The Experts' FORUM

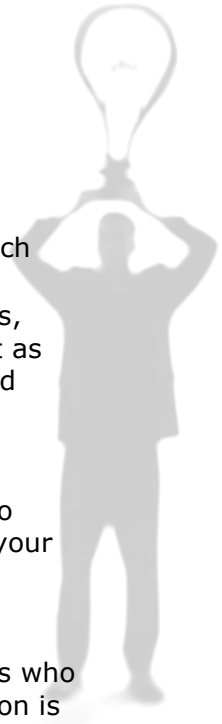
January 2010

Feature Article:

Innovation: Why is it so Important?

by the Canadian Dairy Commission

www.milkingredients.ca



Innovation: Why is it so important?

The Conference Board of Canada defines innovation as "a process through which economic or social value is extracted from knowledge through the generation, development and implementation of ideas to produce new or improved products, processes and services." [1] The Department of Trade and Industry, UK defines it as "the successful exploitation of new ideas". Peter Drucker, a business thinker and author of *Concept of the Corporation,* defines it as "change that creates a new dimension of performance".

However you define it, many would agree that innovation is an important key to success in today's "uber" competitive marketplace. "Innovate and you'll grow your business." Sounds good, but innovation is a complex and lengthy process that involves creativity, commitment and a lot of hard work.

It is comforting to know that research/statistics support the fact that companies who are innovating are more successful than those who aren't. The road to innovation is not without its obstacles and set-backs, but those who persevere are often rewarded for their insight and effort.

As previously reported in the 2005 CDC article *Why Innovate*, Statistics Canada's study[2], on the research and development being carried out in the food processing industry was not keeping pace with the level of innovation occurring in other industries. Agriculture and Agri-Food Canada (AAFC) commissioned Statistics Canada to survey 800 Canadian food processors and manufacturers. They released their findings in August of 2005 which proved somewhat surprising. The survey revealed that only 37 per cent of respondents reported launching new product innovations during the previous three years. But, of those 37 per cent that did introduce new product innovations, 64 per cent achieved higher margins on their innovative products in comparison with their regular product lines.

The study also found that 55 per cent of the companies that developed new innovative products did so by adapting, improving or modifying existing products, whereas only36% actually developed completely new products. This shows that new product development is not the only way to innovate in the food industry. Product reformulation is another way to innovate and to meet today's market needs and reach new markets.

Why innovate?

"Innovation is critical to sustaining business competitiveness and improving productivity. It is the foundation of our economic growth…"[3] There are many factors affecting the need for innovation. According to the Canadian Innovation Centre[4], these include external and internal drivers.

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[1] The Conference Board of Canada, Innovation Challenge Paper #1, May 2002, *The Road to Global Best: Leadership, Innovation and Corporate Culture*.
[2] Statistics Canada; The Daily (Monday, August 15, 2005): *Innovation in the food processing industry.*
[3] Canadian Manufacturers and Exporters, *The Business Case for Innovation*.
[4] Maxwell, Andrew and Josie Graham, Innovation Awareness Seminar, March 19, 2008.

External Drivers

- Competition
- Lower costs
- New entrants
- Market drivers
  - Demand
  - Economic forces
  - Social changes
  - Demographics

Internal Drivers

- Improve profitability
- Improve ROI
- Improve cash flow
- Improve quality

"Innovation is considered one of the critical determinants for improved competitiveness and economic performance of the food processing industry, if Canada is to meet the challenges of the rapidly changing global food market and to exploit niche markets for products and remain competitive in the long run. However, innovation is costly and risky and therefore requires an environment of collaboration between businesses, the financial community, research institutions, and government."[5]

Improved quality, creation of new markets, and improved product processes are only a few of the many reasons for innovating. These are some big incentives, yet only 37 percent of Canadian companies in the food processing industry are involved in product innovation and 23% in process innovation. When asked why they were engaging in innovation projects, companies responded with:

- To introduce new products to the existing line of products
- To increase market share
- To meet buyers' standards or requirements, and
- To improve productivity or reduce production costs. [6]

Innovation is important because it allows businesses and industries as a whole to adapt to change. Between market conditions, technological advances, and global economies, the business landscape is always evolving.

Canadian companies must keep up with these evolutions if they expect to succeed in whatever market they have targeted, whether it be local, national or international.[7] The Canadian Manufacturers and Exporters list a number of changes that Canadian businesses "must respond to":

- Changing and more complex customer expectations and demands;
- More exacting demands on the part of other stakeholders, including employees, shareholders, suppliers, local communities and government regulators;
- More open markets and more intense competition, requiring companies to go further afield in order to find customers;
- The rapid development and diffusion of new technologies, products and services around the world;

[5] *The Nature and Extent of Innovation in the Canadian Food Processing Industry*, Agriculture and Agri-Food Canada, June 2006, p. xi.
[6] *The Nature and Extent of Innovation in the Canadian Food Processing Industry*, Agriculture and Agri-Food Canada, June 2006, p. xv.
[7] Canadian Manufacturers and Exporters, *The Business Case for Innovation*, page 3.

- New knowledge requirements that place great emphasis on worker skills and expertise.[8]

Risks and challenges

Innovation is a great idea in theory, but many companies do not have the financial resources to invest nor do they want to address the number and type of risks involved. In AAFC's study on innovation in the food processing industry, companies noted that that raising capital internally was the greatest impediment to innovation. Other challenges included shortage of skilled workers, lack of marketing capability, lack of retail acceptance or access to distribution channels, lack of debt financing, corporate or management resistance to innovation and lack of idea champions.[9]

Steps to successful innovation

Innovating is a process like any other. Skipping a step, no matter how small, can lead to failure. The Canadian Innovation Centre outlines a series of steps important in the innovation process:[10]

→Step 1: SWOT analysis

The first step in innovation should involve a SWOT analysis (strengths, weaknesses, opportunities, threats) of a company. It is an important part of evaluating whether innovating is a viable option. Evaluating a company's strengths means identifying attributes of the company that are helpful to achieving the objective. Evaluating a company's weaknesses means identifying attributes of the company that could been seen as a roadblock to achieving the objective. Opportunities are *external* conditions that are helpful to achieving the objective and threats are *external* conditions which could do damage to the objective.

→Step 2: Idea generation

Once the SWOT analysis is complete and it has been determined that innovation is a viable option for the company, the next step involves brainstorming in relation to the product innovation, putting ideas down on paper, discussing possibilities and options, and identifying advantages and disadvantages. The process must be open and visible and present possible outcomes that are achievable and measurable.

→Step 3: Market research

Market research is a critical step and will help a company to determine whether there is a place for its product on the market. Does it meet consumer needs? Is there any other product on the market that is the same or similar? It is important to know if there are any products in the market that are similar to yours and then compare them in terms of prices, size, features, etc. What is a good price point for this

[8] Canadian Manufacturers and Exporters, *The Business Case for Innovation*, page 3.
[9] *The Nature and Extent of Innovation in the Canadian Food Processing Industry*, Agriculture and Agri-Food Canada, June 2006, p. xv.
[10] *First steps for innovators*, Canadian Innovation Centre, presented by Andrew Maxwell, 2006

product? These are all important questions to have answered before proceeding with developing the product.

→Step 4: Identify resource requirements

It is crucial to make a list of the resources that are going to be needed to carry out the project and take the product to market. Each phase of the project (design and testing, development, production, distribution, marketing, etc) has different requirements. Identifying those that are needed and what is already available will help not only determine manpower, but also estimated costs associated with the project.

→Step 5: Identify resource availability

At this point, determining what the resources will costs, how long they will be needed and how they will be accessed are essential to answering questions like "Is the capital available? How much money needs to be raised? How much time will it take to raise the capital needed?".

→Step 6: Factor assessment

Some critical factors must be assessed before proceeding with the development of any product. Things such as technical feasibility, cost of production expectations, market concerns, likelihood of satisfactory financial return, risks involved, and commercialization issues must be addressed beginning any product development.

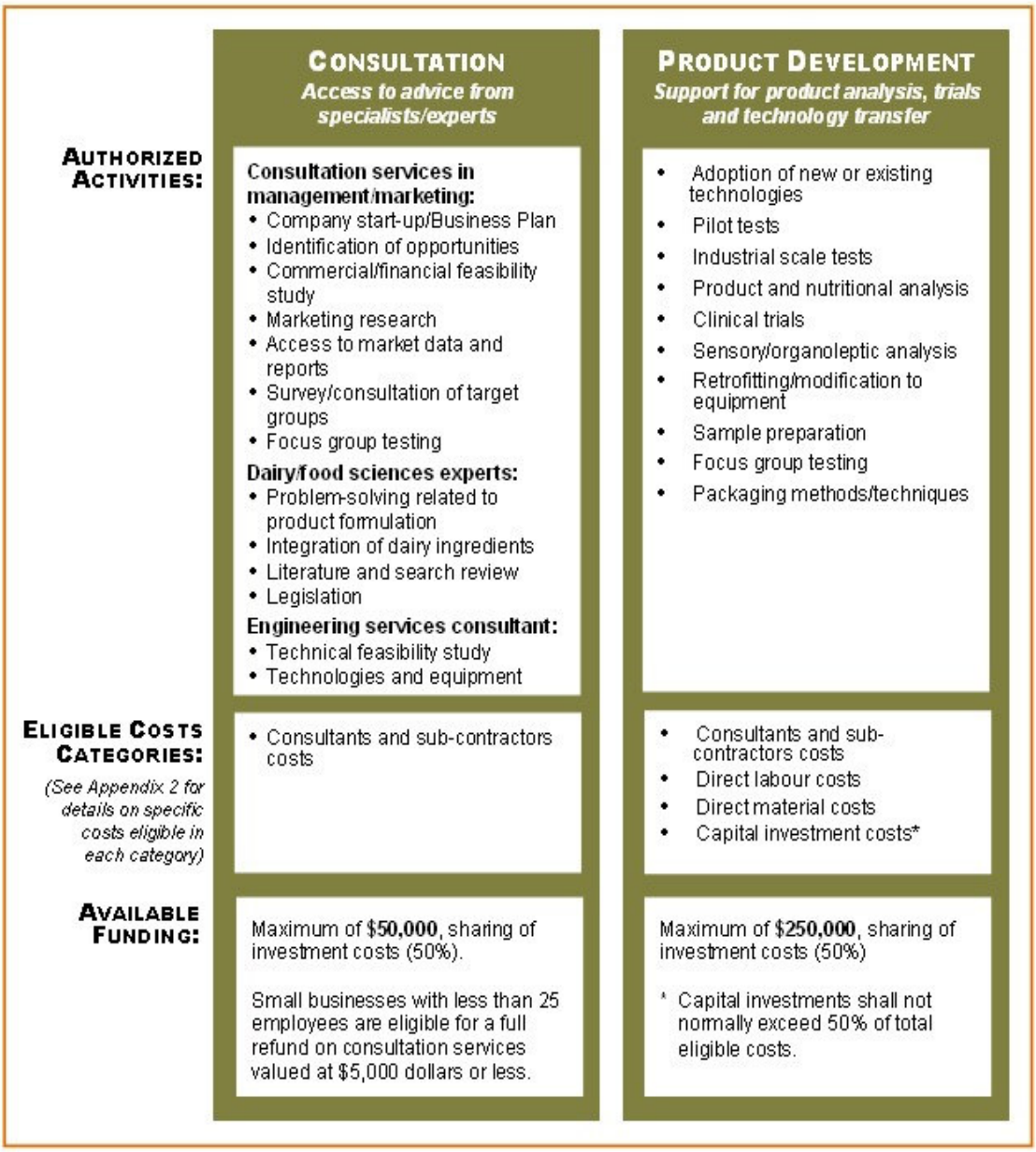
These steps can be done by a company itself or can be done by a firm that specializes in this type of pre-development work. Either way, once all this information has been gathered the company will have a much better understanding of its innovation and its market potential.

→Step 7: Product development

Once the first 6 steps have all been fully addressed, the company can finally proceed with the work needed to actually develop and bring the product to market. Activities such as formula and recipe development, sensory evaluation, shelf life studies, scale up, test market and commercialization are important to the product development stage and should be done in order to avoid costly mistakes at this point. Whether performed in-house by experienced staff or carried out with the help of food science experts, the product development stage is the culmination of all the research that came before it.

CDC committed to Innovation

The CDC's *Matching Investment Fund* (MIF) is available to dairy and food processors involved in innovative product development projects. It provides non-repayable contributions to help companies develop new and reformulated products using Canadian milk ingredients, on a matching investment basis. Eligible companies can access financial support to help with a variety of product development issues in two key areas:



Each approved project is eligible for up to $250,000 in financial support on a matching basis. Projects that use milk protein concentrate or skim milk powder may qualify for higher levels of funding.

For more information on eligibility and the application process, please refer to the CDC Matching Investment Fund (MIF) Program Guide , visit www.milkingredients.ca or contact:

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Other available resources

- **AgriProcessing Initiative (API)**: API is part of the federal Agricultural Flexibility Fund, which is a 5 year, $50 million initiative to improve the competitiveness of the Canadian agri-processing sector. If eligible, a company can receive a repayable contribution of 50% of eligible project costs to a maximum of $2 million per project for new machinery and equipment (including the commissioning) that enables the adoption of new manufacturing technologies and processes as well as for consultation, design and advice on new technologies, processes and products. For more information on this program, including who qualifies, what types of project qualify, eligible costs and application procedures, email API@agr.gc.ca or phone 1-877-246-4682.

- **Scientific Research and Experimental Development Tax Credits (SR&ED)**: The Canada Revenue Agency (CRA) administers the SR& ED Tax Credits program. This tax incentive program is available for all Canadian businesses of all types and sizes and from all sectors and was created to encourage Canadian businesses to conduct research and development that will lead to improved products and processes. What are the benefits? Generally, a Canadian-controlled private corporation (CCPC) can earn an investment tax credit (ITC) of 35% up to the first $3 million of qualified expenditures for SR&ED carried out in Canada, and 20% on any excess amount. Other Canadian corporations, proprietorships, partnerships, and trusts can earn an ITC of 20% of qualified expenditures for SR&ED carried out in Canada. Visit http://www.cra-arc.gc.ca/txcrdt/sred-rsde/menu-eng.html for more information on this program.

- **Universities, colleges and Research Centres**: Depending on the type of project and the needs of a company, the assistance of community colleges, universities and research centres should not be ruled out. Many of these organizations have professors, researchers, and graduate students that can be valuable resources when gathering information and even in performing product development testing.[11] Visit http://www.milkingredients.ca/dcp/article_e.asp?catid=142 for a list of Canadian Dairy Commission (CDC)-recognized organizations qualified in food science and technology.

[11] Canadian Innovation Centre, *Innovation Awareness Workshop*, page 27.