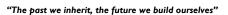


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"TramTrain does it Greener and Cheaper on lightly used railway lines and in the streets"

Very Light Rail Light Rail Innovation Centre

A joint venture between WMG and Dudley Metropolitan Borough Council

The proposed centre will be located at Castle Hill, Dudley. The estimated project costs are equivalent to ~£28m.

The project has recently secured £4.5 m funding from the Black Country LEP, and is also in process of applying for £15 m funding from the European Regional Development Fund (ERDF). It has support from the Association of Black Country Authorities.

The site is adjacent to a disused freight line running between Stourbridge and Walsall, and the alignment will be initially re-laid with a single test track from Castle Hill to Dudley Port.

This will be used for prototype trials, allowing for testing and evaluation of demonstrator vehicles and systems.



These meetings are by invitation only, where MPs, Stakeholders etc., within the Light Rail industry and invited members of the Public will have a chance to discuss debate and raise questions concerning Light Rail.

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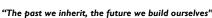






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The Very Light Rail Innovation Centre will offer:

- Co-ordination of strategic initiatives
- Meeting rooms and a networking area
- A resident R&D team with research labs and offices
- A workshop for the assembly of prototype vehicles and systems
- Test and evaluation track for prototype vehicle trials
- Conference and exhibition facilities
- Masters level courses for next generation light rail technical specialists
- Training courses in maintenance and operation of light rail systems
- Incubator units for SME companies engaged in very light rail
- Revolution Very Light Rail Project

The main objective of the project is to reduce the weight and cost of a railcar by half in order to facilitate low cost connectivity of suburban and rural areas. The Radical Train will demonstrate unique self-powered bogies (with integral hybrid propulsion and kinetic energy recovery system) combined with a modular, lightweight body-shell utilising advanced materials. WMG will be transferring expertise in light weighting technology from the automotive sector into this project. Automotive light weighting solutions are already employing advanced materials including ultra-high strength steels and fibre-reinforced polymer composites.

Project Budget: ~£4.2 m with £1.6 m so far committed from Future Railway

Phase I Deliverables: Powertrain verified in WMG's Energy Innovation Centre- September 2015, Concept designs for self-powered bogie and lightweight car- September 2015

Phase 2 Deliverables: VLR demonstrator comprising 2 self-propelled bogies plus lightweight car body- September 2016

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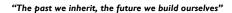
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Vehicle Specification:

- 18 m long
- 80 kph speed
- zero emission launch from station
- 100% regenerative braking
- 18 tonnes weight
- 60 seats and 2 wheelchair spaces
- Bogie Specification:
- 2.2 m wheelbase
- 4.5 tonnes weight
- 3.8 I Cummins diesel engine
- I I 0 kw Magtec generator
- Goodwolf lithium titanate battery pack
- Magnomatics propulsion motors

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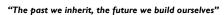
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VLR Innovation Centre Steering Group Members:

- Dudley and Sandwell Metropolitan Borough Councils
- WMG/University of Warwick
- Network Rail
- Centro
- Department for Transport
- Future Railway
- Knowledge Transfer Network
- West Midlands Integrated Transport Authority



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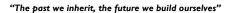






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Revolution VLR Consortium:

- TDI
- Unipart Rail
- Trelleborg
- Prose
- WMG
- Key Technology Providers:
- Cummins
- Goodwolfe
- Magtec
- Magnomatics

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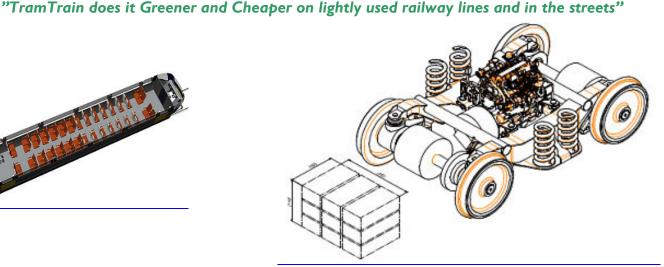




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"The past we inherit, the future we build ourselves"





The Consortium is currently seeking additional funding to support the manufacture of the train body.

Contact Us For general enquiries about the work of WMG or to arrange a visit, please call +44 (0)24 7652 4871 or email General Enquiries wmg@warwick.ac.uk

WMG centre HVM Catapult International Digital Laboratory University of Warwick Coventry CV4 7AL

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