



REVOLUTION VLR

THE FUTURE IS  
VERY LIGHT RAIL



A blue and white Revolution VLR train is stopped at a station platform. The train has a sleek, aerodynamic design with a blue nose and white body. The word 'VLR' is visible on the front. The platform is made of grey stone tiles with yellow safety lines. A brick building is in the background.

## 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.

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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."*

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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.

The organisations which made up the Revolution VLR consortium are consortium leader TDI (consortium leader), RSSB, Eversholt Rail, WMG at the University of Warwick, RDM Group, Cummins, Prose AG and Transcal Engineering.

## INDUSTRY EXPERTS



150

YEARS OF  
COMBINED  
EXPERIENCE

1,000

PROFESSIONALS  
ACROSS THE  
CONSORTIUM

75%

OVER 75% UK  
SUPPLY CHAIN  
CONTENT





A large white wind turbine stands prominently on a lush green hill. In the background, there are rolling hills, a small village with a few houses, and a range of mountains with patches of snow under a soft, hazy sky. The scene is bathed in the warm light of either sunrise or sunset.

# SUSTAINABILITY

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

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

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The technologies incorporated in Revolution VLR ensure a cost effective, sustainable transport system. The bodyshell utilises a modular design approach with flush-bonded glazing and powered by sliding plug doors to ensure ease of access. This design approach facilitates reconfiguration to meet specific customer needs and provides multiple vehicle layout options.



# INNOVATIVE DESIGN





# VEHICLE FEATURES



## POWERPACK

- ▶ Efficient hybrid diesel-electric powertrain (Euro 6 compliant)
- ▶ LTO or NMC battery packs for performance, safety and durability
- ▶ Transferring state of the art automotive engine technology to a rail environment
- ▶ Zero-emissions (Electric options)
- ▶ Noise reducing



## CONSTRUCTION

- ▶ Composite bodyshell, recycled carbon fibre
- ▶ Spacious and high visibility driving cabs
- ▶ Modular vehicle assembly design approach
- ▶ Easy access through 4 single sliding plug doors
- ▶ Kevlar-reinforced cab roof



## PERFORMANCE

- ▶ Maximum speed of up to 65 mph (104 kph)
- ▶ High acceleration with regenerative braking
- ▶ Robust, industry proven LN25 bogie
- ▶ Forward, rear and side CCTV cameras
- ▶ Zero emissions up to 20mph in stations and built up areas



## INTERIOR

- ▶ Comfortable contemporary interior design
- ▶ Seating for up to 56 passengers
- ▶ Complies with PRM TSI accessibility requirements
- ▶ Passenger Climate Control
- ▶ Internal CCTV security coverage (125%)
- ▶ Passenger Information System (PSI) with WiFi and charging facilities



## CONFIGURATIONS

- ▶ Different interior vehicle configurations available
- ▶ Multiple propulsion system options



# VEHICLE SPECIFICATION



PASSENGER CAPACITY	56 seated passengers
MAX SPEED	65 mph (104 kph)
MODULAR PROPULSION SYSTEM	Battery electric fast charge or diesel
DIMENSIONS	Length 18.5m, width 2.8m, height 3.8m
ACCESS	Four single leaf sliding plug doors to EN 14752







Newborough

VLR

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