



→ SPEAKER: **EMILIE BODOIN**

# BUILDING NEXT-GEN BATTERY INDUSTRIES FROM THE GROUND UP

Pure Lithium's CEO **Emilie Bodoïn** discusses the challenges and opportunities for establishing green metals value chains and how can they be achieved in the region

Although KSA has neither a battery materials supply chain nor a battery industry, it has a unique opportunity to transform its economy across the entire green metals value chain, becoming leaders in next-generation battery production. This presents a tremendous opportunity to build both industries from the ground up, integrating them from day one and learning from industry's mistakes.

Battery value chains are disjointed, complicated and have a myriad of geopolitical complexities. The recent Chinese announcement tightening export controls for graphite has emphasized the urgency of governments developing their own green metals value chains

and battery production capacity. But to build a localized supply chain requires a plethora of natural resources and, most importantly, inexpensive battery technology that is safe and tailored for local climates.

This region holds several advantages: abundant reserves of minerals crucial for green metals production; a robust financial sector; and a government committed to supporting the green economy with intent to deploy. However, challenges exist: lack of infrastructure to produce battery materials; lack of know-how; and no suitable technologies. Working with Pure Lithium will help KSA overcome



these challenges and accelerate the development of green metals value chains.

Pure Lithium's pioneering and innovative battery technology surpasses traditional batteries in energy density, cost-effectiveness, and environmental impact, requiring no cobalt, nickel, manganese or graphite. KSA has lithium present in oilfield brines that

can be unlocked with Pure Lithium's Brine to Battery™ technology, producing a lithium metal battery electrode – a full component for a next-generation battery, rather than the 40-year-old Lithium-ion

battery - in just one day! KSA also has vanadium, which is used as a cathode material in Pure Lithium's battery. Working together, Saudi Arabia can access cutting-edge battery technology, leveraging it to establish new green metals value chains.

For more information, visit [www.purelithium.io](http://www.purelithium.io).

→ OUTDOOR EXHIBITOR: **IVANHOE ELECTRIC** STAND: **M05**

## TECHNOLOGY EXPERTISE WILL UNLOCK KSA'S SIGNIFICANT MINERAL ENDOWMENT

During Future Minerals Forum 2023, Ivanhoe Electric and Saudi Arabian Mining Company Ma'aden announced the formation of a groundbreaking 50/50 joint venture (the "Joint Venture") to explore for minerals on a vast area of the Arabian Shield in the Kingdom of Saudi Arabia. The Joint Venture, the first of its kind in Saudi Arabia, will deploy Ivanhoe Electric's proprietary and powerful Typhoon™ geophysical surveying system over ~48,500km<sup>2</sup> of underexplored lands. Typhoon™ was developed specifically to

identify deep geophysical anomalies in environments that have highly resistive surface conditions, such as those seen in Saudi Arabia. Typhoon™ is ideal for deep surveying where the bedrock is hidden by sand and gravel cover that can exceed one kilometer in depth.

Ivanhoe Electric's subsidiary, Computational Geosciences Inc. ("CGI") utilizes complex, proprietary machine-based learning software to interpret the large datasets generated by Typhoon™ and provides three-dimensional models to assist in drill target identification. The

combination of Typhoon™, CGI and the expertise of Ivanhoe Electric's and the Joint Venture's local exploration team will support one of the largest geophysical surveys for minerals ever conducted in Saudi Arabia. Ivanhoe Electric is proud to partner with Ma'aden to unlock the significant mineral endowment of the Kingdom of Saudi Arabia, and to find new sources of critical minerals required to support the global energy transition and Vision 2030.

Ivanhoe Electric delivered the first Typhoon™ system into Saudi Arabia in October 2023, and initial surveys



are underway. Three new generation Typhoon™ systems will be delivered to the Joint Venture during the first half of 2024. Ivanhoe Electric is pleased to announce that one of its Typhoon™ systems will be on display during FMF 2024, at Ivanhoe Electric's stand #M05, located outside the King Abdulaziz International Conference Center.

Ivanhoe Electric is proud to be the Technology Sponsor for FMF 2024.