

AN INTEGRAL PART OF ESTABLISHED NETWORKS

THE IRSST, YOUR PARTNER IN OCCUPATIONAL HEALTH AND SAFETY RESEARCH



Institut de recherche Robert-Sauvé en santé et en sécurité du travail

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.

MESSAGE FROM THE PRESIDENT AND CEO **Z** THE IRSST – AN INTEGRAL PART OF ESTABLISHED NETWORKS Partners in research Partners in knowledge transfer 2002 IN NUMBERS FINANCING OVERVIEW OF THE IRSST Organizational chartBoard of Directors and Scientific Advisory Board LIST OF PUBLICATIONS

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MESSAGE FROM THE PRESIDENT AND CEO

At a time when partnership is being hailed as an important gateway to a promising future, I find that the IRSST has long been ahead of the game. Over the past few years, it has established a long-term vision, thereby acknowledging that it is illusory, particularly in the research field, to think that a single organization—even if it is among the oldest—can be self-sufficient.

The IRSST contributes to the creation of a solid and extensive grid comprising many organizations and networks that all have a common cause: workers' health and safety. It does so by opening its doors to collaborators from Québec, Canada, the United States and Europe, by promoting an increase in the number of university chairs, by forging partnerships in both the public and private sectors, by encouraging all types of networks, by adopting an approach based on research fields rather than disciplines, and by serving on many national and international standardization committees.

Obviously, almost no organization can be an island unto itself... By examining our microcosm, our little world that is the IRSST, it is nevertheless fascinating to see just how many networks of intermediaries and researchers it comprises. These networks clearly help the IRSST flourish and, more importantly, ensure the development and transmission of knowledge to workplaces. Without them, the IRSST could not be a reference centre that is vital to the activities of its principal partner, the Commission de la santé et de la sécurité du travail (CSST). In this 2002 annual report, we present an overview of the different networks with which the IRSST has chosen to be associated.

NETWORKS PAGE

But it is important to give credit where credit is due. The fact that the IRSST has many partners, is part of several networks, exercises recognized leadership, has reference laboratories with certifications that attest to its high credibility and worldwide recognition, are all due to the organization's technical and scientific personnel. However, behind every organization are men and women who make the right decisions. In this regard, I would like to commend Jean Yves Savoie for the key role that he played in the growth and recognition of the IRSST.



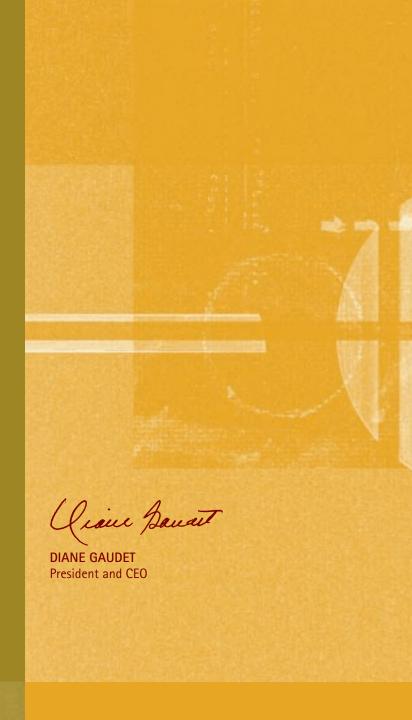
Mr. Savoie spent over 20 years in various positions at the IRSST, including 12 as Chief Executive Officer. He helped immensely in making the IRSST what it is today. Before beginning his semi-retirement in September 2002, he and his team guided reflection on the development of the 2002-2005 Corporate Plan, which constitutes his legacy. On behalf of all the employees, the Board of Directors, the Scientific Advisory Board and our partners, I would like to thank him for the work he accomplished and wish him success in his mandate of establishing new partnerships.

I took office on October 1, 2002, just after the IRSST finished developing this plan. I have carried on from where they left off, adding personal touches important to me, but without causing any disruptions. First, I ensured that the employees translated this Corporate Plan into an action plan and, above all, that they had the tools for measuring our progress. This project, in which I have asked all the employees to participate actively and enthusiastically, will provide an opportunity for the teams to better adopt the IRSST's orientations.

Upon my arrival, I also wanted to consolidate our network of partners by implementing a "bridging" strategy that would help establish solid business relationships. We devoted much time and energy to candid discussions with our principal partners. My colleagues and I visited and hosted these close collaborators on many occasions, in order to assess ongoing issues. We confirmed once again that the IRSST's work is useful in workplaces. We also heard that some of our procedures needed to be improved. We have taken note of these points and will monitor them carefully.

Much effort has been devoted to the issue of partnerships: bridges have been built, relationships have been developed, and collaboration has been officially established. Already in 2002, we started seeing the concrete results of our efforts. In this area too, the future looks bright, but we must forge ahead, always bearing in mind that our initial objective is to promote the joint funding of projects, scholarships and programs in order to increase our research capacity and tackle new fields.

Whether it is with the CSST and the vast occupational health and safety network, or with the research community and granting agencies, the IRSST plays an important role in the development and transfer of knowledge. In 2003, the IRSST intends to ensure that science and technology are always used to foster the understanding and solving of problems emerging in workplaces, so that Québec workers and employers can work in a healthy and safe environment. This is the commitment I am making on behalf of the IRSST's personnel.



AN INTEGRAL PART OF ESTABLISHED NETWORKS

True to its primary mission, the IRSST has always believed in the importance of joining networks and establishing partnerships to optimize research and the transfer of knowledge. Consequently, since its creation, it has joined forces with many partners, both in Québec and abroad, to find solutions to increasingly complex occupational health and safety problems and to make them available to different workplaces. In so doing, the IRSST has been able to generate a larger body of scientific work and to produce applied research that is better adapted to the needs of its clientele. For the IRSST, partnerships definitely represent an added value for Québec workers and employers.



2002 CALENDAR

Implementation of the IRSST's annual research plan for 2002 approved by its Board of Directors. "In addition to helping support the CSST's operations and meeting our partners' needs, this plan has allowed us to continue integrating programming into our six priority research fields." – ALAIN LAJOIE, Director of Operations.

anuary

February



- Posting of a new guide on isocyanates online. Available in French and English on the IRSST's Web site, this tool contains the know-how and basic knowledge developed since 1986 on managing the risks associated with the use of these substances.
 - From March 4 to 8, the spring meeting of the International Program on Chemical Safety (IPCS) was held in Montreal, under the stewardship of Dr. MARC BARIL of the IRSST. This program, funded by the International Labour Office (ILO), the United Nations Development Program (UNDP), the World



Health Organization (WHO) and the European Union, is a collaborative effort involving researchers from a dozen research institutes and groups. To date, their work has led to the production of 1,400 data sheets documenting as many chemicals in nearly 30 languages.

PARTNERS IN RESEARCH

In 2002, the IRSST reaped the rewards of several years of effort invested in establishing and maintaining a network of occupational health and safety researchers. It now collaborates with over 150 researchers and experts from universities, research centres and private firms. The IRSST itself has a scientific team composed of more than 80 researchers, professionals and technicians in a variety of disciplines. It maintains close ties with associations, research groups and granting agencies, thereby helping to increase knowledge and sources of funding.

OINING forces

A firm believer in the need for scientists to exchange ideas about their respective projects, the IRSST has taken many steps to facilitate the creation of research networks. Last year, it took the initiative to convince its colleagues from other Québec research funding agencies to invest in the establishment of a provincial network of occupational health and safety (OHS) researchers. The reason: to end the isolation that prevents the Québec research community from taking its rightful place on the federal scene, for example, where the main research funding agencies are found. The very embodiment of partnership, the Réseau de recherche en santé et en sécurité du travail du Québec (RRSSTQ) is the product of collaboration between the IRSST, the Fonds de la recherche en santé du Québec (FRSQ), the Fonds québécois de la recherche sur la nature et les technologies (FQRNT), and the Fonds québécois de la recherche sur la société et la culture (FQRSC).

○ In November 2002, the RRSSTQ was finally launched at a forum of Québec researchers in occupational health and safety. The forum, which attracted approximately 60 scientists, some 15 of whom were from the IRSST, was opened by JEAN-PIERRE BRUN of the Université Laval, who had just been appointed director of the network. GEORGES TOULOUSE, IRSST ergonomist and researcher, was appointed to the interim advisory committee responsible for preparing the administrative, scientific and operational infrastructures.

The scientific coordinators of the IRSST's six priority research fields have used different methods to promote exchanges between researchers. An example is the creation of the Groupe pour l'animation et la recherche en toxicologie industrielle (GARTI), headed by **GINETTE TRUCHON**, IRSST toxicologist and researcher. By bringing together a dozen toxicologists and chemists from different organizations, GARTI wants to breathe new life into research and provide greater exposure for the results of scientific studies and their authors.

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- On April 3, scientific recognition day, the IRSST's employee were able to appreciate the scope and diversity of thei colleagues' achievements.
- On April 11, the Groupe pour l'animation et la recherche en toxicologie industrielle (GARTI) received guest speakers from the U.S. Environmental Protection Agency (EPA) and the TLV Committee of the American Conference of Governmental Industrial Hygienists (ACGIH). Subjects addressed: research methodology for evaluating multiple exposures in workplaces, and areas of collaboration.
- On May 23, more than 150 participants attended the IRSST's second thematic symposium: Interdisciplinary research in occupational health and safety: a necessity or a trend? "By allowing researchers and clinicians from various walks of life to exchange ideas on issues, to debate the relevance and usefulness of such approaches,
 - and to present concrete examples, this symposium was truly a success," said CLAUDE OSTIGUY, chairman of the organizing committee.
- the sponsors of the 6th World Conference on Injury Prevention and Control organized under the aegis of the World Health Organization (WHO). JEAN-CLAUDE MARTIN of the IRSST was the co-chair of the national committee on occupational safety.





ENCOURAGING young researchers

The agreement between the IRSST and the Réseau provincial de recherche en adaptation-réadaptation (REPAR) of the Fond de la recherche en santé du Québec (FRSQ) is another type of partnership that will allow the IRSST to further develop its network of researchers. In addition to promoting research on the rehabilitation of workers suffering from work-related injuries, the grant program established under this agreement will ensure the future of occupational health and safety research, since it is aimed at the next generation of researchers and will give them access to funds to develop research protocols.

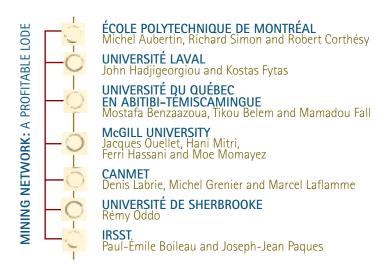
In 2002, the IRSST took advantage of this program to fund two projects deemed by its Scientific Advisory Board to be of relevance and a priority and whose protocols had already been developed with the support of the REPAR program: one on De Quervain's tenosynovitis, and the other on trunk extensor muscle fatigue. The IRSST also added biomechanist CHRISTIAN LARIVIÈRE to its internal team of researchers. Mr. Larivière had just completed his post-doctoral studies in biomedical sciences, specializing in rehabilitation. He is coordinating the project on extensor muscle fatigue whose aim is to develop a protocol for evaluating workers undergoing rehabilitation, validate muscle training methods, and better assess the possibility of returning to work.

- Co-sponsored by the IRSST, the 5th International Research Forum on Low-Back Pain in Primary Care was held for the first time in Canada, in Montreal, on May 20 and 21. Co-chaired by Dr. CLAIRE BOMBARDIER and Dr. MICHEL ROSSIGNOL, this forum is one of the largest events in the world devoted to research and to the treatment of patients suffering from back pain.
- From May 29 to 31, the members of Subcommittee F23.20 of the American Society for Testing and Materials met in Montréal. Organized by JAIME LARA, an IRSST chemist, this meeting provided an opportunity for discussions on research developments concerning the resistance of protective clothing to mechanical aggressors (cuts and puncture).
- Appointment of MICHELINE BOUCHER to the Scientific Advisory Board as a worker representative, replacing CLAUDE RIOUX.



EXPANDING the network

Concerned about the serious accidents occurring in the mining sector, the IRSST has been funding projects addressing these problems since the early 1980s. Research in this field deals primarily with control of the terrain, but also covers other essential aspects of mining operations, such as the design of mine supports, modelling of the safety pillar, pollution from diesel-powered vehicles, and ventilation. To respond to current and future requests in this particular work environment, the IRSST is collaborating with businesses in supporting a network of internationally renowned researchers who are well integrated into this industry. This network today includes experts from seven organizations, including the IRSST.



To facilitate knowledge transfer, the IRSST joined forces almost ten years ago with the Association minière du Québec (AMQ). "This association is actively involved in research work funded by the IRSST by bringing mining engineers and researchers closer together through activities such as workshops and symposiums, where project progress reports and results are presented," said LOUIS BOUSQUET, scientific advisor at the IRSST. More recently, the Association paritaire pour la santé et la sécurité du travail du secteur minier joined the network. Its efforts are aimed at facilitating the appropriation and application of results by employers and workers in the mining sector.

August

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In San Diego, JACQUES LESAGE, IRSST chemist, received the Top Ten Achievement Award for a course on isocyanates given within the framework of the continuing education program of the American Industrial Hygiene Conference and Expo (AIHCE), out of a total of 89 courses. This course,



which has now been offered for five years under the direction of the IRSST, is the result of collaboration with numerous partners: the International Isocyanate Institute (III), the Alliance for the Polyurethanes Industry (API), the American Chemistry Council (ACC), the National Institute for Occupational Safety and Health (NIOSH), and the Occupational Safety and Health Administration (OSHA).

- Published by the International Labour Office (ILO) with the financial and scientific collaboration of several organizations, including the IRSST, tome III of the French version of the *Encyclopaedia of Occupational Health and Safety* is now available in Québec. The IRSST's scientific collaboration involved the participation of DENIS GIGUÈRE, ESTHER CLOUTIER, MADELEINE BOURDOUXHE and JEAN-CLAUDE DIONNE.
- Departure of the IRSST's CEO, JEAN YVES SAVOIE, after more than 12 years at the helm of the organization.
- The president of the CSST, JACQUES LAMONDE, introduced the new president and CEO, DIANE GAUDET, to IRSST personnel.



STIMULATING collaboration)

Since the creation of the Canadian Institutes of Health Research (CIHR), the IRSST has taken up the torch in order to have the importance of scientific activities in occupational health and safety recognized. This mission was accomplished, since one of the 13 institutes—that of population and public health—makes this issue a priority. **JEAN YVES SAVOIE**, former chief executive officer of the IRSST, has been appointed chairman of the advisory committee for this new organization.

The Canadian Institutes of Health Research (CIHR) are the main federal funding agencies for health research in this country. They are an innovative concept, since these virtual organizations favour a multidisciplinary process as well as a variety of approaches and theories. In short, this is an impressive network with ramifications in universities, hospitals and other research centres across Canada, which the IRSST can now access.

More than 5,000 visitors participated in the Grand Rendez-vous SST 2002 at the Palais des congrès de Montréal. The IRSST took the opportunity to launch two products intended for workplaces.

JEAN-GUY RICHARD, IRSST ergonomist, introduced new tools for the prevention of musculoskeletal disorders in poultry slaughterhouses and processing plants. "These videos with training manuals are the result of 10 years of research in the poultry production industry. They were designed to

October



meet the specific needs of this sector," said the researcher. The management teams of Olymel and Exceldor enthusiastically committed themselves to using these tools in the four plants that participated in the project and to looking at the possibility of extending the training to other plants.

□ In 2002, as part of a partnership with the CIHR, the IRSST helped fund two strategic training programs in which two Québec research teams are heavily involved. Thanks to funding of \$1.8 million over six years, \$450,000 of which is from the IRSST, the team led by Dr. PATRICK LOISEL of the Université de Sherbrooke and the Centre de recherche clinique en réadaptation au travail of Hôpital Charles-LeMoyne, developed a training program on the prevention of work-related injuries. In addition, a team led by Dr. YVON CORMIER of Hôpital Laval will participate in a training program on health and agriculture coordinated by Dr. JAMES DOSMAN of the University of Saskatchewan. This program brings together researchers from six Canadian universities, who will receive \$1,419,960 over five years, including \$125,000 from the IRSST.

VULTIPLYING the results

By promoting more contacts and cooperative relationships in Québec and abroad, it is easier to offer optimum and original production that avoids the duplication of research. In 2002, the IRSST held many meetings with different organizations to build bridges for future collaboration, notably in universities, as it did with the École de technologie supérieure and Université Laval's Chaire en gestion de la santé et de la sécurité du travail, both of which are incubators for the many researchers it funds. Links have also been created with the workers' compensation boards of Ontario and British Columbia, which also have a research funding budget, and with which the IRSST will be able to carry out projects that could benefit several provinces. Relationships have also been established with research centres such as that of Hôpital Laval in Québec City or the Liberty Mutual Research Center for Safety and Health in the United States.

Still in 2002, a joint project between PAUL-ÉMILE BOILEAU of the IRSST and SUBHASH RAKHEJA of Concordia University on controlling the hand-arm vibrations transmitted by vibrating tools received a substantial grant from the Natural Sciences and Engineering Research Council of Canada (NSERC) because of its collaborative health research program.

☐ In June 2002, the IRSST welcomed members of SafetyNet, an occupational health and safety research program covering all of the Maritime provinces. This meeting allowed the researchers to share their knowledge about topics of concern to both organizations, including musculoskeletal disorders, occupational asthma and work organization. After that meeting, DANIÈLE CHAMPOUX and ESTHER CLOUTIER of the IRSST, MARIO ROY of the Université de Sherbrooke, and BARBARA NEIS of Memorial University of Newfoundland filed a joint application for a grant from the CIHR, which has been approved. This project will deal with knowledge transfer and work-related accidents and their context.



- The expertise in machine safety developed at the IRSST by JOSEPH-JEAN PAQUES, RÉAL BOURBONNIÈRE and RENAUD DAIGLE led to the development of a technical guide published by the CSST. This guide, which comes in the form of a pocket folder, proposes a risk evaluation and reduction method and offers a choice as to the appropriate protection methods to use in preventing accidents. This guide, the main result of the training offered for many years by the IRSST, is intended for intermediaries specializing in industrial machines.
- At the request of the Standing Committee for Schedule 1 of the Regulation respecting occupational health and safety (RROHS), JAIME LARA, JULIE



McCABE and FRANÇOIS LEMAY of the IRSST, with the collaboration of MICHEL GAGNÉ and ADRIENNE LAROUCHE of the CSST, did an extensive updating of the French guide on respiratory protective equipment used in Québec, available on the Internet (www.prot.resp.csst.qc.ca). This updating is part of the mandate given to the IRSST to update the guide based on changes to regulations and on newly approved respiratory protective equipment. The 1999 version contained information on 6,685 devices, while the 20002 guide presents information on 7,600 devices. Photo: Julie McCabe and Jaime Lara.

In the field of knowledge transfer, the IRSST has a winning strategy that it has developed and improved over the years. It is based primarily on a solid network of collaborators and intermediaries that the IRSST has involved in its research projects from the very beginning. In 2002, the IRSST held many meetings and discussions with its main networks of intermediaries to make its results available to workplaces.

STRENGTHENING ties

Indispensable partners for facilitating the transfer of knowledge and promoting research results, joint sector-based associations play an essential role in helping the IRSST accomplish its mission. Just one month after taking office, the new president and CEO, **DIANE GAUDET**, made a point of increasing contacts with the directors of the 12 associations in order to strengthen the relationship between the IRSST and these outstanding intermediaries. Different discussion and consultation mechanisms were established, primarily to identify emerging problems so that the IRSST is equipped to meet these new challenges.

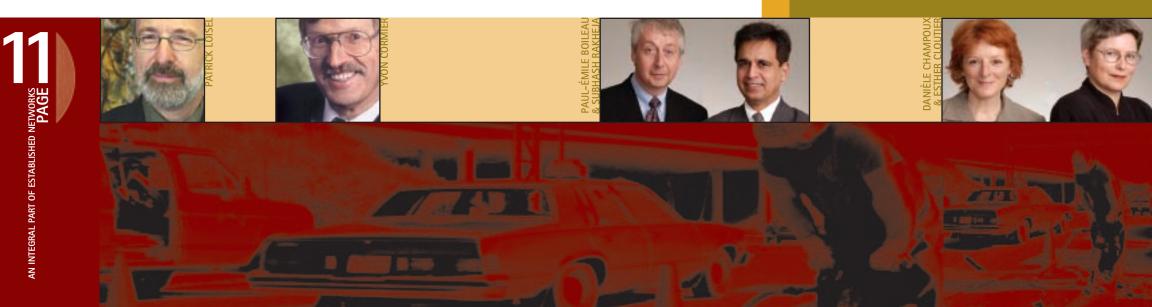
The IRSST's scholarship program became even more popular in 2002, with a 38% increase in applications.

Six of the seven students who had the best scores in the IRSST's 2002-2003 scholarship competition also ranked among the best with other granting agencies. According to CAROLE BELLAZZI, coordinator of the IRSST's scholarship program, "This is a good indicator of the quality of the applicants and the stringency of the IRSST's evaluation process."

November



The IRSST acquired an ICP-MS instrument. Its laboratories will be among the first in Québec to use this cutting-edge technology for their toxicological analyses.



SHARING objectives

The Association québécoise pour l'hygiène, la santé et la sécurité du travail (AQHSST) has nearly 700 members, including some forty IRSST employees. For many years, the IRSST has been encouraging its employees to join this association with which it has common objectives: promoting knowledge related to occupational hygiene by exchanging information on the subject and making it easier to understand, and promoting knowledge about occupational health and safety.

In May 2002, a strong delegation from the IRSST participated in the AQHSST's annual convention, giving courses and presenting papers and scientific posters. With approximately 800 participants, the convention provided an excellent forum for disseminating research results and for meeting stakeholders and intermediaries from workplaces and the public health network.

COLLABORATING to disseminate information

Relationships with Canadian colleagues, such as the Institute for Work and Health (IWH) and the Industrial Accident Prevention Association (IAPA), have been strengthened through many meetings and exchanges. Thanks to an agreement between the IRSST and the IAPA, our latest research efforts are now published in the magazine produced by this Ontario partner. A similar agreement has been concluded with the Association of Workers' Compensation Boards of Canada (AWCBC) to provide information to a national data base of occupational health and safety research projects that will be available on the group's Web site. In fact, it was following representations by the IRSST, which was able to highlight the importance of research and the meaningful results of its contribution to the health and safety of Québec workers, that this association established its own research committee.

In April 2002, a delegation from the IRSST participated in the IAPA's annual conference, which attracts more than 7,000 people every year. Two IRSST engineers, JOSEPH-JEAN PAQUES and SERGE MASSÉ, gave presentations on the safety of industrial machines and processes at this event.



ecember



Signing of the agreement on pay equity. "The entire process required intensive teamwork and the collaboration of several people. We are proud to say: Mission accomplished!" noted Louise Lafontaine, member of the committee representing the IRSST's unionized employees. Photo (left to right): Nicole Goyer, Denise Granger, Luc Germain, Louise Lafontaine, Zélie Fortin and Micheline Laperle

RESULTS OF THE BERYLLIUM OPERATION (Be)

To fulfil its mandate of preventing the onset of diseases associated with exposure to beryllium, the CSST Board of Directors' technical committee

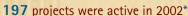




on this metal called on the expertise of IRSST personnel. Different research needs were expressed, and it was from this perspective that IRSST chemists CHANTAL DION and GUY PERRAULT, besides participating actively on many committees, prepared a synthesis of good practices for cleaning and decontaminating workplaces where beryllium is found. This document will be posted on the IRSST's Web site.

THE YEAR 2002 IN NUMBERS

RESEARCH



57 new 43 completed 97 ongoing

36% of the active projects originated from collaboration between internal and external researchers.

50 other projects were under development.

44 committees of the CSST and its network, including regulatory committees, had at least one IRSST representative.

25 national and international standardization committees invited the IRSST to serve on them in an expert capacity.

34 scholarships were awarded for a total of \$398,200.*

* 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

LABORATORY SERVICES

66,041 environmental, toxicological and microbiological analyses were done, 86% of which were for our partners in the prevention-inspection network: CSST, regional health and social services boards, local community service centres and joint sector-based associations.

4,165 hours were devoted to the calibration, maintenance and repair of direct-reading and measuring instruments, 98% of which were for those instruments used by the prevention-inspection network.

DISSEMINATION

32 research reports and guides published by the IRSST.

8 technical data sheets and guides published in collaboration with partners.

46 scientific publications (peer-reviewed)

25 articles published in research journals

14 articles published in conference proceedings

7 other scientific publications including book chapters, patents, etc.

110 presentations given by IRSST personnel at scientific conferences or events organized by partners.

22 courses given by IRSST personnel during training sessions organized by our network partners, universities and research collaborators.

20 non-technical articles published in *Prévention au travail*,

the magazine published by the CSST and the IRSST.

7,034 publications distributed in response to requests.

201,243 visits to the IRSST's Web site, representing an average of **551** visitors per day.

40,680 downloads of research reports from the IRSST's Web site,

more than twice the number of last year.

beryllium analyses to support the CSST' activities," said MARIE-FRANCE BISSON laboratory technician at the IRSST.



The IRSST's Information Technology Division completed the migration to Windows 2000 for all of the organization's computers, giving it a better-performing and more secure

COMMITTEES. NUMBERS. **PROJECTS**

In 2002, the IRSST was able to further strengthen its ties with its principal partner, the CSST, notably through the participation of IRSST professionals on 44 CSST committees or working groups, ranging from regulatory review committees to operating committees. In addition to providing ongoing expertise through these working committees, the IRSST regularly translated the need for new knowledge expressed by these committees into research projects, as demonstrated by the mini-programming on high-pressure water jet cleaning, for which eight projects are planned over the next six years.

OVERVIEW OF THE IRSST

The IRSST team is made up of some 130 individuals, including scientific personnel consisting of about 80 researchers, professionals and technicians from various disciplines including: ergonomics, industrial hygiene, chemistry, physics, engineering, sociology, anthropology, 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 files 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 150 researchers from universities, research centres and private firms.

Other **0.7**% External contracts 5% Laboratory services 12.3% CSST 82% **EXPENSES** \$20,851,500 Management 2.6% Customer service and technical support 2.8% Communications 4.7% External contracts 5.1% Finance and administration 10.2% _ Laboratory services 13.2% External research 20% Internal research 41.4%

IIRSST ORGANIZATIONAL CHART (AS AT DECEMBER 31, 2002)

EXECUTIVE COMMITTEE ————
JACQUES LAMONDE, CHAIRMAN

DIVISIONS

FINANCE AND ADMINISTRATION Luc Germain

GENERAL SECRETARY

FINANCIAL AND PHYSICAL RESOURCES Line Girard

INFORMATION TECHNOLOGIES
Jacques Roy

HUMAN RESOURCES Luc Germain OPERATIONS Alain Lajoie

QUALITY AND SPECIAL PROJECTS MANAGEMENT Jean-Claude Martin

CUSTOMER SERVICE Alain Lajoie (acting)

WORK ORGANIZATION Denise Granger

SAFETY ERGONOMICS Denise Granger (acting)

SAFETY ENGINEERING Raymond Bélanger

OCCUPATIONAL HYGIENE

Nicole Goyer

LABORATORY SERVICES AND EXPERTISE Jean-Guy Martel

COMMUNICATIONS
Jacques Millette

RESEARCH PRIORITIES Most of the IRSST's scientific and technical activities are concentrated in six research fields.



ACCIDENTS Denise Granger

NOISE AND VIBRATION Paul-Emile Boileau

PROTECTIVE EQUIPMENT Chantal Tellier

SAFETY OF INDUSTRIAL TOOLS, MACHINES AND PROCESSES Raymond Bélanger

CHEMICAL SUBSTANCES AND BIOLOGICAL AGENTS Claude Ostiguy

MUSCULOSKELETAL DISORDERS Marie St-Vincent, Jean-Claude Martin

ABLISHED NETWORKS PAGE



CHAIR

Jacques Lamonde

WORKER REPRESENTATIVES

Michel Arsenault Andrée Bouchard Pierre Dupuis Claude Faucher Jean Lavallée Henri Massé Roger Valois

EMPLOYER REPRESENTATIVES

François Cliche Franco Fava Gaston Lafleur Sylvain Lebel François-E. Pelletier Jean-Paul Robin Gilles Taillon

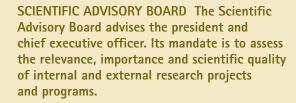
OBSERVERS

Horacio Arruda Anne Parent François Turenne

IRSST MANAGEMENT

Diane Gaudet

IRSST IN MOURNING



CHAIR

Diane Gaudet

EMPLOYER REPRESENTATIVES

Richard Lapointe Roger M. Laporte Renée Liboiron Alain Neveu

WORKER REPRESENTATIVES

Micheline Boucher Daniel Flynn Robert Guimond Serge Trudel

MEMBERS OF THE SCIENTIFIC AND TECHNICAL COMMUNITIES

Charles E. Beaulieu Jean-Marc Brodeur Jules Brodeur Maurice Brossard Maryse Lassonde R. Charles Terreault

OBSERVERS

Alain Albert Alain Lajoie

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LIST OF PUBLICATIONS IRSST PUBLICATIONS

All IRSST publications are peer-reviewed.

AUBERTIN, M., L. LI and R. SIMON. Effet de l'endommagement sur la stabilité des excavations souterraines en roche dure, Montréal, IRSST, 2002, 112 p. (Études et recherches, Research report, R-312).

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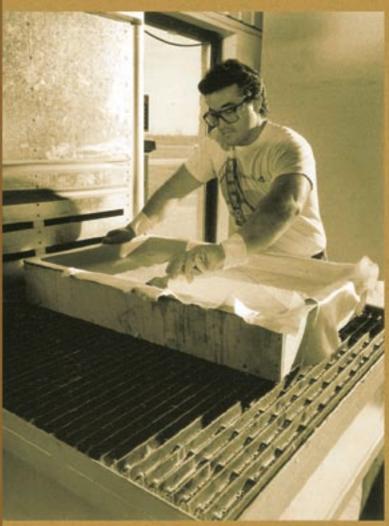
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