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Global Fuel Economy Initiative

Six core partners: FIA Foundation, UNEP, IEA, ITF, ICCT and UC Davis, financial support from GEF and EU

Scope

- Promoting fuel economy improvements of passenger cars and heavy duty road vehicles

Activities

- Analysis: data gathering, modeling, baseline development
- Evaluation: policy tools and options
- Strategy development: organization of dialogues
- Outreach: Awareness raising, communication
GFEI target

- Reduce new passenger light-duty vehicle specific fuel consumption (Lge/100km) by 50% until 2030
- Reduce passenger light-duty vehicle stock specific fuel consumption (Lge/100km) by 50% until 2050
GFEI fuel economy report

- 3rd edition since 2010
- Unique compilation of OECD and non-OECD new light duty vehicle fuel economy data
- Dataset currently comprises 26 countries covering more than 80% of the global LDV market
- Dataset covering eight years time series from 2008 to 2013
- Next update will come in 2016 and will include data of GFEI pilot countries
Methodology

Analysis based on vehicle registration data from IHS POLK
- Sales data by brand, model, powertrain, fuel, transmission type etc.
- Vehicle segment, weight data and FE/CO\(_2\) data partly missing

Missing information is completed using additional sources – government agencies, car manufacturer associations, journals
- Satisfactory market coverage when CO2/FE data >80% of total sales

For the updated report, all fuel economy and emission data has been normalized to NEDC
- Normalization based on existing conversion functions from ICCT, JAMA and own analysis
- Improves comparability while only slightly changing the overall message

Fuel economy results are based on sales weighted averages
Regional fuel economy trends

- Countries with FE policies in place show encouraging improvement rates
- Size shift vs. technology evolution moderates non-OECD improvement
- Normalization to NEDC affects FTP based markets most – 15% increase of FE due to conversion compared to last edition
## FE improvement - Targets and reality

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<td>-2.6%</td>
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<td><strong>Non-OECD average</strong></td>
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- **OECD**: rates close to target
- **Non-OECD**: little improvement
- **Global**: Right trend at slow pace
- **2030**: Improve global FE by 50%
Reaching the GFEI target requires setting of strengthened FE targets for the 2015 to 2030 period and broader coverage of FE regulations.
FE in OECD is very heterogeneous

- Both, least and most efficient markets are in OECD
Vehicle market dynamics

- The non-OECD market accounts for almost 60% of global PLDV sales, leading to a decreasing share of markets with fuel economy regulation.
- Shifts towards least efficient markets lead to moderate average OECD FE improvement rates although more than half of the OECD markets have improvement rates >3%.
Conclusions

Reaching the GFEI target to cut by half specific light-duty vehicle fuel consumption by 2030 requires:

- to keep scaling up the market coverage of fuel economy regulations;
- to set strengthened fuel economy improvement targets for the 2015-2030 period (especially in the non-OECD);
- to monitor the stringency of fuel economy improvement targets already in place;
- to keep monitoring the developments of fuel economy worldwide.
Thank you!
Evolution of vehicle size

- With growing income a shift to larger vehicles can be observed in non-OECD
- Globally a trend towards medium sized vehicles is gaining momentum
In the OECD and non-OECD a trend towards more powerful cars can be observed, while non-OECD cars are still significantly weaker.

Engine size is stabilizing, while non-OECD vehicles have much smaller engines.