



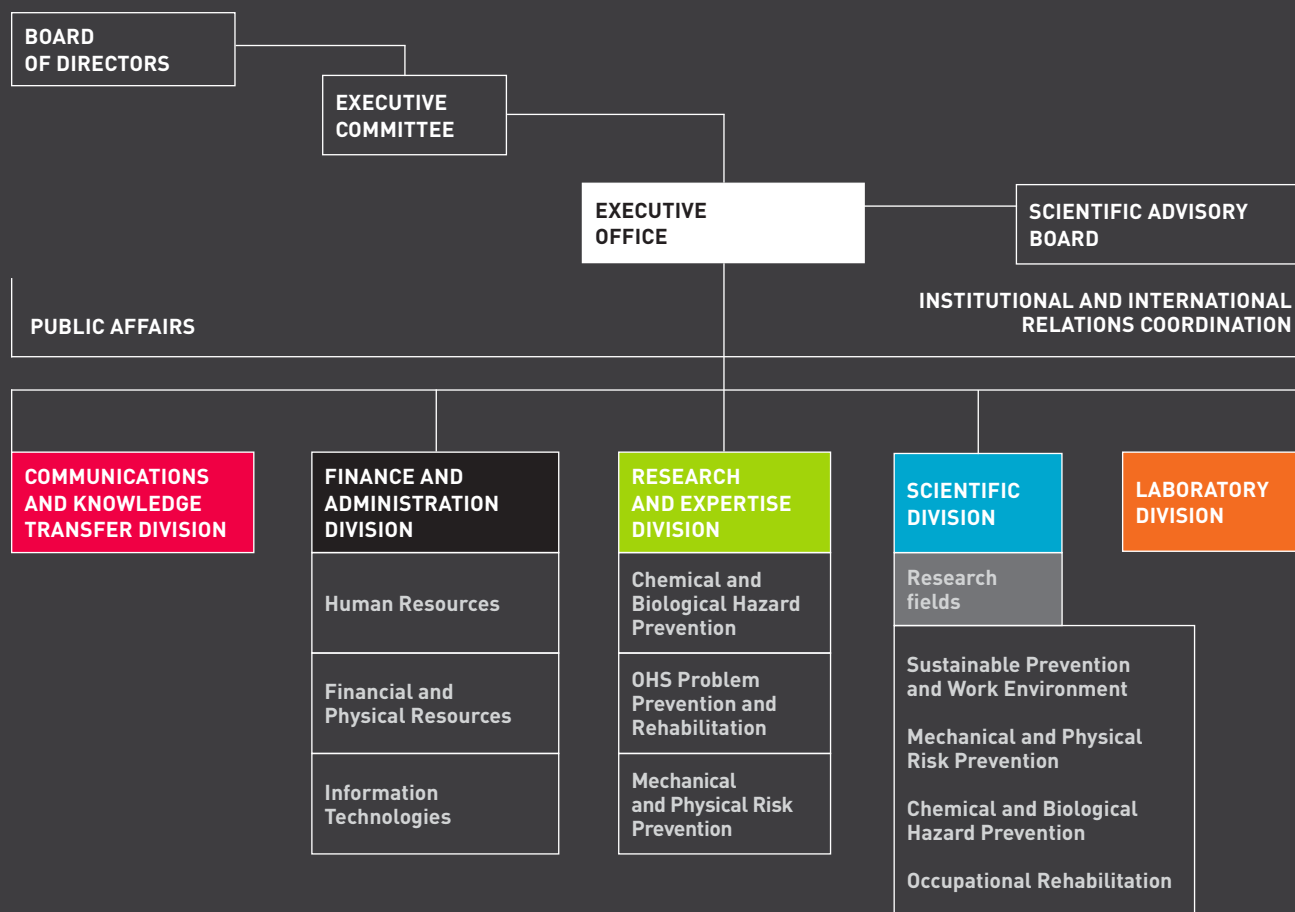
# THE IRSST IS

QUALIFIED PERSONNEL | SOUND SCIENTIFIC RESEARCH | CERTIFIED LABORATORIES

RESEARCH RESPONDING  
TO WORKPLACE NEEDS



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



**LEGAL DEPOSIT**

BIBLIOTHÈQUE ET ARCHIVES NATIONALES, 2016  
 ISBN : 978-2-89631-846-9 (PRINT)  
 ISBN : 978-2-89631-845-2 (PDF)  
 ISSN : 0820-8409

**PRODUCTION**

IRSSST, COMMUNICATIONS AND KNOWLEDGE  
 TRANSFER DIVISION

# STATUS

The Institut de recherche Robert-Sauvé en santé et en sécurité du travail (IRSST), established in Québec since 1980, is a scientific research organization well-known for the expertise of its personnel and the quality of its work.

The IRSST is a private, non-profit organization.

With a Board of Directors made up of an equal number of employer and worker representatives, it is also a parity organization.

The Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST) provides most of the Institute's funding directly from the assessments paid by employers.

# MISSION

In the spirit of Québec's *Act respecting occupational health and safety*, whose goal is the identification and "elimination, at the source, of dangers to the health, safety and physical well-being of workers," the IRSST's mission is:

- **to contribute, through research, to the prevention of industrial accidents and occupational diseases and to the rehabilitation of affected workers;**
- **to disseminate knowledge and serve as a scientific reference centre and expert;**
- **to provide the laboratory services and expertise required to support the public occupational health and safety network.**

To fulfill this mission, the IRSST:

- **carries out and funds research in its priority research fields;**
- **supports the development of research and new knowledge in occupational health and safety, in collaboration with the scientific community;**
- **disseminates and promotes knowledge generated through research, in both the workplace and scientific communities;**
- **plays a leadership role in anticipating emerging needs, raising awareness, and creating synergy in the area of occupational health and safety research;**
- **contributes to researcher training in occupational health and safety;**
- **provides laboratory services to the CNESST and its network;**
- **contributes to the development of standards and regulations governing occupational health and safety;**
- **responds to ad hoc requests for specific expertise originating from various occupational health and safety stakeholders.**

# VISION

Through its leadership in occupational health and safety research, the IRSST seeks:

- **to consolidate its role as a reference centre vital to the operations and strategies of the CNESST and its network;**
- **to be used by its social partners in a spirit of joint collaboration;**
- **to win recognition at national and international levels;**
- **to derive maximum benefit from a well-established network of research and development collaborators.**

Science is at the heart of the IRSST's activities. A highly competent team of researchers, professionals, and technicians from various disciplines is actively involved in over 100 research projects and activities each year. Validated using the most rigorous scientific methods, these projects are often carried out through interdisciplinary cooperative efforts.

The Institute's research projects and activities are concentrated mainly in four research fields:

- **Sustainable Prevention and Work Environment;**
- **Chemical and Biological Hazard Prevention;**
- **Mechanical and Physical Risk Prevention;**
- **Occupational Rehabilitation.**

The projects conducted or funded by the IRSST are aimed at developing knowledge in order to respond more effectively to workplace concerns regarding the prevention of occupational injuries and the rehabilitation of affected workers.

A Scientific Advisory Board composed of employer and worker representatives and members of the scientific community assesses the relevance and priority of each research project.



adaptation  
CRLB



# SCIENTIFIC DIVISION

**THE MANDATE OF THE SCIENTIFIC DIVISION IS TO DEFINE AND SEEK APPROVAL FOR THE INSTITUTE'S RESEARCH ORIENTATIONS AND PROGRAMS, AND TO IMPLEMENT AND FOLLOW UP ON ITS ANNUAL AND FIVE-YEAR RESEARCH PLANS. IT IS ALSO RESPONSIBLE FOR THE SCIENTIFIC COORDINATION OF THE INSTITUTE'S FOUR RESEARCH FIELDS:**

- **Chemical and Biological Hazard Prevention;**
- **Mechanical and Physical Risk Prevention;**
- **Sustainable Prevention and Work Environment;**
- **Occupational Rehabilitation.**

The Scientific Division is also responsible for conducting scientific watch and statistical surveillance activities. These activities in turn influence the Institute's choice of research orientations so that it can respond more effectively to workplace concerns regarding occupational health and safety (OHS) and fulfill its leadership role in research, while ensuring the dissemination of its research results. In addition, the Scientific Division helps establish and follow up on collaboration agreements with external partners, initiates special competitions in light of research needs, pilots institutional evaluation processes, and serves as a Collaborating Centre of the World Health Organization (WHO).

Lastly, the Scientific Division oversees the evaluation of the scientific quality of research reports and protocols and the development and application of the Institute's scientific, research ethics, and research integrity policies.

**THE IRSST IS FORGING A GROWING NUMBER OF PARTNERSHIPS, FIRST, TO INCREASE ITS RESEARCH CAPACITY THROUGH JOINT PROJECT FUNDING AND, SECOND, TO EXPAND ITS INFLUENCE AND THUS SECURE ITS LEADERSHIP ROLE IN THE RESEARCH SECTOR.**

**IT IS A PARTY TO SOME 40 NATIONAL AND INTERNATIONAL AGREEMENTS, NEARLY HALF WITH QUÉBEC ORGANIZATIONS, AROUND TEN WITH EUROPEAN INSTITUTES, AND SEVEN WITH CANADIAN PARTNERS.**

**SOME OF THESE PARTNERS INCLUDE NANOQUÉBEC, UNIVERSITÉ DE SHERBROOKE, ÉCOLE DE TECHNOLOGIE SUPÉRIEURE (THE UNIVERSITÉ DU QUÉBEC), CANADIAN INSTITUTES FOR HEALTH RESEARCH, FRANCE'S INSTITUT NATIONAL DE RECHERCHE ET DE SÉCURITÉ POUR LA PREVENTION DES ACCIDENTS DU TRAVAIL ET DES MALADIES PROFESSIONNELLES, THE HEALTH AND SAFETY LABORATORY IN THE UNITED KINGDOM, AND FRANCE'S AGENCE NATIONALE DE SÉCURITÉ SANITAIRE DE L'ALIMENTATION, DE L'ENVIRONNEMENT ET DU TRAVAIL.**

#### **SCIENTIFIC WATCH**

Scientific watch activities fuel the Institute's research fields and partners by providing them with relevant information. Timely studies under way or completed elsewhere around the world are documented and help focus the IRSST's research orientations and expertise on current and emerging OHS issues.

The Scientific Division reports on these studies, mainly by way of thematic blogs. This scientific information is obtained through the daily monitoring of more than 600 Web pages related to OHS and the information collected by staff from discussions, workshops, forums, colloquia, conferences, and any other events focussed on the main OHS research issues.

The Institute's **scientific watch blogs** are intended for all readerships, but particularly the scientific community, and OHS professionals and practitioners.

#### **STATISTICAL KNOWLEDGE AND SURVEILLANCE**

The IRSST's statistical knowledge and surveillance activities consist of drawing on existing sources of OHS data and producing original indicators. Publications on the human, social, and economic costs of occupational injuries shed additional light on research needs.

At the Institute, workplace expectations and needs are taken into account at all levels of organization, from the development of research protocols through to results dissemination. Its research efforts target the most important current and emerging issues in order to adequately address workplace concerns.





# RESEARCH AND EXPERTISE DIVISION

THE RESEARCH AND EXPERTISE DIVISION IS RESPONSIBLE FOR PLANNING, CARRYING OUT, AND FOLLOWING UP ON THE INSTITUTE'S RESEARCH AND EXPERTISE ACTIVITIES. IT OVERSEES THE THREE RESEARCH DEPARTMENTS:

- Chemical and Biological Hazard Prevention;
- Mechanical and Physical Risk Prevention;
- OHS Problem Prevention and Rehabilitation.

It also supervises the activities of the Documentation Centre.

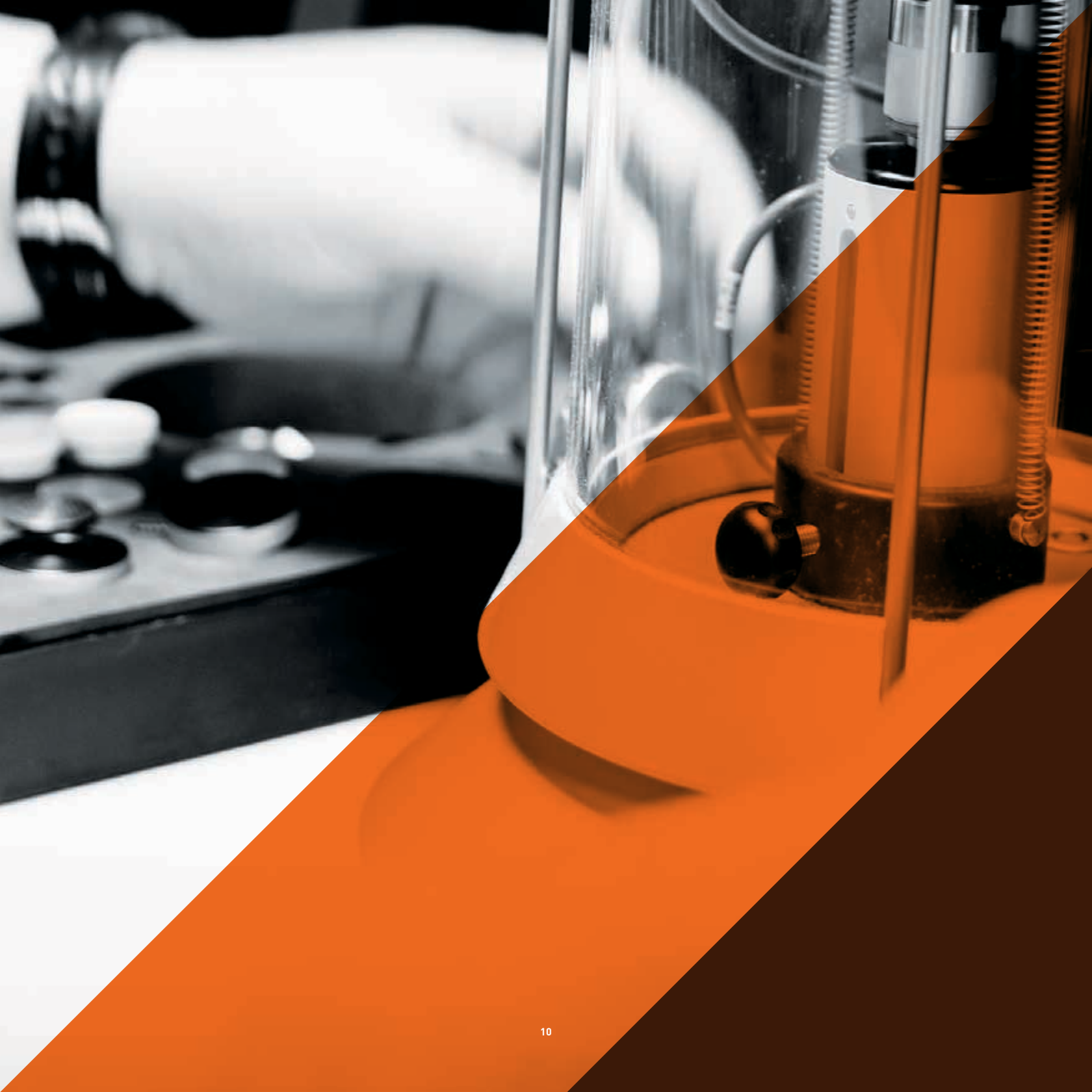
## RESEARCH GRANTS

In addition to having its own research teams, the IRSST plays a major role in building and putting down strong roots for the growth of a community of OHS researchers in Québec. The Research and Expertise Division offers **three grant programs** designed to encourage researchers from universities, research centres, and private firms to carry out scientific projects and activities in the field of OHS.

## RESEARCHER TRAINING

The training of new researchers and cultivation of their interest in OHS research is another of the Division's mandates. The **Graduate Studies Scholarship and Postdoctoral Fellowship Program** gives approximately 30 master's, doctoral, and postdoctoral students the opportunity to improve their OHS knowledge. Several of these young scholarship recipients have gone on to pursue careers as researchers or professionals in the field.





# LABORATORY DIVISION

**THE COMMISSION DES NORMES, DE L'ÉQUITÉ, DE LA SANTÉ ET DE LA SÉCURITÉ DU TRAVAIL (THE CNESST) AND THE IRSST HAVE A SERVICE CONTRACT WHEREBY THE INSTITUTE PROVIDES THE CNESST, JOINT-SECTOR-BASED ASSOCIATIONS, INTEGRATED UNIVERSITY HEALTH AND SOCIAL SERVICES CENTRES AND OTHER INTEGRATED HEALTH AND SOCIAL SERVICES CENTRES WITH THE LABORATORY SERVICES THEY NEED, FIRST, TO IMPLEMENT THE PREVENTION ACTIVITIES PRESCRIBED IN QUÉBEC'S OCCUPATIONAL HEALTH AND SAFETY PLAN IN THE VARIOUS INDUSTRY SECTORS, AND SECOND, TO CARRY OUT THE ENVIRONMENTAL AND BIOLOGICAL MONITORING NEEDED TO ENSURE COMPLIANCE WITH EXISTING STANDARDS.**

In this context, the Laboratory Division provides this network, as well as private clients, with environmental, toxicological, and microbiological analyses and related expertise.

The Laboratory Division includes:

- the analytical laboratories;
- the organic chemistry laboratory for conducting HPLC and GC analyses, the inorganic chemistry measurement laboratory for conducting mineral and metal dust analyses, and the metal and microbiology laboratories;
- the calibration laboratories;
- the physical measurement laboratories for performing calibrations in the fields of acoustics, electricity and electromagnetics.



## THE SERVICES OFFERED TO CUSTOMERS INCLUDE:

- Conducting environmental, toxicological, and biological analyses of workplace samples;
- Developing analytical methods;
- Supplying sampling equipment;
- Loaning monitoring equipment;
- Maintaining, repairing, and calibrating monitoring equipment;
- Providing support and expertise;
- Publications.

Since 1980, the Laboratory Division has developed and implemented more than 300 analytical methods, as well as interlaboratory proficiency testing programs for fibre counting and isocyanates.

## RESEARCH AND ACCREDITATIONS

The Laboratory Division team also carries out applied research that falls under two of the IRSST's priority research fields:

- **Chemical and Biological Hazard Prevention**
- **Physical and Mechanical Risk Prevention**

The IRSST's Laboratory Division stands apart, not only for the competence and expertise of its personnel, but also for its national and international accreditations:

- **AMERICAN INDUSTRIAL HYGIENE ASSOCIATION – LABORATORY ACCREDITATION PROGRAMS (AIHA-LAP), LLC**  
This accreditation shows compliance with ISO/IEC Standard 17025:2005.  
**Asbestos, metals (including beryllium), microbiology (including Legionella), silica, and solvents**
- **CENTRE D'EXPERTISE EN ANALYSES ENVIRONNEMENTALES DU QUÉBEC (CEAEQ)**  
**Legionella pneumophila and Legionella spp. in samples collected from water cooling towers**
- **OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA)**  
**Blood lead (recognition)**
- **CALIBRATION LABORATORY ASSESSMENT SERVICE (CLAS)**  
This accreditation shows compliance with ISO/IEC Standard 17025:2005.  
**Acoustic calibration (the only lab in Canada);**  
**Electrical and frequency calibration**



# COMMUNICATIONS AND KNOWLEDGE TRANSFER DIVISION



statistic  
en SST  
ances

**CUSTODIAN OF THE IRSST'S IMAGE AND RESPONSIBLE FOR THE VISIBILITY OF THE INSTITUTE, ITS PERSONNEL, AND ITS PRODUCTS, THE COMMUNICATIONS AND KNOWLEDGE TRANSFER DIVISION (CKTD) PROMOTES THE INSTITUTE'S SCIENTIFIC AND TECHNICAL ACTIVITIES AND THEIR RESULTS. ANOTHER INTEGRAL PART OF ITS MANDATE IS THAT OF ENSURING KNOWLEDGE TRANSFER THROUGH INTERACTION WITH KNOWLEDGE USERS THROUGHOUT THE RESEARCH AND KNOWLEDGE TRANSLATION CYCLE, ULTIMATELY TO OPTIMIZE THE POSITIVE IMPACT OF ITS RESEARCH ON OCCUPATIONAL HEALTH AND SAFETY.**

### **KNOWLEDGE TRANSFER**

The principle of applying research results and transferring knowledge is of paramount importance for the Institute and a key component of its mission. Whenever possible, the Communications and Knowledge Transfer Division tries to involve the individuals directly concerned by an issue in the process of laying the foundations for the project, evaluating the potential for applying the results, and participating actively throughout the research and transfer process, right through to dissemination of the results. Since the success of knowledge transfer depends on close collaboration between partners (such as joint sector-based associations, employer and union associations, and the CNESST) and different ways, the IRSST promotes concerted efforts to ensure that research results are appropriated by OHS stakeholders, who then see to their application in workplaces.

The IRSST ensures that workplace representatives sit on the project follow-up committees. Their involvement benefits researchers by giving them a more thorough understanding of issues in the workplace.

### **RESULTS DISSEMINATION**

The CKTD plans and manages activities that focus on promoting and ensuring the application of the Institute's results. The staff of the CKTD division ensures the visibility of the organization, its personnel as a whole, and its results by:

- **making the different products available on its Web site;**
- **publishing the electronic newsletter *InfoIRSST*;**
- **contributing to the magazine *Prévention au travail*;**
- **participating in the organization of scientific and thematic events;**
- **ensuring its presence on the social networks;**
- **translating its most frequently consulted research reports into English.**

# TO FIND OUT MORE

The IRSST disseminates the knowledge generated by its research projects and activities free of charge.

**ALL THE INSTITUTE'S PUBLICATIONS CAN BE DOWNLOADED AT NO CHARGE FROM ITS WEB SITE AT [WWW.IRSST.QC.CA](http://WWW.IRSST.QC.CA).**

Published ten times a year, its electronic newsletter **InfoIRSST** informs subscribers of the Institute's latest publications, current research activities and projects, and important news about research.

English versions of *InfoIRSST*, the Web site, and a number of other documents (including some research reports) are also available.

The IRSST publishes the magazine **Prévention au travail** jointly with the CNESST, four times a year. It is aimed at anyone interested in or responsible for occupational health and safety.



INSTITUT DE RECHERCHE ROBERT-SAUVÉ EN SANTÉ ET EN SÉCURITÉ DU TRAVAIL

505 De Maisonneuve Blvd. West, Montréal (Québec) H3A 3C2

Phone: 514 288-1551 | [www.irsst.qc.ca](http://www.irsst.qc.ca)



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