



Automobiles create largest mobility benefits:

Post-COVID recovery is an opportunity to accelerate sustainability

Mobility benefits the economy and users

Mobility contributes to GDP and supports jobs while offering greater freedom of choice to businesses and users, boosting productivity, enabling trade and improving well-being.

Globally, in 2019, benefits associated with mobility included:

- A travel and tourism industry that contributed €7.9 trillion to global GDP (or 10.3%) and supported 330 million jobs (1 in 10 jobs in the global economy)ⁱ
- Trade in goods was equal to more than 21% of global GDP or €16.9 trillionⁱⁱ, all of which required transportation across borders
- Businesses and users of mobility benefited through increased choice which improved their productivity and well-being
- Automobile mobility played an especially important role in creating these benefits

In the European Union automobiles create the largest mobility benefits

About 3 out of 4 overnight trips made by EU residents within and outside the EU were done using an automobile.ⁱⁱⁱ All other modes combined (aviation, rail and water) represent the remaining 25% of trips. In 2019, automobile mobility is estimated to have created the following economic and social benefits within the EU:

- Contributed about 6% in GDP (€827 billion) and supported 7% of employment (14.2 million jobs) through activities in the travel and tourism sector
- Improved welfare by increasing the freedom of choice, which boosted productivity in the economy and enriched well-being of users
- Enabled external trade (20% in value) and internal trade within the EU (70% in value), thereby helping connect external markets to the EU and supporting closer economic integration within the EU

Automobiles are the main source of mobility benefits in the European Union

GDP

- Contributes 6%
- €827 billion



Jobs

- Supports 7%
- 14.2 million



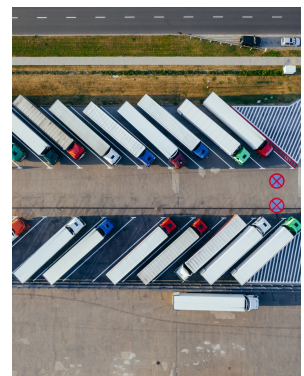
Users

- Freedom of choice
- Brings happiness



Trade

- External 20%
- Internal 70%



Source: Veritas Global using data from Eurostat and WTTC.

Note: GDP and jobs figures are based 2019 estimates but are apportioned to automobile mobility based on 2017 modal choice. Includes only automobile mobility associated benefits generated by EU residents. Does not include automobile industry benefits. Trade data corresponds to 2019 performance.

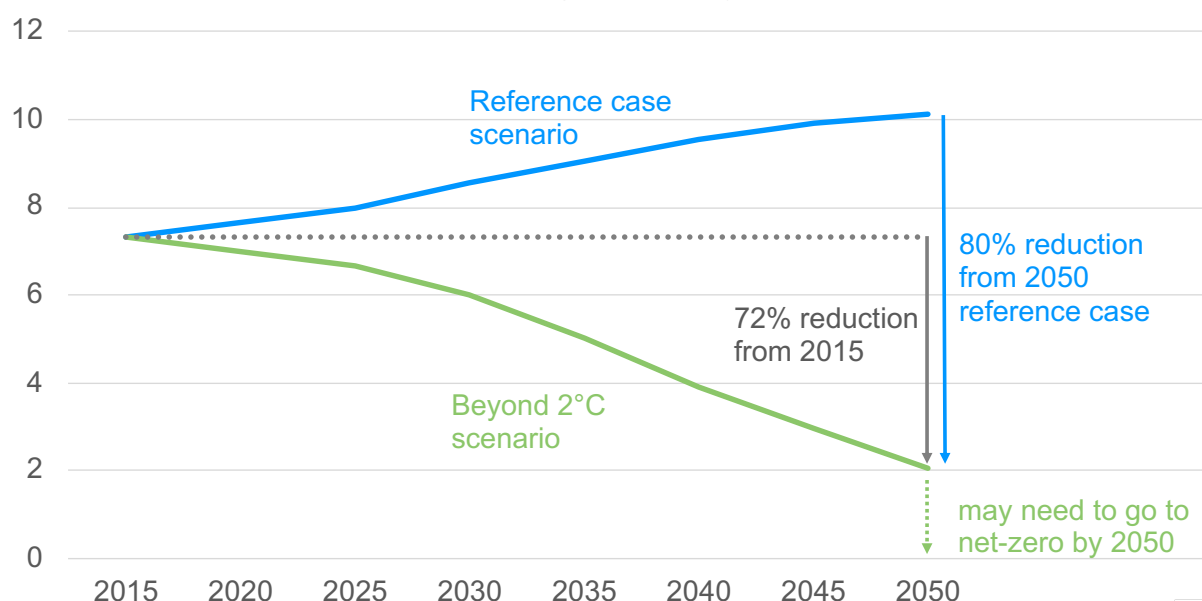


Prioritizing sustainability in the post-COVID recovery

Climate targets under the Paris Agreement imply a need to deliver rapid decarbonization in light and heavy road vehicles. International Energy Agency (IEA) scenario modeling for achieving an emission trajectory consistent with going beyond 2°C points to the need to make significant emission reductions from road transport. Specifically, the IEA estimates that light and heavy road vehicles need to reduce their aggregate CO₂ emissions by 72% by 2050 compared to their 2015 level.^{iv}

Climate targets may transform light and heavy road vehicles and their use

Global well-to-wheel CO₂ emissions from light and heavy road vehicles, billions of metric tons



Source: Veritas Global using data from IEA Energy Technology Perspectives 2017.

Note: IEA beyond 2°C scenario has a 50% chance of limiting temperature rise below 1.75°C and 2°C by 2100.



Overall, across all transport modes, the sector is expected to achieve CO₂ emission reductions through a combination of technology-focused measures, such as energy efficiency and fuel switching, and structural changes that avoid or shift transport activity. The contribution of various measures for CO₂ emission reductions in 2050 can be decomposed as: efficiency improvements (29%), biofuels (36%), electrification (15%), and avoidance combined with modal shift (20%).^v

In road transport, in the short to medium term, hybrid electric vehicles and plug-in hybrid vehicles can be instrumental in enabling the transition to electric vehicles. Also, designing interventions that incentivize more sustainable behaviors of drivers and users can also contribute to accelerating sustainable practices.



contact@veritasglobal.ch



www.veritasglobal.ch

ⁱ World Travel and Tourism Council, Travel & Tourism: Economic Impact 2020.

ⁱⁱ World Trade Organization, World Trade forecast, April 2020.

ⁱⁱⁱ Eurostat, Estimated number of trips by mode of transport by EU residents, 2017.

^{iv} International Energy Agency, Energy Technology Perspectives 2017.

^v Ibid and Intergovernmental Panel on Climate Change, Special Report on Global Warming of 1.5°C, Chapter 2, 2018.