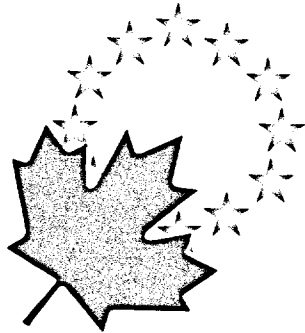


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# Europe 1992

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**CANADA  
EUROPE**

STANDARDS AND  
QUALITY ASSURANCE:  
CANADIAN SUCCESSES  
IN THE EUROPEAN  
MARKET

External Affairs and  
International Trade Canada

Affaires extérieures et  
Commerce extérieur Canada

**Canada**

January 1991

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JAN 28 1993

RETURN TO DEPARTMENTAL OFFICE  
RETOURNER À L'OFFICE DÉPARTEMENTAL

STANDARDS AND  
QUALITY ASSURANCE:  
CANADIAN SUCCESSES  
IN THE EUROPEAN  
MARKET

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## ACKNOWLEDGEMENTS

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This study was researched, written and designed for External Affairs and International Trade Canada by Andrew Griffin, a communications consultant.

External Affairs and International Trade would like to acknowledge the co-operation and information provided by all the businesses contacted in the preparation of this study. Deserving also of special mention is a draft version of Roger Hill's report, "Harmonization of Technical Standards in the EC: Implications for Ontario and Canada." The report, prepared for the Ontario Ministry of Industry, Trade and Technology, provided invaluable background material.

Finally, the Standards Council of Canada assisted both in the location of sources and in the editing process. Particularly helpful were the contributions of Diane C. Thompson, Larry Moore and Sandra Watson.

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## INTRODUCTION

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### Europe 1992

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The European Single Market initiative is a comprehensive legislative program designed to allow the free movement of labour, capital, goods and services among the Community's twelve member states.

Roughly 30 per cent of the 279 directives that comprise the initiative deal directly with technical standards. The European Community's standards program also includes the six European Free Trade Association countries: Austria, Finland, Iceland, Norway, Sweden and Switzerland. It is estimated that between 8,000 -10,000 new standards will be written to satisfy the legislative agenda. The effort is so massive that the standards developed will likely become international and will have to be met in order to enter many non-European markets.

This study relies on the experience of Canadian enterprises in the area of standards. It is not another theoretical discussion. The case studies were constructed from a series of telephone interviews with members of the Canadian business community. The interviews were supplemented with a survey sent out by facsimile. The study's main aim is to aid businesses who are on the verge of entering the European market (or who have a European presence already and wish to remain there in the changing environment) by providing them with examples of the various methods successfully employed by firms of differing sizes and from a selection of sectors. It is meant to be illustrative, not exhaustive. Accordingly, the opinions expressed in the case studies are those of the firm in question.

The standard setting process in Europe is complex. It is useful, therefore, to first outline the types of technical barriers which exist, the European Agenda, the challenges these present to Canadian business and, finally, the key findings of this study.

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### Types of Technical Barriers

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The three main categories of technical barriers to trade are:

- \* differences in national regulations governing health, safety and the environment;
- \* differences in voluntary industrial standards set by national standards associations like the British Standards Institute (BSI);
- \* differences in testing and certification procedures.

All of these have presented challenges to companies attempting to enter the European market.

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### The European Standards Agenda

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Originally the Europeans had hoped to harmonize technical standards across all Member States in the Community but this approach proved too daunting. They have opted for a new approach the main elements of which are:

- \* Harmonization of national regulations under the banner of "Essential Requirements," which will set minimum health, safety and environmental standards;
- \* Mandatory standards will also be developed for telecommunications, information technology and biotechnology;
- \* Detailed standards which satisfy the "Essential Requirements" are being developed by European standards bodies: CEN (European Committee on Standardization), CENELEC (European Committee on Electrotechnical Standardization) and ETSI (European Telecommunications Standards Institute);
- \* The principle of "Mutual Recognition" ensures that, where no European standards exist, a product which satisfies the standards of one member country is free to circulate through all countries;
- \* As well as the "Essential Requirements," standards are being developed at the sectoral level, specifically in automobiles, food processing and labelling, construction products and information technologies;

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### The European Standards Agenda (continued)

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\* Environmental legislation forms a major part of the legislative agenda with a special emphasis on noise pollution, CFCs, emission standards for cars and lead content for gasoline;

\* Testing and certification procedures are being harmonized among member states. There is still some uncertainty in this area but it is clear that:

- satisfaction of "Essential Requirements" will be signified by the affixation of the CE mark which will allow a good to circulate freely within the Community,
- where third party testing for "Essential Requirements" is necessary, the testing agencies will be called "notified bodies." At present, only European-based organizations can qualify as "notified bodies" for the testing and certification of "Essential Requirements,"
- non-European states will have to negotiate on a bilateral basis in order to gain the right to have "notified bodies" outside of Europe,
- and accreditation to voluntary industrial standards by non-European standards bodies must be negotiated with the respective national standards bodies, i.e. the Canadian Standards Association (CSA) must negotiate directly with the DIN (Deutsches Institut Fur Normung) in Germany;

\* An increased reliance on Quality Assurance Programs which satisfy the standards of the International Organization for Standardization (ISO) 9000 series.

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### Challenges to Canadian Business

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- \* Find out which new standards affect them.
- \* Use their European presence to influence the new standards in their favour.
- \* Ensure that they are not excluded from the market due to more stringent European standards.
- \* Determine which European standards may become standards in non-European markets.
- \* Arrange for testing and certification of products built to European standards.
- \* Investigate the ISO 9000 Quality Assurance standards.

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**Key Findings of this Study**

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- \* Standards facilitate the creation of markets and domination of niches, especially in the high tech, electronic and environmental markets
- \* Testing and certification continue to pose problems for Canadian firms who manufacture to European standards.
- \* Many firms urge the negotiation of agreements to mutually recognize testing and certification procedures.
- \* Some firms have encountered roadblocks as European firms attempt to use the new standards process to lock them out.
- \* There are still some firms reporting difficulty in finding out what are the appropriate EC standards. The EC standard setting process suffers from a lack of clarity.
- \* A European presence is essential as technical standards are still expected to have slight variations from country-to-country, even after the harmonization process is complete.
- \* These national variations are important when writing strategic plans because of the principle of "mutual recognition."
- \* The greater your presence in Europe, the more likely it will be that you can influence the standard setting procedure in your favour.
- \* Even small firms have been able to influence the process through championing a standard.
- \* Quality Assurance Programs of the ISO 9000 level are becoming essential in all sectors.
- \* Several firms felt that the European standardization process has merely added another level of bureaucracy in order to secure "Fortress Europe."





## REASONS TO USE STANDARDS

"Competition is what you put in boxcars, but the rails have to be equal width all across the country, or you don't have a free market." - Joe Flaherty, CBS Network <sup>1</sup>

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### STANDARDS ALLOW YOU TO:

#### ENTER EXISTING MARKETS

Many of the firms contacted explained how the adoption of standards allowed them to enter existing markets which had previously been closed to them.

#### RETAIN PRESENT MARKETS

It is obvious, yet bears re-stating, that standards are a double-edged sword. When they change they can be used to cut a business off from a market to which it previously had access. This is particularly true with respect to the new European essential requirements, which some Canadian firms felt were being manipulated by European competitors in attempts to block competition in the Community.

#### SATISFY NATIONAL REGULATIONS

In order to meet the essential requirements, firms can either meet a European standard developed by CEN, CENELEC and ETSI, or where no European standard exists they may meet a national standard and rely on the principle of "mutual recognition."

#### CREATE NEW MARKETS

Canadian firms who have championed new International standards and/or used leading edge technology to set de facto standards have had remarkable success in creating completely new markets. This is particularly true for the high-tech and environmental products sectors.

#### INCREASE EFFICIENCY

The adoption of standards allows for a greater control of internal processes. Firms have talked about improved internal cost accounting and auditing, increased efficiency, quality improvement and increased productivity.

#### ESTABLISH COMMON PRACTICES

The use of standards facilitates the establishment of common language, ideals and practices both within the firm and between the firm, other corporations, national regulatory agencies and international agencies. This is important not only for the above mentioned control over internal processes but also for testing and certification.

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<sup>1</sup> Cited in Stewart Brand's The Media Lab, Penguin Books, 1987.



## QUALITY ASSURANCE PROGRAMS

"I think it's all part of the same thing: quality management, quality improvement, just-in-time and quality assurance. The challenge is to train people effectively and thoroughly to implement a verifiable quality assurance system."

- Malcolm Phillips, Director of Registration, Quality Management Institute (QMI), Mississauga, Ontario.

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### What is Quality Assurance?

The Canadian Standards Association (CSA) Z299 standard defines quality assurance as follows: Quality assurance means all those planned and systematic actions needed to provide adequate confidence that products or services will satisfy specified requirements.

### Why a Quality Assurance Program?

Of all the areas discussed in this study of Canadian business and standards, the one proposition that received near unanimous support was that an International Organization for Standardization (ISO) 9000 series Quality Assurance Program will be a necessity for doing business in the Europe of the nineties. The ISO 9000 series is the basis for the European Quality Assurance standard: EN 29000.

"The Europeans have taken registration to the ISO 9000 series of Quality Assurance very seriously," says John Kean, President, Canadian Standards Association, "For example, in the U.K., with funding from the British government, small and medium sized enterprises have been able to put in quality management systems and today over 8,000 manufacturers and service organizations are registered. In Canada, we have about 500-600 companies involved in the registration process."

\* Many Canadian firms had already either gained business because they had a registered Quality Assurance Program, or lost business because they didn't.

\* Many firms had implemented programs in direct response to customer demands.

\* The ISO 9000 series of standards is quickly becoming a necessity in many non-European markets as well, e.g. Australia.

\* All firms that have implemented a registered Quality Assurance Program report increased productivity and efficiency. Many firms have extended the program to areas not required under the standard because of these increased efficiencies.

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**Quality Assurance Programs (continued)**

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**What registered Quality Assurance Programs are available?**

There are many Quality Assurance Programs around. Both the Canadian and U.S. military have developed Quality Assurance Programs. The U.S. Food and Drug Administration (FDA) administers the Good Manufacturing Practices program in many areas and large corporations like Ford Motors have developed their own programs such as Q1.

The Quality Assurance Programs which are of most interest though are the Canadian Standards Association's Z299 series (administered by the QMI, a division of the CSA) and the ISO's 9000 series. The Z299 series is of interest to those whose business is mainly within Canada. The ISO 9000 series is of interest to firms with significant international markets.

\* Many firms are dual-registered to both a Z299 standard and a ISO 9000 standard, for the strength of the Z299 series and the marketability of the ISO 9000 series internationally. They report similarity between the two and there are synergies to be had from implementing them both.

**The CSA Z299 Series:**

The CSA first published the Z299 series of Quality Assurance in 1975. It was developed from a base of military quality control programs in order to satisfy the more stringent requirements of Ontario Hydro's nuclear station developments. It has been up-dated and re-issued in 1979 and again in 1985.

There are four levels of registration, the most extensive being the Z299.1 and the least stringent being the Z299.4.

The QMI also has two background documents in the series:

Z299.0-86 is the Guide for Selecting and Implementing the CAN3-Z299-85 Quality Assurance Program Standards.

Q420-87 "Quality Management and Quality Systems Elements -- Guidelines" is an adoption of ISO 9004:1987.

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**Quality Assurance Programs (continued)**

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**The ISO 9000 Series:**

Developed by the ISO's Technical Committee 176, the standard was first published in 1987. There are six documents to the series, three of which are background material:

- \* ISO 8402 - A vocabulary of terms.
- \* ISO 9000 - "Quality management and quality assurance standards - guidelines for selection and use" - This document defines terms and explains the general philosophy of the series. It also offers advice for the selection of the standard appropriate for your firm.
- \* ISO 9004 - "Quality management and quality systems elements - Guidelines" - Identifies key elements of any quality control program and helps manufacturers choose which elements are important to their operation.

The ISO standard has three levels to which a firm may be registered under a contractual situation:

- \* ISO 9001 - "Model for quality assurance in design/development, production, installation and servicing"
- \* ISO 9002 - "Model for quality assurance in production and installation"
- \* ISO 9003 - "Model for quality assurance in final inspection and test"

**Which program is right for your firm?**

For more information about the selection, implementation and auditing requirements of the Z299 series or the ISO 9000 series please contact:

**THE QUALITY MANAGEMENT INSTITUTE (QMI)**  
4 Robert Speck Parkway - Suite 1420  
Mississauga, Ontario  
L4Z 1S1  
Tel: 416-272-3920 Fax: 416-272-3942

Director of Communications: Catherine Neville



## CASE STUDIES

<u>Company</u>	<u>Sector</u>	<u>Page</u>
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Can-Ross Environmental Products Ltd.	Containment & Clean-up products	12
Champion Road Machinery Ltd.	Road graders	13
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Memotec Data Inc.	Telecommunications	17
Mitel Corporation	Telecommunications	19
SoftQuad Inc.	Software	21
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Unitron Industries Ltd.	Hearing Aids	25
Valmet Automation (Canada) Ltd.	Gauges and control systems	27
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## CANADIAN FOREST PRODUCTS

Implementing a Quality Assurance Program in a pulp and paper mill.

"It's just good business sense." - Mr. Greg Hutton, Quality Control Technologist  
Canadian operations

Canadian Forest Products Ltd. has annual sales of close to \$1 billion and supplies a range of pulp, paper, and lumber products to markets around the globe. Canfor's headquarters are located in Vancouver.

Canfor's Prince George Pulp and Paper Mills Division was the first pulp and paper mill in Canada to be registered to the ISO 9003 quality assurance standard. In fact, the mills' Quality Assurance Program is dual registered to the Canadian Z299.4 and the ISO 9003. The mills produce sack Kraft paper and various grades of bleached Kraft pulp.

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### European operations

A significant percentage of Canadian Forest Products Ltd.'s products are marketed in Europe. The company has a marketing division called Canfor Pulp Sales, with a sales office in Brussels.

Prince George Pulp and Paper began receiving questionnaires in 1987 from their European customers regarding their quality program and level of Quality Assurance Program registration.

They developed their program to improve the quality of their products and to address the concerns of those customers interested in purchasing product from a quality-registered producer. The ISO 9003 program was not implemented in response to Europe 1992; it just happens that it fits hand-and-glove with what is happening with Europe 1992.

**CANADIAN FOREST PRODUCTS LTD. (Continued)**

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## Important points

Greg Hutton who implemented the Quality Assurance Program at the mill believes that the ISO 9000 series will be a requirement for (and cost of) doing business in Europe.

This case illustrates that it is not just manufacturers who have to keep QAPs in mind:

- \* As the first pulp and paper mill to register, both they and the QMI had a lot to learn about the difference between implementing a program for a continuous process, rather than a discrete manufacturing operation.
- \* Although the sales staff has found that the QA manual is an effective sales tool, there are still many customers who are unaware of what ISO 9003 is and what it means.

This was Mr. Hutton's first experience with a formalized quality control program. Some valuable advice for other novices:

- \* You may not need to be dual registered. If you do business only in Canada then the Z299 is adequate. If you have any substantial international markets then ISO 9000 is required also.
- \* Mr. Hutton said there are two ways to write the quality assurance manual: by team or assign an individual. He opted to write it himself but said the choice would depend on the outfit in question.
- \* Canfor's documented quality-registered program went beyond the requirements of both the CSA and ISO's standards in the the interest of quality improvement.

## CAN-ROSS ENVIRONMENTAL SERVICES LTD.

Capitalizing on new European environmental standards.

"It is my opinion that North American firms are further ahead than those of our European neighbours. When it comes to environmental technology, whatever is suggested, they usually follow suit." - Ted Edgar, President

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### Canadian operations

An Oakville-based company with 18 employees, Can-Ross manufactures hazardous waste containment and clean-up products, such as absorbants.

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### European operations

Currently, the European market accounts for about five per cent of their sales, but Ted Edgar, president, expects the Community will be a major growth market over the next five years. Mr. Edgar says it will take the national governments that long to decide what all the new environmental legislation really means.

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### Important points

In order for the new legislation to produce business for the environment sector, it must be enforced. Mr. Edgar says this will not happen overnight.

North American firms have such a technological lead over the Europeans in this area that the Europeans basically accept North American standards.

Similarly, testing and certification of absorbants, etc., done by Environment Canada seems to satisfy the Europeans.

As the environment market matures in Europe, North American firms can expect stiffer competition from European firms.

The CSA is currently working on Canadian standards for environmental products.



## CHAMPION ROAD MACHINERY LTD.

How the standards game is played.

"We're pretty tough; it takes a lot to keep us out of a market." - Tom Powell, VP Engineering

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### Canadian operations

Champion makes road graders. The head office and plant are located in Goderich, Ontario. They have 750 employees and annual sales in the \$120 million range.

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### European operations

Franchised dealers are used to distribute their machines throughout Europe. Spain, Holland, Italy, France, the U.K. and Yugoslavia are their main markets. They annually sell 120 to 160 units at \$90,000 each in Europe. This represents 10 to 15 per cent of annual sales.

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### Important points

A major German manufacturer of road equipment has been successful in blocking all international competition from the German market. This is particularly distressful in light of Europe 1992. Champion is concerned that the German company is using the new standards process to create a "Fortress Europe" for itself.

In the past, Champion has used dealers, the CSA, trade publications and, particularly, industry meetings to keep abreast of standards developments.

There is a major transparency problem for non-German manufacturers. They can't find out what the new standards for road equipment will be.

**CHAMPION ROAD MACHINERY LTD. (continued)**

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Mr. Bruno Lapaine, director of sales, says that they have their sales agents and dealers working on it in Europe but, so far, nothing. He is convinced the Germans are writing standards which will be adopted Community-wide, thus giving themselves the advantage.

\* This example shows that, while the principle of "mutual recognition" holds generally, there may be specific areas where customer preference or artificial advantage render it useless.

The main areas of concern are new regulations relating to noise pollution and the requirements for an ISO 9000 series Quality Assurance Program.

\* Mr. Powell says that ISO 9000 may also be necessary in non-European markets, "One of our salesmen came in with a request from Australia that specified we meet these ISO 9000 standards."

Testing and certification is another area of concern. Champion has encountered obstacles in the past getting its safety equipment certified for the European market because there is no Canadian body presently empowered to do it.

\* Mr. Powell says there would be definite advantages to having a Canadian body certified for testing to European essential requirement standards.

## DEVELCON ELECTRONICS LTD.

Positioning to take advantage of new public procurement rules.

"The Europeans are putting a tremendous amount of effort into harmonizing standards but it is still important to look at the standards of the individual countries."

- Frank Dodd, Manager, Hardware Engineering

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### Canadian operations

Founded in 1969 in Saskatoon, Develcon has established itself in the North American market by manufacturing state-of-the art networking equipment. The company now sees the interconnection of Local Area Networks (LAN) as its major growth market.

Develcon operates a sales subsidiary in the United States and markets its products throughout the world.

The company employs about 130 people.

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### European operations

Develcon uses distributors to sell its products in all European Community countries.

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### Important points

Much of Develcon's business is with governments, public institutions and universities. The change in the government procurement regulations that would allow non-European companies to bid on Community contracts (subject to local content rules) offers the possibility of a much larger market.

Trade shows, industry newsletters, technical journals and feedback from their European distributors have enabled Develcon to track changes in technical standards.

**DEVELCON ELECTRONICS LTD. (continued)**

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Mr. Frank Dodd, Manager, Hardware Engineering, says that the harmonization of technical standards in Europe will force them to re-design some of their products.

He also says that the Europeans still have not completely got their act together, with the result that national differences continue to be an important concern.

Develcon is currently investigating an ISO 9000 series Quality Assurance Program. Mr. Dodd feels that ISO 9000 registration will be a requirement for doing business in a Single European Market.

As far as testing and certification is concerned, Develcon uses the CSA International Approvals Section to test for safety and laboratories in Europe to test and certify for European Telco and EMI standards.

## MEMOTEC DATA INC.

Utilizing trade missions to establish a European presence.

"Trade missions get you to a level of people that you would not normally get to and give you access to the *creme de la creme* of management."

- Adam Bardach, Vice-President Government Relations and International Affairs

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### Canadian operations

Montreal-based Memotec employs 2,500 people and has annual sales of around \$400 million. The firm has three divisions: Telecommunication services, which includes Teleglobe, Teleglobe International and Teleglobe Marine; Telecommunications Products and Services, which manufactures data communication and compression equipment; and the Computer and Systems Division which offers services primarily to the insurance industries

Memotec has two plants. The major one is in Montreal and manufactures everything except modems which are manufactured in its United States plant.

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### European Operations

Memotec uses distributors to sell its products into all the Western European countries and is currently negotiating deals for Eastern Europe.

As well, Memotec maintains a sales office in Brussels with a staff of a half dozen.

The company has made good use of trade missions, both federal and provincial, to Europe to increase its visibility there and establish vital contacts for information.

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### Important Points

Adam Bardach, Vice-President Government Relations and International Affairs, says that the trade missions are a wonderful source of information.

**MEMOTEC DATA INC. (Continued)**

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"The provincial trade missions can give a better exposure because there are fewer competitors present and groups are smaller," says Mr. Bardach. "On the other hand, the federal trade missions give you access to industry specialists."

As far as matters of testing and certification are concerned, Isaac Liberman, Vice-President Manufacturing, says that Memotec is currently undergoing the certification procedure with BAPT, the British Approval Board for Telecommunications.

"This is proceeding quite nicely," says Mr. Liberman, "We already have approval on our quality program and the last thing we have to do is some safety testing procedures."

"As soon as we receive the BAPT approval," says Mr. Liberman, "We are going to be looking quite seriously into the ISO 9000 series."

## MITEL CORPORATION

A global company's approach to standards and Quality Assurance.

"Control of processes leads to improved efficiency and the fact that you produce a product whose quality is recognized internationally is a given."

- Malcolm Clement, Product Supply Division

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### Canadian operations

Leadership in the data and telecommunications equipment market have made Mitel into a truly international company. Mitel employs over 4,000 people world-wide and has annual sales over the \$400 million mark. Manufacturing facilities are located in Canada, the U.S, Europe, Hong Kong and China.

---

### European operations

Mitel's involvement with Europe dates back over thirteen years to the establishment of a facility in southern Ireland. It has been eleven years since a plant was opened in England. Mitel has since been bought by British Telecommunications plc. British Telecommunications this year announced its intention to sell controlling interest in Mitel.

---

### Important points

Mitel perfectly illustrates how an established presence in Europe can help to not only keep abreast of changes in standards, but actually influence what those standards will be.

\* In both the U.K. and Canada, Mitel representatives sit on various boards concerned with communications standards. Mr. Ian Mackie, Director of the Product Design Division, says, "We're not in a situation where we are just waiting around for updates. We have direct input into the process."

**MITEL CORPORATION (continued)**

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There are still concerns about the testing and certification process for equipment manufactured in North America and destined for sale in Europe.

\*"It's a concern to some extent because of the uncertainty," says Mr. Mackie.

Mr. Malcolm Clement, Director of QA for Canadian Operations, Product Supply Division, has recently implemented an ISO 9002 Quality Assurance Program at the Kanata manufacturing facility. He offers the following observations:

- \* The benefits of a QAP are improved control over processes. Many spin-off programs have resulted.

- \* The ISO 9002 program made a thorough supplier development program possible.

- \* In one instance, manufacturing lead time was cut from five weeks to three days as a result of the QA program and its spin-offs.

- \* Mitel implemented the CSA Z299.2 and the ISO 9002 simultaneously. Mr. Clement found many similarities, and a few minor differences, between the two.

- \* "The Z299 is a little more detailed than the ISO but anyone with a background in quality control should have little problem with either, says Mr. Clement.

Mr. Mackie says that Mitel is currently considering implementing an ISO 9001 standard in its Product Development Division. This is the most rigorous of the ISO 9000 series and extends quality control all the way back to the design stage, contract review and marketing.



## SOFTQUAD INC.

Creating markets by championing a standard.

"Standards are a way of life around here." - Yuri Rubinsky, President

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### Canadian operations

SoftQuad is a Toronto-based software manufacturer. The company also has an office in Vancouver. SoftQuad is completely dependent on exports, with 72 per cent of their sales originating from the U.S., 25 per cent from Europe and 3 per cent from Canada and Japan combined.

SoftQuad employs 32 people.

---

### European operations

SoftQuad has four major distributors in Europe. They are located in the U.K., France, Belgium and Germany.

SoftQuad champions the ISO 8879 - the Standard Generalized Markup Language - a standard developed to allow computers to interchange information content. In a sense, this standard enables data harmonization efforts taking place in Europe and around the world.

Joint ventures are under consideration.

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### Important points

Even though SoftQuad is a small company, it has successfully championed the ISO 8879 standard in order to create markets. It does so through a number of channels:

- \* "Text and office systems is one of those obscure but critical areas where Canada has a significant lead. We take a very active role in international committee work and are playing an important role in NATO's investigation of these standards," says Mr. Rubinsky.

**SOFTQUAD INC. (continued)**

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\* SoftQuad people serve on both the ISO committees and, informally, on the technical committees of a variety of manufacturers' associations which have decided to adopt the ISO 8879 standards as their base standards.

\* SoftQuad works mainly with systems integrators, computer and publishing consultants. Oxford University Press, the U.S. Navy, Libraire Hachette and the Swedish Telub Forum, a documentation company, are among their customers. The European Community, the U.S. federal government, Her Majesty's Stationery Office in the U.K. and the European Patent Office have adopted ISO 8879 as their standard for publishing.

\* Testing and certification procedures are being established under the direction of the Graphics Communications Association in the U.S. Mr. Rubinsky serves as director of the association and several Canadian firms have made major contributions to the development of the Standard Generalized Markup Language test suite.

Mr. Rubinsky expects an increasing rate of growth for ISO 8879 products over the next three to four years. He expects Europe 1992 to facilitate their expansion into Europe.

\* "What we are finding is that our European distributors are positioning themselves to do more and more work throughout Europe as a whole. So, we may have to spend more time making sure that they work well together," says Mr. Rubinsky.

## SOLARCHEM ENVIRONMENTAL SYSTEMS

Selectively targeting the European environment market.

"The advanced industrial societies, like Holland and Germany, that can afford the best will buy the best." - Mr. Peter W. Smith, Vice President Marketing and Sales

---

### Canadian operations

Solarchem builds the latest in toxic and hazardous waste clean-up equipment. The systems range in price from \$100,000 to \$1,000,000. They have, until recently, focused mainly on the rich U.S. market.

With 30 employees and sales in the \$10 million range, Solarchem is a small company that sees Europe as a prime market for expansion.

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### European operations

Solarchem has relied on its superior technology and sales agents to secure business in Europe. But it has recently undertaken to enter into a joint venture with a European firm, as Europe is the market with excellent potential for environmental products.

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### Important points

Solarchem's European partner will initially only be responsible for sales. All manufacturing will initially be done in Canada. This raises several points:

- \* The Europeans are still so far behind in environmental technology that they basically accept North American standards, says Mr. Smith.
- \* But, says Mr. Smith, "We are already beginning to see signs of competition in Germany."

**SOLARCHEM ENVIRONMENTAL SYSTEMS (continued)**

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It is prudent at this point to refer to a speech made by Dr. Kurt Trampedach, President, Northern Telecom GmbH, Munich, regarding the role of technological advantage in the European market.

"We have learned," said Dr. Trampedach, "and continue to learn, for example, that pre-eminence in technology, or leadership in North America, do not provide an automatic ticket to success in Europe."

Dr. Trampedach made the speech in Toronto at the January 15, 1991, "Europe in Transition" conference. He was referring to the telecommunications sector but his words are politic to enterprises in all sectors.

Testing and certification with the CSA is already standard with us; we are prepared to acquire the information and work to European standards, says Dr. Adele Buckley, Vice President Manufacturing and Development.

\* Dr. Buckley says, domestic testing of international standards would be a definite help.

## UNITRON INDUSTRIES LTD.

Establishing a strong base of operations in Europe.

"We have no problem serving the European market from our German base."  
- Fred Stork, President and CEO

---

### Canadian Operations

Unitron is a medium-sized company that manufactures hearing aids. All R&D, and the majority of manufacturing, is done at the Kitchener, Ontario plant, with product being sold in the U.S., Europe and other markets around the world.

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### European operations

Unitron's central base of operation for Europe is located in Germany. The German office takes care of sales, service and does some custom manufacturing.

Wholesales agents are located in Italy, France, Switzerland and Scandinavia.

Unitron is involved with the German Association of Manufacturers, the International Electrotechnical Committee, and the Food and Drug Administration (FDA) in the U.S.

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### Important points

Dr. Horst Arndt heads Unitron's R&D group. He feels that Europe 1992 is probably an additional level of bureaucracy to deal with in doing business in Europe.

The European countries all operate with the same standard as a base, but there are national differences. It is the job of the local sales agents to inform the central German office of these differences so that appropriate samples for testing may be forwarded from the Canadian plant.

**UNITRON INDUSTRIES LTD. (continued)**

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\* It is in the area of testing and certification that the differences between countries become important, says Dr. Arndt. It is not known at this time if Europe 1992 will harmonize standards to the point where national differences are eliminated.

Even though Unitron must be audited under the FDA's Good Manufacturing Practices, a Quality Assurance Program from the ISO 9000 series is being considered in order to satisfy European requirements.

Unitron keeps abreast of relevant changes in standards through the following channels:

- \* Its German subsidiary
- \* European sales agents
- \* Trade journals
- \* Participation in IEC -TC 29
- \* Government publications,  
e.g. EUROPE '92 TRADEWINDS
- \* FDA newsletters

## VALMET AUTOMATION (CANADA) LTD.

Acquisition by Finnish firm led to greater awareness of Europe.

"Solve the problem at the source." - Bob Charlton, Director of Product Engineering  
Canadian operations

Valmet, originally Sentrol Systems, a CDC company, was bought out by Valmet Automation, a Finnish company, four years ago. The Toronto plant is known as the Sensor Systems Business Unit. They produce gauging and control systems for paper machinery and the metal industry.

Valmet employs 300 people in Canada and the U.S. The Toronto plant generates \$36 million in sales annually.

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### European operations

Valmet's Finnish parent company, in co-operation with the Toronto plant, maintains offices in Austria, England, Finland and Holland. Within these offices are Strategic Marketing Units responsible for the sale of Valmet's products.

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### Important points

From the kind of information they were receiving from their European representatives, they decided that an ISO 9000 series Quality Assurance Program was necessary in order to prepare for Europe 1992.

Bob Charlton, director of product engineering, implemented the ISO 9003. He had no previous experience with a formalized quality control standard. His comments could prove useful to other novices:

\* "It took a degree of creativity to fit ISO 9003 to our operation because the ISO 9003 is a very general and traditional document."

**VALMET AUTOMATION (CANADA) LTD. (continued)**

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\* "The ISO 9003 is actually a guillotine at the factory door. Its emphasis is on final inspection and testing."

\* "We started in January 1990. Most of the procedures were already in place. It was a question of rationalizing and documenting them."

\* "The goal is ISO 9001. The 9003 was really an internal learning process. It got a common language flowing, etc."

\* "The real benefit of 9001 is the control it gives over design. Without it there is always the danger of things going too far down the development pipeline before problems are identified."

Valmet's gauges contain nuclear material. Therefore it is vital for them to be aware of the various health and safety regulations regarding radioactive materials.

\* "We have to re-design for particular countries in order to satisfy their specific standards," says Mr. Charlton.

These national requirements mean that specific testing and certification usually must be done by the country in question.

\* As their biggest customers are Germany, Holland, Finland and Spain, Mr. Charlton says, it would be most useful to have an agreement with the standards bodies of those countries registering the CSA as a certification body.

Mr. Charlton noted that there was definitely a marketing advantage to having a QAP, citing the interest expressed by North American customers.



## WHEATLEY CANADA LTD.

Implementing International standards to meet customer demands.

"We've had quite a few beneficial spin-offs." - Michael Ernst, Quality Control

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### Canadian operations

Calgary-based, Wheatley manufactures check valves for the oil industry. The company employs about 100 people. Wheatley offers a perfect example of how a small company can use standards to create markets.

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### European operations

Wheatley's main markets are in the U.K. and Holland because of the North Sea oil industry. Wheatley has a sister company in the U.S.

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### Important points

Initially, Wheatley implemented the CSA Z299.3 as a result of end-user demand.

Then Wheatley's American sister company lost a contract because the Europeans said their Q1 Quality Assurance Program was not adequate.

Michael Ernst, who has been working in quality control for eight years, approached the Quality Management Institute about the ISO 9003 standard.

Wheatley Canada implemented the 9003 in July of 1989 and almost immediately picked-up some contracts from its American sister company because they didn't have an ISO 9000 standard.

Mr. Ernst makes the following observations:

\* The ISO 9003 falls roughly in-between the CSA Z299.4 and the CSA Z299.3

**WHEATLEY CANADA LTD. (continued)**

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\* The full commitment and backing of management is necessary in order to implement the standard.

\* Wheatley credits the QA program with increases in productivity, quality improvement and monetary savings.

\* Also, sales people can quote delivery dates more accurately, leading to increased customer satisfaction.

Because of all these benefits, Wheatley has decided to extend the Quality Assurance Program into their pump department, even though no customers have demanded it.

Wheatley does not alter its manufacturing to meet European standards. It leaves it up to the customer to make the appropriate cross-references.



## SOURCES OF INFORMATION

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For more information on GATT Technical Barriers to Trade/Notifications and European and International standards, contact:

Standards Council of Canada  
Information Division  
350 Sparks Street, Suite 1200  
Ottawa, Ontario  
K1P 6N7  
Tel: (Ottawa area) 238-3222  
Toll Free: 1-800-267-8220  
Fax: 613-995-4564  
Telex: 053-4403

### Also

Inquire about the Standards Council of Canada's on-line data base. Partially funded by External Affairs and International Trade Canada, it is available on Datapac Network and INET. Information on standards in Canadian federal legislation, drafts of proposed CEN and CENELEC standards, and final versions of CEN and CENELEC standards are available from this database.

For more information on testing and certification, contact:

Canadian Standards Association  
178 Rexdale Boulevard  
Rexdale, Ontario  
M9W 1R3  
Tel: 416-747-4000  
Fax: 416-747-2473

For more information on participating in trade, investment, technology and strategic partnering missions in EC countries, contact:

External Affairs and International Trade Canada  
Western Europe Trade and Investment Development  
125 Sussex Drive  
Ottawa, Ontario  
K1A 0G2  
Tel: 613-995-9401  
Fax: 613-952-3904/07

**SOURCES OF INFORMATION (continued)**

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For more information on market access issues relating to Europe 1992, contact:

External Affairs and International Trade Canada  
European Community Trade and Economic Relations Division  
125 Sussex Drive  
Ottawa, Ontario  
K1A 0G2  
Tel: 613-996-2727  
Fax: 613-995-1277

For information about the publications offered by External Affairs and International Trade, contact:  
INFO EXPORT  
Tel: 1-800-267-8376  
FAX: 613-992-5791



## ACRONYMS AND ABBREVIATIONS

**BABT:** British Approval Board for Telecommunications.

**BSI:** British Standards Institute: the national standards body for the United Kingdom.

**CSA:** Canadian Standards Association: a non-governmental, not-for-profit standards-development, certification, testing and inspection organization. Its standards represent a national consensus of producers, users and regulatory authorities.

**CE:** Proposed mark which would be affixed to products which have satisfied the European Community's minimum "Essential Requirements."

**CEN:** European Committee on Standardization: European standardization body, it is not an EC institution; it is made up of delegations from the 18 national standards organizations of the EC and EFTA.

**CENELEC:** European Committee on Electrotechnical Standardization: the equivalent of CEN, except it develops European electrotechnical standards.

**DIN:** Deutsches Institut für Normung; Germany's national standards setting body.

**EC:** European Community: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, the United Kingdom.

**EFTA:** European Free Trade Association: Austria, Finland, Iceland, Liechtenstein, Norway, Sweden and Switzerland.

**ETSI:** European Telecommunications Standards Institute: a European standards body open to network operators, manufacturers, users, and research bodies within the CEPT (European Confederation of Post and Telecommunications Administrations) area.

**FDA:** The Food and Drug Administration of the United States of America.

**GATT:** General Agreement on Tariffs and Trade: GATT has set out mandatory obligations regarding standards in its Agreement on Technical Barriers to Trade (TBT). The Standards Council of Canada is the Canadian TBT Notification/Enquiry Point.

**IEC:** International Electrotechnical Commission: along with the ISO, it is the most important international standards organization.

**ACRONYMS AND ABBREVIATIONS (continued)**

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**ISO:** International Organization for Standardization: the international agency for standards making. Its members are the standards organizations of 90 countries. The standards produced are the work of the Technical Committees (TCs) to which a total of over 20,000 members are nominated by ISO members.

**QA,QAP:** Quality Assurance, Quality Assurance Program.

**QMI:** Quality Management Institute: is a not-for-profit division of the Canadian Standards Association with a mandate to improve Canadian business performance and productivity through the application of quality management principles. QMI provides independent, third-party auditing authority for Quality Assurance Program registration and auditor accreditation.

**Q1:** An American Quality Assurance standard.

**SCC:** Standards Council of Canada:created by an Act of Parliament in 1970, this Crown corporation was created to assist government by helping industry obtain the best possible advantage in the use of domestic and international standards, serve as the government's focal point for voluntary standardization, represent Canada at international voluntary standardization activities (such as the ISO) and set out procedures for the development of National Standards of Canada, and for accreditation of certification and testing organizations.

**Z299:** The Canadian Standards Associations Quality Assurance series.



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