

REVOLUTION VLR



**THE FUTURE IS
VERY LIGHT RAIL**

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"Our mission is to help to facilitate the cost effective growth of the UK railway system, particularly through the use of line extensions and re-openings."

STARTING THE **REVOLUTION**

Revolution VLR is an innovative, first-of-a-kind project that utilises leading-edge technologies from the rail and other key sectors to provide a high-quality, affordable solution to facilitate growth of the UK railway, including line extensions and re-openings.

This revolutionary vehicle provides a unique blend of journey experience and ease of access. The lightweight composite bodyshell and hybrid powerpacks reduce energy consumption and maximise operational cost effectiveness.

Revolution VLR has been developed by a consortium of highly skilled, innovative, forward looking companies and organisations dedicated to the development and implementation of next generation Very Light Rail vehicles and technologies.

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SUSTAINABILITY

Revolution VLR has been designed with sustainability as a key objective. It will enable all stakeholders such as scheme sponsors, land owners, developers and local authorities to ensure the provision of innovative, environmentally friendly, safe, secure and sustainable transport that make journeys easier and reliable.

“Our aim is to reduce the environmental impact of public transport/rail systems, provide sustainable cost-effective outcomes and educate future generations.”





INNOVATIVE **DESIGN**

The technologies incorporated in Revolution VLR ensure a cost effective, sustainable transport system. Modularity at system and sub-system level maximised through-life operational flexibility and technology insertion. This design approach facilitates reconfiguration to meet specific customer needs and provides multiple vehicle layout options.





CONSTRUCTION

- ▶ Composite bodyshell, recycled carbon fibre
- ▶ Spacious and high visibility driving cabs
- ▶ Modular vehicle design approach
- ▶ Easy access through four single sliding plug doors
- ▶ Kevlar-reinforced cabs



POWERPACK

- ▶ Efficient hybrid diesel-electric powertrain (Euro 6 compliant)
- ▶ LTO battery packs for performance, safety and durability
- ▶ Transferring state of the art automotive propulsion technology to a rail environment
- ▶ Low noise levels



PERFORMANCE

- ▶ Maximum speed of up to 65 mph (104 kph)
- ▶ High acceleration with regenerative braking
- ▶ Zero emissions operation up to 20mph
- ▶ Robust, industry proven LN25 bogies



CONFIGURATIONS

- ▶ Different vehicle interior configurations available
- ▶ Multiple propulsion system options
- ▶ Express logistics variant available



INTERIOR AND SECURITY

- ▶ Comfortable contemporary interior design
- ▶ Seating for up to 56 passengers
- ▶ Complies with PRM TSI accessibility requirements
- ▶ Heating, ventilation and air conditioning
- ▶ Interior and exterior CCTV cameras
- ▶ Passenger Information System (PIS)
- ▶ Ethernet backbone for WiFi connectivity
- ▶ Mobile device charging facilities





DEMONSTRATION **ENVIRONMENT**

Our Revolution VLR demonstration facility at Ironbridge, Shropshire, has been purpose-built to illustrate to stakeholders how a typical line reopening environment can be set up simply and cost effectively. It includes all essential elements for the operation of Revolution VLR in passenger service.





CONTINUING **EVOLUTION**

Building on stakeholder feedback the Revolution VLR team is progressing with development of further variants.

Current major workstreams include battery-only propulsion options with rapid charging capability, and an Express Logistics variant to assist in overall transport decarbonisation.





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