WE ARE NORDA STELO



Diverse Expertise.
One Common Vision.

NORDA STELO
COLLECTIVE INGENUITY

Certified B Corporation

CANADA BEST MANAGED COMPANIES



We Are Norda Stelo

In an ever-changing world, we serve as a proactive partner invested in the delivery of engineering consulting and construction projects since 1963. Deeply committed, we are the first major B Corp certified engineering firm in Canada, which underscores our desire to operate with a focus on the common good. Privately held by employee shareholders, our head office is located in Quebec and we carry out projects in some 50 countries.

Innovation and Sustainability at the Heart of Every Initiative

Whether dealing with new or existing facilities, Norda Stelo mobilizes collective ingenuity, and fosters innovation and sustainability. This capacity stems mainly from our distinctive expertise in long-term partnerships as well as brownfield engineering. Norda Stelo brings an integrated approach to the durability of static and dynamic assets, with sound practices to avoid their early replacement, optimize their operation, and thus reduce their environmental footprint.

In addition, we deliver comprehensive solutions that improve environmental performance and productivity. Norda Stelo is your partner of choice to address the unavoidable challenges that require a holistic, effective, and sustainable transformation.

Mobilizing our collective intelligence towards the sustainability of our partners' assets, our communities and the planet.

- Our Vision

Driving engineering through innovation. Together. Sustainably.

- Our Mission

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Norda Stelo

18
Offices

/ Quebec (11)
/ Ontario
/ Newfoundland and Labrador
/ British Columbia (2)
/ Alberta
/ Utah
/ New Caledonia

+900
Professionals

7
Business Sectors

/ Energy
/ Manufacturing and Processing
/ Railways
/ Mining and Metallurgy
/ Ports
/ Roads
/ Sustainable Communities

Our Commitments

Sustainable Practices

Incorporate the notion of positive impact on our stakeholders and promote a culture of corporate social responsibility (CSR) within the organization.

Certified B Corp, we demonstrate our commitment to the highest standards of social and environmental impact, ethical governance and transparency.

Norda Stelo is Progressive Aboriginal Relations (PAR) certified and has a department dedicated to creating and maintaining partnerships with indigenous people.

Ethics and Integrity

Ensure to uphold the highest standards of ethics and integrity.

Quality

Provide our clients skilled resources, ongoing search for the most effective solutions, and rigorous control over their projects.

Health and Safety

Work to be recognized in the industry as the top firm when it comes to integrating sound occupational health and safety management.

Our Values

Adaptability
Excellence
Innovation
Integrity
Respect
Trust



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Our Solutions

The solutions developed at Norda Stelo bring together the expertise necessary to meet the major challenges of our time and thus offer turnkey support to our clients.

Asset Durability

Reducing the carbon footprint by intelligently extending the life of physical assets while managing risk.

Energy Transition

Adapting to climate impacts while creating a more sustainable and resilient energy system.

ESG and Decarbonization

Helping clients achieve net zero faster while reducing ESG impacts.

Digital Transformation

Improve productivity, reduce costs, increase efficiency, enhance safety through technologies, automation and connected systems.



Innovative Products

Norda Stelo's experts develop cutting-edge technological products. Stelar, the first product to be developed and marketed, has become the essential decision-making tool for any asset manager.

STELAR

Push Decision-Making Forward

A powerful tool that combines human knowledge and data intelligence.

DISCOVER STELAR.AI

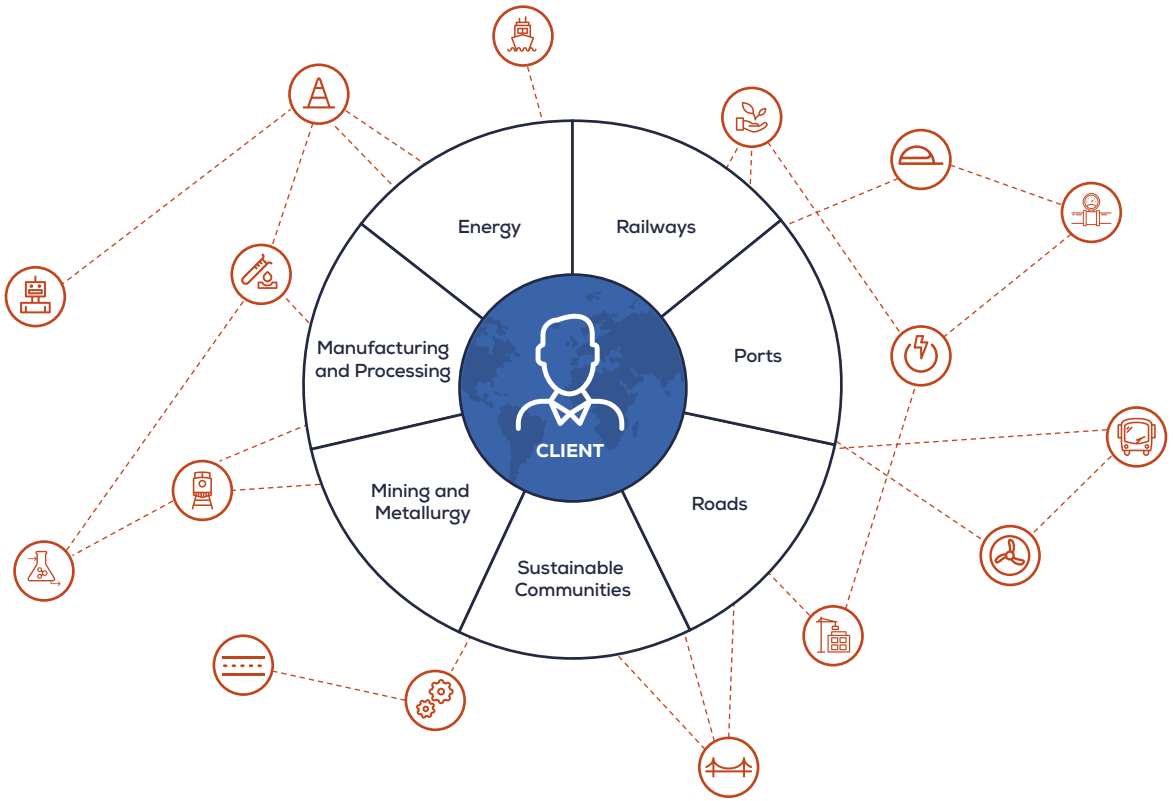
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Our Centres of Excellence

Norda Stelo puts at your disposal all the expertise required to carry out your projects and ensure their perfect integration into their environment.

All of our Centres of Excellence can be made available to you, regardless of the sector of activity in which you operate. The synergy of our teams allows us to meet your engineering needs and to accompany you in all phases of your projects.



- Asset Integrity and Reliability Management
- Bridges
- Building
- Civil Engineering Works
- Electricity
- Environment, Climate Change and Community
- Geology
- Industrial Mechanics
- Instrumentation, Controls and Robotics
- Mining Engineering
- Piping and Pressure Vessels
- Ports and Coastal
- Processes
- Railways
- Roads
- Smart Mobility
- Structures

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Social Acceptability and Environment

- Environmental Studies
- Climates changes
- Air emissions and dispersion modeling (e.g., stacks)
- Water, soil and sediment - sampling and characterization
- Fish habitats, wetlands and biodiversity - compensation and management
- Environmental and social impact assessments
- Stakeholder and community relations analysis
- Public consultations and hearings

Railways

- Structural inspection of railways and bridges
- Design and supervision of railways, rail bridges, switches and railway crossings
- Railway bridges structural assessment (Bridge Rating)
- Railway crossing studies and retrofitting
- Rope access inspection
- 3D surveys and track layout studies for new railways

Asset Integrity and Reliability Management

- Assess the integrity of assets to ensure their fitness for service
- Analysis in order to eliminate the fundamental causes of failures (aging, corrosion, degradation)
- Development of the strategic reliability and maintenance plan (planned outages)
- Training and coaching in reliability and maintenance management
- Optimizing the management of spare parts
- Corrosion protection systems and recommendations on welding procedures

Smart Mobility

- Design of intelligent transportation systems (ITS)
- Mobility integration studies including all modes of transport: walking, cycling, vehicle sharing, public transportation
- Development or re-development solutions for various transportation infrastructure (roads, bike paths, parking, etc.)
- Design of lighting and light-signaling systems

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Instrumentation, Controls and Robotics

Automation and Robotics

/ Machine, production line and robotic cell design
/ On-site facilitator for industry 4.0 migration

Telecommunications

/ Video surveillance, security and access control
/ Mobile applications and geopositioning

Industrial IT

/ Network and database architecture
/ Data processing and production reports

Machine Safety

/ Equipment standards compliance
/ Risk assessment and risk reduction measures (RRM)

Electricity

/ Classification of hazardous locations
/ Expertise in hazardous environments
/ Lightning protection

Industrial Electrical Power

/ Electrical connection of motors, equipment and instruments
/ Equipment retrofitting and power/capacity increases
/ Emergency power (AC and DC)

Distribution Networks

/ Electrical power supply (aerial and underground)
/ Low and medium voltage
/ Design and installation of electrical substations

Bridges

Design and Supervision

/ Design and construction surveillance of bridges and structures
/ Installation and construction plans for launched bridges, ramps, overhead signs, etc.

Inspection

/ Inspection of bridges and structures and recommendations for upgrading
/ Railway bridges structural assessment (Bridge Rating)

Building Mechanics and Electricity

Building Mechanics

/ Plumbing, heating, air conditioning and ventilation design
/ Fire protection and sprinkler systems
/ Steam and process air systems
/ Special gas networks and systems (labs/medical)

Building Electrical Systems

/ Electrical distribution and connections
/ Functional and architectural lighting
/ Fire alarm systems, anti-intrusion and access control
/ Telecommunications
/ Auxiliary and back-up power sources

Roads

/ Needs assessments and solutions studies
/ Design of all road types (highways, expressways, culverts, intersections, etc.) and parking lots
/ Site supervision and construction supervision
/ Surveying of built structures
/ Road traffic and safety signage management
/ Hydraulics and water management
/ Road safety and traffic flow

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Industrial Mechanics

- Equipment design and integration with existing mechanical equipment
- Finite element computations and simulations (bulk flow analysis)
- 3D modelling and 2D drawings
- In-shop monitoring of industrial equipment manufacturing
- Material handling systems conveyors, chutes and transfer towers)
- Handling and lift systems (overhead cranes, hoists)
- Railcar and ship loading and unloading systems
- Dust collection systems
- Stack repairs and strengthening

Structures

- Main and secondary buildings
- Building and storage shed roofing
- Foundations for buildings and equipment
- Monorails, overhead cranes, cranes
- Indoor and outdoor foundation slabs
- Bearing capacity studies

Processes

- Definition of design criteria
- Detailed mass and energy balances
- Technology evaluations and sizing of process equipment
- Development of flow diagrams (PFD) and piping and instrumentation diagrams (P&ID)
- Hydraulic modeling and process simulation tools (PIPE-FLO®, Aspen, HYSYS®, METSIM)
- Development of control sequences and narratives
- Process safety management audits
- What-if and HAZOP risk assessments
- Operation optimization and energy efficiency

Civil Engineering Works

- Aqueduct, sewers, roads
- Connections to municipal services
- Landscaping, parking lots, drainage
- Water management (drinking water, wastewater and runoff)
- Residual materials management
- Land surveys and infrastructure surveying



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Ports and Coastal

Port Facilities and Infrastructure

- Inspection of port structures (bathymetric surveys, Lidar, inspection by divers)
- Repair, upgrading or construction of new structures
- Hydraulic simulations and assessment of impacts on flow, sedimentology, navigation, etc.
- Wharfs: pile-sheeting, timber and concrete cribs, dolphin piles, marinas, riprap
- Mooring bollards: evaluation of bearing capacity

Coastal Engineering

- Coastal erosion and shore protection
- Studies of winds, waves, tides, currents and ice
- Design of coastal protection walls, jetties, and beach replenishment

Piping and Pressure Vessels

Industrial, Commercial and Institutional Sector

- Design of process and service piping systems
- Industrial water treatment
- Tank fleet specifications and inspections
- Loading and unloading liquids and gases
- Pumping, compression and heat systems
- Pipe stress analysis
- 2D and 3D CAD / DAO design of piping and equipment networks
- 3D scanning with laser scanner and modeling from point clouds
- Preparation of plant shutdowns and supervision of works
- Plans and specifications for petroleum equipment design
- RBQ certification audits for petroleum equipment



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Mining Engineering

- Mine planning: Production plan for either short, medium, or long term, production rates and performance parameters and scheduling.
- Economic studies, trade-off studies, financial analysis in NI 43-101 Technical reports and mine budgeting support
- Production engineering support
- Mine design and UG infrastructures: Ore transportation, ventilation network, mine dewatering and pumping system, and misc. facilities
- Stability analysis for open pit and underground mines
- Underground mine services: electrical distribution, communication, automation, and monitoring
- Mine hydrogeology (UG and OP)
- Data review and gap analysis

Geology

- Historical and recent geological data compilation
- Geological database validation and management
- Regional or local geological studies
- 3D modeling of geological features and mineralization
- Assessment of mineral potential in a block model combined with geostatistical studies
- Compliance with the various global technical regulations
- Writing geological reports according to client's needs

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