



**100**  
**FOR 50BY50**  
**SAFE CLIMATE AND**  
**CLEAN AIR AT COP21**

# 100 COUNTRIES SUPPORTING IMPROVED VEHICLE FUEL ECONOMY

**GFEI's commitment for practical action at COP21**

The Global Fuel Economy Initiative is a partnership of six organisations including the International Energy Agency (IEA), United Nations Environment Programme (UNEP) and FIA Foundation, which seeks to promote improvements in the fuel economy level of the global LDV fleet. Using established modelling techniques, the GFEI has proposed a series of targets for fuel economy improvements in culminating in an average global improvement across all vehicles of 50% by 2050. We term this our 50by50 target. GFEI works in countries to build capacity and to share best practice in fuel economy policy; raises awareness and campaigns; and undertakes data development and research - all towards this goal.

2015 is a key year for the Global Fuel Economy Initiative (GFEI). The inclusion of fuel economy in the new Sustainable Development Goals, the G20 and COP21 all reflect the importance of the issue in terms of sustainable development, climate mitigation, and economic prosperity. They all offer opportunities to secure the sort of political attention for the issue which could ensure that action to end this global waste of energy resources is properly scaled up.

GFEI has developed the '100 countries for 50by50' campaign in order to influence these agendas. Our aim is to secure the engagement of 100 countries in a commitment to the GFEI target of 50by50. In joining us in this work countries will be committing not only to work on fuel economy towards the 50 per cent reduction in average fuel use, but to seek to do their part towards achieving this target by 2050 - hence 50by50.

Our own data shows that the world is not on a path to achieve this target yet - particularly in those countries where the huge future growth in vehicle ownership is likely to be focused. By supporting the improvements in fuel economy which GFEI promotes, and which are based on existing cost-effective technologies, and can deliver huge carbon and energy savings, these '100 countries for 50by50' supporters will be helping to put the world on a path to more sustainable mobility.

## Key Messages

- The global fleet is set to triple by 2050 - with most of that growth to take place in non-OECD countries.
- Doubling the efficiency of the global fleet will result in massive CO<sub>2</sub> reductions (0.5 Gt/yr by 2025, 1.5Gt/yr by 2050), plus costs savings, reduced air pollution, and less oil dependence.
- To double the efficiency vehicles need to go from 8l/100 km to 4l/100 km. OECD countries are almost on track to achieving this, but few non-OECD countries have policies and incentives in place and thus see little improvement in their fuel economy.
- The Global Fuel Economy Initiative (GFEI) is supporting countries to put in place fuel economy policies, with the ultimate target to double the efficiency of the global fleet.
- With support from the GFEI over 30 countries are developing fuel economy policies. We aim for this to increase to 100.

## The Solution

The GFEI is supporting countries to develop and implement fuel economy policies. Measures successfully deployed include import regulation (regulating import of old vehicles), emissions standards, fiscal measures (reforming taxes to reduce taxes on efficient vehicles and increase taxes on inefficient vehicles), labeling (standardized labeling indicating efficiency of cars in showrooms), removal of the oldest vehicles (rebate or cash for clunkers schemes) and removal of fuel subsidies, fast tracking new technology introduction (hybrids and EVs).

Countries that the GFEI is supporting have introduced policies that have resulted in significant improvements in the efficiency of the vehicles they import.

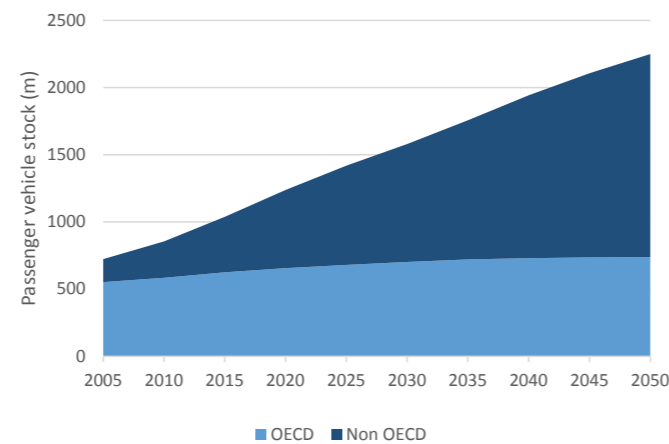
## Benefits

Doubling the efficiency of the global fleet will have major climate benefits. It would reduce emissions of CO<sub>2</sub> by a further 0.5 gigatonne (Gt) a year by 2025 and 1.5 Gt/yr by 2050, and result in savings in annual oil import bills alone \$400 million/year in 2050, and a net saving of \$8 trillion by this point. Additional benefits would include reduced fossil fuel dependence, reduced emissions of short lived climate pollutants (black carbon) and improved air quality. WHO estimates that air pollution prematurely kills 7 million people per year with vehicle emissions as the major contributor.

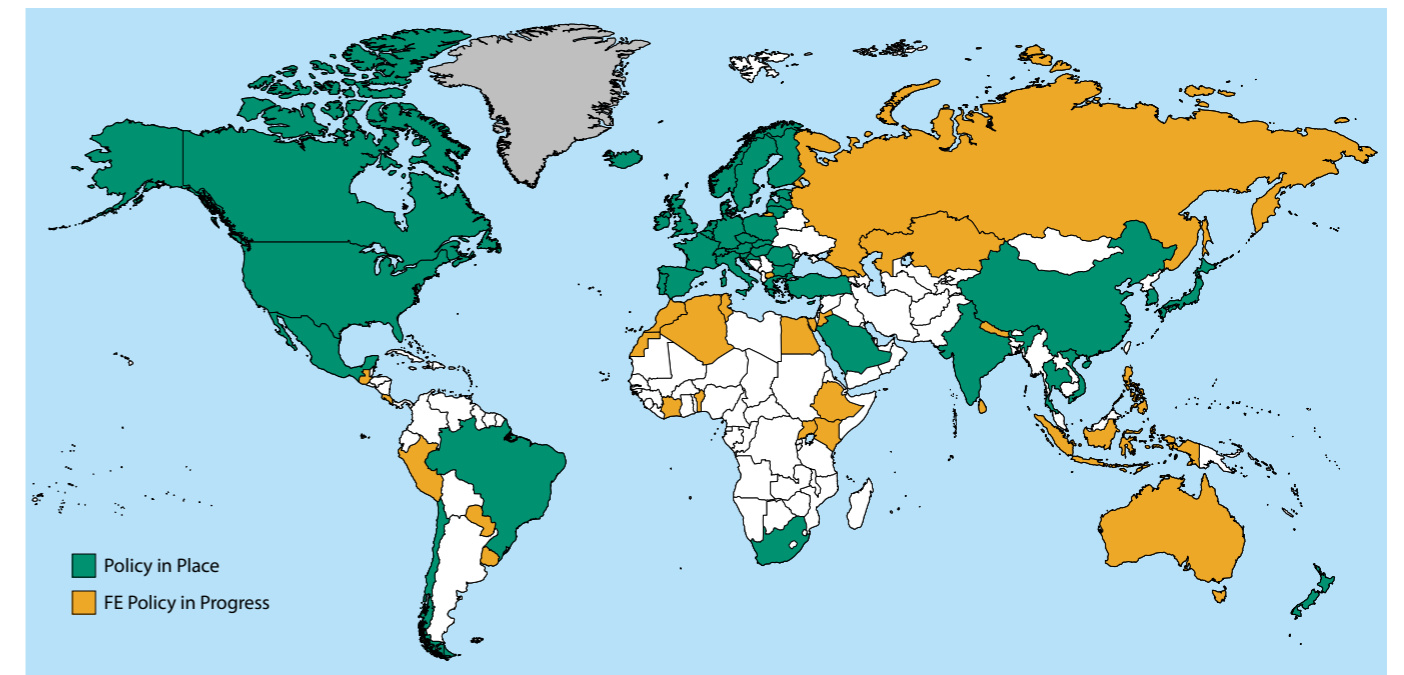
## The Challenge

The global vehicle fleet is set to double by 2030, and potentially triple by 2050. Almost all of this growth is to take place in developing and transitional countries resulting in an almost three fold increase of CO<sub>2</sub> emissions of the global vehicle fleet.

The transport sector has the highest growth of CO<sub>2</sub> emission of any sector. Black carbon and pollutant emissions are set to increase similarly with major health and short term climate impacts.



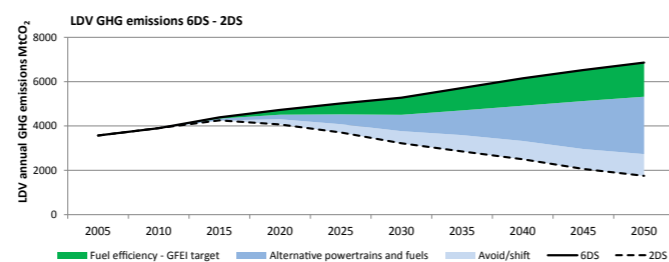
Global passenger light duty vehicle stock out to 2050



## The Target

OECD countries are almost on track to double the efficiency of their fleets - going from 8l/100km to 4 l/100km by 2025 (new vehicles). However, the fuel economy of developing country fleets is not improving and is even in some cases deteriorating, yet 2 out of 3 cars will be found in non-OECD countries in the future. While OECD countries have put in place policies to promote fuel economy, only a handful non-OECD countries have done so.

Developing fuel economy policies in non-OECD countries and strengthening policies in OECD countries can double the fuel economy of new vehicles by 2030, and all vehicles by 2050.



LDV emission reductions due to fuel economy policies

## Achieving Global Impact

Improved fuel economy could save \$8 trillion by 2050. It is important that the new vehicles sold are modern, clean and efficient. With the right policies in place, major savings can be made in fuel consumption and CO<sub>2</sub> emissions. Applying existing, cost effective technology, can double the efficiency of vehicles.

The goal of the GFEI is to have all countries in the world adopt a clean and efficient vehicles policy. There are many countries that are interested to work with the GFEI to develop these policies - for environment cost savings reasons. GFEI is currently working in 26 countries, with good contacts in at least as many again. GFEI also has good contacts with around 30 important private and third

sector organisations, and this is a vital network which GFEI is also seeking to expand.

The GFEI would like to extend our reach to at least 100 countries within one year of COP21 in Paris which is achievable if:

- improving energy efficiency through better fuel economy is prioritized - recent developments - SE4ALL, SG Climate Summit, G20 - are helping with this;
- we have the resources. We have already received major support from the EU and GEF but would need additional resources.

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## DOUBLE AVERAGE FUEL ECONOMY OF NEW CARS BY 2030 AND ALL CARS BY 2050



### BENEFITS OF IMPROVED FUEL ECONOMY AND REDUCING EMISSIONS



6.5Gt/year of CO<sub>2</sub> from road transport

74% of transport CO<sub>2</sub> emissions from road vehicles

In 2014, total global CO<sub>2</sub> emissions were 38Gt. Out of the 8.8Gt of total transport emissions, 74% (6.5Gt) were from road transport.



300 fewer power stations

The 33Gt of CO<sub>2</sub> that could be saved between 2015 and 2050 is roughly the equivalent of closing 300 coal power stations over the same time period.



\$2 trillion savings

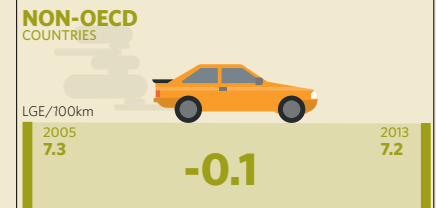
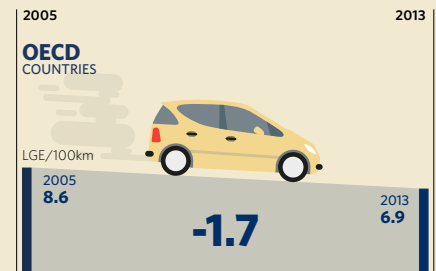
A total of \$2 trillion could be made in fuel savings by 2025, \$500 billion of which would fund the costs of initiating a transition to electric vehicles.



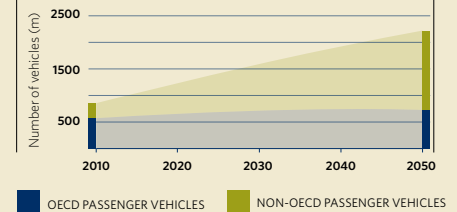
+\$500 BILLION

### OECD AND NON-OECD COUNTRIES' PROGRESS

FUEL ECONOMY  
Average LGE/100km



#### FUTURE VEHICLE GROWTH TRENDS



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