

Global Affairs Europe Roadshow – Hannover and Paris

Mission Report

April 15-21, 2023

Amanpreet Bhatti and Matt Labine

Executive Summary

Edmonton Global was proud to participate in the European Investment Roadshow, a prestigious event organized by Global Affairs Canada. Our team joined over fifteen other municipalities and traveled across Hannover and Paris, where we engaged in B2B sessions organized by lead generators and reached out to various companies during the Hannover Messe.

Our discussions with these companies highlighted the growing importance of hydrogen and AI, especially in Germany where green hydrogen is gaining momentum as a solution to meet ambitious EU green energy goals. We discovered that many large-demand companies, such as those in steel manufacturing, are looking to import hydrogen to meet their demands, and innovative solutions such as LOHC are emerging to address the challenges of long-distance hydrogen movement.

In addition to these productive meetings, we had the opportunity to engage with TCS Officers from Europe, UAE, and Africa at a special meet and greet organized by Global Affairs. We shared our value proposition and notable updates, while also gaining a better understanding of how we can continue to collaborate.

Moving forward, we plan to provide further information and make appropriate introductions to Senior BD Managers for the companies we met with. For those based in Germany, we have invited them to join us at the Mission to Frankfurt, which will be organized in partnership with YEG airport. Overall, we believe that our participation in the European Investment Roadshow was a success and has opened new opportunities for collaboration and growth.

Hannover Messe April 17-18



Meetings at Hannover Messe

Salzgitter & Mannesmann

<https://www.salzgitter-mannesmann-international.com/>

Philip Tschinke, Head of Brussels, Public and Regulatory Affairs

Tschinke.p@salzgitter-ag.de



Display showing the transition from coal-based steel to hydrogen.

Salzgitter Group has been synonymous with the innovative and sustainable manufacture of steel and technology products. Their core competencies are in the production of rolled steel and tube products, as well as their processing and the global trade in these goods. In addition, they are also successful in the field of specialist machinery and plant Engineering.

The strategy of Salzgitter AG 2030 is focused on circularity and the principle of resource-conserving closed loops of energy and materials with a low Co2 footprint. One big focus to achieve this strategy will be transitioning to hydrogen and the need to import hydrogen to meet demand. Long term goal is green hydrogen but expects only 5% of its demand to come from green hydrogen from the region. They need to import. Interest follows from the

discussion of our regional strengths on net-zero hydrogen. this is a good opportunity for EG to continue the conversation with them and share the appropriate information on the hydrogen sector.

Next Steps: Reach out and share more information on the region. Introduce them to Brent L.

AEG Industrial Engineering

(<https://aeg-ie.com/en/welcome-to-the-world-of-aeg/>)

Andreas Emmert

Andreas.emmert@aegps.com

Power generation and power engineering, drive and plant engineering, components and spare parts, maintenance, and service, are the industrial core fields of AEG Industrial Engineering AG. The main focus of their plant engineering is on switchgear and switchgear equipment, drive and automation systems, transformers and generators/turbines, and gas engine diesel gensets. They work in the oil and gas sector. Their focus for hydrogen is between the power grid and the electrolyser.

Next Steps: Will ask Brent L if there is interest in continuing conversation there.

E-Mobile

Stephen Buchele

Startup/SME Cluster in Baden-Wurttemberg, Germany - The most successful region for industrial projects. Cluster supports >200 companies with main strength in auto manufacturing.

Interested in collaboration, can start by hosting webinars from our region. Hydrogen hub and carbon capture mentioned as specific interests. They have a mobility focus; our 5000 vehicles challenge is a good fit. E-Mobile is hosting an Ontario delegation some with the main topic of AI being the focus.

ADSTec

<https://www.ads-tec-energy.com/en/>

Rene Weilharter,

r.weilharter@ads-tec-energy.com

Battery-buffered EV charging stations. Operates on the open standard. Seeing big interest from traditional gasoline stations to install EV charging stations. Currently manufacturing in Stuttgart and Alabama. Will expand as the markets grow. ADSTec is publicly traded. They operate on a contract with Slate Asset Management. Main US project is Philips 66.

Emerson

<https://www.emerson.com/en-us/automation/fluid-control-pneumatics/hydrogen-fuel-production>

Helping OEMs with hydrogen fuel production solutions, such as building electrolyser's, fuel cells, and fueling equipment to drive energy transformation and decarbonization. As a leading expert in hydrogen production electrolysis and cell production, Emerson can help scale hydrogen-based technology while controlling costs and always maintaining the highest standards for safe production and application deployment. Their partners include Air Products, Mitsubishi, and Petronas.

Lattice International AS

<https://lattice-technology.com/>

Lattice International AS is a supplier of LPV (Lattice Pressure Vessel). This is a free-form pressure tank for the storage & transportation of industrial liquid gases such as LNG, LH2, LPG, NH3, LCO2, etc. that can be adapted to any space and shape- for ships, terminals, production facilities, and trailers, as well as standalone fuel tanks for ships, land vehicles, and flying vehicles.

H2 Global

<https://www.h2-global.de/>

The purpose of the H2Global Stiftung is to promote the protection of the environment and the climate as well as the promotion of science and research. This will be achieved by measures that serve to promote the production and use of Green Hydrogen and other climate-neutral energy carriers at national and international level.

SFC Energy

<https://www.sfc.com/>

Bjorn Ledergerber, Senior Vice President/ Hydrogen & Corporate Development

Bjoern.ledergerber@sfc.com



Methanol based and hydrogen-based electricity generators, designed for extreme cold.

SFC Energy AG is a leading provider of hydrogen and methanol fuel cells for stationary and mobile hybrid power supply solutions. With the Clean Energy and Clean Power Management business areas, SFC Energy AG is a sustainably profitable fuel cell producer.

They have a hydrogen generator pilot in Calgary. About 80 people work there. We saw a methanol power generator as well.

They want to build a pilot item in Edmonton. They are present at Hydrogen Convention. They are interested in the movement of hydrogen and being present at the point of use. Hydrogen is hard to transport. They are interested in the diesel generator market for remote mining operations. Any opportunity for them involves custom engineering expertise. They do not want to go off the shelf.

Burckhardt Compression

<https://www.burckhardtcompression.com/>

Oliver Franz, Sales Manager for the North American Region.

Oliver.franz@burckhardtcompression.com

Played hockey with Jordan Eberle – was very interested to share that fact!

Burckhardt Compression creates leading compression solutions for a sustainable energy future and the long-term success of its customers. Its customized and modularized compressor systems are used in the Chemical/Petrochemical, Gas Transport & Storage, Hydrogen Mobility & Energy, and Industrial Gas sectors as well as for applications in Refinery and Gas Gathering & Processing. Mentioned sour gas plants like Husky among many of the Edmonton region plants. Their colleague in Canada attended the hydrogen convention.

Next Steps: have their colleague come into the office and meet with the team, specifically Brent L.



Hydrogen engine seen from the floor show.

Hannover Messe Events Worldwide (joint with IAC and CED)**Meike Sauer, International Product Director**

Meike.sauer@messe.de

This was a generic meeting to better understand the events they host worldwide and see if there is potential for them to bring these events to Alberta.

Meetings organized by lead generator.



Brighter AI

<https://brighter.ai/>

Marian Glaeser, CEO/Co Founder

marian@brighter.ai

Brighter AI is a young AI company from Germany that has been named “Europe’s Hottest AI Startup” by Nvidia. Their technology is called the world’s most advanced image and video redaction technology. It anonymizes faces and confidential data on videos.

They are looking for a North American office. Currently looking at San Francisco. The team would be comprised of engineers, customer support, sales, and one of the managing directors. The AI researchers are in Berlin. Discussed Upper Bounds in May but the timing may not work.

Next Steps: Share more info on AI/Tech. Is there an opportunity to host from July to August? Interests are health and medical devices, logistics and warehousing, and smart cities.

Oort Energy - <https://oortenergy.com/>

Marcus Bull, CCO

m.bull@oortenergy.com

Oort Energy is a young, highly innovative company in electrolysis with a disruptive innovative approach to electrolyzer manufacturing, making market adoption cost-effective based on the Polymer Electrolyte Membrane (PEM). The company’s mission is to deploy its electrolysis technology globally. As the world’s hotspot for fuel cells and hydrogen business, Canada is of primary interest to Oort Energy. PEM Hydrogen Electrolysis technology is designed to be a modular 250KW stack with can be connected in series to multiply the output. (4x250KW = 1MW). They have semi-automated manufacturing of the PEM Hydrogen units. Currently operating in Bristol, UK where they can manufacture 50MW per year.

They see a fit with the oil and gas sector and need a manufacturing site.

Next Steps: provide information on incentives to attract investment, a reasonable timeline to completion, transport connectivity, talent pool, and balance of plant engineering expertise. He is interested in a site visit.

PSIORI

<https://www.psiori.com/>

Volker VoB, Managing Director

volker@psiori.com

PSIORI is a German company in Artificial Intelligence and Machine Learning. They have already developed several projects, e.g., for Daimler in the field of engine analysis. Another project integrates Artificial Intelligence and Deep Learning in the Medical Environment, including Big Data Technology for Medical Studies and Registries, visualizing large data sets, simplifying clinical documentation, and data science tools for clinical studies and registries. PSIORI has 3 locations in Germany but nothing yet abroad. Canada could be a first step. Major successes in Daimler Engine Tech (knocking detection) and crane automation. So far, they have seen an opportunity with the pulp and paper mills automating their cranes. They are working with Andritz in Vancouver and the Canadian Crane Rental Association. They see growth in Canada with overhead cranes and want to expand. They want to expand in a region with a talent pipeline. The goal would be to relocate 5-10 German employees and have them hire local talent. The local staff then works with project implementation (customer fit on their autonomous solutions)

Next steps: Share more information on the AI/tech sector in EMR. Introduce them to Madison.

Hydrogenious LOHC Tech

<https://hydrogenious.net/>

Joshua Thibaud Hofmann, Regulation and Policy manager

Joshua.hofmann@hydrogenious.net

Hydrogenious LOHC Technologies GmbH is a developer of efficient hydrogen storage for multi-MWh energy storage systems in the form of Liquid Organic Hydrogen Carriers (LOHC). The young company can build on a wide range of cooperation partners (e.g., Schaeffler group) and shareholders (Covestro, Mitsubishi, Hyundai). The LOHC technology is considered a key technology that could considerably facilitate the handling and utilization of fuel cells in all applications. The startup company is not yet present abroad. However, Canada could be a perfect platform for further development, testing and scaling technologies and collaborating in the various research and cluster initiatives. Hydrogenous has invested 80 million euros so far. Interested in the cheapest prices they can find on hydrogen and not worried about the green vs blue debate. Their tech can be applied at the point of use to allow for direct fueling. The current project is IPCEI in the Nordics, Netherlands, and Germany.

Next Steps: Share presentation on EMR hydrogen value proposition.

Meeting with TCS in Germany**Jordan Khan**

Science and Technology partnership person for Germany. The German R&D budget is 100 billion euros. Partnership potential with NRC IRAP and their German counterpart ZIM. A very common starting point for projects is an R&D project before larger investments occur.

Hendrick Taulin and Detlaf Engler – Berlin Office

Highlighted the strong relationship between our organizations. Detlef discussed the importance of culture when meeting with European investors. Our propensity is to overload visits with tours and PowerPoints, European investors want the familial and cultural side to play a larger role. Hendrick also mentioned KMW and will be providing us with an update once he speaks with Omar.

Paris Embassy and Residence Apr 19-20, 2023



Evening reception at the Official Residence of Canadian Ambassador, Stéphane Dion

Meetings at the evening reception.

Mérieux

Thierry Chignon, Thierry.chignon@merieux-partners.com

Invested into an Integrated Pest Management manufacturer in Leamington, ONT. The region has major greenhouse food production. Merieux was not interested in further investment unless it is an acquisition.

ANJAC Health & Beauty

Have acquired two Canadian pharmaceutical/ingredient manufacturers. They typically expand through acquisitions, as Apollo mentioned in Ontario. Matthieu mentioned supplying L'Oreal with one ingredient.

Soitec

Michael Reiha, Singapore silicone supplier. Has family in Calgary. A major customer of theirs in Applied Nano Technology from Edmonton. Michael runs the Singapore office. He is interested in coming for a visit to see ANT. Possibility to host him in our office.

TotalEnergies –

<https://totalenergies.com/>

Isabelle Capaldi– Lureau, Global Lead Originator

TotalEnergies SE is a French multinational integrated energy and petroleum company founded in 1924 and is one of the seven supermajor oil companies. Hydrogen is on their radar. Met with their lead on hydrogen projects. She is planning to come to the hydrogen conference to learn more about Canadian initiatives.

Next Steps: Introduced Isabelle to Malcolm at CHC. Will introduce her to Brent L as well.

Cold Pillow Startup

Interested in locating a distribution office in North America. Eighty percent of his customers are in North America. Currently, they direct ship to customers from Hong Kong distributor/manufacturer. Toronto is focus of Canada. We presented the logistics opportunity from the Edmonton Region. Most companies perceive the time change and lack of direct flights as main detractors from Western Canada.

Fives

Frederic Penza

Engineering firm with major hydrogen projects. Is taking pragmatic view of the colours of hydrogen. Has had a Quebec project fall through previously. Interested in the Edmonton ecosystem. A colleague is attending the hydrogen convention.

Everblix

Arnaud Roquel

Employs eight engineers in software and hardware. Agtech firm interested in the Canadian market. Technology currently implemented in greenhouses and vertical grow systems like tomatoes and strawberries for disease detection and yield prediction. Technology also being implemented on tractor automation for broad acre crop production systems. Interested in a potential project with Olds College with their smart farm. Pipeline integrity monitoring is another project. Send more info on our pipeline integrity companies to ensure there is no confusion in translation. Arnaud is looking to enter the Canadian market.

B2B Meetings organized by lead generators.

EGIS

<https://www.egis-group.com/>

Emmanuel Legrand, Chief Commercial Officer

Emmanuel.legrand@egis-group.com

Egis is an international company active in the consulting, construction engineering and mobility service sectors that design and operate intelligent infrastructure and buildings. Egis operates in 120 countries and has 16,000 employees.

They are currently contracted as the firm working on the Edmonton LRT expansion in Millwood's.

They are looking to grow their presence in Canada. They see Edmonton as an opportunity with the growing LRT lines.

Next Steps: Provide a list of engineering firms in Edmonton that would be interested in partnership or acquisition, information on immigration, post secondaries with engineering programs, information on what they would need for their engineers' degrees and accreditations to be accepted.

H2V Net – www.h2v.net

Yannick Bonin, Director of Development, France, and Europe.

Yannick.bonin@h2v.net

Green hydrogen investors are interested in the regional hydrogen ecosystem. They are building toward a fleet of three thousand trucks, and hydrogen refueling stations.

Current electrolysis projects are 200 MW and 600 MW in Europe with regulatory approvals in place. They have an MOU with a company interested in taking their hydrogen for green steel (mentioned direct reduced hydrogen). They currently operate with PPA's – agreements for green power with the power supply companies. Sustainable aviation fuel produced with methanol and CO2 is a secondary opportunity after we discussed the regional carbon capture assets.

The company already had a list of major regional projects of interest. They want to build green electrolysis and sign MOUs with the regional companies for hydrogen agreements. They want connections into the companies.

Next steps: Follow up with more information and potentially introduce them to Brent L.

Energy Pool

<https://www.energy-pool.eu/en/>

Luc Chabas, International Development

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Tatiana Depollier, active Factory Project manger

Tatiana.depollier@energy-pool.eu

Energy Pool manages and optimizes the energy consumption of complex systems (industrial sites, distributed generation, renewable energy, storage asset, etc.) for a smarter and more sustainable energy management. These flexibilities enable the easy integration of renewable energies, help reduce CO2 emissions, and achieve substantial savings.

They have shown great interest in the Edmonton region. First step for them is to be introduced to power providers like, Atco, EPCOR, Fortis, Altlank. They want to understand what they would need to move to a path of decarbonization.

Saipol (Joint with IAC)

<https://www.saipol.com/>

Emilie and Christophe

Saipol is the French leader in processing rapeseed and sunflower seeds and one of the European leaders in the crushing sector, refining vegetable oils, and producing biodiesel. Canola / Flax Seed crusher in France. Processes 2/3rds of the French flax. They import from Canada already and are interested in certifying Canadian farms to their sustainability standard. They use Bureau Veritas as the third-party certification body. Currently, they collocated with American offices with the company NuSeed in Calgary. They also work with Corteva on seed genetics side.

Mainly interested in: (1) contracts directly with producers who meet the sustainability requirements of their customers; (2) new flax/canola varieties with higher protein content.

Company mentioned a partnership with Botaneco's oleosome technology. They also mentioned working with Richardson.

Opportunity to share information on regional farmers and hope to setup an office in the region. Important to keep the relationship warm and share updates from the regional Ag front wherever possible. Especially stories with sustainability in the lead. They have a contact in the America's who moves between Australia and Canada as the seasons change. Opportunity to host this person and tour the regions ag assets.

Requested info on nitrogen application rates for the region. They are currently paying an eight hundred euro/MT (major premium) for sustainably produced canola. They are importing 1.8 MMT per year from Canada.

Question on Prince Rupert – is there a grain terminal? The company is currently shipping through Vancouver and then sailing the Panama Canal.

Avenir Déconstruction

<https://www.avenirdeconstruction.com/>

Jean-Phillipe Renier

Interested in the region for deconstruction purposes. The owner specializes in asbestos removal and general deconstruction activities. We presented the region as growing and economically strong with a movement toward densification. Five target companies were shared.

Follow up on company information and rate in infill construction in the region. Further, interested in understanding the size (revenue) of the shortlisted companies and whether they are open to acquisition.

Senoble (Joint with IAC)

Nathalie is the CFO, Senoble is a large family-owned desserts manufacturer. Two factories in France, main ingredients are eggs, milk, and cream. Currently white labelling comprises majority of products with 28 MMT per year produced. Second company is a frozen dessert manufacturer with products in the French and Spanish markets. Interested in an opportunity in North America with NY, Philadelphia and Washington markets mentioned specifically as test markets. Main products where are rice pudding and crème brulee. They have large white label contracts with USA Costco. Senoble is eyeing an expansion in 2024-2026 to serve North America and S. Korea. Presented the regional strengths with a focus on access to markets and access to dairy quota. Shared English Bay success story for a rural greenfield area with access to a strong labour pool.

To follow up on market trends on French desserts in Canada. Interested in cost of production for milk, cheese, and dairy ingredients. Interested in food companies present in the region and consumer preference for French desserts.

Conclusion

We achieved success in our mission by effectively setting up meetings through both lead generators and our own efforts. Our focus was on promoting the value proposition of the Edmonton region, specifically in the burgeoning hydrogen sector. Although most European companies are increasingly interested in green hydrogen, they recognize the need for other viable options to meet their demands.

Moving forward, we plan to provide these companies with our comprehensive hydrogen presentation, as well as share information on upcoming events such as CHC 2024 and CCUS 2023. We also look forward to extending invitations to the Frankfurt mission events, which we are confident will further strengthen our partnerships.

Furthermore, our meetings with European TCS officers were highly productive, with the majority of them already having a solid understanding of the Edmonton region, thanks in part to our virtual webinars and sharing of our recent accomplishments.

