Improving Transport Emission Inventories
And the JRC Involvement

JRC, Transport and Air Quality Unit
Where does the JRC fit in the European Commission?

President Barroso

27 Commission Members

Commissioner Potočnik

Science and Research

Joint Research Centre (JRC)

Research DG (RTD)
The Mission of the Joint Research Centre

... is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies.

As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union.

Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.
Our Structure: 7 Institutes in 5 Member States

**IRMM** - *Geel, Belgium*
Institute for Reference Materials and Measurements

**ITU** - *Karlsruhe, Germany*
Institute for Transuranium Elements

**IE** - *Petten, The Netherlands*
Institute for Energy

**IPSC** - *Ispra, Italy*
Institute for the Protection and Security of the Citizen

**IES** - *Ispra, Italy*
Institute for Environment and Sustainability

**IHCP** - *Ispra, Italy*
Institute for Health and Consumer Protection

**IPTS** - *Seville, Spain*
Institute for Prospective Technological Studies

~ 2800 staff ~ 300 M€/y budget
(+ 40 M€/y competitive income)
JRC co-leader of Transport Panel in TFEIP

• Set-up a web site for panel [http://transportpanel.jrc.it/](http://transportpanel.jrc.it/)
• First meeting with experts in Nov 2007, Ispra
• Launched a study on the use of PEMS measurements for the validation of COPERT EF
  – LAT, TUG, 19 months, start Jan ‘08
  – Extensive JRC experimental programme
• Started the extension of ARTEMIS application in Lombardy Region
• Study on Uncertainty of road transport EIs (just launched)
Future JRC Work on transport emission inventories

• Need to make use of JRC existing measurements
  – Inclusion in HBEFA?

• Planning of future JRC experimental programme
  – LPG, CNG Emission Factors
  – Biofuels (E5, E10, blends, 3 cars)
  – Non-road mobile machinery (PEMS)
  – Analysis of driving behaviour-cycle definition (PAMS, Milan campaign, others?)

• Study on fuel consumption modelling
# Main Activities of the JRC Transport Lab (VELA)

<table>
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<th>VELA 1 &amp; 2</th>
<th>Inside EU</th>
<th>Outside EU</th>
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| Passenger cars and Light Duty Vehicles | § EURO 5  
- New limit values  
- PMP programme  
§ Beyond EURO 5  
- New test cycle  
- Off-cycle emissions  
- PEMS programme | § PMP Programme  
(coordination with UK) |
| Motorcycles | § EURO 3  
- New limits  
§ Beyond EURO 3  
- Emissions from mopeds  
(collaboration with CH) | § WMTC – New Worldwide Test Cycle |
| Heavy Duty Vehicles (On/Off-road) | § EURO VI  
- PMP programme  
- PEMS programme  
§ NRMM Directive Review  
(Dir.2004/26/EC) | § NRMM GTR  
- New test cycle  
§ PMP Programme  
(coordination with UK) |
| Fuels | § Fuel Directive Review  
- Biofuels  
- Evaporative emissions  
- Metallic additives  
§ Alternative fuels  
- Well to Wheels analysis  
- European H2/FC platform | § H2 Fuel Cell GTR |