

Thursday, December 7, 2023

Arc Infrastructure unveils the evolution of freight

In an Australian first, Arc Infrastructure has unveiled a working prototype of an autonomous rail container wagon at a demonstration held for government and industry stakeholders at their Kenwick Rail Freight Facility today.

Hiivr Rail is the exciting name Arc Infrastructure has given the autonomous wagon and its real-world application in the Western Australian (WA) context, after more than three years of development.

Designed with the future Westport in mind, the Hiivr Rail concept would see containers move directly from a vessel to a future network of intermodal freight terminals and be available to customers within hours of being unloaded from the vessel. Intermodal locations which have a constrained footprint would be unlocked by the Hiivr Rail wagon.

Hiivr Rail's autonomous wagon would leverage self-driving technology that is already being used all over the world and tailor it to the rail environment for Westport. It will include technology which connects to logistics systems, providing safe, autonomous operations with real-time visibility of container movements.

The future Hiivr Rail fleet would be comprised of individual, battery-powered, autonomous wagons which can operate as a single wagon, or together as a fleet, reducing the number of trucks on the road as rail modal share increases.

The Hiivr Rail wagon will have positive social and sustainability outcomes, including improved road safety through a reduction in the number of trucks on the road and zero greenhouse gas emissions, with batteries capable of being charged by 100% renewable energy.

Hiivr Rail's autonomous wagons could be assembled locally at the Bellevue Railcar Assembly Facility, leveraging WA's existing local automation and technology capabilities, to strengthen rail manufacturing and support local job creation.

At the launch event Arc acknowledged technology partner Parallel Systems, who developed the prototype wagon for the Hiivr Rail concept. The prototype revealed today is the combination of Arc's

business concept and local knowledge, with Parallel Systems' cutting-edge technology and experience in developing electric, autonomous rail vehicles.

During 2024 Arc will focus on running mainline trials and continuing its collaboration with Parallel Systems, focusing on the technology integration of the Hiivr wagon with Arc's train control systems, a vital and exciting next step towards full operation.

QUOTES ATTRIBUTABLE TO MURRAY COOK, CHIEF EXECUTIVE OFFICER AT ARC INFRASTRUCTURE

"We were delighted to be able to host industry and government representatives at our Kenwick Freight Rail Facility today to unveil the autonomous wagon prototype."

"Westport presents a once in a lifetime opportunity to design a port with capability to support emerging technologies which represent the evolution of freight transportation. Hiivr Rail is an exciting new concept that allows us to reimagine the freight supply chain to meet Western Australia's needs through the 21st century."

"Arc Infrastructure has been developing this concept for several years and we thank our technology partner, Parallel Systems, for the technical expertise that has led to the development of our prototype."

"Hiivr Rail has the potential to offer many benefits for Western Australia, including emissions reduction, enhanced road safety and local rail manufacturing," Mr Cook said.

QUOTE ATTRIBUTABLE TO PATRICK SEARES, MANAGING DIRECTOR AT WESTPORT

"Our landside logistics opportunity study from 2022 identified the autonomous wagon concept as a potential future innovation. We have now built the modelling tools to test different technologies in the supply chain and will examine autonomous rail wagons as part of the innovation strategy leading into the next stage of Westport."

-ENDS-

MEDIA CONTACT

Rochelle Zaknich

Head of Stakeholder Engagement

M 0436 845 732

E rochelle.zaknich@arcinfra.com