



Environment  
Canada

Environnement  
Canada



CLEAN

AIR

TECHNOLOGIES

A DIVISION OF  
TECHNOLOGY DEVELOPMENT BRANCH  
ENVIRONMENT CANADA

Canada<sup>131</sup>

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# Canada's Green Plan

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*Science and technology are  
important elements of Canada's  
commitment to a cleaner environment  
in the 21st century.*

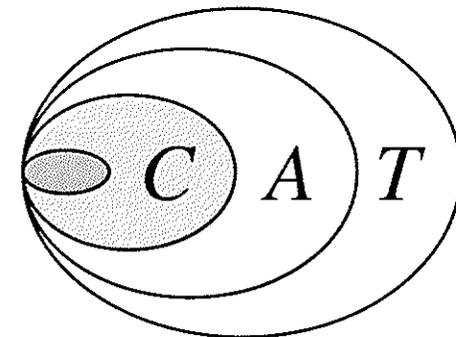
In support of this commitment, the federal government has an Action Plan to encourage the development of environmental technologies, to provide solutions to environmental problems, and to offer economic opportunities to Canadians.

For additional copies of this booklet, please contact:

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Cover photo: P.A. Jones



CLEAN AIR TECHNOLOGIES DIVISION:

A response to Green Plan  
initiatives on air pollution



CANADA'S GREEN PLAN

*Printed on  
recycled paper*



## Clean Air Technologies Division

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### *Clean air solutions for today and in the future*

In 1990, the **Clean Air Technologies (CAT) Division** was formed within the Technology Development Branch (TDB) of Environment Canada. TDB supports the development of environmental technologies for pollution prevention, control, and remediation. **CAT's** role is to help Canadians capitalize on opportunities to reduce air emissions.

The **CAT Division** is a dedicated group of specialists who establish partnerships and networks to link air issues stakeholders. These include equipment suppliers, users, manufacturers, research organizations, universities, and government.

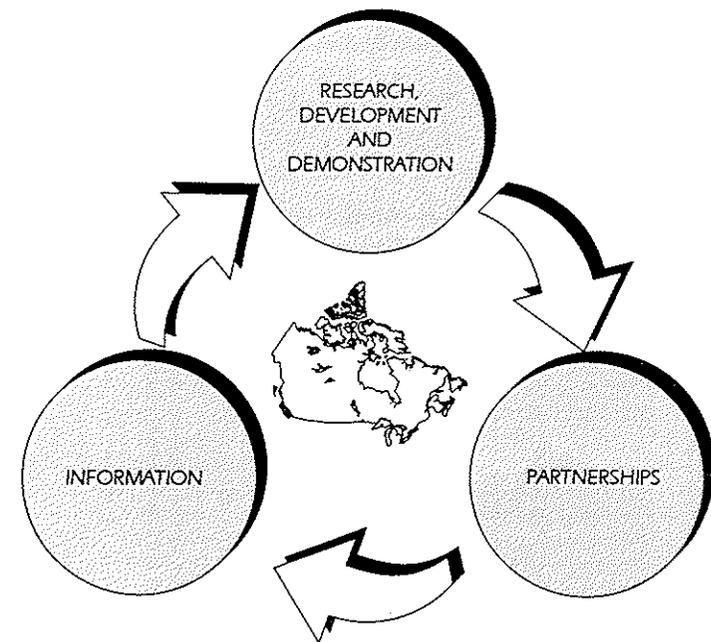
Since air issues are so complex, the **CAT Division** focuses only on stationary sources of air pollution. **CAT** actively pursues the many challenges and opportunities available in this rapidly growing environmental sector.

The **CAT Division** ensures that initiatives for developing clean air technologies are coordinated and support sustainable development. Through the National Advisory Committee on Clean Air Technologies (**NACAT**), the **CAT Division** ensures that stakeholders respond to Canadian and global environmental issues. Only through a coordinated approach can Canadians succeed in the national and international marketplace.

## Objectives

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- To stimulate **research, development, and demonstration (RD&D)** of technologies to deal with national and global environmental air issues.
- To provide **information** about clean air technologies to government and industry in order to improve decision-making on policy, technical, and regulatory issues.
- To establish Canada as a world leader in clean air technologies through **partnerships** among stakeholders (equipment suppliers, users, manufacturers, research organizations, universities, and government).



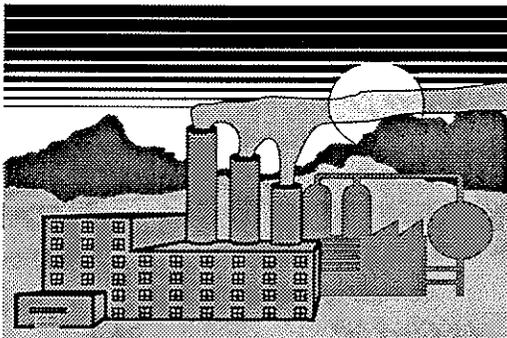
## Air Pollution - The Challenge

### What is air pollution?

Acid precipitation, ground level ozone (smog), depletion of the ozone layer, toxic air emissions, greenhouse gases, and visibility problems.

- More than 20 million tonnes of common air pollutants are emitted into the environment every year by anthropogenic activity in Canada alone.
- More than 1500 facilities in Canada each emit in excess of 100 tonnes of pollutants yearly into the atmosphere.
- By 1995, more than 175 potentially toxic substances will require monitoring for possible control.
- An estimated 70 000 chemical products are in use worldwide and over 1000 new formulations are introduced every year.
- Tighter environmental standards around the world will increase the demand for cost-effective compliance measures.
- The pollution prevention approach to clean air provides opportunities for gaining a competitive edge in the global marketplace.

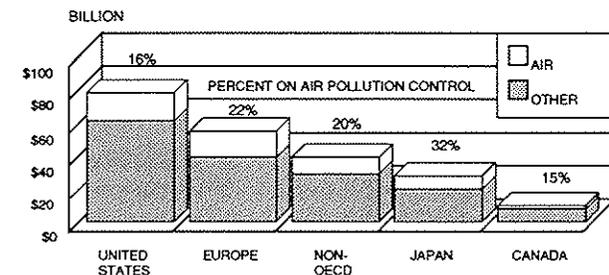
*Clean Air Technologies Division -  
Promoting innovative solutions for air pollution control*



## Business Opportunities

- Air pollution control is a rapidly growing industry. The market for air pollution control has reached \$15 billion\* annually in North America, with a projected annual growth rate of 5%. Approximately \$7 billion is spent on stationary sources and \$8 billion on mobile sources.
- The United States Clean Air Act Amendment of 1990 will add another \$5 to \$9 billion per year to spending on air pollution control. Most of this money will go to equipment manufacturers, service companies, and consultants.
- Potential markets for air pollution technology are rapidly expanding in Eastern Europe, Pacific Rim, and Latin America. It is estimated that the global market will reach \$50 billion by the year 2000. Canada must position itself as quickly as possible to capitalize on this significant opportunity.
- Control technologies, such as scrubbers, absorbers, fabric filters, and precipitators, will have good market potential. Related services, such as air and emissions monitoring, inspection, compliance assurance, and maintenance, will also have significant potential for these markets. Innovative technologies, such as biofilters, bioscrubbers, and ceramic filters, will provide Canada with a competitive edge to secure an important share of these markets.

WORLD MARKET SPENDING - 1990 POLLUTION CONTROL



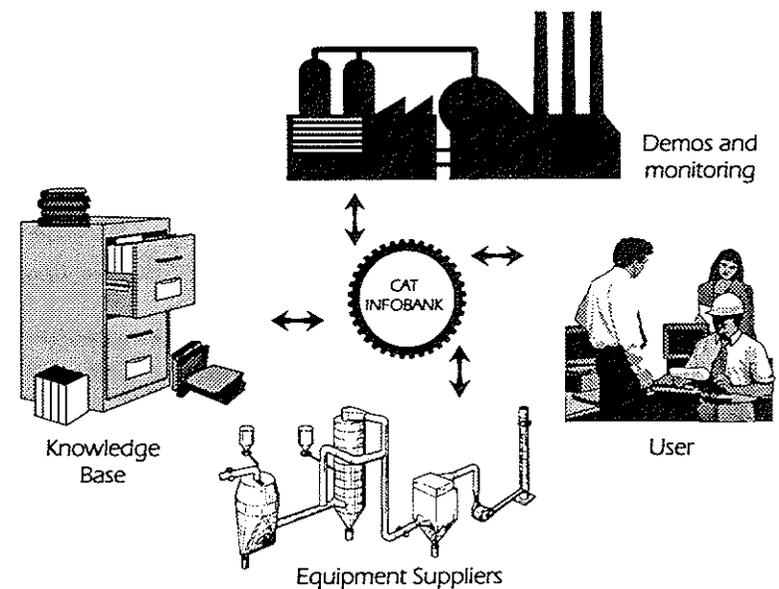
\* billion = 10<sup>9</sup>

## Technical assistance offered.....

- Guidance and expert technical advice to researchers, scientists, consulting engineers, and industrial officials involved in developing clean air technologies.
- Expert technical advice and assistance with submissions to incentive programs administered by Environment Canada for funding clean air technology projects.
- Assistance in expediting submissions to other federal assistance programs, such as the Industrial Research Assistance Program administered by the National Research Council.
- Technical reviews to identify technology needs and opportunities in support of current and emerging environmental issues.
- Control option studies for recommending cost-effective, add-on air pollution control technologies or pollution prevention measures.
- Evaluations of innovative technologies and their potential uses in support of developing national guidelines and regulations.
- Identification and support of fundamental R&D in innovative and promising clean air technologies.
- Coordination of pilot- and full-scale RD&D programs on innovative and promising clean air technologies.
- Management and technical support for on-site demonstrations of new technologies in partnership with industry.

## Up-to-date information provided.....

- Single-window approach for managing global information on control technologies and air pollution prevention measures.
- Accurate, timely, and relevant scientific advice on clean air technologies and suppliers.
- Technical support, advice, and recommendations on technology needs and opportunities for the National Advisory Committee on Air Technologies (NACAT) and coordinating committees on federal-provincial air issues.
- Information sources to assist Environment Canada's regional offices in dealing with local issues.
- Strategic business and technical information on innovative clean air technologies being developed in other countries, particularly Germany, Japan, and the United States.
- Information-sharing through technology transfer forums and conferences to assist technology developers to establish partnerships with potential clients.



## Effective networking encouraged.....

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- Provides a broad network of representatives from industry, universities, research organizations, users, suppliers, and governments.
- Establishes strong links with experts on air pollution issues within Environment Canada and other federal and provincial government departments.
- Promotes partnerships between Canadian and international companies in order to take advantage of international opportunities.
- Keeps Canada informed about environmental activities through involvement with such international organizations as the United Nations, the United States Environmental Protection Agency, the Mexican Department of the Environment, and the Air and Waste Management Association.

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