

Ministry of Infrastructure of Ukraine  
(former Ministry of Transport and Communications)  
State Enterprise «State Road Transport Research Institute»  
(SE SRTRI)

# Estimation of Road Transport Emissions with application of Higher Level Methods

**Part 1. SE SRTRI brief introduction.  
Why road transport is so important in terms of emission?**

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**Tbilisi, Georgia, 11-12 December 2013**



*Founded in 1930*

# **State Road Transport Research Institute of the Ministry of Infrastructure of Ukraine**

**57, Peremohy Ave., Kiev    [www.insat.org.ua](http://www.insat.org.ua)**

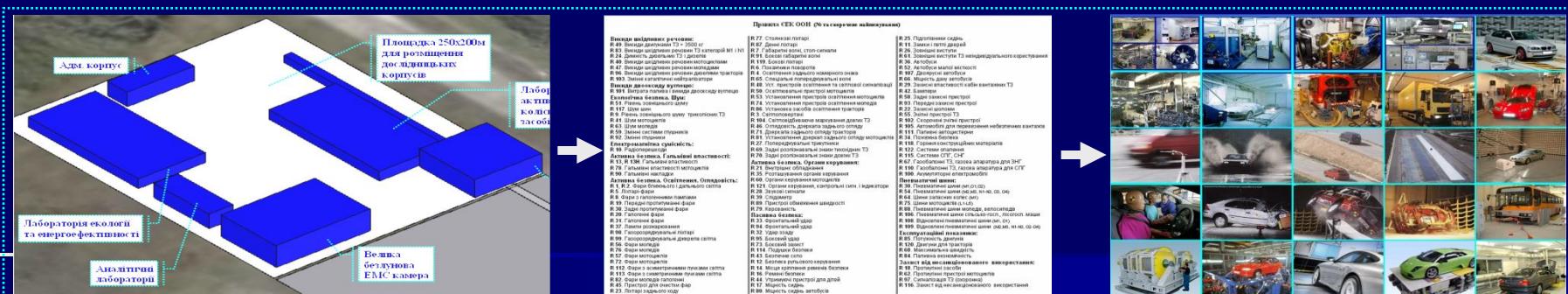
# MOST SIGNIFICANT PROBLEMS OF ROAD TRANSPORT



The main activities of SE SRTRI are related to the main problems of the road transport sector

## Investments

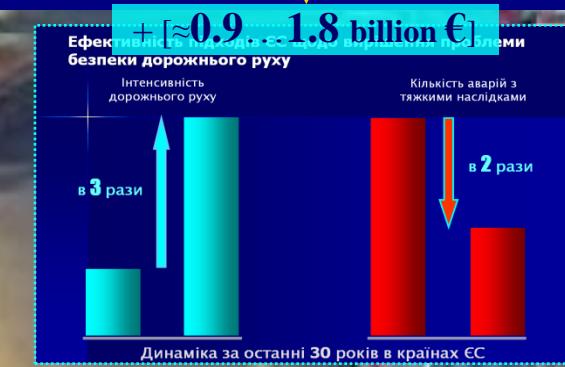
## → European standards and modern technologies



# ECOLOGY



## ENERGY



## **Safe, Environmentally-Sound and Energy-Efficient transport**



Have produced up to **90...95%** of total harmful substances within areas with high people concentration

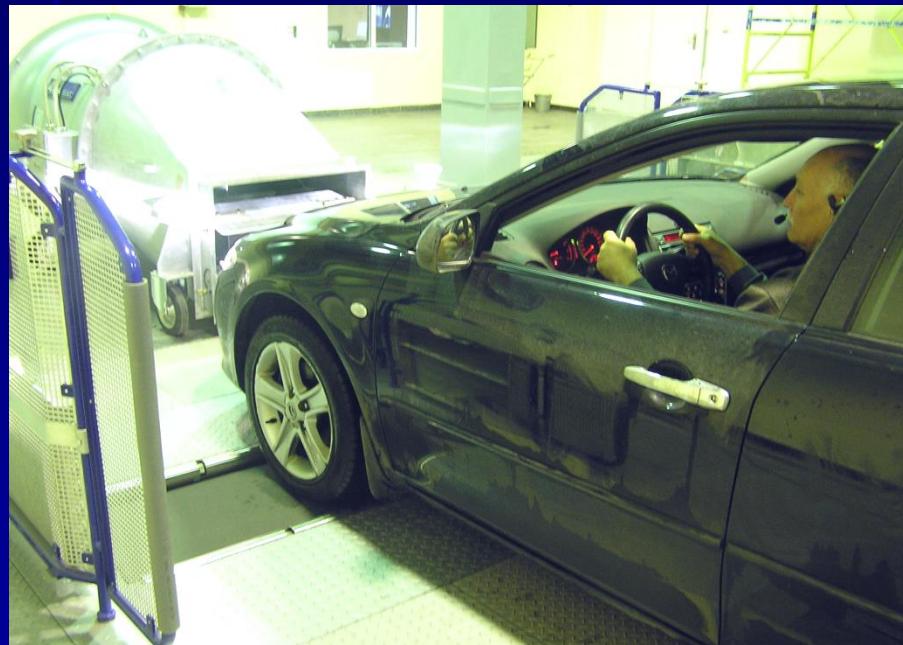
Ukrainian Annual Economic Losses (External Expences) due to wheeled vehicles emission can be approximately estimated in **≈ 2...3 billion Euro**



**The Research Laboratory of Fuels and Ecology of SE SRTRI  
(internal combustion engine test cell)**

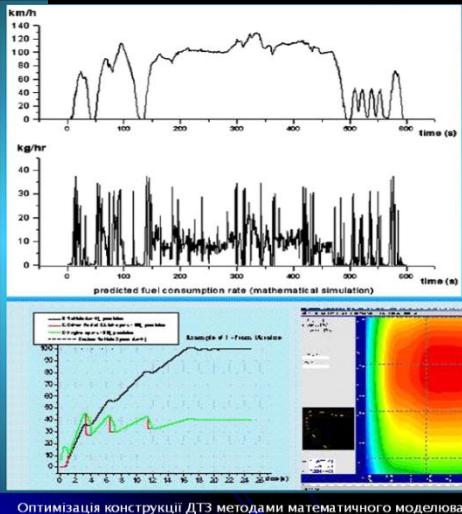


Modern chassis dynamometer (vehicle test bench) of AVL Company (model RPL1220/12C23M17/APM150) installed in Kyiv, Ukraine to test road vehicle on driving cycles



**Modern chassis dynamometer, which was the first in Ukraine, purchased by the State Road Transport Research Institute (launching and adjustment)**

# Research and Development at the State Road Transport Research Institute



Приклади досліджень з використанням комплексу програмного забезпечення та апаратних засобів "Vehicle Performance Analysis System" (розробка ДП "ДержавтотрансНДІпроект")



Операторська кімната лабораторії екології ДП "ДержавтотрансНДІпроект"





**The first in Ukraine CVS system to measure mass emission of vehicles**



**The passenger car over European Urban Driving Cycle testing  
and measuring mass (gram per km) of NOx, T.HC, CO, PM, CO2, CH4 etc emissions**



**An example of very small vehicle testing capabilities  
(with Ukrainian EMMS-CVS-010 system)**



**Investigation of exhaust emission of bus (R&D) on chassis dynamometer (real driving conditions reproduction). Ukrainian EMMS-CVS-010 system on the left.**