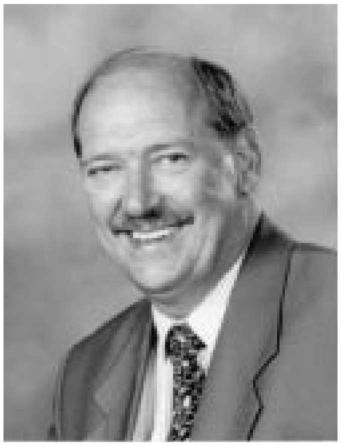


Maintaining the momentum in innovation and adapting our perspectives to new realities are critical to growth and success.

The reality of today's opportunities is incredibly exciting. We are now looking at global markets, unique opportunities and a constant pace of change and evolution. There has probably not been a more exciting or challenging time to be involved in business and serve customers.

Alignment within our own organizations and with others is key to our success, and I expand this to government. What we are seeing today in the world, and in Ontario, is an understanding of the concept of alliance. Together, as innovative business leaders, we pave the way for others and contribute to shaping Ontario's economy. As engaged corporate citizens, we have an unprecedented opportunity to share our expertise and play a role in community building and public policy development that can impact on the future of our businesses.

The success of the Wisdom Exchange attests to the need for leaders of fast-growing innovative firms to share their expertise and challenges with each other and with business service providers. A one-day forum is not enough, however, to maintain the momentum in innovation that will assure a strong provincial economy. It calls for a year-round initiative that allows for continuous interaction. With that in mind, private sector business leaders are preparing to launch the Innovators Alliance, seeded by the Ministry of Economic Development, Trade and Tourism, to support and accelerate the success of Ontario's leading growth firms.

The Innovators Alliance is our opportunity to make a difference. It is our opportunity to create new alignments that will ensure our effective response to increasingly demanding consumers and our continued success. A number of initiatives are being planned to support Innovators Alliance members, including a Web site, another Wisdom Exchange and an Awards program in 1999.

On behalf of my Board colleagues, I invite you to make a difference and join the Innovators Alliance.

John B. Kelly
President & CEO, JetForm Corporation
Chair, Innovators Alliance Board

Introduction

The presidents and CEOs of more than 200 of the fastest growing firms in Ontario met on May 12, 1998 to share their experiences and insights at The Wisdom Exchange™, a one-day forum organized by the Ministry of Economic Development, Trade and Tourism in partnership with corporate sponsors.

This report is the result of these exchanges. It is not intended as a prescription. It is a record of some of the innovations that have enabled Ontario's most dynamic business leaders to overcome their problems and challenges on the path to rapid growth. It is filled with ideas that any business can adapt to its own particular circumstances, amending the concept appropriately to fit its own context.

To enable a free flow of ideas and information, the forum was broken up into small, completely unstructured discussion groups. The resulting plethora of provocative thoughts, relevant experience and sound advice has been highly rewarding to all the participants, many of whom requested a record of the proceedings. This report attempts to capture the main observations and ideas that came out of the 30 sessions of the Wisdom Exchange, structured in a way that makes it easy to access.

Much of the material is presented as a collection of possible solutions to a series of defined challenges. This format enables readers to skim through the material quickly in order to find areas of special interest – and then mine the participants' insights for practical and proven ideas that can help their own businesses.

At the end of each chapter is a profile of a participating president or CEO, aimed at exploring his or her innovative techniques and strategies. These profiles are the first in a series being developed by the Ministry to explore issues around fast-growing innovative firms.

The words in this report are the words of the participants themselves. There is no comment or assessment, or attempt at interpretation. Where there are quotation marks, the words are verbatim. The rest is a tightly paraphrased version of what the presidents and CEOs said, intended to extract the essence of their observations, all of which are drawn from multiple comments in different sessions on similar topics.

This year's Wisdom Exchange also served as the occasion for the announcement of the Innovators Alliance™, a new community of interest built around Ontario's fast-growing innovative firms.

Written by Don Rumball,
independent business writer,
for the Ontario Ministry of Economic Development, Trade and Tourism.

BACKGROUND

The Ministry of Economic Development, Trade and Tourism has identified fast-growing innovative firms as a major priority in its efforts to accelerate economic growth. The Government calls them innovative growth firms (IGFs), and defines them as innovative small and emerging medium-sized enterprises that have sales growth of at least 30% over two years.

IGFs are a government priority for the following reasons:

- they are one of the principal engines of job creation;
- they help to develop Ontario's economic muscle because they are more likely to train their employees, export, invest in R&D, and adopt new technologies and new equipment;
- they invigorate Ontario's innovation culture by acting as role models and demonstrating the power of doing things in new ways;
- they stimulate customer firms and suppliers to upgrade and innovate in response to new needs and new opportunities; and,
- the most successful IGFs graduate to mid-sized "threshold" firms that represent Ontario's best candidates to become the giants of the next generation, driving progress for the entire province.

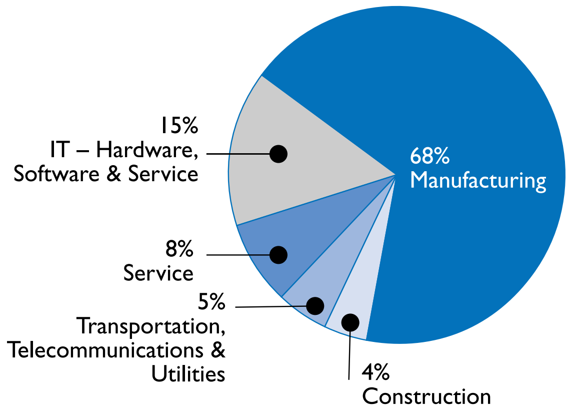
The Ministry has worked to meet this need for growth management skills through its annual Wisdom Exchanges. Partnerships are a critical success factor of the Wisdom Exchange. Over 20 private sector organizations, including banks, management consultants and law firms, have sponsored the event since its inception. From the start, the Government has recognized the benefits of linking IGFS to business service providers. The link can help IGFs to overcome the barriers to growth, and allows both groups to explore business opportunities.

The province has assembled its own database of IGFs, which shows the dynamism of IGFs. The 450 firms in the database have exhibited much stronger growth than the average Ontario firm. Over the period from 1994 to 1996, these firms increased their sales by 69% and their employment by 43%.

IGFs that sustain rapid growth to become medium-sized firms do more for the economy than simply ring up sales and add to the job rolls, important as these may be. As established, successful home-grown firms, they become leaders in the development of Ontario's innovative economy.

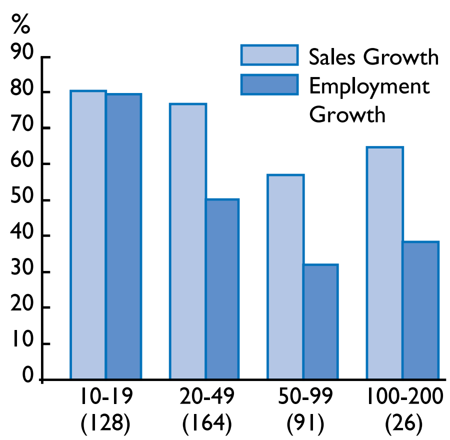
As economic leaders, successful IGFs, are important not only for the rewards they generate for investors and employees, but also for their positive effect on and upgrading impact on *other* Ontario firms. Size influences the scale of impact that these firms can have, and it is therefore crucial to Ontario's economic success that IGFs achieve their full potential.

Innovative Growth Firms by Sector*



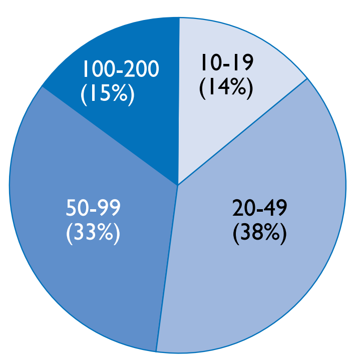
*Based on 409 innovative growth firms (1996)

Innovative Growth Firms by Sales & Employment*



*Based on 409 innovative growth firms (1994-96)

Innovative Growth Firms by Employment Size*



*Based on 501 innovative growth firms (1998)

Chapter 1

Leading and Managing Innovation

Innovators' Perspective on Innovation

Innovation is neither a management fad nor a set of rules that can be applied to management problems. It is an attitude, a way of life that permeates the entire conduct of business in innovative firms. Leaders of fast-growing innovative firms constantly have to reinvent their businesses in order to cope with the pace of growth. They are engaged in a ceaseless process of planning, setting goals and evaluating success. Even when business is declining and the economy is stagnant, they know that they can still find success.

The personal attitudes of the CEO are crucial to the whole process of innovation. Participants in the Wisdom Exchange observed that CEOs must dare to dream, to recognize that their only limits are within themselves. They must personally step outside their paradigms – which means understanding themselves and being critical of their own performance. Because they can't do it all themselves, they need to get to know their employees and set the tone of honour, integrity and willingness to take a chance.

Challenges	Solutions
▸ **Innovating is a 24 hour-a-day process**	• Love what you do. • Keep a pencil and paper next to your bed for those late-night ideas. • Use your time in cars and planes to think and plan.

The Innovation Process

Innovation is the process of picking up shifts in the marketplace, knowing their relevance to both your industrial sector and company – and "tweaking" them to make them work for your own company. True innovation does not transfer from business to business – the ideas behind it does.

It is never an easy task. The execution of brilliant ideas is often a challenge, which makes innovation a lot of hard work. It is an evolution, not a revolution. The most successful innovators learn to identify problems and use the information they gather in the process to define their solution – they "go slower to listen, but in the end they go further, faster."

Innovation reflects a balance between, on the one hand, flexibility or the ability to tackle new ideas or change direction and, on the other hand, the alignment of company priorities in the context of its core business. At any point in time, innovative leaders decide how flexible they can be in putting their focus at risk to creatively meet new challenges.

An innovation can be tantamount to deciding to play in a new ballpark. Leaders must decide if they are willing and able to go the distance their innovation may take them. Can they survive it? Can they afford it? Do they want to be a bigger player in their market?

The critical questions that leaders must ask themselves when approaching an innovation are:

- Will there be a customer willing to pay for this innovation? To be valuable, an innovation has to be saleable.
- Does it meet the needs of all the stakeholders (the owners, the employees, the suppliers and customers)?
- Are the people and resources necessary for implementation available?
- Is the expected return on investment high enough to justify the innovation?
- Do the leader's instincts support the innovation?

Product Cycles

Speed in adapting to change is critical. With such short product cycles, innovation is a necessity.

Patents don't always lengthen a product cycle. Some CEOs thought that patenting their process may offer more protection than patenting their product. The majority of CEOs who discussed patents felt the cons outweighed the pros:

Pros: Patents offer credibility and a marketing advantage. "Patents pending" may offer more protection than an approved patent – it staves off others from developing similar innovations, because details on the innovation are not disclosed at this point.

Cons: The advantage of patents may fade relatively quickly in fast-paced industries, and sometimes the cost of defending a patent in court is so high that patents do not seem to be worth the effort. A trademark may be all you need.

Challenges	Solutions
▸ **Accessing large markets effectively**	• Use alliances to import products that have potential in the North American market; then if consumer acceptance is strong, bring over the technology and processes to manufacture locally.

Managing Innovation

Innovation is not a spontaneous phenomenon. It has to be induced through deliberate planning and effort. CEOs stressed that they make conscious decisions to commit time, money and tools to innovation. There are two basic approaches to innovation:

The first one is proactive and internal to the company. Companies using this approach expect to improve their operations by decreasing costs, increasing efficiencies and therefore improving margins.

- One equipment manufacturer encourages its employees to actively think through the production process. In so doing, the firm was able to remove two steps of production, thereby decreasing the amount of tooling, parts and labour which went into the equipment.
- Another company encourages innovation by setting aside adequate resources in the budget to fund future (unknown) ideas. When employees submit ideas, a team of employees reviews them and recommends appropriate ones to management for further consideration. Management examines how ideas will fit into the company's strategy or vision for the future.

The second approach is reactive and customer driven. It usually involves the re-engineering of products to fulfill the specific requirements of the customer. With this approach, the company attempts to add value or to solve a problem in a unique or unusual way. In this situation, it is important that a company consider a problem as a potential opportunity to push itself forward into the future.

- One president developed a prototype product for a customer, then discovered a fatal flaw with their prototype. From this failure, however, stemmed another idea, which resulted in the same customer giving the company 12 years' worth of business. The client was so impressed by the way the company had approached the problem that it wanted to continue its relationship with the firm.

Whichever approach is used, it is hard work to keep the culture of innovation alive as the company grows larger. As one CEO remarked, entrepreneurs should understand that it takes 15 years to become an overnight success.

Besides being patient and persistent, CEOs must be willing to "take a flyer." Wayne Gretzky was quoted as saying, "I've missed 100% of the shots I never took." CEOs suggested, however, that companies should never take a risk that could endanger the company's survival. They advised putative high flyers to limit risk to "as much as you can handle without going broke if you lose." It's a delicate balance. CEOs have to create win-win scenarios, but they still have to build in allowances for mistakes and failure.

Managing Growth

Perhaps the hardest role – and maybe best known challenge – for any CEO of an innovative growth firm is making the transition from hands-on entrepreneur to hands-off corporate leader. Some called it "invisible management," which they characterized as a CEO's ability to minimize his or her management presence so that the rest of the team can make the best decisions, rather than basing decisions on what they think the boss wants.

A particularly thorny problem arises when companies grow big enough to hire a vice president of Finance. One president explained that his business only started to take off once he hired a vice president, Finance to take over those issues for the firm. Others complained that when they hired their VPs of Finance, they tried to take over the firm.

In grappling with all these people-related issues, some CEOs find they do not have the professional management skills to cope. They must deal with the question of whether they are willing to bring in skills to compensate. One option is to embark on management training.

There was considerable discussion on the process of delegating responsibility, with the debate focused on how to make employees feel empowered without incurring the risk of inadequate supervision. Participants noted that CEOs should be flexible in determining the appropriate degree of supervision.

In the process of identifying innovative ideas, it is critical to communicate a vision of the company's mission and to align staff to the necessity of fostering innovation. It is important to recognize that the owner is often the visionary and extrovert, but he or she should never tell senior staff what to do – let them set objectives and make progress reports. If the leader's vision and strategy are clear, the ideas that come forward will be in alignment with corporate goals. It is a two-way street. Leaders should listen to employees and go beyond their words to look for the real meaning and interpret all the signals.

CHALLENGES	SOLUTIONS
VISION	
▶ Managing the vision as the company grows	• Make your corporate vision a way of looking at the world, rather than a formula. • Understand what business you're in, so that you open it to innovation as it evolves.
▶ Creating time to focus on longer-term issues without losing sight of today's needs	• Make a long-term commitment. • Be at all times conscious of the proper balance between short- and long-term R&D projects. • Go through a strategic planning exercise.
THE CEO'S PERSONAL GROWTH	
▶ Moving from operating on the basis of hands-on technical expertise to managing the business, or shepherding	• Bring in outside help – maybe boards of advisors or mentors (for young firms) or peer-to-peer groups. • Find expertise that complements your own. • Encourage team-based decision-making.
▶ Delegating by introducing constructive empowerment of employees and developing effective performance tracking	• Develop an atmosphere of mutual respect. • Allow for the achievement of personal success. • Build on individual strengths and manage weaknesses. • Establish an employee suggestion program – and reward good ideas with cash.

CHALLENGES	SOLUTIONS
THE MANAGEMENT TEAM	
▸ **Choosing a structure that works for your organization**	• Look outside the origanization for examples in setting up the structure. • Establish a board of directors or an advisory committee.
▸ **Developing the managerial capabilities to support rapid growth – building a middle management team, getting the right people, deciding whether to hire outside or promote from within**	• Open communication between the CEO and other company leaders in order to facilitate trust among the senior management team. • Expose managers to a formal or informal external board of advisors. • Have managers meet with customers on a regular basis to build awareness of and responsiveness to customer needs. • Find thinking time (perhaps off-site or informally) to allow managers to think strategically about the company's future. • Broad-base hiring assures a spectrum of abilities and competencies among the leadership team and allows them to learn from each other's experiences.
ATTITUDES TOWARD GROWTH	
▸ **Growing markets while minimizing costs**	• Have two budgets – one for marketing (to set the accelerator high) and the other for production (to manage company capabilities and the costs of new sales/products).
CUSTOMERS	
▸ **Ensuring that the company's innovation process reflects customer needs**	• Focus employee attitudes to acknowledge the customer as king. • Target customer satisfaction at 99.5% versus the usual industry standard of 90%. • Do more than listen to your customers, think like one. This is part research, part intuition. • Establish on-going customer advisory groups to ensure that innovation is focused on meeting their needs. • Work with customers and find out what you need to do to make them successful. • Circulate call reports from the sales and technical service staff to all department heads in the company, so that customer feedback is communicated to all staff. • Arrange staff visits to customers' plants. • Use "lead" customers as a means to develop new products and gain a better understanding of their needs.

CHALLENGES	SOLUTIONS
MAINTAINING INNOVATIVE CAPACITY	
▶ **Ensuring a steady flow of appropriate innovative ideas, without overloading the company**	• Go outside your market for new ideas. • Show competitors' products to your employees for comparison. • Review and adapt other companies' best practices by putting a new spin on them. • Encourage your customers to be innovative – and act as role models. • Register for ISO 9000 – it can drive innovation by improving accountability and communication. • Business Process Re-engineering programs serve to encourage thinking "outside of the box" and encourage innovative ideas. • Do not ignore intuition, but do the due diligence. • Hold contests for ideas on specific issues or problems. • Send a message that there's "no risk for being wrong."
EXPORTING	
▶ **Expanding into foreign markets**	• Have a diverse workforce. One company has a Chilean employee who put it in touch with potential customers in that country. Now 10% of the firm's product is being exported to Chile and the company is planning to expand into other South American markets.
FINANCING	
▶ **Dealing with excessive demands on one's time to raise capital**	• Find non-traditional financing from suppliers, customers, etc. • Move from self-financing to mergers and alliances, and even acquisitions.
▶ **Preventing financing from becoming a limiting growth factor**	• Set the budget at forecasted growth and add 10-15% to set the accelerator high.

MOTIVATING EMPLOYEE CREATIVITY

Employees cannot be innovative unless they are given the chance to be so. Japanese car manufacturers, for example, allow people time to think with inter-shift quality circles that review problems and issues encountered. This approach has resulted in thousands of improvements being implemented each year.

It takes more than quality circles, however. CEOs agreed almost unanimously that creating a culture of innovation requires a sense of excitement among staff.

CHALLENGES	SOLUTIONS
▶ **Keeping up with change**	• Don't have an organizational brake; you can't have new products fast enough.
▶ **Providing incentives for innovation, and linking performance to company success**	• Make the reward for suggestions reflect the value of the contribution. Some employees are in a better position than others to make a contribution that has a bigger impact on the bottom line. - One firm uses 14 company performance measures. Each employee provides measurable updates on their area of responsibility. • Allow staff to exercise ideas – give people flexibility and innovators will rise to the top. • Ask employees for ideas in a meaningful way – or you'll get the attitude – "the boss wants me to do it this way."
▶ **Communicating innovations and the company's success despite the many layers between employees and senior management**	• Meet regularly with employees to discuss issues that affect them and the company, not just when the news is good or when it's convenient or comfortable for you. Give them signs that they are being heard, even if their advice isn't always taken or complaints immediately resolved. • Let middle managers communicate directly with the owners. • Have line staff meet with owners. • Meet with each employee's manager directly. • Ask managers who are the rising stars and get to know them.
▶ **Maintaining the innovation culture while growing rapidly – particularly since the environment may vary according to individual personalities**	• Encourage action and passion. • Listen to your employees to find motivating factors: - 20-to-30 year-olds may want to keep parrots in their office - have espresso machines and work flexible hours. • Get senior managers to recognize and be sensitive to individual employee needs. • Reward sales staff with dollars, others with challenges. • Use incentives such as Employee Share Ownership Plans (ESOPs). • For its 25th anniversary of their company, one company gave each employee a gold pin inscribed with the word "ATTITUDE." • Recognize what needs to be done to prevent staff turn-over. Build a stimulating work environment with plenty of light and comfortable ergonomic surroundings. Provide facilities for relaxation. Share profits. Pay above average. And monitor morale. - One company does a regular, professionally-designed survey to assess various "mood indicators" across the company – and follows it up with employee focus groups. • Teach staff how to identify and nurture win-win partnerships – internally and externally with customers, prospects, suppliers and associates.

CHALLENGES	SOLUTIONS
▸ Aligning employees with the vision of the leadership team, getting employee buy-in and promoting strategic thinking in employees	• Use informal non-work environments to encourage employee bonding, such as monthly barbecue lunches at your house. - When one company took 100 people away for a weekend, people who were previously silent brought passion to the session. • Create cross-functional internal advisory groups to ensure buy-in by all parts of the operation. • Hold quarterly one-on-one meetings with all staff without an agenda – they can ask anything they want. People leave the meeting with a greater sense of ownership, plus the meetings generate ideas. • Have lunch once a week with a different group within the company. • Publish a company newsletter – and put some resources into it! • Hold monthly management meetings. • Publish everything, including minutes of meetings – openness works. • Appoint a think-tank or a steering team to meet and talk about innovative ideas to improve the company. • Set up new product development meetings. • Create self-directed work groups to combat traditional (hierarchical) management. - In one firm of 55 employees, the CEO's job is to set strategic goals for profitability, revenue etc., then the teams work towards achieving them without any constraints.
▸ Getting employees to volunteer their minds – and mining the results	• Make your employees happy. Happy people are more innovative and creative. • Seek your employees' advice. - One company holds company meetings where they hand employees a sheet of paper with company performance statistics etc. and asks them for advice – then the owner closes the door and walks away. The first time nothing happened; the second time ideas began emerging. The company found that employees were less threatened in a group environment. - Another small company holds monthly idea sessions that are relaxed, "out-of-the-box" discussions on any issue (customers, products, financing, technology), followed by disciplined analysis and delegation of responsibility to follow up. • Make a commitment to provide a response within 24 hours to any employee suggestion to improve the company. This can be a call from senior management; or supervisors can be empowered to make decisions to shorten feedback time. • Charge all travelling employees with the task of finding and reporting new ideas as they travel. • Have closed-shop staff meetings with everyone together and ask "How might we…?" • Ask customers to send a letter to the person who actually did the work. • Find aggressive, high performers – start the fire and walk away. • Tell employees if it doesn't cost money and it will improve the company – DO IT.

CHALLENGES	SOLUTIONS
▸ **Providing appropriate training**	• Train for "just-in-time learning" – employees must continuously coach and lead, as projects are initiated. • Create your own employee training program internally.

ORGANIZATIONAL EVOLUTION

CEOs' organizational structures ranged from non-existent for new media firms or companies doing custom work, to hierarchical for traditional manufacturing companies. The characteristics of the former include:

- a flat hierarchy, which forces empowerment of the employees
- an inclusive approach for all employees in strategic planning
- functional leaders who operate as facilitator/coaches
- line managers who have some responsibility for recruitment
- a matrix set-up designed to manage by project
- pooled resources which are assigned to projects as needed
- a strong sense of formal or informal partnership
- flat pay scales – no one makes more than four times the lowest salary
- share options and profit sharing
- open concept offices – no "offices" or walls.

Not every organization can work within this structure. The potential problems include:

- establishing accountability
- a workable performance appraisal system
- burn-out
- too demanding scopes of projects
- lack of structure, which sometimes leads to "the squeaky wheel getting the grease"
- a tendency to management by consensus rather than informed decision-making
- not everyone can work in a matrix management. It is a good system for different products in different markets and it encourages teams to be set up across several departments, but conflicts do appear on whom ultimately has the responsibility.

Manufacturing firms have a more traditional and structured hierarchy, which makes it difficult to implement technology in process and marketing. Many noted the need to eliminate some of the rigid structures. One solution is to manage through teams and self-managed work units. This leads to:

- the empowerment of team members
- clearer accountability
- team progress is dependent on resolving team difficulties and challenges together.

The principal techniques to help this approach work well include:

- allocating team resources weekly to ensure efficient use of skills
- engineering the team culture to provide "solutions"
- gaining consensus support for the decision
- extensive training to change the culture
- ensuring there is adequate time to fully implement and adopt the new culture.

CHALLENGES	SOLUTIONS
▸ **Incorporating information technology into the organization**	• Install enterprise-wide planning systems for growing firms. • Make extensive use of e-mail, the Internet, satellite telecom – this encourages "hallway" chatter among employees deployed globally (note, however, that e-mail may be abused). • Be responsive to your market in adapting technology. • Use technology as an enabler or means of communication, not as a solution. • Technology must meet your business objectives. • Technology should not detract from people – some older or busy employees may have difficulty adapting. • Change your structure to accommodate technology if necessary.
▸ **Extending the "reach" of your organization to help it grow**	• Find sub-contractors – this reduces the overall size of the organization yet enables large-scale production, when required. • Create alliances, sometimes with competitors.
▸ **Choosing a structure that works for your organization**	• Look outside the organization for examples in setting up the structure. • Establish a board of directors or an advisory committee.

APPROACHES THAT DO NOT WORK

Some of the CEOs shared experiences that they found did not work for them.

In terms of their relationships outside the company, some found that allowing imitation as a viable approach deadens innovation (although imitation can be a viable strategy in certain circumstances). There was wider agreement that trying to stand alone without alliances, customers, or business services providers (who can be a source of ideas) is unlikely to maximize innovation.

In terms of internal management systems, red flags went up for the following practices:

- involving just the executive management committee in planning innovation, missing out on departments such as marketing
- working with stretched budgets
- using delegation to encourage innovation
- using a hierarchical management structure
- enforcing "rules" too strictly
- using profit sharing plans as a way to generate *entrepreneurship* (they generate loyalty)
- bringing in an outsider to initiate innovation, which results in a lack of buy-in by existing employees
- holding on to "legacy" people only because they were there at start-up
- having too many "entrepreneurs" in the company, which can lead to straying beyond your core focus – people come up with non-core ideas that are good, but these should be seen as spin-off possibilities.

THE C3 GROUP

The C³ Group Group of Canada

Breslau

Murray Gamble, President

"From the point of view of innovation, resourcefulness, knowledge, I'll take any Canadian company against any player in the world. The only thing we lack is the critical mass, the size."

The C³ Group doesn't really have a specific line of business – its expertise lies in engineering and contracting, but its niche is identifying and solving problems. The company is constantly on the prowl for clients with intractable problems that no one has been able to solve. And, having found a solution, it doesn't try and make a long-term business out of it. "As soon as the industry mainstream starts doing what we do, we get the heck out of it," says Murray Gamble, President and one of two principal partners in the group.

C³ seeks most of its work in four areas – restoration, environmental services (mainly dealing with contaminated ground water), industrial services and foundation work (principally stabilization). The company was founded in 1973 as a side-line by its CEO, Cam Wood, a successful local contractor. And it expanded into specialty services in the 1980s when Gamble joined the business straight from a civil engineering degree at the University of Waterloo. The company has grown rapidly in the past four years, but its objective is never growth for growth's sake. "We try to stick with projects where we can make a significant margin, rather than do another few million dollars at 10%," says Gamble.

This approach puts a premium on innovation. Gamble likes to think of the company as one big skunk works. What drives him and his staff is who can dream up the next creative solution to an interesting problem. "I've seen so many problems in industry which people have been trying to solve for years," he says, "but they can't do it because people apply their day-to-day expertise to the problem, rather than starting from first principles and identifying the real problem, then developing a solution from the ground up."

This kind of project is not always easy to find. For starters, not everyone wants to admit they can't solve a problem. And C³ can't offer proven solutions to a potential client – by definition, every project is a leap of faith. "In our business," says Gamble, "the innovation process is almost a series of random collisions of ideas. We communicate as much as possible with as many different people as possible and just keep our minds open. Sooner or later, they'll start to link up."

Out of necessity, C³ has built up a large network of affiliates and contacts who can feed it with work. The variety of technologies it encounters also means it has to draw on its network of technical people who lend their expertise to the group, giving it a resource bank far bigger than its size would indicate.

At a Glance

1997 Sales	$7.2 million
1997 Staff Count	75
1993-97 Average Annual Growth Rate	
Sales	28%
Staff	43%
Percentage of Sales	
Exports	10-20%

C^3 GROUP
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A vital part of this network is an intensive relationship with professors at the University of Waterloo. What started out as a few chance meetings with kindred spirits some years ago has turned into an organized program of involvement and contact between C^3 engineers and the university. Now the professors even come to C^3 with their ideas, seeking the company's practical know-how. It's a delicate relationship, however – the professors are sensitive about academic recognition of their work as well as the financial rewards that flow from commercially viable inventions.

This kind of interaction between the university and the business community is a feature of many "hot spots" of innovation in North America and elsewhere. Kitchener-Waterloo is now part of this phenomenon. In the past decade, the accumulation of entrepreneurial chutzpah has acquired critical mass and is now feeding on itself – to the point where any entrepreneur who sees the success of another is immediately determined to go one better.

In this exhilarating flurry of innovation, Gamble has begun to broaden the base of C^3's process of innovation. Whereas a very small group around him and Cam Wood used to do most of the investigating and thinking about where to go next, now he is incorporating the leaders in each of C^3's four business units into the process. This demands a more formal approval process and more rigorous monitoring. With this kind of delegated innovation, the principal risk is initiatives that progress too far down a fruitless path or early design decisions that limit possible solutions later on. So he is instituting formalized double checks into the process that will avoid cost overruns and ensure quality solutions.

This approach to business places special demands on C^3's employees, so Gamble does his hiring a little differently. He doesn't ignore the need for an adequate technical background, but many of his technical staff have not had conventional careers. He looks most of all for life experiences that have forced people to become resourceful.

The formula works. When C^3 started bidding on projects in the U.S., it found itself equal to any of its competitors for innovativeness. Says Gamble, "I don't think our media, our government or our establishment in this country realize what a powder keg of innovation they're sitting on here. In this country, we really have the potential to do fantastic things in the future." In Gamble's experience, Americans have used their huge markets to build monster firms through a consolidation process that eliminates the innovative competitors. The Canadian market, by contrast, has much smaller potential, so Canadian-based firms are forced to re-invent themselves constantly, just to survive. This makes them more nimble than their American counterparts.

The biggest threat that Gamble sees from the U.S. market is the brain drain. At the University of Waterloo, for example, an astonishing number of Canadian-grown graduates go south of the border every year. But he fears few competitors. "Generally, we don't have too much problem beating the U.S. in innovation."

Chapter 2
Recruiting and Retaining Employees

This chapter covers the views of CEOs regarding staffing issues. It is divided into two parts:

- The first part deals with issues and techniques relating to the recruiting of suitable people.
- The second part deals with retaining employees and maximizing their contribution once they are on the payroll.

Part I – Recruiting

Hiring Issues and Strategies

There is no simple way to hire people! Most CEOs in these sessions felt that promoting from within is best, based on internal training of staff. To repeat one popular phrase: "Hire for attitude and train for skill."

Great care should be exercised in the hiring process. It is more difficult to fire than to hire, so it is preferable to wait for the "treasure," the right person. Rushing the recruitment process generally leads to missteps in the process – and compromising the standards of the search may lead to legal action or union grievances, as well as leaving many existing employees disgruntled.

CEOs agreed that perhaps the most difficult hiring decision is appointing a general manager. It is sometimes difficult to find a general manager with drive and vision to match their own. Many general managers will keep things going well, but they will never take the risks that an owner will.

It is important to see hiring in a broader context. It may be more than just recruiting. With changing business environments, companies must constantly re-assess their goals and needs, opening themselves to a variety of solutions. Using full-time employees is one option, but there are others, such as part-time employees, contracting out work to suppliers and hiring workers on a contract basis.

Challenges	Solutions
▸ **Meeting needs that are temporary or unclear**	• Hire expertise by contracting out for the services needed. • Create strategic alliances – the benefits are mutually advantageous while both parties continue to have other options.
▸ **Ensuring a good fit with the company**	• Clearly define the set of skills needed at the beginning of the hiring process – specifically the job, the corporate culture and the expected fit of the potential employee. • A good "fit" does not depend on liking the potential employees, nor does it depend on school, college or university marks. • Provide a clear job description outlining specific tasks and duties. If the job description is too general or non-specific, the right people will not be enticed to consider the job. • Draw up a detailed hiring agreement or contract that provides clear focus of the hiring process.

CHALLENGES	SOLUTIONS
▶ **Ensuring the company is an attractive place to work**	• Create excitement for all employees with different styles of work, including: - self-managed teams, and - multi-task, unstructured work. • Provide an environment where new employees are stimulated, challenged and given opportunities for advancement.

INTEGRATING NEW HIRES

Once people are on the payroll, it is critical to get them aligned with corporate objectives and practices – and to ensure their attitude is strengthened early on. However, the onus is not all on the company – new hires must make an effort to become part of the team.

CHALLENGES	SOLUTIONS
▶ **Integrating new employees**	• Provide an introduction and orientation program that leaves nothing to guess work. • Demonstrate to existing employees that bringing in outsiders is essential to future growth
▶ **Testing and aligning expectations**	• Live up to the expectations created in the hiring process or risk disappointment and early departure. • Meet all commitments made, especially for training. • Monitor the performance of new employees regularly and identify departures from expectations at once. When this happens, re-align the employee or simply part company. • Outline the terms of separation up front in the hiring process, in order to remove any ambiguity should the new hire not work out.

SOURCES OF TALENT

A number of traditional, and more innovative, sources of new recruits were reviewed. As mentioned earlier, it was generally felt that training employees internally and promoting from within has been more successful than hiring new people who have already been trained. CEOs advised their peers to look for employees who want to migrate to new and better positions.

Views were mixed on external sources of new employees:

- Newspaper advertisements were perceived as having limited success.
- Headhunters generated strong views on both sides of the fence. Using outside resources often brings objectivity and focus to the hiring process – and they can be particularly useful for the time-consuming activities such as scripting the advertisements, screening the responses, phoning, and conducting initial interviews. However, some were skeptical of head hunters because they can rarely interview all the potential candidates

and because their fees can be unreasonable (although some have successfully negotiated lower rates). Further, recruiters know where they have placed employees and can call them for another position in the future. In dealing with headhunters, it is important to know the firm and the specific account manager. It was suggested that using headhunters may be a good approach for upper level positions, where the expense is worthwhile, especially where careful pre-screening has taken place.

- Canada has traditionally gone to Europe and other foreign countries to hire skilled workers, but this is becoming less viable as a strategy. The high standard of living in Europe reduces the number of people prepared to emigrate. Two years ago, there was an excess of résumés received. Today there is a shortage of applications for specific job advertisements. Immigration laws are also a source of difficulty when bringing in skilled people from overseas. It took one firm six months to secure approval for a candidate – and then he was not available, as he had joined an international company in another country.

There was some discussion of a newer approach – the Internet – but that, too, has had mixed results. It is a potentially useful tool for young people, but many employers are still reluctant to hire from this source. Good luck is still an essential ingredient for finding the right employee!

CHALLENGES

▸Identifying good candidates

SOLUTIONS

- Get acquainted with job boards at colleges.
- Rely on word of mouth.
- Seek out referrals
  - An association of innkeepers has formed a referral system which attracts people into the hospitality sector with minimum disruption due to "staff theft." The organization is made up of owners and has demonstrated that competitors can cooperate in the placement of skilled people.
- Network in industry, universities, community colleges. Build a relationship prior to employment – through lunches, dinners or activities together. At worst, if you don't hire the person, you may have made a new friend.
  - Some companies keep in contact with community colleges to learn the graduation dates of the key programs for their needs. They are then first in line to recruit the very best. Ideally, they locate students during their first year of university because it helps to minimize the high turnover for such jobs.
- Seek out "recycled executives," who have previously been responsible for leading successful growth companies, through word-of-mouth, search firms and other sources.

CHALLENGES	SOLUTIONS
▶ **Motivating existing employees to find good candidates**	• Be sure every employee knows of the skills the company is looking for. • They can generate "finds" – a friend, neighbour or other associate who would work ideally within your corporate culture and structure. • Be sure to reward the employee who finds a new recruit for your company. This can be a cash reward or other benefit, such as a gift or time off – \$200 was considered low, with \$1,000 to \$2,000 as more meaningful, provided the new hire stays with the company for a specific period. • Set and maintain high standards for each new position to prevent existing employees from feeling over-qualified and underpaid. • Allow peers to recommend or even select candidates. • Make existing staff feel part of the company. For example, welcome their advice on how to make improvements.
▶ **Dealing with people who "shop" the industry**	• Don't steal employees from the competition, unless the fit is particularly good. If the hire is confirmed, clear it with the competitor, especially if the company is in your city. • Don't rehire employees who have left to join the competition, unless you are comfortable with their reasons for returning. If you do let them return, allow it only once. • Offer workplace flexibility to combat poaching by big firms. Large companies may have deep pockets, but in smaller firms employees can be more creative and more innovative because they are more relaxed and less restricted.

SELECTION SKILLS

CEOs suggested that selecting new recruits is a two-stage process. First, the candidate should be assessed for his or her "fit" with the company culture. Second, he or she should be assessed for the specific job requirements. This involves multiple interviews. An employee who interviews well on the first round often does not do as well later, having been exposed to more of the corporate culture.

The hiring process is important enough that the CEO and several senior management staff should be involved at all times. The interview team must be trained to "sing from the same hymnbook" before interviewing starts.

CHALLENGES	SOLUTIONS
▶ **Involving the right people in the hiring process**	• Require management to spend the time, energy and expertise necessary in the process of recruitment. • Get the potential employee's immediate superior involved. • Use people familiar with the job to recommend candidates.

CHALLENGES	SOLUTIONS
▸ **Getting the right "fit" with the corporate culture**	• Try to hire on contract first to try out the employee: - Internships allow both parties a mutual "look over" and often result in hiring the intern. At the very least, the intern will be given the first opportunity at any new job. - Contract out the skills needed until you find the right person.
▸ **Knowing what to look for**	• Look for a variety of life experiences. - An excellent recruit was a construction worker who returned to school, demonstrating willingness to learn new things. - Another research-based company looks for people with a farming background, because farmers tend to be resourceful, frugal, ingenious and hard working. • Search out multi-talented people, not people whose talents apply to a single job or skill. • Industry experience is critical; creativity can be instilled later. • Look for problem-solving ability. A degree is not always a signpost for creativity. • Assess personality traits and attitudes as well as skills, knowledge and experience. • Hire generalists – they lead to more "out-of-the-box" thinking.
▸ **Choosing tools to help**	• Apply skill tests and aptitude measurements consistently (basic math is often a weakness). • Develop an internal screening process once candidates pass the first test of compatibility. • Follow standard procedures for the selection process, using external assistance, if necessary. Tests can determine compatibility with your corporate culture, as they assess correlation to control, competence and interactive skills. - One company uses specific instructions in its job ads to determine if the applicants will follow simple instructions like "Please use a handwritten covering letter." In many cases applicants typed their response. This approach might be appropriate where it's important to follow procedure, but it fails when trying to find creative people.
▸ **Dealing with shortages in the skilled trades – computer software engineers are not the only jobs with potential**	• Access and use Web sites where employers can post requirements and get responses from potential employees. • Network and talk to business associates.

PART II – RETAINING

CEOs observed that in today's hot labour market for specific skills, they must know what the competition is doing if they wish to retain their good employees. In examining all the aspects of retaining valued employees, the recommendations of the participating presidents covered the following elements:

- reinforcing the corporate culture
- communicating
- motivating through incentives
- employee development and training.

Reinforcing the Corporate Culture

It is crucial to have a game plan for retaining good employees – do not wait for trouble to start!

Perhaps the most important part of this plan is to make sure that new employees have a style and personality that "fit" the company's culture. Whenever there is a poor fit, employees rarely stay with the company. Some companies ensure a proper fit by arranging meetings beforehand with the potential employee's co-workers, to see if the group will accept him or her. In addition, employees must maintain their "buy in" to the company's culture, even if that culture tends to change as the company grows.

Developing a clear mission statement will help to reinforce the corporate culture. To be effective, the mission statement must be demonstrated to be important. It has to be reiterated again and again, with posters on the wall in the reception area, the cafeteria and wherever else necessary. This type of reinforcement ensures that stated values are not just lip service.

As far as content is concerned, some CEOs liked vision statements better than mission statements. Others believed strongly in a corporate philosophy that looks at individual conduct, starting with honesty, respecting customers, treating each other with dignity. A few CEOs said they have written down these philosophies, allowing employees to take a significant role in their preparation.

Expanding on the corporate culture, CEOs said they liked a young, high-energy atmosphere, where the environment reflects a sense of energy and accomplishment. However, fast-paced change should be balanced with stabilizing elements, and there should be a balanced mix of youth and experience.

Finally, CEOs favoured developing a friendly, open culture by encouraging employees to participate in organized family and social activities. They felt that creating a family atmosphere seemed to work better than striving to match competitive compensation packages. They found that people become steady employees when they are attached to the community, perhaps because of a spouse who is also working in the area.

Several CEOs remarked that creative people like to be happy and they need recognition and appreciation. A sense of tension can be damaging. Many are also providing their creative employees with "creature comforts" such as ergonomic chairs and cappuccino machines.

It was generally agreed that there should be a strong personal relationship between top management and staff. This applies particularly to supervisors, who must understand the needs of the employee and look for opportunities to address those needs.

CHALLENGES	SOLUTIONS
▶ **Creating a receptive physical environment**	• Place cookies or goodies on the receptionist's desk. • Maintain a neat, clean environment.
▶ **Maintaining compatibility**	• "Fire grumps" – and weed out non-performing people because they affect the whole firm's morale. Staff lose respect for the company and their work when unproductive workers are kept on.
▶ **Fostering an innovative environment**	• Recognize and reward new ideas and innovation. • Delegate decision-making. • Ask employees to "bring me a solution, not a problem." - One CEO keeps a jar on his desk labelled "Answer Jar." In keeping it empty, he inspires answers and creativity from his staff. • Encourage lots of interaction. • Welcome employee feedback and suggestions – and respond promptly to suggestions for improvements. • Do not overreact to mistakes, especially first-time cases.
▶ **Establishing a personalized working environment**	• Allow flexible working conditions as follows: - employees can set their own hours of work within parameters defined by you or their managers – while you keep a keen eye on unrealistic time lines or overwork leniency for days off with pay, when requested by hourly employees (this should be decided on an individual basis rather than a laid-down policy). - permission to work at home - employees can work at their own pace, as long as the job gets done well. • Create an informal environment; it seems to work best. • Accept individualism (including appearance and dress) within reasonable norms. • Give employees autonomy within a clear corporate structure. • Recognize individuals: - have an employee photo gallery - celebrate birthdays and display other important news on a board.
▶ **Generating commitment and excitement**	• Engineer a perception of employee ownership of the product – "Put their name on the product." • Create jobs of interest and look for ways of giving the creative employee new responsibilities. Employees respond positively when they see that they are now doing part of the work formerly done by a vice president. • Send employees on management training courses. They will be better prepared to assume more responsibility and will understand some of the situations senior management must deal with. • Create an atmosphere where individuals can grow rather than just do a job. • Train them so that they can eventually move out of their current positions. • Avoid filling job openings externally if possible – going outside can dramatically affect the morale of existing staff who thought they were ready for advancement. • Do not rely solely on financial rewards – people who think like this can be enticed to move to another company easily. "Anyone can sign their bonus cheque."

COMMUNICATING

Corporate cultures must be nurtured to retain their vitality. It is essential to keep reminding employees of the long-term focus. All CEOs favoured a consistent and constant communication of the company philosophy. A key consensus among CEOs was that effective communication between the company, management and employees was critical to success in a rapidly growing company.

Constant communication is a fundamental method of retaining creative employees. This includes a commitment by management to set goals and expectations for employees and then "communicate, communicate, and communicate" on performance relative to these standards.

This demands regular meetings and a range of communication vehicles. But it won't happen on its own. CEOs have to create communication – don't expect to put an employee in a cubicle and get the job done in isolation.

CHALLENGES	SOLUTIONS
▸ **Linking personal efforts with corporate goals**	• Issue transparent job classifications and design a compensation system that makes the rewards of advancement clear.
▸ **Creating a sense of belonging in employees**	• Give employees regular updates on the status of the company – the ups and downs, the vision and objectives. This gives them a sense of their importance, breeds loyalty and is an opportunity to participate in decision-making. • Involve staff in decision-making regarding changes that affect them.
▸ **Capitalizing on employee input**	• Encourage an open discussion on the project, product, or service that the employee is involved in. In a technical group, leave time to review a project's progress and discuss any aspect of the process. • Try 10-minute meetings where a discussion can be held quickly. • Plan off-site retreats that allow management and employees to mingle in a non-work environment.
▸ **Incorporating customers into the communication process**	• Communicate the impact of company decisions on customers. Also keep tabs on the customers' corporate culture. • Ask staff what the customers' perception of the company is. This will result in improved communications with the customers and staff who will feel that they are part of the company. • Encourage employees to promote each other's skills. This translates into "talking proud" about the company and about each other to customers, prospects, suppliers and associates.

Motivating employees

CEOs noted that financial rewards are the most obvious means of motivating or providing incentives to people, but they are not always the most effective.

Most agreed that non-cash rewards and recognition work well as employee motivators – especially when they come from peers. It is important to give employees recognition for their achievements. In small companies, this recognition should involve the family, when possible, but in larger companies, it is better to address the employee only. It is especially important for CEOs to recognize who the critical contributors are and convey their appreciation. It was felt, in particular, that incentive programs are helpful in reinforcing the corporate culture. The salary may not be key in this equation, but you have to meet the market. CEOs recommended offering a competitive package: salary plus intangible benefits. Whether it's necessary to offer more cash compensation than competitors can be a function of the intangible benefits related to job environment and job satisfaction. This is critical in competing with big companies, because it is difficult, if not impossible, for small companies to match the high salary increases in large firms.

Incentive profit sharing plans had mixed responses from CEOs. Some felt that profit sharing plans are very important in retaining employee loyalty and commitment. However, one person noted that everything is fine as long as increments for successive quarterly gains are paid, but profit sharing acts as a dis-incentive when profits fall. Another CEO cautioned that after several payouts of profit sharing, employees expect a similar cheque to be part of the on-going package, rather than as a direct relationship to company profits. In other cases, employees have been known to leave the company just to collect accumulated profit sharing credits.

Some CEOs advocated profit sharing on a per project basis. The advantage of this approach over traditional profit sharing is that it provides a faster reward and positive reinforcement. However, it is important to commit the time necessary to educate staff about the method and to provide them with other information on expenditures such as R&D, labour and salaries.

Others talked of problems when employees disagree with the CEO regarding decisions that affect profitability – and therefore their bonuses. A way to get beyond this kind of issue is to become a public company, but it is an expensive solution. A public audit means fewer arguments. In the high-tech industries, stock options are widespread.

Some CEOs indicated their preference for giving employees a percentage of sales using clearly defined parameters. The downside is there is no incentive to control the cost of sales, profitability and viability of future business. Clearly, it is important to identify objectives before deciding on incentives. Does the company want to win market share? Or become more profitable? Or become the leading low-cost supplier?

Employee Share Ownership Plans (ESOPs) received equally mixed reviews. The most common approach was to pay employees a base salary, but give them equity shares after a requisite period of time (say five years). For some employees, an equity position that is large enough can be a compelling reason to stay with the company, particularly when the larger companies have the "red Porsche" ads to woo young employees. CEOs cautioned, however, that most non-owners do not comprehend the risks and costs of ownership.

Benefits packages also received mixed reviews. Some employees are not interested in a benefits package, but more concerned with their hourly rate. While this is not true for longer-term, valued employees, there are still some CEOs who noted that staff seldom appreciate the value of the benefits package – at least until they really need it.

One CEO observed that "the real motivator is the feeling of having made a contribution to the success of the company."

CHALLENGES	SOLUTIONS
▸ **Providing timely recognition of employee achievement**	• Hold an annual dinner for recognition night. • Sponsor 10-year awards or "Employee of the Year" through peer group voting (not management). • Give a personal thanks from the CEO for a job well done. • Produce a monthly company newsletter to recognize staff achievements. • Offer instant recognition awards of $100 to $250 for "extra special effort," presented by the CEO. • Demonstrate how an idea brings success to all. • Profile employees who go the extra mile.

▸ **Providing financial incentives and increasing productivity**	• Be conservative with rewards. It's easier to add than to take away.
	• Hire a human resources consultant to review the company's compensation structure.
	• Offer profit sharing plans and tie them to performance reviews. Virtually all CEOs use profit sharing plans and bonuses (except in a unionized environment where piece work is common). Bonus rates are 3-8% generally and they are used with management as well as other staff. They are effective in motivating people and increasing productivity.
	  - One company offered shares at a set low rate to all staff when it went public – the staff were more committed and empowered and productivity skyrocketed by 15%.
	• Recognize your staff; it is as important as financial incentives.
	  - Several companies offer "free lunches" to teams that meet their objectives.

▸ **Providing non-financial incentives**	• Offer more vacation time as a bonus. • Offer flexible time for overtime worked.
▸ **Designing benefits packages**	• Set up RRSP plans through a payroll deduction mechanism as a better option than organizing a group pension. • Require employees to pay part of the premium for dental plans, even if only a small percentage. This reduces "incentive fading" with the program eventually being taken for granted. • Offer "instant payback" benefit programs such as discount packages and preferred rates for outside services.
▸ **Designing employee share ownership plans**	• Relate them to the employee's length of service. • Relate them to company sales, profits and activity or the business plan. • Do not allow an ESOP to affect shareholder control.

CHALLENGES	SOLUTIONS
▸ **Designing profit sharing plans**	• Review the company plan so all employees understand what they are getting as an incentive and why. The results can be negative when the rewards become expected rather than earned. • Avoid side deals with some high performing employees – this is not appreciated by other employees. • Pay-outs should be made throughout the year, perhaps quarterly and, not only at year-end. This provides a reminder of the added incentive if the company is successful. • Use various incentive options at different levels of company growth and maturity. • Create a menu of options based on employees' demonstrated interests or skills. • In plans offering pay for performance, ensure that there is a clear appraisal process and associated rewards or bonuses. • Pay profit sharing through RRSP contributions. • Pay for specific productivity or performance increases. • Calculate daily the progress against the year's financial goals – and if the team achieves its daily goals for a week, then it gets a free lunch (this program resulted in goals being achieved 90% of the time, compared with 50% before the program).
▸ **Designing financial incentives for project work**	• Exercise caution that project staff do not rush a job to reap the financial rewards, resulting in unsatisfactory or returned work. • Don't pay out profit sharing rewards until the cheque comes from the client. • Disclose the profit split in full.

EMPLOYEE DEVELOPMENT AND TRAINING

CEOs agreed that it is important to satisfy employee ambitions by promoting within the company and allow them to assume more responsibility. Few companies had undertaken formal programs using outside courses or facilitators to provide leadership training. There was agreement that such programs, while typically more the domain of larger companies, could be worth looking at.

CEOs noted how important it is to avoid promoting employees to an unsuitable job. Matching skills with jobs is critical.

Offering training was seen as key to motivating and keeping good employees. In software companies, it goes without saying that their employees must be on the leading edge. Therefore, training is continuous. Also, designation- or certification-related training can be of particular value to some employees. And cross-training can provide richer job satisfaction through variety and opportunity for advancement.

CHALLENGES	SOLUTIONS
▸ **Keeping track of potential internal promotions**	• Have regular performance appraisals, including interviews with supervisors and formal goal setting. The key to a performance appraisal system is to ensure that employees view it as effective.
▸ **Developing people**	• Provide open access to information to foster employee commitment. • Once empowered, the employees need to be held accountable for results. • Listen to staff ideas. • Delegate authority. • Keep in mind that people learn by making mistakes. - One participant noted that management should allow room for people to make little mistakes, because this is how they learn, grow and develop. He believes in letting each race horse run its own race. • The right people must be in place. • Have formalized job descriptions but review them regularly as they can often stifle creativity. • Create an atmosphere that supports continuous learning and encourages people to take responsibility. • Move people around in the organization, especially those in the wrong jobs – and dismiss them if they don't fit in. Some noted that when you dismiss an under-performer, other staff members ask "what took you so long?"

CREATIVE
OPTIONS

Creative Options

Waterloo

Brian Scott, Chairman & CEO

Pat Scott, President

"When we win a job, it's typically based on the quality of the creative work that we do and the customization that we've been able to capture in the writing and art work."

Employee communications does not have the image of a high-growth industry. In fact, it's seen more as a backwater subset of other activities – there aren't even any statistics to measure its size and growth rate. The truth is, for most big companies, employee communications is an afterthought, regardless of the rhetoric. A 13-year old company based in Waterloo, Ontario, however, aims to change all that. Creative Options has put a spin on this sleepy industry that has generated extraordinary growth in the U.S., where its client list includes a healthy sprinkling of Fortune 500 companies that are discovering the bottom-line benefits of innovative and powerful ways to communicate with their employees.

The old days of slapping a message onto posters and coffee mugs, or cramming tedious seminars into employees' busy schedules, are going. In their place are interactive games, multimedia and stand-alone communication centres that allow employees to learn at their own pace and in their own time. It gets results. People retain 30% of a message delivered in a lecture, 90% of a message wrapped in some form of participation. Clients such as Xerox and H.J. Heinz report that lost time from accidents fell more than 70% after implementing a safety communications program designed by Creative Options.

The company started in 1985 as a conventional promotional products firm, but branched out into safety training when it became obvious, after completing a safety incentive program for Budd Canada, that safety logos on T-shirts were not enough. That set Brian and Pat Scott, the co-owners of Creative Options, on a whole new orbit that has taken them into industrial safety, retail safety, loss prevention and health care, for starters.

Brian Scott says the company's core competencies are innovation, creativity and customization. His wife and partner, Pat, adds listening skills. The secret is customizing their product. Before they even bid on a program, Creative Options paints itself a detailed picture of the potential client with an exhaustive study, which they call a workplace profile. It's critical to know the average age of the employees, for example. If they're 40, they won't respond to an interactive game designed for 25-year-olds. The workplace profile draws on every scrap of information it can find, and it covers everything from the equipment used, through the number of employees per site, to the number of customers each one might see on an average day. "We try to get familiar with the industry, not just the company," says Mark Fardy, Vice President of Operations.

At a Glance

1998 Sales (est.)	$8.5 million
1998 Staff Count (est.)	62
1994-98 Average Annual Growth Rate	
Sales	41%
Staff	51%
Percentage of 1988 Sales	
Exports	90%

Creative Options
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With this information, Creative Options can design a customized presentation that guides clients into new ways of thinking. Competition is not a threat; in fact, it welcomes competitors. "It's easier for us to sell a program when competitors are in there," says Fardy. "Then the client has something to compare us to. It's more difficult to go into a client that hasn't really bought into the concept of a communications program."

The focus on customization means that the company's sales force is constantly identifying fresh ideas for their communications programs. Before they spend any money developing an idea, however, it has to qualify for the R&D account. Brian Scott and the Sales Director first investigate the prospective product, seeking assurance that the prospective client is large enough, there is a budget for a program and establishing whether there's a competitor on the scene. If the potential business passes muster, Creative Options funds the development of the new idea out of the R&D account. If it later wins acceptance from the client, the development costs are transferred out of the R&D account into the client account. If the client doesn't bite, the R&D account writes it off. About $100,000 goes into the R&D account each year, of which about $25,000 is written off. "For a small company," says Brian Scott, "we stick our neck out a fair bit."

The Scott partners see no end in sight for their company's explosive growth. There are few problems with finding the right people. As they enter each new industry or topic, they acquire the requisite in-house technical expertise to go with their creative skills. Adding employees at a rate of one a month can create problems with absorption, but it also stimulates the group, who are refreshed by the influx of new skills. The company also nurtures its culture of innovation with a contest called "The Idea Guru." Each month, the company asks employees for suggestions on anything from ways to support the United Way to ideas for the corporate Web site. The winner gets to use the well-marked parking spot at the front door for a month. And there is no problem with financing – they get 35% of their fee upfront, which pays for most of their out-of-pocket expenses.

"Our issue doesn't seem to be in producing it," adds Pat Scott. "It is actually getting at all the opportunities." Most of the new business come from cold calls backed up by the company's in-depth workplace profiles. So it's hard work. And the company's major priority now is beefing up its sales force. Last summer, their sales contest delivered 150 new presentations for prospective clients, mostly in the U.S.

Americans are receptive to the new kid on the block from Canada. "We thought that clients there would be concerned about us being Canadian," says Pat Scott. "We set up a U.S. organization, with a U.S. phone number and address. But they haven't cared at all. They like the fact that we're Canadian.

And Creative Options has found no difficulty challenging its large American competitors. "In the U.S., you don't have to go to the extremes we have gone to in Canada to grow your business," say the Scotts, "so they don't have to keep on raising the bar like we do. Our competitors don't take as many chances, they don't need to push the envelope to the same degree."

Chapter 3
Maximizing your Knowledge Capital

CEOs saw intellectual and knowledge capital as interdependent and complementary. Knowledge capital is a continuum with benefits increasing as you move through the spectrum, from trade secrets and trademarks, to copyrights and patents.

The difference between intellectual capital and knowledge capital was perceived as follows:

- Intellectual capital includes such things as existing or new patents, registered designs or modifications generated internally – "something you can take to the bank."
- Knowledge capital, on the other hand, can be described as knowing how something can best be done, where to take a product, a process or an innovation and sell it. Knowledge capital is built on:
  - development knowledge
  - market knowledge
  - employees' skills, talents and capabilities
  - business procedures and practices
  - knowing the competition and industry benchmarks
  - intelligence about industry, competitors and markets
  - experience
  - corporate culture, to the extent that it shapes knowledge and beliefs.

Increasing Knowledge Capital

In order to manage and maximize knowledge capital, companies must first know what they have and then leverage it through some of the techniques shared by CEOs.

Challenges

▸ Gaining a better understanding of "core" knowledge capabilities within the company

Solutions

- Take inventory of both your intellectual property and knowledge capital.
- Promote sharing of intellectual property within the company; know what you know.
- Benchmark against competitors and internally.
- Implement ISO, in order to:
  - document what happens when and why
  - identify processes and areas where problems can arise
  - write manuals as a reference point for operations
  - confirm understandings with suppliers and customers
  - create and document a methodology.

Challenges	Solutions
▸ **Establishing knowledge capital "deficits" and potential opportunities**	• Build and protect intellectual property. • Ask people to determine what training they need. • Hold idea-generation workshops. • Hold problem-solving sessions. • Solicit questions and feedback from suppliers and customers. • Tap suppliers' know-how in order to elevate them into value-added suppliers. • Transfer knowledge from suppliers through product line reviews done on a fixed schedule (at least once, if not twice per year) against a set of criteria.
▸ **Stimulating the flow of ideas by leveraging employee knowledge through training on core business requirements**	• From the knowledge inventory, build a training plan to fill gaps, and to deal with succession planning issues. • Enhance employee capabilities through on-site courses, self-improvement. • Build training and development into the annual corporate review process in order to identify: - what skill development activities have been undertaken - what training the employee intends to pursue during the upcoming year - which courses or programs the employee's supervisor would recommend.
▸ **Promoting an open, information-sharing environment**	• One company uses dictaphones to promote internal communications. Employees, particularly sales staff, record their insights on clients throughout each day and the transcriptions are circulated to all company levels. • Share and reinforce the company's vision, where it is going and how the company intends to get there: - one company uses bar coding software to share notes across the organization - another talked about establishing a market "buzz" system using e-mail - others talked about monthly communications meetings.

GENESIS

Genesis Microchip

Markham

Paul Russo, Chairman & CEO

When Paul Russo launched Genesis Microchip Inc. on its Initial Public Offering on NASDAQ this year, he raised almost CDN$50 million. But he doesn't plan to spend it just yet. In fact, he's contemplating a secondary offering because the microchip industry is so fast moving that he feels Genesis should really have CDN$100 million in the bank, ready for unforeseen opportunities or crises.

Genesis is a "fab-less" chip company, which means it doesn't fabricate its own chips. It conceives of them, develops the mathematical algorithms to make them jump through hoops and then designs the chips themselves. But IBM and others actually fabricate them. A fabrication plant costs about $1 billion, and its expensive equipment is obsolete within three years, so Russo stayed away from it after a brief flirtation with National Semiconductor that ended in 1991. The risk in this arrangement for a fab-less chip company is that if ever the demand for its product soars, it has to put millions of dollars on the table to ensure capacity at the fabricators. That's where the $50 million comes in handy.

"If you look at successful high-tech companies, you'll find it's not at all uncommon for them to end up being successful with something that is not quite the same thing as they started out to do."

Then, there are the acquisitions that inevitably come to leaders in their markets – they can't always wait for a share issue, so nimble companies need nest eggs.

It's a nice position to be in. In the first seven years after it was founded in 1987, Genesis generated no revenues at all from its chips, eking out an existence on design fees and royalties. Russo financed the R&D by raising $24 million in equity capital, mainly from private investors. In 1996, it became apparent that the breakthrough was imminent, so Russo was able to make a private placement of $16 million with Canadian institutions. Since then, it has taken off. In the first half of the current fiscal year (which ends May 31), Genesis had revenues of almost $8 million, and it's growing at 40% per quarter.

Genesis chips manipulate images on tiny silicon wafers that process a billion operations per second. The chips shrink, zoom and warp images without compromising image quality. They also translate images from one video standard to another, such as from film to computer displays. After starting in a very small niche that incorporated such high-end uses as medical imaging and television broadcasting, the company moved into mass markets in 1996, starting with LCD (Liquid Crystal Display) systems. Now, it is targeting other emerging mass-market technologies, such as DVD (Digital Video Disk), PDP (plasma display) and HDTV (High-Definition TV).

At a Glance

1998 Sales (est.)	$35 million
1998 Staff Count (est.)	125
1994-98 Average Annual Growth Rate	
Sales	148%
Staff	68%
Percentage of Sales	
Exports	99%
R&D	35%

Genesis Microchip
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Thanks to its nine years in an unappreciated niche, Genesis became a global leader in an emerging mass market. To maintain that leadership, however, it has to run faster just to stay even. Genesis currently spends 35% of its exploding revenues on R&D, accumulating 15 patents along the way. Patents don't guarantee protection against competitors any longer, however. The only real protection lies in Genesis' ability to innovate products that meet the customers' needs faster than the competition. Says Russo: "Whereas five or six years ago, we were a research-driven company, because we had nothing else, now we're in a world where these people want to design a new product every six months. Two of the company's four families of chips produced their first chips in the past six months. They are responding to markets that we didn't even dream about five years ago," says Russo. "We didn't even think they were going to exist."

Genesis has three components in its R&D operation: one develops the basic algorithms, the real intellectual property; another, bigger group develops chips on the basis of specifications given to them; and the third, the systems engineering group, works with customers and develops the reference designs – circuit boards that demonstrate Genesis' chips, often providing, in the process, solutions for the customers' own products.

When Genesis targets a new market, all three elements are brought to bear. There is also, however, a small cluster of people (maybe two out of ten) in any one of these components who are pushing technology on their own without being tied to specific programs. Russo gives them freedom to explore. "The young kids today are doing things that didn't exist when I was doing R&D," he says. "Therefore, my calibration of what's possible today is off. We hire good people and we let them run."

To keep new products relevant, Genesis is creating alliances with key industry leaders and key customers, like Samsung and Apple, making sure that they are part of Genesis' future plans and Genesis is part of theirs. Genesis always has lead accounts who specify the chips they need, which makes them ready customers for the chips once they're perfected. While the chip is under development, a non-disclosure agreement protects Genesis, but once it's in production, Genesis can sell it to anyone it chooses. The advantage for the lead account is the six-month jump it gets on its competitors.

To anticipate emerging requirements, Russo and his management team are constantly scouring their industry contacts for new ideas. He personally knows many of the top people in the chip industry, and they all talk or send e-mails. It's the Silicon Valley culture and it's like an organism. People are open and they tell their competitors what they're doing and where they're going. Then, they rely on winning the race to succeed.

In this environment, everyone at Genesis is free to come up with ideas and no one feels bad when their ideas aren't adopted, including Russo. "If an idea wins, the whole team wins," says Russo, "so they get into sometimes vicious discussions. People here have to have pretty thick skins because people say what they think. But in the end, we say, 'Okay guys, we're going to do this.' And we all come together and make it happen."

Chapter 4
Product & Process Innovation

Concepts

Innovation is not a concept that applies only to novel products encompassing new design, technology and functionality. It also incorporates changes in the way companies do things – anything from marketing to human resources. Technology can be used for both types of innovation, which are called, respectively, product and process innovation.

Studies have found that product innovators are more likely to be active in foreign markets, while process innovators generally achieve the strongest growth in profits. Most fast-growing innovative firms, however, practice both kinds. In either case, it is critical to strike a balance between creativity and practicality – and to get employees to appreciate what is being attempted and to "buy in" to the whole concept.

Implications of Product and Process Innovation

It is essential to keep a balance between the product innovator and the process person, but there are sometimes problems in deciding who is in charge. CEOs suggested that most successful innovative companies in North America are process driven. At the heart of this lies the ability to think things through before committing to final production – "plan on paper before cutting metal." Fast-growing innovative firms encourage their employees to step back and pause, rather than racing ahead without any clear indication of their destination. Without this process, it is not meaningful to encourage people to take risks.

The following sections deal with product and process innovation.

Product Innovation

The amount of acceptable risk for being first to market was discussed, with the alternative of revamping existing products, versus the introduction of entirely new products. This involves teaching employees to be proactive rather than reactive.

Challenges	Solutions
R&D SPENDING	
▸ Spending time, money and effort to perform your own R&D work or buying the technology	• Use government programs such as IRAP. • Use cost-effective information sources such as universities and Centres of Excellence.

CHALLENGES	SOLUTIONS
▸ **Coping with pressures to develop or expand your information systems**	• Find strategic partners to implement new ideas. • Compare your firm to other companies, industries or jurisdictions.
▸ **Shortening product cycles**	• Conduct "concurrent engineering," making sure R&D, marketing, production and administration work simultaneously.
ENVIRONMENTAL CHALLENGES	
▸ **Coping with regulatory changes that have an impact on business operations**	• Understand legislation in your market and others (to appreciate export potential). • Participate in associations to increase your understanding of legislation. • Look to Europe, which is in the vanguard of "green" – this can be used as a marketing tool. • Consider giving customers credit for returned or used products.
MATERIAL AND PRODUCT TOLERANCES	
▸ **Using recycled materials and new composites in order to beat or anticipate the competition – for example, lighter materials in cars (to reduce fuel consumption) is forcing design changes**	• Make products at different levels of obsolescence. • Look for different materials. • Develop product differentiation. • Pursue new business opportunities once products meet tolerance levels.
▸ **Remaining profitable despite decreasing demand and obsolescence**	• Develop new export markets to cushion the blow. • Diversify. • Sell components rather than finished products.

PROCESS INNOVATION

CHALLENGES	SOLUTIONS
OUTSOURCING	
▸ **Mounting challenges concerning product design and liability**	• Use software approaches up-front, begin simulations sooner. • Use rapid prototyping, shipping and invoicing.

CHALLENGES	SOLUTIONS
EFFICIENT PRODUCTION RUNS	
▶ **Utilizing older machinery and equipment. Customers drive the need to eliminate non-process-related time by decreasing the time spent on set-up, change-over and tool switching**	• Develop agreements with customers to level the manufacturing load and volume. • Invest in software infrastructure. • Establish benchmarks and study successful production systems (for example, Toyota and Honda). • Place engineering and sales staff on customer property. • Use electronic commerce to reduce transaction costs. • Use older, less costly equipment for small runs and simple procedures.
TEAM AND PROCESS INNOVATION	
▶ **Coping with attitudes of people who won't work beyond 9 to 5 – they need motivation, particularly in manufacturing, where piece work or incentive work makes people rush and causes quality to decrease. Developing other motivational techniques for people who want to protect their turf – are professionals from the outside effective and how do you get people to work together on teams?**	• Implement ISO, QS and TQM systems: they formalize systems and help everyone communicate. • Provide incentives for employees, through bonuses or recognition. • Empower and cross-train employees. • Give recognition verbally. • Communicate by first names. • Explain what the firm is doing and where it is going. • Give milestone parties, lunches, give mugs or jackets with company logos when implementing new systems – as is often done with ISO, QS, and TQM. • Do annual evaluations to let people know how they are doing.
AUTOMATION	
▶ **Meeting competitive standards also means automating design processes in order to reduce non-process time. This can mean rethinking the entire process: reducing costs, facilitating process innovation and applying new technology**	• Sub-contract some work out. • Engage in High-Performance Manufacturing methods (teams, cross-training, Kanan, Kaizen Blitz).

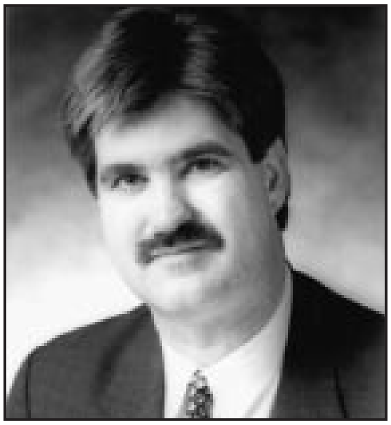
SYSTEMS INTERFACE

Systems Interface Inc.

Nepean

Sandy Foote, President

"I would typify ourselves as the small mammals amongst the legs of the dinosaurs. We move quickly and stay alive. You find the niches that they're not in. They'll eventually get there, but by that time, you're on to the next niche."



There are a lot of brilliant people who don't succeed in the software industry. They may have had everything going for them, but in many cases, they couldn't sustain the cash flow. "They were a services company that wanted to build a product, and that's where they'd now make their money," says Sandy Foote, President of Systems Interface (SI). "It's a classic situation and we made all the same mistakes." The difference is, he survived long enough to learn.

Systems Interface is now a software integrator. It helps its clients – mostly large governments or Fortune 500 companies – with everything from technology planning, through custom systems development and support, to building software infrastructure. Its custom software tailors available technology to clients' specific needs, using standard industry tools.

The key, Foote says, is understanding what his client wants, knowing what technologies can be used to do it, and employing highly trained specialists.

The critical decision in SI's rapid growth was jumping into the Internet maelstrom in 1995. Foote had seen the enabling technology emerging. It usually precedes a market by three to five years, according to him, so he knew that the Internet was going to become the primary tool for communicating. However, it represented a completely different way of approaching software development: it used the "thin client" model, where the server computer carries the data load and the client computers use small, local applications to browse the data. The decision meant retraining all SI's staff and investing in new concepts to build a top-rate Web development group. "We had to take a chance," says Foote. "It was a race because every one of our competitors was racing just like we were." Among those competitors were companies like IBM and Microsoft. Foote had learned that you don't compete with players that size, so SI focused on the intranet niche – internal networks that operate just like the Internet. Foote approached the market at two levels.

First, he targeted some key corporate accounts with compatible strategic directions. It takes SI about two years to become established with a big account, getting to know it at every level, from the planning perspective all the way down to support. With this kind of client understanding, SI can develop custom applications as the client becomes aware of the need for them. It has built custom intranets for the House of Commons, for example, and is now building a live intranet for all the doctors in Canada.

At a Glance

1998 Sales (est.)	$6 million
1998 Staff Count	85

1993-98 Average Annual Growth Rate

Sales	30%
Staff	30%

Percentage of Sales

Exports	5%
R&D	5%

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Second, SI developed its own product concept, SIMBA, which reflects their view of where the use of information and knowledge was going; it is a tool to control and manage the submission and publishing of material on the Web. It reduced the time to transfer a file to the Web from 30 minutes to about 30 seconds. Then, SI marketed it to its target clients, who naturally became more likely to buy custom software from SI.

The next technological leap is into "collaboration," a kind of multimedia, live video conference, with video, voice and text, allowing many users to collaborate virtually and share from multiple sources. "The technology is already starting to appear," says Foote, "so we're experimenting right now to see how we can fit into that market." But it's still in its early days, so SI's investment is calibrated to reflect the market's evolution.

Timing is everything when development is so tightly tied to the stage of the market, and the turn-around in R&D has to be very quick. "If your R&D is not producing something in three months, there's something wrong," Foote says. That doesn't leave a lot of time for long learning curves, so Foote places enormous emphasis on training. "Our core competency is high-quality, highly trained people, who deliver innovative concepts and service," he says. So the company spends $150,000 to $200,000 a year on training. It pays for the courses, the examinations and the materials – and gives employees a bonus when they get certification.

To maintain his understanding of the market and keep the skill sets of his employees at the leading edge, Foote has built an extensive network of alliances and contacts. His strategic alliances include Fulcrum Technologies and Microsoft, to name just two. He has just started a venture in document management in partnership with Eastman Software, a division of Kodak. "We looked at three different document management software tools, and this was the one we chose because it had all the key factors we were looking for in a partner."

He also profits from working in one of Canada's more renowned "hot spots" – Silicon Valley North, in the Ottawa region. Says Foote: "There is so much information going back and forth – about deals, who's doing what, how are you doing it, what's going on here. It goes on all the time. If you're around here long enough, you know a lot of people. If you have a good long-term reputation that's built on trust, there's a lot of opportunities."

He also meets regularly with two small groups of presidents to discuss issues surrounding the running of their companies: how they lead their companies, human resources, compensation, ISO 9000 issues, and much more. Foote may have started off as a software developer, but he's not in that loop any more. "There's a fork in the road for a technology person," he says. "If you take the management route, you have to let the technology go. You can still have common sense about it, but you have to let it go."

CUSTOMER FOCUS

The foundation of an innovative marketing strategy is knowing what matters most to customers and knowing – or being able to anticipate – their most critical business needs. Part of the challenge of meeting this test is that customer demands are constantly changing. They want more tailor-made products, and they are consuming less while becoming more discriminating.

The focus is therefore changing toward relationship marketing, which many saw as a critical element in maintaining existing marketing strategies and developing new ones. They suggested that companies use every opportunity to extend hospitality to their clients and to educate them at their own facility. The resulting bonding is critical to relationship marketing.

One group suggested that rapidly growing companies should foster relationships that treat them as clients rather than customers, the difference being that:

- customers know what they want and the company provides the commodity, and
- clients represent an on-going, supportive relationship that provides solutions.

EXPORTING

Some CEOs have tried strategic alliances as an approach to marketing into the U.S., but expressed concern about loss of control and impairment of their ability to generate follow-up sales or enhancements in their product or service. Notwithstanding these concerns, they felt that the establishment of local alliances and working relationships with firms in specific (and important) markets, and with major players, made an important contribution to a marketing strategy.

CEOs were particularly concerned about exporting to the U.S. While NAFTA was generally seen as having had a positive impact on entering the U.S. for marketing and other purposes, it was noted that the paper burden has increased.

CHALLENGES	SOLUTIONS
▸ **Maintaining existing markets while expanding into new markets**	• Finding productive time is a vital issue, so concentrate on two or three markets to make better use of available resources. • Reassign some of the current client base to other staff, which will require increasing staff responsibility.
▸ **Finding new products for existing markets**	• Your current customer base is an excellent starting point. "Are there more or other products we can sell them? Can they point us to other new clients?" • Consult existing customers about expanding new product lines or into new markets.

CHALLENGES	SOLUTIONS
▸ Finding ways to recession-proof your business	• Restructure your business when there is significant cash flow. - Look at your fixed costs and scale them down. - Use key financial performance criteria to evaluate your results (for example, sales per employee). • Start dehiring when times are good, don't wait for the tough times.
▸ Finding new customers	• Use telemarketers to select and target potential customers. • Use trade shows to make contacts, find new clients and exhibit your product. • Join associations, which can provide invaluable international market research and contacts. • Target specific companies and organize meetings with key players, be they finance, senior management or plant management. Make a presentation on-site tailored to each company's needs. • Take time to develop a relationship with the prospective client. - One company said it took eighteen months to obtain an order from a new Japanese client. • Invite prospective clients to your site – it doesn't cost any more than sending a representative to them, plus it has the added advantage of letting prospects see your operation and getting them off their own turf when negotiating. • Sponsor a discussion forum on the Internet. • Run seminars – it's free training for key decision makers from existing and prospective clients. • Create alliances with accounting and management consulting firms. If they are fully aware of how your service can be valuable to their clients, it will help their own business when they recommend your company to their clients. • Collect new leads by running contests.
▸ Relying too heavily on a single client	• Enter into a formal long-term agreement for protection. Larger corporations are concerned equally about having a single supplier or a supplier who has no other client. • Assess your ability to grow with your client which can be the springboard into new markets as his product line diversifies. • Discuss your position openly with your client. • Use your current financial strength to evaluate new markets through market research. • Use these boom years to re-invest in new equipment which can drive your prices down.

CHALLENGES	SOLUTIONS
▶ **Finding new product markets**	• Before jumping into new markets, exhaust the possibilities of the markets you are currently in. • Capitalize on the resources you have already committed in existing markets. • Entry into a new market offers an excellent opportunity to check your core competencies and practice self-analysis. • Piggyback on the efforts of larger corporations that are going global (without ignoring the local subsidiary, which will help you gain access to the international headquarters). • Look for opportunities in the packaging of components into sub-systems. • Develop a plan to overcome some of the barriers to new markets such as time differences, communications overload and the documentation demands of some markets. • New markets require a plan or structure to service their requirements. Assess your capability in terms of the financial, linguistic, manpower and time resources required to sell and service products in the market under consideration, and acquire the necessary resources. • Smaller markets can be easier to focus on and provide the experience necessary to tackle larger markets.
▶ **Marketing for exports**	• Get to know the culture of decision-making in any country you target for export sales – and reflect this in your tactics and strategies. • Use 1-800 numbers and e-mail, particularly when marketing in the U.S. where preference for U.S.-based companies remains high and 1-800 numbers and e-mail mask national location. • Use Canadian Embassy/consular trade staff. They can assist in identifying and prioritizing potential markets, providing lists of agents and distributors, and recommending trade shows as well as setting up meetings with potential customers at their offices.
▶ **Developing innovative approaches to merchandising**	• Strategic alliances can be an excellent way to cross-market. • Create repeat purchases through subscriptions whereby consumers subscribe to a specified amount of products. • Bundle products to sell more. For example, bundle two complementary products in a sample or coupon in a cross promotion.
▶ **Create specialty or hobby clubs (for example, wine clubs)**	• Develop loyalty programs (appreciation events). • Have your product branded by a high-end partner who can support high margins. • Create a "cachet" image by introducing a new product which incorporates well-known technology. • Use ISO 9000 certification as a marketing tool. • Change your industry dynamics with an industry marketing campaign or an association-drive program. • Align yourself with a charitable organization. Show that "we care" with a donation to charity. • Give tours of your facility, encourage a "personal experience."

MARKET RESEARCH

There was general agreement on the need for on-going market research. However, at least some CEOs felt that conventional market research techniques were not very useful, because they can be expensive. Among the issues raised were:

- Should the research be done in-house or contracted out?
- Is the research available already?
- Are the goals and purpose of the research clear?

CEOs differentiated between market research and customer research. They warned against "finding a market for a widget" rather than finding out what the target market wants to buy. The key approach is to "talk a little and listen a lot."

Several sources of information for market research were identified, which are listed below as potential challenges.

CHALLENGES	SOLUTIONS
▸Checking the competition	• Purchase shares in competitive companies in order to obtain annual reports and other information. • Send out "spies" to the competition. • Use the Internet to study competitors' Web pages.
▸Tapping into internal resources	• Use the sales force to gather information and report back. • Collect free market research by developing your own seminars. This method lost favour for a few years but is on the upswing again. • Probe your order desk and sales staff. They can tell you what the customers think and what they need.
▸Polling clients	• Get clients to talk about their needs. • Obtain customer profiles through warranty programs and customer service programs. • Listen to customers more closely – even when you disagree with them. • Use focus groups. • Use questionnaires. Develop one and send it to 25 clients and then refine it to maximize results. • Use the Web to do customer research and collect profiles on leads.
▸Scanning industry-based organizations	• Read trade magazines. • Use trade associations, which develop and sell market research to their members. • Speak to suppliers. • Attend trade shows, conferences, events. • Attend industry banquets or dinners.

CHALLENGES	SOLUTIONS
▸ **Referring to unbiased information resources**	• Use libraries carrying *Statistics Canada* publications. • Visit boards of trade. • Visit the Government of Canada's Strategis Web site (http://strategis.ic.gc.ca/). • Visit the U.S. Department of Commerce Web site (http://www.ita.doc.gov/itahome.html). • Ask for research done by the Canadian Federation of Independent Business Research Centre. • Use student consulting services in universities. • Hire smart co-op marketing students to evaluate the competition. • Use informal focus groups to critique or try your product or service. For example, your tennis club friends, president's club, etc.

LEADING AND MANAGING THE MARKETING EXERCISE

CEOs noted that they often handle the sales function themselves in the early stages. One of the greatest challenges of growth is learning to delegate that responsibility.

There was much discussion on the use of in-house marketing departments versus outside marketing firms. During the firm's early growth stage, the overall marketing function is often too much to handle in-house. However, careful attention needs to be paid to the timing of bringing marketing functions in-house. One company found that its sales exploded once it began handling its own marketing.

As you move away from selling a product or service and focus on what the clients' critical business needs are and what matters most to them, it is important to assess internal structures. One company removed technical staff from the sales function in favour of a dedicated marketing and sales staff, because the technical staff were too focused on the product and not enough on the client needs. However, there are risks attached to this, because dedicated sales staff need strong technical support and an ability to deal rapidly with clients' questions.

CEOs stressed the importance of detailed involvement by executives and marketing people in the development of the marketing strategy or the development of brand recognition. The process starts with distinguishing the firm's products from the products of competitors. This can be done by defining clearly to the executive team and staff what the company stands for, how it intends to deliver its products or services and what the customer can expect. When branding is not the key strategy, CEOs advised that companies should commit themselves to total quality, and focus on solving clients' problems.

One tool that is particularly useful is contact management software. The leading programs can forecast sales, complete contact reports and follow-up. The technology facilitates thinking of marketing as a system like any other process.

CEOs acknowledged that it is sometimes difficult to measure the impact of a change in marketing strategy. Most CEOs continue to rely on familiar statistics such as the change in sales or market share and benchmarking against major competitors. There was disagreement over the degree to which the effectiveness of advertising can be measured, with some saying it is problematic, and others feeling it can be done effectively.

CHALLENGES	SOLUTIONS
▶ **Managing customer service**	• Make customer service a part of the marketing department. • Train distributors on customer service via training videos and 1-800 numbers to head office.
▶ **Dealing with regulatory authorities**	• Join lobbying associations. • Hire staff away from the regulator to provide your company with insight into the market.
▶ **Measuring leads**	• Track the sources of leads, then follow-up and track closed sales by lead source.

CORPORATE PROFILE

When a company's products or services are complex to sell, it can be difficult to create awareness in the end user or distribution chain. Often, educating the distribution chain and consumer is necessary to increase awareness and obtain the sale.

With the high cost of advertising, funding limitations may impair a company's ability to improve awareness of its product or service. An alternative is to use articles in the media rather than advertising, particularly when trying to launch a new or innovative product. Articles are seen as a better vehicle in terms of both cost and credibility (a third-party or apparent third-party endorsement).

CHALLENGES	SOLUTIONS
▶ **Improving company or product awareness with limited funds**	• Issue press releases (hire a writer if necessary). • Exhibit at trade shows. • Place direct ads in appropriate magazines. • Determine opinion leaders and sell them on the product or service. • Exploit networking opportunities such as involvements on boards, steering committees, etc. • Prepare a newsworthy video and submit it to a TV station. If it is appropriate, the station will air it free and on short notice to fill in programming gaps. • Find a partner or private label as a means to introduce your company and product to the market. • Persuade writers to publish articles about your company. • Send a company rep to travel the U.S. in a corporate truck to gain exposure.

DISTRIBUTION

In discussing the advantages of direct sales forces versus local representatives or distributors, there was general agreement that reps are necessary and required in the U.S. for presence. However, most felt that reps are often not committed and it is very difficult to find good ones. One company does not use reps and spends its marketing resources on trade shows, in-house catalogues, samples, etc. The major disadvantage of using a rep or distributor is that it may result in low customer feedback and customer research – while direct sales forces are in a better position to collect market research and communicate with customers.

Companies that use representatives or distributors should understand that selling is a creative process. It is not a military operation, and it is important to invest in their name and integrity. Opinions varied on the time required to hire quality people, train and support them. Some felt it was better to use a shotgun approach of hiring randomly with a minimum investment by the company and seeing who works out.

All agreed that setting up a good Value-Added Reseller network is time intensive. However, if this approach is used, the distributor is your customer. This is a key issue in doing business through distribution channels.

CHALLENGES

▶ **Getting the maximum out of distribution channels**

SOLUTIONS

- Take time to train reps and distributors well.
- Use the Web to educate customers for a complex sell or as a means of lead generation.
- Use the Web as an order taker.

USING TECHNOLOGY

Using new telecommunications technology and linking to electronic commerce was seen by CEOs as a critical innovation that should tie in with their marketing strategy. The Internet was generally thought to be the greatest source of innovation in marketing today, offering a powerful tool for contacting potential clients, or staying in touch with existing clients. It is now expected by clients – like a fax – and is used for market research, sales, communication.

CEOs cautioned that it is critical that a Web page fit into your marketing strategy. It needs to be constantly changed and updated to remain fresh and attract new users. However, it can become costly. A Web site is a particularly useful tool to attract U.S. customers.

CEOs highlighted the importance of linking their R&D, product and process development to their innovative marketing strategies, new approaches to customer and after-sale service.

CHALLENGES	SOLUTIONS
▸ **Making effective use of marketing tools available through new technologies**	• Put marketing information on a CD-ROM instead of reprinting a brochure. • Use a video to profile the production process through to order taking, fulfillment and delivery. • Use videos for training in after-sales support. • Use telephone books on CD-ROM (which includes SIC codes) for lead generation.
DIRECT DISTRIBUTION	
▸ **New systems are bypassing traditional distributor networks**	• Use the Internet; build a Web site. • Push for specifications and pricing to be kept up-to-date, which is a good discipline anyway.

NEW PRODUCT LAUNCHES

CEOs agreed that the increasing pace of new product launches demands that the process be managed systematically.

CHALLENGES	SOLUTIONS
▸ **Ensuring the new product is acceptable to the market**	• Design new product development questionnaires to determine the needs of clients. • Integrate your new product launch with initiatives being planned by your customers – the customer then has ownership and partnership in your product's introduction. • New products are sometimes the result of problem solving for a client, who then becomes your ambassador with other non-competing clients.
▸ **Managing the launch**	• Don't allow yourself to be drawn into the emotional side of new product development. Evaluate every element of a new product development and launch.

VISUAL

Visual Systems Development Group of Canada

Toronto

Mike Green, President

"An important part of our culture is remembering and understanding the stories about how it all got started and the different roads we've taken up to now. These are powerful and invigorating for people – and communicating them is part of what I do now: not just where we are going, but where we've been."

When Mike Green left his job as Vice president of Cognos, the stellar software company based in Ottawa, he decided to hang out his shingle in Toronto and use his accumulated experience to start a consulting business. It didn't work. "I went cold calling for about four months, and it was a really devastating exercise," he says. "The last thing Toronto needed was yet another consulting company. I realized you can't push into the market with a blunt edge. You have to come in with something new."

He decided to focus on selling some hot software products, rather than lead with consulting services, which are usually sold on the basis of established relationships having built up credibility over a long period. He still wanted to sell services, but now he decided to do it by making the service sales a natural follow-on to the products he had already sold – and nothing is more natural than training clients to use the software he has just sold them. Visual became, in effect, a training organization surfing on the wave of dynamic software products.

His first breakthrough product was PowerBuilder, a client/server development tool, that Visual was the first to represent in Canada. It was a huge success, and Visual rode its coattails across Canada. "It became a very sharp point to establish ourselves in the marketplace," he says. "Once clients bought the product, we would offer them vendor-authorized training. Then, we could provide them with consulting assistance because we had already established our credibility."

Today, five years later, about 60% of Visual's sales are services, 40% are products. And the training and consultancy side of the business isn't a blunt edge any more. Visual has a strong enough track record that it can sell effectively through any of its three "points" – products, training and consulting. It's back to where he wanted to begin. Green's strategy is a good example of process innovation, where the innovation is applied in the delivery and management of the product, rather than in the product itself.

At a Glance

1998 Sales (est.)	$23 million
1998 Staff Count	130

1994-98 Average Annual Growth Rate

Sales	81%
Staff	54%

If this all sounds a little too easy, there are some significant risks to Green's approach:

- The product has to be early in its development, but starting a marketing wave. A so-so product will not deliver the new customer leads and growth to allow Visual to build a dominant position as the Canadian reseller of the product and acquire a reputation for knowing what's hot and what's next.

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- The timing has to be right. Getting behind a product too early in its life cycle can wreak havoc with cash flows, as Green found out on one occasion. He realized a couple of years ago that some of his competitors were moving faster than him on the Internet, and he worried that Visual was out of the loop. He scrambled to find an American partner and brought their product into Canada. "I rolled out the product across Canada in 1996," he says. "I got all of our District Managers trained on it and started running seminars. But, it was a bit early. We didn't have very good seminar turn-outs, and people weren't ready to buy." As a consolation, Green found that, even though the initiative lost money, the investment in expertise turned out to be an asset. Visual is now well positioned as the Internet wave builds bulk.

Green has another unusual strategic twist. "When we started the company," he says, "we knew we had to find the best people to do the training and consulting. We couldn't afford employees at that point – and anyway, many of the best ones had left their big employers and had gone independent." This is not an uncommon situation in Toronto, where there are a lot of software programmers who work for large companies at relatively low salaries. Many of them quit to start their own businesses because they want to earn more, but few of them are strong in marketing. Green, however, can find them clients, and he signed up many of them to work as "associates" to deliver the follow-on services after the product sales. Unlike employees, associates receive a fixed percentage of the revenues from the work they perform, and they are paid only when Visual is paid.

On the product side, sales people are paid a percentage of the gross margin. If they want to discount in order to land a big sale, they can do so, but the discount comes off their share of the gross margin. Accordingly, says Green, "we have some real list-price bigots."

To make this system work, Green has to be close to the vendors whose products he sells. "We get to know the executives of most of them. They are plugged into the industry, so we tend to know early about what's on the horizon." He has also developed relationships with many of his fellow resellers in the U.S., most of whom feel comfortable sharing business strategies with him because he doesn't compete with them in the U.S. "Recently, we wanted some ideas on how to better organize our consultancy practice better as it was growing very fast. So, I phoned four of them and asked them to compare notes. We spent an hour or so with them on a conference call and got some great ideas and insights."

Like so many leaders of fast-growing firms, Green is meticulous in selecting who becomes part of the network on which he depends so heavily for input into his decisions. He currently has one outside member of his advisory board, whom he consults on a daily basis as required. "He's been invaluable. I don't think we'll need the overhead of a formal board of directors until we're a public company," he says. "Until then, I am interviewing people very carefully so that I can find long-term fits for our advisory board."

At the time this report was produced, Visual Systems was acquired by IMRglobal Corp.

Chapter 6

Financing your Innovation Growth Strategy

Sources of Capital

There was a limited discussion about different sources of capital. The focus was on institutional suppliers of equity and debt financing. Not surprisingly, CEOs' greatest awareness was of banks. A number were familiar with the venture capital market, including labour-sponsored investment funds, although the smaller companies noted difficulty in accessing those sources. The facilitators identified other funding sources including pension funds, life insurance companies, foreign banks and asset-based lenders.

There was great disparity of experience in the group discussions: Some companies rely exclusively on banks and their own equity injections, while others are willing to experiment with more creative financing options.

Equity Capital

No two equity investors are the same. The defining characteristics of equity investors are:

- high-return or high-risk investor
- investors in ideas without assets
- providers of added value (management know-how, for example)
- opportunists
- keen to try and reduce high risks
- an alternative to banks.

An angel was characterized as someone who "has $500,000 to blow" on an investment in a company. Angels invest when they are "hot on a business." As an example of an angel investor, one CEO mentioned an entrepreneur whose company was bought out and so now has $10 million "looking for a home."

CEOs positioned venture capital relative to angel investors and banks on three scales: risk; return; and stage of company development.

- Venture capital and angels are at the high-risk, high-return end of the scale, while banks are at the low-risk and low-return end.
- In the $50,000 to $250,000 range, banks can provide loans under the *Small Business Loans Act* (SBLA), which provides for significant federal government guarantees.
- Angels typically invest in companies at an earlier stage of development than do venture capitalists.
- The group took note of both equity and "sub-debt" (subordinated) investment instruments. Sub-debt ranks behind senior debt in priority of claim on a company's assets.
- Angels are viewed as sources of investment for amounts between $50,000 and $250,000, and for the $500,000 to $1 million range.
- Venture capital is relevant for firms seeking more than $1 million.

Beyond venture capitalists, angels and banks, CEOs mentioned a wide range of non-traditional sources of financing including:

- non-asset-based financing (without using personal assets)
- customer financing
- supplier financing
- stand-alone product financing or project financing
- a wife's winning Wintario ticket (which really happened to one CEO!)
- purchase-order financing from banks that accept an order as collateral
- receivables financing, both domestic and export, including factoring
- inventory financing
- financing based on investment tax credits available.

One of the important aspects of financing is the valuation placed on a business, particularly when it involves intellectual property. The banks are working hard on this, but it is still a struggle.

CHALLENGES	SOLUTIONS
▶Determining the financing strategy	• Align the company with a good accounting firm. Some CEOs outlined their own experience graduating to more sophisticated accounting firms as the company grew and required new and/or different financing. • Establish an external advisory board, either formal or informal, with a range of business experience and utilize its advice on the type of financing required. One point that came up repeatedly through this session was the variety of financing requirements depending on the circumstances of a company. A weakness revealed was the tendency by some companies to try and fit every financing need into something that a bank can provide. • Choose financing partners based on what they bring to the company. • Be open to changing banks. CEOs should spend more time making themselves aware of financing options. It was noted that capital markets in Canada are broadening and in some segments are becoming increasingly competitive.
▶Using alternate sources	• Get financing from customers. • One firm gets its customers to finance the development of products or projects that its customers really want. The customer co-funds the project *without* getting equity or rights to intellectual property. In return, the customer gains a competitive advantage by being able to use the product before its competitors. Some large companies may well want to buy a piece of a supplier if it spends more than $1 million on its product.
▶Finding angels	• Word of mouth. • Third-party referrals (e.g. lawyers and accountants). • The Community Small Business Investment Funds is building access to angels across Ontario and the Canadian Community Investment Program is building similar access across Canada. • Check the City of Toronto's New Media Village Web site (http://www.newmediavillage.com).

What Investors Look for

All agreed that equity investors want a business plan. The business plan should include:

- an executive summary (before the index)
- a description of the market for the business
- a statement of the company's competitive advantage, and who the competitors are
- a marketing plan, and research making the case for the planned market share
- a financing plan – source, application of funds
- prior history – which can help to confirm trends in the plan
- the financial assumptions of the plan
- the resumes of the management team.

In addition to the business plan, an investor would be looking for the following:

- integrity
- a strong management team, including demonstrated marketing skills and financial management skills
- a demonstration of "financial business acumen" – in the business plan, for example
- a business that is not just a "one-trick pony," but rather one that has "legs"
- coverage of the "year 2000" issue
- personal contact with those behind the writing of the business plan
- consistency and coherence between the CEO and senior management when they are interviewed.

Initial Public Offerings

When a business decides to "go public" with an Initial Public Offering (IPO), it frequently encounters indifference from investment bankers. The group was told that underwriters in investment banks are extremely skeptical of any deal raising less than $25 million through an IPO. A number of cautions were then identified in the case of public offerings.

- Once a company has gone public, it loses its "Canadian-Controlled Private Corporation" tax advantages.
- If there is too little stock out in the market trading, then analysts will not follow the stock – and without research investors will be less interested in buying. Consequently, the stock may drift down in price, which angers employees or neighbours who bought part of the IPO. A reduced stock price also means reduced collateral for the bank.
- Money from the public market is expensive money.
- Reporting requirements add to the management burden of the company, as does the need to be able to deal with analysts and investors.

One of the common assumptions about going public is that venture capitalists need an IPO as a way of repatriating their investment. However, they can achieve the same objective with another equity investor, or repayment of sub-debt, for example. For instance, they can sell to a “consolidator.” For these reasons, it is useful to spell out in a strategic alliance the “divorce” terms, because they can provide the basis for a partner buy-out without going public.

Nonetheless, being a publicly quoted company and trading on the stock exchange generates an estimated 30% premium value.

Observations from Some Case Studies

CEOs noted that a common problem is that venture capital investors won’t say no but “they just leave you hanging.” They shared some of their experiences of how they drew a negative response in their search for capital.

- Several CEOs had disappointing experiences in dealing with people who were not the decision makers. Junior people in a venture capital firm may not gather all the key points needed by the ultimate decision-maker when they visit a potential investment, and may not even understand the business.
- Similarly, a bank account manager may not be the ultimate decision maker even though he or she is negotiating a loan. CEOs suggested asking what signing authority the banker has – it won’t help if their limit is $50,000 when the loan is for $250,000.
- Some venture capital deals mean more control and lower earnings for the entrepreneurs than when they worked for someone else.
- The capital required by the entrepreneur is too small an amount to interest the investor – or the company is at too early a stage of development.
- Last-minute changes in terms (switching the equity to debt, for example).
- The president of one firm described the process his company used: A complete information package was sent to all the major financial institutions for $780,000 of financing. Ultimately, the financing was split among three banks, each of whom handled a different element of the financing package, reflecting the bank’s particular preferences.
- In one company, other divisions of the company were earning returns, and so could serve as security for a loan in another division.
- One angel investor believed in what the entrepreneur was doing, in his integrity. He invested in a $100,000 debt instrument (at a 20% return) and paid $1 for 25% ownership of the company.
- CEOs noted that investors specialize in areas where they have expertise – for example, venture capitalists specialize in certain sectors or situations. The Canadian Venture Capital Association has a Web site describing member firms’ preferences.
- The observation was made that it is too hard to do traditional financing, so “out-of-the-box” thinking is necessary, such as using strategic alliances:

- One firm has a strategic alliance with a $2.1 billion company, which can provide financing for the relatively small amounts the firm needs.
- Another case was cited where an international conglomerate liked a product, gave some money to the company to build a plant – plus two years' worth of orders – in return for which the conglomerate received exclusive marketing rights in Europe.

CHALLENGES	SOLUTIONS
▶ **Keeping debt/equity ratios in line**	• Simplify credit processing.
▶ **Preventing a gap in communications between SMEs and financiers**	• Get a small business accountant. • Do your homework before asking for money. • Do quality proposals. • Be realistic about what you need.
▶ **Lacking different financial sources**	• Partner with alternative capital sources. • Use R&D tax credits. • Partner with suppliers, customers or distributors. • Make connections with larger corporations.
▶ **Getting the banks to provide advice for other financial services**	• Push your local bank manager.
▶ **Finding a mentor or setting up an advisory committee**	• Use associations for advice. • Form a peer advisory group.

NEW-FORM MANUFACTURING

New-Form Manufacturing Co. Ltd.

Milverton

Dave Boulanger, President

"In our industry, good companies have a new product or new idea or new launch every year. Customers say: Wow, they're innovating, changing, thinking, evolving and creating things. I'd like to have them as a supplier."

The wheelbarrow doesn't seem, right off the bat, to be a product that changes and evolves much. But that's not the way New-Form Manufacturing sees it. As the dominant producer of wheelbarrows in Canada, its primary route to expansion is through product innovations that open up new markets. In the past couple of years, New-Form has started work on a folding wheelbarrow along with another key innovative product. If either of these innovations fulfills its potential, New-Form's President, Dave Boulanger, will see his company jump to a new plateau of sales. Of course, there's no guarantee either will pan out, but Boulanger will guarantee that a steady stream of innovations will change his wheelbarrow one way or another over the next few years.

New-Form has several lines of lawn and garden products, including an all-purpose jack, a lawnroller and a handy collection device for garden debris called Trash 'n' Stash. Boulanger fell into garden equipment through some chance opportunities. In his first business, he used his degree in chemical engineering to manufacture CD cases, but it didn't work out because his supplier's molds were of poor quality. He wound up buying that business, which was a tool and die shop doing about half a million dollars in sales. He later bought a 50-year-old customer that sold its jacks all over the world. Four years later, in 1994, he bought another customer, which made wheelbarrows using New-Form's trays, and he was on his way.

Boulanger's dream is to make his company relentlessly innovative. "I think that our core competence is to take things and analyze them as a process," he says. "How do the processes work together? In the management process, how do we communicate? We define the process, then communicate, then implement changes and get results."

It's a bottom-up process. Most of the ideas come from the Productivity Improvement Teams in the eight work areas of the plant. "They come up with the ideas and management implements them," says Boulanger. "We manage the momentum." The improvement teams brainstorm on the floor every day and the team leaders share their insights at every shift change. Then all the team leaders assess and prioritize their ideas at regular meetings with key managers. The managers come up with ideas too, of course. "because we like to," says Boulanger. "I can take a suggestion to the floor and it's taken on in a very objective fashion. They may come back and improve on it, or they may discard it. But they'll weigh it for what it's worth."

At a Glance

1998 Sales (est.)	$8 million
1998 Staff Count	55
1993-97 Average Annual Growth Rate	
Sales	45%
Staff	13%
Percentage of Sales	
Exports	20%

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Boulanger's managers are also avid collectors of feedback from customers who are major retailers, such as Canadian Tire. And, naturally, every competitor's product is pulled apart and dissected for useful ideas. "We have our own corporate culture," he says, "and I think we've managed to have everybody buy into that, because we provide them with a lot of information that employees don't typically see, including revenues and profits. But that can be dangerous too. If they don't understand, then they think: If you made a hundred thousand last month, then you must have a hundred thousand somewhere. Well, no. We bought equipment, we paid down loans, we paid out interest, whatever."

Boulanger feels his biggest innovation lies in employee communications – how he deals with people. Every employee has signed a confidentiality agreement, so Boulanger can tell them anything he wants. "We feel that educated people are the best people, who will support and make the business successful."

Getting the ideas is only half the battle, however. As he discovered in 1996, when his company lost a lot of money from an expansion that never materialized, implementing ideas is just as important. The problem was haphazard new-product launches, so he has turned the process into a science. "What we want to do now is innovate and design new products and improve on existing ones using external people," he says "and just drop them into the program as an on-going process." He has linked up with a firm of designers as well as IRDI (Industrial Research and Development Institute) which does contract research for New-Form. They are now part of a detailed process, from disciplined market research, through pricing, product development and customer testing, to the marketing campaign for the launch.

To support New-Form's bottom-up approach, Boulanger trains his employees assiduously. He does this informally with organized visits to leading manufacturers in the province, such as Honda and Toyota. He also encourages his employees to study and upgrade their skills.

Boulanger's greatest passion is to reduce everything to an entrepreneurial process. "Everything is process," he says. "It's never individuals who cause problems. No one comes to work and says: I'm going to do a bad job today. Everybody wants to do a good job. So our key competence is to understand what process gets people to do that." New-Form doesn't have a plant manager, for example. "We rely on the core competencies of each employee throughout our entire operation, as they take full responsibility for their own activities, directed to the ultimate goal of the team as a whole."

The objectives of the improvement teams are first and foremost safety, then quality, then efficiency. Within that context, Boulanger knows that the priority for his market profile is the quality of his product. "You have product quality, operational excellence and customer intimacy. You can be good at all three but you can only excel at one. McDonald's is operational excellence, just like Toyota and Honda. A consulting business may be customer intimacy. Ours is product quality. We're good at customer intimacy – we're warm and fuzzy, but we excel in product quality."

Conclusion

If innovation is key to growth in business, it is more important than ever to understand how people innovate. This report attempts to do that. It would be a mistake, however, to think that people innovate following a regular process, like Wednesday's departmental meeting. In practice, people innovate in a context – and they initiate innovation by aligning the appropriate human resources in an environment in which the proper context is more likely to materialize.

As fast-growing innovative firms strive to become threshold firms, they need support during the critical years of explosive growth brought about by innovation. The Wisdom Exchange™ is one of the initiatives the private and public sectors have jointly undertaken to sustain this growth, by providing a forum where these firms' CEOs can exchange ideas and expertise on the challenges they face.

The qualities required for fast-growing innovative firms to survive and thrive beyond the critical period of explosive growth include: researching your customers' needs, but innovating independently; playing in the big leagues, but finding niches where competition is minimal; learning from your mistakes in R&D; consuming information voraciously on anything that touches your business; aligning your employees with the corporate vision and giving them the freedom to work things out for themselves; being acutely conscious of the organization requirements to run a company effectively and of the stages that you have to go through on your way to becoming a large company, and being willing, as a leader, to change your role in the company, if necessary.

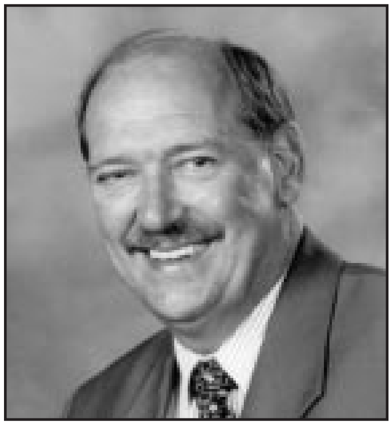
One of the firms that is noteworthy for its successful resolution of the problems it faced during the years of explosive growth is JetForm Corporation.

JetForm Corporation

Ottawa

John Kelly, President & CEO

" We built an organization with global objectives. Our development teams think globally and create solutions that maximize emerging technological architectures."



Forms – the kind we all love to fill in – have long been identified as a big market. In fact, an estimated 80% of all business documents are forms, which cost organizations the world over about $6 billion a year just to print. Processing them is another matter. Estimates vary from 13 to 40 times the printing costs. That makes the global bill for processing forms something like $120 billion.

The computer revolution is changing this market beyond recognition, and an Ottawa-based firm is leading the charge into the world of e-forms. At this point, with estimated sales in the current fiscal year of $110 million, it has almost 80% of this global niche market. A firm of researchers, Gartner Group, estimates the e-form market was $70 million in 1995 and it will rise to $350 million in 2000. JetForm's growth rate has averaged more than 50% in the past five years and John Kelly, President and CEO, says growth rates will continue in the 30% to 40% range, both for the market and JetForm.

JetForm has developed the software for a paperless form world. Its systems can design and distribute forms, so that local offices in a large organization merely download the design and print off forms as and when they need them. Better still, the JetForm technology makes it easy to fill in the forms without ever printing them, and once they've been filled in, its systems can automatically direct the form to the appropriate destination, where it can be processed on screen. Nothing need be printed at all. This technology saves up to 80% of the cost of paper-based processing of forms.

The secret of the JetForm software is that it works with every popular platform. It can print to any printer, fax to any fax system, access any data base, e-mail or EDI network, and it is connected to the Internet. It has become more than a forms company: it is now in the workflow market, where it is, as Kelly puts it, "a solutions sell rather than a product or a service sell." Workflow is code for the movement of information around an enterprise, which covers a lot of action – anything from capital requisitions to expense accounts, or from time sheets to order processing. International Data Corp., a leading electronics research firm, estimates the global enterprise workflow market was $336 million in 1996, and that it will grow at more than 50% a year to reach $1.5 billion in the year 2000. JetForm currently has 15% of this broader market.

At a Glance

1998 Sales (est.)	$110 million
1998 Staff Count (est)	725
1993-98 Average Annual Growth Rate	
Sales	66%
Staff	56%
Percentage of Sales	
Exports	90%
R&D	10%

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It's one thing to become the world standard for an emerging technology. It's quite another to maintain that status. To keep pace with an exploding market like this, JetForm is building alliances with many of the key players to ensure that its technology is incorporated into their strategic plans. The company already has 40 leveraged relationships, including IBM, Hewlett Packard, Xerox, Sun Micro Systems, and SAP, the largest software company in the world for resource planning. Microsoft has adopted JetForm's standard for output from its version of SAP R/3.

A second core strategy is to go global quickly and decisively. JetForm has an installed user base of 4 million people in 26 countries. It has offices in all the G7 countries, except Italy and Japan, and it also has offices in China, Ireland, Sweden, Australia, New Zealand and Singapore. "We cannot move into a market until they are ready for us," says Kelly, "so we have to estimate the timing carefully."

The third strategy is to target vertical markets and dominate them. JetForm has already penetrated financial services and government. Next, it is going after sectors like manufacturing and healthcare.

Finally, JetForm acquires companies that complement its expertise. In the past 18 months, it has bought the FormFlow technology developed by Toronto-based Delrina as well as Workflow Partners, a firm of workflow consultants in California.

To fulfil this strategy, JetForm needs a lot of researchers. Its R&D operation currently employs 140 people and Kelly expects it to approach 300 in two years. R&D spending is tied to about 10% of sales, so as sales increase, R&D grows in lockstep. The global nature of JetForm's business dictates that some of this expansion will be outside its Ottawa offices. "You build a global product, but you do your customizing at the local level," says Kelly. "I have been in Japan a few times – all our users there will be Japanese, so our development there will use Japanese talent." JetForm has also developed a capacity to provide forms using Chinese kanji characters.

The fulcrum of JetForm's development strategy is its three Product Managers, who manage electronic forms, workflow and output. They are not R&D, but their responsibility is to define solutions going forward by talking with customers, allied companies, individual users and anyone else who can demonstrate emerging market needs. "They are the catalysts," says Kelly. "All ideas don't come from them, but they all go through them. If I see things, I talk to them. The sales managers do the same thing."

JetForm's approach is evolutionary rather than revolutionary, a matter of enhancing solutions within the architectural environment. In the last few years, the company has shifted into networks, working with the Internet and intranets and using Java-based programming.

"We keep a tight leash on time and money in R&D," says Kelly, "but our time horizon goes out at least two years." In R&D, that's an awfully long time.

innovators alliance

The Innovation Report
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1. Overall, I would rate the Innovation Report as follows in terms of:

	Fair	Good	Very good	Excellent
Content	☐	☐	☐	☐
Usefulness as an on-going management tool	☐	☐	☐	☐
Accessibility (language, ease of reference, etc.)	☐	☐	☐	☐
Presentation (style and looks)	☐	☐	☐	☐

2. I was particularly interested in the following chapters or topics.

3. I would like to see the following topics expanded in a next report or addressed as part of an initiative for fast-growing innovative firms.

4. Please send me more information on the Innovators Alliance.
   - I am the leader of a fast-growing innovative firm. ☐
   - I am not the leader of a fast-growing innovative firm, but I am interested in my capacity as ______________ ☐

5. Please add my name to your mailing list and keep me informed of upcoming Innovators Alliance initiatives. You may call me if need be. ☐

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