

Meeting the Challenge

...with a little help from our friends

Karla Jakeman

Innovate UK

Innovation

The lifeblood of business

- Business innovation is the commercially successful application of ideas
- Leads to the development of new or improved products, processes, services, and business models based on new ideas and technologies
- Business innovation transforms existing sectors and stimulates new industries
- It is key to UK growth and prosperity



Inspire

Make the opportunity
visible and compelling



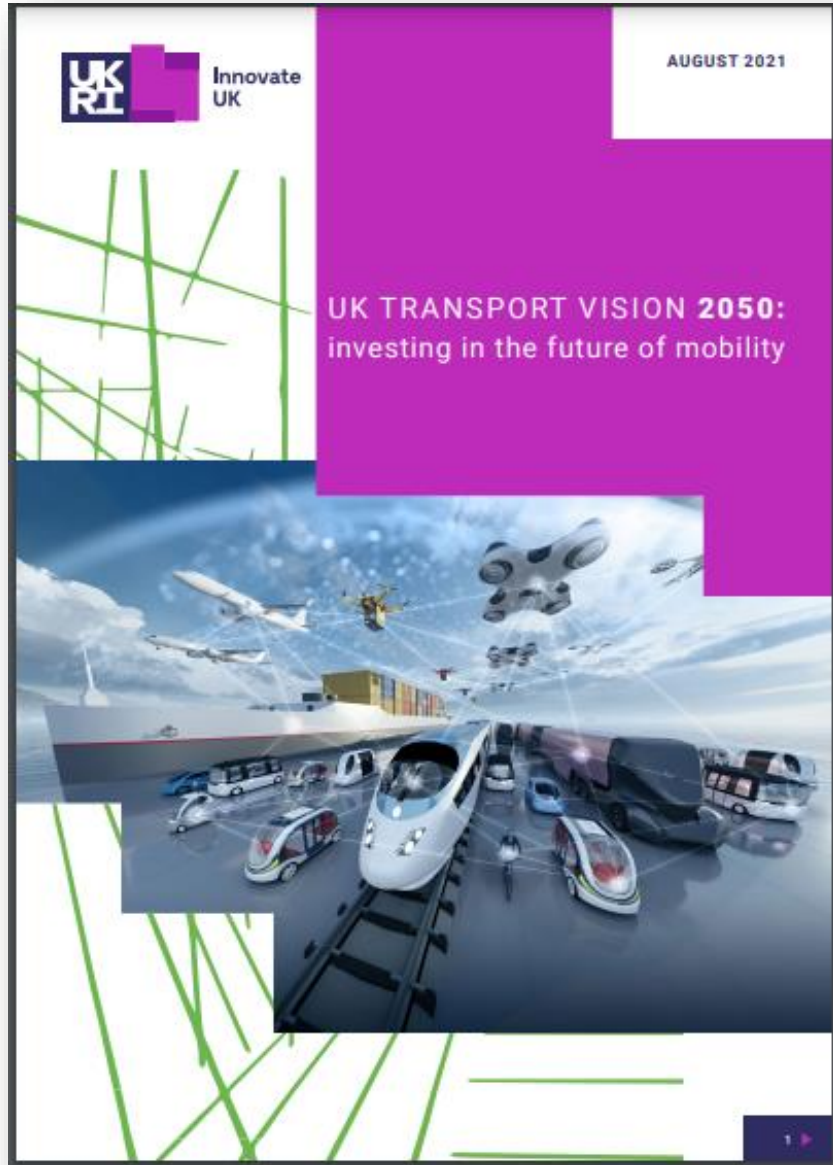
Involve

Bring relevant organisations
and people together



Invest

Convene the resources
needed, including our own



Vision for UK transport 2050

MEETING SOCIETAL AND TRANSPORT USER NEEDS

NET ZERO EMISSIONS

SEAMLESS TRANSITION OF PEOPLE AND GOODS

SAFE, SECURE AND RESILIENT

ECONOMIC CONTRIBUTION

The pathways to 2050

travel and transport demand

connectivity

energy vectors

autonomy

business models

infrastructure

Active Travel



Help improve the everyday travel experiences & safety for women & girls.



Share your everyday transport experiences in this short [survey](#), and opt-in with the chance to win 1 of 3 £100 vouchers



Department
for Transport

The Transport Technology Forum (TTF),
funded by the Department for Transport



UK Research
and Innovation

Delivered by LCRIG on behalf of DfT
and supported by Innovate UK

Micromobility



ForuMM
forumm.uk



Innovate
UK



SAFETY

Improving public health and
eliminating health risks.



INTEGRATION

Plugging seamlessly into other
mobility systems.



PRODUCTIVITY

Providing maximum socioeconomic
benefit for minimal cost.



SUSTAINABILITY

Contributing to a net-zero
mobility network.



ACCESSIBILITY

Services available to everyone
and adapted for use by all.



Department
for Transport

The Transport Technology Forum (TTF),
funded by the Department for Transport



UK Research
and Innovation

Delivered by LCRIG on behalf of DfT
and supported by Innovate UK

Rail Innovation Program

First of a Kind 2022, £7.6m competitions on behalf of DfT

SBRI: FOAK 2022 Low
emissions and a greener
railway



SBRI: FOAK 2022 Rail
Freight



SBRI: FOAK 2022 Cost
efficiency & performance
priorities for a reliable railway



Competitions close: Wednesday 8 June 2022 11:00am



Department
for Transport

Net Zero Value Chain –Transportation Canada-UK

Up to £4 million in innovation CR&D projects in automotive, rail and maritime from Innovate UK & National Research Council of Canada Industrial Research Assistance Program (NRC IRAP) .

Your project can address on-vehicle, including locomotives, or on-vessel technologies, processes, or technology-based services, around 4 Specific Themes:

1. Low and zero emission propulsion
2. Advanced sustainable materials and manufacturing
3. Highly disruptive technologies
4. Assistive technologies and control systems

- grant funding ≤ £300,000 to share among UK organisations
- grant funding ≤ CA\$500,000 to each Canadian SME
- start by 1 January 2023, end by 31 December 2024
- last between 12 and 24 months

Timeline	Dates
Competition opens	4 April 2022
Briefing event	7 April 2022
Matchmaking event	25 April 2022
Canadian EoI registration deadline	23 May 2022
Canadian EoI submission deadline	27 May 2022
IFS submission deadline	29 June 2022
Applicants informed	16 Sept 2022



National Research
Council Canada

Conseil national de
recherches Canada

Future of Freight

Government have committed to developing a long-term and **cross-modal** plan for the freight and logistics sector in collaboration with industry.

The plan will focus on priority areas that will help deliver a UK freight sector which is:-

- Cost-effective
- Reliable
- Resilient
- Environmentally sustainable
- Valued by society

A core priority will be Industry and Government cooperating to driving innovation across freight and logistics.



Department
for Transport



Innovate
UK



Department
for Transport

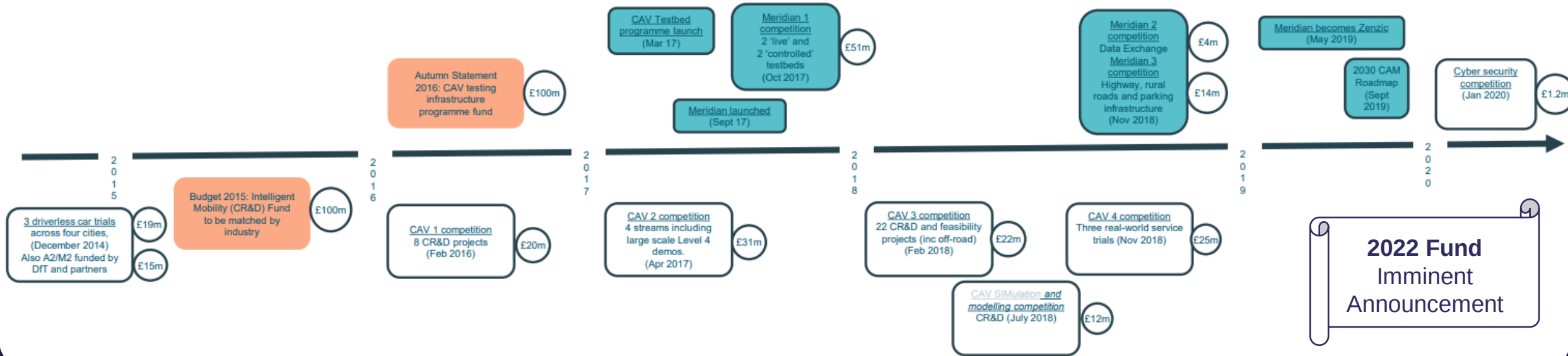
The Transport Technology Forum (TTF),
funded by the Department for Transport



UK Research
and Innovation

Delivered by LCRIG on behalf of DfT
and supported by Innovate UK

Autonomous Vehicles - Now



3 Main Funds ~£200m grant

1 R&D Managed Programme

- Advanced trials and safety case
- Technology development
- Human factors research
- Connectivity and cyber security
- Scenario simulation and validation

2 ISCF Fund



StreetWise

Lead Participant: Five Ai Limited

3 UK Test Beds



CAM Test Bed is coordinated by:



Department for Transport

The Transport Technology Forum (TTF), funded by the Department for Transport



UK Research and Innovation

Delivered by LCRIG on behalf of DfT and supported by Innovate UK

CCAV / IUK will be proposing a series of new funds in 2022

1) Advanced Trials towards Commercialisation

- Passenger Services
- Logistics Services
- Road & Private Land applications

2) Enhancing AV Supply Chain (e.g.)

- Sensors & Perception
- Verification & Simulation
- Vehicle Control Systems

3) Future CAM Mass Transit Feasibility Studies

Commercial Use-Case Examples



Zero Emission Road Freight



- **£200 million programme** announced: Zero Emission Road Freight Demonstration
- Delivered by Innovate UK in partnership with the Department for Transport as part of 'The Ten Point Plan for a Green Industrial Revolution'
- Focusses on **long haul HGVs** – the most difficult to decarbonise, and supports announced phase out dates
- The programme will demonstrate several technologies for zero emission HGVs, beginning with battery electric and hydrogen fuel cell trucks, and all required infrastructure
- The focus is on 40-44t articulated lorries, and the programme will look at a range of vehicles, duty cycles, operators and infrastructure

Innovate UK point of contact: Alistair.Barnes@iuk.ukri.org LinkedIn: Alistair Barnes

Clean Maritime Demonstration Competition (CMDc)

Aimed to develop greener vessels and the infrastructure to enable them

- 55 projects ran Sep 21 – Mar 22
- £23m Total grant request
- 209 organisations participated



Artemis eFoil



Offshore wind turbine charging

UK Shipping Office for Reducing Emissions (UK SHORE)

- Newly launched unit to tackle shipping emissions
- £206m funding
- Clean maritime competition given multi-year extension



Marine e-Charging Living Lab (MeLL) in Plymouth



V2X Phase 1 Competition Summary



Department for
Business, Energy
& Industrial Strategy



- Collaborative, business-led Feasibility Studies and Industrial Research projects
- V2X Programme objective:
 - unlock and expand the energy flexibility potential of EV bi-directional charging technologies
- Phase 1 Competition scope:
 - on or off-vehicle bi-directional charging projects using DC CCS, DC CHAdeMO or AC V2X technology
 - delivering prototype hardware, software or business models
 - new V2X business models and commercial propositions to increase the range of V2X use-cases
 - V2X cost reduction activity
- Total project cost: £150K - £300K

Activity	Date
Notifications	17 th Jun
Projects start	1 st Sep 22
Projects end	31 st Aug 23



Department
for Transport

The Transport Technology Forum (TTF),
funded by the Department for Transport



UK Research
and Innovation

Delivered by LCRIG on behalf of DfT
and supported by Innovate UK

- Digital Roads – TRL support
- Highways – National Highways and Highways Sector Council
- Rural
- International - Horizon Europe is 'open to the world' - this means participation in Horizon Europe projects facilitates access to global markets.

Thank you.

For more information contact:

Karla Jakeman

Karla.Jakeman@iuk.ukri.org

@karla_Jakeman

Presentations will be uploaded onto TTF Conference Website within the next 7-10 days





Roger Poeth, Highway Resource Solutions

Thomas Webster, Connected Places Catapult

Steve Sopp, Crown Commercial Services

Kevin Ledwith, UK Export Finance (DIT)

Jennie Martin, ITS (UK)



Department
for Transport

The Transport Technology Forum (TTF),
funded by the Department for Transport



UK Research
and Innovation

Delivered by LCRIG on behalf of DfT
and supported by Innovate UK