Climate change cannot be stopped without decarbonising transport. Yet current transport CO₂ reduction commitments are not enough to meet the goals of the Paris Agreement.
Transport is one of the biggest contributors to CO₂ emissions

The transport sector is responsible for 23% of energy-related CO₂ emissions. The sector remains dependent on oil for 92% of its energy demand. Despite its importance for halting climate change, efforts to decarbonise transport have been limited and insufficient. Two important factors are holding back effective measures: First, the difficulty of setting policies that influence the behaviour of billions of individuals in effective ways. Second, the complexity of tracking emissions of countless moving vehicles fuelled by different energy sources makes it difficult to assess the impact of specific decarbonisation measures.

Current efforts to reduce transport’s carbon footprint are half-hearted

Transport CO₂ emissions are set to increase, not fall

Carbon emissions from transport activity will increase by 60% by 2050 in a baseline scenario that assumes some, but limited climate action. This is an alarming increase – the more so since it is set to take place despite large gains in energy efficiency expected over the same period: Projections see the average CO₂ intensity of passenger transport decrease from 100g per kilometre in 2015 to 60g in 2050. The freight sector should see similar improvements. Yet this significant progress will be more than cancelled out by strong growth in demand for transport. The bottom line is that despite all efforts, current transport decarbonisation policies are far from sufficient to stop transport emissions from growing, let alone to reverse the trend.
Key insights

The transport sector must cut 600 Megatonnes of CO₂ on top of current reduction pledges to meet the minimal target of the Paris Agreement

Reduction pledges for transport CO₂ are not enough to meet climate goals

Around 80% of countries that signed the Paris Agreement acknowledge transport’s role in CO₂ mitigation by including it in their Nationally Determined Contributions (NDCs). Yet best estimates indicate that the transport-related pledges up to 2030 are not in line with limiting global warming to 2 degrees Celsius, let alone with the 1.5-degree scenario envisaged by the Paris Agreement. If countries implement all their transport NDC pledges, transport CO₂ emissions in 2030 would still be about at the level of 2015. In this case, transport CO₂ emissions would be 1400 Megatonnes less than in a baseline scenario that assumes some limited decarbonisation action - but achieving even a 2-degree scenario would require further reductions of around 600 Megatonnes of CO₂.

Available policies and technologies allow for more ambitious targets

Currently available and foreseeable policy measures and technologies could put transport on a pathway compatible with scenarios “well below” a 2-degree temperature increase by 2030. This requires increased political will to make use of existing policy levers and ensure that available technologies are deployed and scaled up. Beyond 2030, policy and technology innovations and are required to meet climate goals.
To Dos

*Help countries better understand the potential of transport to contribute to their national CO₂ reduction targets*

*Increase ambitions for decarbonising transport*

Countries can be more ambitious in their efforts to decarbonise transport, but many are unsure where to start and how to go about it. They are also often not fully aware of their current transport CO₂ emissions, let alone any baseline projections for the future or impacts of CO₂ reduction measures. Helping countries to better understand their transport sector’s potential to contribute to national mitigation targets can spawn more ambitious climate action plans.

*Highlight the co-benefits of transport CO₂ mitigation*

The significant co-benefits of transport CO₂ mitigation action – reduced congestion or air pollution among others – can be important selling points for transport decarbonisation policies. Making policy makers aware of such co-benefits will help to drive CO₂ reduction efforts.

*Further reading:*
Transport CO₂ and the Paris Climate Agreement: Reviewing the Impact of Nationally Determined Contributions (ITF 2018)

https://www.itf-oecd.org/transport-co2-paris-climate-agreement-ndcs
The Decarbonising Transport initiative promotes carbon-neutral mobility to help stop climate change. It provides decision makers with tools to select CO₂ mitigation measures that deliver on their climate commitment.

Climate change affects lives around the globe. Rising temperatures cause draughts, rising sea levels threaten low-lying regions, ever more extreme weather leads to severe disruptions. Climate change cannot be stopped without decarbonising transport. Transport emits around 23% of the energy-related CO₂ that feeds global warming.

Without immediate action, its share could reach 40% by 2030. Transport emissions have grown faster than those of any other sector over the past 50 years. Demand for transport will continue to grow massively in the coming decades. As a result, CO₂ emissions from transport activity will not fall, but could increase by 60% by 2050. And because transport relies on oil for 92% of its energy, it is particularly hard to decarbonise.

The initiative is funded by voluntary contributions from a number of sources including ITF member countries, Corporate Partnership Board, multilateral development banks, as well as industry associations and foundations.

www.itf-oecd.org/decarbonising-transport