

Climate change and its consequences

[Environment](#), [Climate Change](#)



Climate change and its consequences have recently grown in importance on political agendas worldwide. CO₂ emissions is one of the gases that has a dramatic impact on the environment resulting in rising coastal flooding, reduction in water supplies and increase malnutrition (IEA, 2010).

In order to protect the environment for future generations, a global reduction in CO₂ emissions is required along with reduced consumption of non-renewable energy resources. One major CO₂ contributor is the transport sector, which is responsible for around a quarter of EU greenhouse gas emissions, making it the second biggest greenhouse gas emitting sector after energy.

While emissions from other sectors are shrinking, those from transport have increased by 36% since 1990. As a consequence, the European Union has set mandatory emission reduction targets for passenger cars of 95g/km by 2020, which is a reduction of 40% compared to 2007. Automobile manufacturers that fail to comply face drastic fines.

In order to reach these targets and prevent penalty payments for excessive emissions, innovative propulsion systems have gained increasing attention. Vehicles with electric propulsion are considered as a promising alternative on the pathway towards low emission vehicles that could enable the transport sector to reduce emissions significantly. During the last few years, electric vehicles (EV) got more and more attention in national and European policies and public awareness increased significantly.

While much effort has been put in the research and development of e-mobility, less attention has been paid to consumers' acceptance (Yeh, 2007).

The majority of consumers still consider EVs as disadvantageous compared to traditional cars. However, without consumer acceptance there will be no technological shift and long-term success of sustainable transport systems (Wiedmann et al., 2011).

Therefore, it is crucial to gain in-depth insights in consumers' perception towards EVs that affect preferences for and the adoption of alternative fuelled vehicles.