## Sweden Canada Innovation Days 2023 | Energy Panel

DRIVING THE GREEN TRANSITION

Montréal – October 4, 2023





# The event website has the full **Event Program** available, being updated with all new updates



#### 8:30am - 10:30pm: Welcome, opening remarks and keynote speaker

Hear from ambassadors and government representatives of Sweden, Canada and Québec as they warmly welcome you to Sweden Canada Innovation Days 2023.

#### 10:30am - 12:00pm: Collaborative success stories

Industry leaders will take the stage to highlight successful collaborations between Sweden and Canada towards the Green Transition.

### 12:00pm - 1:00pm: Lunch

A buffet lunch served on location, allowing an opportunity to mingle with fellow industry stakeholders.

## 1:00pm – 3:00pm: Panel discussions – Energy and Mobility

Join your peers in one of two breakout sessions to hear from industry leaders in Energy and Mobility on how they're tackling the greatest challenges faced in both Sweden and Canada.

#### 3:30pm – 4:15pm: Funding opportunities and closing remarks

Learn more about the funding opportunities in Sweden and Canada and listen in on the key takeaways from the event during the concluding remarks.

#### 4:30pm - 6:00pm: Joint networking reception

Cap an exciting day of collaboration with a networking reception, where you will have the opportunity to connect with other industry leaders and discuss insights from the event.

# We have a diverse panel of 9 experts from both Canada and Sweden participating in the Energy panel



## **Edward Murray**

Chief Executive Officer

GREENIRON



## **Lars Hansson**

Chief Executive Officer & Founder





### **Ted Gruetzner**

VP, National Practice Lead, Energy, Environment & Resources

GLOBAL PUBLIC AFFAIRS



### **Jean-Simon Venne**

Chief Technology Officer & Co-Founder

BRAINBOX AI



## **Marie Lapointe**

Chief Executive Officer





## Isabel Cyr

Director of Public and Government Affairs





## **Christopher Ralph**

Manager, Energy
Infrastructure & Sustainable
Mobility

\*\*Transport Control of Control of



## **Jean-Nicolas Paquin**

VP, Electrical Engineering & Expertise





### **Michel Cousineau**

Chief Technology Officer

ar Hydro-Québec



### **Moderator: Archit Dhir**

Director, Foreign Direct Investment – the Nordics





### **Gillian Holcroft**

Chief Executive Officer & Co-Founder



# The draft challenge statements have been continuously adapted to encompass the key areas of expertise of all panelists – to be finalized with your input today

## **Grid Modernization & Energy Optimization**

The power grid is at the core of the energy ecosystem. As the global demand for energy rises, it becomes increasingly vital that grid infrastructure is modernized, and energy consumption is optimized to ensure reliability of supply. What key gaps in grid infrastructure should be addressed to ensure grid stability and facilitate wide-scale integration of renewable resources? What smart solutions can be leveraged to manage grid usage efficiently to optimize supply?

## **Decarbonization & Resource Efficiency**

Every stage of the energy value chain has a pivotal role to play in achieving decarbonization – from the way energy is sourced to the way its used. The energy, industrial and transportation industries create some of the largest carbon emissions globally. Where do we see the greatest need to minimize emissions and maximize resource efficiency? How can we incentivize industries to adopt these processes at a large enough scale to create real impact?

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# The challenge statement will present a 'jumping off point' for the discussion, but you will have the freedom to take your response in the direction you want



## **CHALLENGE STATEMENT**

Sets the stage with a sector wide challenge.



## **RESPONSE**

Discuss why this challenge needs to be addressed and where you fit in.

How does our solution address the above challenge in the energy sector?

What obstacles do we face in implementing this solution?

What do we see as necessary priorities to overcome these obstacles?



This is where you can make it your own and discuss what you see as major roadblocks or untapped opportunities within your space.



## **DISCUSSION**

Comment on each others' responses and take questions from the audience.



This is an opportunity to build off each other's responses, debate, brainstorm and ideate.



# Sweden Canada Innovation Days 2023 Venue & Logistics for Energy Panel Participants

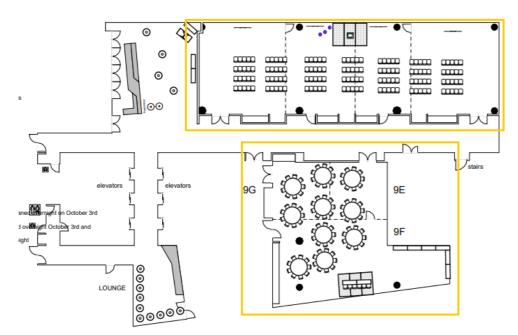
Panels Sweden Canada Innovation Days 2023

**Concept** | Led by a moderator, panelists speak to provide varied perspectives on pre-identified challenge statements, followed by Q&A with audience via Mentimeter

Participating | 40-60 conference delegates (approximate) are expected to be observing the Mobility panel discussion

**Time** | 45 minutes - 1 hour per challenge statement

**Space** | One of the below rooms (highlighted yellow)



Mining Panel, Sweden Canada Innovation Days 2022

## Development and adoption of new technologies to address mining challenges at depth

- How are safety and seismicity affecting the technologies being explored? Conversely, how do some of these new technologies address safety and seismicity challenges?
- How does novel mining methods and alternative mining techniques play a role in addressing safety and seismicity at depth?



# Sweden Canada Innovation Days 2023 Venue & Logistics for Energy Panel Participants

1:00pm – 2:00pm EST Decarbonization & Resource Efficiency











**1:00pm-1:15pm** Brief panellist introductions [2-3 min each, no slides]

- · Name, title, company
- Company focus and sector(s)
- · Relevant experience in energy sector

**1:15pm-1:25pm** Challenge statement posed – initial round of discussions from panelists

- Moderator [Archit] will pose the challenge statement
- Speakers will each have the opportunity to respond to the statement before discussion ensues

1:25pm-1:50pm Expert panel commentary and discussion led by Moderator [Archit]

· Discussion among panelists

1:45pm-2:00pm Audience Q&A

2:00pm – 3:00pm EST Grid Modernization & Energy Optimization











**2:00pm-2:15pm** Brief p

Brief panellist introductions [2-3 min each, no slides]

- Name, title, company
- Company focus and sector(s)
- · Relevant experience in energy sector

**2:15pm-2:25pm** Challenge statement posed – initial round of discussion from panelists

- Moderator [Archit] will pose the challenge statement
- Speakers will each have the opportunity to respond to the statement before discussion ensues

2:25pm-2:50pm

Expert panel commentary and discussion led by Moderator [Archit]

Discussion among panelists

2:45pm-3:00pm Audience Q&A

<sup>\*</sup>Note that time periods of each portion within the hour (1pm-2pm, 2pm-3pm) are rough estimates.



## SCID2023 | Energy Panel

## **Panelist Profiles**



CHRISTOPHER RALPH in Manager, Energy Infrastructure & Sustainable Mobility LION ELECTRIC

**Areas of expertise**: V2X (Vehicle to everything), V2G (Vehicle to Grid), renewable sources for EVs, energy conservation

Challenge: Grid Modernization & Energy Optimization



LARS HANSSON in CEO & Founder
NRLYZE

**Areas of expertise**: Energy management system for buildings, demand-side management,

Challenge: Grid Modernization & Energy Optimization



EDWARD MURRAY in CEO
GREENIRON

**Areas of expertise**: CO2- free iron making process using waste from mining, metals and manufacturing industries, energy mix

Challenge: Decarbonization & Resource Efficiency



MARIE LAPOINTE in CEO & President
AIEQ

**Areas of expertise**: Evolution of electrification in Quebec, decarbonization in heavy industries, green steel

Challenge: Decarbonization & Resource Efficiency



ISABEL CYR in Same Government Relations & Public Affairs Director LITHION TECHNOLOGIES

**Areas of expertise**: Recycling lithium-ion batteries, regulatory framework of Net-Zero, energy mix, circularity

Challenge: Decarbonization & Resource Efficiency



MICHEL COUSINEAU in Chief Technology Officer

**Areas of expertise**: Energy storage solutions for grid stability and energy optimization

Challenge: Grid Modernization & Energy Optimization



JEAN-NICOLAS PAQUIN IN WYP, Electrical Engineering & Expertise OPAL-RT

**Areas of expertise**: Simulation technologies for grid stability, interconnection queues, PHIL and Digital Twins

Challenge: Grid Modernization & Energy Optimization



TED GRUETZNER in VP, Energy, Environment and Resources GLOBAL PUBLIC AFFAIRS

**Areas of expertise**: Indigenous relations management, risks & opportunities in policy & regulatory frameworks

Challenge: Decarbonization & Resource Efficiency



JEAN-SIMON VENNE ID XX CTO & Co-Founder BRAINBOX AI

**Areas of expertise**: Energy management system for buildings, AI smart grid management

Challenge: Grid Modernization & Energy Optimization



GILLIAN HOLCROFT in CEO
GREEN GRAPHITE TECHNOLOGIES

**Areas of expertise**: Green graphite production for EV batteries, energy consumption reduction in mining processes

Challenge: Decarbonization & Resource Efficiency

## **GDECARBONIZATION & RESOURCE EFFICIENCY**

Every stage of the energy value chain has a pivotal role to play in achieving decarbonization – from the way energy is sourced to the way its used. The energy, industrial and transportation industries create some of the largest carbon emissions globally. Where do we see the greatest need to minimize emissions and maximize resource efficiency? How can we incentivize industries to adopt these processes at a large enough scale to create real impact?











## **GRID MODERNIZATION & ENERGY OPTIMIZATION**

The power grid is at the core of the energy ecosystem. As the global demand for energy rises, it becomes increasingly vital that grid infrastructure is modernized, and grid usage is optimized to ensure efficient consumption and reliability of supply. What key gaps in grid infrastructure should be addressed to ensure grid stability and facilitate wide-scale integration of renewable resources? What smart solutions can be leveraged to manage grid usage efficiently to optimize supply?











## Sweden Canada Innovation Days 2023 | Event overview

DRIVING THE GREEN TRANSITION

Montréal – October 3-5, 2023



## **Program for Sweden Canada Innovation Days 2023**

Montréal – October 3-5, 2023

Date Venue	Tuesday October 3  Multiple venues	Wednesday October 4 Venue: Concordia University John Molson Building, 9th floor		Thursday October 5 Venue: Hyatt Centric Ville-Marie 621 Notre Dame Est	
8:30-9:00	Discovery Tour – all day Organized by SISP	Registration and coffee		Matchmaking** Organized by Ignite	Site tour Nova Bus
9:00-10:15		Opening remarks by government representatives of Sweden, Canada and Québec		Matchmaking** Organized by Ignite	Site tour Nova Bus
10:15-10:30		Coffee break		Coffee break	
10:30-12:00		Swedish Canadian Success Stories Introduction of Swedish start-ups		Matchmaking** Organized by Ignite	Site tour Nova Bus
12:00-13:00		Networking lunch		Lunch	
13:00-15:00		Energy Breakout session	Mobility Breakout session		
15:00-15:30		Coffee break			
15:30-15:50		Energy and mobility – challenge statement summary			
15:50-16:30		Funding opportunities Closing remarks			
16:30-18:00	VIP dinner* (18:00 – 21:00)	Joint networking reception			

<sup>\*</sup>By exclusive invitation \*\*Matchmaking between pre-selected Canadian corporates and Swedish startups

## The event website has a preliminary event program, which will be updated as we confirm various details



#### 8:30am - 12:00pm: Welcome and keynote speakers

Opening remarks by government representatives of Sweden, Canada and Québec, keynote speakers and industry leaders highlighting successful collaborations between Sweden and Canada towards the Green Transition.

### 12:00pm - 1:00pm: Lunch

A buffet lunch served on location, allowing an opportunity to mingle with fellow industry stakeholders.

#### 1:00pm - 3:00pm: Panel discussions - Energy and Mobility

Join your peers in one of two breakout sessions to hear from industry leaders in Energy and Mobility on how they're tackling the greatest challenges faced in both Sweden and Canada.

## 3:30pm – 4:30pm: Energy & Mobility challenge statement summary, Funding opportunities and closing remarks

Catch-up on what you might have missed in the other panel, learn more about the funding opportunities in Sweden and Canada and listen in on the key takeaways from the event during the concluding remarks.

#### 4:30pm - 6:00pm: Joint networking reception

Cap an exciting day of collaboration with a networking reception, where you will have the opportunity to connect with other industry leaders and discuss insights from the event.

We have a great network of organizations supporting this event as sponsors and collaborative partners



## **Collaborative Partners**

















## What are the most relevant challenges to discuss within the mobility sector in Canada, Québec and Sweden?

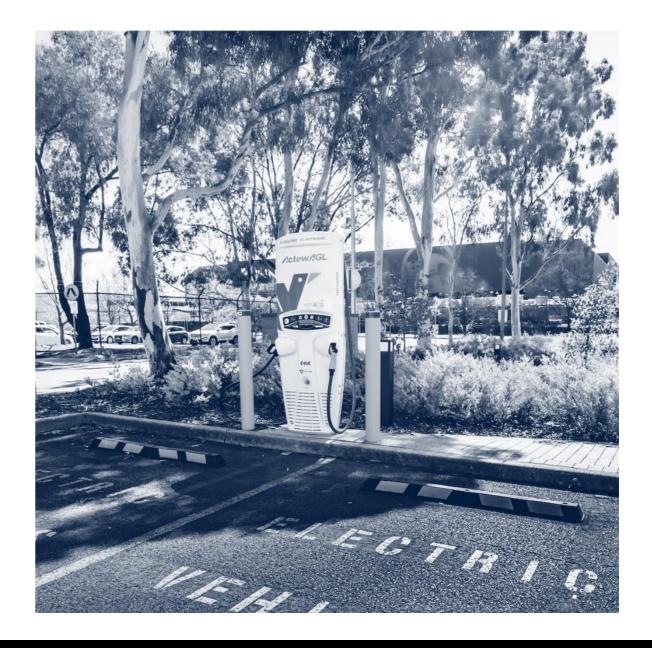
#### PROPOSED CHALLENGE STATEMENTS

### **Development of EV Charging in the next 3-5 years**

• The robustness, reliability, and calculation of cost in electric vehicle charging are most common criticisms of EV charging infrastructure. How can these challenges be addressed in the next 3-5 years?

### **Electrifying Mass Transit and Fleets**

- Though the cost of electric vehicle systems has been falling and is expected to decrease, many Canadian mass transit systems currently rely on diesel, less than one per cent of all rail tracks are electric, and few electric commercial fleets systems have been adopted en masse.
- What can be done to drive the adoption of electric fleet systems in Canada? What are opportunities for conversion, retrofit, and recreation of mass transit and commercial fleets to fit an electric future?



## We have a diverse panel of experts from both Canada and Sweden participating in the Mobility panel























**Moderator: Cédrick Lalaizon** 

Director, Innovation & Experimentation

propulsion Québec

## What are the most relevant challenges to discuss within the energy sector in Canada, Québec and Sweden?

#### PROPOSED CHALLENGE STATEMENTS

### **Grid modernization & Energy Efficiency**

 The power grid is at the core of the energy ecosystem. As the global demand for energy rises, it becomes increasingly vital that grid infrastructure is modernized, and energy consumption is optimized to ensure reliability of supply. What key gaps in grid infrastructure should be addressed to ensure grid stability and facilitate wide scale integration of renewable resources? What smart solutions can be leveraged to manage grid usage efficiently to optimize supply?

### **Decarbonization & Circularity**

 Every stage of the energy value chain has a pivotal role to play in achieving decarbonization –from the way energy is sourced to the way its used. The energy, industrial and transportation industries create some of the largest carbon emissions globally. Where do we see the greatest need to minimize emissions and maximize resource efficiency? How can we incentivize industries to adopt these processes at a large enough scale to create real impact?



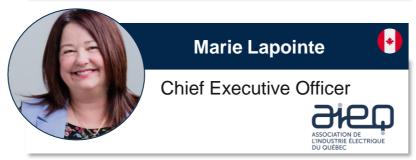
# We have a diverse panel of (6+) experts from both Canada and Sweden participating in the Energy panel























BUSINESS SWEDEN 8

Investissement Québec

## As of now, 250+ invitations has been sent out to companies and organizations in Sweden and Canada





# As of now, 139 attendees have registered interest to attend representing 70+ Swedish and Canadian companies and organizations

#### **Sweden**

- ABB
- Atlas Copco
- Algoryx Simulation
- Business Sweden
- Canadian Embassy
- Elonroad
- Epiroc
- Ericsson
- Flasheve
- Gordian Logistics Optimization Systems
- Greeniron
- Ignite Sweden
- · Lumber Tech Sweden AB
- Mentimeter
- Nordic Renew Resource AB
- Nrlyze AB
- Polestar
- RISE
- Rocksigma
- Saab
- Sentian Al
- Stint
- · Swedish Mining Innovation

- Swedish-Canadian Chamber of Commerce
- Swedish Embassy
- Vinnova
- Volvo Group

## Canada

- AIEQ
- · Arup Canada Inc.
- BrainBox AI
- Biotherma Technologies Inc.
- Canadian Embassy
- Centech
- Centennial College
- Champion Iron
- Charbone Hydrogen
- Cléo
- Concordia University
- Couche-tard
- DLA Piper
- Durand Lex
- ELITS
- Export Development Canada
- Fasken
- · Global Affairs Canada
- Global Public Affairs
- · Green Graphite Technologies
- HEC Montreal
- Hydro-Québec
- InnovÉE
- · Invest in Canada
- Invest Québec
- IVADO
- Kingston Process Metallurgy Inc.

- Laserax
- Lion Electric
- Mitacs
- Montréal International
- Nano One
- Niagara College
- NRC
- Opal-RT
- OPTEL Group
- Propulsion Quebec
- · Québec Government
- Québec Ministry of Economy, Innovation and Energy
- · Roctest Ltd.
- Schneider Electric Canada
- · Service intégré du bois
- · Sheerbrooke-Innopole
- · SimWell Consulting & Technologies Inc.
- Syntronic
- Zone d'innovation de la Vallée de la transition énergétique