

FREIGHT INNOVATION FUND ACCELERATOR

Application Support Webinar

Andrea Perez Cipollitti

Accelerator Programme Manager

AGENDA



Application Support Webinar

10:05 am – Funding Freight Innovation

10:15 am – Introduction to the Freight Innovation Fund

10:25 am – Accelerator Programme

10:30 am – Accelerator Challenges

10:40 am – Application and Selection Process

10:45 am – Live Q&A



FUNDING FREIGHT INNOVATION

Department for Transport

David Elvy

Head Future of Freight Strategy
Department for Transport

The Future of Freight Plan – June 2022

Genesis: a 2019 report from the National Infrastructure Commission encouraged DfT to ‘Raise the status of freight’ and adopt a ‘Multimodal approach’ to freight.

Since then different things have increased public awareness of the importance of the freight sector.

Brexit: How much disruption has there been so far?

© 1 February 2021



Reality Check

Stranded truckers fume as they wait to leave UK after COVID blockade

Suez Canal blockage is delaying an estimated \$400 million an hour in goods

As a result, the Future of Freight Plan aims to fulfil the Commission’s recommendations at the same time as making the sector:

Cost Efficient

Reliable

Resilient

Environmentally Sustainable

Valued by Society

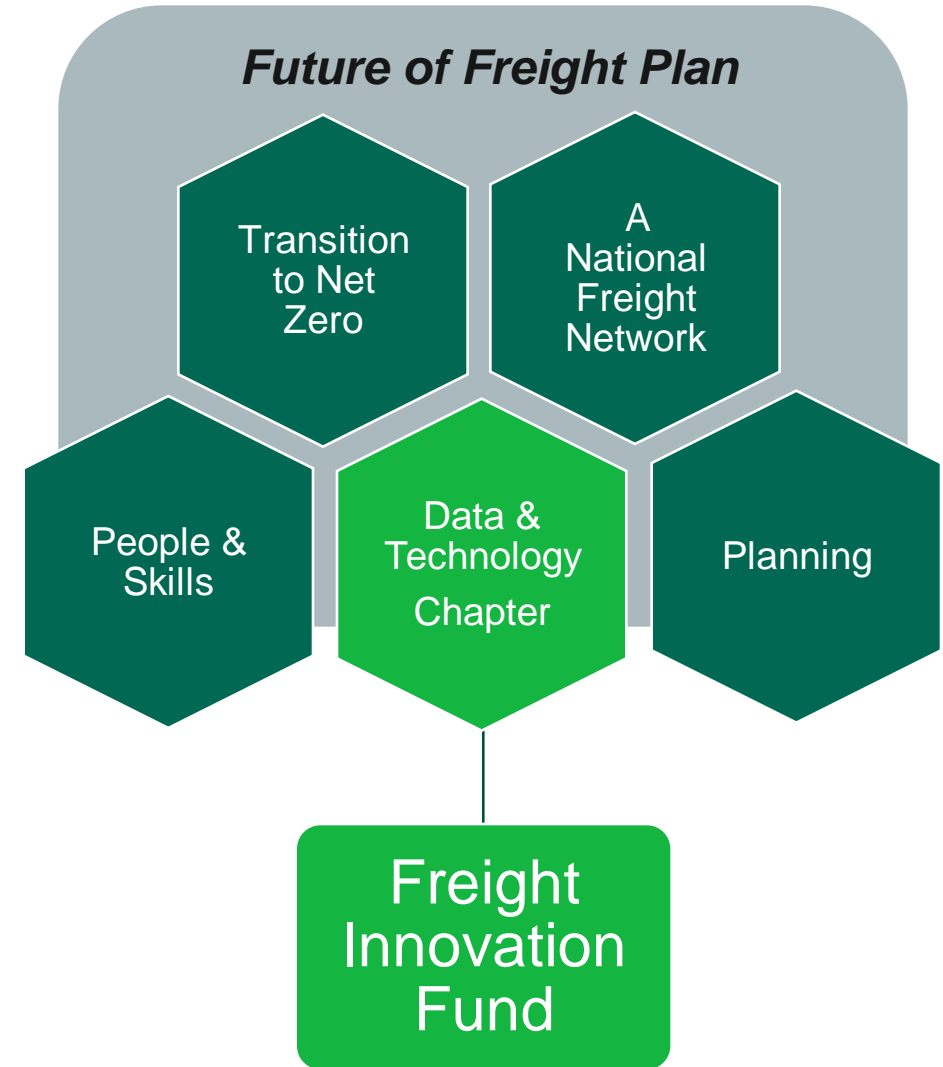
The Freight Innovation Fund

The £7m fund is a key output of the Future of Freight plan's **Data & Technology** chapter.

Challenge: the freight sector has limited awareness of solutions, and innovators have limited awareness of the sector's needs. There is an incomplete understanding amongst industry and government of the ability of viable technologies to meet real-world freight problems.

Strategic goal: commercialisation of late-stage innovative freight solutions, particularly those aligned to **decarbonisation, modal shift, people and skills, resilience and technology, and data-enabled opportunities.**

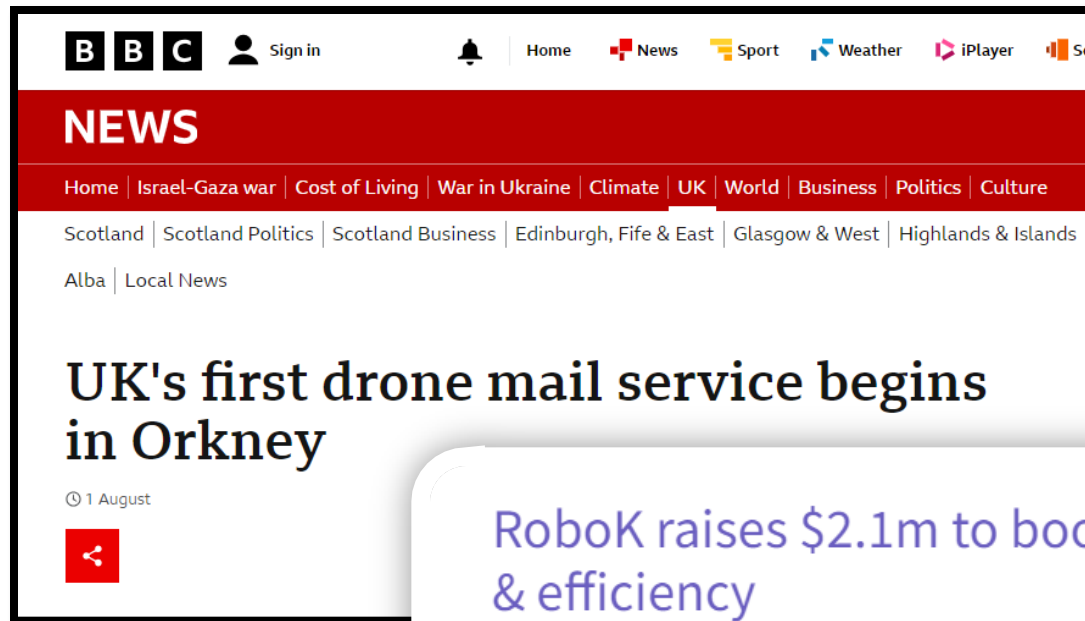
The fund is designed to **accelerate solutions** beyond TRL 5+ and to complement the Transport Research and Innovation Grant (TRIG) to develop an end-to-end innovation pipeline.



A Story of Success

In Year One of the Freight Innovation Fund we supported the efforts of 9 SMEs to commercialise their freight solutions by providing them with grant funding and access to industry partners.

We are extremely proud of the successes of the First Cohort and the results that they have been able to secure thanks to our investment.



RoboK raises \$2.1m to boost industrial safety & efficiency

June 29, 2023



Our Message to You

We are excited to receive your applications!

We look forward to seeing the new solutions you have developed!

We want to see you succeed!



INTRODUCTION TO THE FREIGHT INNOVATION FUND

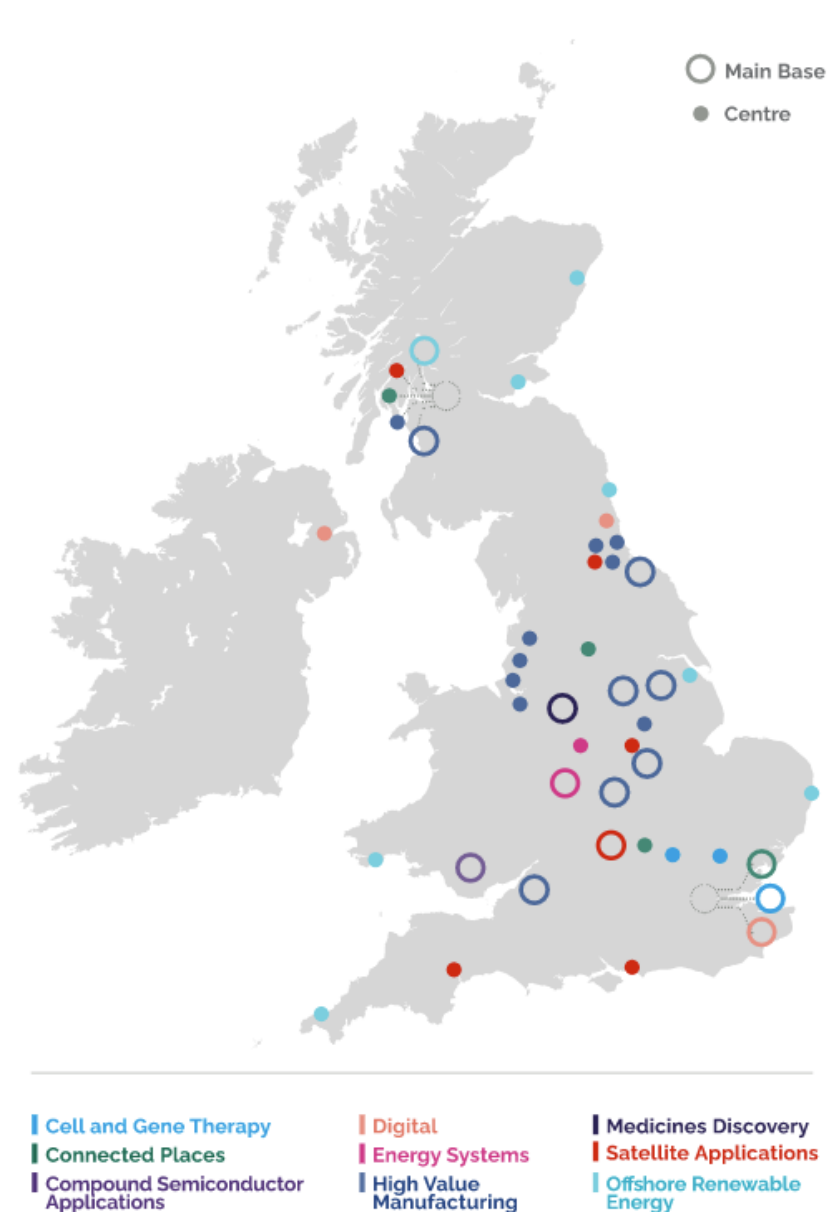
Dr. Alisdair Ritchie

Head of SME Development Team
Connected Places Catapult

CONNECTED PLACES CATAPULT

The Catapult Network brings together nine leading technology and innovation centres spanning over 40 locations across the UK. We are independent not-for-profit private organisations transforming the UK's capability for innovation in sectors of strength.

The Connected Places Catapult is one of the nine centres, leading in fields such as Mobility, Built Environment, Critical Infrastructure, Health & Wellbeing, Public Places and Decision Making.



FREIGHT INNOVATION FUND

The Freight Innovation Fund is a multi-faceted programme funded by the DfT, focussed on accelerating the adoption of multi-modal, commercially ready solutions into the sector.

The **DfT has dedicated £7m** to the programme to **support SMEs and fund trials** through the Accelerator Programme and Freight Innovation Cluster.

- The **Freight Innovation Cluster** will run throughout the programme continuously.
- The **Accelerator Programme** will identify and fund up to 30 SMEs over 3 cohorts by March 2025.



FREIGHT INNOVATION CLUSTER



Complements and supports the FIF Accelerator Programme

The freight Innovation cluster (FIC) Is a robust network of members operating in the freight Industry, which regularly engage and work collaboratively towards joint opportunities.

- With more than **328 organisations**, encompassing Industry, academia, local authorities and larger players, the freight Innovation cluster is far from being only a community.
- A vibrant environment where member organisations connect, showcase their challenges, seek solutions through meaningful commercial partnerships, as well as co-design joint processes and ventures.
- **TRL 3-9**



THE CLUSTER'S APPROACH



The cluster is not just about engagement, but has innovation and commercialisation amongst its core drivers

Engagement

Establish a robust network of members which know each other, communicate and have meaningful conversations.

Create the suitable environment for members to share challenges and seek ad-hoc support.

Match-making

Can happen with the help of the cluster manager who facilitates introductions and brokers new dialogues; alternatively, it can happen organically as seen already. he latter cross-cuts access to investment .

Upskilling

Relationship building and innovation showcasing should bring knowledge into the cluster. Members can learn from each other and mutually upskill, leading to a win-win scenario.

Delivery of tangibles

Development of innovative products and their commercialisation

Growth in investment.

Internationalisation.

UK economic growth and development.

ACCELERATOR PROGRAMME

Cohort 3

Andrea Pérez Cipollitti

Accelerator Programme Manager
Connected Places Catapult

FIF ACCELERATOR - COHORT 1



April to October 2023



65

Applications
Received



9 SMEs
Selected



£97M
Raised



41 Investor
Introductions



62 Business
Introductions



22 Job
Creation



Department
for Transport

CATAPULT
Connected Places

Portsmouth
INTERNATIONAL
Port

COSTAIN

PORT
OF
TYNE

FedEx
Express

FIF ACCELERATOR - COHORT 2



Successful SMEs

March to August 2024

1. AI Automation
2. Ensemble Analytics
3. Flexible Power Systems
4. GoRolloe
5. Hubl Logistics
6. Inteliports
7. IONA Logistics
8. Meteor Power
9. Sorair Technologies
10. Zugbox



THIRD OPEN CALL

Application Deadline: 9 June, 2024



Select up to **12 SMEs (TRL 5+)**



6-month programme



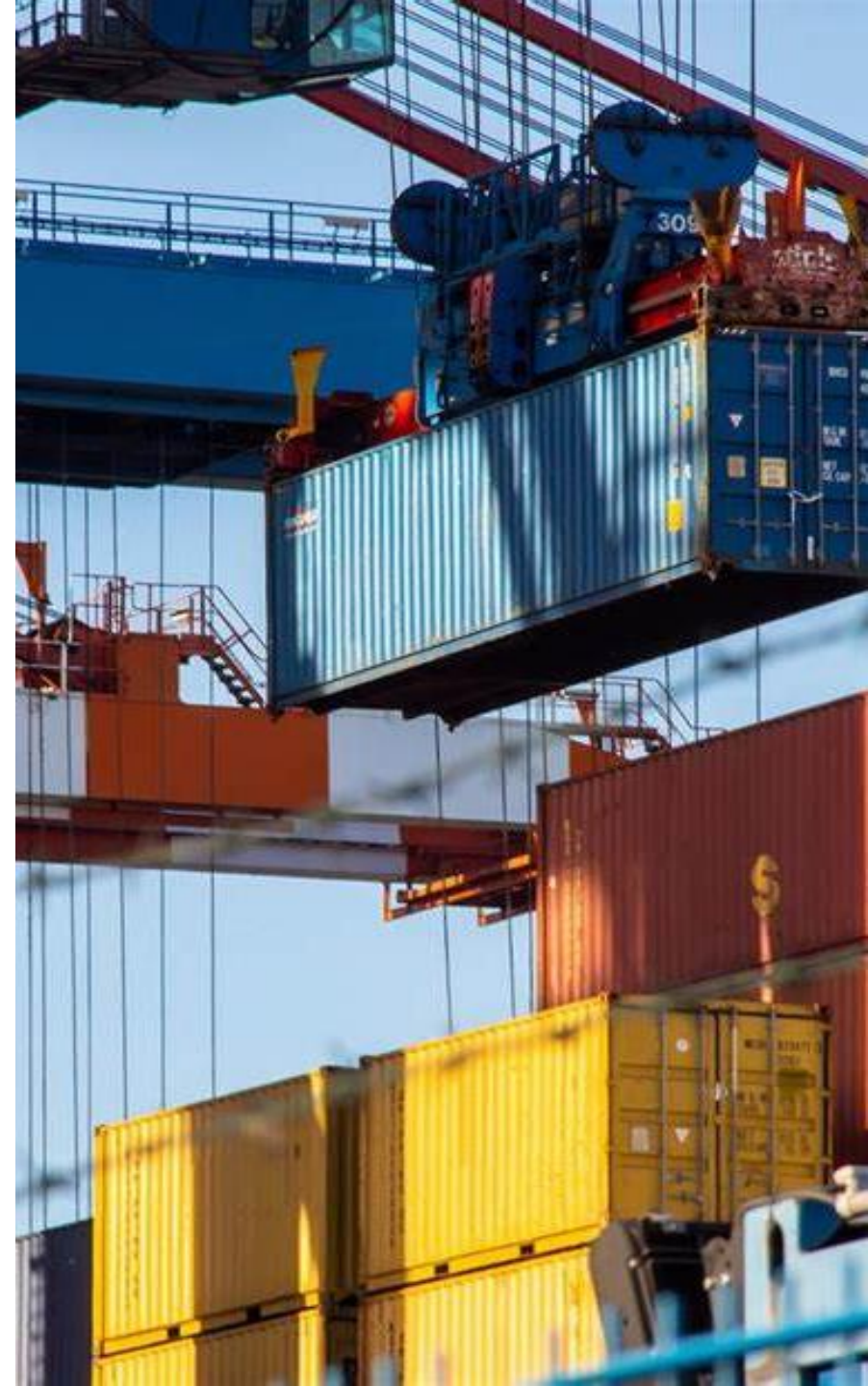
Each SME will access up to **£150,000 of funding**



Access to testbed locations



SMEs must address one of the programme challenges



FUNDING



Each SME will access up to £150,000 of funding

Match Funding Element

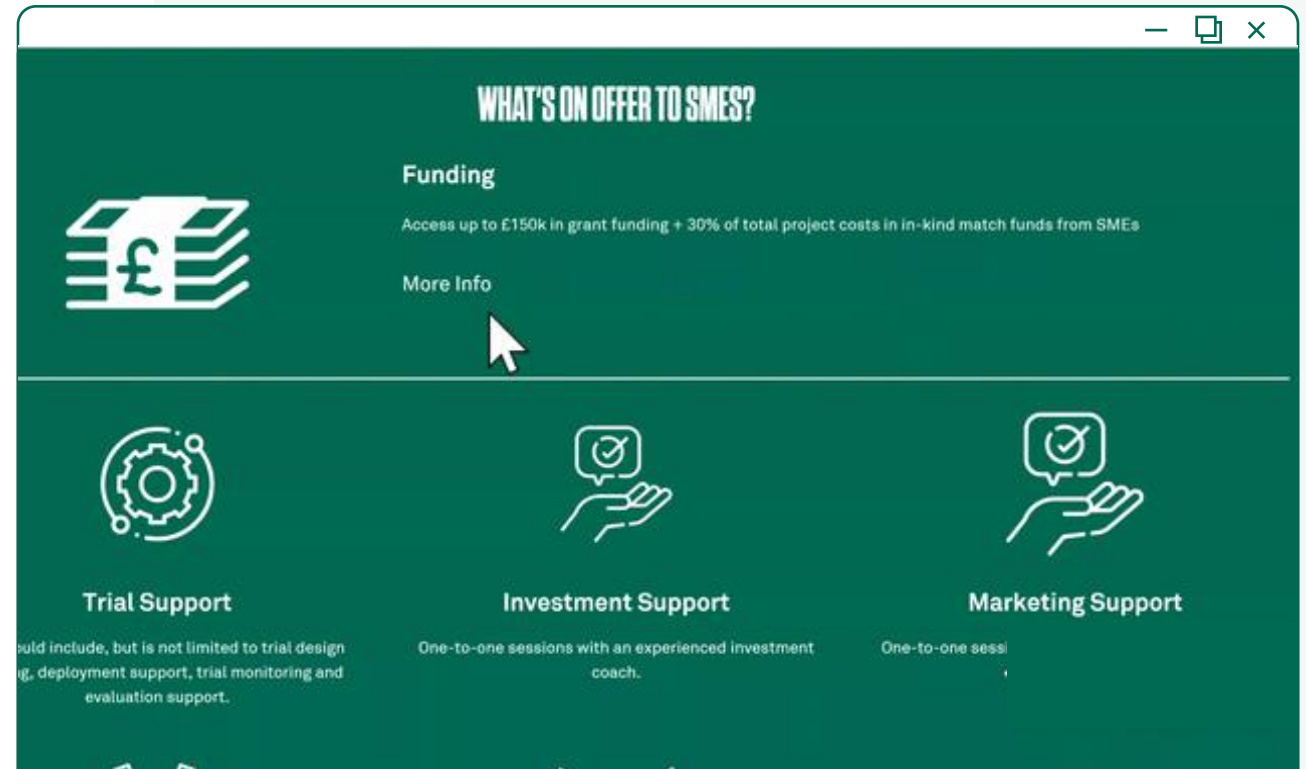
- SMEs are expected to contribute **30% of the total project costs** as matching funds.
- Designed to be in-kind.

Example:

£70k Programme Funding + £30k Match Funding
= £100k Total Costs

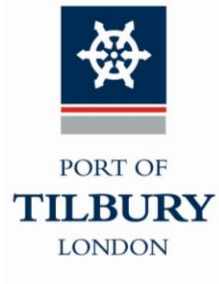
Payment Structure

- 40% upfront.
- 20% upon completion of the trial plan.
- 40% at the end of the programme.



The funding will not be subject to Minimal Financial Assistance

INDUSTRY PARTNERS



SMEs have two options when applying to the programme

1. Apply to be matched with an Industry Partner
2. Apply with your own Trial Partner

[PARTNER PROFILES →](#)

SME OFFERING



Freight Innovation Fund Accelerator



Trial Support



Business
Development



Marketing Support



Investment Support



Demo Day



Membership Freight
Innovation Cluster

PROGRAMME CHALLENGES



Cohort 3

Alessandra Crema

Service Designer
Connected Places Catapult

THE STRATEGIC DIRECTION: PROJECT GUIDELINES

FIF Year 3 Briefing

-  **Inter-modality** must be at the core of all proposed challenges for year 3
-  **Scalable** offerings at TRL level 5+, potentially applicable across the nation

Future of Freight Plan

5 Vision Statements

-  **Cost efficient**
-  **Reliable**
-  **Resilient**
-  **Environmentally sustainable**
-  **Valued by society**

4 National Objectives

-  **Levelling up**
-  **Strengthening the Union**
-  **Supply chain resilience**
-  **Increasing our global impact**



YEAR 3 BRIEFING

Cross-Sector Innovation and Collaboration

- Exploring large-scale sustainability, net zero and inter-modality in freight means leading the sector towards a broadly collaborative approach between organisations and operators
- The promotion of the adoption of cross-sector innovations and technologies from other industries can promote positive change and help reach carbon emissions reduction goals



RESEARCH & METHODOLOGY

OUR APPROACH: RESEARCH & ENGAGEMENT

Design research methodology and stakeholder engagement



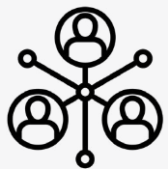
FIF Year 1&2 research and feedback review as well as analysis of findings, learnings and insights.



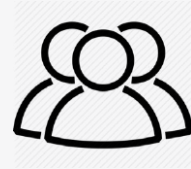
Desk research to find relevant information and data to support findings and challenge areas



Internal interviews with our Ecosystem Directors and freight experts



External interviews with industry experts and stakeholders from maritime, air, road, rail freight and the logistics sector



Industry workshop with 16 members of the FIF Cluster to validate challenges and map environmental, social and economic aspects



Co-Design sessions with our potential partners to ensure the challenges also suit their needs and goals.

CHALLENGES YEAR 3

- 1 Optimisation of Journeys
- 2 Net Zero & Data
- 3 Inland Waterways
- 4 Open Challenge

OPTIMISATION OF JOURNEYS

1 **“Innovations and technologies that enable freight organisations to optimise and maximise the use of existing journeys by empowering cross-sector partnership and collaboration”**

1 OPTIMISATION OF JOURNEYS

Description:

As 50-75% of containers travel back empty to their original countries and HGVs complete 30% of their runnings with no freight, one of the industry's biggest challenges regards the utilisation of unutilised space in existing journeys.

Maximising the utilisation of this space would result in a significant reduction of delivery vehicles across all transport modes, therefore a great reduction of carbon emissions, traffic and congestion.

Moreover, this would not only result in a reduction of logistics costs and maximum efficiency, but it would also provide the basis for an improved and advanced collaboration across the wider sectors and various organisations through a better use and sharing of data and journeys.

Examples:

SaaS Solutions

To enable data sharing and collaboration across the sector

Route Optimisation and Planning Softwares

To maximise the use of existing journeys

Forecasting Tools and AI

To predetermine demand & supply and better understand journeys, destinations and space available. Data analysis and calculation of optimal routes and journey

Data Sharing Platforms

To enable and empower collaboration across the sector and sharing of journeys, vehicles and available space

Operational Innovations

New physical and operational solutions for loading and unloading empty containers

Systemic Innovation

Systemic approaches and collaborative solutions to maximise freight space across organisations and operators

“Innovations and technologies that enable freight organisations to optimise and maximise the use of existing journeys by empowering cross-sector partnership and collaboration”



2

NET ZERO & DATA

“Advanced solutions that lead the way towards net zero, enable accurate and consistent carbon calculations, and encourage multi-stakeholder freight climate action”

2 NET ZERO & DATA

Description:

Achieving Net Zero is the biggest driver of change among freight organisations. In order to achieve this goal, not only the sector needs to scale the implementation of various technologies such as electric vehicles, charging infrastructure and planet-centric solutions, but it also needs to deeply understand its carbon footprint.

Lifecycle assessment is complex and different methodologies for carbon accounting make the calculation of the true emissions difficult. Scope 1&2 emissions are frequently assessed, but scope 3 is not, although it often also represents the majority of emissions. On a larger scale, for a freight organisation scope 3 is often times another partner's scope 2. It has probably been calculated, but not shared.

Through cross-sector collaboration, data sharing and new technologies, achieving a true analysis of freight carbon footprint and its great reduction are the first key steps towards a sustainable planet.

Examples:

Data Sharing Platform

Innovations to enable clients and partners to collaborate towards shared net zero and carbon footprint goals

AI and Sensors

New advanced technologies to capture carbon emissions more accurately, on demand or in real time

SaaS Platform

Software as a Service carbon accounting platforms to enable data-based actions and accurate carbon reporting

New Carbon Accounting Methods

New innovative methods to calculate carbon emissions to shift away from

E-Mobility

New sustainable micro-mobility and e-mobility technologies

Carbon as a Currency

How can we use carbon as a currency to allow partners to pay their journeys according to their carbon emissions?

“Advanced solutions that lead the way towards net zero, enable accurate and consistent carbon calculations, and encourage multi-stakeholder freight climate action”



3

INLAND WATERWAYS

“Unlocking the potential of river and canal freight through the systemic improvement of inland waterway logistics, vessels and infrastructure to decarbonise urban deliveries”

3 INLAND WATERWAYS

Description:

As waterborne freight has the lowest carbon emissions per kilometre and unit transported compared to all other transport modes, it is set to be the next growing trend in the upcoming years.

Operating canals in the UK means facing old infrastructure challenges, a lack of wharfs in urban areas, the need to avoid environmental impact on wildlife as well as the need to develop solutions for efficient loading and unloading of freight along canals and on water.

At the same time, growing this sector has the potential to substantially reduce carbon emissions, help meet net zero goals as well as lowering freight related traffic on roads.

To develop new planet-centric waterways logistics, the sector needs systemic change and new technologies to support the sustainable development of canal freight across the country.

Examples:

Planet-Centred Design

New systemic solutions to develop the sector with no further impact on wildlife and the environment

Tidal Waterways

New methods and technologies that overcome difficulties in loading and unloading of barges and boats during low tide

Utilising Water Space

New technologies and innovative infrastructure to allow the use of water space instead of land for the loading and unloading of canal freight

Pop Up Hubs

Pop up depot spaces and loading and unloading machinery to create movable hubs along canals

Electric Boats, Charging Infrastructure and Autonomous Vehicles

New innovations and technology to increase the number of boats on canals as well as their speed and efficiency

“Unlocking the potential of river and canal freight through the systemic improvement of inland waterway logistics, vessels and infrastructure to decarbonise urban deliveries”



OPEN CHALLENGE

4

“Innovations that aim at decarbonising and improving the inter-modal connections between freight transport modes”

4 OPEN CHALLENGE

Description:

To conclude the Freight Innovation Fund programme, we want to launch an open challenge for all innovations.

This is targeted to all those SMEs who cannot apply because they do not respond to the other three challenges, but who believe that their innovations can contribute to a sustainable, regenerative and smoother intermodal connection between freight transport modes.

The open challenge will also allow us to better understand what innovations and new technologies are starting to appear on the market and potentially help us shape and structure other challenges and trials we might launch in the future.

“Innovations that aim at decarbonising and improving the inter-modal connections between freight transport modes”



APPLICATION CRITERIA

Additional Criteria

- SMEs can only apply to 1 out of the 4 challenges and will only be scored against that challenge
- Once the application is submitted, they are no longer allowed to change or be moved to a different challenge
- If they do not address or fit into the challenge they applied for, they will be considered unsuccessful

Open Challenge Criteria

- SMEs should only apply to the Open Challenge if they do not fit into any of the other challenges
- If they apply to the Open Challenge when they are in fact addressing one of the other challenges, they will be considered unsuccessful

APPLICATION & SELECTIONS PROCESS

Andrea Pérez Cipollitti

Accelerator Programme Manager
Connected Places Catapult

HOW TO APPLY?



Deadline: 9 June, 2024

Eligibility criteria

- You must be an SME
- You must address one of the challenges
- Technology Readiness Level (TRL) 5 +
- You must have a UK registered company
- You must have operations in the UK
- Willing to test in a real-world environment

HOW TO APPLY?

To apply to the Freight Innovation Fund Accelerator Cohort 3, please register through the link below. As part of your application, you will have to submit a trial proposal with the associated costs and requirements. Please read the following supporting documents carefully before submitting your application.

APPLY NOW →

Supporting Documents

TERMS & CONDITIONS → APPLICATION GUIDANCE → PARTNER PROFILES → CHALLENGE DOCUMENT →

ACCELERATOR TIMELINE

Selection Process



Open Call

6 months
Programme Live

SCORING CRITERIA



Shortlisting

Criteria	Weight
Solution	20%
Testbed Proposal	20%
Testbed Feasibility	15%
Impact	15%
Traction	15%
Team	15%



QUESTIONS AND ANSWERS

Freight Innovation Fund Accelerator

Point of Contact

FreightInnovationFund@cp.catapult.org.uk



To Apply
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