



CANADIAN INSTITUTE
SAFETY, WELLNESS
& PERFORMANCE



CONESTOGA
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BUSINESS

CANADIAN INSTITUTE FOR SAFETY, WELLNESS & PERFORMANCE (CISWP)

Information Package



Building capacity for productive and sustainable work.

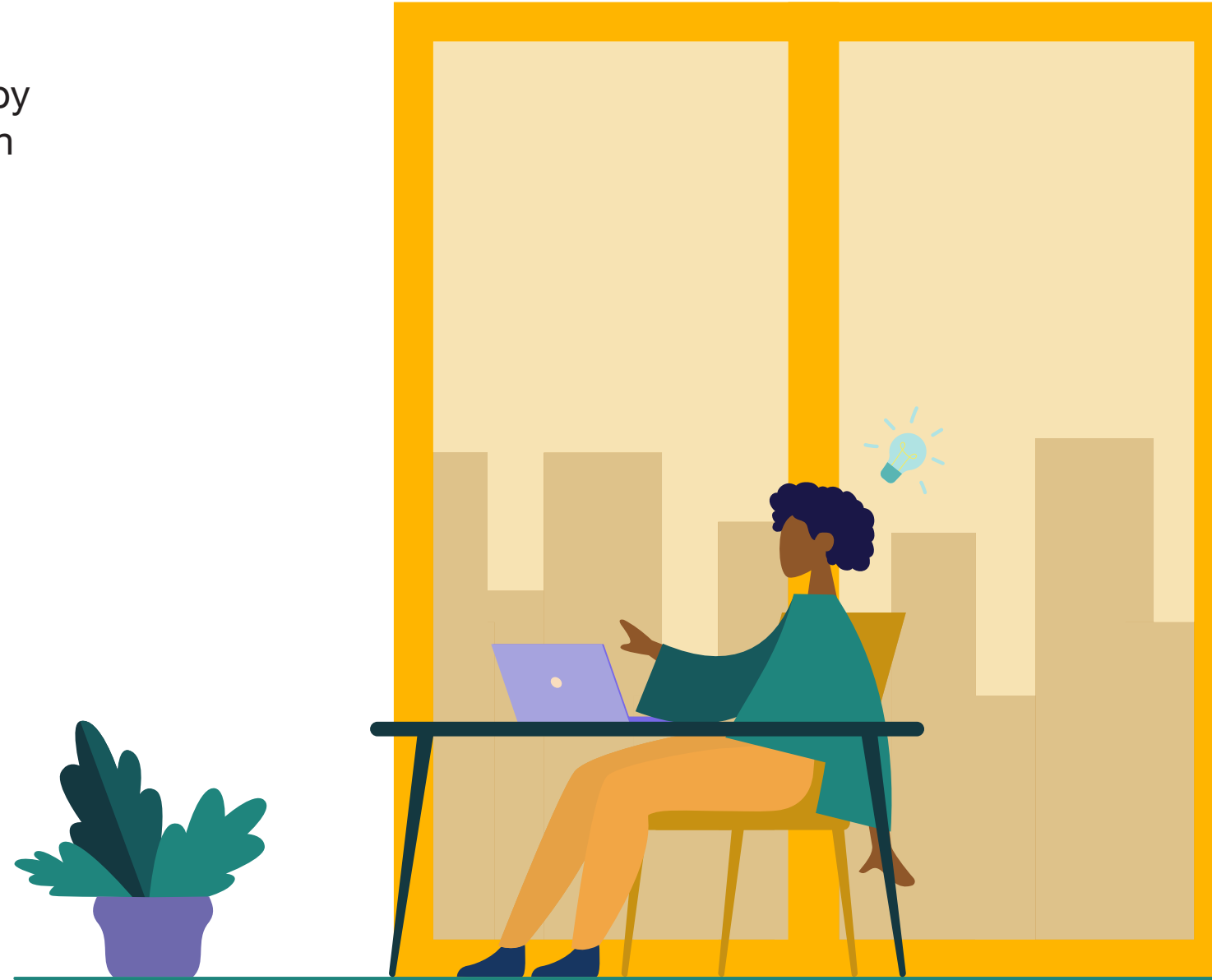
OUR INITIATIVE

Our Mission

To improve the safety, wellness and performance of the Canadian labour force by generating knowledge, transferring research to practice, and strengthening workforce development – all in collaboration with stakeholders.

Our Vision

To position Canada as a global leader in empowering businesses to adapt and thrive in the ever-changing competitive economy.



Our Values

INNOVATION

Conducting cutting-edge trans-disciplinary research to address knowledge gaps and develop evidence-informed products, tools, and services to advance stakeholders' capacity.

EQUITY AND INCLUSIVENESS

Empowering and enabling communities to support the labour force in striving for meaningful and fulfilling employment.

COLLABORATION

Engaging and working with employers, not-for-profits, labour/unions, academics, service providers, policy makers, and practitioners to develop, promote, and implement effective and sustainable solutions.



OUR RESEARCH PROGRAM

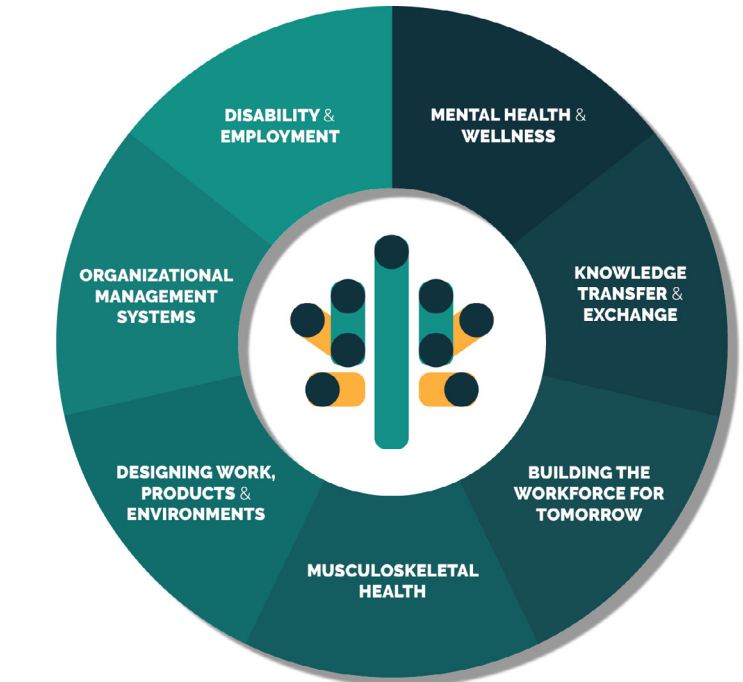
Strategic Objectives (Present - 2025)

The Canadian Institute for Safety, Wellness, and Performance:

- Develop evidence-informed products, guidelines, resources, and technologies;
- Contribute to the development of Canadian and international standards;
- Develop and implements strategies for uptake of evidence-informed practices by organizations across all sectors of the economy;
- Provide state-of-the-art education and training for the next generation of business leaders and practitioners; and
- Provide national and international leadership in the prevention and management of occupational injuries and disabilities.

CISWP's Research Program

CISWP adopts a transdisciplinary and collaborative approach to build capacity for productive and sustainable work. Our research program is organized into seven overarching and overlapping research themes:



1 Knowledge Transfer and Exchange

Knowledge transfer and exchange (KTE) is vital for applying research knowledge into practice and decision-making. With immense resources invested into research, the knowledge generated should be readily accessible, available, and applicable to knowledge users to apply in practice, planning and policy-making. Through ongoing collaboration with stakeholders in all stages of our applied research, including conceptualization, development, execution, and reporting, our KTE strategies fulfill the identified needs of knowledge users.

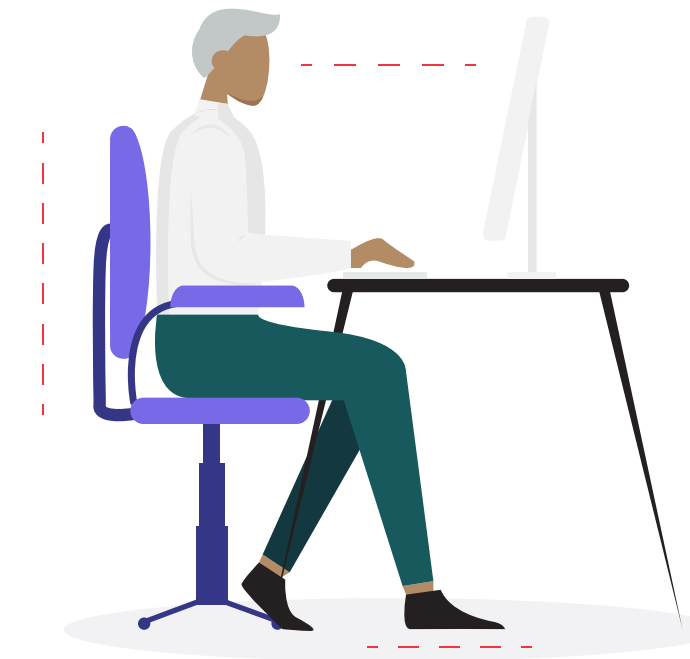


Our research focuses on:

- Co-creation of (general and industry-specific evidence-informed standards, guidelines, practices, tools, products, and technologies; and
- Integration of research knowledge into course curricula.

2 Musculoskeletal Health

CISWP collaborates with stakeholders including employers, workers, not-for-profits, labour/unions, academics, service providers, policy makers, and practitioners to reduce the risk of musculoskeletal disorders (MSD). MSD are injuries that affect muscles, ligaments, tendons, and nerves, caused by exposure to known ergonomic hazards including forceful exertions, repetitive motion, awkward posture, and vibration. In Ontario, MSD in the form of sprains and strains account for 44% of all lost-time claims (WSIB, 2017).



CISWP's research aims to reduce the burden of MSD by:

- Understanding the aetiology and pathophysiological mechanisms of MSD;
- Developing effective exposure measurement and risk assessment tools and improving surveillance systems;
- Investigating exposure-response relationships including both physical and psychosocial factors on musculoskeletal health; and
- Developing and evaluating interventions and risk mitigation strategies to prevent MSD among all business sizes and industry sectors.

3 Mental Health and Wellness

Mental health is a state of well-being, where the individual can manage the normal stresses of life, work productively and fruitfully, and reach her/his potential (MHCC, 2016). Effective workplace strategies for mental health and wellness are critical for productive and sustainable work, and for the prevention and management of mental illness. Each year, mental illness directly and indirectly costs the Canadian economy at least \$50 billion, of which \$42.3 billion is spent on health and service care, and \$6.4 billion is unrealized due to presenteeism, absenteeism, and labor force exit (MHCC, 2016). These losses in productivity can be reduced by as much as 30% by improving workplace mental health and reducing mental illness (NICE, 2009).

CISWP collaborates with stakeholders, including employers, workers, not-for-profits, labour/unions, academics, service providers, policy makers, and practitioners to:

- Understand the social and cultural work environments across industries; and
- Develop workplace strategies for the prevention, early detection, intervention, and management of mental illness, and promote workers' well-being.



4 Organizational Management Systems

Organizations are responsible for providing safe working conditions. Therefore, organizations are required to implement strategies to effectively prevent workplace injuries. If these activities are performed within some organizational-level framework, it may be considered a management system. Often, health, safety and workplace injury prevention is approached as individual siloed programs. This isolated approach is not sustainable and effective. It also results in additional human and financial costs and make such isolated programs vulnerable to financial downturns.

Integrating health, safety, and workplace injury prevention activities into organizations' overall management systems, including but not limited to Quality Management System, and avoiding "silos" is highly desirable. This would result in better recognition of health and safety issues by stakeholders within organizations, enhance organization success and overall organizational performance.



CISWP collaborates with stakeholders in conducting cutting-edge research and developing evidence-informed practices to integrate health and safety, and injury and disability prevention into organizational management systems. Our research also focuses on:

- Developing innovative strategies to measure organizational success by defining the relationships and metrics of productivity, performance, quality and sustainability;
- Identifying and minimizing organizational barriers to success for productive and sustainable work; and
- Constructing and refining macro-ergonomic theories to optimize organizational excellence.

5 Disability and Employment

Recent statistics suggest that an estimated 20% of Canadians aged 15 and older have one or more disabilities. This limits the daily activity and participation of over 6.2 million Canadians in our workforce. CISWP addresses this important issue by supporting stakeholders to comply with federal and provincial legislative requirements including Canada's obligations under the United Nation's Convention on the Right of Persons with Disabilities. Our collaborative efforts with key stakeholders aim to identify core challenges, solutions and opportunities to adopt advanced work disability prevention and wellness management systems that consider supply chain management issues, diverse legal and cultural contexts, and global competitiveness.

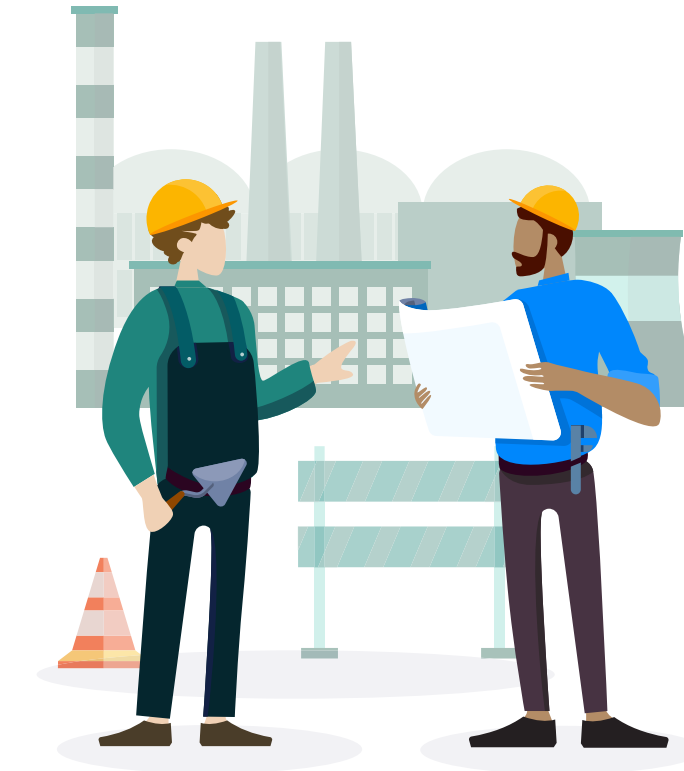


These efforts will inform the development of Canadian and international standards for work disability prevention management systems and other related best practices including but not limited to evidence-informed practices in work accommodation and return-to-work.

In addition, CISWP's goal is to identify and evaluate technologies, equipment, products, tools and services that promote engagement and productivity for different abilities in diverse sectors and occupations.

6 Building the Workforce for Tomorrow

The nature of work has changed and the new form of employment is becoming more flexible and uncertain. It is moving online through extensive development of technology and is becoming borderless. The nature of work is rapidly evolving due to the introduction of robotics, AI technologies, and smart machines. Concurrently the Canadian workforce is aging and becoming more diverse in terms of cultural/ethnic origin, abilities, and skill sets. CISWP conducts research to explore how Canadian employers can best adapt to these changing conditions while ensuring an inclusive, productive, and sustainable workforce.



CISWP research focuses on:

- Addressing the needs of micro and small businesses in preventing workplace injuries and enhancing performance and productivity;
- Addressing broader issues including precarious work, flexible work, and diversity and inclusion by identifying evidence-informed and effective practices, and understanding their generalizability, sustainability, and scalability of practices to implement into different contexts, occupations and sectors; and
- Conducting collaborative research to develop and evaluate multi-stakeholder strategies to capitalize on the skills, expertise and knowledge of the ageing workforce, and support a healthy work-to-retirement transition.

7 Designing Work, Products and Environments

Universal design is a concept of designing and promoting products, communications, and environments to accommodate for human diversity; this includes a broad spectrum of abilities regardless of age, gender, ability, or life status. There are seven principles of universal design: (1) equitable use, (2) flexibility in use, (3) simple and intuitive use, (4) perceptible information, (5) tolerance for error, (6) low physical effort, and (7) size and space for approach and use (The Center for Universal Design, 1997). Using these principles, CISWP is committed to advocate and implement strategies and solutions consistent with universal design. We adopt a user-centered design approach where we focus on the needs of the user throughout the iterative product life cycle.

Our research focuses on:

- Constructing physical anthropometric databases across different sectors;
- Examining cross-national relationships;
- Developing design standards and guidelines; and
- Conducting iterative usability evaluations to improve product and work environments.



OUR TEAM

AMIN YAZDANI PhD, CSP

Director

Dr. Amin Yazdani is the director of the Canadian Institute for Safety, Wellness & Performance at Conestoga College's School of Business. He is also an adjunct assistant professor at McMaster University, the University of Waterloo and Pacific Coast University for Workplace Health Sciences. Dr. Yazdani is a member of the Canadian Standard Association (CSA Group) Occupational Health and Safety Strategic Steering Committee, and a recipient of the 2018 Standards Council of Canada Young Leader Award.

Dr. Yazdani uses a multidisciplinary strategy to develop innovative approaches to prevent workplace injuries and work disability. Dr. Yazdani's research interest centres around standardization of human factor and ergonomics in the design of products and work environments by developing best practices and technical standards.

In addition, he has extensive experience in collaborating with small, medium and large organizations to implement organizational-wide approaches to prevent workplace injuries and improve productivity and performance.



MARCUS YUNG PhD, CPE

Research Manager

Marcus Yung is the research manager at the Canadian Institute for Safety, Wellness & Performance. His research centres on the etiology of work-related musculoskeletal disorders, exposure assessment, and development of prevention strategies and interventions to mitigate injury risk.

He has expertise in individual-level measurement using biomechanical and biophysical tools for both laboratory work simulations and field studies. Previously, he investigated the effectiveness of occupational health standards to prevent musculoskeletal injury risks associated with heavy machinery and transport systems. Additionally, Dr. Yung has knowledge in physical exposure estimation using population-level data to construct job exposure matrices that can be used to better understand exposure-disease relationships.



BRONSON DU MSc

Research Scientist

Bronson is a Research Scientist at the Canadian Institute for Safety, Wellness & Performance. He has expertise in developing organizational-level guidelines and resources for the prevention and management of work disability, and in integrating human factors and ergonomic principles into industry-specific design standards. He applies a systems approach for data collection, analysis, interpretation, and reporting to inform the development of workplace interventions.

Previously, Bronson led multiple complex field studies in collaboration with seat manufacturers and trucking companies in Washington State, Connecticut, British Columbia, Alberta, and Manitoba. This research compared whole-body vibration characteristics of seating technologies and their impact on driver fatigue and discomfort to provide procurement recommendations. Bronson brings extensive experience in coordinating large-scale applied research projects and utilizes his talents to coordinate and lead a team of research assistants.



AMY HACKNEY PhD

Research Scientist

Amy Hackney is a research scientist at the Canadian Institute for Safety, Wellness & Performance. She brings expertise in building research collaborations with industries of all sizes and has developed a strong network within the innovation ecosystem. Dr. Hackney has extensive experience supporting research projects from conception to completion, identifying opportunities to leverage additional research support and managing research programs.

Her research interest is focused around universal design and investigating how the relationship between human and environmental factors can be used as a guide to improve the design of products and environments. Previously, Dr. Hackney's research examined human navigation of cluttered and narrow spaces and how the design of these spaces impacts the way individuals navigate these environments safely.



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