



# What can GFEI bring you?

Best Practices

**Promoting Improved Automotive Fuel Economy in Ukraine**

Kiev, 12<sup>th</sup> of October 2017

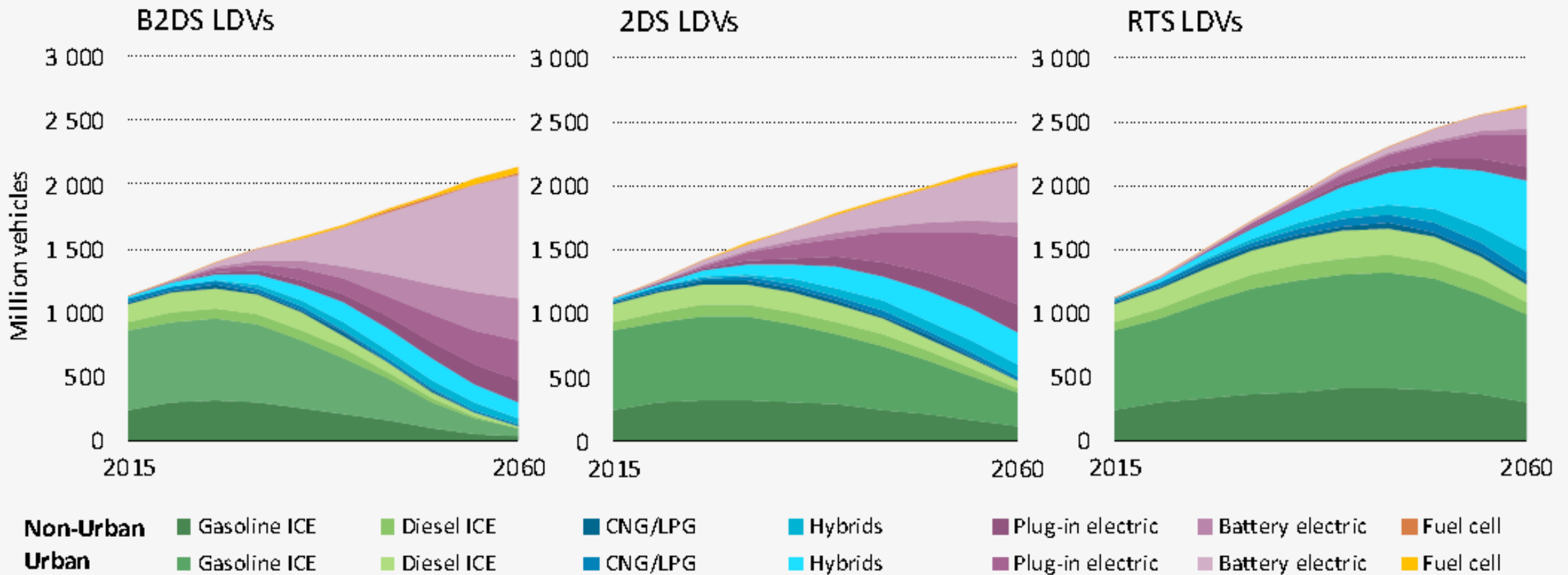
François Cuenot, Independent Consultant

# Index

- Why do we care about Fuel Economy ?
- Where / What fuel economy policies work?
- More to come in Ukraine



# Internal combustion engines still there in 2060



Note: CNG = compressed natural gas; LPG = liquid petroleum gas.

Source: IEA (2017a), *Mobility Model*, March 2017 version, database and simulation model, [www.iea.org/etp/etpmodel/transport/](http://www.iea.org/etp/etpmodel/transport/).





More than 2 billion cars on the road in 2040





# Vehicles are getting larger, bigger, heavier



Oil is not infinite !



- Sometimes country heavily dependant on foreign oil imports
- Reserves not always in stable/partner countries

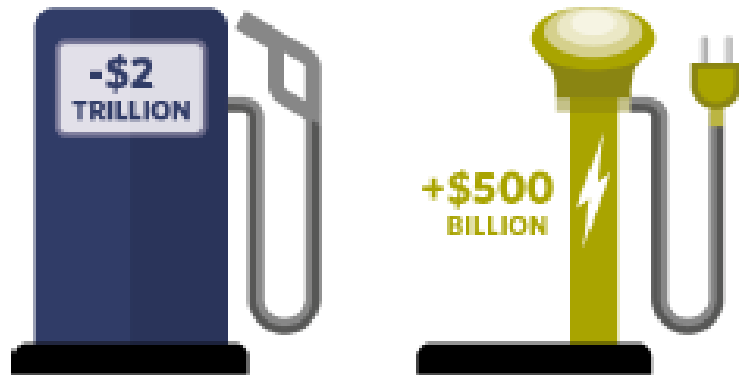
# Climate Agenda – Calling for an answer

- Some Oil to be kept underground not to exceed the 2°C threshold
- Climate a global issue
- Global, coordinated answer needed



# Fuel economy co-benefits

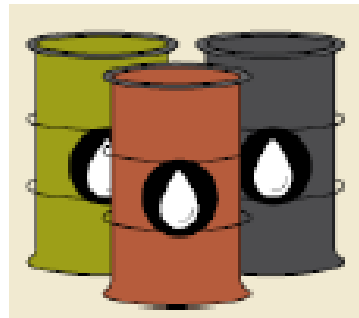
## Financial Savings



### \$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.

## Reduced dependence on oil



## Lower carbon emissions



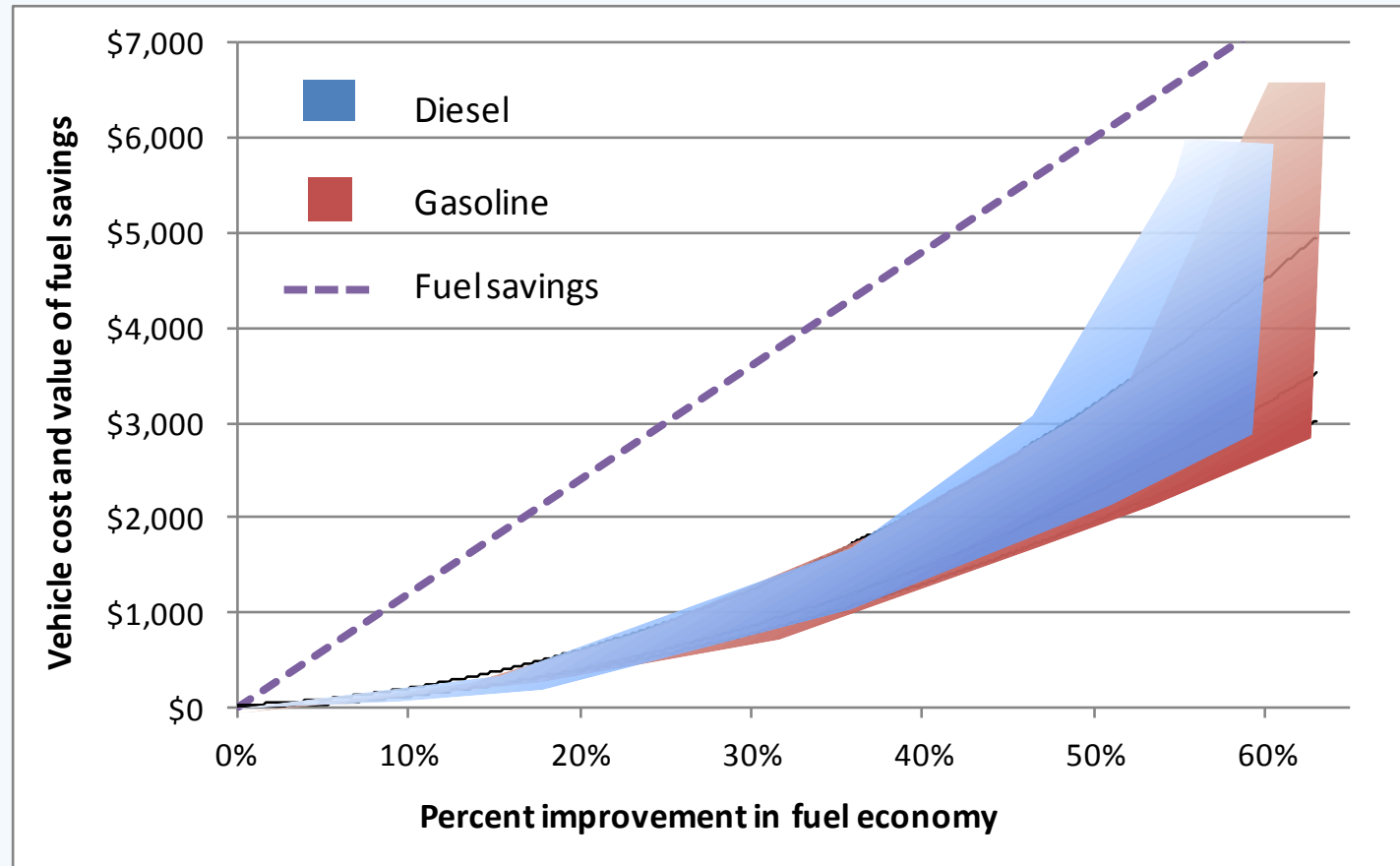
### 300 fewer power stations

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.



# Fuel Economy Improvements are Cost-effective

***Fuel savings more than pays for fuel economy improvements in light-duty vehicles***



Source: IEA Fuel Economy Roadmap, July 2012



# Fuel Economy Policy portfolio - Fiscal

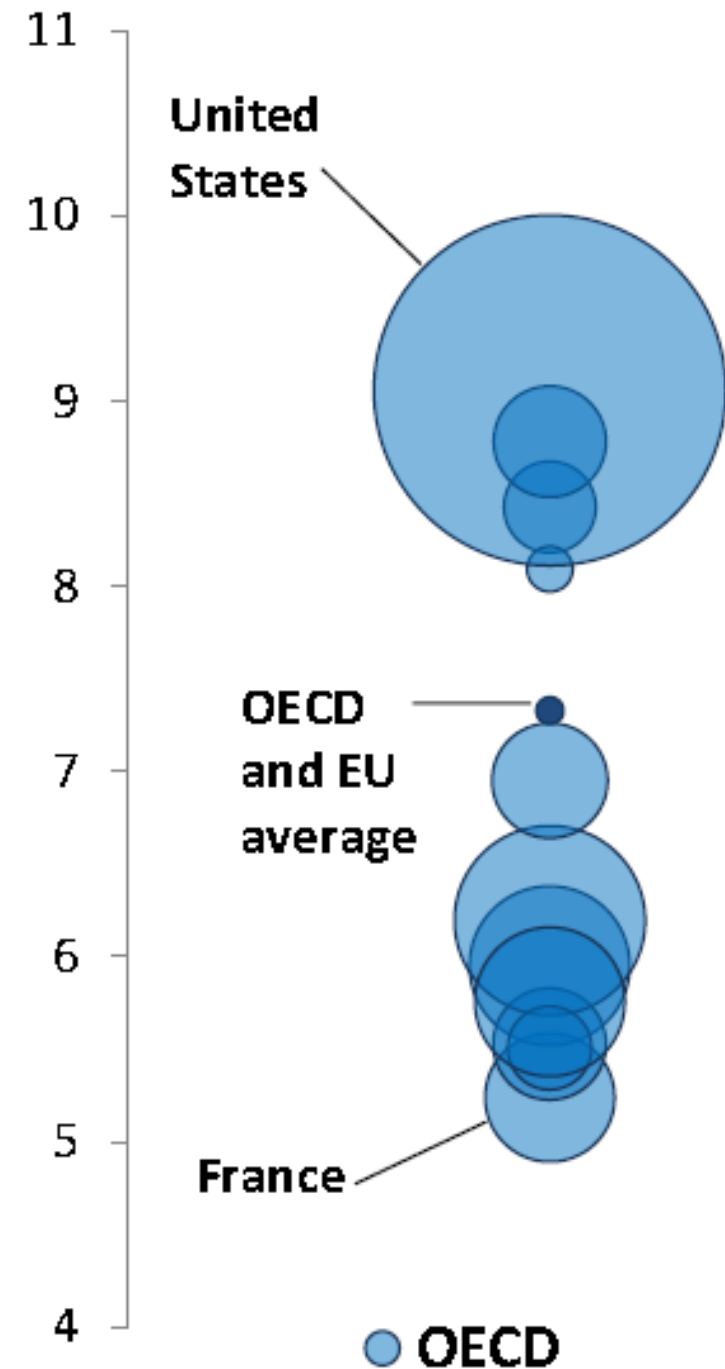
- Ownership and registration (CO<sub>2</sub>-based) tax



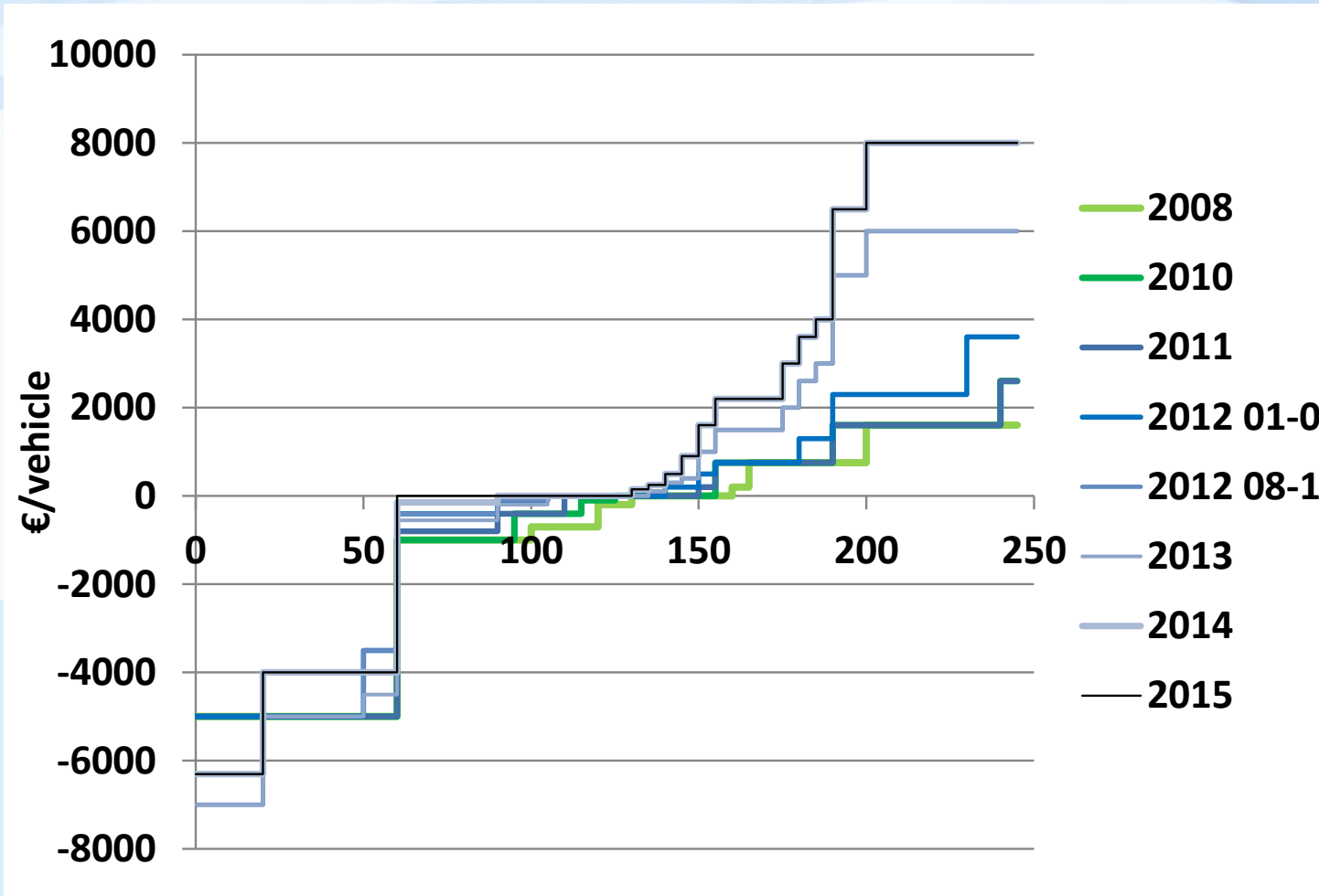
- Fuel tax



Lge/100 km  
normalised to WLTC



- Feebates

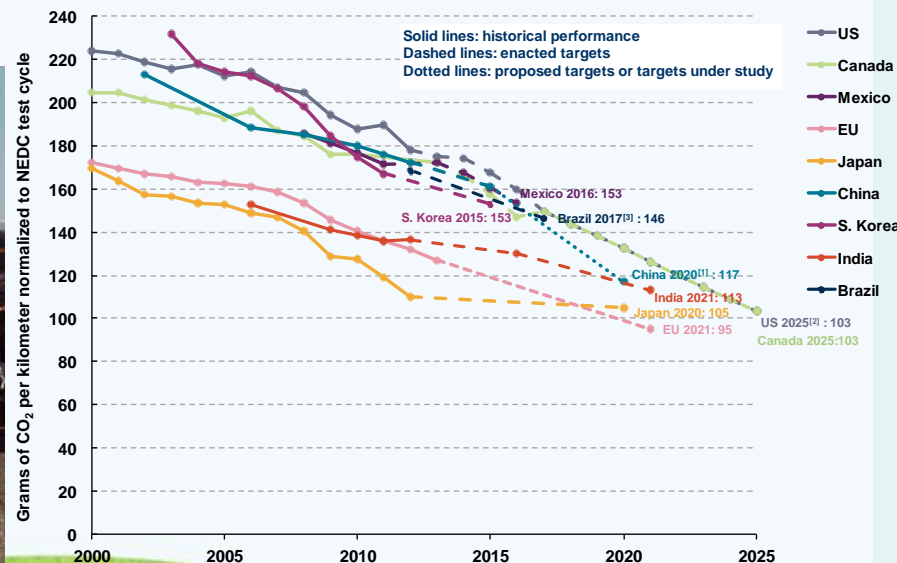




# Fuel Economy Policy portfolio

## – Non Fiscal

- Fuel Economy Labels
- Fuel economy standards
- (ZEV) Mandates



[1] China's target reflects gasoline vehicles only. The target may be higher after new energy vehicles are considered.  
[2] US standards GHG standards set by EPA, which is slightly different from fuel economy standards due to low-GWP refrigerant credits.  
[3] Gasoline in Brazil contains 22% of ethanol (E22), all data in the chart have been converted to gasoline (E00) equivalent  
[4] Supporting data can be found at: <http://www.theicct.org/info-tools/global-passenger-vehicle-standards>.

**FORD FOCUS**  
1.6 Duratorq TDCi 110PS 5dr Saloon

year 2011  
engine 110 BHP  
gearbox Manual 6-speed

Diesel

**CO<sub>2</sub> EMISSIONS**  
**127 g/km**  
**Vehicle Excise Duty (VED)**

**FUEL ECONOMY**  
**58.9**  
combined MPG  
48.4 urban 67.9 extra urban  
5.8 4.8 L/100km 4.2  
**miles per gallon**

**FUEL COST**  
**11p**  
0p 50p  
**pence per mile**

Vehicle Excise Duty (VED) or 'road tax' varies according to the CO<sub>2</sub> emissions and fuel type of the vehicle.

Fuel economy figures are from official testing of new cars. In practice these can vary when driving depending on how you drive, load and maintain your car, use heating and air conditioning, as well as road conditions.

Costs are estimated based on an annual mileage of 10,000 miles and calculated using the combined MPG and the price of diesel at 145 p/litre.

**VEHICLE EXCISE DUTY**  
**£0**  
in first year **£90** thereafter

**FUEL PER YEAR**  
**£1,100**

**FUEL PER MONTH**  
**£92**

**Pay**  
**£1,440 more**  
least efficient

**FIRST YEAR VED & FUEL COSTS**  
all Ford Focus models

**Save**  
**£220**  
most efficient

**1.8 Duratec Flexi-Fuel**  
125PS 5dr Saloon

**1.6 Duratorq TDCi 109PS 5dr**  
Saloon ECO Start-Stop

Scan this QR Code with your smart phone to calculate your fuel costs using this model based on your annual mileage and driving style.

A guide on fuel economy and CO<sub>2</sub> emissions for all new car models is available for free at any point of sale and online at

Call the FREEPHONE number with your questions to Energy Saving Trust (Mon-Fri 9am-6pm).

Department for Transport

carfueldata.direct.gov.uk

0800 815 015

# OEMs initiative to publish more representative Fuel economy values



| Vehicle tested  | PEUGEOT 308<br>1.6l BlueHDi 120<br>S&S BVM6 | CITROËN C4<br>GRAND PICASSO<br>1.6l BlueHDi 120<br>S&S BVM6 | DS 3<br>1,6l BlueHDi 120<br>S&S BVM6 |
|---|---|---|--------------------------------------|
| Consumption measurement<br>(l/100km)                      |   |   |                                      |
| <b>T&amp;E Customer use protocol</b>                      | <b>5,0</b>                                  | <b>5,6</b>  | <b>4,9</b>                           |
| Customer consumption<br>(Customers survey / Spritmonitor) | 5,0 / 5,1                                   | 5,5 / 5,7   | 5,1 / 5,3                            |
| Homologated consumption (NEDC)                            | 3,2   | 4,0   | 3,6                                  |

62 vehicles tested, 400+ tests



### AVERAGE FUEL CONSUMPTION

weighted by the sales of the 68 vehicles tested

**6,0 l/100km**

### AVERAGE GAP BETWEEN THE PROTOCOL AND TYPE APPROVAL

weighted by sales on 68 vehicles tested

**1,8 l/100km**

### MIN. GAP BETWEEN THE PROTOCOL AND TYPE APPROVAL

**1,2 l/100 km**  
Peugeot 208 - 1,6L BlueHDi 100 – MT5

### MAX. GAP BETWEEN THE PROTOCOL AND TYPE APPROVAL

**2,6 l/100 km**  
Peugeot 308 GTi - 1,6L THP 270 S&S – MT6

### STT (STOP & START) IN URBAN DRIVING

for a given energy and similar cars

**- 0,3 l/100 km**

### AUTOMATIC VS MANUAL TRANSMISSIONS

for a given energy and similar car

**+ 0,4 l/100 km**



# More to come!

- Dedicated workshop on fuel economy policies, 13<sup>th</sup> of October
- What are the best opportunities for Ukraine?
- Learn how to use IEA Tool “FEPIT” to calculate fuel economy benefits and fuel savings



# Conclusions

- Fuel economy improvement is needed globally and nationally
- Win-Win for all stakeholders involved:
  - Economic balance from lower import bills
  - Fuel savings more than compensate technology extra costs
- Wide portfolio of policy options, delivering if set-up properly
- We are here to help Ukraine adopting fuel economy policy agenda: Political will is essential!





Want to know more?

Join us tomorrow !

