

GFEI 2012 – 2015 Workplan launch
ITF Summit, Leipzig 2012

**ITF Transport Outlook 2012
Seamless Transport for Greener Growth**

Better balanced and greener mobility

1. Better balanced mobility

Is mobility policy also energy/climate change policy?

2. Transport taxes and public finance

Tax base erosion for greener transport?

3. Low carbon vehicles - Electric vehicles

Subsidies well-spent?



1. Better balanced mobility

- Mobility systems are surprisingly homogenous.
Modal and technological diversification.
- Diversification is compatible with greening.
But it is not automatic.
- The potential is not large enough to attain ambitious decarbonisation targets.
Changing energy technology is key.



How much could mobility policy contribute to saving energy?

No general answer: starting points and possibilities differ strongly.

Transport Outlook 2012

Mobility policy can slow down emission growth (compare “high and low car ownership scenarios”) but not stop it.

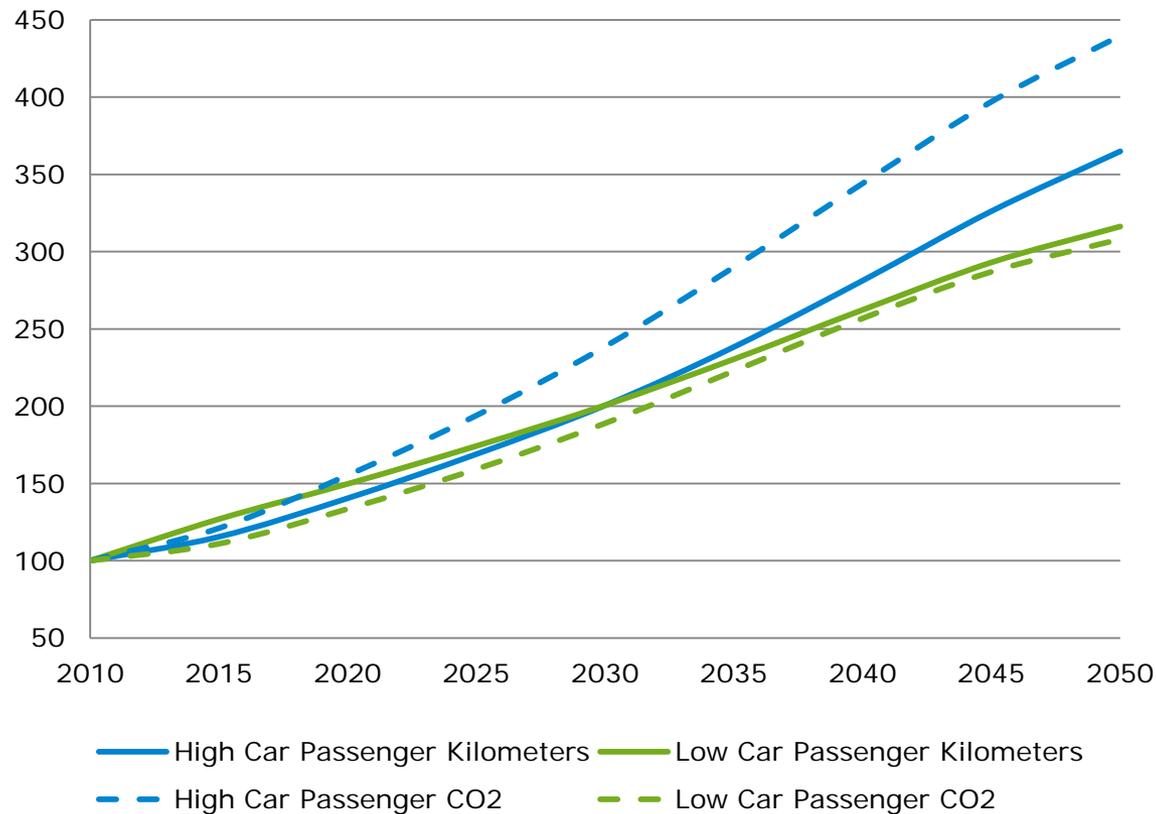
It can do so without strongly reducing mobility.



Index of total passenger mobility (passenger-km, all modes) and CO2-emissions

non-OECD, 2010–2050

high and low car ownership (index 2010=100)



2. Transport taxes and public finance

Taxes are on fossil fuels. Effect on CBA of better fuel economy?

e.g. improve fuel economy to go from 160gCO₂/km to 130g,
rebound effect of 20%, technology cost of ~ 1,000€

change in consumer WTP:	462€ to 1,852€
change in value of tax revenue:	-1,150€ to -885€

combine with “revenue neutral” km tax

change in consumer WTP:	184€ to 736€
change in value of tax revenue:	91€ to 139€



2. Transport taxes and public finance

better fuel economy is fiscally expensive

shifting to non-transport tax base may increase economic costs of revenue-raising

km-taxes improve the balance, but reduce the appeal of better fuel economy to drivers



3. Low carbon vehicles – Electric vehicles

Why?

Greenhouse gas emissions, energy security, innovation and growth - congestion, local pollution

Lower carbon

More efficient conventional vehicles

Hybrids

- slow down depletion of fossil fuel stocks (buys time)
- slow down accumulation of CO₂ in atmosphere (buys time)
- toughens competition for alternative fuels (need more time)

Alternative technologies – EV



Like-for-like comparison

Renault EV models have nearly identical fuel counterparts –
We looked at advertised prices, applied French taxes and energy costs
and assessed consumer and societal (ex-tax, incl. €5k subsidy) costs
over 15 year vehicle lifetime over typical travel distances.

5-door sedan



Excess cost,
Electric vs. Fuel:
Consumer = 4.4k€
Societal = 12.2k€
(35 km/day)

3-door compact



Excess cost,
Electric vs. Fuel:
Consumer = 4.8k€
Societal = 12.0k€
(30 km/day)

2-door van



Excess cost,
Electric vs. Fuel:
Consumer = -4,3k€
Societal = 7.0k€
(90 km/day)



Electric vehicles make sense for high travel scenarios

But a real tension exists between higher travel, useable battery range and costs limiting the potential for cost-effective EV deployment (with current batteries)

A business case already exists for fleets and owners who have elevated daily travel

Fleet operators have capital to cover upfront investment, especially since they can recoup costs rapidly - subsidising these EVs diverts limited resources

Electric cars are not “zero emission” vehicles but rather “displaced emission vehicles”

Efficient EV, even with high-carbon electricity, emit less lifecycle CO₂ than fuel vehs, not the case with less efficient EVs



1. Better balanced mobility
Better mobility can be greener, greener mobility may or may not be better mobility

2. Transport taxes and public finance
Fiscal impacts important, higher investment in green mobility means less €€ for other worthwhile investments

3. Low carbon vehicles - Electric vehicles
Targeting of assistance important, outcomes uncertain and CO2 impacts are linked to investments in low-carbon electricity



Thank you

Kurt Van Dender
+33 (0)1 45 24 95 98
kurt.vandender@oecd.org

Postal address
2 rue Andre Pascal
75775 Paris Cedex 16

Index 2050 2010=100	Passenger Kms			Tonne Kms		
	OECD	Non-OECD	World	OECD	Non-OECD	World
GDP	210-230	440-520	300-350	210-230	440-520	300-350
GDP/cap	185-210	320-370	230-270	185-210	320-370	230-270
Transport						
pkm or tkm	110-150	240-360	170-260	150-230	250-550	200-380
CO2	80-110	240-450	130-220	100-165	260-450	170-300