International Transport Forum

Global dialogue for better transport

Decarbonising Transport Initiative

Mapping standards for low- and zero-emissions electric heavy duty vehicles

17-18 February, 2020

OECD

International Transport Forum

The ITF

- **Intergovernmental organisation**
  - OECD framework, but 60 member countries
- Only global body covering **all transport modes**
- **Think tank** for transport policy
  - **Data and statistics**
  - **Analysis, identification of best practices**
  - **Knowledge sharing**
- Organising global dialogue for better transport
  - **Annual Summit**, largest gathering of transport ministers
  - **Corporate Partnership Board**
  - "Platform for **discussion and pre-negotiation**"
- Current **focal areas**
  - Digitalisation, connectivity, safety & security, universal access, **decarbonisation**

The Decarbonising Transport initiative

- builds a **catalogue of effective CO_2 mitigation measures**
- provides **targeted analytical assistance** for countries and partners to identify climate actions that work
- gathers and shares **evidence for best practices** that will accelerate the transition to carbon-neutral mobility
- **shapes the climate change debate** by building a global policy dialogue and by bringing the transport perspective to the table

Enablers

ITF Modeling Framework

- Projects transport activity and related CO_2 (up to 2050)
- In continues development
- Models cover different transport sectors (international freight, interurban freight + passenger, urban passenger, aviation)
- Backbone to biennial ITF Transport Outlook

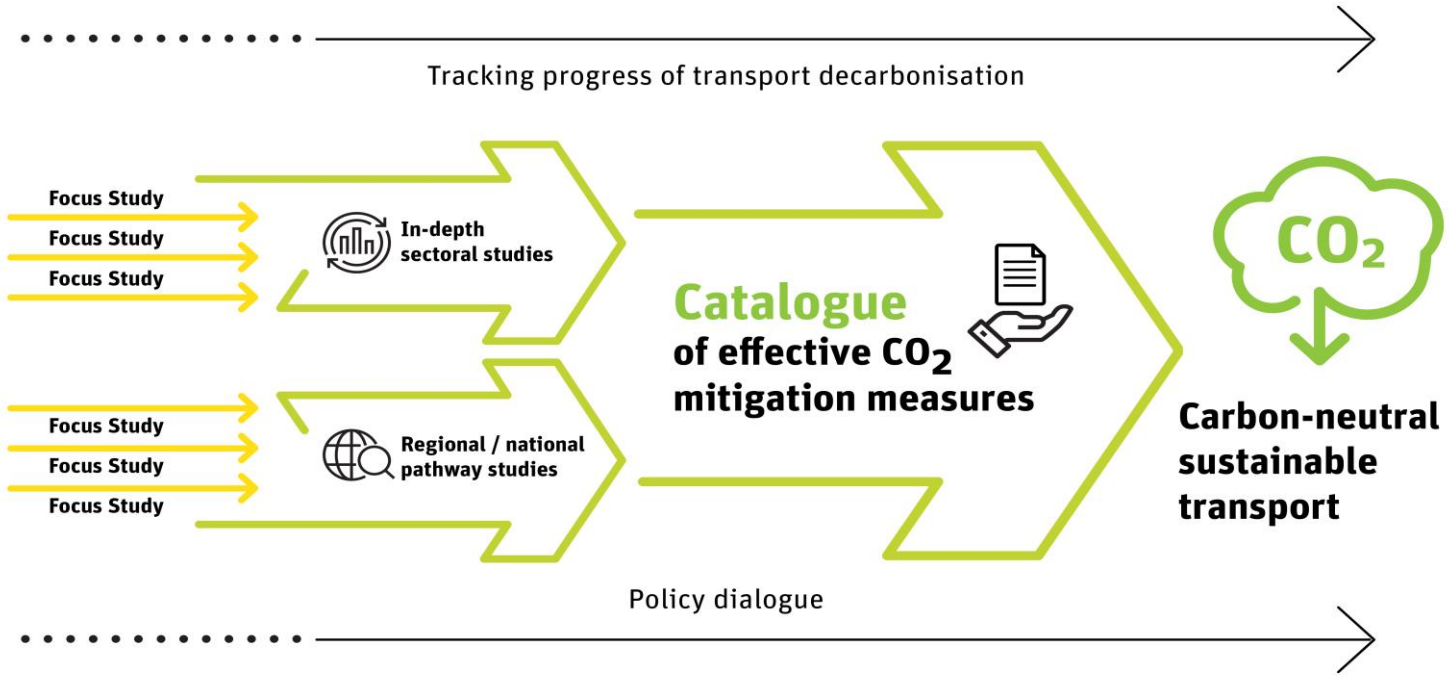
Partners

- More than 70 partners, including corporations, governments, NGOs, intergovernmental organisations, multilateral development banks, professional and sectoral associations, cities and regional networks, research institutions, and foundations
- Provide feedback, data, methodologies, inputs to workshops etc.
- *[Partners can also be funders]*

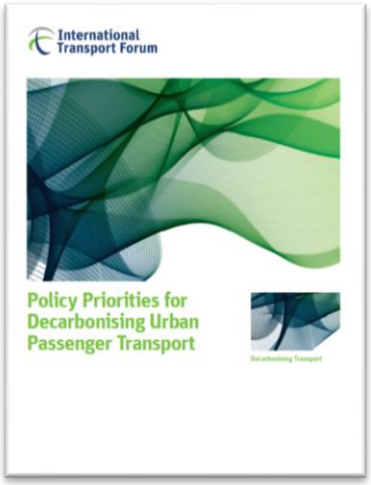
Funders

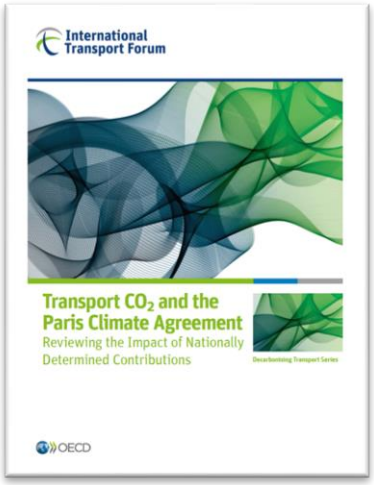
- ITF's Corporate Partnership Board
- France, Korea, Ireland, The Netherlands, EC
- German Ministry of Environment (IKI)
- World Bank, Inter-American Development Bank
- The Climate Works Foundation
- FIA + FIA Foundation
- International Road Transport Union (IRU)
- Swedish Shipowners' Association

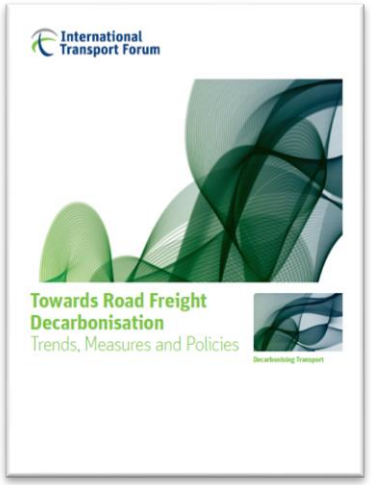
Work streams 2016-2020

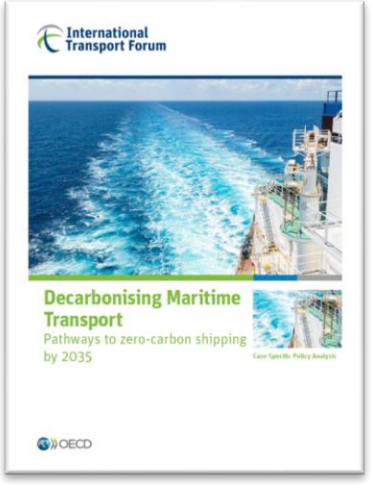


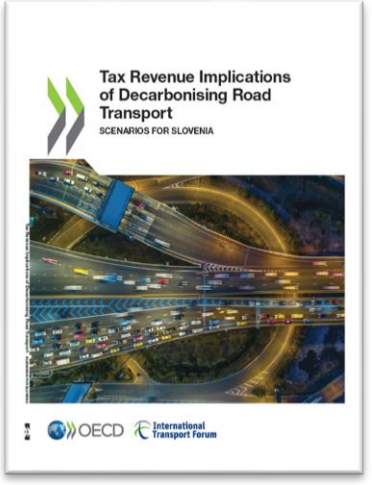
Selected reports











Regional/national pathways

- Decarbonising Transport in Europe

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 831743.

- Decarbonising Transport in Latin American cities: Bogota, Buenos Aires, Mexico City
- Decarbonising Transport in Emerging Economies: Argentina, Azerbaijan, India, Morocco

Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

Policy dialogue

Moving forward

Catalogue
of effective CO_2 mitigation measures

Dissemination
Regional workshops
Capacity building

Implementation support
By theme / topic

- Need for quantitative evidence
- Dissemination and capacity building
- Support in implementing policies

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Workshop background

1/3

- Decarbonisation
  - Broad acknowledgement of the **importance of electrification** and its implications for energy efficiency
  - Equally important acknowledgement **hydrogen** is going to be a major pillar of the clean energy transition, especially for processes requiring high temperature heat (industry) and ina areas where it has a competitive advantage over batteries (weight, range constraints)
  - Both electricity and hydrogen are seen as viable from an energy security perspective because they can be produced by a range of different primary resources (renewables, fossil with CCS)
- **Transport focus**
  - **Low- and zero-emission enabling vehicles (LZEEVs) are central enablers of zero or near-zero emissions of GHGs and local pollutants for road transport**
    - **Fuel cell vehicles (FCEVs**)
    - **Plug electric vehicles (PEVs), including battery electric (BEVs) and plug-in hybrids (PHEVs)**
    - **Internal Combustion Engines (ICEs) with low- and/or zero-carbon fuels** (e.g. e-fuels, waste-based advanced biofuels)

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Workshop background

2/3

- FCEVs and PEVs are the focus of today's event
  - major impacts on important parts of the industrial system, in particular in the automotive, energy transformation and transportation infrastructure sectors
  - important opportunities for their synergetic integration (way more interesting than a polarized debate)
- The scope of the workshop in not limited to FCEVs and PEVs
  - Importance to account also for other low-carbon fuels
- Standards and regulations are also in our focus
  - Important enablers for the deployment of the FCEV and PEVs
  - Subject to the activities of major (and diverse) players
    - Standardization authorities, international organisations, national and local governments, industrial stakeholders, energy market regulators,
  - Relevant for other players
    - research laboratories/academia, non-governmental organisations, philanthropic institutions

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Workshop background 3/3

- FCEVs
  - Mobility infrastructure and Harmonization of Regulation, Codes and Standards were on the top of the agenda of the Hydrogen ministerial meetings held in Japan in 2018 and 2019
  - Mobility infrastructure and harmonised standards for hydrogen also at the centre of the attention in Europe (hydrogen integration Alternative Fuels Infrastructure Directive) and Korea (expression of interest to develop this event)
- PEVs
  - Open questions on its role for heavy duty freight transport, higher power requirements clear in case of long distance
  - Development of high power standards is one of the areas of current focus
- Both FCEVs and PEVs
  - Vehicle safety standards, integration of FCEVs and PEVs in regulations related with environment (including use and manufacturing/recycling phases)
  - Electricity, hydrogen (and derived fuels, e.g. e-fuels) integration in fuel quality regulations
- **ITF well placed to help everyone learn and facilitate dialogue**

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Workshop structure

- Day 1
  - Intro
  - Session A – Vehicle and infrastructure safety
  - Session B – Refuelling and charging infrastructure
    - Part 1 – Charging infrastructure for vehicles using battery storage
    - Part 2 – Hydrogen refuelling
- Day 2
  - Session C – Integration of electric vehicles in environmental standards/regulations
    - Part 1 – Vehicles
    - Part 2 – Energy vectors
  - Next steps
- Structure of the sessions
  - About 1h 40 min presentations and Q&A (clarification only)
  - Remaining 50 minutes for open discussion

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Next steps

1/2

Report

- Insights from this workshop will be included in a workshop summary document (dedicated report)
  - Focus on the vehicle and refuelling/charging safety and environmental standards for LZEEVs
  - Aim is to understand steps should be undertaken to address remaining standardization and regulatory barriers
  - The report will include recommendations on issues that still need to be addressed
  - Insights expected to provide valuable inputs stakeholders that are actively involved in the clean mobility transition
  - We would like all people involved to be reviewers
- The outcomes of the workshop will also serve to inform the ITF modelling work on the transition of passenger and freight transport towards clean mobility

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Next steps

2/2

Common interest groups

- ITF securing seed funding to allow this dialogue to continue in "common interest groups, aiming to:
  - bring together governments interested to learn from experiences that have been developed by their peers and share their own
  - facilitate the dialogue between governments, the private sector and other stakeholders; and
  - ease access to the knowledge available from the ITF and its partners.
- The groups will also inform analyses on the status and prospects of policy developments and market responses, strengthening the collective understanding of the effectiveness of different measures and allowing a continuous update of the catalogue of effective measures.

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Global dialogue for better transport

Thank you

https://www.itf-oecd.org/decarbonising-transport

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