



# The Global Fuel Economy Initiative



Elisa Dumitrescu, UN Environment Kiev, Ukraine 28 October 2016

- ☐ GFEI
- ☐ Auto fuel economy global view
- ☐ Focus on Ukraine (baseline data)













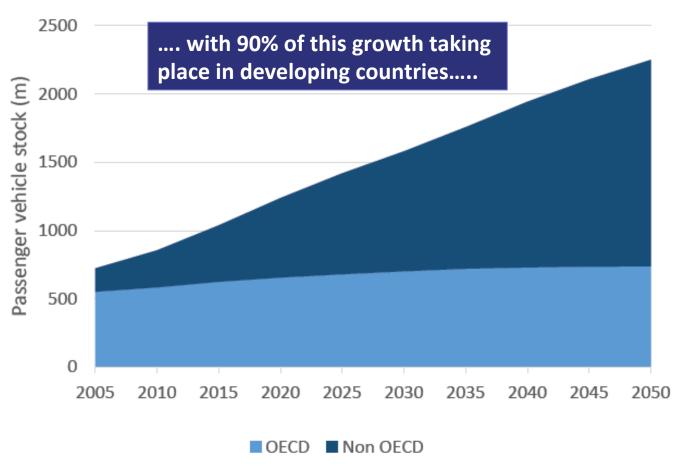




### The global LDV fleet







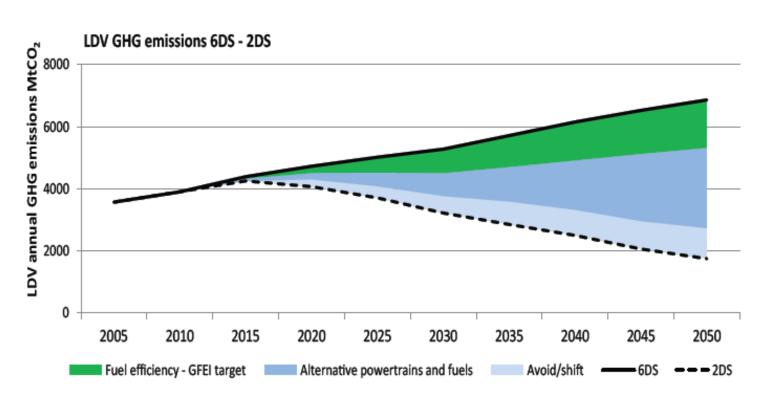
urce: IEA ETP 2015 (IEA 2015)

#### **BAU vs. Stabilization:**

#### fuel consumption, CO<sub>2</sub> from cars to double 2000-2050 (IEA)



FIGURE 2 LDV emission reductions due to fuel economy policies



This analysis includes a 20% reduction in new car fuel consumption (Lge/100km) in the 6DS; an additional 30% reduction is reflected in the 2DS scenario, reaching the GFEI target.

Source: Analysis for GFEI based on IEA ETP 2014 (IEA 2014)

KEY MESSAGE • ACHIEVING THE GFEI TARGET OF REDUCING FUEL CONSUMPTION (LGE/100KM) OF THE ENTIRE LDV STOCK BY 50% BY 2050 CAN CONTRIBUTE TO ABOUT A THIRD OF THE EMISSION REDUCTIONS NECESSARY TO SWITCH INDIVIDUAL MOTORISED TRANSPORT FROM A 6 DEGREE (6DS) TO 2 DEGREE (2DS) EMISSION TRAJECTORY.















# OF NEW CARS BY 2030 AND ALL CARS BY 2050



BENEFITS OF IMPROVED FUEL ECONOMY AND REDUCING EMISSIONS

GFEI	average fuel economy (Lge/100km)	8.0	4.0		
target	required annual improvement	-2.7%			
	rate (% per year)	2012 base year →	-3.0%		

	2020	2030	2050	
New Cars	30%_reduction in L/100km in OECD: engines, drive trains, weights, aerodynamics; PHEV, EV, FC not required	50% average improvement globally: full hybridisation of most models; PHEV, EV and FC not required	50% +	
All Cars - Global	20% reductions with lag time for stock turnover; ecodriving, maintenance	35%	<u>50by50</u>	

## IN-COUNTRY POLICY SUPPORT

RESEARCH

## GLOBAL CAMPAIGNS



## **Chile**



## Eficiencia Energética



- First mandatory labeling system for LDV's in Latin America,March 2012 www.compraunautolimpio.cl
- **OFeebate proposal** based on a bonus/malus system, including CO<sub>2</sub> and local pollutants became **First Tax for emission** and fuel consumption in Chilean vehicle market

# Ukraine is 1/30+ countries working on autofuel economy policy within the GFEI



















# Fuel Economy State of the World 2016

Time for global action





Working Paper 11







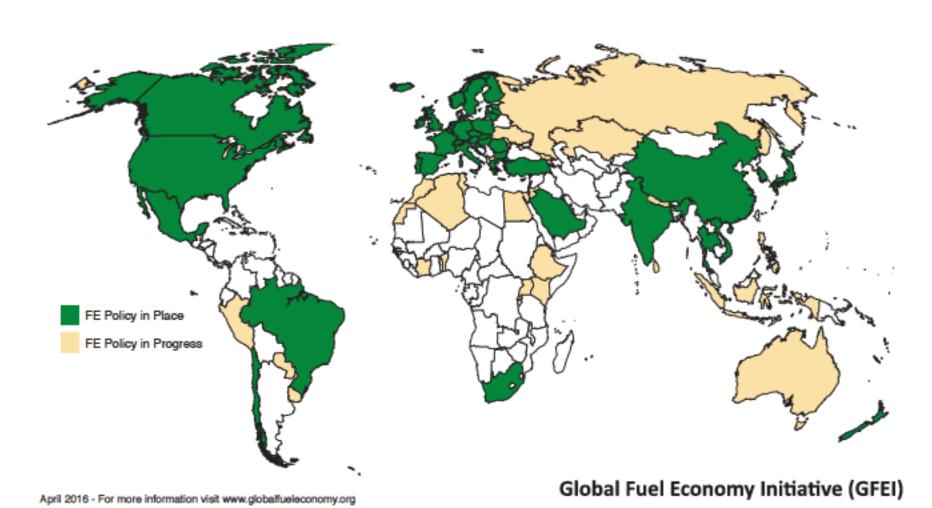




# Fuel Economy Policy Globally

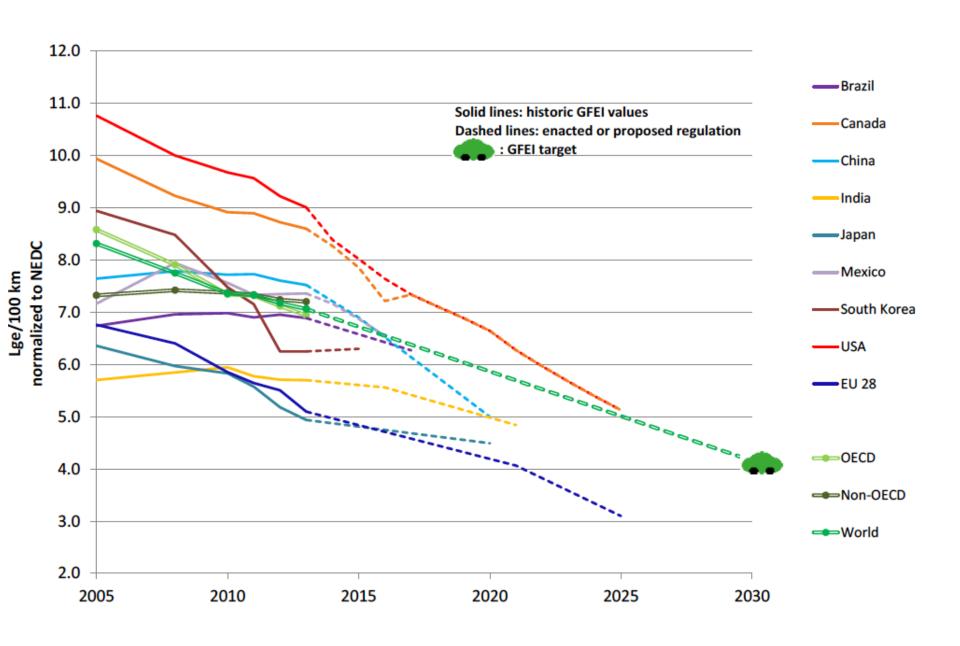


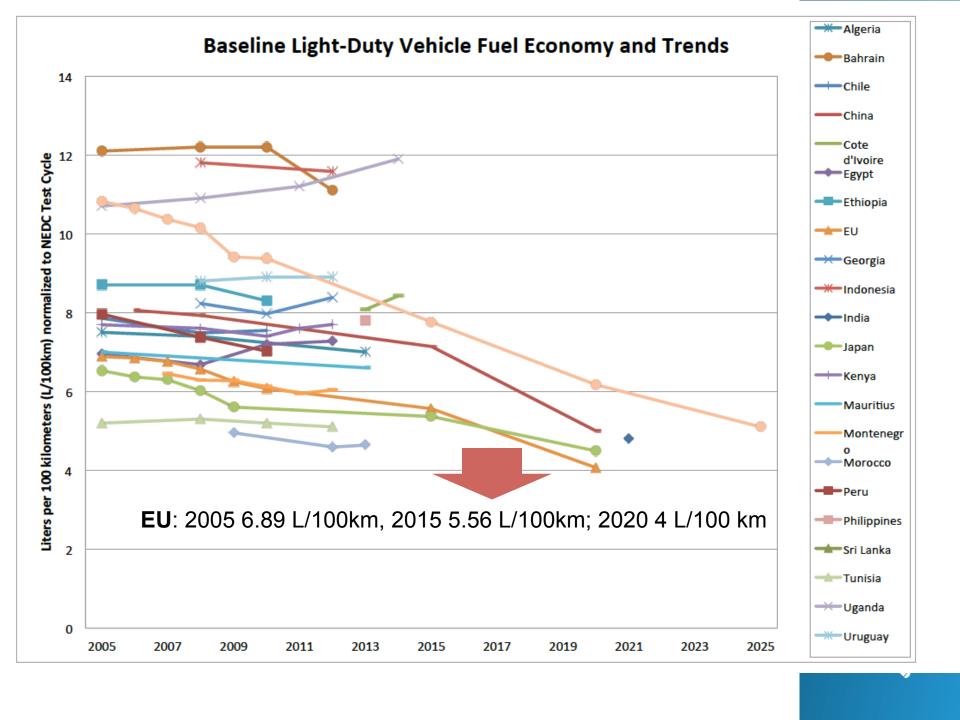
Global Progress on Fuel Economy Policy (2016)



Source: GFEI April 2016

## **Evolution of Global Fuel Economy**





### **Fuel Economy:**

## http://www.unep.org/transport/gfei/autotool/



#### **CLEANER, MORE EFFICIENT VEHICLES**











USER'S GUIDE COUNTRY INFO

QUESTIONNAIRE

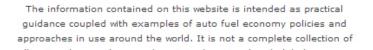
CONTACTS

Global View GLOBAL VIEW Europe North America Latin America Africa MEWA Asia Pacific INSTRUMENTS Fuel Economy Standards Import restrictions Tech mandate Fuel Taxes Fee-bate Buy-back Penalties Other tax instruments Registration fees











# Reporting obligation for: Monitoring and reporting of average CO2 emissions (passenger cars)



Regulation (EC) No 443/2009 requires Member States to record information for each new passenger car registered in its territory. Every year, each Member State shall submit to the Commission all the information related to their new registrations: manufacturer name, type approval number, type, variant, version, make and commercial name, specific emissions of CO2, mass of the vehicle, wheel base, track width, engine capacity, fuel type and fuel mode.

EU 2009 regulation for LDV, corporate avg.:

- 2015: 130 g CO2/km (5.6 l/100km)
- 2020: 95 g CO2/km (4.1 l/100 km of petrol or 3.6 l/100 km of diesel)

### Global Fuel Economy Initiative (GFEI) in Ukraine



**November 2015** – signing of the Agreement between UNEP and ISA to start implementation of the Global Fuel Economy Initiative (GFEI) in Ukraine.



**Mission of the project in Ukraine** – Promote Improved Auto Fuel Economy in Ukraine to reduce black carbon emissions from the transport sector and promote better air quality

**Initial objective** – Collect and analyze national auto fleet data on fuel economy using GFEI methodology and a reliable sources to create an enabling environment in Ukraine for the development and implementation of a more sustainable national fuel economy policy.

**29 January 2016** – Initiation meeting of the GFEI National Working Group in Ukraine

**8-9 June 2016** – Ukrainian delegation participates in the GFEI Global training in Paris

6 July 2016 – Meeting № 2 of the NWG

#### **Key NWG members:**

- •Ministry of ecology and natural resources of Ukraine,
- •Ministry of Infrastructure of Ukraine, State enterprise "The State Road Transport Research Institute",
- •Ministry of energy and coal industry of Ukraine,
- •State Agency on Energy Efficiency and Energy Saving of Ukraine.
- •Ministry of internal affairs of Ukraine, Main Service Center
- •Stakeholders from public and private sector.

#### Global Fuel Economy Initiative (GFEI) in Ukraine



#### National baseline development (2005, 2008, 2010, 2012, 2014).

<u>Source of information</u> – Main Service Center of the Ministry of Internal Affairs of Ukraine AIS "National database "Automobile"

**May 2016** – first database information received (year 2014, part of 2012) to start the national baseline development

**July 2016** – completion of the 2014 (~87000 vehicles processed)

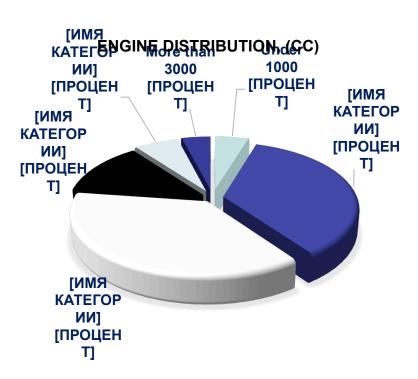
**November-December 2016** – expecting additional database information from MSC. Delays due to technical reformation of the original database.

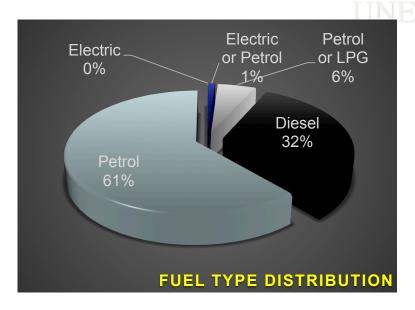
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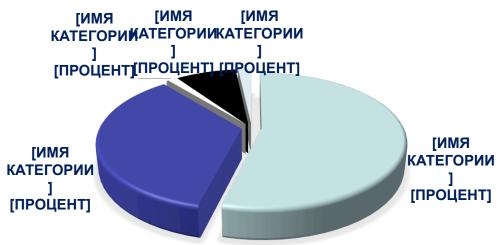


#### First results at a glance (2014 only)

Average fuel consumption -- 6,73 L/ 100 km Average CO2 emissions -- 164 g/100 km







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## Thank you

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	·	2005	2008	2011	2013	2030
OECD average	average fuel economy (Lge/100km)	8.6	7.9	7.3	6.9	
	annual improvement rate (% per year)	-2.7% -2.6% -2.6% -2.6%				
Non- OECD average	average fuel economy (Lge/100km)	7.3	7.4	7.3	7.2	
	annual improvement rate (% per year)	0.5%		4% ·	-0.9%	
Global average	average fuel economy (Lge/100km)	8.3	7.7	7.3	7.1	
	annual improvement rate (% per year)	-2.3% -1.9% -1.8% -2.0%				
GFEI target	average fuel economy (Lge/100km)	8.3				4.2
	required annual 2005 base year improvement rate  (% per year)  2014 base year	-3.1%				





## GLOBAL CAMPAIGNS

GFEI is now recognised as the leading global initiative on fuel economy globally:

- ·SDG's
- COP20 and COP21
- Accelerator Platform in SE4ALL
- •G20 Energy Ministers Statement 2015
- •GFEI at COP21
- •'100 FOR 50 BY 50'



Goal 7 of the Global Goals aims to ensure access to affordable, reliable, sustainable and modern energy for all. As part of this, target 7.3 aims to double the global rate of improvement in energy efficiency. This includes vehicle fuel economy.



Goal 13 aims to take urgent action to combat climate change and its impacts. The transport sector is responsible for nearly a quarter of CO<sub>2</sub> emissions, and improved fuel economy can help reduce this.