Summary of the key issues

1 The average fuel economy (L/100 km) of new cars in OECD countries could be improved 30% by 2020 and 50% by 2030 at low or negative cost taking into account fuel savings[1]. Improvements of the same order of magnitude appear possible in non-OECD countries where car fleets are growing fastest. Improving the efficiency of new cars at this rate would make possible at least a 50% improvement in the average fuel economy of all cars on the road worldwide by 2050 – thus, the 50:50 initiative.

2 Even if vehicle kilometres driven double by 2050, efficiency improvements on this scale worldwide would effectively cap emissions of CO_2 from cars at current levels. It is estimated that CO_2 savings would exceed 1 Gt CO_2 annually by 2025 and 2 Gt CO_2 annually by 2050. Additional vehicular pollutants that also impact on the environment and contribute to climate change, including black carbon, would also be significantly reduced.

3 This would likely save over 6 billion barrels of oil per year by 2050, worth USD 600 billion at an oil price of USD 100/bbl. In rapidly urbanising countries local air pollution benefits would also be considerable.

4 These levels of improvement are achievable using existing, cost-effective incremental fuel economy technologies.

5 The technologies required to improve the efficiency of new cars 30% by 2020 and 50% by 2030, and the efficiency of the global car fleet 50% by 2050, mainly involve incremental change to conventional internal combustion engines and drive systems, along with weight reduction and better aerodynamics. To achieve a 50% improvement by 2030, the main additional measures would be full hybridisation of a much wider range of vehicles (possibly including, but not requiring, plug-in hybrid vehicle technologies). Vehicle technology is changing rapidly and more cost-effective technologies are likely to emerge in coming years, increasing the potential and/or lowering costs further.

6 Battery electric vehicles, plug-in hybrids and possibly hydrogen fuel cell vehicles are expected to become increasingly available in the near-to-medium term given recent improvements especially in batteries. However, these advanced technologies are not necessary to achieve the 50% potential described here, but could result in further CO_2 reductions and oil savings if they succeed in achieving mass-market commercialisation. This will also depend on the provision by the electricity sector of low-CO_2 electricity[2].

[1] Based, for example, on $60/bbl oil prices and no fuel tax, with a social (low) discount rate, or at higher fuel prices with private (higher) discount rates. See Section 3.4 for more details.

[2] Through non fossil fuel generation or with CO_2 capture and storage.

7 Beyond technology-based improvements to new cars, further low-cost efficiency improvements are possible for the entire global stock of cars, affecting actual "on-road" efficiency. These include programmes to promote efficient after-market products like replacement tyres, fuel-efficient driving style (ecodriving), improved traffic and speed management, better maintenance of the stock of vehicles and better management of mobility in cities. Finally, regulation or incentives to promote the fuel economy of imported 2nd hand vehicles might improve fleet efficiency in the developing world and have been used effectively to reduce the number of grossly polluting vehicles in circulation in a number of countries. These measures represent an important complement to technology measures for new cars and are also included in this initiative.

8 For many individuals, much or all of the cost of improved technology for more fuel efficient cars could be offset by the fuel saved in the first few years of use of a new car, especially at high oil prices. But unstable oil prices, which can fall as well as rise, create risks that dissuade many car buyers from paying an upfront premium for efficiency and dissuade automobile manufacturers from investing in highly fuel efficient vehicles because they can not be sure of selling them.

9 Governments and their partners can take action to counter these risks and facilitate the introduction of cost effective fuel efficient technologies.

a. They can improve the information on fuel consumption and CO_2 emissions available to consumers. For example, some fuel efficiency tests can be somewhat misleading as they do not accurately reflect average in-use fuel economy.

b. They can set regulatory standards for fuel consumption or CO_2 emissions that remove the uncertainty over how much investment in fuel efficiency is viable.

c. They can differentiate vehicle taxes according to CO_2 emissions or fuel economy to encourage consumers to prefer improved efficiency.

d. They can provide incentives and set regulations for vehicle components that fall outside current vehicle testing, incentive and regulatory systems.

10 Governments also have a responsibility to minimise the costs of intervention, for example by keeping the differentiation of vehicle taxes simple and similar across regional markets and ensuring coherence with vehicle fuel efficiency labelling systems.

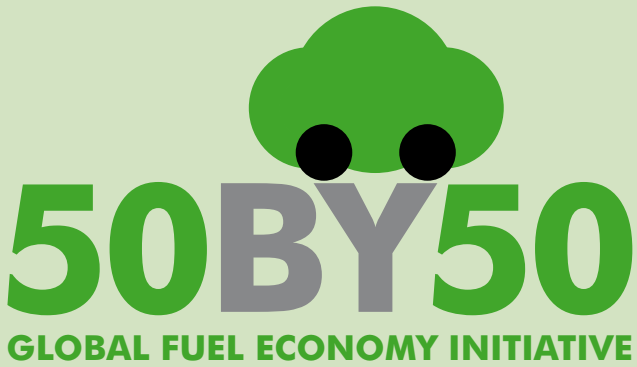
11 Car manufacturers can support the shift to more fuel efficient vehicles by committing themselves to the objectives of this initiative and working toward producing vehicles that use 50% less fuel than at present. They need to work with governments to ensure effective regulatory standards are adopted and to incorporate international market considerations in the design of national tax incentives and labelling systems. There should also be consideration that different manufacturers focus on different market segments.

The Global Fuel Economy Initiative

The Global Fuel Economy Initiative to be launched in early 2009 will aim to improve the understanding of the fuel economy potential and cost of cars built and sold around the world, and to provide guidance and support on the development of policies to promote fuel efficient vehicles. Its activities will include the following:

- Development of improved data and analysis on fuel economy around the world, monitoring trends and progress over time and assessing the potential for improvement.
- Work with governments to develop policies to encourage fuel economy improvement for vehicles produced or sold in their countries and to improve the consistency and alignment in policies across regions in order to lower the cost and maximise the benefits of improving vehicle fuel economy.
- Work with stakeholders including auto makers to better understand the potential for fuel economy improvement and solicit their input and support in working toward improved fuel economy.
- Support regional awareness initiatives to provide consumers and decision makers with the information they need to make informed choices.

This will include periodic reports by the initiative and support for the development of vehicle testing and consumer information systems in regions where these are not yet available.



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