



POLYTECHNIQUE  
MONTREAL



## Postdoctoral Researcher - Social acceptability and environment

### Follow your dreams!

In partnership with CIRAIG, the engineering consulting firm Norda Stelo is actively seeking a postdoctoral researcher passionate about the environment to join the Climate Change Team for a 2-year internship funded by Élévation, a Mitacs postdoctoral fellowship program.

How about elevating your skills, applying your high-level expertise, and seizing groundbreaking research opportunities through Élévation, a postdoctoral fellowship program by Mitacs with an exclusive professional development component designed for the cream of postdoctoral researchers in the field of the environment?

### What the Mitacs Elevate program offers

- An annual fellowship worth \$60,000 (comprising either an allowance or a minimum salary of \$55,000 and up to \$5,000 in research expenses), representing \$120,000 for two-year projects (with funding from partner organizations providing \$30,000 per year);
- An exclusive professional development program that prepares Elevate researchers to excel as leaders in research and industry;
- Valuable access to an interdisciplinary network and otherwise inaccessible peer learning opportunities. Additionally, researchers benefit from mandatory research management training;
- A completion certificate upon Mitacs' receipt of the project-end survey and report.

### Context and problematic of the research project

Achieving carbon neutrality no later than 2050 requires both a rapid and massive reduction in greenhouse gas emissions across all sectors and balancing residual emissions. In its carbon neutrality scenarios, the IPCC relies heavily on the deployment of emission capture systems, which can be technological or biogenic. The use and deployment of negative emission systems, such as Negative Emission Technologies (NET) or offset credits, remain a highly debated and non-consensual topic within the scientific community, as well as among businesses, public authorities, and civil society. Indeed, questions arise about the quality, quantity, allocation, etc. of carbon credits. Furthermore, in its latest assessment report (AR6), the IPCC has reduced the reliance on nature-based systems (e.g., BECCS) due to the risks associated with transferring environmental and socio-economic impacts to vulnerable communities.

### Description of the position

You will be involved in innovative projects focused on life cycle thinking and the design of solutions for reducing greenhouse gas emissions (GHG). As a key member of the Norda Stelo - CIRAIG team, you will play an essential role in researching sustainable solutions and implementing environmentally friendly practices within the framework of its research project and initiatives related to Norda Stelo's activities.



POLYTECHNIQUE  
MONTREAL



## Your challenges

### a) Postdoctoral Research Project:

- Explore the role of offset credits and negative emission technologies in an organization's transition to net zero;
- Develop an analytical framework for offset credits (quality, availability, rebound effects, etc.) and conduct a prospective study on their demand and availability;
- Analyze the environmental impacts of negative emission technologies;
- Provide recommendations to support (a) the establishment of transition plans for organizations and (b) the development of NETs;
- Coordinate works with other CIRAIG projects on the carbon neutrality of organizations.

### b) Support for Norda Stelo Activities:

- Design, plan, and lead client projects in the areas of Life Cycle Assessment (LCA), greenhouse gas emissions quantification, or decarbonization within multidisciplinary teams;
- Contribute to the development of service offerings for the Climate Change team;
- Collaborate closely with project teams to integrate postdoctoral research results into practical and applicable solutions, promoting a sustainable approach to our engineering activities;
- Contribute to writing articles related to the research topic, give presentations at conferences, and prepare technical reports.

## Your profile

- Ph.D. in chemical engineering, environmental science, or a related field.
- In-depth knowledge of life cycle assessment, primarily environmental, including carbon footprint, with the ability to apply this knowledge practically in the design of sustainable solutions.
- Experience in LCA modeling, data analysis, prospective analysis, organizational carbon footprint, and the use of relevant software tools.
- Familiarity with the SBTi initiative and the EEIO method.
- Strong written and oral communication skills in both French and English.
- Ability to work collaboratively within multidisciplinary teams.
- Capability to work in an agile environment.
- Knowledge of carbon credits and ISO standards 14064-1, 14064-2, 14068, and 14072 would be an asset.
- Familiarity with Negative Emission Technologies (NET) and Carbon Capture, Utilization, and Storage (CCUS) is a plus.

## Supervision and conditions

The postdoctoral fellowship will be funded by the MITACS Elevate program. The postdoctoral phase can only commence once MITACS has validated the postdoctoral fellowship. While awaiting this validation, the candidate will be offered employment at Norda Stelo.

The performance of the postdoctoral researcher during the fellowship will be assessed for a potential full-time job offer at the end of the internship period. The transition to a permanent position will be



POLYTECHNIQUE  
MONTREAL



based on the excellence of research outcomes, demonstrated skills, contributions to Norda Stelo's activities, and alignment between the researcher's career objectives and the firm's long-term needs.

Start date: as soon as possible.

Duration: 2 years (negotiable).

Location:

- CIRAIG, Polytechnique Montreal, 3333 Queen Mary Road, Montreal, Canada (half-time)
- Norda Stelo – offices in Montreal or Quebec according to preferences (half-time)

Supervision: the project is supervised by:

- Anne de Bortoli, Ph.D., M.Sc., M.Ing.: Postdoctoral fellow at CIRAIG, Polytechnique Montréal, research affiliate at Ecole des Ponts ParisTech, [anne.debortoli@polymtl.ca](mailto:anne.debortoli@polymtl.ca)
- Guillaume Majeau-Bettez, Ph.D., M.Sc.: Professor at Polytechnique Montréal, CIRAIG, [guillaume.majeau-bettez@polymtl.ca](mailto:guillaume.majeau-bettez@polymtl.ca)
- Vincent Blanchard, Ph.D., DESS: Manager of the Center of Excellence in Environment, Climate Change, and Community at Norda Stelo, [vincent.blanchard@norda.com](mailto:vincent.blanchard@norda.com)

Eligibility criteria to Elevate program

- Be a Canadian citizen, permanent resident, or international student;
- The selected candidate for the project must be enrolled in a Canadian university (having an affiliated educational institution, including colleges or polytechnic schools, located in Canada for the duration of the fellowship);
- Have earned a doctoral degree within the past five years before the proposed start date of the Elevate project unless:
  - o They have put their career on hold for military service, medical reasons, or family leave, in which case their application may be subject to an exception pending approval before submitting their application;
  - o If this situation applies to you or you have any questions, please contact Mitacs directly at [elevate@mitacs.ca](mailto:elevate@mitacs.ca).
- Have met all criteria for obtaining a doctorate (e.g., successful defense, final thesis submission, and approval), meet the eligibility criteria for postdoctoral researchers at their affiliated educational institution, and hold a postdoctoral researcher status for the duration of their Mitacs Elevate fellowship;
- Be able to commit to the Mitacs Elevate fellowship program and participate in exclusive professional development courses;
- Former Elevate participants who completed a one-year or two-year Elevate project can submit another Elevate application. Postdoctoral researchers can receive funding for a maximum of three years;
- Researchers cannot submit applications to multiple Mitacs programs for the same period.



POLYTECHNIQUE  
MONTREAL



## Application

Interested candidates can send their application, including a CV and a cover letter, to [claudia.tam@norda.com](mailto:claudia.tam@norda.com). Applications will be considered in chronological order, and recruitment remains open until positions are filled.

## About CIRAIG

Established in 2001, the International Reference Center for Life Cycle Assessment and Sustainable Transition (CIRAIG) is recognized worldwide for its work and initiatives built on a solid scientific foundation. CIRAIG supports industries, governments, organizations, and consumers in their transition to a sustainable society supported by a scientific approach. Its research and expert services focus on developing and implementing knowledge and tools related to life cycle assessment, both environmental and social, the circular economy, the analysis of trajectories towards carbon neutrality, and the analysis of complex systems to inform decision-making. CIRAIG's main research unit is the International Research Consortium on Life Cycle Assessment and Sustainable Transition, which brings together the expertise of two universities in Montreal, Canada - Polytechnique Montreal and UQÀM -and HES-SO and EPFL in Switzerland. CIRAIG is also an amiable, inclusive research group that offers a supportive environment to excel in your research and an active community that offers many team-building and extra-professional activities. More info: <https://ciraig.org/>

## About Norda Stelo

Norda Stelo means North Star, where possibilities are infinite in terms of innovation, development, and commitment.

Our vision is collective, and our DNA is seriously human!

## The team behind the engineering

Our team's mission is to commit to positively influencing the destiny of projects while respecting communities and the environment. Our journey is marked by role models of being where we have delicately acted to promote the social acceptability of projects.

Our team doesn't just observe but defines itself as actors actively participating in the challenges and issues of our clients.

## Our expertise is diverse, and yours?

Founded in Quebec in 1963, Norda Stelo is an independent engineering consulting firm. It specializes in executing integrated projects and supports its clients at all stages, from planning to operation, including design, implementation, or construction management.

As a 100% Quebec-owned company, Norda Stelo is a global citizen, participating in both local and international activities. Deeply human and down-to-earth, its commitment to quality, integrity, human relationships, and value creation is the pride of its employees and partners.

## You do not have all the required experience? Still, consider applying!

Norda Stelo adheres to the principle of equal access to employment and strongly encourages women, individuals from culturally diverse backgrounds, persons with disabilities, individuals belonging to the



POLYTECHNIQUE  
MONTREAL



LGBTQIA2+ communities, indigenous people, and individuals belonging to traditionally marginalized groups to apply.

We can provide accommodation measures according to your needs. For more information about our accessible workplace and inclusive culture, please contact us at [Talents@norda.com](mailto:Talents@norda.com).