

Powered Light Vehicle Community

27/07/23



**Zemo
Partnership**
Accelerating Transport to Zero Emissions

Welcome to Zemo Partnership

Accelerating transport to zero emissions

Competition Law Compliance – DOs & DON'Ts



Commercial decisions must be taken independently by individual companies.

All participants must be aware that exchange of commercially sensitive information or intimation of intended commercial decisions, directly or indirectly, can result in competition law infringement.

Member conduct at meetings and teleconferences:

There must be no communication of the following information:

1. Individual company or industry prices, including differentials, discounts, rebates, allowances, price levels or changes, mark-ups, terms of sale and credit terms.
2. Company plans as regards development, design, production, distribution or marketing of products/services, divestments, closures or expansion.
3. Rates for production or transportation of products.
4. Bids for contracts or procedures for responding to bid invitations.
5. Matters relating to individual suppliers and customers/potential customers, progress on negotiations or content of negotiations.

If at any point during a meeting discussion appears to be breaching policy guidelines, the Chair or a participant should immediately raise their concern and close the discussion.

Agenda



1. Welcome and introductions
2. Updates from...
 - a) Department for Transport
 - b) Zemo Partnership
 - c) MCIA UK
 - d) Cenex
 - e) TRL
 - f) Niche Vehicle Network
3. PLV terminology discussion
4. Attendee announcements and discussion

Department for Transport

Update from Rachel Scott





Department
for Transport

Powered Light Vehicle Decarbonisation

Department for Transport

Rachel Scott

27th July 2023

DfT Position

- As we work at pace to decarbonise the sector, we are convinced the opportunities for zero emission light powered light vehicles are enormous.
- We will continue to work with industry and other stakeholders to prime the sector ahead of ending the sale of new non-zero emission vehicles.
- We are always keen to hear from industry and other stakeholders, particularly on what needs to be done to support the sector to transition to zero emissions.

Policy Update

- **July 2022:** Consultation on when to end the sale of new non-zero emission L-category vehicles opens
- **September 2022:** Consultation closed. Thank you for your responses, which we are now analysing. A full government response to be published in due course.

Table 1: Proposed end of sale dates for new non-zero emission L-category vehicles:

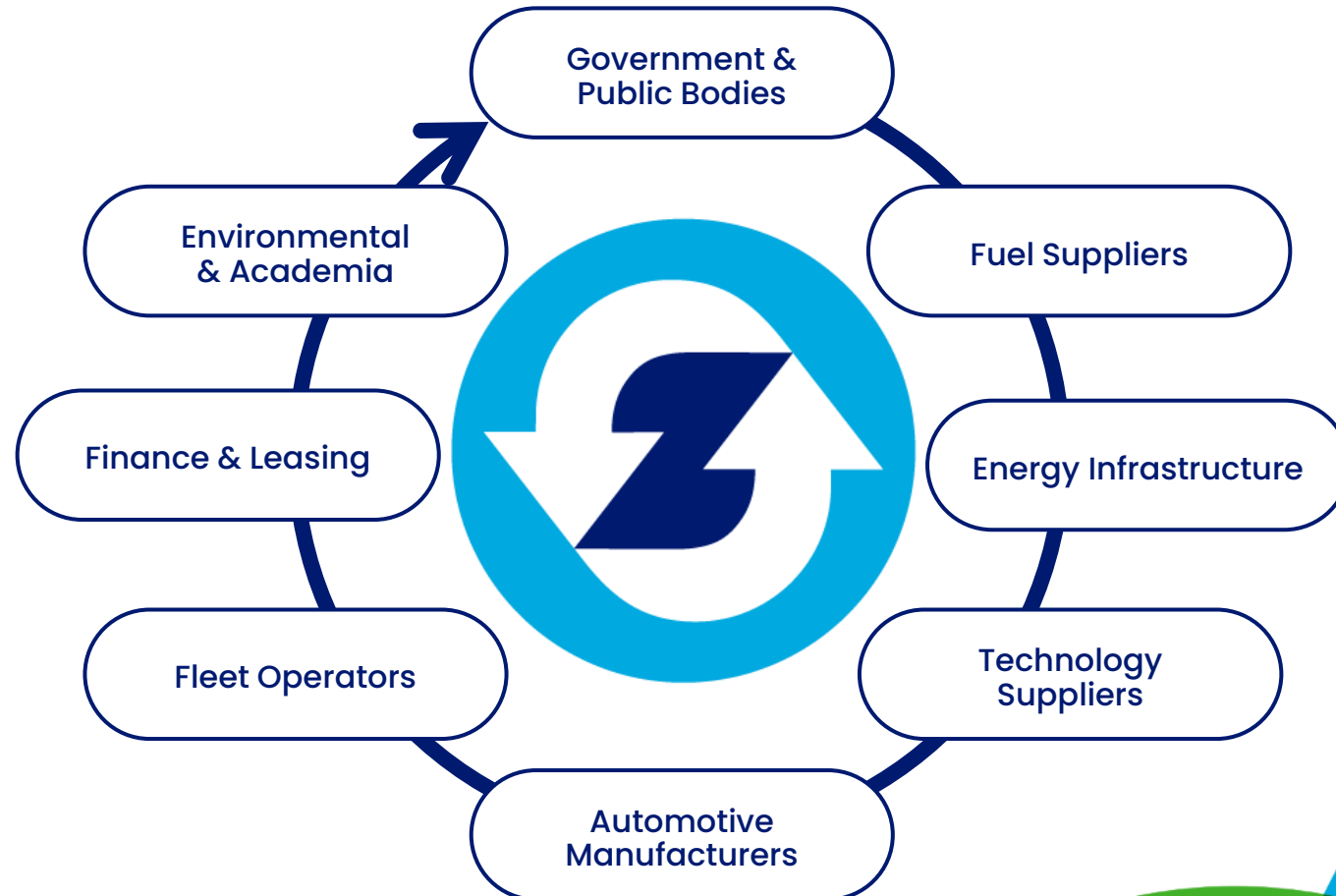
2030	2035
L1 (mopeds) L2 (two wheeled mopeds) L3e-A1 (small motorcycles) L6 (light four wheelers) L7 (heavy four wheelers)	All other L3 vehicles (motorcycles) L4 (motorcycles with sidecars) L5 (three wheeled motorcycles)

- **March 2023:** Saw the successful completion of £350,000 feasibility competition to help industry develop the zero-emission motorcycle supply chain in the UK.
- **July 2023:** Minister Norman met with a variety of motorcycle sector stakeholders to further understand their views on the Government's proposals.

Zemo Partnership



We provide an independent platform for debate and cross-sector collaboration



Our work informs the decisions, strategies and activities needed today to accelerate us towards a zero emissions, sustainable transport future

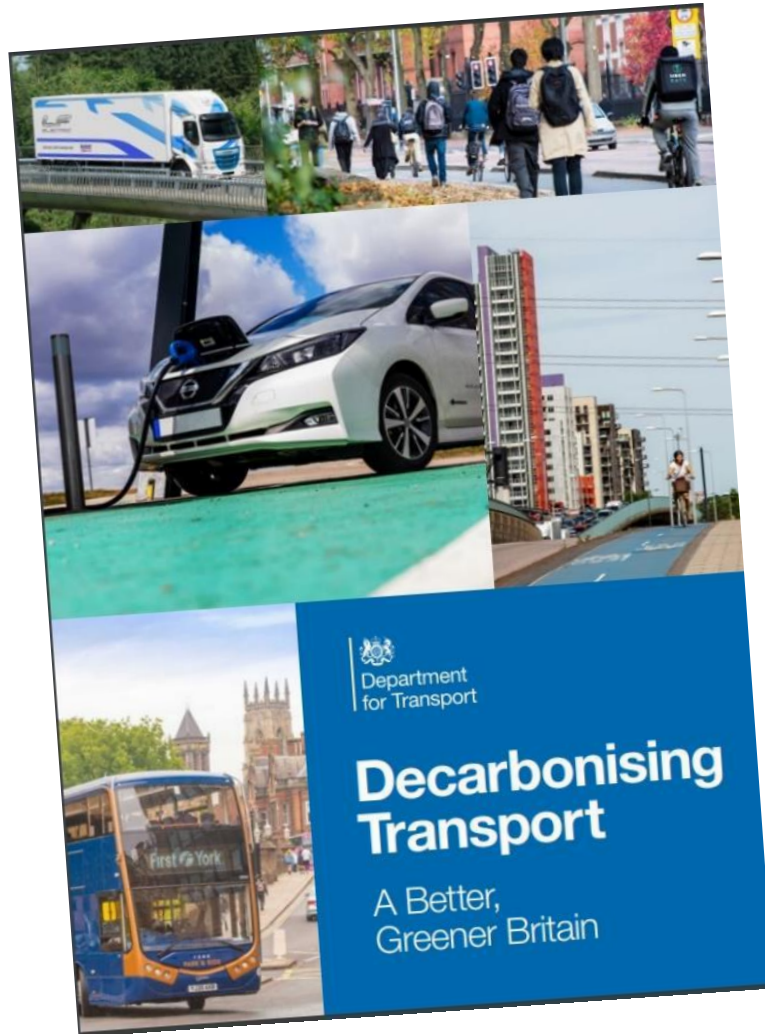


Accelerating transport to Zero Emissions

PLVs & Transport decarbonisation



On the Government radar now (though called LPV !)



Commitment

We will deliver an action plan this year to build new UK opportunities for zero emission light powered vehicles

Innovation in urban logistics and personal mobility can generate substantial industrial opportunities for the UK, as the world transitions to greener transport systems. The opportunities for zero emission light powered vehicles (ZELPV) are enormous. We will build on our existing support in this segment, such as with the plug-in motorcycle grant, to benefit urban logistics and wider mobility and look to grow a new UK industrial supply chain. We will use Zemo Partnership's strategic partnership with the Motorcycle Industry Association (MCIA) to stimulate and coordinate activity in this area and publish options to develop this at national and local level this year.

Zero emission light powered vehicles

Powered light vehicles are two, three and four wheeled passenger or cargo vehicles. They are smaller and lighter than many other vehicle types and so can have a significant impact on urban transport systems, particularly when used in place of other forms of low occupancy vehicles. Their size also makes them complementary to increased public transport use and the growth of cycling and walking infrastructure.

New Mobility and PLVs – the opportunity and Action plan



In facilitating innovation in urban mobility for freight, passengers and services, the Government's approach will be underpinned as far as possible by the following Principles:

- 1 New modes of transport and new mobility services must be safe and secure by design.
- 2 The benefits of innovation in mobility must be available to all parts of the UK and all segments of society.
- 3 Walking, cycling and active travel must remain the best options for short urban journeys.
- 4 Mass transit must remain fundamental to an efficient transport system.
- 5 New mobility services must lead the transition to zero emissions.
- 6 Mobility innovation must help to reduce congestion through more efficient use of limited road space, for example through sharing rides, increasing occupancy or consolidating freight.
- 7 The marketplace for mobility must be open to stimulate innovation and give the best deal to consumers.
- 8 New mobility services must be designed to operate as part of an integrated transport system combining public, private and multiple modes for transport users.
- 9 Data from new mobility services must be shared where appropriate to improve choice and the operation of the transport system.



PLV Community

Overview of activity

- ④ Development and promotion of [PLV Action Plan](#)
- ④ Promoted PLV's at [PLV Village, Cenex-LCV22 show](#)
- ④ Launch of [PLV Community](#) in November 2022
- ④ Created the [PLV Hub](#)
- ④ [NVN Feasibility Studies](#)
- ④ Development of EST zero emission PLV information packs:
 - [Zero emission powered light vehicles for business](#)
 - [Electric motorbikes, mopeds and microcars](#)



Welcome to the Powered Light Vehicle Community

Accelerating L-Category Vehicles to Zero Emissions



You are here: [Home](#) > [Work With Us](#) > [Collaborative Initiatives](#) > [PLV Community](#)

Bringing Government, industry and other expert stakeholders together to shape the future of zero emission lightweight transport.

<p>What is a Powered Light Vehicle (or 'PLV')?</p>	<p>Discover the Zemo & MCIA 'PLV Action Plan'</p>	<p>Delivering the Zemo & MCIA PLV Action Plan</p>	<p>Join our PLV Community – and help shape the future</p>
<p>PLV Community activities and actions</p>	<p>Zemo PLV reports, resources & news</p>	<p>Niche Vehicle Network PLV Feasibility Studies Competition</p>	<p>Revisit the Zemo PLV Village at Cenex LCV 2022</p>
<p>PLV help and advice from Energy Saving Trust</p>	<p>The Future of PLVs (Videos)</p>		

Cenex-LCV show '22

Last year's PLV village



We are back again this year with another PLV village!

Would you like to display a vehicle at the
LCV show?

Do you have a 3- or 4-wheel vehicle you'd
like to offer for ride and drive?

Cenex-LCV '23

Zero emission PLV Opportunity for Zemo members

- ⌚ Static display in the main External Exhibition area
- ⌚ If sufficient interest.....
 - A dedicated PLV Ride and Drive opportunity based at the city course.
 - 3 & 4 Wheel PLV only
 - Lower speed urban driving
 - Minibus Transfer - tba



Cenex-LCV Show '23

Zero emission PLV Opportunity for Zemo members



To take advantage of this opportunity:



Join Zemo Partnership as a member – that's it!

Join Us



Members display for free

Express your interest today!

Motorcycle Industry Association (MCIA) UK

Update from Alfie Brierley





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Today's Industry. Tomorrow's Journeys

MCIA's 'A Licence to Net Zero' Campaign

27TH MAY 2023

**A LICENCE
TO NET
ZERO**



A brief reminder...

SIMPLIFYING THE EXISTING LICENSING REGIME ACROSS ALL L-CATEGORY SEGMENTS TO IMPROVE ACCESS TO ZERO EMISSION PLVs FOR A WIDER SECTION OF THE COMMUNITY, INCREASING ACCESS, UPTAKE AND ADOPTION



Question:

To ask His Majesty's Government what assessment they have made of the letter from Transport for London and other organisations, dated 18 July, calling for improved compulsory basic training for motorcyclists; and what plans they have, if any, to implement the recommendations set out in that letter. (HL9511)

Answer:

Baroness Vere of Norbiton:

One of the Driver and Vehicle Standards Agency's priorities, as outlined in its strategic plan, is to improve motorcyclist and instructor training, which includes compulsory basic training (CBT).

The newly formed motorcycle strategic focus group is working closely with industry stakeholders to consider how to improve the safety of those involved in the rider gig economy, coupled with changes to motorcycle training and testing to ensure riders have the skills and knowledge they need for a lifetime of safe and sustainable journeys.

Any changes to the training and licencing regime, including CBT, will form part of a wider package of reforms when parliamentary time allows.



Realising the Full Potential of Zero Emission Powered Light Vehicles

A JOINT ACTION PLAN FOR GOVERNMENT AND INDUSTRY

> THE ROUTE TO NET ZERO

FEBRUARY 2022



'A Licence to Net Zero' campaign

Unleashing our potential, licence reform essential

Commercial:

- Ensure a regulatory environment in which obtaining an L-Category vehicle license is easier to do than is currently the case.

Public Affairs:

- Commit the Government to conducting a full-scale review of the L-Category licensing regime.

Communications objective:

- Educate key decision makers and influencers on the need for a full-scale review of the L-Category licensing regime.



**UNLEASHING OUR POTENTIAL,
LICENCE REFORM ESSENTIAL**

L-CATEGORY LICENSING REFORM PROPOSALS
July 2023

'A Licence to Net Zero' campaign

Unleashing our potential, licence reform essential



A three-fold strategy:

Strengthen, finalise, and utilise the industry's evidence/argument base to convince DfT, via DVSA and directly, of the need for a full-scale review.

Maintain our seat at the table and remain consistently and proactively engaged with relevant stakeholders/organisations.

Strengthen the industry's representation by leveraging third party supporters in calling for a review as part of a wider campaigning coalition; and securing political support from key parliamentarians to exert additional pressure on DfT to act.



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2023

Licensing proposals

We are calling on the Government to:

Conduct a full-scale review of the existing L-Category licensing regime

Including:

1. Earlier access to L-Category vehicles, including creating two new vehicle categories - the electric light moped and the e-step scooter.
2. Incentives for moped and A1-Category vehicle users to take a test.
3. All licence upgrades and access to L-Category vehicles up to 22kW to be carried out by DVSA-approved motorcycle instructors working within an Approved Motorcycle Training Body (ATB).
4. CBT to be taken once, and valid for two years. After two years, users should take a new 'CBT Plus', valid for two years, to improve their skills and bring them closer to test standard. After 2 years, users on CBT Plus must then gain a full licence.
5. Returning to a single event test, instead of the current module 1 and module 2 tests.
6. A review of minimum test vehicle and licence entitlements for all electric L-Category vehicles.
7. A review of tricycle and quadricycle licencing & testing (L2, L5, L6 & L7) that retains current regulation access entitlements but allows for additional access under a provisional licence at age 16 for L2 and L6, and the introduction of direct access to L5 and L7 at 18 years of age.



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31ST JULY

7TH AUGUST

**A LICENCE
TO NET
ZERO**

Communications Prepared

Stakeholders and the media will be informed of the campaign. Themes, slogans and social media assets finalised, and a press release prepared.

1

2

3

Finalising the Work Programme

Our work programme will become finalised, and relevant parties will be notified.

Other Plans

Relevant members will review the final proposal and associated media materials, and MCIA will begin stakeholder/SWOT analysis/begin utilising parliamentary channels.

MCIA/TfL CBT Letter

joint letter urging the Government to implement CBT proposals. Materials will be sent to the Minister, and press materials to the media.

Planning Ahead

MP approaches will be drafted and sent to selected cohort, including sharing detailed proposals securing their support.

Other Plans

Begin discussions with Polimapper to discuss heat maps/additional engagement tools for MPs and finalise new campaign page on website.



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2023

14TH AUGUST

- 1 **Engaging with Stakeholders**
Continue engaging with industry stakeholders, and with DVSA/DfT and Polimapper to finalise engagement tools.
- 2 **Campaign launch**
Campaign and policy updates made to the website, and a bank of PQs drafted for MPs.
- 3 **Influencing DfT via the Motorcycle Strategy Group**
Draft a joint letter for members of the Motorcycle Strategy Group to sign, prepare social material and send as a second campaign 'hit'/continue MPs meeting programme.

21ST AUGUST



Thought leadership

Scoping out media/thought leadership opportunities to maximise our reach/publish blog series on licensing reforms in relevant political/trade publication.



Member Discussions

Continually check in with members re campaign updates, as well as via the new campaign website page. Flexible and fleet of foot, always, to ensure progres towards objectives.



Capitalising on MP Meetings

Continue working with Polimapper to finalise engagement materials and MP meetings programme, including committing an MP to table a WHD.



28TH AUGUST

Contacting Members

Review campaign materials - social media assets, campaign resources, proposals document, engagement/MP commitments to date

Half-time

This a good time for any updates needed to campaign resources, messaging, arguments, evidence base etc. to ensure the campaign remains fit for purpose.



How you can support / next steps

For more information about the campaign or our proposals, please contact Sean Waters at s.waters@mcia.co.uk



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2023



Cenex

Update from Beth Morley

Powered Light Vehicle Community Meeting – Cenex Update

Beth Morley

Mobility and Human Insights Manager
Beth.morley@Cenex.co.uk

A Roadmap to Realise the Benefits of Micromobility in the UK

Roadmap report in 2022 – where are we now?

- New vehicle class in Primary legislation.
 - eScooters
 - Consult on Light electric cargo vehicles.
 - Light electric mopeds – trials and route to legalisation.



Over 50 firms call on UK Prime Minister to urgently set e-scooter legislation date

BY BEN HUBBARD

PLACES



A Roadmap to Realise the Benefits of Micromobility in the UK

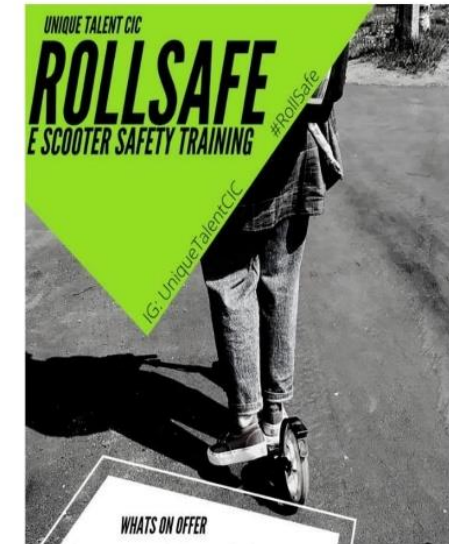
- Training for Micromobility vehicles to all children by the age of 14.
- Ensure accessible and inclusive micromobility.
- Infrastructure is critical
- Multimodal journeys
- Behaviour change needs a joined-up approach.



Training for Micromobility vehicles to all children by the age of 14.



The E-scooter Phenomenon and
Urban London



- Many examples of excellent training (Bikeability, Lime London Scheme, Rollsafe)
- Limited by legislation
- Pressing need to protect young people by giving them the training.

Ensure accessible and inclusive micromobility.

Guidance on accessible infrastructure.

Mobility credits/scrappage schemes included micromobility.

Closing the gender gap

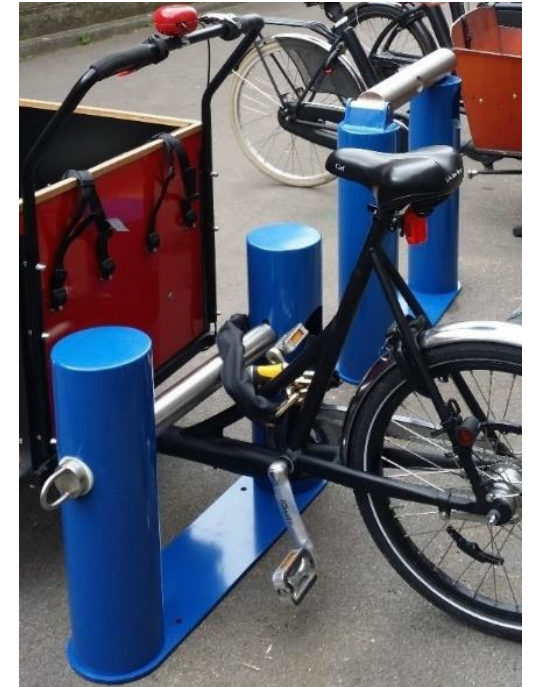


Infrastructure is critical

Active travel England to be consulted on all large planning application.

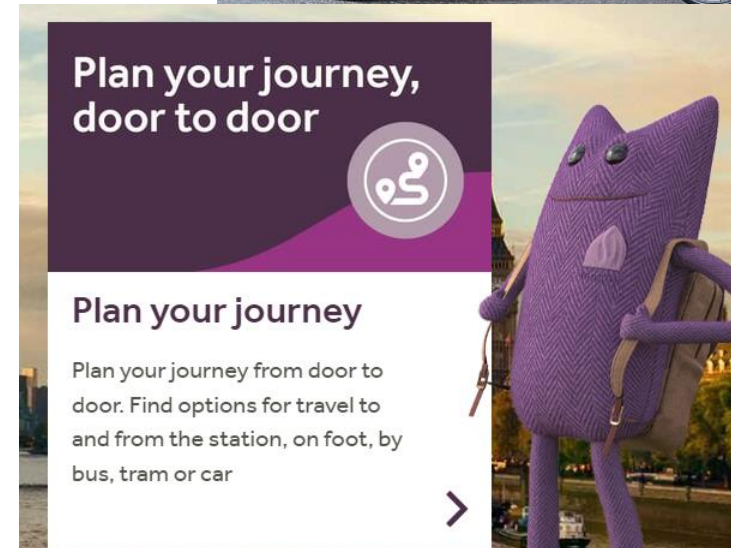
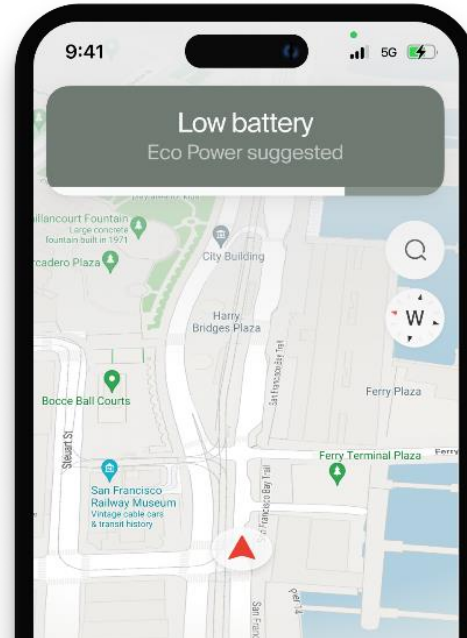
Kerbside Strategy

Innovation in charging



Multimodal journeys

Multimodal planning
Multimodal ticketing
Multimodal locations



Behaviour change needs a joined-up approach.

Influencing Transport
Lab: The Centre of
Excellence for Transport
Behaviour Change.

Hosted by TfWM and
supported by DfT

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RESEARCH PRIORITIES

- REDUCING CAR USE & CONGESTION
- DECARBONISATION
- ACTIVE TRAVEL

How can people be encouraged and supported to make environmentally conscious choices when it comes to transport?

How can behavioural science be used to encourage people and organisations to make more sustainable travel choices?



High-level themes:

- Testing habit formation and the impact of the 'fresh start effect'
- Testing interventions across various journey types such as leisure, escort, personal business, shopping and commuting
- The impact of behavioural interventions on commuting behaviour
- The impact of behavioural interventions on the 'school run'

Low emission fleet transition – what about PLVs?

- Planning, strategy and training
- Cost, environmental & operational analysis
- Testing and performance assessment





6th-7th September UTAC Millbrook



15th Year – 4,692 Attendees – 208 Exhibitors – 82 Speakers

 Transport

 Energy
Infrastructure

 Knowledge &
Enterprise



Thank you for listening

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Technical research into construction standards for e-scooters

- Project overview

July 2023

Technical research into construction standards for e-scooters



- TRL and WMG have been commissioned by the DfT to undertake a programme of research to provide evidence and recommendations to help develop the technical requirements for future construction standards of e-scooters.
- The objective of the programme is to build the evidence base and formulate proposals to aid DfT in devising a legal framework for e-scooters that will be proportionate, effective, enforceable, and responsive to innovation.
- The project is structured around six work packages – as outlined below:

WP0: Stakeholder engagement	WP1: Literature review	WP2: Technical requirements	WP3: Accessibility	WP4: Sustainability and environmental impact	WP5: Final report
<ul style="list-style-type: none">•Running for the duration of the project - structured engagement with key stakeholders including:<ul style="list-style-type: none">•Manufacturers•Retailers•Rental operators•Road safety organisations•Industry associations•Charities representing disabled people	<ul style="list-style-type: none">•Focused literature review to build a clear understanding of the construction standards being used in other countries and the wider evidence base from research, collision data and defect reports.•This work package has been completed (delivered June 2023)	<ul style="list-style-type: none">•Generate a strong evidence base on the recommended minimum technical requirements, in particular covering the following areas:<ul style="list-style-type: none">•stability standards and test specifications•steering column strength and other e-scooter load cases•seated and 3 or 4 wheeled e-scooters•battery safety•hill climb ability•requirements for private e-scooters compared to rental•potential additional requirements	<ul style="list-style-type: none">•Implications of future Construction and Use Regulations for e-scooters on the mobility needs and challenges for disabled people to ensure e-scooters are as inclusive as possible, and investigate any potential for overlap with current legislation for vehicles for disabled people.	<ul style="list-style-type: none">•Understand the cost implications (e.g., to manufacturers and retailers) and viability (e.g., ability to enforce, availability of technology or facilities) and potential benefits of different sustainability improvements	<ul style="list-style-type: none">•Bring together previous work package findings into a single consolidated document with clear recommendations for the DfT

Timeline



- The project commenced in late May 2023 and is due to be completed by end of February 2024.
- The approximate timing of the six work packages are provided below:

	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24
WP0: stakeholder engagement activities										
WP1: Literature review										
WP2: Technical requirements										
WP3: Integration with vehicles for disabled people										
WP4: Sustainability, environmental impact and lifecycle										
WP5: Final report										

- **Stakeholder engagement is critical for the success of this project and TRL invites any organisations with involvement in micromobility to get in touch to discuss the project in further detail.**



For further information, please contact:

Project Lead:

Dr Ianto Guy

Principal Vehicle Safety & Technology Consultant

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Berkshire | RG40 3GA | United Kingdom

Technical Reviewer:

Dr George Beard

Head of New Mobility

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For further information, please
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Technical Reviewer:
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Head of New Mobility

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Niche Vehicle Network (NVN)

Update from Scott Thompson





-  **FUNDING & COMPETITIONS**
-  **PROJECTS**
-  **EVENTS & NETWORKING**

Scott Thompson NVN Programme Director



NVN 2022 PLV Feasibility Studies

- Sponsored by the Department for Transport (DfT)
- Grant funding (of up to £35,000) was provided to successful applicants to undertake 3-month duration desktop research and/or preliminary investigation activities aimed at supporting the accelerated development of innovative vehicle technologies applicable to road going Zero Emission Powered Light Vehicles
- 9 selected projects ran from 1st January to 31st March 2023
- Final presentations were made to a combined NVN, DfT & Zemo panel in London mid-April 2023
- The successful applicants have developed vehicle concepts and technologies covering vehicles in the L1e-B to L7e categories
- Case Studies will be published on the NVN website later this year

NVN @ LCV2023

- The outputs from all NVN 2022 Proof of Concept and Production Readiness projects will be on display at LCV2023
- Stand C3-607 (next to PLV Village)
- PLV relevant exhibits will include:
 - EV module (incl motor, gearbox, crash structure & suspension) fitted to a L5e vehicle chassis (can be used for FWD, RWD or AWD configurations)
 - L7e vehicle 'skateboard' / platform
 - EPAC micro delivery vehicle
 - EPAC commuter vehicle
 - EPAC consumer e-trike (with cargo box)
 - EPAC rental e-trike



NVN 2023 Grant Funding

- The 4 winners of the 2023 Production Readiness competition will be announced shortly (projects commenced on 1st July 2023)
 - Over 60% of applications submitted related to micromobility / PLV vehicles and supporting technologies
- Unfortunately, there is no funding to run a Proof of Concept competition in FY23/24 – but we are trying to secure funding to resume the competition in FY24/25
- At the moment funding for a 2023 Feasibility Studies competition is also not confirmed – if it can be secured, the eligibility criteria would include (but not be limited to) PLV vehicles and associated technologies





 FUNDING & COMPETITIONS

 PROJECTS

 EVENTS & NETWORKING

Thank you

Scott Thompson – Programme Director

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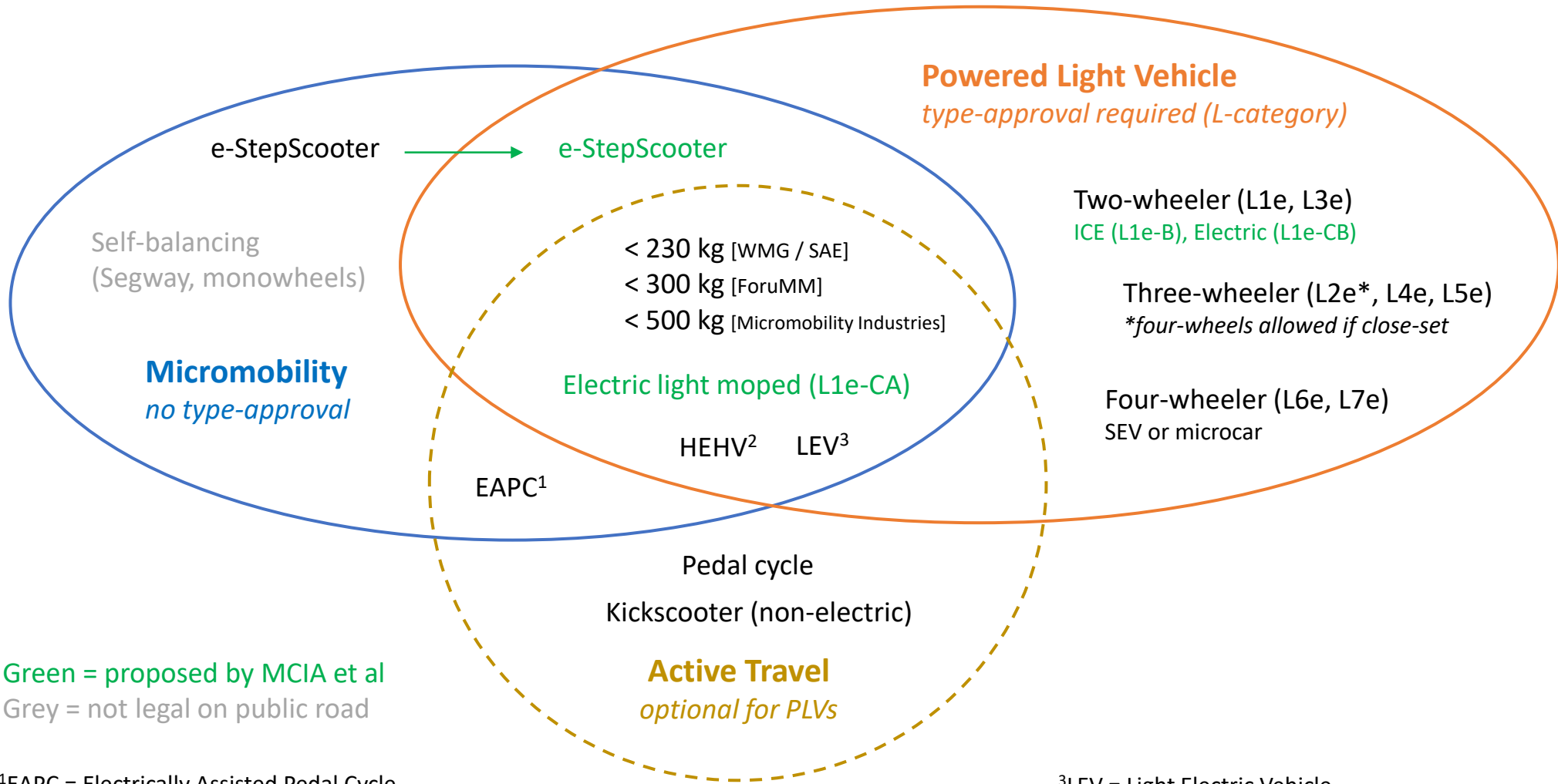
PLV Terminology – Discussion

Problem articulated by Simon Bailey

Is standardised terminology needed?

- **L-category**, official type approval classification system recognised across Europe
L1, L2 etc. are the UNECE categories; L1e, L2e etc. are the EU/UK categories (similar to UNECE categories but not identical)
- **PLV**, Powered Light Vehicle
coined by MCIA and Zemo as a more consumer-friendly term encompassing all L-category
→ **ZELPV**, Zero Emission Light Powered Vehicle
subset of PLVs, ref. p.96 of the DfT's Decarbonising Transport document (2021)
- **Micromobility**: < 230 kg according to WMG (using SAE definition) = **PMV**, Powered Micromobility Vehicle
< 300 kg according to ForuMM (supported by InnovateUK and Connected Places Catapult)
< 500 kg according to Micromobility Industries (global promoter of micromobility)
- **LEV**, Light Electric Vehicle
any EV below M1-category (cars): includes all L-category, EAPCs, e-StepScooters, self-balancing vehicles (LEVA-EU definition)
- **SEV**, Small Electric Vehicle
used in academia, refers to the heavier end of L-category, typically L6 and L7 quadricycles (microcars)
- **HEHV**, Human-Electric Hybrid Vehicle
often with more power and higher speed than an EAPC
- **EAPC**, Electrically Assisted Pedal Cycle (used in legislation SI 1983/1168 and SI 2015/24)
EPAC, Electrically Power Assisted Cycle (used in standard BS EN 15194:2017) } = 'pedelec'

Is standardised terminology needed?



Green = proposed by MCIA et al
Grey = not legal on public road

¹EAPC = Electrically Assisted Pedal Cycle (250W, max. 15.5mph, rider must pedal)

²HEHV = Human Electric Hybrid Vehicle (can be an EAPC or L-category, depending on vehicle specification)

³LEV = Light Electric Vehicle (can include EAPCs)

⁴SEV = Small Electric Vehicle (typically category L6e or L7e)

Attendee announcements and discussion

Funding opportunity: Horizon Europe



New designs, shapes, functionalities of light commercial vehicles

- ④ The main objective is 'to deliver new urban optimized light commercial zero-emission vehicles with a focus on goods transport, that are affordable, safe, sustainable and reliable.'
- ④ Let Zemo know if interested, and we will put you in touch with the right person
- ④ For more information go to: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/horizon-cl5-2024-d5-01-06>

PLV Consortium No. 1



Image from *Realising the Full Potential of Zero Emission PLVs*. MCIA Feb 2022

Find out more.....

Geoff Duck

07970 286442

David Gale

07860 612607

See you at the LCV show!

6th–7th September 2023

Thank you

Any questions? Please get in touch

Naomi Brandon-Bravo

Project Officer

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Interested in joining the Partnership?

Please contact: Members@Zemo.org.uk



**Zemo
Partnership**

Accelerating Transport to Zero Emissions

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