Pulsenics announces collaboration with Hyzon Motors to advance the decarbonization of heavy-duty trucking

The Project receives support from the Ontario Vehicle Innovation Network (OVIN)

TORONTO, ONTARIO, CANADA, February 12, 2024 /EINPresswire.com/ -- Pulsenics, a leading provider of advanced impedance spectroscopy and data solutions, is proud to announce a project collaboration with Hyzon Motors, a global supplier of hydrogen electric vehicles.

> Optimizing hydrogen efficiency and fuel cell durability will be key in providing total cost of ownership similar to current diesel vehicles."
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> *Dr. Christian Mohrdieck, Hyzon Motors CTO*

The project partnership is supported by the Government of Ontario through the Ontario Vehicle Innovation Network (OVIN), the flagship automotive and mobility sector initiative of the Government of Ontario led by the Ontario Centre of Innovation.

"With a world-class workforce, state-of-the-art R&D facilities, and an abundance of critical minerals, Ontario has secured its position as a global leader in the auto sector," said Vic Fedeli, Minister of Economic Development, Job Creation and Trade. "As Ontario continues to build a stronger and more sustainable future, this collaboration between Pulsenics Inc. and Hyzon Motors will play a key role in advancing innovation and fostering economic growth across the electrified and less carbon-intensive transportation technology sector. We look forward to your success."

This project aims to unlock novel performance optimization capabilities for hydrogen electric heavy-duty trucks, which use hydrogen fuel cells as a promising alternative to conventional diesel engines. Whilst the cost of hydrogen-electric trucks is currently higher than diesel-powered trucks, maximizing fuel cell efficiency, performance, and durability is expected to significantly drive down costs and introduce competitive economics compared to conventional trucking.

Under the partnership, Pulsenics' proprietary monitoring technology, powered by spectroscopy, will be leveraged to provide real-time visibility into the internal conditions of Hyzon Motors' fuel cells, including the critical performance metric of membrane hydration: a key determinant of fuel cell performance and durability.

“Historically, real-time monitoring of fuel cell membrane hydration has not been commercially possible, making real-time performance efficiency management complex, expensive, and time-consuming. By tackling this challenge, this project significantly contributes to ongoing efforts to accelerate the development and deployment of fuel cell technologies for heavy-duty trucking applications,” said Mariam Awara, Pulsenics COO.

"We are thrilled to have the support of OVIN and to partner with Hyzon Motors to introduce novel monitoring capabilities to enhance fuel cell performance for heavy-duty trucking. We believe this partnership will accelerate the adoption of sustainable transportation solutions through meaningful performance and economic efficiencies," said Dr. Essam Elsahwi, Pulsenics CEO.

“As Hyzon works to accelerate the adoption of fuel cell powered vehicles internationally, optimizing hydrogen efficiency and fuel cell durability will be key in providing total cost of ownership similar to current diesel vehicles,” said Hyzon Motors Chief Technology Officer (CTO) Dr. Christian Mohrdieck. “Hyzon looks forward to integrating Pulsenics’ promising monitoring technology into our proprietary fuel cell systems to generate real-world learnings.”

By 2050, the clean hydrogen economy is estimated to generate 350,000 new jobs and $50 billion in domestic market revenue in Canada.

“Ontario is leading the automotive and transportation revolution and our companies are commercializing leading-edge technology that will shape how we move people and goods in the future. The partnership between Pulsenics Inc. and Hyzon Motors is another great example of how Ontario companies are advancing sustainable transportation while generating new employment opportunities across our province,” said Raed Kadri, Head of OVIN.

This nearly $1.7M project has received support from the Government of Ontario through the Ontario Vehicle Innovation Network (OVIN) and industry contributions.

About Pulsenics
Pulsenics is enabling the industrialization of electrochemical technologies with novel impedance spectroscopy and data solutions. By introducing real-time performance diagnostics, Pulsenics is making it possible to monitor the internal conditions of electrochemical systems without the need for shutdown. Through its use of spectroscopy, Pulsenics is able to non-disruptively monitor changing electrode, membrane and electrolyte conditions from within an electrochemical system in operation, leading to improved durability, efficiency and reliability. Partnering with industry leaders, Pulsenics is paving the way forward toward a more reliable and efficient electrochemical industry. www.pulsenics.com

About Hyzon Motors
Hyzon Motors is a global supplier of high-power fuel cell technology focused on integrating the

technology into zero-emission heavy-duty hydrogen fuel cell electric vehicles. Hyzon's hydrogen infrastructure approach synchronizes supply with demand, accelerating the deployment of zero-emission trucks. Utilizing its proven and proprietary hydrogen fuel cell technology, Hyzon aims to supply zero-emission heavy-duty trucks to customers in North America, Europe, Australia, and New Zealand to mitigate emissions from diesel transportation - one of the single largest sources of global carbon emissions. Hyzon is contributing to the adoption of fuel cell electric vehicles through its demonstrated technology advantage, fuel cell performance, and history of rapid innovation. www.hyzonmotors.com

About OVIN
The Ontario Vehicle Innovation Network (OVIN) is an initiative of the Government of Ontario, led by the Ontario Centre of Innovation (OCI), designed to reinforce Ontario's position as a North American leader in advanced automotive technology and smart mobility solutions such as connected vehicles, autonomous vehicles, and electric and low-carbon vehicle technologies. Through resources such as research and development (R&D) support, talent and skills development, technology acceleration, business and technical support, and demonstration grounds, OVIN provides a competitive advantage to Ontario-made automotive and mobility technology companies. www.ovinhub.ca

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