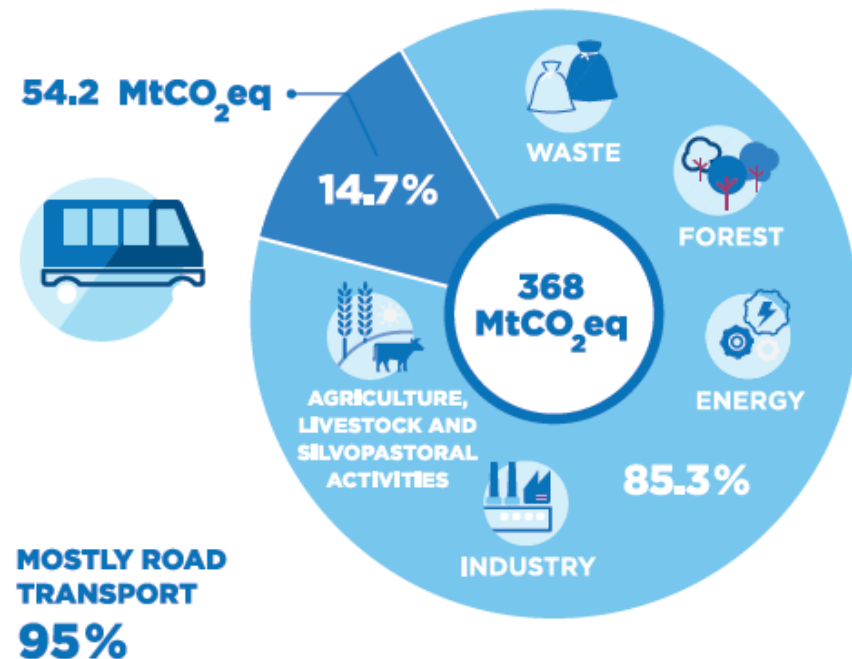


ENERGY EFFICIENCY IN TRANSPORT

G20 Transport Task Group

28-31 October 2019, Tokyo, Japan

ACTION PLAN



Urban Mobility



REDUCTIONS
39.6%

- URBAN RAILWAY PRIORITIZATION
- LOW EMISSION URBAN MOBILITY PROMOTION
- NON- MOTORIZED MOBILITY PROMOTION
- PUBLIC TRANSPORT PROMOTION

Intercity Mobility



REDUCTIONS
0.8%

- INTERCITY RAILROAD RESTORATION
- COMMERCIAL AVIATION MODERNIZATION

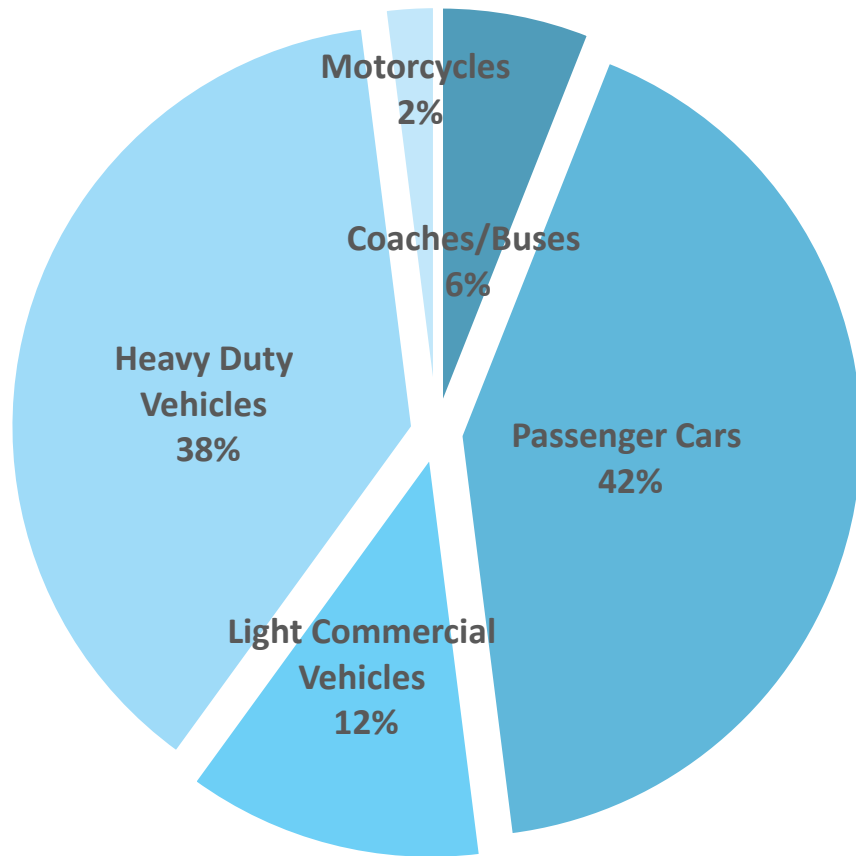
Freight Transport



REDUCTIONS
59.6%

- EFFICIENCY IMPROVEMENTS FOR FREIGHT TRANSPORTATION
- FREIGHT RAILWAY PRIORITIZATION

TRANSPORTATION CO₂ EMISSIONS

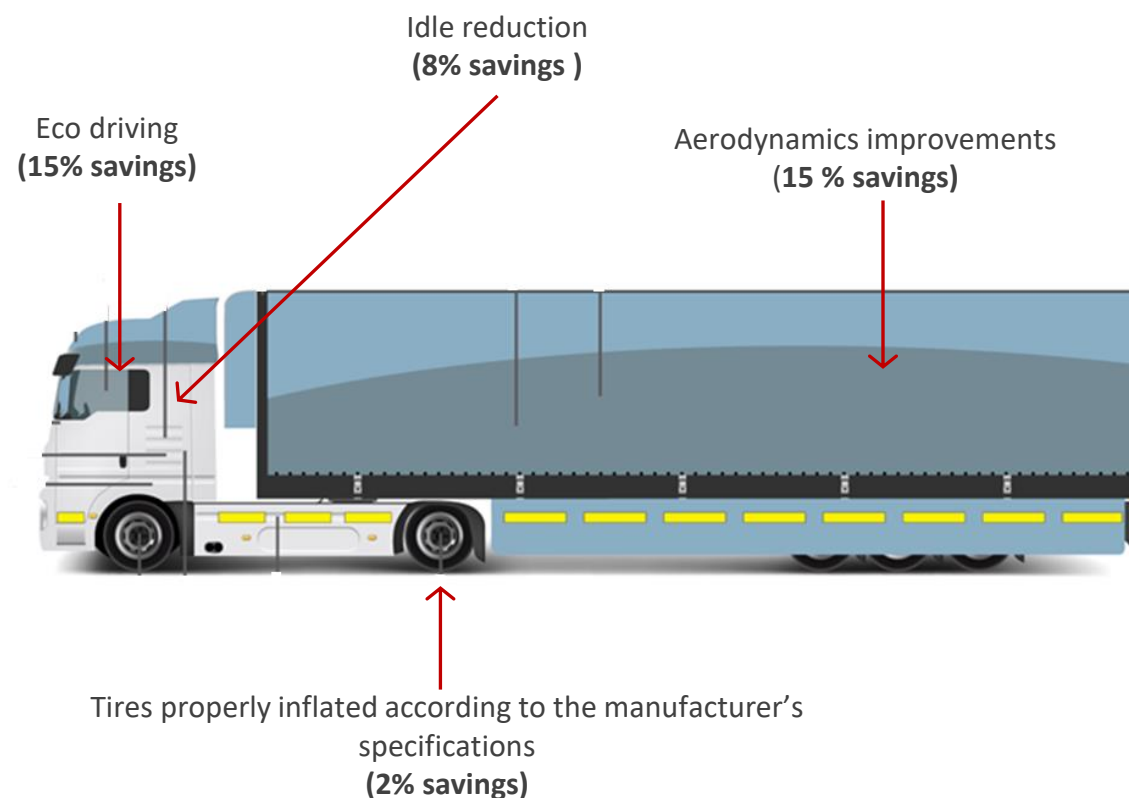
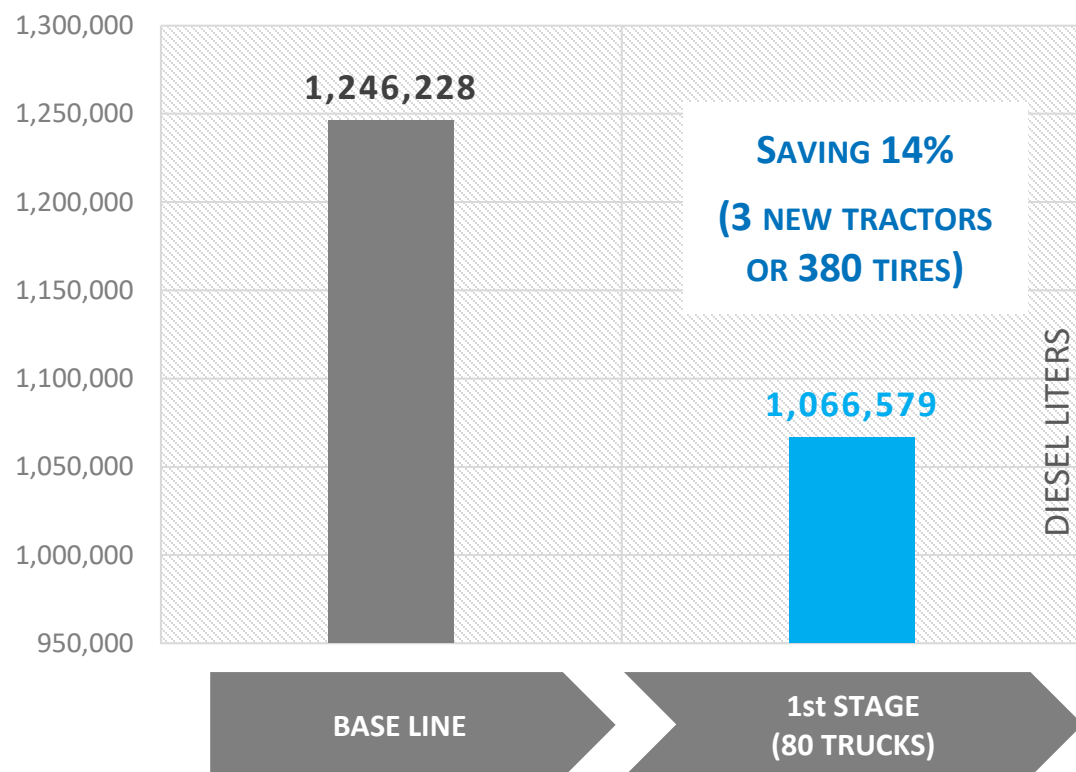


- Energy Efficiency Labels
- Intelligent Transport Program
- Efficient Fleet Management Training
- Eco-Driving
- Technologies Verification

OBJECTIVES

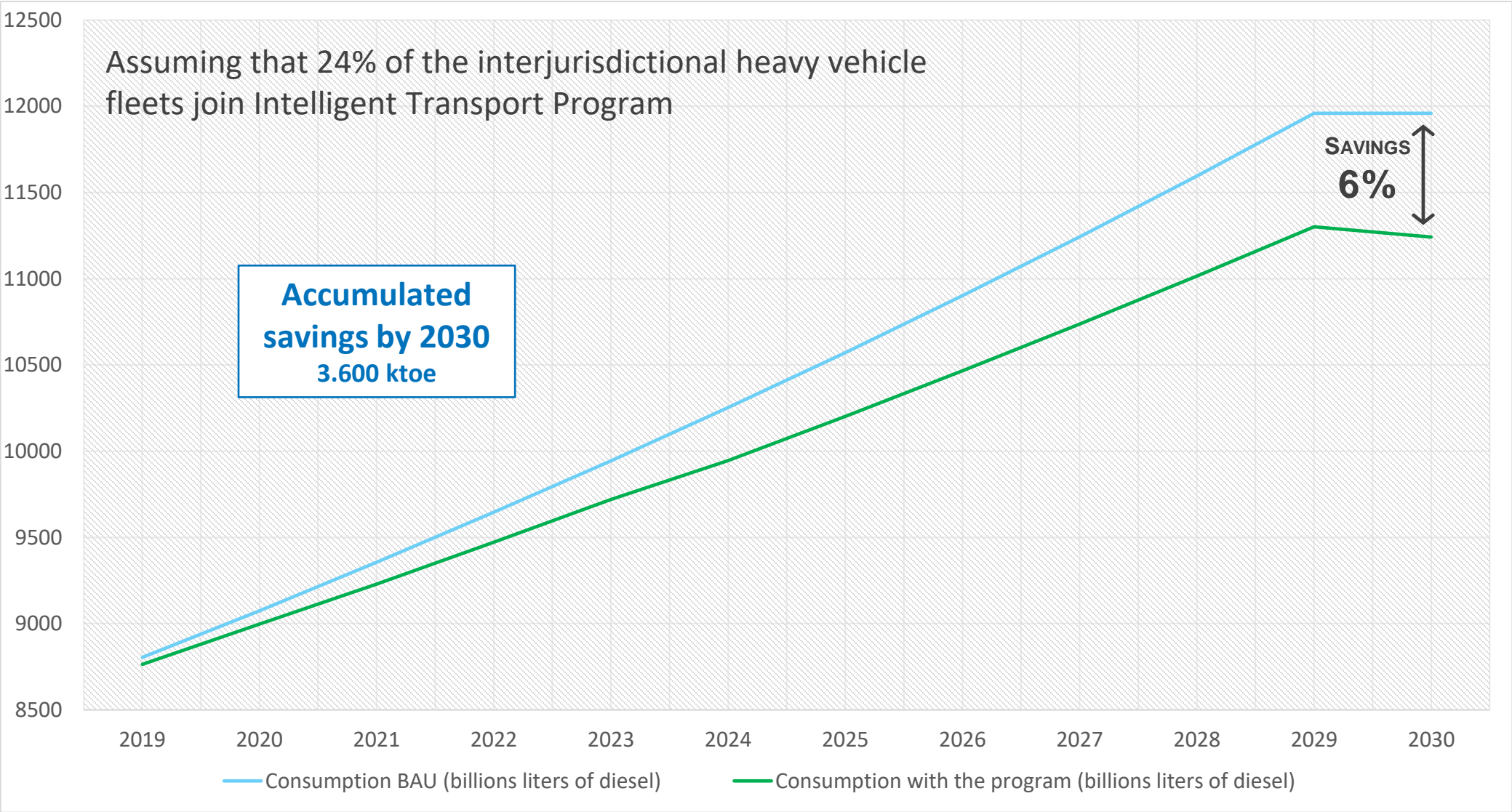
- Create a community of best practices and technologies in transport energy efficiency in order to decrease fuel consumption and improve competitiveness
- Involves freight carriers, logistics companies, technology companies, passenger carriers, shippers, academia and the public sector.

Phase 1



INTELLIGENT TRANSPORT PROGRAM

SAVINGS POTENCIAL





Thank you!

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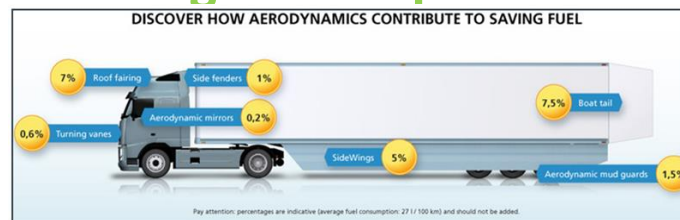
Argentina

ENERGY EFFICIENCY AND CO2 EMISSIONS FROM HEAVY AUTOMOTIVE TRANSPORT

Paris Agreement on Global Climate Change 2015

**Emission Reduction
and Efficiency Improvement
In Heavy Vehicles:**

- Freight Transport**



- Passengers Transport**



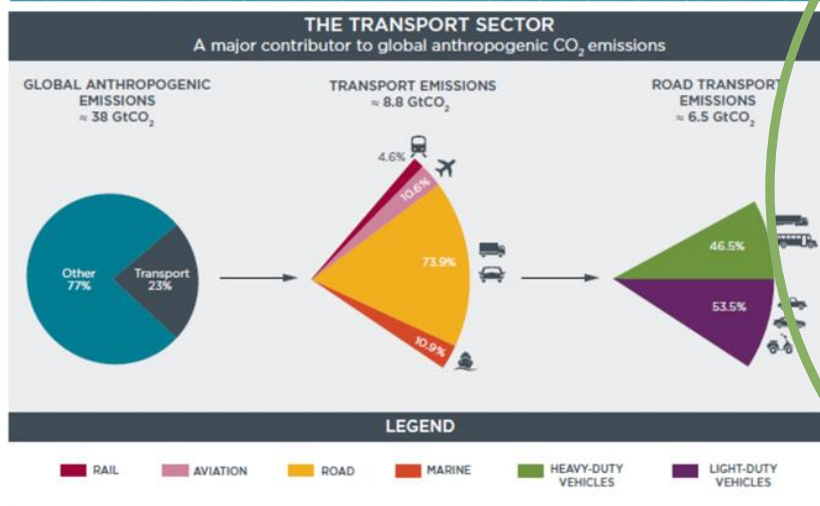
Associated Objectives of National Interest

**3. GHG MITIGATION
(CLIMATE CHANGE)**

**2. FUEL SAVINGS
(ENERGY EFFICIENCY)**

**1. AIR QUALITY
(HEALTH IMPACT)**

G20 Transport Task Group



*Meeting of the G20 Transport Task Group
28-31 October 2019, Tokyo, Japan*

Argentina: Advances in Regulatory/Policy Framework for HDVs

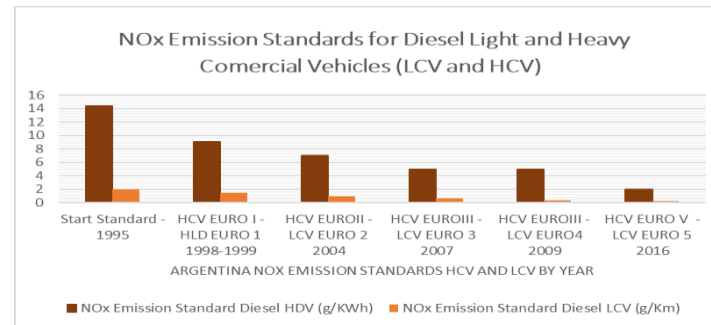
Standards for HDV pollutant emissions

- In **2018**, the **EURO V** standard is required in **Argentina** for all new HDVs (Resol. S AyDS 1464/2014) with low sulfur (S <10 ppm) diesel fuel.
- Currently (2019) 30% of the volume of diesel fuel sold in Argentina is type **low sulfur diesel (S <10 ppm)** (Ministry of Energy, Resol. SRH 5/2016).
- In **Brazil**, the entry of **Euro VI (NBR P8)** standards for HDV is planned for **2023**, what allows its incorporation to Argentina in a context of normative harmonization in the region.
- Programs of alternative fuels for HDV in developing : **B100** (Dec. SSTyTRA GCABA 156/2018) and **LNG** (Resol. ENERGAS 42/2019) and new technologies in **BRT** passenger transport (**Electric Buses**, Dec. 51/2018).
- For the first time in Argentina, air quality standards for **PM2.5** were incorporated in 2018 to the Buenos Aires Province (Dec. PBA 1078/2018)

BRT OF BUENOS AIRES



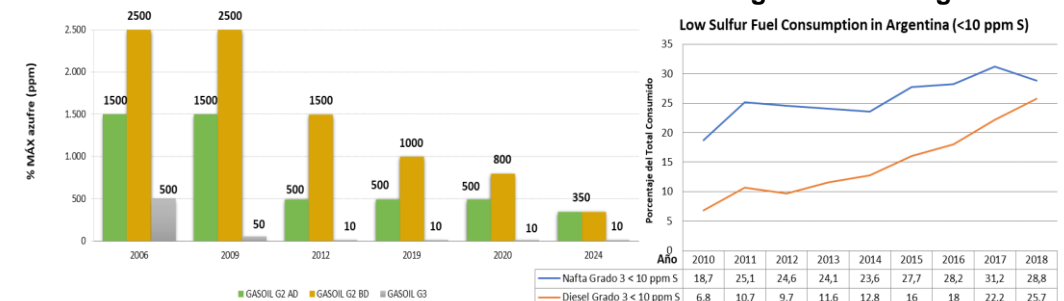
B100 BUSES PROGRAM



EURO V HDV in ARGENTINA 2016 (Resol. 1464/2014)

Category of Vehicles according to European Dir.	Date of entry into force of EURO V for "New Models"	Date of entry into force of EURO V for All los New Vehicles (0 Km)	Expire Date of EURO IV Certification
Heavy Duty M2,M3,N2,N3	1-January 2016	1-January 2018	EURO III: 31-Dec. 2015 EURO IV: 31-Dec. 2017

Maximum sulfur content in diesel fuel: Evolution of Regulations in Argentina



LNG TRUCKS PROGRAM



ELECTRIC BUSES PROGRAM



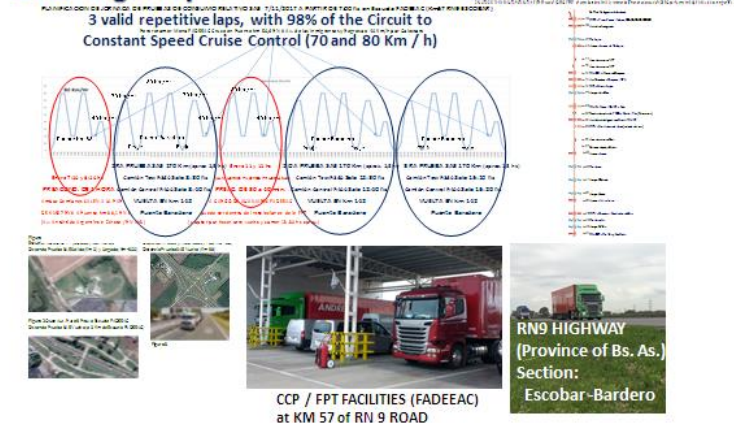
Argentina: Advances in Regulatory/Policy Framework for HDVs

Measures on energy efficiency and greenhouse gas emissions of the HDV fleet

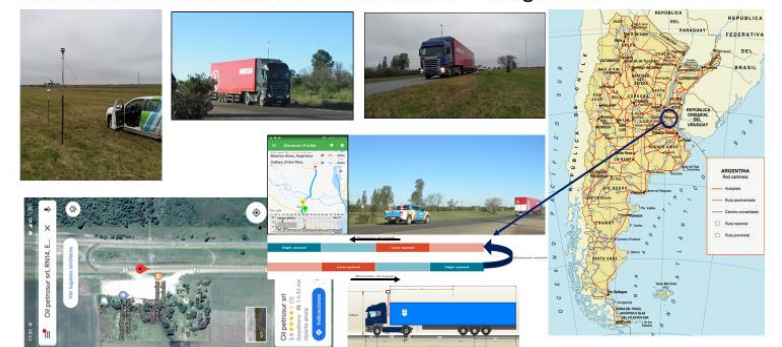
- In 2016 the Ministry of Transportation incorporates the **Smart Transport Regulation** (Voluntary program for HDV in use, Resol. CNRT 1075/2016), implemented from 2018 between the Argentina Government (Transport, Energy and Environment) and interested transport companies.
- In 2016, the on road vehicle efficiency group (**VE Arg. group**) was formed in the ISO Argentina chapter (IRAM) between Government Ministries (Energy, Environment, Transport and Industry) and the private sector (companies and associations of automotive and services of transport) to development of technical standards.
- In 2017, **HDV-E Arg.** is organized from the previous group, incorporating **freight truck test on the highway** to support the implementation of the Argentina Smart Transport Program (**1st Step**): Relative Consumption Tests according to SAE 1321 were carried out to evaluate improvement of HDV energy efficiency.
- In 2019, **HDV-E Arg.** group carried out two highway truck test campaigns planned together with ICCT and US EPA (**2nd Step**) to support the future implementation of a **VECTO-type certification** and monitoring program:
 - 1) Coast down tests of trucks on the highway for measurement of aerodynamic drag coefficient (SAE 2263)
 - 2) Determination of fuel consumption fuel by VECTO with verification by measurement with telemetry and flowmeter.



2017 Highway Truck Test: Relative Fuel Consumption (SAE 1321)



2nd STEP (2019): Measurement Campaign Planning with icct and US EPA for the development of a Technical Standards Framework of VECTO Certification in Argentina



Work objectives of Technical Group HDV-E Arg.

- The development of the Argentine regulatory framework on energy efficiency of heavy freight transport on road vehicles.
- Understand through the tests developed, the international standards of application, finding mechanisms for local implementation.
- Agree on the technical standards to be applied and communicate them to the sectors involved in their implementation, as well as disseminate them to other related actors and society in general.
- Promote the fulfillment of national goals for fuel savings and mitigation of CO2 emissions.
- Promote regional regulatory harmonization through the Pan American Technical Standards Commission (COPANT) that integrates all the ISO chapters of América.
- Enable the incorporation and exchange of knowledge with TTG G20, and developing of alternatives to the international cooperation



Program proposed for the development of the Regulatory Framework of HDVs Efficiency in Argentina (**HDV-E Arg.**)

✓ **1st STEP (Started in 2016):** Development of standards to support the implementation of **Smart Transportation Program**.

✓ **2nd STEP (Started in 2019):** Development of Technical Regulatory Framework (truck coast down, tire rolling resistance etc.) and definition of the component testing (representative driving cycles and trucks categories) and vehicle simulation methodology **to support the implementation of the certification and monitoring program.**

✓ **3rd STEP (to be defined):** Promote the development of **CO2 emission and fuel consumption standards** according to CO2eq mitigation and fuel savings goals of the National Transport and Climate Change Action Plan.



Thank you!

