



# Development of the Consortium on Materials and Technical Textiles (CMT2)

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# Stages of Development

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- 2006 and 2007 – Indepth reflection by the Canadian textile industry on its future
- 2008 - Publication of the *Technology RoadMap for the Canadian Textile Industry* and action plan, online:  
[www.gcttg.com/cmt2p](http://www.gcttg.com/cmt2p)
- Among the RoadMap's principal recommendations:
  - Assigning greater importance to innovation and partnership
  - Collaborating with research centres



# Stages of Development

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August 2008 - Consensus workshop

- Plan for the creation of an industrial research consortium on technical textiles and materials (for protection)
- Fiscal incentives for companies' R&D
- Development and Transfer Assistance Program, Component 4 – Assistance to Sectoral Industrial Research Clusters (MDEIE)

## Objectives:

- To bring together companies in a given industry sector, and research centres operating in that sector
- To increase companies' R&D investments by facilitating access to research, particularly for SMEs
- To encourage the sharing of risks and costs, while reducing the duplication of efforts
- To reinforce the industry sector in the face of international competition



# Stages of Development

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- **September 2008** – Networking workshop
  - Meeting of representatives from the following communities:
    - Manufacturing companies
    - Companies and organizations using protective clothing and equipment
    - Associations representing major user groups
    - Research centres
  - Goals:
    - To present needs for protective equipment, and research centre expertise
    - To define axes of research of common interest
- Constitution of a provisional board of directors



# Stages of Development

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- **December 2008** - Getting the MDEIE on board
  - First version of a document, *Consortium on Protective Materials and Technical Textiles*, submitted to the MDEIE, and synthesis document, online: [www.gcttg.com/cmt2p](http://www.gcttg.com/cmt2p)
    - Favourable reception to the proposal
    - Need to go further with research projects and complete requests for financing
- **January 23, 2009** – Call for proposals for research projects
  - **March 2009** – Final document submitted to the MDEIE



# Vision and Mission of the CMT2

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- **Vision** – To accelerate the development of protective materials and technical textiles in order to position the Québec textile industry as a world leader
- **Mission** – To deliver meaningful R&D results that allow new protective products, technologies, clothing and equipment to be commercialized, meeting user needs and generating profits for industry partners



# Objectives of the CMT2

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- **To accelerate** the development and commercialization of protective products, technologies, clothing and equipment
- **To encourage** knowledge exchange between Consortium members and enhance the technological skills of companies in the sector
- **To form**, within the framework of R&D projects, a highly qualified workforce, and ensure the continued development of new protective products, technologies, clothing and equipment
- **To set up** a research-action model based on user participation in the early stages of an R&D project realized jointly by manufacturers and researchers



# The CMT2: A Non-Profit Organization

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- **Four types of members:**
  - Manufacturing companies
  - Companies and organizations that use protective clothing and equipment
  - Organizations or associations representing major user groups
  - Public research centres



# The CMT2: A Non-Profit Organization

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- **A nine-member board of directors**, primarily made up of manufacturers:
  - 4 members - Manufacturing companies
  - 1 member - User companies or organizations
  - 1 member - Organizations representing major user groups
  - 2 members - Public research centres
  - 1 ex-officio member - The Consortium director general



# The CMT2: A Non-Profit Organization

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- **A five-member scientific committee**, including the CEO, primarily made up of manufacturers
- **Mandate:**
  - To propose selection criteria for projects to the BoD
  - To supervise public requests for proposals
  - To select projects for financing and recommend them to the BoD
  - To monitor projects and, if necessary, make recommendations to project directors
  - To advise partners on IP protection
  - To recommend to the BoD the cessation of a project that is not progressing or has little chances of success

# Axes of Research

## Protection-related Topics

- **Axis 1 - Mechanical performance**
  - Develop new materials and clothing designs that meet market needs in terms of resistance to mechanical stress
  - Endow materials with mechanical and protective properties that make them withstand the effects of wear and real-use conditions
  - **Some topics of interest:**
    - Cuts
    - Needlesticks
    - Impact
    - Multirisk



# Axes of Research

## Protection-related Topics

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### ■ **Axis 2 - Detection**

- Develop quantitative methods for continuous monitoring of the environment, material condition and physiological characteristics of the user
- Develop and integrate detection and feedback devices into clothing for:
  - Measuring, in real time, parameters of the environment, the material and the user's physiology
  - Informing the user of variations in these parameters

### **Some topics of interest:**

- Monitoring of environmental, material and physiological conditions
- Development of devices integrated into clothing

# Axes of Research

## Protection-related Topics

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- **Axis 3 - Factors affecting comfort**

- Quantify and measure factors affecting comfort
- Take factors affecting comfort into consideration from the moment protective clothing is designed
- Create new materials and designs offering improved characteristics to factors affecting comfort

### Some topics of interest:

- Material's hygrothermic performance
- Lightness of clothing
- Users' dexterity



# Managing the Consortium

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## To do, in the short term:

- Finalize requests for financing and conclude an agreement between the MDEIE and the CPMT2
- Form the management team and start activities: team of two, the CEO and an assistant, or outsource to a management company
- Set up management bodies—NPO, BoD, scientific committee—and start activities
- Launch another far-reaching public call for proposals for R&D projects involving all companies in the sector in Québec
- Select projects for financing
- Prepare contractual agreements between the CPMT2, participating companies and research centres to make research projects happen



# Leading the Community

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## **In the short term:**

- Make the CPMT2 known to all companies in the sector, Canada-wide
- Advise companies on financing packages for research projects

## **In the medium term:**

- Encourage networking between members of all categories
- Recruit members to increase the number of companies associated with R&D projects and enhance the Consortium's scope and impact
- Make representations to government bodies



# Industrial Research Partnership

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- Conditions for financing
  - Minimum:
    - 2 companies
    - 1 research centre
  - Ideally:
    - 1 or more manufacturing companies
    - 1 or more user companies or organizations
    - 1 or more research centres



# Any Questions?

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