# **Transportation policies in Brazil**

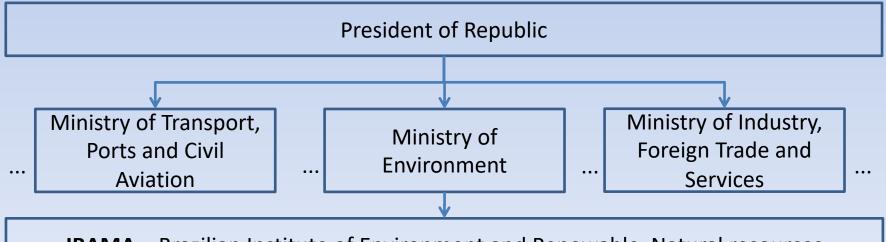
#### Rui de Abrantes – Cetesb

Buenos Aires, September 25<sup>th</sup>, 2018 South American Summit on Vehicle Emissions

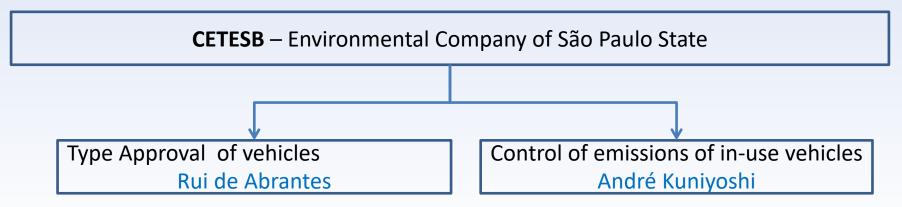


### **Governmental structure**





**IBAMA** – Brazilian Institute of Environment and Renewable Natural resources



## **Brazilian scenario**

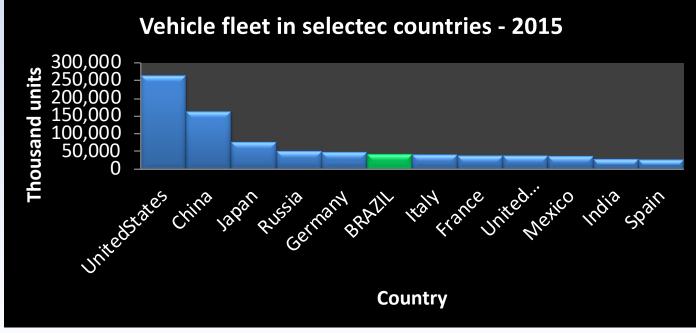


- Road transport is the main transportation system in the country for goods and passengers;
- With 1,610,076 km of national highways and roads;
- Since 2012 Proconve phase P 7 is the emission control program for Heavy Duty Vehicles (HDV) in Brazil, it is based on Euro 5;
- Next step P 8 (Euro 6) is under discussion;
- Diesel fuel usage is allowed just for vehicles able to carry more than 1 ton.

#### **Brazilian fleet**

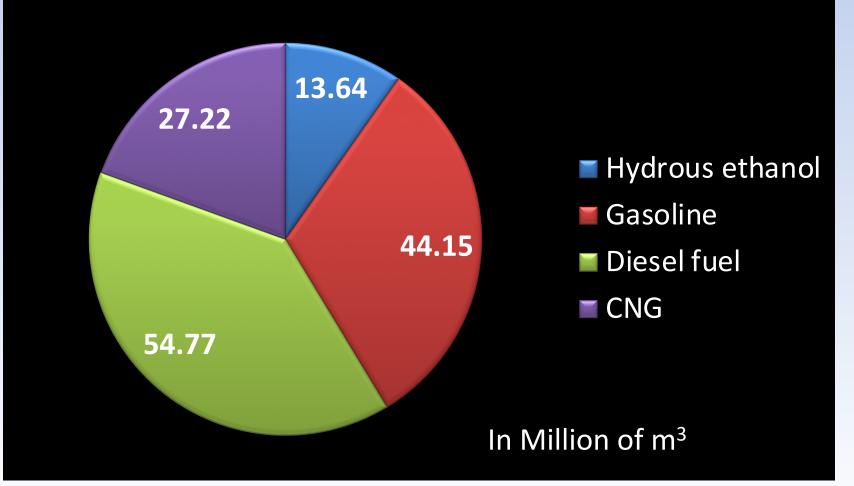


- Brazil has the sixth biggest vehicles fleet in the world, with 42 million units;
- 5.7% are HDV, with 2.4 millions;
- what corresponds to the fourth biggest HDV fleet in the world.



## Fuel consumption in 2017

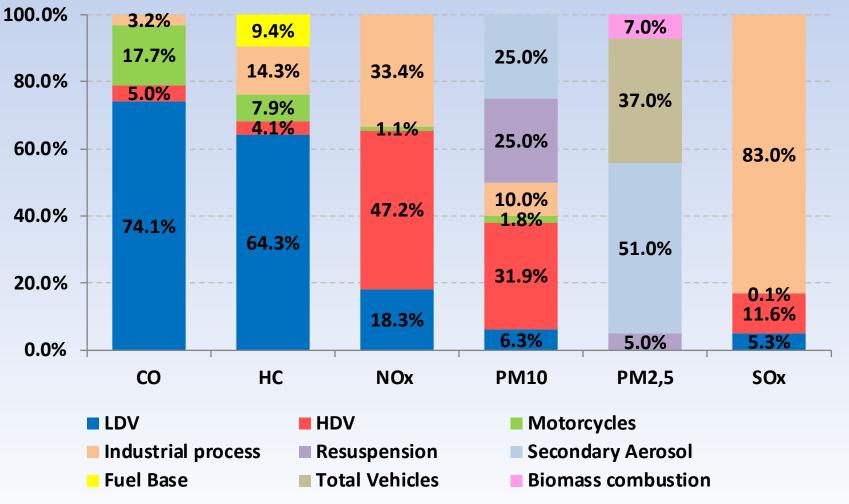




Source: ANP - National Agency of Petroleum, Natural Gas and Biofuels - 2018

#### Relative emissions by source type – Metropolitan Region of Sao Paulo



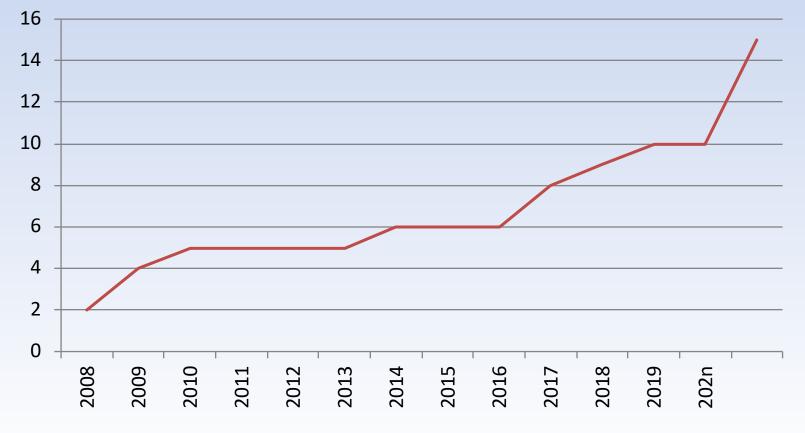


#### Biodiesel



• Soybean biodiesel is the most common type of biodiesel.

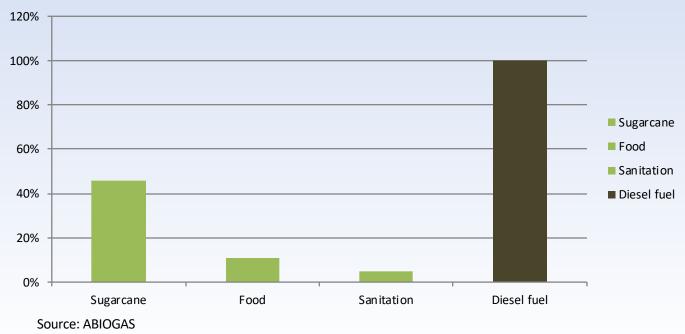
% of biodiesel



## **Bio methane**



- Bio methane specification is regulamented already;
- Brazil has the potential to produce 30 million of cubic meters per day by 2030;
- What can corresponds up to 44% of diesel fuel consumption.
  Biomethane



# Hybridization and Electrification



- Electrification net for vehicles is in embryonic stage:
  - São Paulo ◀► Rio de Janeiro (6 electro stations);
  - Paranaguá ◀► Foz do Iguaçu (2 electro stations);
  - Some malls and supermarkets.
- Some delivery companies are buying electric trucks;
- Some electric buses are been used in demonstration;
- No importation tax for hybrid and electric vehicles;
- Federal tax for hybrid vehicles was reduced from 25 % to 13%;
- Federal tax reduction for electric vehicles are still under discussion.

## **Fuel efficiency**



- Cetesb proposed to Ibama a regulation for Corporative GHG reduction;
- $CO_2$  equivalent =  $CO_2 + CH_4 \times 25 + N_2O \times 298$ ;

Redução percentual da emissão de GEE de veículos pesados

Categoria	Redução (%)	
	3 Anos	13 Anos
Veículos de passageiro com PBT ≤ 5 toneladas	10	10
Veículos de carga com PBT > 3,856 toneladas e ≤ 16 toneladas, e veículos de passageiro com PBT > 5 toneladas e ≤ 7,5 toneladas	10	15
Veículos de carga com PBT > 16 toneladas, e para os veículos de passageiro com PBT > 7,5 toneladas	10	20

- Public consultation (finalized): <u>https://www.ibama.gov.br/notas/1410-</u> <u>consulta-publica-sobre-controle-de-emissoes-de-gases-de-efeito-estufa-por-</u> <u>veiculos-automotores</u>
- This propose maybe will be discussed next year.



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