Canada Gazette* by fall 1995.
- Regulations governing novel foods under the *Food and Drugs Act* will be published by the Minister of Health by spring 1995.
- The government will join non-governmental organizations and industry in creating a forum to consult on the societal implications of biotechnology.

### ***Health, food and therapeutic products***

Canadians spend billions of dollars a year on food and health care products. Annually, thousands of new products are developed, mostly using well-established technology and know-how. But there are also "breakthrough" products that require substantial research and development, investment, and pre-market testing.

Health Canada will ensure its regulations are related to the risk that products hold for Canadians. For this purpose, the Minister of Health by the end of 1995 will make over 15 changes to regulations under the *Food and Drugs Act*. They will result in improved market access for products where health and safety concerns can be met through improved labelling and product information. In addition, the changes will allow faster new product development and encourage harmonized standards.

***Mining***

Canada is a leading global supplier of mineral products. Yet the number of jobs is shrinking in this industry, underlining the importance of eliminating unintended burdens, such as unneeded regulation. The Whitehorse Mining Initiative is one crucial step. It brings together governments, industry, labour, environmentalists, and Aboriginal people to reach consensus about the application of regulations.

In 1995, the government will make comprehensive improvements to the federal regulatory regime to promote sustainable development, provide for greater certainty, and reduce delays and costs related to environmental and land-use decision making. Six regulatory areas have been designated where tangible improvements can be achieved:

- administration of the *Fisheries Act*
- land-use and related decision making
- definition of waste
- regulatory regimes north of 60°
- regulatory impact analysis
- toxics management.

***Automotive industry***

The automotive business is Canada's largest manufacturing sector. We must compete effectively with the United States and Mexico for new vehicle and parts production and jobs. The government is working closely with the industry through the Automotive Advisory Committee to seek ways, including improvements in regulatory and standards areas, to improve the climate for job creation in this key sector for Canada.

The federal government will continue to work with Canada's major trading partners to harmonize vehicle safety, emissions, and fuel standards where differing standards constitute significant barriers to trade. As well, the government will seek to develop an international approach to harmonizing vehicle safety and emission standards through the Automotive Standards Council of the North American Free Trade Agreement (NAFTA) and the Economic Commission for Europe.

### **Expanding wood products market**

The Government of Canada has been involved in ongoing negotiations with the Government of Japan to gain Japanese acceptance of Canadian building codes and standards and access for Canadian wood products.

On the basis of successes to date, the export of Canadian manufactured housing to Japan has risen from virtually nothing 10 years ago to over \$50 million today.

This has benefited companies like Westwood Building Systems of British Columbia, which has seen its sales more than double in the past year, largely due to expansion in the Japanese market.

### ***Forest products***

The forest products industry is one of Canada's leading employers and the most important contributor toward a positive merchandise trade balance. To improve Canada's competitiveness, the government will:

- continue to work with the provinces to harmonize environmental measures on packaging and pulp and paper mills, with a target for agreement by fall 1995
- collaborate with industry, provinces, Aboriginal people, labour, environmental groups, and woodlot owners to develop by December 1995 a standard, including criteria and indicators, to certify products from sustainably managed forests
- sign with Japan a joint declaration by early 1995 that will lead to mutual recognition of building product standards.

### ***Aquaculture***

In less than a decade, the value of Canadian aquaculture output increased some 42 times; it was more than \$290 million in 1993. In addition, the supply and services sector of the aquaculture industry now has annual sales of more than \$265 million. This new and environmentally sustainable industry provides an opportunity for diversification and growth in many resource-based communities. Canada, however, is facing increasing international competition. Most experts agree that the sector could double in size by the end of the decade, provided that a streamlined regulatory framework and other changes designed to reduce costs of production and enhance competitiveness are introduced.

The Department of Fisheries and Oceans is coordinating preparation of a new Federal Aquaculture Development Strategy. The strategy will include a comprehensive review of all federal legislation and accompanying regulations, with a view to removing unnecessary constraints on aquaculture. The review is expected to be completed by June 1995.

### **High standards to boost sales**

In a global, innovation-driven economy, companies increase sales and employ more people when their products meet or set national and international standards. International standard setting has become an increasingly important factor in global trade, but Canada's participation has not kept pace.

The government will take two important standards initiatives. The first flows from the intergovernmental Agreement on Internal Trade, which contains provisions to reduce obstacles caused by differences in

standards. The second is to modernize and streamline the Standards Council of Canada. Additional funding of \$2 million a year will be provided to support the initiatives.

The Agreement on Internal Trade requires federal and provincial governments to reconcile their standards and related measures, such as approval processes, through harmonization, mutual recognition, or other means. Areas covered include transportation, occupational qualifications, and environmental and consumer protection.

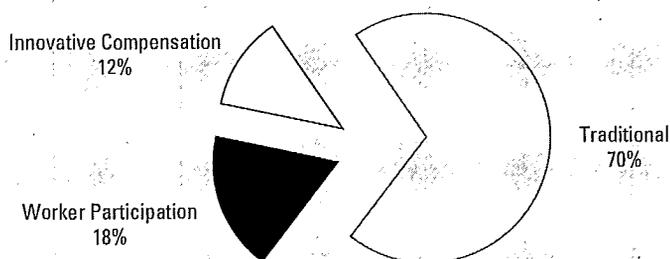
Legislation to modernize and streamline the Standards Council of Canada and provide it with a broader mandate to reinvigorate the National Standards System will be introduced by the Minister of Industry by mid-1995. Council membership will be reduced to less than half of the current 57 and restructured. The government will appoint representatives of key standards-using groups, including consumer groups, manufacturers, and industry associations. Under the broader mandate, the Standards Council will focus on:

- helping small and medium-sized enterprises to influence the development of standards for their products at home and abroad
- working to increase the adoption of Canadian standards internationally, and international standards in Canada
- encouraging the use of internationally recognized quality standards, such as ISO 9000, by Canadians
- promoting the development of common nationwide standards.

## **Innovative workplaces**

Report after report has placed skills training, workplace organization, and labour-management cooperation among the key factors contributing to both employment and productivity growth. *Improving Social Security in Canada* has set out the challenge of improving workplace skills and reviewing work disincentives. As Figure 11 indicates, only a minority of Canadian firms has adopted innovative practices in the areas of worker participation and compensation.

Well-trained workers, adaptable work organizations, effective labour-management relations, employee involvement in the enterprise, and safe and healthy workplaces all contribute directly to a firm's economic performance and the well-being of individual workers. A key role for government in facilitating workplace change is to ensure that business and labour and other practitioners are able to obtain and share

**Figure 11. Firms Using Innovative Workplace Practices, 1993**

Source: *The Canadian Workplace in Transition*, Betcherman et al, 1994.

information on new innovations and trends. Human Resources Development Canada will therefore establish a clearinghouse for disseminating information and exchanging best practices, fostering networks, developing self-help tools, and undertaking cooperative activities with provincial and territorial governments.

The next four subsections include government initiatives to promote innovative workplace practices, labour-management cooperation, and renewal in the workplace.

### **Strengthening sectoral initiatives**

The Minister of Human Resources Development is expanding the sectoral approach to human resource development to promote private sector involvement in training through the Sectoral Initiatives program. This expansion is being financed through a reallocation of departmental resources. Greater private sector involvement, in these and other activities, is critical to ensure that Canadian workers develop the right skills and that young people are better prepared for the jobs of the future.

It is widely recognized that Canada has not paid enough attention to building the skills of its work force, especially in comparison with countries such as Germany and Japan. According to the most recent National Training Survey conducted by the Canadian Labour Market Productivity Centre, the average Canadian employee received only 14 hours of formal training a year, far short of the target of 40 hours set by the Canadian Manufacturers' Association and others in recent years.

Firms must know where skill deficiencies exist or are likely to arise, if managers and workers are to invest more in skills training. They must also work with the education and training community to ensure that training will effectively close these skill gaps.

Fifteen sector councils have already been created under the program. Others are in the developmental phase. The federal government is also encouraging existing councils to expand their activities and address issues such as improving the school-to-work transition and finding more effective ways to reduce the skills gaps faced by small business.

### **A Youth Internship Program**

Among OECD countries, Canada ranks first in the proportion of its population having post-secondary education. Approximately 60 percent of young Canadians, however, enter the work force directly from high school with no additional structured education or training and without adequate school-to-work transition programs.

To close this gap, the Minister of Human Resources Development is putting into effect a Youth Internship Program (YIP). Through it, the federal government is working closely with provincial and territorial governments, and with business, labour, and local communities, to develop new ways to provide young people with structured, job-specific training opportunities in emerging and growth sectors of the economy. A number of internship projects have already been launched in sectors such as environmental industries, electrical and electronic manufacturing, and automotive repair and services. The objective is to develop up to 20 000 internship places a year for young people. Investment in the program is being financed by reallocation within departmental resources.

The federal government is also supporting efforts by provinces, business and labour to revitalize the existing apprenticeship system for the traditional trades.

### **More self-employment assistance**

Self-employment is a rapidly growing source of jobs. In the 1980s, the total number of self-employed in Canada increased by 29 percent, more than twice as much as the increase in total employment.

To support this trend, the government will increase the budget for the successful Self-Employment Assistance Program in 1995. Funding will come from a reallocation within the Unemployment Insurance Developmental Uses budget.

The Self-Employment Assistance Program provides financial, training and technical assistance to unemployed Canadians who want to start their own businesses. Evaluations of the program have shown good results: 73 percent of participants who became self-employed were still employed two years later. In 1993-1994, some 7 000 people participated in the program; the government is aiming to increase the number of new participants to over 9 000 in 1995.

### **Modernizing the *Canada Labour Code***

The federal government will join with business and labour to review the *Canada Labour Code*, which applies to enterprises under federal labour jurisdiction in sectors such as transportation, communications, and banking. The objective is to see that the federal legislative framework encourages greater labour-management cooperation in the resolution of workplace issues. Following consultations, amendments will be introduced in 1995.

One aim is to improve the industrial relations section of the Code so as to facilitate labour-management cooperation, reduce conflict, and improve effectiveness and efficiency by ensuring that administering bodies are designed to be responsive to this new environment.

In the area of labour standards and occupational safety and health, emphasis will be placed on ensuring that employers and employees have the flexibility to jointly adopt working arrangements that fit the needs of their particular workplace or industrial sector, while at the same time maintaining worker protection.

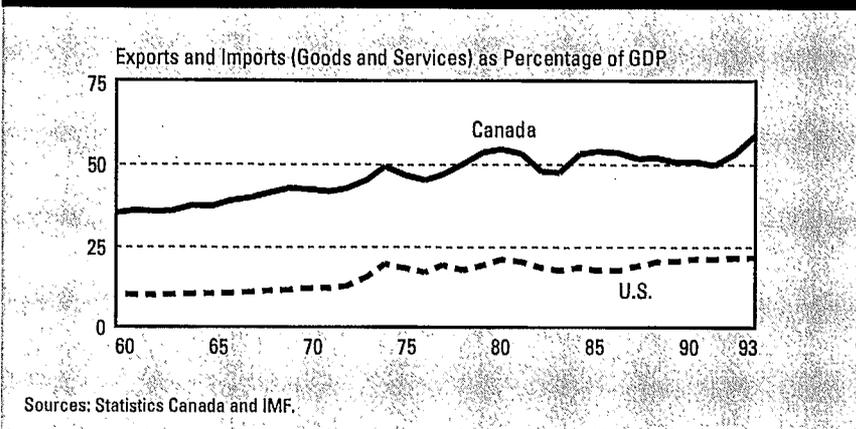
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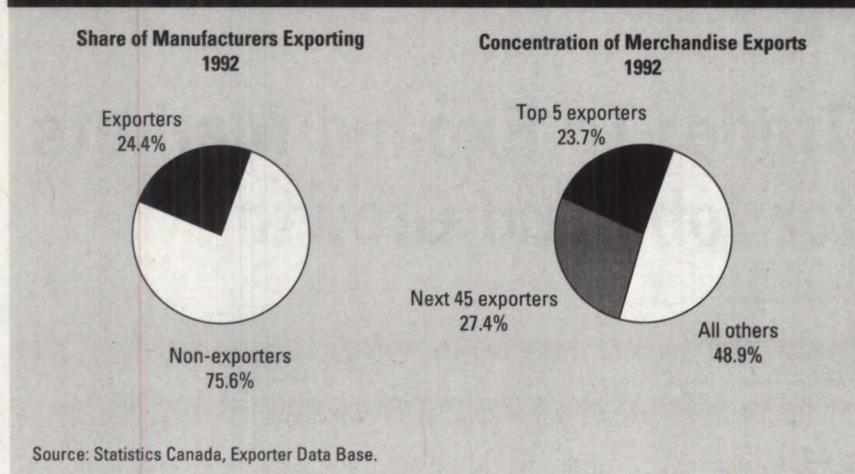
## Trade: To Expand Markets for Jobs and Growth

Since Canada is one of the world's main trading nations, trade is an important area for building a better climate to create more and better-paying jobs. Our wealth has been largely built on trade, which accounts for more than half of our gross domestic product, or almost triple the proportion in the United States. Figure 12a tells the story graphically by showing exports and imports of goods and services as a percentage of gross domestic product.

Canada has traditionally had a merchandise trade surplus, but this surplus has been increasingly overwhelmed in recent years by a soaring non-merchandise trade deficit. It is caused by rapidly rising interest payments on our foreign debt and a large deterioration in our travel account. In 1993, the combination of our favourable merchandise balance (surplus of \$9.5 billion) and unfavourable non-merchandise trade balances (deficit of almost \$40 billion, including an \$8 billion travel and tourism shortfall) saddled us with a whopping current account deficit of more than \$30 billion.

Figure 12a. Trade Is Important to Canada



**Figure 12b. Trading Base Should Be More Diversified**

Canadians have a vast opportunity to become stronger traders, because of rapidly expanding global markets. Most commentators agree that each additional \$1 billion in exports generates about 11 000 new jobs. But exporting does more: it introduces firms to international standards of excellence; it changes firms' behaviour; and it makes them more competitive, not only in global markets but also in the domestic market, and more capable of creating jobs and serving the Canadian public.

Canada also needs international investment to create jobs and enhance the growth of Canadian firms, especially among small and medium-sized businesses. International investors continue to be an important source of quality jobs for Canadians. Business investment brings the capital, technologies, management skills, and market access needed to grow globally competitive Canadian companies.

To improve our trade performance, we have to get more Canadian firms trading, and trading in more places. Although Canada is a great trading nation, it has to develop a great trading culture, particularly among small and medium-sized businesses. Surprisingly few Canadian firms engage directly in exporting. Figure 12b shows that in 1992, only about 25 percent of manufacturers made direct export sales; five firms accounted for 24 percent of all our exports, and 50 firms accounted for over 50 percent.

Canadian firms have been successful in the United States; exports and merchandise trade balances have profited from the North American Free Trade Agreement (NAFTA). But trade success elsewhere has been less dramatic, underlining the importance of a more targeted approach to key global markets.

Figure 13. Trade Initiatives

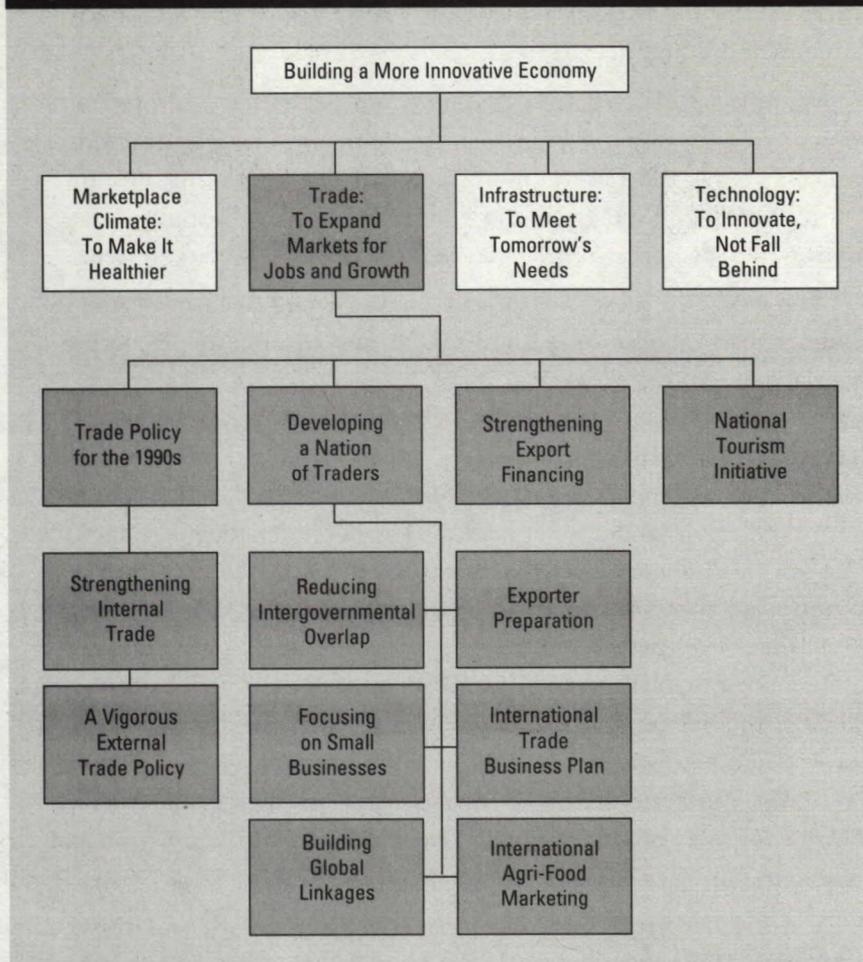


Figure 13 outlines a series of measures designed to expand markets for Canadian business, including our own internal market. The sections of this chapter that follow take up general trade policy (with subsections on both internal and external trade), a more targeted approach to trade development and promotion, the strengthening of export financing, and a national tourism initiative.

### Trade policy for the 1990s

Canada has achieved its trading success through multilateral agreements. These will continue to be our solid base. Through agreements with other countries, we must ensure that access to export markets is not undermined by technical barriers and regulations, environmental measures that distort trade or investment decisions, and new trade restrictions in the guise of protecting labour standards.

Canada also needs to move ahead to seek arrangements with the United States and Mexico under NAFTA to reduce disputes about subsidies and dumping.

Within Canada, we must get all the advantage we can from our domestic markets by opening them to the free movement of goods, services, people and capital among our provinces and territories; this is crucial to giving our firms and workers a dynamic business environment at home to prepare them for the global marketplace.

The next two subsections detail ways in which we can pursue job-creation goals by becoming more nimble and competitive in both our internal and external markets.

### **Strengthening internal trade**

Canada is embarking on a new internal trade regime to make the most of its interprovincial domestic market. The economic disadvantages of Canada's small home base in comparison with other major industrial countries are compounded by numerous internal barriers. They range from outright restrictions on bidding on government contracts to a patchwork of regulations and incompatible standards. Such barriers make the domestic market for Canadian businesses even smaller in practice than it could be. Estimates by the Canadian Manufacturers' Association, for example, indicate that these barriers cost Canadians up to 1 percent of gross domestic product (about \$7 billion) annually in direct job and income losses.

The 1994 Internal Trade Agreement is a key first step on the road to securing an integrated domestic market. It sets out rules to prevent governments from creating new trade barriers and goes a meaningful distance in eliminating existing barriers in 10 major economic sectors. The agreement sets out the following milestones.

- Effective 1 July 1995, the \$50 billion annual government purchasing market is opened to competitive bidding throughout Canada.
- Effective 1 July 1995, provisions come into effect to reduce restrictions on investment, including a code of conduct to forbid incentives that lure firms to relocate their businesses from one province to another.
- Beginning 1 July 1995, provisions increase the ability of Canadians to work anywhere they wish, by imposing limits on the use of residency requirements and providing for mutual recognition of occupational standards.

- By 1 July 1995, governments are committed to completing negotiations on energy and to expanding the open purchasing undertakings to municipal governments and the academic and health sectors.
- Beginning 1 July 1995, broader coverage of Crown corporations will be negotiated.
- Governments are committed to substantial harmonization of environmental protection, transportation standards, and consumer protection.
- Effective 1 July 1995, an impartial, publicly accessible process for resolving trade disputes between governments comes into effect.

Like the original international General Agreement on Tariffs and Trade (GATT), our Internal Trade Agreement has the potential to grow and evolve, creating the climate for a more dynamic economy. The agreement is a sound framework for future negotiations.

### **A vigorous external trade policy**

Our external trade policy will aggressively pursue the elimination of barriers, not only for today's exports, but also for tomorrow's export opportunities in goods, services, investment, and technology transfer. We will pursue our trade policy agenda both bilaterally and multilaterally, using the new World Trade Organization (WTO) (successor to GATT), NAFTA, and our membership in the Quadrilateral Trade Ministers Group to break new ground.

The government's trade policy will focus on:

- **Expanding the World Trade Organization.** Twenty-three non-members of GATT have applied for WTO membership. Canada will focus on the five that trade most extensively with us — China, Taiwan, Russia, Ukraine, and Saudi Arabia — to ensure that the best access to sectors of particular interest to Canadian companies is achieved.
- **Broadening and deepening NAFTA.** The government will promote the broadening of NAFTA to include Chile as the first addition. It will also pursue a deepening of NAFTA through improvements in areas like anti-dumping and countervail.
- **Focusing on strategic markets.** Canada will seek to negotiate greater access in strategic markets, including Asia Pacific (under the auspices of the Asia Pacific Economic Co-operation [APEC] forum), Latin America (Argentina, Chile, and Brazil), and Australia and Israel.

- **Strengthening selected market access agreements in particular areas.** Canada will strengthen agreements on trade in services, government procurement, foreign investment protection, and double taxation in markets of interest to Canadian business.

### **Developing a nation of traders**

Federal spending of \$625 million annually to support international trade development and promotion will be reallocated to become more strategic and effective. The international business initiatives presented in the next six subsections will assist the private sector in preparing many new exporters for a strong performance and help companies create jobs through exports.

To transform Canada into a nation of traders, the federal government will work together with the provinces and territories in a Trade Team Canada approach, exemplified by the Prime Minister's recent China mission, to harmonize and make fully effective existing programs and services in international business development.

### **Reducing intergovernmental overlap**

A group of business leaders, the International Business Development Review (IBDR) committee, has studied the efficiency and effectiveness of international business development by governments throughout Canada. This committee, formed at the request of the Minister for International Trade, has recommended a number of significant changes that are being taken up by the government. Reducing intergovernmental overlap in trade development and promotion was a particular focus of the IBDR report.

- Internationally, the federal government will renew its offer to the provinces to integrate or co-locate their offices abroad with the federal ones.
- Domestically, the federal government will propose to the provinces that it co-locate all federal international business development operations with the provinces in centres that will make it easier to find programs and services provided by all levels of government, and reduce duplication.
- The federal government will follow the Trade Team Canada approach in establishing these centres and involve not only governments but also private sector players such as Chambers of Commerce and sectoral associations.

### **Exporter preparation**

The IBDR report urged that Canadian offices abroad focus their attention on firms that are well qualified to be exporters. The government intends that the international business development centres in Canada will make exporter-preparation their primary role. Export-ready firms will receive priority for service from Canadian offices abroad. This will reduce the load on those offices, which the IBDR noted had doubled in 10 years without a commensurate increase in trade staff.

### **Focusing on small businesses**

Not all small businesses will export, nor should they. But if Canada is going to markedly improve its merchandise trade surplus, the biggest potential for growth lies in small firms.

The government will make a number of important changes in its Program for Export Market Development (PEMD) to help small and mid-sized businesses to export. Funding for the PEMD will be directed to companies with annual sales of less than \$10 million. As well, the market development portion of the PEMD will be lengthened to two years to better serve the committed exporter.

### **Priorities for the International Trade Business Plan**

The International Trade Business Plan will be the centrepiece of the government's trade development planning and priority setting for all departments and agencies.

The IBDR report stressed that government assistance should be focused on growth industries and the geographic markets of greatest opportunity for Canadian business. Consequently the government will institute several changes.

- Special attention will be given to sectors at home and geographic markets abroad that have outstanding export potential for Canadian products and services. The Department of Foreign Affairs and International Trade (DFAIT) will continue to reallocate resources to Latin America and Asia Pacific; trade offices will be opened or strengthened in key growth markets such as Vietnam, Korea, China, and Chile.
- DFAIT's international business development funding will be consolidated into a single program.

#### **Exporting to Japan**

Abegweit Seafoods Inc., of Charlottetown, P.E.I., used risk-shared funding from the Program for Export Market Development (PEMD) in 1983 to pursue market expansion into Japan.

Abegweit approached a Japanese company to seek cooperation in marketing and training to produce high-demand crab and lobster products for the Japanese market.

This strategy has proved highly successful. Today, 63 percent of Abegweit's exports are to Japan, accounting for \$5 million of the company's \$8 million in sales.

**Trade mission payoff**

Participation in a trade mission was a turning point for Thomas Equipment Ltd. of New Brunswick.

Faced with impending layoffs, the company was encouraged by the federal government to participate in a trade mission to Asia in November 1992. The result: the company resurrected two dormant markets (Australia and Taiwan) and opened new markets (Hong Kong and Thailand).

As a result, sales to these four markets have gone from under \$1 million to over \$5 million annually. The Asian market has grown to account for about 25 percent of the company's exports and 20 percent of its total industrial sales.

- Strategic use of program funds will be improved by involving the exporting business community in decision making on the government's participation in international fairs. Trade fairs will be mounted on the basis of full cost recovery from firms with sales of over \$10 million.

**Building global linkages**

Canada must compete with other countries not only for global market share, but also for investment and technology. Firms need strategic information on international investment, technology and trade opportunities; the timely provision of such strategic information will be a government priority. Small businesses will have to rely more heavily on developing strategic alliances with international firms to acquire know-how and strengthen global linkages.

The government will place greater emphasis on attracting international business investment in Canada and assisting Canadian firms to use technologies developed abroad. DFAIT will expand and strengthen its network of investment and technology development officers. The technology officers are an essential part of the Canadian Technology Network.

As well, a more strategic and targeted approach to promoting Canada as an investment site within NAFTA will be developed. The investment program will be more closely coordinated with the provinces.

**International agri-food marketing**

The agri-food industry has set a goal of \$20 billion in exports by the year 2000, a 50-percent increase over the 1993 level. The industry believes Canada can achieve this by building on the U.S. market in high-value-added products, and by diversifying into high-growth areas such as Asia and Latin America.

It is the government's intention to establish a more focused and coordinated partnership between Agriculture and Agri-Food Canada (AAFC) and DFAIT that would have as its central feature an Agri-Food Trade Service to deliver the government's export development services and programs to the industry in Canada. The service will focus on export readiness and market development and it will encompass:

- Agri-food 2000, a streamlined interdepartmental mechanism to deliver existing and new cost-shared initiatives with industry
- an agri-food trade network, offering enhanced information and intelligence services

## Action Plan of Agriculture and Agri-Food Canada for Jobs and Growth in the Agri-Food Industry

### Trade

- Management of existing agri-food trade agreements and periodic trade disputes, and planning of agri-food components of future bilateral and multilateral negotiations are designed to ensure fair and open market access for Canadian agri-food suppliers.
- GATT and NAFTA are exploited by setting up a more focused and coordinated partnership between AAFC and DFAIT that would have as its central feature an agri-food trade service to deliver the government's export development services and programs.

### Technology

- Research and development in the agri-food sector is increased by implementing the Agri-Food R&D Matching Initiative and encouraging industry check-offs to strengthen the linkage between R&D and the needs of the agri-food industry.

### Infrastructure

- The government is reforming the transportation of grain in conformity with the GATT and to increase high-value-added production.
- Through AAFC's own mandate, and in cooperation with other federal and provincial agencies, rural agricultural areas are being developed by supporting critical agri-food infrastructure projects, such as communications; transportation, water supplies and waste disposal systems; developing new agri-food products and services to match local capabilities with agri-food market opportunities; and instituting training programs aimed at the creation of economic growth and job alternatives in rural agricultural areas beyond primary agriculture production, and related value-added opportunities.

### Marketplace Climate

- Income support is being transferred from measures that distort market signals to income stabilization programs that are market-neutral and GATT-compatible, and that strengthen the linkages between farm production and market opportunities.
- The supply management system is becoming more responsive to market opportunities, including export potential.
- Further regulatory reforms are being introduced by working with the provinces under the Canadian Food Inspection System to harmonize federal-provincial food standards and legislation, by focusing regulatory resources on high-risk areas, and by regulatory changes to facilitate introduction of new biotechnology products.
- The Farm Credit Corporation's role in helping to finance rural economic development opportunities is being improved. Banks, co-operatives, and other lending institutions will be encouraged to follow the example. Rural communities may also want to consider making proposals for the Canada Community Investment Plan pilots.
- Support for sustainable development is being strengthened by integrating the environmental and economic interests of the agri-food industry.

- enhanced trade services abroad in support of the agri-food industry, including extending and strengthening the DFAIT current network of specialists abroad
- improved consultative and advisory mechanism to ensure a more effective government-industry partnership.

## Strengthening export financing

Competitive export financing is often critical to closing an export sale. Canada has a system of export financing, guarantees, and insurance, operated by the Export Development Corporation (EDC), and further assistance to exporters through the Canadian Commercial Corporation (CCC). These services are used by many firms. Many small and mid-sized businesses often do not participate in international trade, however, because the costs and risks of entering new markets are too high.

The government will take the following new export-financing initiatives.

- It will become easier to access information on export financing and other export development services. A simple user-friendly road map is being made available to new exporters through local commercial banks and government offices. An electronic bulletin board of trade financing information and programs is being established. The commercial banks and government agencies are setting up training programs.
- A new guarantee mechanism is being developed to encourage financial institutions to increase operating credit lines for small enterprises. Through this program, EDC will guarantee a portion of the value of export accounts receivable, enabling the banks to extend more operating capital to small exporters. EDC is currently working with several banks to develop and test this proposal. The testing phase will run into the first half of 1995.
- EDC and the commercial banks are creating a risk-sharing framework to broaden availability of medium-term financing. The idea is to enable commercial banks at the local level to provide medium-term export financing for small and medium-sized enterprises with export sales of up to \$10 million. This provides exporters with another option for their export financing needs, in addition to EDC lines of credit and direct loans.

### Unsticking point

PRO-ECO Limited of Oakville, Ontario, is a well-established Canadian machinery manufacturer. A deal with a Taiwanese customer hit a stumbling block when performance guarantees were required by the purchaser.

This request would have tied up 5 to 10 percent of much-needed working capital, so PRO-ECO went to the Canadian Commercial Corporation (CCC) for help.

The Taiwanese customer accepted CCC's role and guarantees of contract fulfillment. The performance bond was waived, allowing the company to put its working capital to more productive uses.

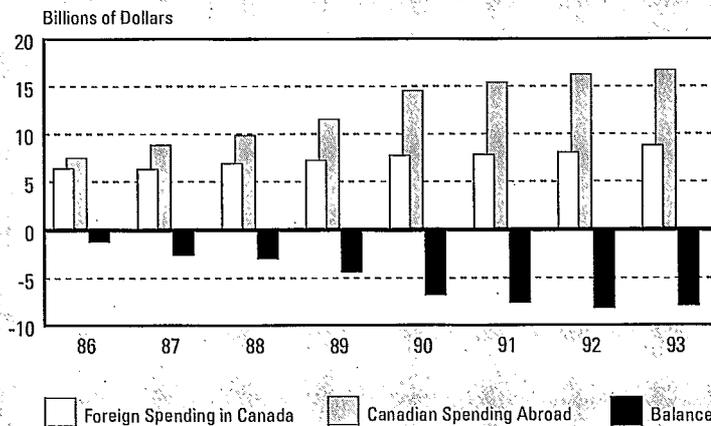
- A new mechanism is being established to provide pre-shipment export financing to small and mid-sized business. Through a partnership arrangement with CCC, banks will be able to extend loans to these firms on the basis of export contracts placed through CCC. This initiative is required because the working capital demands of an export sale lie beyond many exporters' normal credit facilities.

The total number of Canadian exporters is estimated at about 70 000, with the majority of them exporting less than \$50 000 a year. The export-financing initiatives will help to create Canadian jobs by increasing the number of active and regular small and mid-sized exporters.

### National tourism initiative

Although Canada is well placed to exploit the highly competitive and growing worldwide tourism market, it is not doing as well as it should. Canada has an extraordinary variety of tourism assets. But we have been running a huge tourism deficit, one that in 1993 amounted to \$7.9 billion. Canadians are spending far more abroad than visitors spend in Canada. This is not only costing Canadians income and jobs, but as Figure 14 shows, it constitutes over a quarter of our current account deficit, adding to our foreign indebtedness.

**Figure 14. Canada's Travel Balance**



Source: Statistics Canada.

With the improving global economy and the lower dollar, the time is ripe for a coordinated attack on our travel deficit. We have the makings of a larger tourist industry. Tourism is already big business. It employs more than 500 000 Canadians in some 60 000 businesses throughout the country and generates \$25.9 billion in gross revenue.

The government is responding with the National Tourism Initiative, based largely on the report of the Honourable Judd Buchanan, Special Advisor on Tourism to the Prime Minister. He held meetings with over 350 representatives of the Canadian tourism industry.

The program will establish effective partnerships between the tourism industry and all orders of government through creation of the Canadian Tourism Commission. The commission's prime responsibility will be to coordinate the marketing and promotion of Canada as a tourism destination. Decisions will be made by a board of directors drawn from representatives of each of the partners.

The National Tourism Initiative's second priority is to increase demand for Canada as a tourist destination, both among foreigners and Canadians. The federal government will increase funding of tourism marketing and promotion from \$15 million to \$50 million a year, to be coordinated by the tourism commission. The government expects other governments and the industry will augment this amount with additional spending of their own to reach the goal of a \$100-million annual marketing fund.

Third, the federal government intends to make better use of a number of its own tourism assets that can support this national tourism initiative. The government will reallocate resources and find new sources of revenue to promote attractions such as national parks, historic sites, and museums, and to support Aboriginal tourism and eco-tourism. Both the Atlantic Canada Opportunities Agency and the Department of Western Economic Diversification recently announced new initiatives and cooperative approaches to further develop our tourism potential.

Fourth, the Minister of Human Resources Development has recently announced a three-year program to upgrade skills in the tourism industry — an industry where people truly make the difference. The Canadian tourism industry believes the measures to be undertaken will have a strong effect on job-creation and Canada's balance of payments on travel.

# 5

## Infrastructure: To Meet Tomorrow's Needs

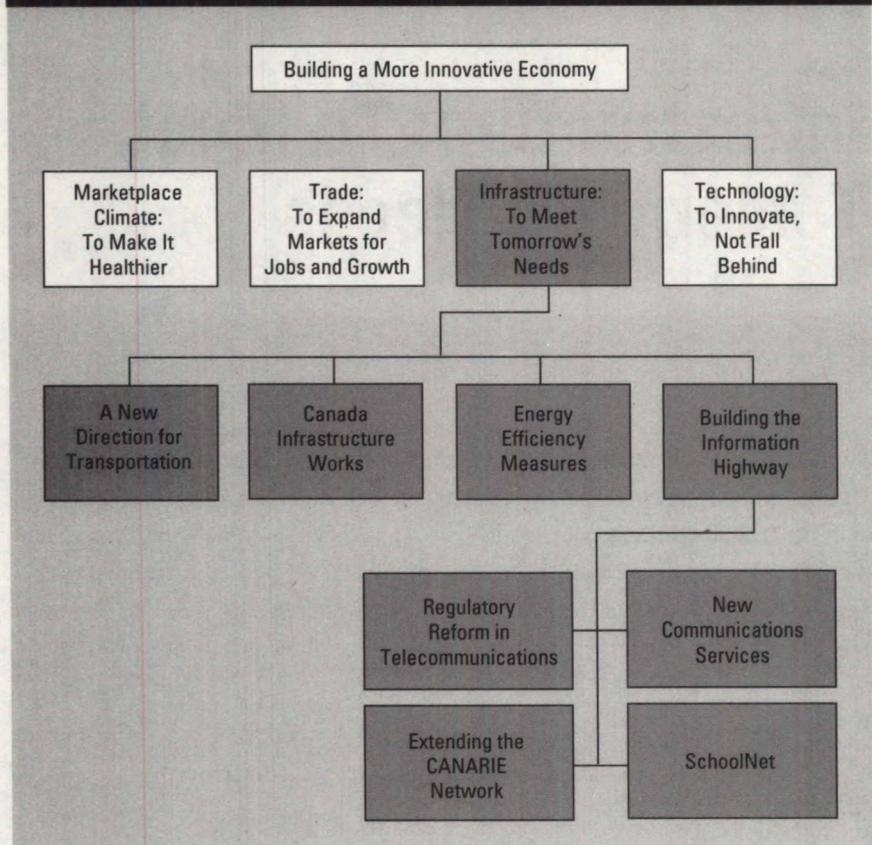
Infrastructure, productivity, and competitiveness must be closely linked in any growth agenda for the global marketplace of the 1990s. Robert Reich, in his celebrated book *The Work of Nations: Preparing Ourselves for 21st Century Capitalism*, put it this way: "The key to attracting the best jobs is to have the best-educated and best-trained work force, and the most up to date infrastructure. Those are the aspects of a modern economy — people and infrastructure — that don't readily cross borders, and therefore determine a country's competitive advantage."

Historically, Canada has invested heavily in infrastructure to support growth. The investments in transportation and education infrastructure in the 1950s and 1960s, and in telecommunications in the 1980s and 1990s, are modern examples. We must continue to ensure that existing infrastructure is efficient and that Canada improves its infrastructure as rapidly as our major trading partners.

Figure 15 outlines planned initiatives in the field of infrastructure, notably in transportation and telecommunications policy. In transportation, reduced subsidies and regulatory reform will create a more efficient and commercially oriented network. In telecommunications, the new regulatory framework will allow greater competition in building and operating the information highway. And, with substantial investment by the private sector and other orders of government, the federal government will be a partner in creating two Canadian segments of that highway: a national, high-speed research and test network and an electronic linkage to the information highway for schools, libraries, community colleges, universities and hospitals — CANARIE II and SchoolNet.

This chapter first turns to transportation, then deals with some other infrastructure initiatives. The concluding sections take up the information highway and the telecommunications revolution.

Figure 15. Infrastructure Initiatives



### A new direction for transportation

An efficient, reliable, safe and affordable transportation system is essential to strengthen Canada's growth and prosperity. However, the current transportation system is becoming an impediment rather than an advantage to Canadian businesses and consumers.

The transportation system has too much spare capacity. Many services are heavily subsidized and for the wrong reasons. The profitability and long-term viability of many segments of the industry are in peril. Travellers, shippers and carriers are being shielded from the real costs because they are being subsidized by taxpayers.

The environmental consequences of transportation systems, especially in urban areas, are becoming more acute and need greater attention.

Transport Canada has prepared a comprehensive policy framework to encourage rationalization of transportation infrastructure, including rail, airports, and ports, with clear priority for components that are commercially oriented and efficient. The government has set in train an ambitious agenda to achieve this objective.

- **Air.** Major airport operations and, by 1996, the air navigation system are to be commercialized. The National Airports Policy, announced in July 1994, establishes a framework to the year 2000 for transforming the government role in airports from owner and operator to landlord and regulator. A second initiative, commercializing Canada's air navigation system (ANS), will put operations on a more business-like basis, with air navigation services geared toward the needs of the aviation community. The government will also be announcing policy changes for Canada's airline industry to make sure that consumers continue to enjoy good, affordable service and that our airlines become financially viable.
- **Rail.** A comprehensive rail renewal plan will be ready in early 1995 to help ensure viable and efficient freight services from coast to coast and deal with the problems of overcapacity and over regulation. A separate task force is examining the future ownership and operation of CN North America and will report to the Minister of Transport by January 1995.
- **Marine.** The government is taking a detailed look at this sector with the objective of maintaining its vitality and competitiveness, while minimizing costs to taxpayers and shippers. The strategy will include decisions on the St. Lawrence Seaway, ferry subsidies, streamlining of ports management, and creation of an environment fostering increases in labour productivity in all sectors, including pilotage. The strategy also includes an assessment of the responsibilities of the Coast Guard, with the possibility of spinning off activities that others could undertake, such as commercial navigation services, port operations, and dredging.
- **Regulations.** Outdated transportation regulations will be revoked or revised by late 1995, making the regulatory regime more efficient and responsive. The government is committed to streamlining the regulatory regime, while supporting a safe, secure, and environmentally responsive transportation system.

- **Subsidies.** The government is looking to reduce or cease subsidies over the medium term. Taxpayers can no longer afford them at their present level. While some subsidies will continue to be required to ensure access to remote regions, most will be scaled down or eliminated.
- **Trade.** Implementation of the transportation components of NAFTA and the Internal Trade Agreement will facilitate east-west and north-south transportation. Mechanisms will be developed to increase trade under these agreements, including deregulation and harmonization of rules within the provinces for bus transport and trucking. The Canadian Council of the Motor Transport Administrators Board is preparing an implementation plan.

### **Canada Infrastructure Works**

Urban transport, water and sewage systems, and other urban facilities provided by municipalities are important elements of infrastructure, but Canada's investment in municipal infrastructure in recent years has failed to keep pace with requirements.

The government recognized local needs by launching the Canada Infrastructure Works program, a \$6-billion partnership of the three levels of government to raise the quality of the physical facilities of Canadian communities. About two thirds of project spending is being applied to the basic infrastructure services: roads, streets, sidewalks, water treatment and distribution systems, and waste management. The remaining third has been applied to public buildings, parks, recreation facilities, and the construction of other amenities important to the quality of life in our communities.

Over the next two years, the federal government will invest the remaining \$1.3 billion of the Canada Infrastructure Works program's total federal funding of \$2 billion, matched by provincial, municipal, and First Nations partners, and often involving the private sector. This investment will create 65 000 direct jobs and contribute to economic recovery throughout the country.

## Energy efficiency measures

The government recently announced two innovative energy-efficiency programs, one to demonstrate leadership in the management of its own buildings, the other to encourage other property owners to be innovative.

- **Federal Buildings Initiative (FBI).** This program, led by Natural Resources Canada, assists the 11 federal departments that are responsible for their own buildings in improving their energy efficiency. An innovative part of this retrofitting initiative is the financing; a private sector energy management company contracts to retrofit federal buildings for energy efficiency and obtains private financing for the upfront project costs. The government department then repays the company from the resulting energy savings, an approach called "savings financing." Fully implemented, this program will spur the development of the energy services sector, create more than 20 000 person-years of construction-related employment, and reduce Canada's energy consumption and reduce related emissions.
- **Municipal Buildings Initiative.** Complementary to the FBI, this program is supported by Natural Resources Canada and the Federation of Canadian Municipalities (FCM). Its purpose is to apply the FBI approach in 560 municipalities representing more than 80 percent of the Canadian population. A recent FCM study concluded that Canadian municipalities can save about \$200 million a year by undertaking energy-efficiency retrofits of their facilities. Fully implemented, the program could create up to 40 000 person-years of employment. Human Resources Development Canada is also supporting this initiative by working with municipalities and the energy management industry to ensure that they have access to skilled workers to manage and carry out the projects.

## Building the information highway

Canada already has world-class telephone, cable and computer networks, but users cannot easily move from one to another, nor can the networks handle full two-way communication in all services for all users. Transforming today's networks into a fully integrated system will allow Canadians to interact with one another using audio, video and multimedia services. That's the information highway, a key element in the government's plans to build a more innovative economy.

Our present infrastructure and networks would soon become inadequate without rapid development, since the United States, Europe, and Japan have launched massive programs to build their information highways.

The government will adopt a series of policies and programs to encourage the builders and users of the information highway. These will foster innovative techniques to improve economic growth and job opportunities, provide access to the network at reasonable cost, improve the climate for private sector investment in emerging technologies and services, and contribute to the raising of Canadian skill levels in information technologies.

The fully integrated highway will change the way Canadians work, shop, bank, communicate, obtain public services, and educate and entertain themselves. The information technology, telecommunications, and cultural industries today employ about 770 000 people in Canada and contribute some \$41.4 billion to the gross domestic product. Building the information highway of tomorrow can dramatically increase growth and employment prospects in this dynamic sector.

The next four subsections cover information highway policies and projects included in government initiatives to build a more innovative economy.

### **Regulatory reform in telecommunications**

Over the past decade, Canada has fostered a more competitive and integrated national market for telecommunications; competition has been introduced in the sale of terminal equipment, in the private lines resale markets, in cellular telephone services, and in long-distance services. We also have a new and modern *Telecommunications Act* designed to accommodate a more competitive telecommunications market. In each area where it has been introduced, competition has brought lower prices and greater choice for consumers, along with new investment and innovation in products and services.

The government favours a more competitive market for telecommunications, and the new regulatory framework unveiled by the Canadian Radio-television and Telecommunications Commission (CRTC) in September 1994 clearly moves in this direction. Remaining regulation will focus on the price of monopoly services, and on protecting competitors and consumers from potential abuse of market dominance. The CRTC also opened up local telephone service to competition by cable-TV companies and others. Further, steps have been taken toward allowing telephone companies to deliver, and even provide, content services, including video.

The commission also decided to bring the prices of local and long-distance telephone services more into line with the costs of providing them. Cabinet has been petitioned to re-examine this aspect of the CRTC decision. Cabinet will consider this petition and any other petitions filed in respect of any aspect of the decision.

The CRTC decision left many issues unresolved. It was limited to matters related to telephone company networks and services. For example, measures to ensure reciprocal access and interoperability of telecommunications networks do not apply to cable-TV network facilities. The CRTC regulatory framework also did not take up the question of whether telephone companies should be allowed to hold broadcasting licences, and the impact such a decision would have on the broadcasting system. Similarly, while telephone companies will be allowed to deliver video services to the home, CRTC did not consider the conditions governing their delivery of broadcasting services.

Since the government wants to move forward in a comprehensive and coherent way, the Minister of Industry and the Minister of Canadian Heritage have asked CRTC to hold public hearings and report on the implementation of telecommunications and broadcasting policies that will lead to fair competition between cable-TV and telephone companies, while at the same time maintaining a high level of Canadian content. An efficient, innovative and competitive distribution system will spark the emergence of a wide variety of information services and business opportunities, contributing to jobs and growth.

CRTC will report back before mid-1995. Following receipt of this report and the advice of the Information Highway Advisory Council, the government will complete the development of these related policies and start putting them into effect.

### **New communications services**

Some of the most exciting new services available today are in wireless telecommunications. The phenomenal growth of cellular telephones, paging, broadcasting, and advanced mobile satellite services indicates the potential of this innovative and rapidly expanding market.

The government wants Canadian business, workers and consumers to tap into wireless telecommunications services to spur innovation, and to bring new services and opportunities to remote communities. The Minister of Industry recently announced a new policy to give Canadians access to competitive regional and global mobile satellite services. In the months ahead, the government will announce a number of policy and regulatory initiatives to bring more competitive wireless services to Canadians. These initiatives will clear the way

for new radio-based services such as digital broadcasting, personal communications devices, advanced mobile satellites, and broadband local access facilities.

### **Extending the CANARIE network**

In 1993, the federal government joined with business people, educators and researchers to create the Canadian Network for the Advancement of Research, Industry and Education (CANARIE). This not-for-profit organization now has 140 members from industry and the research and education communities; they have joined forces to accelerate the introduction of high-speed networks in Canada. Over 200 firms and research institutes across the country have already worked on CANARIE projects.

Challenging technological development projects of this sort offer public benefits and spillover benefits to other organizations and projects for which the originating firm or firms receive little or no recompense. This means risk and benefit sharing between the public and private sectors is required. Without it, the pace and level of investment and research in key aspects of the information highway would be inferior to that of our main competitors.

The government will support CANARIE's business plan to speed the development of key parts of the information highway in Canada by investing \$80 million over four years, matched with an estimated \$396 million from the private sector and the provinces. The provinces played a positive role during phase I, and the next phase will also provide opportunities for their involvement and leadership. Plans for phase II foresee over 300 firms coming into the CANARIE consortium. Phase II will include several major advances.

- A very high speed experimental network will be created for Canadian firms to test advanced networking technologies throughout Canada.
- Innovative firms will receive assistance with market-driven research in advanced networking, so that Canadian suppliers rather than foreign ones can provide more products, services, and content on the information highway.
- The speed of the Canadian Internet network (CA\*net) will be increased to true multimedia capacity, equalling U.S. networks. At these speeds, Canadians will be able to exchange video, audio, and high-speed data, opening up whole new fields for teaching and research.
- The Canadian Internet will be extended into the Yukon and Northwest Territories by the end of 1995.

## SchoolNet

SchoolNet, a joint federal, provincial, and territorial initiative, is providing Canadian teachers and students with valuable and exciting electronic services to stimulate the skills needed in the global information economy. Over 4 000 of Canada's 16 500 schools are already electronically connected to the information highway through SchoolNet.

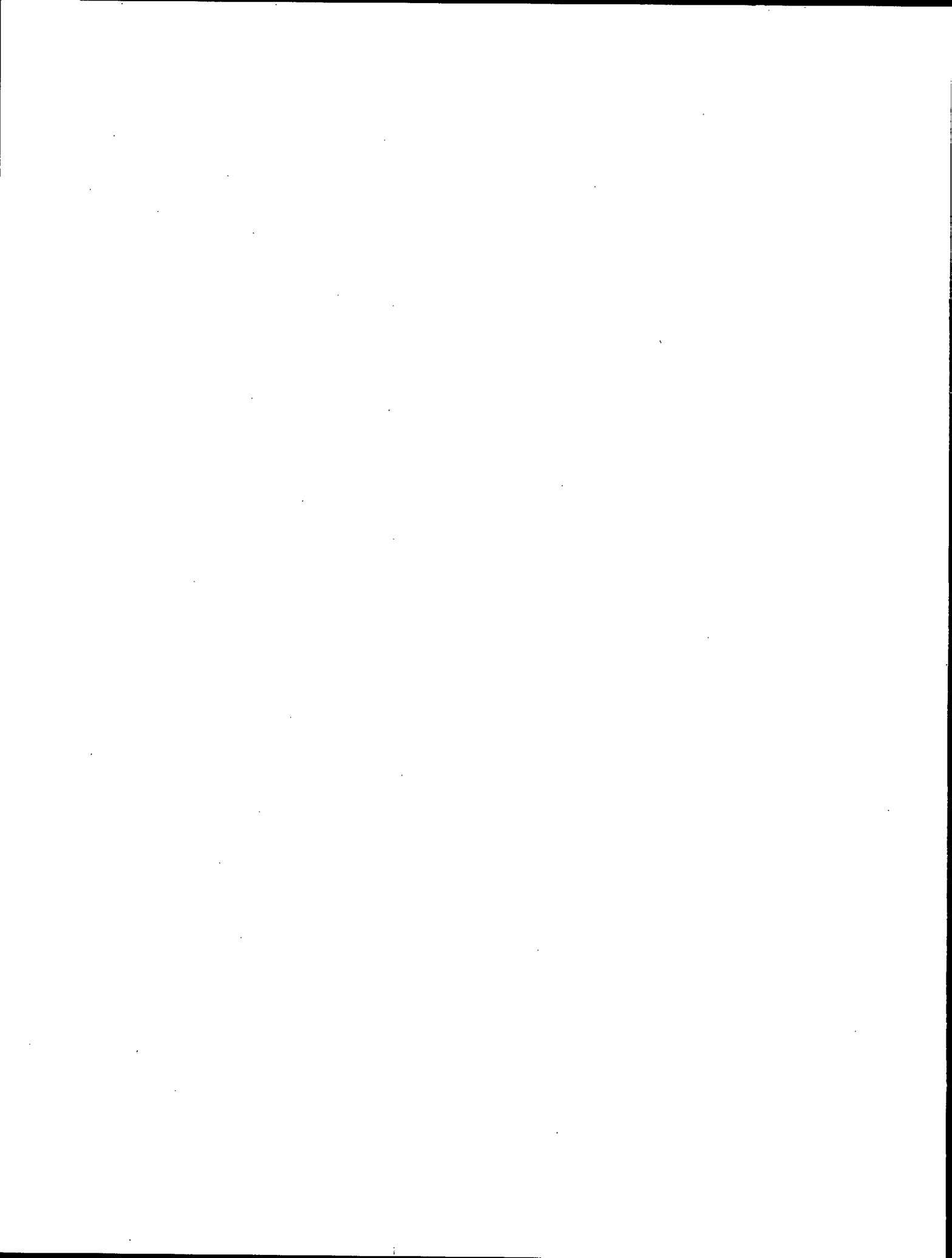
The government will invest a further \$13 million annually over the next four years to expand SchoolNet. Working with its partners, the government will implement the following four improvements by 1998.

- **Schools and public libraries.** Many schools that are anxious to join the SchoolNet initiative face budgetary and training problems. The same holds true for many of Canada's public libraries. The federal government wants to see all 16 500 schools and 3 400 public libraries connected to the information highway by 1998. It will work with educational and community partners, ministries of education, community freenets, and industry to bring this about. Federal funding of SchoolNet will be directed to services that make connecting with it more affordable and desirable. All Aboriginal schools under federal jurisdiction will be connected to SchoolNet.
- **Colleges and universities.** SchoolNet funding will also assist post-secondary institutions to save money and improve their services through electronic networking.
- **Computers for Schools Program.** This program will be extended to include public libraries and selected training centres.
- **SchoolNet Community Access Project.** Rural and remote communities face particular difficulties in electronically connecting to SchoolNet due to higher infrastructure and telecommunications costs. To share in the job and growth potential of the information highway, these communities need public on-ramps and training in how to use electronic services. For its part, the federal government will launch the SchoolNet Community Access Project to provide up to 1 000 rural communities with access to the information highway. Federal assistance will help cover equipment, connectivity and training expenses, and provide technical support and locally useful electronic content such as business services. Communities will compete for inclusion and will be expected to provide the sites, local project management, and financial support and services from local business, community groups, and government.

### Building SchoolNet

The original goal of connecting 300 schools by June 1994 has been exceeded. More than 4 000 of Canada's 16 500 schools are electronically connected, resulting in over a million accesses to SchoolNet services in one year.

The 120 original services offered through SchoolNet have been expanded to over 700, as many government and non-government organizations are working with Industry Canada to make their kindergarten-to-grade-12 information and services available through SchoolNet.



# 6

## Technology: To Innovate, Not Fall Behind

Science and technology are the wellspring of the expanding innovative economy, calling on people to do new things in new ways, and creating more jobs than the number they make obsolete, and at better pay.

Once the present process of policy review is completed, science and technology will be a key segment for initiatives to help build a more innovative economy.

### Science and Technology Review

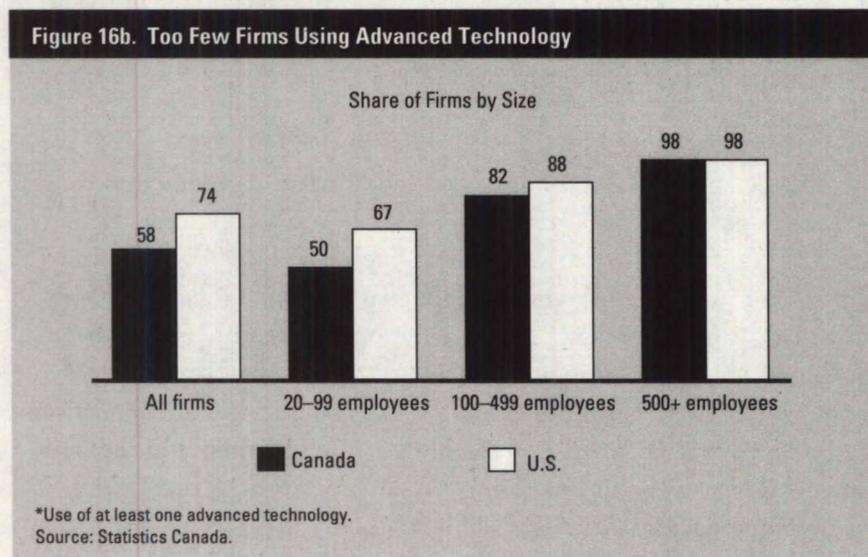
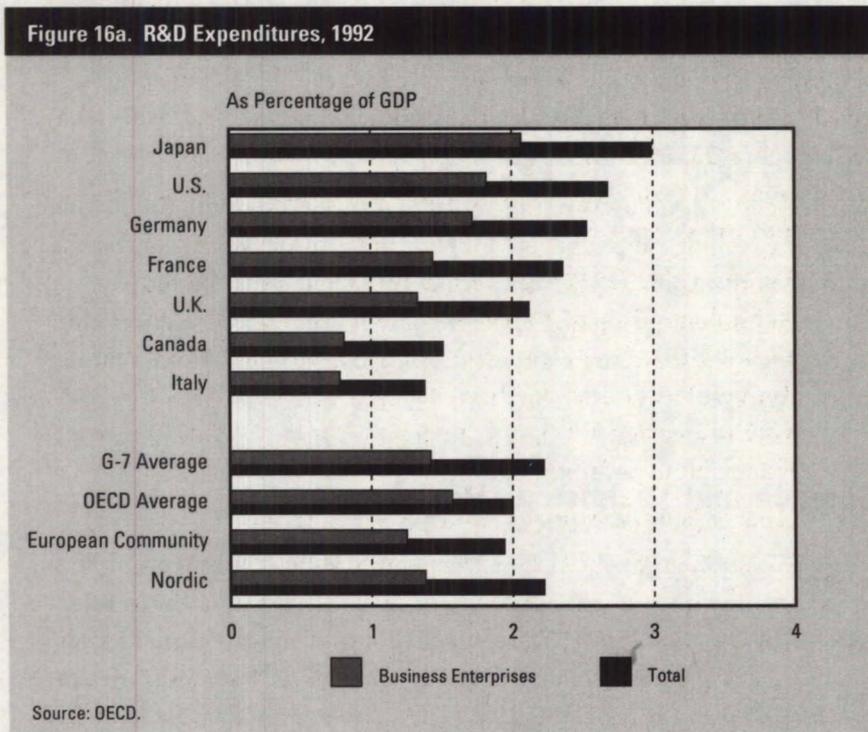
With \$6 billion annually in direct expenditures and another \$1 billion in tax support, the federal government is the largest investor in science and technology in Canada. The effectiveness of this investment is therefore a major determinant of the quality of the country's science and technology performance. Last June, a policy review was launched to make sure federal science and technology investments will:

- promote economic growth and job creation
- enhance the quality of life
- advance the leading edge of scientific knowledge.

The Science and Technology Review is nearing completion. It will lead to a new federal strategy for science and technology. To date, 25 community-based workshops, five regional workshops, and a national roundtable have been conducted, involving over 2 200 Canadians from all walks of life. In addition, written briefs have been received from over 350 individuals and organizations. Based on this input, as well as that from internal task forces, policy recommendations are being developed, with government decisions to follow in the new year. The next two sections discuss the broad directions that new technology policies will have to address.

### The contribution of technology

The overwhelming message received throughout the review is that science and technology affect all aspects of Canadian life. From ensuring the safety of our food supply to the development of world-beating commercial products, a sound base of science and technology is critical to our well-being.

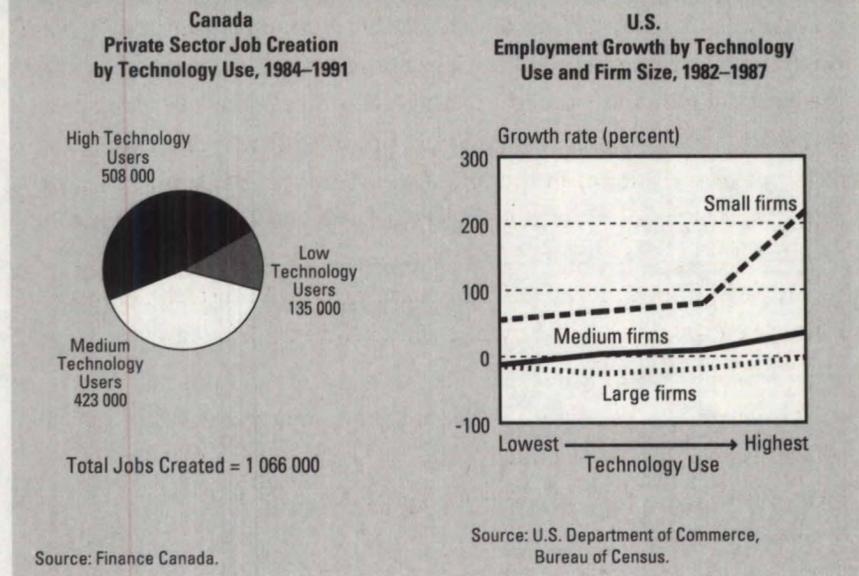


Figures 16a and 16b show that by most measures, Canada's national science and technology performance lags behind that of our major trading partners. This is particularly so for small business adoption of technologies and big business spending on research and development. In contrast, federal support for civil R&D is comparable with that of the other Group of Seven countries, and Canadian tax treatment of scientific research and development is the most generous offered by any industrialized country.

The federal government has an important stewardship role to play in harnessing its science and technology programs and assets to economic, social, and environmental goals. The review of science and technology has recognized critical issues that federal policy makers must address if our science and technology is to provide economic growth and job creation to the greatest extent possible.

- To ensure a high return on its investment in science and technology, Canada must have a more systematic approach to ensuring that new ideas have every opportunity of flowing through to commercial products and services. This means fostering greater linkages between all participants in the national system of innovation.
- Canada needs a stronger science culture to ensure that entrepreneurship and innovation are valued and rewarded.
- With globalization, Canada faces stiff competition for international markets. To win, we must concentrate our efforts, work more cooperatively, and develop more forward-looking, anticipatory planning and support mechanisms, particularly for the technologies that will be critical to positioning industries to compete.
- Canada cannot afford to pursue all lines of scientific and technological development. Priorities must be set and measurable goals must be established with clear accountabilities.
- As the largest performer of R&D in Canada, the federal government has a special responsibility to ensure that its laboratories play an effective and appropriate role in the commercialization of technology.
- Given the structure of the Canadian economy and rapid and complex technological change, it is clear that effective technology diffusion will continue to be critical to industrial competitiveness. Rapid dissemination of technical knowledge to industries that are ready to adopt or adapt technology is essential.

Figure 17. Technology Creates Jobs



**Environmental Investment**

INCO's development of oxygen flash furnace technology represents a significant investment in environmental protection and in making its operations more efficient and competitive.

With research and development assistance from Industry Canada toward improved smelting technologies, INCO is now able to contain 90 percent of the sulphur found in the Sudbury area ores and convert sulphur dioxide into marketable sulphur products and reduce acid rain generation.

The technology virtually eliminates the need to burn fossil fuels that produce greenhouse gases and enables INCO to more than meet government pollution emission limits. It is also expected to generate cost savings to INCO each year of \$70 million.

The impact of technology on jobs is all-important. Ever since the beginning of the first industrial revolution in the 18th century, the introduction of new technologies has meant both the transfer of jobs from one sector to another (from agricultural labour to the production of farming equipment, for example) and the ultimate creation of more and better jobs throughout society.

Figure 17 shows that, continuing into recent times, the largest users of technology have created the most jobs. The more intense the use of technology, the greater the job creation over time. A challenge for public policy is that the jobs created by new technology are frequently not accessible to the people who have been displaced.

Figure 17 also shows that it is the smaller firms that grow the most by use of new technologies, although firms of all sizes benefit. Technology is critical to the development of all sectors, and is particularly important for Canada's natural resource sectors, as we saw in Chapter 1.

**Adopting the right policies**

Like its trading partners, Canada cannot afford to pursue all possible avenues of technological development that may produce market opportunities; hard choices must be made. We have touched earlier in this report on the case for government intervention in certain cases. Let us expand on the needs in the field of technology.

Firms are often reluctant to invest in technologies because they cannot reap all the benefits that result. For example, enabling technologies, such as biotechnology, are radically transforming the basis of competition in whole industries and are creating new industries. Often, these technologies are generic in nature — capabilities developed in one sector can be applied in another. In cases of such externalities, there may be a role for government to invest on the grounds that other firms, sectors and, indeed, the public at large will derive substantial benefits. Certain environmental technologies are a case in point. As a result, the Minister of the Environment and the Minister of Industry announced the Canadian Environmental Industry Strategy in September 1994.

Governments elsewhere in the world sometimes mobilize national resources and institutions to give their firms comparative advantage through support for technology development and commercial exploitation in certain sectors. The Canadian government must have some strategic capacity to give comparable advantage to domestic firms in areas where they can compete.

Canadian industry particularly needs a level playing field with U.S. industry, since both are integrated within the North American economy. Any advantage for U.S. industry through American technology policies can have a direct and immediate impact on Canadian industrial competitiveness; recent U.S. actions on the technology front raise this prospect. Canada's industrial structure and lower intensity of industrial research means that Canada is often competing from a lower base of technology development and adaptation.

In some areas of science and technology, countries can no longer afford to go it alone. Facility costs, project costs and technical risks are so high that international cooperation is often the most appropriate route by which important scientific and technical work can be pursued. Governments have an important role to play in fostering this type of cooperation, ensuring fair and equitable access, and ensuring that the results are distributed appropriately.

These considerations are being taken into account as the government prepares initiatives in science and technology to help build a more innovative economy.

### **A little help goes a long way**

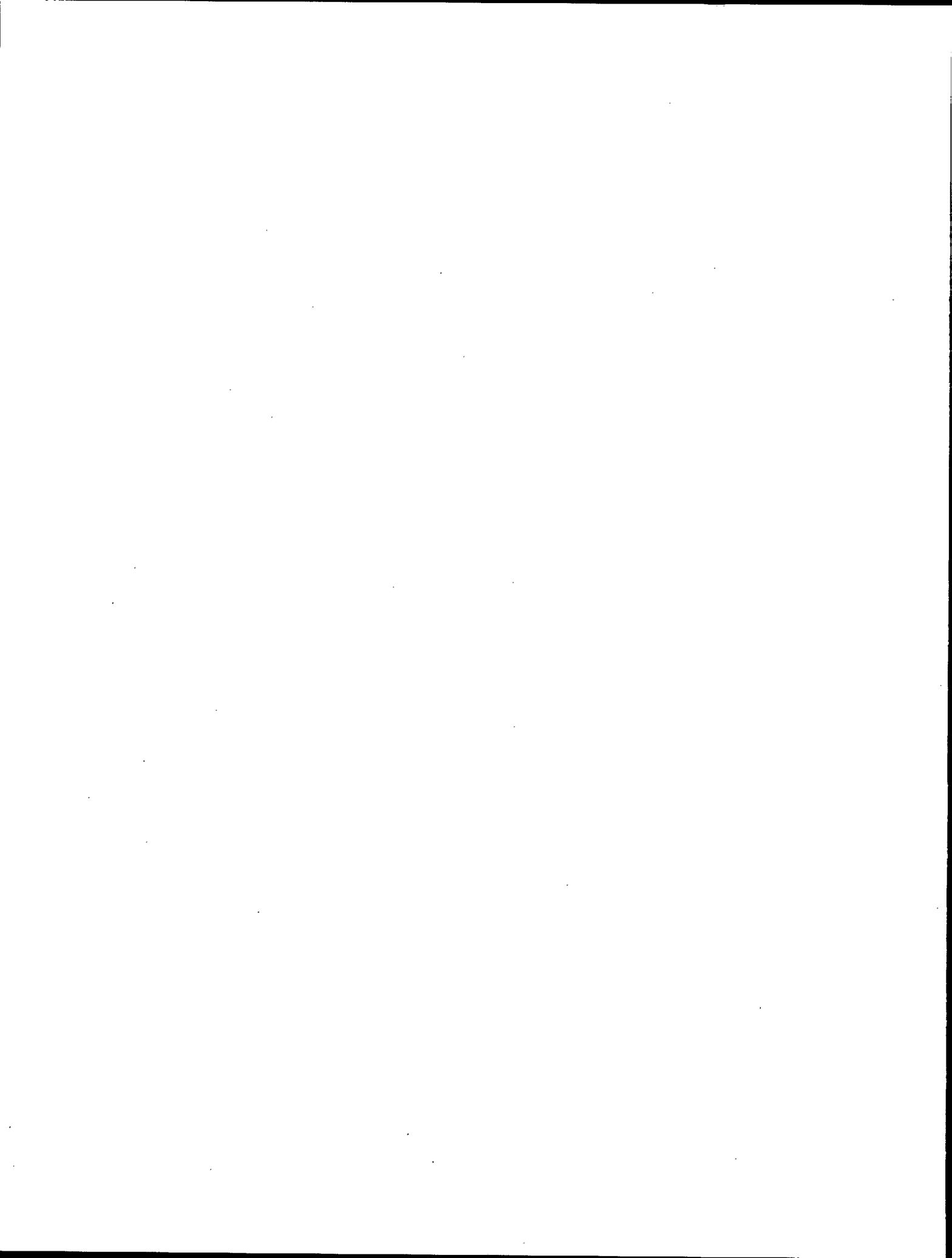
GE Hydro of Lachine, Quebec, an independent division of GE Canada, designs and manufactures hydroelectric generating equipment. The company, assisted by the federal government, developed energy-saving technology to improve the efficiency of its turbines and generators.

As a result, GE Hydro has won contracts for five of the world's six largest hydroelectric projects, including a \$200 million contract for a project in China. These successes will benefit as many as 500 supplier firms and will create about 45 000 person-years of employment in Canada over the next five years.

### **Attacking mine drainage problem**

Acid mine drainage is an environmental liability that has cost the Canadian mining industry an estimated \$3 billion to \$5 billion.

The federal government, in cooperation with a number of provincial governments and academic institutions, has addressed this problem through the development and transfer of technology under the Mine Environmental Neutral Drainage Program (MEND). One company, Teck Corporation of B.C., estimates that use of the technology has saved \$40 million to \$50 million in future closure costs at a new mine in Quebec.



# 7

## Conclusion: A Time for Breakthroughs

The twin trends of innovation and globalization in the world economy offer Canada new opportunities to break through to the age-old economic objectives of diversifying both our economy at home and our markets abroad.

The government's plan of action for building a more innovative economy exploits these possibilities with wide-ranging initiatives to make the domestic economy more efficient and to strengthen the marketing of Canadian products and services abroad. Our economy has the potential to break through the limits of the present cyclical recovery into an era of solid expansion.

We have the basic educational, research, entrepreneurial, and technical skills to take full advantage of innovative technology. The current recovery is a springboard for further job creation and economic growth. We can use the sharpening of competitive skills that is necessary to exploit NAFTA to carry our exports in greater volume to other markets.

Often in the past, Canadians have bemoaned the absence of a large and vibrant domestic marketplace as a limit on diversifying production and markets. Today we are nearly 30 million, having added a full third of our present population in the past third of a century. That makes us a midsized nation by world standards, and it is a substantial base of purchasing power if we exploit it to the full under the new internal trade agreement.

The government's plan of action concentrates on the way business is done and needs to be done in the future, and on the way government can assist the private sector in innovation and job creation. It cuts across all sectoral and regional issues and concentrates on the human sinews — the real strengths — of the economy.

The government will play its role, but it is the Canadian people, primarily those in the private sector, who will make the economy work. Similarly, broad cooperation will be necessary to put the agenda for jobs and growth into action: a partnership between all orders of government, between the public and private sectors, and between all the enterprising forces that make the private sector work.

Fiscal restraint has meant strict avoidance of the kind of programs that would try to solve problems by throwing money at them. We have sought to reform programs rather than create new ones. We are financing initiatives by reallocation, not by increasing spending. The initiatives also include clear targets by which to evaluate performance and determine whether the goals have been reached.

The extent of detail in the government's plan for building a more innovative economy, with much more still to come, illustrates in itself the vast capacity to act together in the common good that we have created in Canada. We must use all of these advantages to make the breakthroughs that are within our grasp. We must keep our national focus on creating more and better-paying jobs in order to raise our living standards.

Present plans for building the innovative economy are neither a beginning nor an end. They are based on solidly established foundations. Further steps will be taken within the framework of the plan as reviews and policy-making processes now under way come to fruition.

The initiatives will improve the job-creating capacity of the private sector in short order, but yield their full benefits in the intermediate term. The breakthrough from mere recovery to strong economic expansion will come only through innovation. Innovation — to undertake the new, different, and challenging — is a fitting challenge for all sectors of the Canadian economy.