

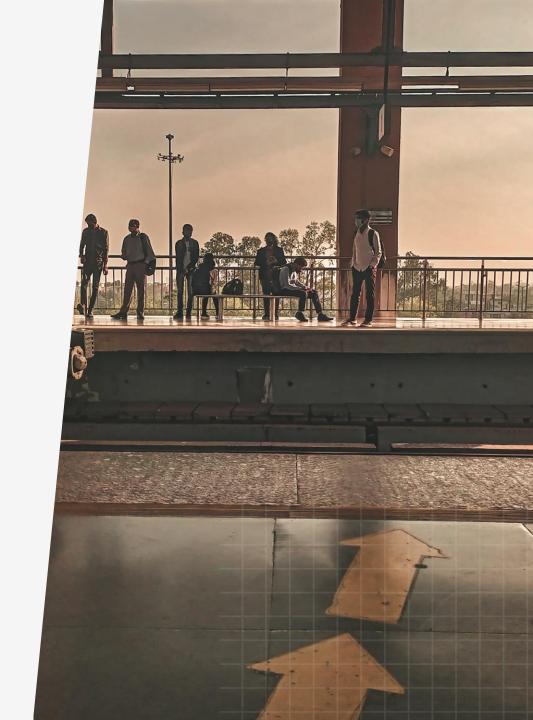
# High Volume Transport Applied Research Programme







The High Volume Transport Applied Research Programme (HVT) launched in 2018 and was a seven-year, £18 million investment by the UK Foreign, Commonwealth & Development Office - the FCDO - to undertake research into the issues of sustainable transport development across Africa and South Asia.



# Our focus areas



# Compendium

After seven years, the HVT Applied Research Programme has come to a close leaving a legacy of an extensive repository of new research supporting the development of transport in LMICs that is greener, safer and more accessible, affordable and inclusive.

A compendium has been published highlighting the 188 research reports and policy documents from more than 100 projects that together form the HVT body of research across themes including climate change, data, inclusion, informal transport, active mobility, infrastructure and access, road safety, crisis response, policy change and capacity building.



https://transport-links.com/news-and-events/compendium-of-hvt-research-marks-the-end-of-the-hvt-applied-research-programme

# Playbook

The playbook was developed by Engineers without Borders for HVT. It introduces five actionable "plays" designed to help educators engage with the complex and urgent topic of sustainable mobility. These plays offer accessible and relevant starting points for teaching, whether integrated into modules or training sessions, while encouraging deeper exploration of this essential subject.

### Reshaping Transport: Playbook

Download



The Reshaping Transport Playbook is a practical guide for engineering educators and facilitators to adapt their teaching methods to meet the evolving challenges of the transport sector.

It focuses on bridging critical gaps in sustainability, inclusion, and ethics within engineering education, enabling students to develop the skills to improve lives and protect the planet.

## ReCAP

The UK Aid-funded research programme, Research for Community Access Partnership, ReCAP, aims to improve accessibility for poor and disadvantaged rural communities in Africa (AfCAP) and Asia (AsCAP) to economic opportunities and social facilities through improvements to rural infrastructure and transport. Its focus is on strengthening the evidence base on more cost effective and reliable low volume road and transport services, with a view to influencing policy and practice.

The ReCAP rural access library contains reports and case studies detailing rural road projects and a user-friendly software tool, the Low Volume Roads DCP Software can be downloaded from the ReCAP website.



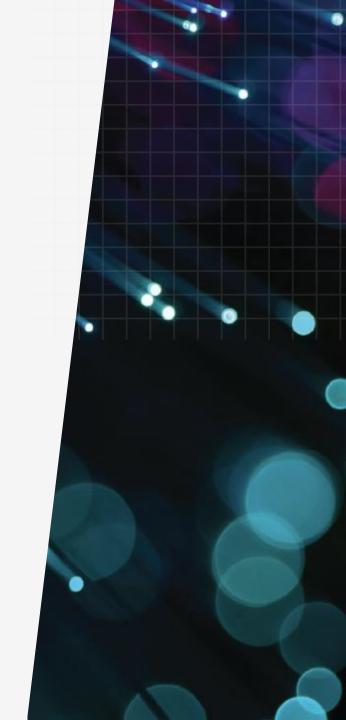
https://transport-links.com/recap-publications

https://www.research4cap.org/

# Data

Reliable, accessible data is fundamental to evidence-based decisions and planning. This is particularly important in LMICs where limited data is available at a time when rapid change brings additional, and the cost of data collection and curation is high

HVT research includes the publication of guides, toolkits and resources specifically designed to support decision makers and planners.



### Africa Urban Mobility Observatory (AUMO)

GoMetro consortium

<u>AUMO</u>

Full version here

Looked to promote inclusive, low-carbon mobility in African low-income cities by piloting Big Data applications to generate data, benchmark performance, and draw policy insights.

Increased mobility data collection in African LIC cities, where little mobility data has historically been available (due to cost of traditional data collection methods), to guide and support planning which promotes inclusive, low-carbon mobility.

Data collection technologies will include a mix of User Movement Analytics integrated mobile apps, USSD/WhatsApp/Web based surveys, and limited field surveys. One survey method on the use of USSD is discussed.



# Computer vision for public transport

ITP

Computer Vision Full version here

Good availability of relevant information contributes to the planning and implementation of successful development programmes, but authorities' budgets often don't meet the requirements for this level of data collection.

A computer-vision-based data collection tool that seeks to address this issue by reducing the cost and complexity of data collection, with a focus on data that can be used in the development of city-wide transport strategies or Sustainable Urban Mobility Plans

Developing a data collection tool that uses computer vision from many different sources, such as dashcam footage from city buses and taxi drivers, to see what transport is like in specific areas.

Computer Vision for Transport Data Collection - High Volume Transport





HVT also supported the <u>Transport Data Commons</u> <u>Initiative (TDCI)</u> - a multi-stakeholder forum committed to improving access, sharing and analysis of transportation data for a more sustainable future by establishing an open data platform for transport.

This includes linking the transport sector's performance to the parameters and indicators outlined in Sum<sub>4</sub>All's <u>Global Tracking Framework</u>.

# The Transport Data Commons Initiative (TDCI)



ons-

https://transport-links.com/funded-projects/the-transport-data-commons-initiative-tdci

The Transport Data Commons Initiative (TDCI) is a collaborative global effort dedicated to transforming how transport data supports sustainable development in the sector. By creating an accessible, centralized and regularly

# Everybody needs, uses and collects data, but no one shares them in a commonly known and accessible place



# What makes TDCI unique and different from other initiatives?

- A pioneering multi-stakeholders forum, a community-driven model to enhancing the transport sector's alignment with the SDGs
  - Enabling active collaboration of data providers and users, i.e. community approach for validating data and adding from different sources and enabling transparent sources. To date TDCI has brought together more than 30 international partners.
- Data are available in converted version and original sources
   Encouraging data standards, data cleaning and interoperability of existing databases.

Hosted by United Nations Economic Commission for Europe-UNECE TDC hosts a diverse range of dataset types with differing variety of scope and standardisation, providing a comprehensive resource for analysing and addressing sustainable transportation challenges.



#### **Public Data**

Data from open public repositories collected and aggregated by TDC for ease of access.

- Publicly available data
- All in one place for ease of access

### **Community Data**

Data sets submitted by individuals and organisation partners.

- Moderated by TDC
- Low submission threshold
- Help with transition to TDC standard

#### **TDC Formatted**

Datasets that are already SDMX formatted or added via API and programmed SDMX converter.

- No change of data, labels, categories, etc
- No modification of data
- No data quality check

#### **TDC Harmonised**

Data sets that have been formatted, validated, and derived from multiple sources by TDC.

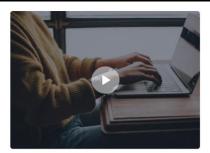
- Comprehensive source of data
- Validated and harmonised by TDC
- Based on transparent standards

# Draft Mock-Up of TDC



Transport Data Commons aims to improve access, sharing, and analysing transportation data for a more sustainable future.







Add data Learn how to contribute to the TDC >



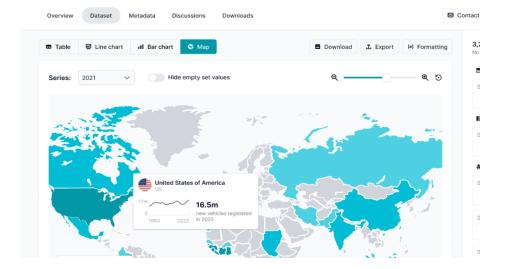


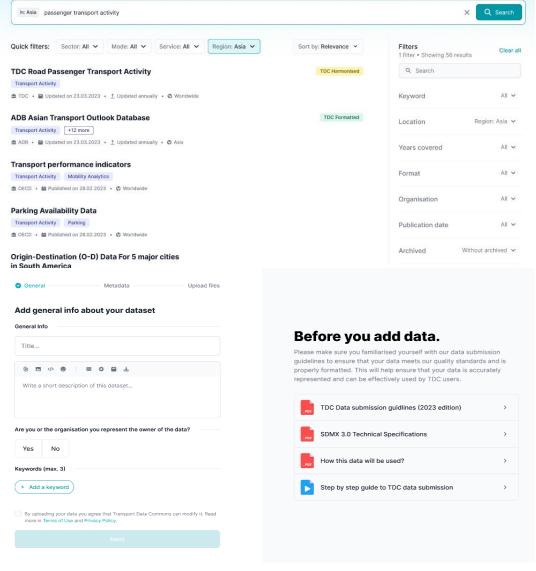
#### **TDC Road Passenger Transport Activity**

#### TDC Harmonised

This dataset and documentation contains detailed information on passenger activity the world, a harmonised and up to date transport data set of historical values, 1990 - 2022.

m TDC • ☐ Updated 23 March 2023 • ± 1700+ Downloads





More Information on: TDC - Home (unece.org)

HVT supported the development of the platform for the TDCI, which should be available in the next few months.

It is envisaged that data from several research projects will also be able to be shared on this platform.

The integration of data should lead to new insights to better address the challenges in transport systems.



#### learn more at

# transport-links.com









# **Horizon Europe**

Horizon Europe is the EU's key funding programme for research and innovation.

It tackles climate change, helps to achieve the UN's Sustainable Development Goals and boosts the EU's competitiveness and growth.

The programme facilitates collaboration and strengthens the impact of research and innovation in developing, supporting and implementing EU policies while tackling global challenges. It supports the creation and better diffusion of excellent knowledge and technologies.

It creates jobs, fully engages the EU's talent pool, boosts economic growth, promotes industrial competitiveness and optimises investment impact within a strengthened European Research Area.

Legal entities from the EU and associated countries can participate.

# **Horizon Europe**

# International cooperation: Why and How?

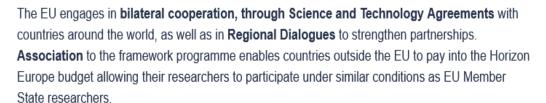
International cooperation is a driver of world class research and innovation. The European Union's Strategy for international cooperation is set out in the Global Approach to Research and Innovation

Communication. Horizon Europe

The Europe Approach to Research and Innovation when the Europe Approach to Research and Innovation when the Europe Approach to Research and Innovation, is one of the main tools to implement this strategy.

Horizon Europe offers opportunities to researchers and innovators from all over the world, albeit with the possibility of restrictions where necessary. Under Pillar I researchers can apply for Marie Skłodowska-Curie Fellowships to come to work in European research groups or for European Research Council grants to establish a research group in Europe. They can be included as partners in research consortia submitting collaborative research proposals under Pillar II, and if they plan to establish a start-up or Small or Medium sized Enterprise in Europe, they can apply for funding from the European Innovation Council under Pillar III.

Guide to why and how to participate as an international researcher in Horizon Europe 6



Balancing the openness of Horizon Europe with **safeguarding European Interests**, we are working towards a common understanding and implementation of the **fundamental principles and values** underlying international research and innovation cooperation through a multi-lateral dialogue, and we are engaged in **science diplomacy** to address global challenges and promote understanding. Closely aligned with the European economic security strategy, safeguarding measures are being taken to enhance research security across the EU.

https://research-and-innovation.ec.europa.eu/strategy/strategy-research-and-innovation/europe-world/international-cooperation\_en



Cluster 5: Climate, Energy and Mobility

Policy, strategy, how to apply and work programmes.

PAGE CONTENTS

Policy and strategy

Apply for funding

Work programme

Documents

Latest

Events

#### Policy and strategy

This cluster aims to fight climate change by better understanding its causes, evolution, risks, impacts and opportunities, and by making the energy and transport sectors more climate and environment-friendly, more efficient and competitive, smarter, safer and more resilient.

The expected impacts of this cluster are contained in the Horizon Europe strategic plan .

#### Areas of intervention

- · climate science and solutions
- · energy supply
- energy systems and grids
- · buildings and industrial facilities in energy transition
- · communities and cities
- · industrial competitiveness in transport
- · clean, safe and accessible transport and mobility
- · smart mobility
- energy storage

https://research-and-innovation.ec.europa.eu/funding/fundingopportunities/funding-programmes-and-open-calls/horizon-europe/cluster-5-climate-energy-and-mobility\_en

# Strategic Transport Research and Innovation Agenda (STRIA)

STRIA priority areas, roadmaps and related links.

PAGE CONTENTS

STRIA priorities

Electrification

Alternative fuels

Vehicle design and manufacturing

Connected and automated transport

Infrastructure

Network and traffic management systems

Smart transport and mobility services

# STRIA priorities

STRIA is the EU's Strategic Transport Research and Innovation Agenda. It sets out the areas where the EU needs to act in concertation with EU countries and stakeholders to radically change transport.

Seven roadmaps describe how to speed up work and deliver in the short and long term. They cover the following priorities

- electrification
- · alternative fuels
- · vehicle design and manufacturing
- · connected and automated transport

· infrastructure

- https://research-and-innovation.ec.europa.eu/research-area/transport/stria\_en
- · network and traffic management systems
- · smart mobility and services

All the roadmaps are contained in the document <u>Towards clean, competitive and connected mobility</u>. You can also download them individually in their sections below.

# **Horizon Europe**

• Summary of funding rates and minimum consortia:

#### Research and Innovation Action (RIA)

- Typically, low(ish) Technology Readiness Level
- Consortium of at least three different legal entities from three different eligible countries (all UK legal entities are classed as eligible). At least one consortium member must be from a Member State (MS)
- All participants receive 100% of eligible direct costs plus 25% for indirect costs

#### Innovation Action (IA)

- Typically, high(er) Technology Readiness Level
- Consortium of at least three different legal entities from three different eligible countries. At least one must be from a MS
- All non-profit participants receive 100% of eligible direct costs plus 25% for indirect costs
- All for-profit participants receive 60% or 70% (check specific Work Programme)
   of eligible direct costs plus 25% for indirect costs

# **Other Third Countries**

Most Horizon Europe calls are also open to participants from non-associated countries and international organisations, unless specific limitations or conditions are laid down in the work programme and/or the call/topic text

Some Horizon Europe calls are particularly relevant for international cooperation, encouraging or even requiring the participation of legal entities from non-associated non-EU countries in the funded actions. Participants from non-associated non-EU countries can take part in Horizon Europe actions — but not always with funding.

Participants from most low- to middle-income countries in Africa are automatically eligible for funding