CETAC

Advancing Technologies for Environmental Performance

Canadian Environmental Technology Advancement Centres (CETAC)

PERFORMANCE REPORT 2002

Environment Canada Environnement Canada

Canada

Contents

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Achieving Sustainable Development

The mission of Environment Canada is to make sustainable development a reality in Canada. The development and implementation of modern and innovative environmental technologies are among the favoured means to prevent and solve environmental problems, and to ensure that industrial processes are both efficient and respectful of quality of life and the environment. Accordingly, the promotion and use of environmental technologies contribute to the well-being of communities and to responsible economic growth.

By creating the *Canadian Environmental Technology Advancement Centres* (CETACs) Program, Environment Canada has equipped the Canadian environmental industry sector with the capacity and ability to support the development of innovative technologies that address Canada's environmental priorities. Since their establishment in 1993 in three major regions of Canada, the CETACs have offered their expertise and resources to help environmental companies succeed in the marketplace.

This report highlights some of the Centres' main activities in recent years. It also details the performance and spinoffs of the program's activities. The report contains success stories of companies across Canada that have benefited from the support of the CETACs in the past, or that are currently making use of their services.

Examples of synergies between CETACs and other government incentives programs, which have been instrumental in the development of environmental technologies in Canada are also provided in order to emphasize the CETACs contribution to the environmental industry sector.

CETACs: the Impetus for Environmental Technologies and Industries

The three *Canadian Environmental Technology Advancement Centres* were established in 1993 by the federal government in partnership with the provincial governments, environmental industry associations and the private sector.

The Centres are private sector corporations operating at arm's length from government. They provide a wide range of services related to company financing and management, as well as the development and commercialization of environmental technologies and products.

Essentially, the CETAC Program is designed to help companies secure financing and find the best way to commercialize technologies that address Canada's environmental priorities and offer effective solutions to major environmental problems. Historically, Environment Canada was the primary force for their establishment under the Green Plan, and has since then continued to provide funding and oversight for the Centres.

The CETACs are based in Québec, Ontario and Alberta so that they can serve Canada from east to west. Their specific mandate is to work with environmental technology entrepreneurs, and help them set-up viable and profitable enterprises that contribute to the growth, development, and impact of Canada's environmental industry sector. Each Centre is able to offer a wide range of services that support the deployment of environmental technologies.

Corporate profile (2002):

Number of employees:	10
Technology advisors:	7
Business volume:	$1.4 million
Self sufficiency:	68%

Client profile (2001-2002):

Air quality and greenhouse-gas emissions	8%
Ecosystems and agro-environment	5%
Site remediation and groundwater	8%
Environmental modelling and management	13%
Toxic waste	5%
Water quality	27%
Waste management	12%
Clean energy and energy efficiency	22%

For service or to request an annual report:

Enviro-Access
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E-mail: mlaporte@enviroaccess.ca
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Innovative

CETAC–WEST for Western Canada

Enviro-Access for Eastern Canada

Enviro-Access is headquartered in Sherbrooke, Québec, and has offices in Montreal. Over the past eight years, Enviro-Access has become a strategic player in promoting, coordinating and managing environmental projects that are key to the development of environmental industries and technologies. During the last year, 37 companies (both existing and start-ups) have made use of the Centre's services.

CETAC-WEST is headquartered in Calgary, Alberta, with an office in Saskatoon, Saskatchewan. This Centre has been a catalyst in the development of clean energy technologies in support of Canada's climate change targets. Over the years, this Centre has championed the environmental solutions put forward by SMEs by adding value to their technological innovations. In 2002, CETAC-WEST worked with more than thirty companies in various environmental sectors.

Corporate profile (2002):

Number of employees:	8
Technology advisors:	5
Business volume:	$1.1 million
Self sufficiency:	58%

Client profile (2000-2001):

Air quality and emission reduction	8%
Greenhouse-gas reduction	42%
Toxic substances	22%
Water quality	17%
Energy efficiency	17%
Other	37%

For service:

CETAC-WEST

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Web site: www.cetacwest.com

OCETA for Central Canada

Corporate profile (2002):

Number of employees:	25
Technology advisors:	6
Business volume:	$3-3.5 million
Self sufficiency	86.6%

Client profile (2000-2001):

Air quality and emission reduction	47%
Greenhouse-gas reduction	32%
Toxic substances	3%
Water quality	50%
Energy efficiency	38%
Other	32%

The Ontario Centre for Environment Technology Advancement (OCETA) is headquartered in Toronto, Ontario, with offices in Hamilton and Waterloo. OCETA makes a vital contribution to the Canadian environmental industry by bringing efficient and profitable environmental technologies to sustainable development, whether in resource development, site remediation, urban planning or renewable energy production. In 2002, the Centre delivered services to almost thirty-five client companies, in addition to 5 enterprises field testing their technologies.

For service or to request an annual report:

OCETA

63 Polson Street, 2nd Floor, Toronto, Ontario M5A 1A4

Telephone: (416) 778-5264

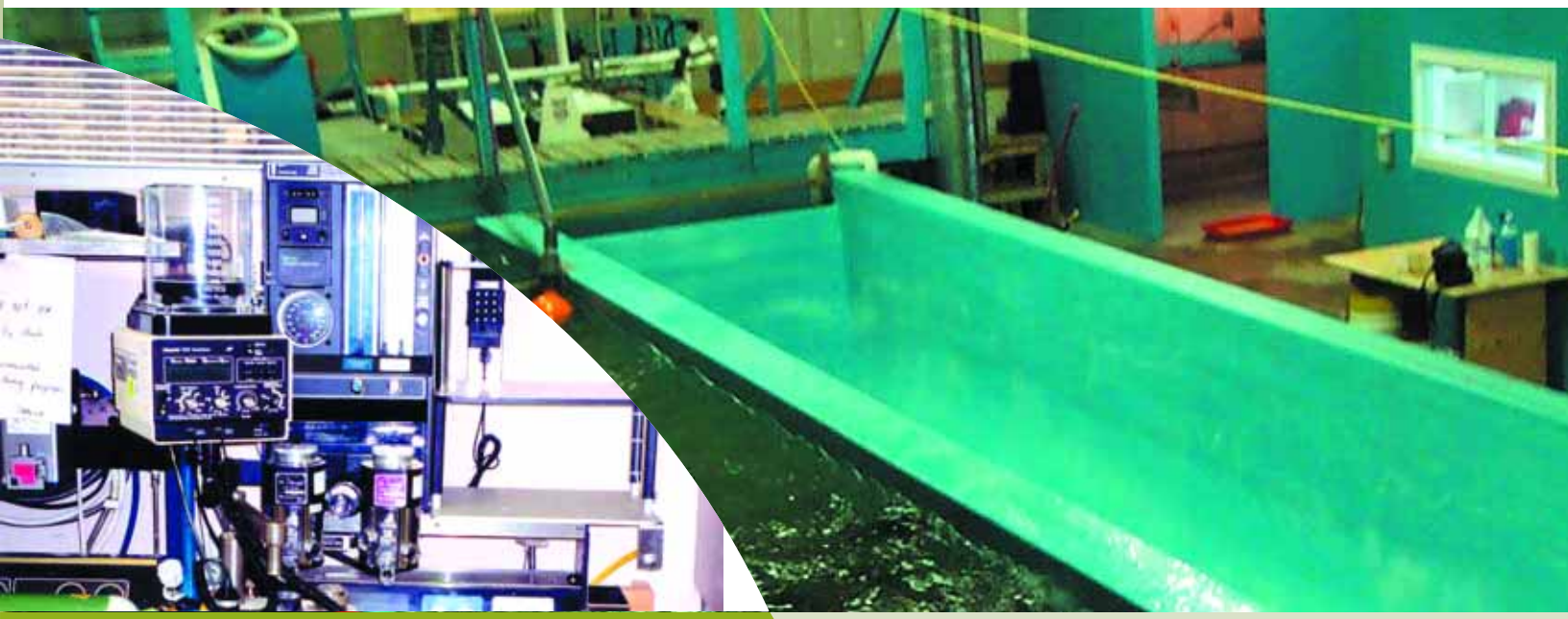
E-mail: oceta@oceta.on.ca Web site: www.oceta.on.ca

N.B.: Some enterprises are active in multiple sectors.

Technologies for a Better Environment

The CETACs are constantly searching for promising innovations in the environmental sector. Each year, they meet with hundreds of innovators and business startups from across Canada and evaluate business opportunities with these companies, which include new start-ups as well as companies that are already investing in new environmental technologies. The preferred technologies are ones that bring effective solutions to environmental problems, as well as contributing to economic growth. Potential clients that choose to join forces with the Centres can count on the teams in place to take them through the various stages of development of their environmental technologies from research right up to marketing.

The CETAC acts as a mentor to the client entrepreneur throughout this process. This calls for in-depth knowledge of the environmental context in which the new technologies will fit, as well as a thorough evaluation of the technology and its potential markets, both domestic and international. The environmental industry sector's technology requirements are in a constant state of flux. Water treatment in facilities that are not connected to municipal networks, detection of contaminants in increasingly smaller concentrations and reclamation of organic wastes from municipalities, farms and industries are just a few examples of the new challenges facing environmental specialists.



OCETA – Blue-Zone Technologies Ltd. Reclamation of Anesthetic Gases

Partners: Private investors, 10 Ontario hospitals, Industrial Research Assistance Program (IRAP) & National Research Council (NRC), Sunnybrook Venture Fund

Blue-Zone Technologies Ltd. has developed a unique process for the reclamation and purification of anesthetic gases from hospital operating rooms suitable for reuse. OCETA supported the company in obtaining funding for field testing of its process in six Ontario hospitals. The anesthetic gas reclamation technology is destined for large-scale commercialization in all hospital settings. The process not only improves hospital air quality, it also reduces atmospheric emissions of these potent greenhouse gases. OCETA advisors also provided information to company officers on the potential emission trading market and brokered meetings with potential investors.

ENVIRO-ACCESS – Bio-Aqua Clean Water for Aquaculture

Partners: The SM Group International, National Research Council (NRC), Environment Canada (EC), Canadian Economic Development (CED), Québec Environmental Priorities Foundation in Science & Technology

BIO-AQUA technology is a water treatment system for raising fish in an industrial setting. The technology, which recycles all water used, relies on a bioprocessing procedure with an automated robot for continuous cleaning of the basins. The market for this system, which conserves substantial amounts of water and avoids the disposal of contaminants in lakes and rivers, is very promising, considering the growing importance of aquaculture in Québec. Enviro-Access collaborated in the feasibility studies, and helped in obtaining partners and funding for a commercial application of the BIO-AQUA technology. The reductions in water requirements and waste materials are environmental benefits that will lead to increasingly broader use of this technology in the aquaculture industry.

Demonstrating Promising Technologies

Often, even when environmental problems are clearly identified and the technologies exist to address them, the first step toward assuring market adoption is to demonstrate the technology's performance. The CETACs provide the technical, legal and financial advice and support to the owner of the technology that is necessary to prepare for a demonstration.

Public debate, environmental regulations and government priorities are creating a favourable environment for the emergence of new and promising niches in the environmental industry. The Centres are there to support companies as they develop their technologies, products and marketing in response to the constantly changing context. Greenhouse gas reduction, the elimination of agricultural pollution and the replacement of toxic and hazardous substances are a number of areas in which environmental action has become a high priority.

The CETACs – Treatment of Hog Manure

Multiple Solutions to Pollution from Hog Farming Operations

Problems related to agricultural pollution are headline news. Hog production in particular is an area of concern requiring concrete, competitive solutions for manure treatment. Enviro-Access, CETAC-WEST and OCETA are each working with a number of environmental technology developers on several demonstration projects. A dozen companies have received support from the Centres to develop, test and demonstrate processes that offer technical solutions to the problems of nuisance odour and pollution created by hog manure.

CETAC CECATE

CETAC–WEST

- Integrated Waste System of Calgary has a closed-loop treatment process that results in dry matter and grey water;
- Cleanit-Greenit Composting System of Edmonton produces high-quality compost from hog and cattle manure, and other organic waste products;
- Sunset Solar of Saskatchewan uses a bioremediation technology in Little River Pond Mills to accelerate the decomposition of manure in oxygenated storage lagoons;
- PDK Projects Inc. of Winnipeg uses infrared spectroscopy as a tool to analyze hog manure for nutrient values and to determine the technical parameters for further treatment;
- Ag Waste Management Corp. of Manitoba has designed a manure application and management system, which optimizes the use of nutrients and minimizes the nuisance of odour;
- BP Environmental of Edmonton developed a closed-tank aerobic digester system for manure treatment and odour reduction;
- System Ecotechnologies Inc. of Saskatoon has a technology for manure treatment by chemical separation which reduces odour, recovers ammonia, and produces water and biosolids.

ENVIRO-ACCESS

- Bio-Terre Systems Inc. has developed an anaerobic digester in conjunction with Agriculture and Agri-Food Canada that is now in field testing;
- A demonstration plant for the transformation of manure into biofertilizer was developed by ENVIROGAIN with France and Québec partners;
- Tech-O-Filtre is testing a technology for the separation of manure solids and liquids through centrifugation, a solution that will facilitate transport to spreading sites.

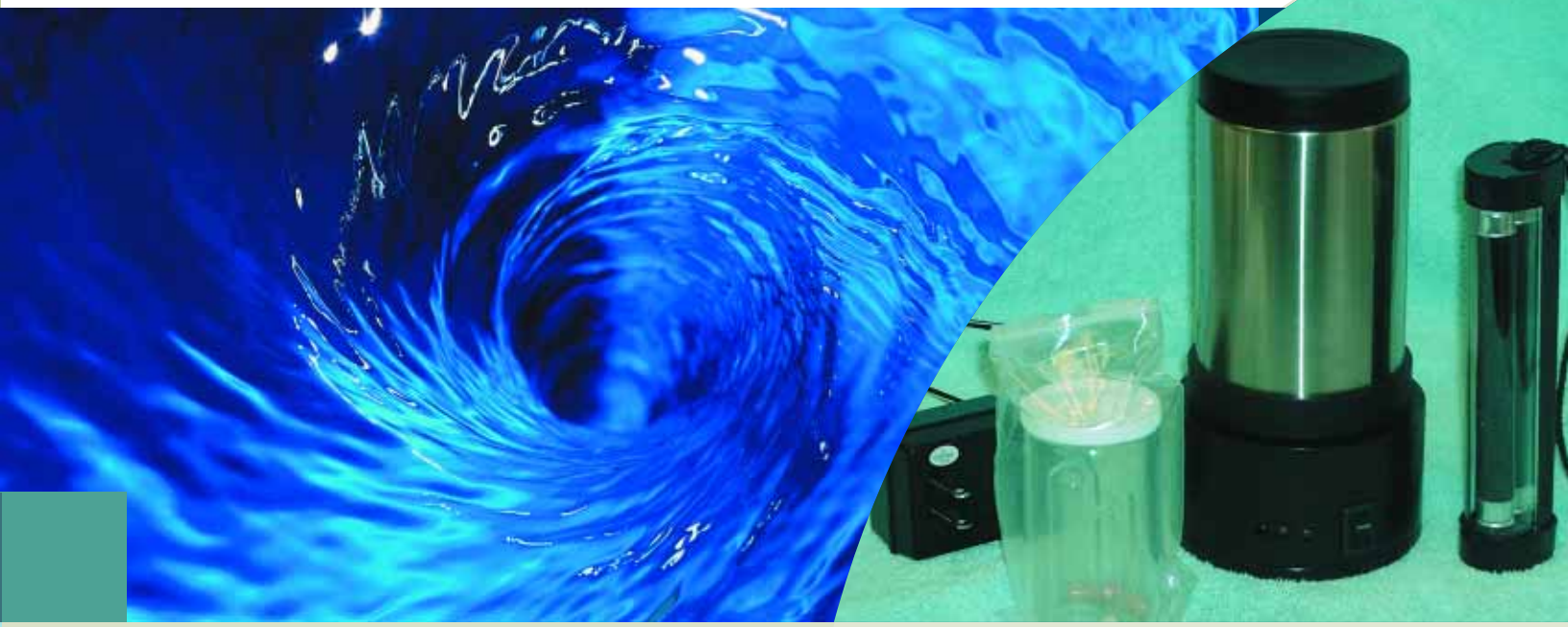
OCETA

- Global Earth Products' MARVEL technology is an automated aerobic composting system, with forced aeration and mechanical turning that reduces methane and nitrous oxide emissions compared with traditional manure storage and land-spreading practices.

Business Sense

Once technologies have been developed and markets identified, the next stage is to prepare appropriate strategies for accessing markets. Here again, the CETACs deliver services that can help a company to succeed. These services normally begin with an initial assessment of the company's technology commercialization strategy. A winning business plan is one that is based on optimal knowledge of the markets, optimal exploitation of the strengths of the technology, and optimal organization of the emerging company, whose growth depends on the accuracy of its projections and its success in sales.

Mentoring these companies requires that the advisors at the Centres have a thorough understanding of the environmental sectors where their new technology will be applied. Their ability to call on specialized expertise in the target sectors at a reasonable cost is one of the unique features of the CETACs. Past and present clients operate in areas as diverse as drinking water supplies, industrial emission reduction, energy efficiency and renewable energies to name a few.



CETAC–WEST – PERM Environmental Inc. Removal of Organic Contaminants from Water

Partners: Alberta Heritage Fund for Medical Research, City of Calgary, University of Calgary, Industrial Research Assistance Program (IRAP), Alberta Research Council

PERM Environmental Inc. has developed an advanced oxidation technology for the treatment of water contaminated with low levels of organic chemicals. This technology has the potential to overcome limitations preventing the commercial use of the most suitable photocatalytic catalyst, titanium dioxide. Upon exposure to ultraviolet light the titanium dioxide mineralizes the organic chemicals to water and carbon dioxide and has the potential to destroy microorganisms. CETAC-WEST provided PERM with a business opportunity, a market analysis, and a strategy development session. This assistance helped in the development of a demonstration of PERM Environmental's technology by the City of Calgary and in the securing of funds from the Alberta Heritage Fund for Medical Research. In addition, CETAC-WEST matched PERM with a mentor who worked closely with the management for several months. CETAC continues to participate in meetings with the company's advisory board.

OCETA – Aquasure Technologies Inc. Timely Analysis of Drinking Water

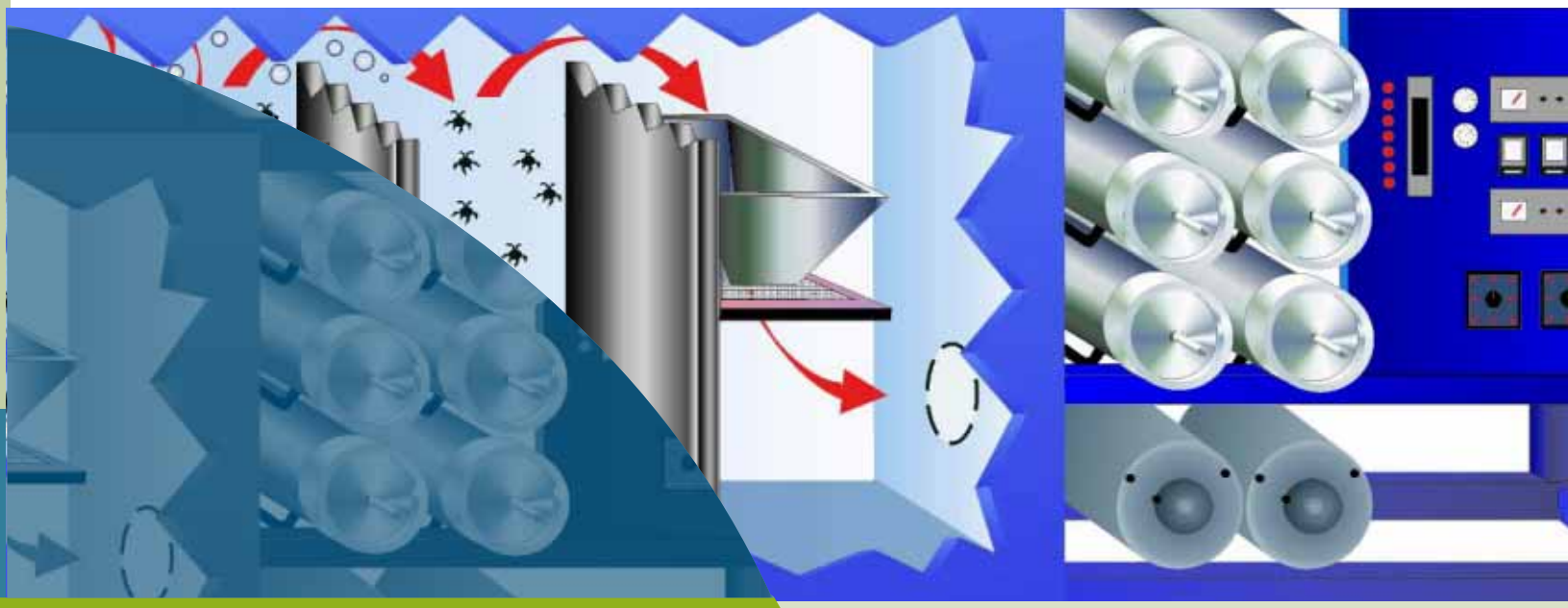
Partners: Province of Saskatchewan, Health Canada, University of Toronto, Merek, Laurentian University

Aquasure Technologies Inc. has developed hand-held units that allow for bacterial water testing in 24 hours or less. Easy to use, inexpensive and not requiring any technical training, the units are being promoted for general use in on-site monitoring of drinking water quality. OCETA helped the company to find business partners and investors and to promote its products in domestic and export markets. As a result, a water-testing program has been developed for municipalities, hospitals and highway restaurants.

Finding Funding Sources

Funding is crucial for the successful commercialization of an environmental technology. The CETACs offer clients valuable assistance in securing venture capital for the initial stages of development, followed by investment to meet expansion needs once the company has reached cruising speed. The special relationship between CETAC advisors, and the financial community and their representatives makes it much easier for environmental companies to access the financing they require.

CETAC services don't stop there. CETAC advisors are also able to direct clients to a number of public and private financial institutions to obtain loans or subsidies for technology development and commercialization of their innovations. Furthermore, the Centres can help enterprises implement financial strategies aimed at ensuring that the funding obtained remains secure and is used efficiently.



ENVIRO-ACCESS – Enerkem
Producing Renewable Energy from non-Recyclable Waste

Partners: Ministry of the Environment (Québec), Natural Resources Canada (NRCan), University of Sherbrooke, EIE SA (Spain)

Biosyn™ technology, developed by Enerkem, treats non-recyclable wastes, normally destined for landfill or incineration, by thermal gasification. The technology produces a synthetic biogas, which is used to generate electricity or to manufacture biofuels through catalytic synthesis. This has a positive impact on fossil fuel consumption and does not produce persistent organic pollutants, such as dioxins and furans. As part of an industrial consortium, this innovative company has built a plant in Spain that produces 6.8 MW of electricity, enough power to supply 4000 homes.

OCETA – Altech Group
Bioreactors for Wastewater Treatment

Partners: Brick Brewing Company, Industrial Research Assistance Program (IRAP), National Research Council (NRC), Walkerton Municipality

ALTECH, a specialist in membrane technology systems for water pollution abatement, has developed System HydroKleen, a made-to-measure process solution for industrial wastewater treatment. OCETA worked with the company on promoting the process and funding a pilot project at an Ontario-based brewery. The technology, which is extremely effective, compact and economical, is completely enclosed and uses membrane filtration. It has market applications in the pulp and paper, food, beverage and chemical sectors, among others.

Helping Companies Take Their First Steps

The majority of clients coming to the CETACs are new start-ups, or in the start-up process. For these clients, the oversight services available from the Centres are vital for smooth operations and continued expansion. The CETACs are involved in many facets of business creation and development: identification of interested partners, strategic advices regarding finance and commercialization, market studies and mentoring of business owners.

Emerging businesses in the environmental technologies sector are often SMEs, and have much to gain from participating in a business incubator, which facilitates the formation and consolidation processes. The CETAC advisors work alongside new entrepreneurs as they seek to create a stimulating work and development environment. This greatly increases the chances of market penetration given that market players frequently need to be convinced of the relevance of the new technologies being offered.

CETAC–WEST – Environmental and Power Technologies (EPT) Rejuvenating Industrial Fluids

Partners: Industrial Research Assistance Program (IRAP)

Industries that use phosphate-esters as a lubricating fluid in their gas and steam turbines can now rely on a technology that extends their operating life. EPT's technology involves a filtration system that passes part of the main oil flow over an ion exchange medium to remove acid and other chemical degradation by-products. CETAC-WEST has worked with the company since its inception. Services provided include matching EPT with a senior manager and a financial expert, as well as helping it to secure funding. Less frequent replacement of fluids and parts as a result of EPT's phosphate-ester fluid filtration system provides economic and environmental benefits that have helped make this technology a success.

ENVIRO-ACCESS – Lab_Bell Molecular Tracing

Partners: Three Rivers Science & Technology Development Center , National Research Council (NRC), Canada Economic Development (CED)

Instruments and methods for rapid tracing of bio-active molecules occurring in food, water and body fluids are the two key assets that Lab_Bell depends on for its development. These biotechnology tools are used in tracing toxins, toxic substances, viruses, antibiotics and other contaminants in various environments and organisms. Enviro-Access helped the managers of this technology company during start-up, by providing assistance in preparing the company's business plan and commercial strategy, as well as in its search for financing. This biotechnology will be used in a number of applications as food and product quality requirements become more stringent from both health and environmental standpoints.

Creating Zones of Expertise

With almost 10 years' experience in providing support to leading-edge environmental companies and several hundred successfully completed technology projects, the CETACs have become known as sources of resources and referrals with state-of-the-art expertise. Their contributions to the environmental industry are widely acknowledged, and these contributions have gradually been refocused on sharing credible knowledge and distributing high value-added know-how for technology-based clients.

The CETACs' dynamic presence in the leading-edge environmental technology sector offers environmental innovators and new enterprises access to a group of experts who are attuned to what is happening in environment-related sectors and the markets they represent in Canada and elsewhere. This acknowledged technical capacity combined with an active market watch create synergies and clear the way for sharing successful Canadian technologies at home and in export markets.

OCETA – Environmental Technology Verification Program
Rigorous Environmental Technology Verification

The ETV program, delivered by OCETA/ETV Canada Inc. under license, provides environmental technology vendors with independent third-party verification of performance claims. This initiative helps to support the promotion and commercialization of new environmental technologies for local and export markets. Since its inception in 1997, 40 technologies have received accreditation from ETV Canada, which assures clients of high technical credibility and performance standards. Recent projects include:

- Ecowaste Solutions Inc. (Burlington Ontario): bio waste oxidizer to incinerate biomedical waste.
- Elanco Animal Health/Proval: Rumensin®, an animal feed additive, used to improve digestion and control Coccidiosis while reducing methane emissions and fecal nitrogen levels.

ENVIRO-ACCESS – Centre of Expertise
Site Remediation

Partners: Canada Economic Development (CED), Environment Canada (EC), Ministry of the Environment (Québec), Montérégie Region

Enviro-Access coordinated the preparation of a feasibility study and a business plan for the creation of a technology development and demonstration centre to treat soils contaminated with dense liquids in a non-aqueous phase in Ville Mercier, southwest of Montreal. The centre will allow the removal of approximately 100 tonnes of hydrocarbons still locked in the subsoil, in addition to being a showplace for remediation techniques for other sites needing to deal with similar contamination problems. The soil treatment market represents roughly $500 million in Canada and $10 billion in the United States, where there are between 130,000 and 465,000 contaminated sites. The project brought together a number of government partners and will create a centre of expertise with services that can be marketed worldwide.

Equipping Innovators

The CETACs' technological background, built on solid experience with hundreds of companies and technology projects, is now being put to work to provide clients with new learning and coaching tools to help them market their winning technologies by highlighting their environmental and economic benefits.

These new types of tools draw on the knowledge-based economy and information technologies and take several forms, some of which exploit the huge potential of new training and information media. The technology fact sheets produced by several Centres are a simple and attractive way to present technological innovations in every sector of environmental activity. These fact sheets, which differ in format by Centre, are in great demand by potential clients.

The Centres also offers strategic products and services, such as management training, the publication of promotional material, electronic decision-making tools and networks of technological expertise. A number of tools are available on the Centres' Web sites, which are increasing in popularity. Enviro-Access, for instance, boasts several thousand visits per month from more than 60 different countries.

CETAC–WEST – Training – Entrepreneur to CEO

Partners: Industrial Research Assistance Program (IRAP), Environment Canada (EC), Alberta Economic Development, Alberta Innovation & Science, Alberta Environment, AVAC Ltd., Alberta Gaming, Saskatchewan Economic & Co-operative Development, Ag-West Biotech, Western Economic Diversification (WD), Industry Canada (IC), Manitoba Department of Conservation, Manitoba Industry Trade and Mines, Workforce 2000

The main challenges faced by innovative entrepreneurs are related to commercializing their products and developing their businesses. To help entrepreneurs of technology-oriented SMEs develop the necessary skills in these areas, CETAC–WEST offers a management training workshop called *Entrepreneur to CEO*. In 2001–2002, it delivered two such workshops, each workshop an intensive 5-days, attended by 50 entrepreneurs from Alberta, Saskatchewan and Manitoba. Participants had an opportunity to evaluate their business strategies, acquire administrative skills and also explore opportunities linked to sustainable development all under the supervision of a seasoned management consultant.

about REMEDIATION.com

OCETA – Web Site
A Portal for Soil Decontamination Technologies

Partners: Southam Publishing, Gowlings, AON, City of Hamilton, Royal LePage, RBC Dominion Securities, Brownfields U.S.A., Brownfields U.K.

The *aboutREMEDIATION.com* Web portal, developed by *Environment Canada's Ontario Region*, and turned over to OCETA is a one-stop source of information about soil decontamination technologies. Users of this Web site which receives more than two millions visitors annually, will find environmental site assessment tools, current legislation and financing options. The Web site also houses a searchable directory of over 150 proven technologies. Canadian companies that offer site remediation technologies for soil, sediment, groundwater and off gases can promote their products and services on the Web portal, which can be accessed anywhere in the world.

ENVIRO-ACCESS – Software Assisted Environmental Management Tools

Enviro-Access offers its services to businesses that develop tools for computer-assisted decision-making and management in areas related to the environment. In recent years, two software programs have been developed and marketed:

- The *TuTeurSGE* program to assist in implementing the ISO-14000 environmental management program by GAGE company.

- Modelling software for outflow of water and organic pollutants into the ground by HYDROGÉOPLUS company.

These computer-based instruments have a number of applications and are being marketed in Canada and in other countries around the world.

Maximizing Economic Spinoffs

The *Canadian Environmental Technology Advancement Centres* Program, created and financed by Environment Canada, has from its inception in 1993, contributed to the development of Canada's environmental industry and to the export of Canadian environmental technologies to countries around the world. Hundreds of companies and technology-related projects have benefited from the advice and support of the three Centres that serve Eastern, Western and Central Canada.

Over the past 8 years, Environment Canada financial contribution in the operations of the CETACs has resulted in a substantial, direct investment in the Canadian environmental industry. Between 1997 and 2002, close to 1000 start-ups and expanding enterprises involved in marketing new environmental technologies made use of the Centres' services.

Interventions with Companies Operating in Canada's Priority Sectors

Centre	Priority sectors	Client companies
Enviro-Access	8	260
CETAC-WEST	6	500
OCETA	11	220

An evaluation of the overall benefits to the clients shows the extent of economic spinoffs from environmental technology projects.

Average Growth in Sales and Jobs at Clients

Centre	Sales	Jobs created
Enviro-Access	+ 20%	150
CETAC-WEST	+ 60%	150
OCETA	+ 22%	N/A

Companies Assisted by the CETACs (1997–2002)

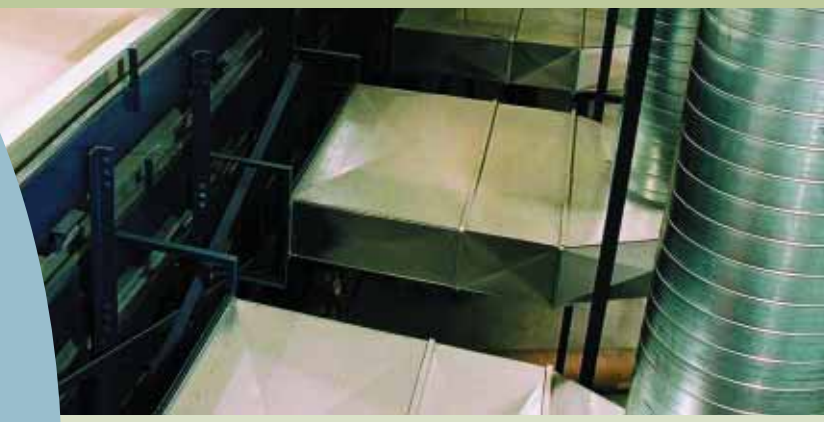
Centre	2001 2002	2000 2001	1999 2000	1998 1999	1997 1998	1996 1997
Enviro-Access	40	36	40	42	41	103
OCETA	50	34	36	40	57	53
CETAC-WEST	37	34	160	145	200	N/A
Total CETAC	127	104	236	227	298	156

Achieving Environmental Gains

The CETAC Program has succeeded over the years in assembling a wide range of innovative solutions to address Canada's priorities. The various projects carried out by environmental companies, supported by the Centres, cover the gamut of Canadian environmental issues and challenges, including clean air, climate change, clean water, soil contamination, elimination of contaminants, industrial waste management and energy efficiency.

Although the gains realized cannot be quantified directly, it is possible to get an idea of the environmental benefits that the Centres' activities have made in addressing various environmental issues: atmospheric emission reduction, greenhouse gas reduction, energy efficiency, water quality, toxic substances and reduction of POPs (persistent organic pollutants).

Environmental priority	Proportion of projects 2002
Air quality	17%
Greenhouse gases	14%
Energy efficiency	15%
Water quality	33%
Toxic substances	10%
Persistent organic pollutants	3%
Other	8%



The creativity of environmental companies is an important asset for improving the quality of the environment in Canada. The ongoing implementation of technological innovations and effective new technologies for preventing and solving environmental issues has contributed to meeting Canada's commitments in the area of pollution abatement and sustainable development. The diverse contributions of the hundreds environmental companies that have dealt with the CETACs have improved environmental performances at every level, proof that when environmental and economic concerns are integrated, the technologies developed enhance the earnings and competitive position of Canadian firms.

Diversification and Partnership

The funds invested by Environment Canada in the CETAC Program are used to help open the doors to other sources of public and private funds for eligible enterprises. The CETACs have been very successful in leveraging money from government programs that support commercialization efforts for new environmental technologies. They have also been able to direct the companies towards support programs, above and beyond the assistance they themselves offer.

The Centres have also built a network of contacts and set up partnership agreements with other governmental players to promote the development of new technologies. One such arrangement is through the National Research Council's Industrial Research Assistance Program (IRAP), which supports R&D initiatives – including environmental ones – at Canadian SMEs. The partnerships forged with departments that have an economic mission, such as Industry Canada, facilitate the CETACs clients' access to services and other support for development activities.

While outside the specific focus of Environment Canada's Environmental Technology Advancement Directorate, these achievements increase the environmental and economic benefits related to the introduction of new environmental technologies in Canada.

They also ensure a convergence of efforts to encourage effective and profitable solutions to Canada's environmental challenges with government funding allocated for the same goal. For example, CETAC advisors are able to help their clients take advantage of funds available to combat climate change, to introduce green infrastructures in urban settings or to convert industrial processes to be more compatible with sustainable development.

ENVIRO-ACCESS
Environmental Management for SMEs

Partners: Canada Economic Development, National Research Council of Canada, Environment Canada

Between December 2001 and March 2002, Enviro-Access, in collaboration with another nonprofit organization, took part in co-ordinating the delivery of the EnviroClub™ program for manufacturing SMEs in the Saguenay-Lac-St-Jean region of Québec. Members of these clubs comprise small and medium sized enterprises, and are funded by Canada Economic Development and the National Research Council's Industrial Research Assistance Program (IRAP), with Environment Canada providing technical and scientific support. The aim of the program is to heighten participating SMEs' awareness with respect to pollution prevention and environmental management as a means of enhancing their profitability and competitiveness. Approximately 15 companies from a given region or industrial sector come together four times for a one-day workshop, during an 8 to 10 month period. In addition, each company receives 90 hours of consulting services to set up a pollution prevention or energy efficiency project in their plant. To date, there are three active EnviroClubs™ operating in Québec.

CETAC-WEST
Eco-Efficiency in the Oil and Gas Industry

Partners: Alberta Ministry of the Environment, Alberta Ministry of Energy, National Research Council of Canada (NRC), Environment Canada (Air Pollution Prevention Directorate), Industry Canada.

CETAC-WEST offers an integrated eco-efficiency program for the oil and gas industry in Western Canada, where there are many facilities. The program was developed with the support of Alberta Energy, Alberta Environment, and a number of private sector energy and environmental partners. Funding was also provided through the Technology Early Action Measures (TEAM) project, a joint initiative of, Environment Canada (EC), Natural Ressources Canada (NRCan) and Industry Canada. Program coordination and technical support also involves the NRCan's Energy Efficiency Office and EC's Air Pollution Prevention Directorate. CETAC-WEST's program has three main components: energy and environmental efficiency audits, benchmarking and technology demonstrations at participating plants. After only a few months, six companies had joined the program.

OCETA
Better P2 Performances

Partners: Environment Canada (Ontario Region), Ontario Ministry of the Environment, City of Toronto Economic Development Office.

OCETA joined forces with major partners – Environment Canada, the Ontario Ministry of the Environment and the City of Toronto Economic Development Office – to deliver a collaborative, multi-stakeholder program aimed at developing a pollution prevention (P2) program : *the Toronto Region Sustainability Program.* The aim of the program is to advance the environmental performance of Toronto-area SMEs. It provides manufacturing companies with an opportunity to have an environmental performance assessment conducted by an expert, followed by pollution prevention planning and action. Environment Canada subsidizes assessment costs and there is access to funding from various other sources for the implementation of the identified P2 measures.

Project Manager	Lorraine Bonneville, Environment Canada
Design and Writing	André Delisle, Transfert Environnement
Graphic Design:	Sylvie Coulombe, Zone Communication
Printing:	Yves Germain, Transcontinental Québec

Printed in Canada