Declaration of Data Reliability

As president and CEO, I am responsible for the information contained in this activity report. I attest to the accuracy of the information and the reliability of the controls carried out.

Recommended by the members of the Scientific Advisory Board and approved by the Board of Directors, this 2005 activity report faithfully describes the mission, vision and main achievements of the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST). It sets out indicators selected to assess production and provides accurate and reliable data on the results obtained.

I declare that I have every reason to believe that the facts and data provided in this activity report correspond to the situation as at December 31, 2005.

Diane Gaudet
President and CEO
IRSST

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A TIME FOR CHOICES

The end of one cycle and the beginning of another. This accurately sums up the year 2005, which was distinctive in many respects. Highlighted by the IRSST’s 25th anniversary, 2005 was first marked by the termination of the 2003-2005 Master Plan and the Increasing Research Partnerships business plan. Charting the course of the IRSST for the past three years, these plans defined our orientations, established the framework for our action plans, and identified various methods, including partnerships, to help the organization better respond to the numerous changes facing workers and companies. Upon taking the helm of the IRSST in 2002, I indicated that I would carry out my duties in a spirit of continuity and that I would ensure that these plans translate into achievements. Thanks to the support of my colleagues and the quality and dedication of the personnel, we can state: mission accomplished!

Supported by action plans and rigorous follow-up, this 2003-2005 Master Plan guided the IRSST’s administrative decisions, projects and scientific and technical activities; all of its essential elements have been or are in the process of being implemented. This activity report spotlights various major achievements that distinguished fiscal 2005, including the abundant publication of research reports, the realization of an unparalleled number of environmental, toxicological and microbiological analyses by our Laboratory Services and Expertise team, as well as the signing of a new collective agreement for the personnel.

However, since every major organization needs a rudder and an itinerary, we also launched a new strategic development and positioning process in order to prepare ourselves to enter a new cycle and meet the needs of tomorrow. Known as Strategic Orientations for the Enhancement of Research, this initiative has yielded its first results. In addition to drawing a qualitative and quantitative profile of the years 1999-2004, it allowed an External Evaluation Committee (whose members, and particularly its Chair, Gretta Chambers, I would like to sincerely thank) to question the way in which the IRSST meets its mission’s objectives in terms of capacity and performance. I received the committee’s report at the very end of 2005, but I can state, here and now, that the observations are extremely positive and augur well for fine, new achievements. The external committee’s assessments and the observations stemming from the profile will help us establish a development scenario for the next five years.

On the occasion of its 25th anniversary, the IRSST has therefore reached a point in its history where it must choose the path it plans to take between now and 2010. At the crossroads of its existence, it must determine in which current niches it will continue its activities. Which must be maintained and in which will it have to excel? Which new niches must be invested in and developed? And how will it meet the urgent needs and high expectations of its mandators and partners in the area of knowledge transfer? We have already begun to reflect on how to meet the challenges that await us in the area of strategic watch. On this issue as on many others, the choices will be decisive, since they will dictate the direction that we will take together in the future. As so eloquently stated during the debate on the motion adopted by the Quebec National Assembly to highlight the IRSST’s 25th anniversary, I will conclude by wishing a “long life to this wonderful institution”! 
2005 in Numbers

RESEARCH

178 projects were active in 2004. *
46 files were completed
58 files were approved, broken down as follows:
- 20 joint
- 13 external
- 25 internal

77 other projects were being developed.
82 partner organizations in the network were involved in the active projects in 2004.
31 committees of the CSST and its network, including regulatory committees, had at least one IRSST representative.
12 national and international standardization committees invited the IRSST to serve on them in an expert capacity.
31 scholarships were awarded, for a total of $418,400.*

LABORATORY SERVICES AND EXPERTISE

70,982 environmental, toxicological and microbiological analyses were performed, 83% of which were for our partners in the prevention-inspection network: CSST, local health and social services network development agencies, and joint sector-based associations.

4,717 hours were devoted to the calibration, maintenance and repair of direct-reading and sampling instruments, 85% of which were for the prevention-inspection network.

* Summaries of all projects carried out or funded by the IRSST, as well as the complete list of scholarship recipients, are available on the IRSST’s Web site: www.irsst.qc.ca.
DISSEMINATION

65 IRSST publications
- 56 research reports and guides published by the IRSST.
- 9 synthesis reports published in collaboration with partners.

174 scientific publications (reading committees) related to projects carried out or financed by the IRSST:
- 75 periodical articles
- 93 articles published in conference proceedings
- 6 other publications, including book chapters, theses, etc.

60 presentations given by IRSST personnel or funded researchers at scientific conferences or events organized by partners.

23 non-technical articles published in Prévention au travail, the magazine published by the CSST and the IRSST, with a circulation of over 47,100.

8,791 publications distributed in response to requests.

48,745 downloads of research reports from the IRSST’s Web site.

399,594 visits to the IRSST’s Web site, representing an average of 950 visitors per day.

4,439 subscribers periodically receive news related to laboratory activities, new research projects and the latest publications via the electronic newsletter Info IRSST, prepared by the Communications Division.
2005 Highlights
Consolidating our research fields

A new field
Every year, thousands of workers who have suffered an occupational injury whose consequences compromise their professional reintegration benefit from rehabilitation services. The IRSST was already conducting projects to meet the needs of injured workers and professionals. But the size of the field and the number of claims justified the creation of a new research field: occupational rehabilitation.

A cohesive package including integrated programs, themes, orientations and an action plan was therefore presented and ratified by the Board of Directors. Centred around four programs, rehabilitation research aims to:

- Support early intervention in the clinical environment;
- Characterize the risks of prolonged disability among workers;
- Support the return to work processes carried out in companies;
- Identify factors for success in the CSST’s interventions.

By focusing our rehabilitation activities within a single field, we will be better able to integrate the research and its results.

Statistical report
To better identify the risks of prolonged disability, the occupational rehabilitation field will be able to rely mainly on a statistical profile of workers whose injuries required recourse to physical, social or professional rehabilitation measures. This report, produced by three IRSST scientists, Jean-François Godin (1), Raymond Baril (2) and Paul Massicote (3), will help to expand and orient research in this field. The main results show that sex, age, company size, back pain and musculoskeletal disorders (MSD), relapse, as well as secondary sector jobs seem to be important aspects of the characteristics of a rehabilitation program’s clientele. The study also confirmed that, among workers in rehabilitation, young people aged 15 to 19, as well as workers over age 55, have a higher average rate of permanent physical or psychological impairment than the average of workers.

Some initiatives over the months

JANUARY

The IRSST’s management met with the general managers of the joint sector-based associations to present the main research orientations for the year.

The Laboratory Services and Expertise team adopted the latest version of the Quality Assurance Document Management System, which allowed it to meet the requirements for ISO 17025 certification.

The IRSST’s president and CEO, Diane Gaudet, and the IRSST’s knowledge transfer advisor, Laurent Gratton (4), collaborated with prevention mutual groups to expand the network of intermediaries.

FEBRUARY

The Safety Ergonomics team inaugurated a laboratory allowing it to continue research on back pain related to handling, as well as to develop tools for research in the workplace.
**Integrated Programming**

To better respond to our partners’ complicated questions, considerable effort has been expended to ensure that research programs are integrated more effectively into each field. Thus, thematic programs have been established to better orient research projects. Promoting the achievement of concrete results, this practice is becoming increasingly common since, in 2006, nearly half of the projects will be integrated into thematic programs.

In addition to the ten already under way, no less than fifteen new thematic programs received the green light from decision-makers in 2005. Here is the list of programs, by research field:

**Accidents**
- Development and production of new occupational health and safety (OHS) indicators
- Young workers and OHS
  - good examples of learning environments
  - safe job integration
  - working conditions promoting the health of young workers
  - preventive approaches

**Protective equipment**
- Protective gloves and clothing
- Respiratory protection
- Falls from heights
- Shoring

**Safety of Industrial Tools, Machines and Processes**
- Assessment of risks associated with machines
- Lockout
- Maintenance
- Design of safe machines
- Control systems and automation

**Chemical Substances and Biological Agents**
- Microbiological agents

**Occupational Rehabilitation**
- Factors for success in the CSST’s interventions
- Return to work processes carried out in companies
- Risks of prolonged disability among workers
- Early intervention in the clinical environment

**Strategic Watch**

To gain a better overview of scientific breakthroughs, the development of OHS knowledge and emerging problems, researchers in each field did a follow-up of the literature in their niche of expertise. Need identification and integration efforts will continue and various mechanisms will be implemented in order to develop a structured scientific strategic watch process. The development and implementation of a surveillance and monitoring mechanism at the institutional level will allow the IRSST to better anticipate emerging problems and to integrate research results produced elsewhere by adapting them to the Québec reality.

An example of what institutional monitoring can generate is the literature review carried out in 2005 by Claude Ostiguy (3), in collaboration with the CSST, on the health risks associated with nanomaterials.
New research needs

Some issues do not lend themselves easily to just one field. This is particularly the case for occupational psychological health (OPH) and the health and safety of young workers. The IRSST produced a report on OPH issues and problems, which will allow it to identify research orientations and target its actions. Regarding OHS among young people, several achievements are noteworthy. In addition to developing four thematic programs, the IRSST participated in the public consultation conducted by the Québec government on the development of a youth action strategy. Written by Marie Laberge (1) and Élise Ledoux (2) of the IRSST, with the collaboration of the CSST’s Action Jeunesse team, a brief was submitted to the government by Jacqueline Caboret, Director of the CSST’s Prevention-Inspection Branch, and Jean-Claude Martin, Director of the IRSST’s Quality and Special Projects Management Division. Entitled Vers une culture de la prévention (Toward a Prevention Culture), this important brief focused mainly on the special role of young people as workers in a changing working world and on the possible impacts on their health and safety. The document is available at www.irsst.qc.ca in a new section: Opération JeuneSST.

Consolidating our strategic presence and our reference, expertise and transfer role

In addition to its research role, the IRSST must constantly be present among its network of partners to ensure that knowledge fuels their prevention strategies. In 2005, the IRSST remained very involved in the priority issues of the Commission de la santé et de la sécurité du travail (CSST), mainly by supporting, through its work, the action plan on machine safety and by pursuing beryllium research. It should also be noted that the IRSST participated actively in rehabilitation discussions. Thus, the initiative taken by the CSST to prevent chronicity among injured workers was prompted by the IRSST’s research results. The CSST’s empirical observations and the IRSST’s research have played a key role in the CSST’s move to prevent chronic disability.

Programmable control systems

The IRSST is participating in a dozen standardization committees. Given the importance of this activity, in 2005 the IRSST took stock of its achievements over the past few years and proposed orientations for the future. Thus, the work done in the Safety of Industrial Tools, Machines and Processes field, as well as the technical guide developed by Joseph-Jean Paques (8) of the IRSST and Louis Germain (9) of the CANMET Energy Technology Centre, led to the adoption of a new article on programmable control systems during the revision of the Regulation respecting occupational health and safety in mines. This work not only served as a reference for the new mining regulation for Québec, but will also have an impact on that of the other Canadian provinces.
**Role of the Laboratories**

In addition to this work are the efforts of Laboratory Services and Expertise, whose personnel provide daily support to professionals in the public prevention network. In 2005, the Sampling Guide for Air Contaminants in the Workplace was updated. Under the direction of chemist Daniel Drolet (1) and technician Guylaine Beauchamp (2), this revision required the collaboration of some twenty IRSST scientists, professionals and technicians. Cited as a reference document in the *Regulation respecting occupational health and safety* (RROHS), this guide supports the actions of professionals by describing the strategy and methods for measuring workers’ exposure to gases, fumes, vapours or dusts.

**Quality Approach**

By establishing strict quality assurance mechanisms, the laboratories want to guarantee their clients that each analytical result produced by their personnel was obtained according to well-established and proven procedures. Thus, the laboratories not only want to maintain their numerous national and international certifications, but they also plan to broaden the scope of these certifications based on emerging problems and the new priorities of the IRSST’s partners. As a result, in 2005, the laboratories subscribed to the new quality control program of the American Industrial Hygiene Association (AIHA) for the characterization of mold spores.

In addition, the person responsible for laboratory quality, chemist Marie-Claude Barrette (7), is supervising an initiative aimed at ensuring the relevance and quality of analytical methods over a five-year period. In 2005, most of the solvent analysis methods were successfully updated according to the requirements of the existing quality system.

**Toxicological Interactions**

Utility development constitutes a valuable aid for network professionals. Spearheaded by Adolf Vyskocil (8) of the Université de Montréal and Daniel Drolet (1) of the IRSST, in collaboration with the CSST, one project led to the development of a database on the toxicity of chemical mixtures. In addition, with the assistance of computer analyst François Lemay, a tool was designed to assess the risk represented by exposure to a mixture of several chemical substances in the workplace. Work on interactions is generating considerable interest. A cooperation agreement was signed with the faculty of medicine of Charles de Hradec Králové University so that Czech professionals can use the assessment tool. In addition, the Institut Pasteur de Lille, in France, added the research report *Impact of toxicological interactions on the management of multiple contaminant exposure situations* to its reference library.

The Natural Sciences and Engineering Research Council of Canada and the company Best Glove Canada injected $300,000 over three years into a project on solvent-polymer interactions. This project was conducted by Toan Vu Khanh (3), the Chair for research on protective materials and equipment used in occupational health and safety; professor Julian Zhu (4); and Jaime Lara (5) of the IRSST’s Safety Engineering team.

Jean Dussault (6), of the Fédération des travailleurs et travailleuses du Québec (FTQ), was appointed to the IRSST’s Scientific Advisory Board. He will replace his colleague, Serge Trudel, who resigned after having been a member of the very first Scientific Advisory Board in 1980 and having sat on the Board since 1989.

The IRSST and Jean Gaulin, Chairman of the Board of Directors of NanoQuébec, signed a partnership agreement aimed at developing and disseminating knowledge in order to prevent occupational accidents and diseases associated with nanotechnologies, a rapidly developing field.

The IRSST participated in the organization of the first francophone convention on upper limb musculoskeletal disorders, which took place in Nancy, France.
**Biological hazards**

The extensive research and activities carried out over the years by the Occupational Hygiene team on the risks associated with waste collection, waste water treatment, and recycling and composting centres have provided the CSST’s intervention program with field data on biological hazards. Due to his expertise, scientist Jacques Lavoie (1) participated in the development of a training activity and in the training of 180 professionals from the OHS network: doctors, nurses, hygienists and CSST inspectors. In addition to making it possible to update knowledge related to infectious agents and disease prevention measures, this initiative was designed to train professionals to take action among workers in order to reduce the risks of the transmission and development of microbial infections.

**Transfer and promotion**

More than ever, the IRSST feels that knowledge transfer must be intimately linked to research. During the past year, Alain Lajoie (2), Jean-Guy Richard (3), Steeve Vigneault and Laurent Gratton of the Operations Division, joined the team of Mario Roy, from the Université de Sherbrooke, to examine various schools of thought in the area of knowledge transfer and sharing procedures. A literature review identified six themes ranging from the definition of transfer and the ways of achieving it, to the communities of practice. Concurrently, the interdisciplinary research consortium, made up of the IRSST, the Université de Sherbrooke’s Business Faculty, and the SafetyNet research group in Newfoundland, continued its work on knowledge transfer, work accidents and their context. All this work was taken into account when the IRSST launched a review of all of its transfer mechanisms in order to facilitate the transmission and appropriation of results so as to ensure that knowledge benefits workplaces.

In addition, among the actions taken in 2005 to promote scientific and technical production, the Communications Division, with the assistance of the Public Relations Chair of the Université du Québec à Montréal, developed a marketing plan to ensure better dissemination of research results.

**Successful transfers**

**Maintaining the employment relationship and promoting a return to work**

An example of a successful transfer was definitely that involving the promotion of the project coordinated by Dr. Susan Stock (7) of the Institut national de santé publique du Québec, and aimed at planning and establishing a modified work program for workers with musculoskeletal disorders (MSDs). An interdisciplinary project involving the IRSST’s Raymond Baril (8) and Claire Lapointe (9) led to the production of a reference guide, along with a set of intervention tools, to support companies wishing to create a return to work program for occupational injury victims. Useful for instructors and professionals, health and safety committees or human resource specialists, this guide was the subject of a...
host of activities. In fact, the guide and its tools resulted in some 20 public presentations, two of which were to 70 CSST physicians and some 30 general practitioners. Five two-day training sessions were organized for professionals. A series of scientific and non-technical articles were written, in addition to vignettes and references on various Web sites.

**Public libraries**
The production of the report *Integration of MSD prevention in designing a layout: the case of public libraries* is another fine example of transfer. The presence of representatives of the CSST, the Association paritaire du secteur affaires municipales (APSAM), the Ministère de la Culture et des Communications, the City of Montréal, the Syndicat des fonctionnaires municipaux de Montréal, the Association des bibliothèques publiques autonomes du Québec, and the Regroupement des centres régionaux de services aux bibliothèques publiques on a follow-up committee greatly facilitated the appropriation of results by the community. To optimize the transfer, the research team headed by Marie Bellemare (1) of Laval University had access to a guide entitled *The public library, a workplace – Ergonomics applied to a service counter layout project*. Supplementing two technical guides already published by APSAM, this document, accompanied by an awareness-raising poster and videocassette, constitutes an effective learning tool for facilitating the ergonomic layout of a service counter. During the year, Élyse Ledoux of the IRSST’s Work Organization team and her collaborators provided training at the symposium of the Corporation des bibliothécaires professionnels du Québec, presented the results at the conference of the Association pour l’avancement des sciences et techniques de la documentation, and gave more than half a dozen scientific lectures.

### Increasing our research partnerships

Well aware that an organization cannot be completely self-sufficient, the IRSST included partnerships as one of the orientations of its master plan and established a 2003-2005 business plan aimed at increasing partnerships. Objectives: to increase our research capacity, intensify our influence and be more sensitive to emerging problems.

### Co-financing

No fewer than 23 projects have been initiated since the business plan was developed. During the 2003-2005 period, these projects represented a total investment of $8,425,000. Of this amount, $1,685,000 came from the IRSST’s coffers and $6,740,000 was invested by our partners. The multiplicative effects are impressive: for each dollar invested by the IRSST, the partners contributed over $4, increasing our research capacity accordingly. In 2005 alone, 14 projects were launched as the result of partnerships. The financial contribution of partners stood at $2,818,000, while that of the IRSST totalled $760,000.

Here is a list of the main financial partners with projects under way in 2005.

1. Canadian Institutes of Health Research (CIHR)
2. Natural Sciences and Engineering Research Council of Canada (NSERC)
3. Workplace Safety and Insurance Board (WSIB-Ontario)
4. Research and Development Institute for the Agri-Environment (RDIA)
Structuring agreements

Partnerships can generate benefits that are not financial but just as interesting, either due to their structuring effects and the possibilities that they offer in terms of influencing research orientations and sharing human resources, or due to their networking or influence potential.

A few examples from 2005 are a good illustration:

- Signing of a fourth agreement with the Institut national de recherche et de sécurité (INRS) of France. This agreement in the area of biometrology consisted mainly in establishing an international francophone multidisciplinary bibliographic monitoring network for the biological surveillance of workers’ exposure to chemicals.
- Addition of the Institut universitaire romand de santé au travail (Switzerland) as signatory and partner to the biometrology agreement.
- Conclusion of a framework partnership agreement with the Health and Safety Laboratory in the United Kingdom that will help improve the IRSST’s positioning in the European Union.

The poster Development of a sampling and analysis method for the overall evaluation of amines in the workplace earned Mathieu Fournier (1), a UQAM master’s student and IRSST scholarshipholder since 2004, first prize for poster presentations at the Toxen Colloquium. Huu Van Tra from UQAM and Claude Ostiguy co-signed the winning poster.

The IRSST’s Board of Directors ratified the introduction of the new research field of Occupational Rehabilitation.

The IRSST’s president and CEO joined the Groupe de travail sur les aspects sociaux, éthique et environnementaux des nanotechnologies (Working group on the social, ethical and environmental aspects of nanotechnologies). The mandate of this group was to develop a strategy and action plan targeting the development and organization of research expertise and training on the social, ethical and environmental aspects necessary for the safe and responsible development of nanotechnologies. It was co-chaired by Louise Dandurand, president of the Fonds de recherche sur la société et la culture, and Sylvie Dillard, president and CEO of the Fonds québécois de recherche sur la nature et les technologies.

On November 28, the IRSST celebrated its 25th anniversary. On this occasion, Christiane Ayotte, the Director of the Doping Control Laboratory of the INRS - Institut Armand-Frappier, was invited to give a lecture.

For 10 days, 12 professionals and managers of the SESI, an agency that provides social services to Brazilian companies, visited our premises to take part in a training session on the development of an integrated statistical information system. This session also included a segment on needs identification and prioritization and program evaluation.

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Increasing our exchanges and our national and international influence

In 2005, the IRSST made the most of various opportunities to further promote and confirm the validity of its scientific and technical achievements and increase its exchange networks: scientific publications, guest lecturing, presence at major events, exchange activities, receiving of foreign researchers, organization of large-scale conferences, etc.
Be 2005: a success at every level
Organized by the IRSST, in partnership with the National Jewish Medical and Research Center and the National Institute for Occupational Safety and Health (NIOSH) of the United States, the 5th International Beryllium Research Conference – Be 2005 is a fine example of an event promoting exchanges and influence. The first four times this conference was held, fewer than 100 people attended, but the one in Montréal attracted more than 250 participants over three and a half days. Under the scientific direction of IRSST researcher Chantal Dion (1), the event allowed about 30 researchers from eight countries to share their findings with an audience consisting mainly of public health professionals, employer and union representatives, members of joint sector-based associations and many hygienists from companies that use beryllium. By assuming this scientific leadership, the IRSST has once again demonstrated the usefulness of research as a means of supporting the activities of the CSST, which has made beryllium one of its priorities.

MSDs in French
Under the theme Une recherche performante pour une prévention efficace (Productive research for effective prevention), the first francophone convention on upper limb musculoskeletal disorders took place in Nancy, France. Organized jointly by the INRS, the National Agency for the Improvement of Working Conditions, the Institute for Monitoring Medical Development, and the IRSST, this event, which brought together 600 participants, was an overwhelming success while at the same time demonstrating the importance of the role and vitality of the IRSST’s research on the comprehension and prevention of the MSD phenomenon. In addition to being part of the organizing committee, the IRSST delegated five scientists, namely Denys Denis (2), Alain Delisle (3), Georges Toulouse (4), Esther Cloutier (5) and André Plamondon (6), as lecturers or workshop moderators. As well as participating on a panel, president and CEO Diane Gaudet, accompanied by the Director of the Safety Ergonomics team, Louis Lazare (7), used the occasion to meet with the CEO of the INRS, Jean-Luc Marier, and his team in order to review the partnership agreements between the INRS and the IRSST.

Support for Brazilians
The IRSST played a role in the improvement of occupational health and safety in Brazil by collaborating on an international project featuring partners such as the Canadian International Development Agency (CIDA) and the Brazilian Cooperation Agency. Financed mainly by CIDA, this $4 million project had two objectives: to help improve OHS in Brazilian industries and to adopt effective and sustainable OHS programs in SMEs.

In Canada, a consortium comprised mainly of Ryerson University, the Industrial Accident Prevention Association (IAPA), the Canadian Centre for Occupational Health and Safety (CCOHS) and the IRSST collaborated on the project. One of the three programs of this project, under the direction of Jean-Claude Martin (8) and François Hébert (9) of the IRSST, aimed mainly to improve the ability of Brazilian decision-makers at SESI, an organization that offers social services to companies in that country, to collect, record and analyze data on occupational accidents and injuries and working conditions, particularly in SMEs.
Prevention mutual group meetings

In an effort to expand its network of intermediaries and find fertile ground for research results in activity sectors lacking joint sector-based associations, the IRSST met with representatives of two of the largest prevention mutual group managers: AON Consulting, and Groupe AST. Associating with a prevention mutual manager was a first for the IRSST. The benefits included a research activity involving restaurant owners represented by Groupe AST and the promotion of research results on the slipperiness of floors involving the restaurant owners’ mutual. As for AON Consulting, about 20 of their preventionists came to our premises to establish ties with the IRSST’s scientists and learn about their work. In addition, the Temporary assignment – a win-win solution symposium, organized by AON Consulting in collaboration with the IRSST, allowed over 200 people to familiarize themselves with the document Work-related Musculoskeletal Disorders - Guide and Tools for Modified Work. The mutual also invited, as a panelist, Andrée Bouchard, Secretary of the Health and Safety Confederation Committee of the Confederation of National Trade Unions (CNTU) and member of the IRSST’s Board of Directors.

Adapting and consolidating our organization

Strategic orientations for the enhancement of research

In 2005, the main steps in the Strategic Orientations for the Enhancement of Research initiative were carried out. A 1999-2004 institutional assessment was drawn up documenting four main areas of concern:

- External opportunities and threats
- Organizational motivation
- Organizational capacity
- Organizational performance

This assessment was then handed over to an External Evaluation Committee, which submitted its report at the very end of the fiscal year. Chaired by the Chancellor of McGill University, Gretta Chambers, this committee consisted of the following members: Camille Limoges, John Frank, Jean-Claude André and Gilles Dussault. Drawing on their broad experience in the research and health fields, these prominent figures evaluated the performance and relevance of the IRSST’s scientific activities in order to guide management in its positioning decisions.

Management has already targeted three avenues of development for the next five years:

1. strengthening research and expertise capacity
2. structuring and implementing a strategic watch activity
3. systematically considering the potential for transferring knowledge resulting from research activities and expertise.

During the first few months of 2006, the development scenario will be modelled into a 2006-2010 strategic plan and submitted to the Board of Directors for approval.

Three-year research plan

The IRSST previously orchestrated its scientific activities around an annual research plan. In the wake of the strategic positioning process and in the light of comments made to promote the development of structured and integrated research, management proposed a research plan extending from 2006 to 2008, which was enhanced by input from its personnel and partners. For research that generates changes constitutes a three-year scientific and technical production plan aimed at encouraging a prospective approach while organizing our thematic research more efficiently. It will be implemented through an action plan, making it possible annually to assess work progress and its benefits for our partners.
**Hiring**

During 2005, the IRSST injected new blood into its research team by hiring two researchers and two scientific professionals. The Work Organization team was enhanced by the presence of researcher Iuliana Nastasia (1) and the Occupational Hygiene team by researcher Ali Bahloul (3). The professional Chantal Gauvin (4) added her expertise to that of the Safety Engineering team. For her part, scientific advisor Annie Lafontaine (2) joined the Operation Division’s Customer Service team and will also manage the IRSST’s Graduate Studies Scholarship Program.

**New systems**

To adapt the organization and help it better meet the needs of its personnel and clients, the Information Technologies and Laboratory Services and Expertise teams continued to collaborate on preparations for the implementation of the Système d’information en santé au travail (SISAT, Occupational Health Information System). This interactive system will allow the health network to send their analysis requests to our laboratories by e-mail.

In addition, the Finance and Administration Division launched a project to review its administrative computer systems in order to better integrate the information related to its responsibilities in the areas of finance, human resources and physical resources.

One of the highlights of 2005 for IRSST employees was the signing of a new collective agreement. In effect until 2008, this new contract improves salary and prescriptive work conditions for employees and establishes the framework for regular reports promoting good relations between the employer and the union.

**Health and safety of personnel**

Concerned about integrating the values and mechanisms of the Act respecting occupational health and safety, the IRSST has established a health and safety committee (HSC). Every year, the HSC sets prevention, training and information objectives. In 2005, six reports were entered in the accident, incident and first aid register. The HSC took action on each of its reports.

Of note, the HSC implemented a respiratory protection program and offered training on mask maintenance and fit to users of this type of protective equipment. In 2005, the IRSST’s track record surpassed that of organizations operating in the same sector of activity, with the result being that its assessment rate was 4% lower than the unit rate.

**Adjunct professors**

Recognition of the expertise of its personnel and their contribution to knowledge development is also expressed through an institutional presence in the academic community. The IRSST’s performance in this regard is outstanding, since most of its researchers had adjunct professor status in Québec or Canadian universities in 2005.

As an adjunct professor, a researcher can mainly supervise graduate and postgraduate students, be a thesis director, and qualify for financing from funding agencies.

Here is a list of adjunct professors by research team at the IRSST:

**Safety Ergonomics Team**
- Alain Delisle, Ph.D., Department of Mathematics and Industrial Engineering, École Polytechnique
- André Plamondon, Ph.D., School of Rehabilitation, Université de Montréal, and Human Kinetics, Laurentian University
Scholarships
In 2005, 31 students from eight universities received scholarships from the IRSST by setting themselves apart through the academic excellence of the work they presented. Thus, $418,400 was awarded for the training of new researchers in OHS.

Since its creation, the IRSST has conferred some 850 scholarships totalling nearly $13 million to over 360 master’s, doctoral and postdoctoral students. The results of a survey coordinated by Carole Bellazzi (1), scientific advisor at the IRSST, indicate that two-thirds of the 240 ex-scholarship recipients still work in the OHS field, representing a substantial retention rate.

Student trainees
Over the past three years, the IRSST has always had at least a dozen student trainees among its ranks. In fact, in 2005 alone, no fewer than 18 students were trained by IRSST researchers or managers. Six were supervised by members of the Occupational Hygiene team, five by Laboratory Services and Expertise, four by the Safety Engineering team, two by the Safety Ergonomics team, and one by the Work Organization team.

Celebrating its 25th anniversary
In March, activities surrounding the IRSST’s 25th anniversary were launched in the presence of the 250 participants at the International Beryllium Research Conference. This event also marked the unveiling of the slogan: The IRSST – Your research engine for 25 years.

Best wishes came in from directors of OHS research institutes in Brussels, Berlin, Rome, Bonn, Budapest and Moscow, underlining the IRSST’s major contribution to knowledge development and its influence on the international scene. These were in addition to those received from our partners.

In December, the Québec Minister of Labour, Laurent Lessard (2), presented the Chamber with the following motion: “That the National Assembly of Québec, on the occasion of the IRSST’s 25th anniversary, highlight this event by witnessing the vitality of the research and the usefulness of its findings as a means of reducing occupational injuries and eliminating hazards at source, and by acknowledging the tenacity and quality of the personnel working there.”
Overview of the IRSST

The IRSST team is made up of some 134 individuals, including scientific personnel consisting of 87 researchers, professionals and technicians from various disciplines such as ergonomics, industrial hygiene, chemistry, physics, engineering, sociology, anthropology and demography. Coordinated by the Operations Division, internal research personnel belong to one of the following five teams: Safety Ergonomics, Work Organization, Safety Engineering, Occupational Hygiene, and Laboratory Services and Expertise. Funded research projects are coordinated by scientific advisors on the Customer Service team. Quality and ethics are the responsibility of the Quality and Special Projects Management team.

The IRSST’s external network consists of some 300 researchers from universities, research centres and private firms.

Jean-François Godin, of the IRSST’s Work Organization team, earned a Ph.D. in Applied Human Sciences from the Université de Montréal. He received honourable mention for the quality of his thesis entitled: "Immigrants and work in Montréal: the dynamics of the first ten years in their professional development".

Pierre Marcotte, of the IRSST’s Safety Engineering team, obtained a Ph.D. from the Virginia Polytechnic Institute and State University. His thesis focused on the development, optimization and analysis of distributed vibration absorbers.

Financing

Revenues $21,076,551

Expenses $21,053,217
Organizational Chart

Board of Directors
Executive Committee
Gérard Bibeau, Chairman

President and CEO
Diane Gaudet

Scientific Advisory Board

Quality and Special Projects Management
Jean-Claude Martin

Finance and Administration
Human Resources
Physical Resources
Jean-Guy Martel

Financial Resources
Louise Lafontaine

Information Technologies
Jacques Roy

Operations
Customer Service (acting)
Alain Lajoie

Communications
Jacques Millette

Work Organization
Denise Granger

Safety Ergonomics
Louis Lazure

Safety Engineering
Paul-Émile Boileau

Occupational Hygiene
Nicole Goyer

Laboratory Services and Expertise
Jacques Lesage
The Board of Directors determines the IRSST’s orientation, development framework and funding. In 2005, the IRSST’s Board of Directors met five times.

**Chair**
Gérard Bibeau

**Worker Representatives**
Michel Arsenault  
Andrée Bouchard  
Pierre Dupuis  
Claude Faucher  

**Employer Representatives**
François Cliche  
Franco Fava  
Gaston Lafleur  
Sylvain Lebel  

**Observer**
Daniel Charbonneau

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The Scientific Advisory Board advises the president and chief executive officer. Its mandate is to assess the relevance, importance and scientific quality of internal and external research projects and programs.

In 2005, the members of the IRSST’s Scientific Advisory Board met eight times (seven regular meetings and one special meeting).

**Chair**
Diane Gaudet

**Employer Representatives**
Robert Borduas  
Richard Lapointe  

**Worker Representatives**
Micheline Boucher  
Jean Dussault  

**Members of the Scientific and Technical Communities**
Jean-Marc Brodeur  
Christine Colin  
Mireille Mathieu  

**Observers**
Guylaine Rioux  
Alain Lajoie

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**Appointments**
Jean Dussault  
André Van Neste

**Departures**
Alain Albert  
Charles E. Beaulieu  
Serge Trudel

**Renewals**
Micheline Boucher  
Daniel Flynn  
R. Charles Terreault
All IRSS publications are peer-reviewed.

BÉGIN D., BEAUDRY C., GÉRIN M. La substitution des solvants par le carbone de propylène, Bilans de connaissances, Rapport B-070, 2005, 43 pages.

BÉGIN D., HENG S., GÉRIN M. La substitution des solvants par le lactate d'éthyle, Bilans de connaissances, Rapport B-069, 2005, 45 pages.


DELISLE A. Aménagement de postes de travail informatisés : deux études de cas. in Congrès francophone sur les TMS, (1er : 30-31 mai, 2005 : Nancy, France), 2005.


Book chapters, master’s or doctoral theses


POITRAS S. Pratiques cliniques des physiothérapeutes dans le traitement de travailleurs souffrant de maux de dos aigus ou subaigus. Thèse de doctorat, Montréal, Faculté des études supérieures, Université de Montréal, 2005, 184 p.


Established in Québec since 1980, the Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST) is a scientific research organization known for the quality of its work and the expertise of its personnel. The IRSST’s Board of Directors is made up of an equal number of employer and worker representatives.

**MISSION**
To contribute, through research, to the prevention of industrial accidents and occupational diseases as well as to the rehabilitation of affected workers.

To offer the laboratory services and expertise necessary for the activities of the public occupational health and safety prevention network.

To disseminate knowledge and to act as scientific benchmark and expert.

**VISION**
Through its leadership in occupational health and safety research, the IRSST intends to:

- become a reference centre that is vital for the operations and strategies of the CSST and its network;
- be used by its social partners in a context of labour/management collaboration;
- be recognized nationally and internationally;
- have a firmly established network of collaborators in research and development.

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