

ICCT Black Carbon Workshop

**An international strategy for black carbon
controls in the transport sector.
The case of Mexico**

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Instituto Nacional de Ecología

Outline

- Air quality
- Emission sources – transportation emissions
- Gasoline and diesel sulfur content reductions
- Standards for new vehicles
 - Emission standards for light and heavy duty vehicles
 - Fuel efficiency
- Additional issues and final thoughts

Where do we stand on urban air pollution?

~ 65 million inhabitants in urban areas

27 million inhabitants living in cities with bad air quality

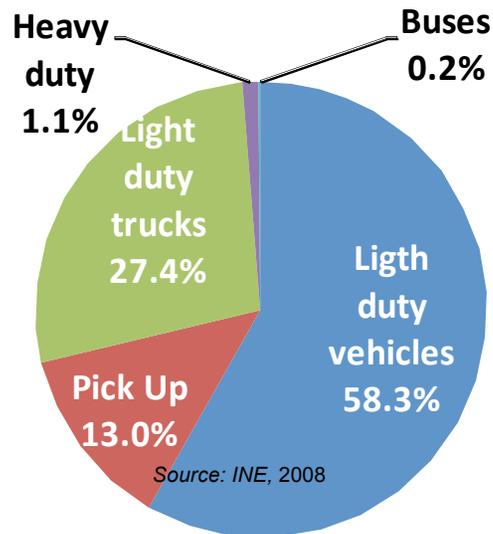
Metropolitan Area	Population (million inhabitants)	Days above standards (#) (2006)	
		O ₃	PM ₁₀
Valle de México	17.9	218	50
Guadalajara	3.7	89	62
Monterrey	3.2	24	149
Toluca	1.2	12	173*

Source: INE, 2007

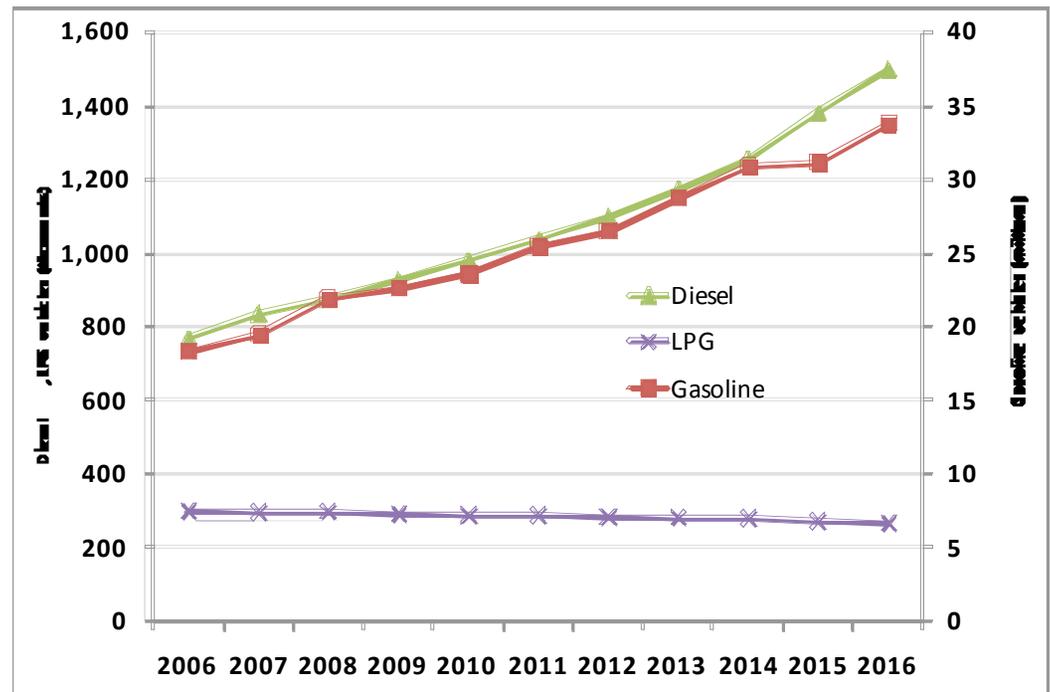
Vehicular fleet

Vehicle fleet (2005)

- 17.6 million vehicles
- Trucks: 87% diesel
13% gasoline
- Buses: 99.2% diesel
0.8% gasoline



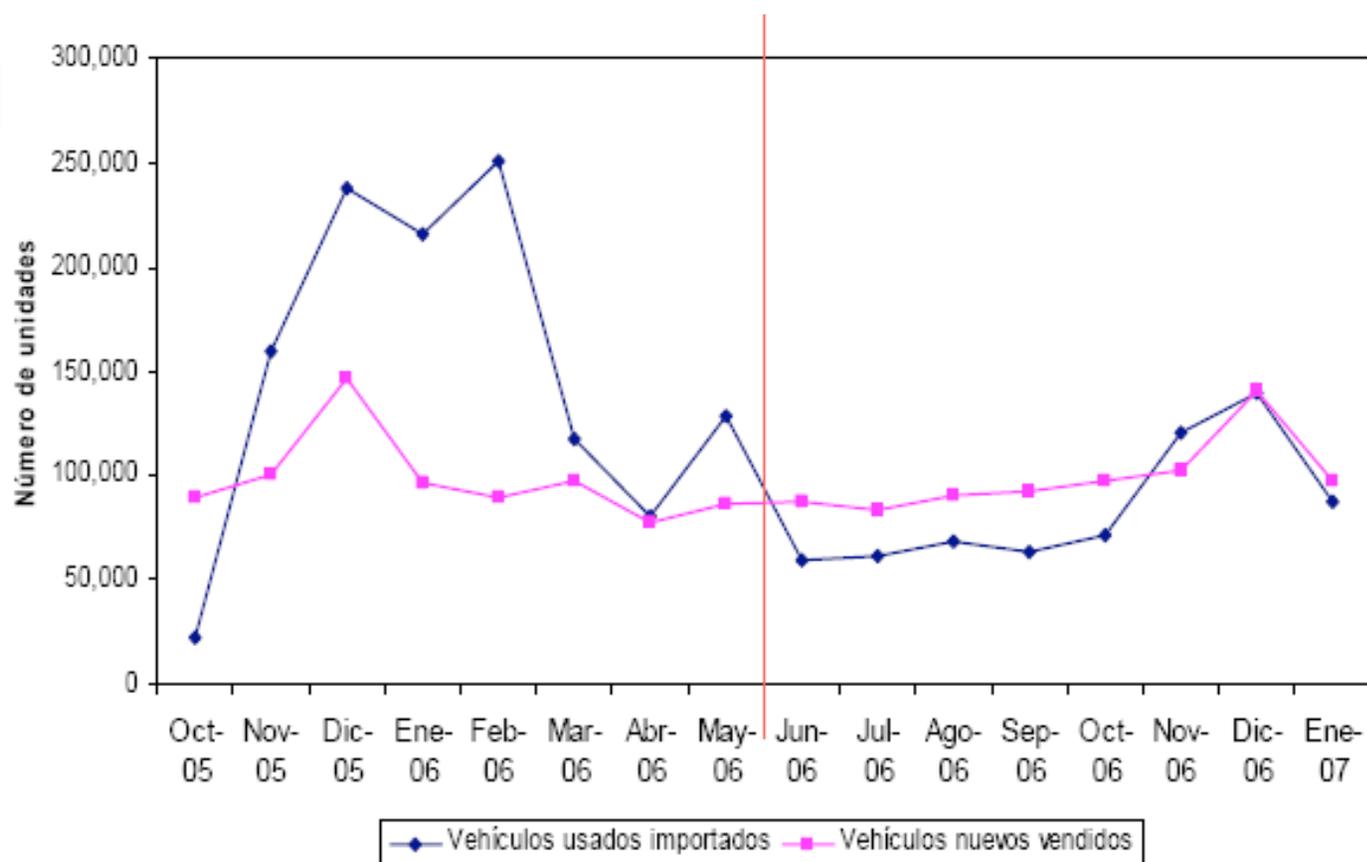
Projections to 2016



Source: PEMEX, 2007. Prospectiva de Petrolíferos, 2007-2016

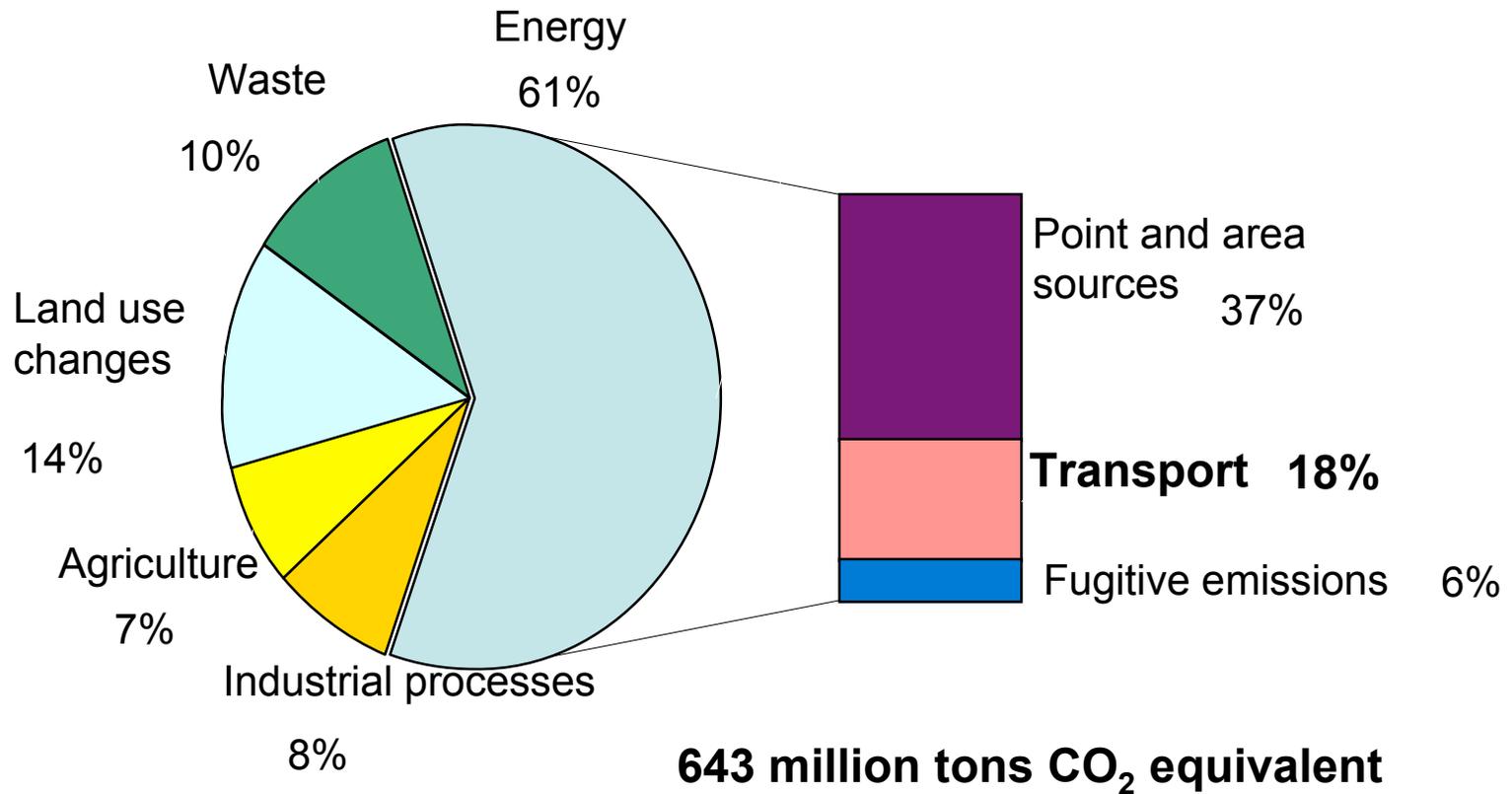
Entry of used cars from US and Canada into Mexico

Imported used cars vs. new vehicles sold in Mexico

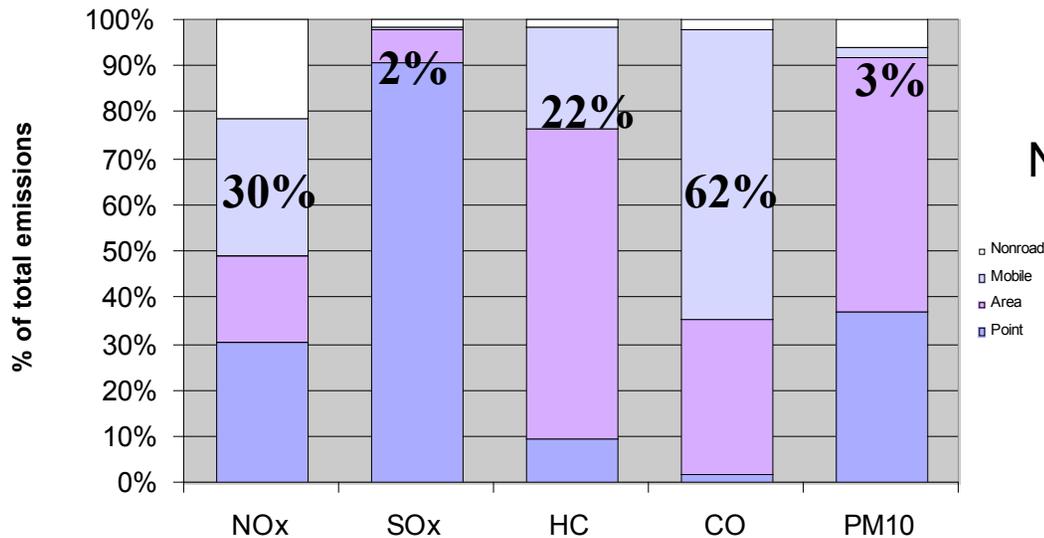


Fuente: DGGCARECT-SEMARNAT, con base en datos de la SAT y AMDA, 2007.

GHG Emissions

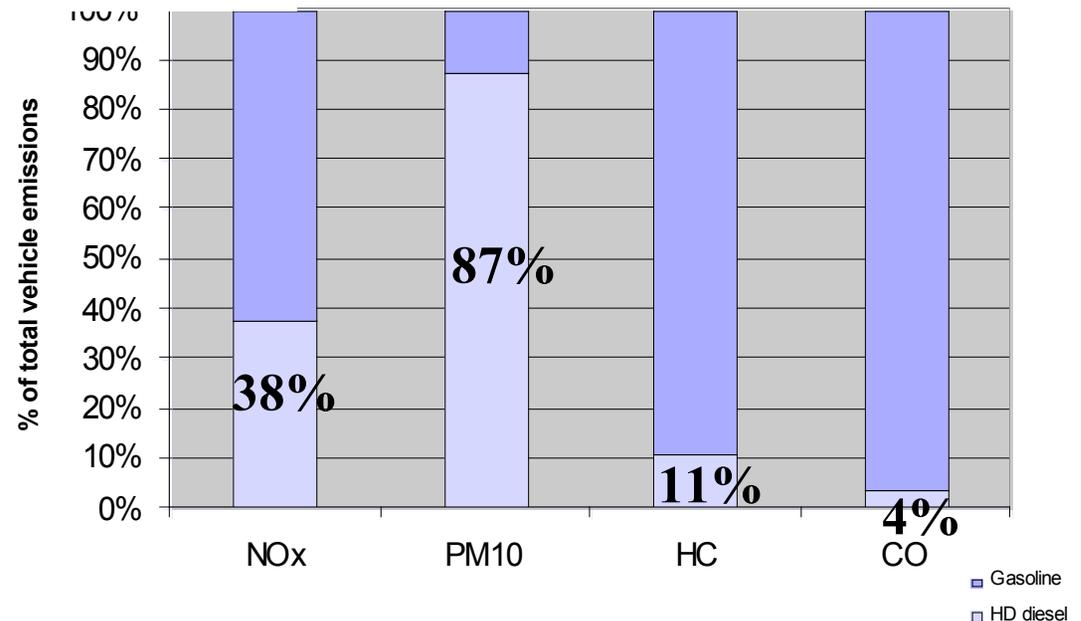


Criteria Pollutants Emissions By sector and for heavy duty vehicles



Nationwide – by sector

Mexico City Metropolitan Area -
Mobile Sources



Sources: INEM-1999, INE 2006; MCMA Emissions Inventory-2004, GDF, 2008.

Low Sulfur Diesel Introduction Calendar

	2006	2007	2008	2009	2010
México	500/300**	500/15**	500/15**	?	?
Chile	350/50*	350	350	350	50/10***
Argentina	2500/1500*				500/50
Perú	3000/1500*				50
Colombia	4500/1200*				500
Venezuela	5000				2000
Ecuador	7000/5000*				50
Uruguay	8000				50

* Metropolitan Areas

** Northern border region

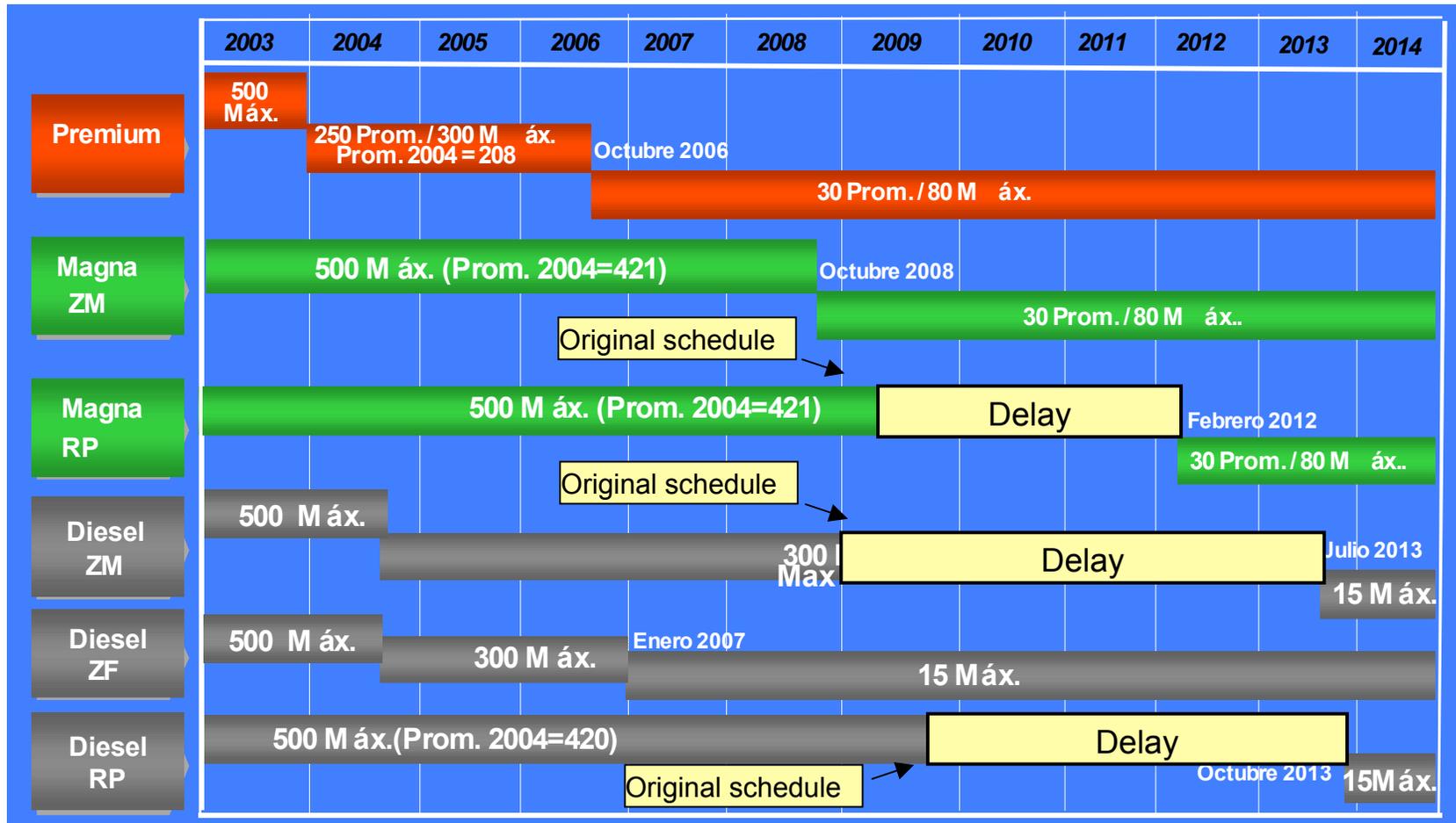
*** City of Santiago



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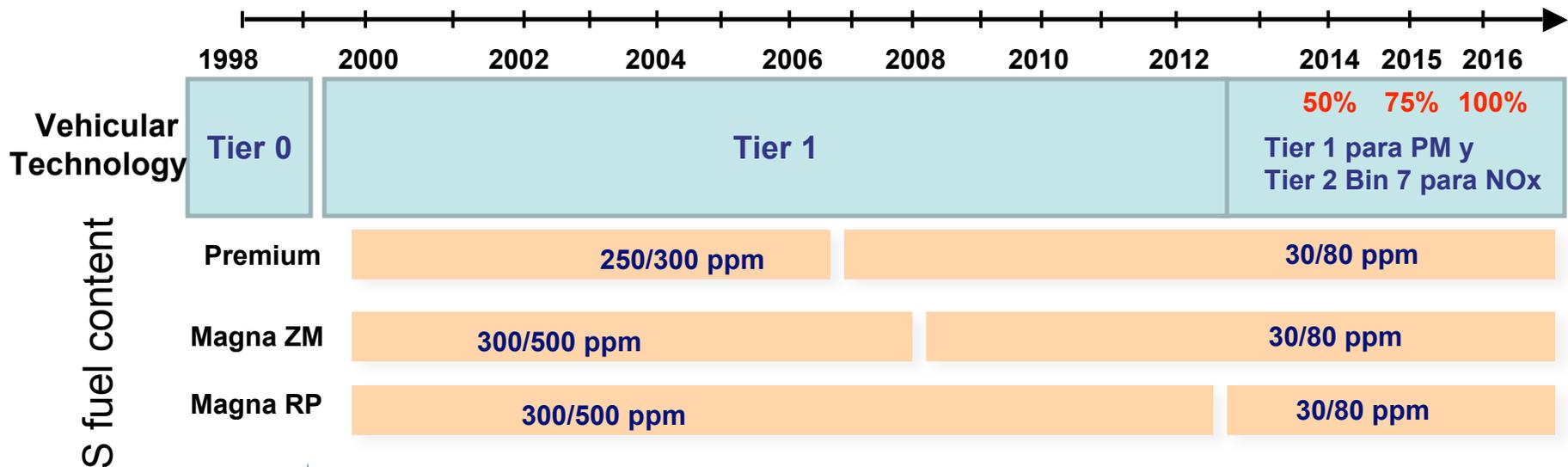
Low sulfur fuels in Mexico

New schedule – Is it final?



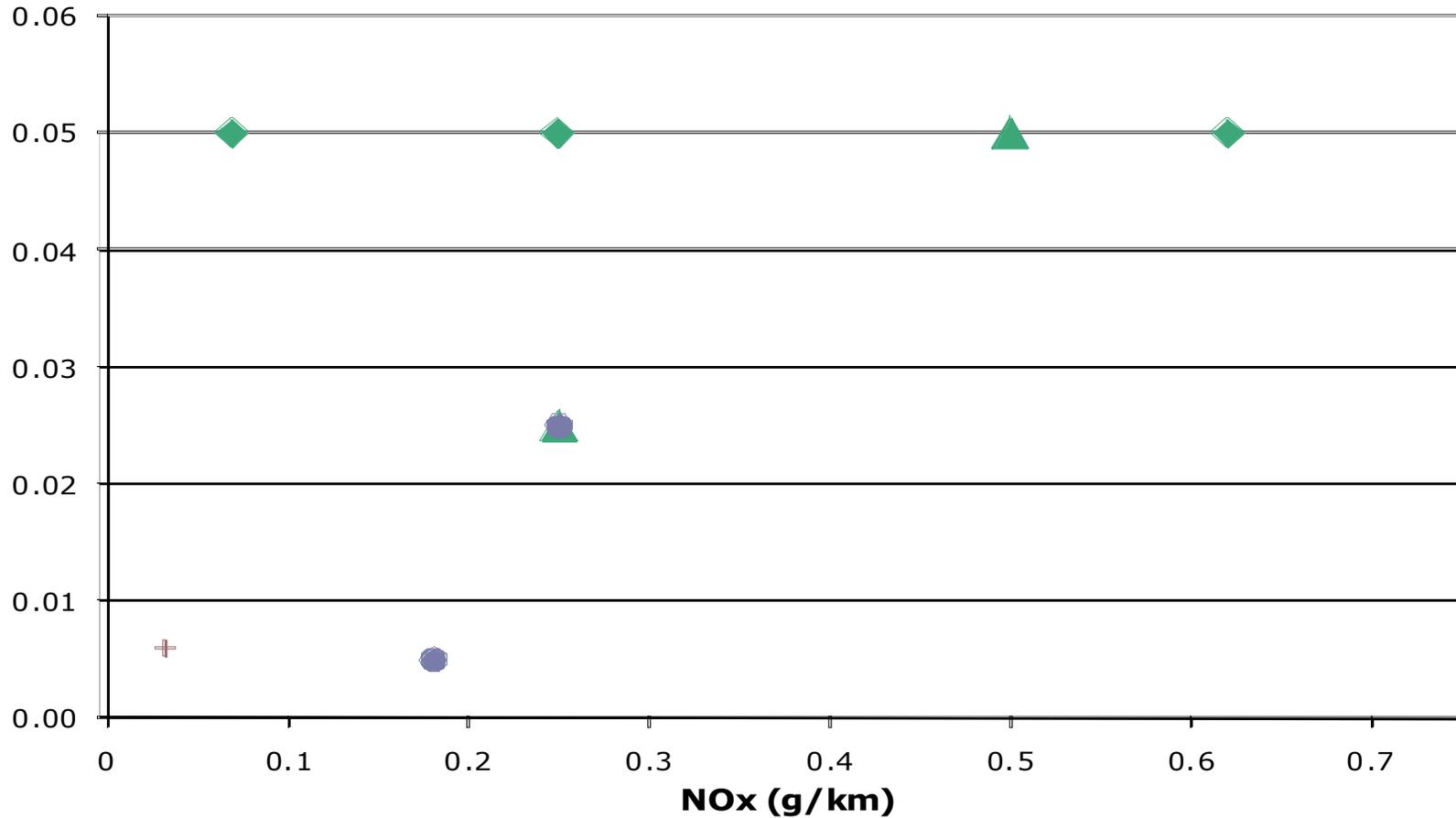
* PEMEX-R, November 2007

Light Duty Vehicles Emission limits: Mexico vs. USA



- No technological change for PM emissions once low sulfur fuels are available
- Over 5 years of delay with respect to USA

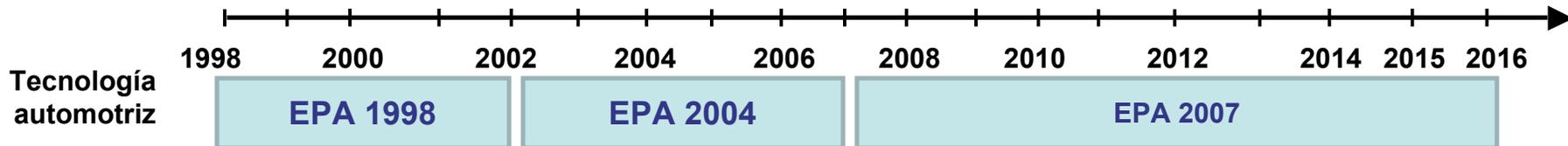
Light Duty Vehicles The Case of Diesels...



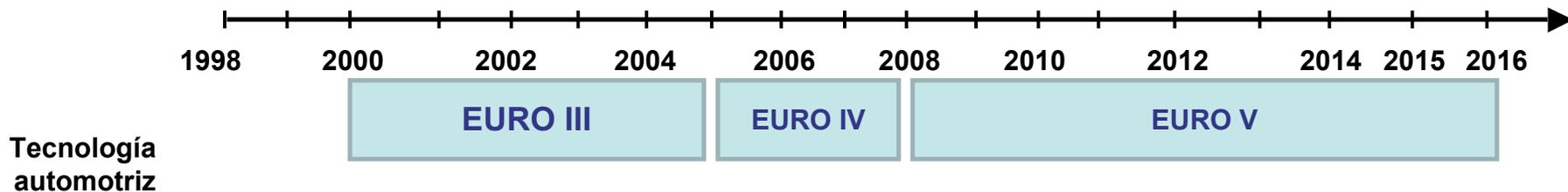
Heavy Duty Vehicles

Emission limits: Mexico vs. USA & Europe

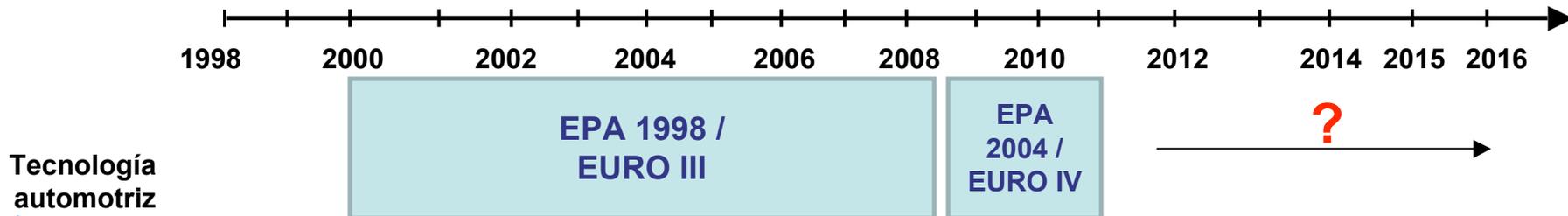
Estados Unidos



Europa

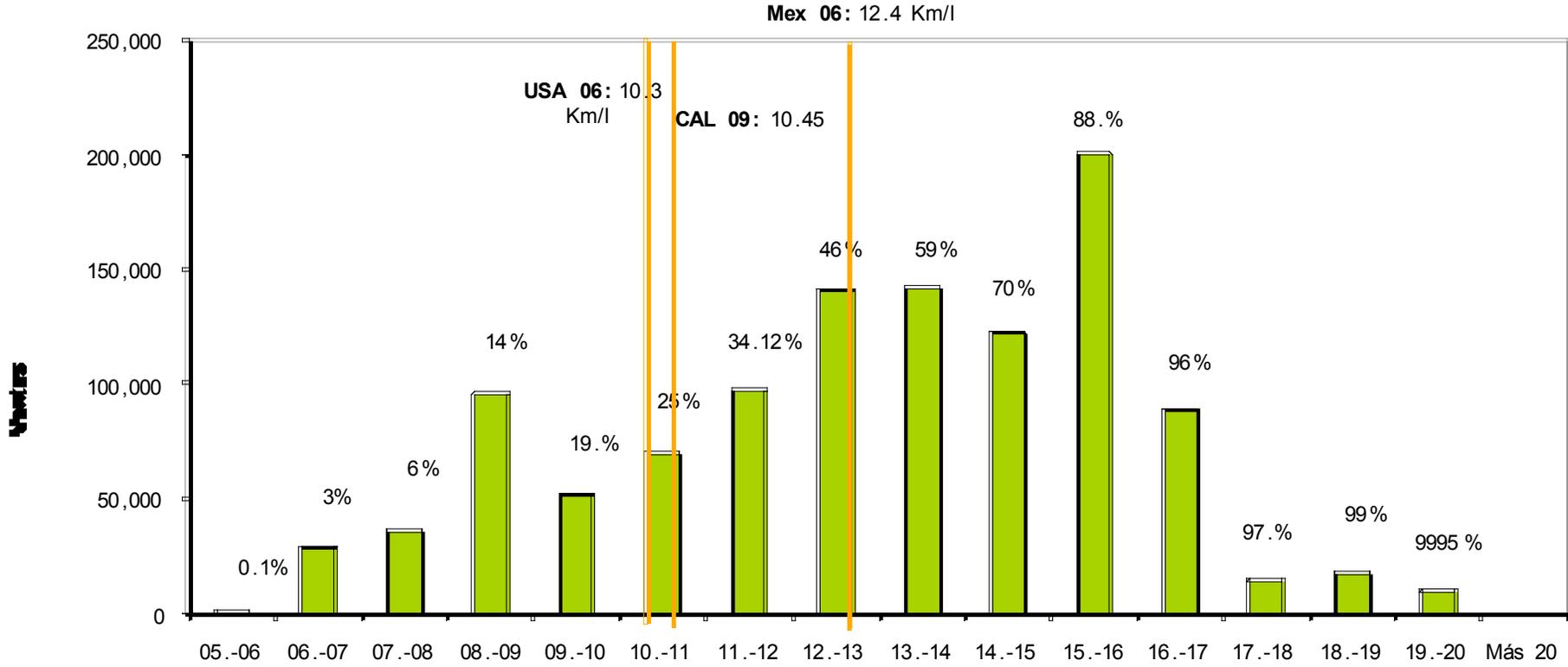


México



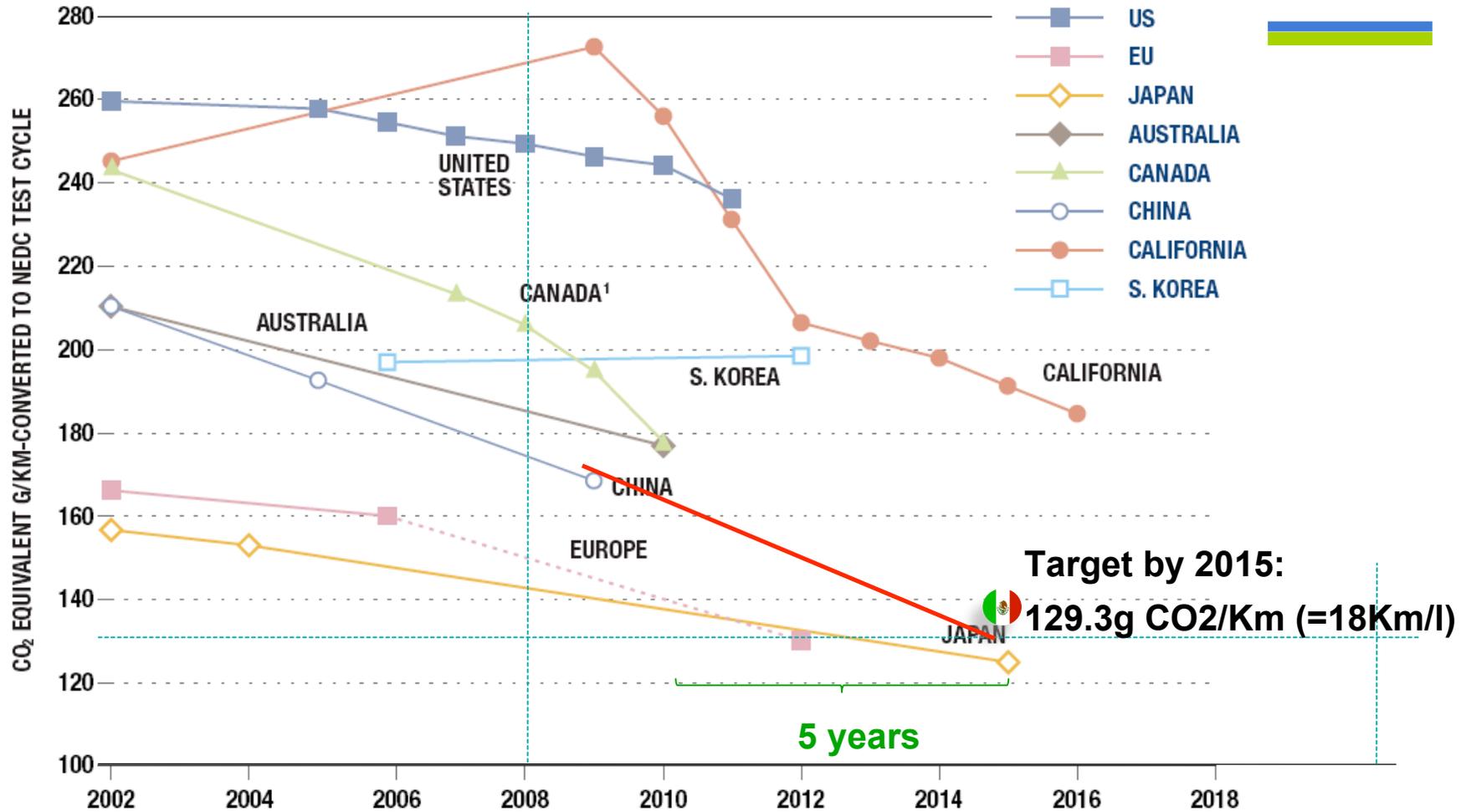
- No technological change for PM and NOx emission limits with low S diesel
- A 6-year delay (minimum) for the introduction of EPA 2007

Fuel economy for new cars Mexico vs. US & California



Rendimiento Km/l

Proposed Regulation – Work in progress



ICCT, 2007. *Passenger Vehicle Greenhouse Gas and Fuel Economy Standards: A Global Update.*

Thanks!



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