Agenda, Discussions & Workplan Transport expert panel Thessaloniki 1/11/2006

Agenda and Discussion

1. COPERT methodological issues (Charis Kouridis, LAT)

Copert 4 was first released as a beta version in December 2005. The new methodology includes additional vehicle categories, revised hot emissions for gasoline and diesel EURO I-IV, hybrid EURO IV, N20 and NH3 emission factors, new PM components, etc. Load and slope are integrated in the new HDV methodology, no changes in cold start evaporation and main pollutants. No emission factors for diesel EURO 5 and EURO 4 have been introduced because those were not included in the ARTEMIS project and no measurements were available. Biomass fuels such other new categories could be added including all the information needed for the software. Methodologies on these issues are ongoing and will be integrated in the next version of Copert 4.

2. COPERT Software (Dimitris Gkatzoflias, LAT)

Characteristics: Developed with MS Visual studio instead of ACCESS, user friendly and multiwindow, time series in one file and more one scenario in a single file, import/export of file (xls) export in CORINAIR dbf file, more advanced configuration of fleet at regional local level
The software functionalities have been illustrated step by step in the way useful to calculate emission. Graphic elaboration of results has been introduced. COPERT 3 file can be imported in COPERT 4. Support in using COPERT 4 for Parties which need it has been requested. The wish was expressed to support such activities by the ETC –ACC budget.

3. Information on new Danish inventory projects (Morten Winther, RISO Denmark)

Non road model: non road emissions have been updated in consideration of their weight increasing on total emission and taking in consideration new EU directive limits. German IFEU institute emission factors for stage I and stage II gasoline have been used Future stages have been constructed in rapport to STAGE II figure. Source of activity data are different and involve industrial association information.
Emission factors coming from measurements are lower than previously estimated for Stage II of 97/68 EU directive.
HM: combination of HM EF from literature and air quality measurements to validate HM EF.
The JRC announced a European project led by them to address the issue of non-road emissions.

4. Real world emission measurements used for emission inventories (Penny Dilara, JRC ISPRA)

JRC Ispra are running a project on portable on-board tools to measure real emissions, which are termed PEMS (portable emission measurements systems). These systems provide real time emissions as the vehicles operate on the road and exhibit very good agreement with the conventional laboratory system. These can be combined to PAMS (portable activity monitoring systems) which are low costs and measure engine and vehicle operating parameters. They will be used for vehicle emission legislation and for emission inventories estimation in the US and the question is if they could be used to validate existing emission models for emission inventories also in Europe. JRC offered to make available the data coming from the Corridor V project in the next years in order to develop this new methodology in the coming years. This offer was enthusiastically received by the transport panel.

5. Review of parameters used in different European COPERT applications (Riccardo De Lauretis, APAT Italy)

A request was sent from the transport expert panel to collect data on how different countries use COPERT. 10 regions and countries replied to this request for data in 1990 and 2004. Fuel consumption was changing significantly in the various countries between the two years. Most of the speed averages were the same between the two years, although some differences were observed. The share of vehicles was also somewhat different between the two years. The average mileage is also changing between the two years. High variability have been found in the figures of this parameters used by the countries.

6. Summary of Main issues

- COPERT 4 will be released in the full version next week on the web. The complete information regarding new features and on going work is also available on the web. Support in using COPERT 4 for Parties is requested.

- Guidebook update: there is information available regarding off-road emissions to be integrated in the Guidebook and we propose the consultant selected to be in contact with IFEU and JRC-ISPRA in the future. Denmark presented the update of emission from this sector taking in account results from IFEU research and the European Directives regarding this sector. Stage II of the European Directive measured emissions are lower than those previously estimated.

- The Expert panel addresses the lack of measurements of EURO4 diesel passenger cars and new measurements will be necessary in the future.

- The EFDB could be useful to supply only average emission factors for different countries because advanced Tier is necessary to estimate emission especially for road transport. A comparison of average parameters, such as speed, mileage, fuel consumption and share of mileage, used by expert in COPERT model is on going with the aim to enhance the main differences.

- There are already some activities to validate emission estimates of HM (e.g. Denmark) comparing air quality measurements with emissions. We believe it is necessary to strengthen such activities.

- On –board measurements could be useful to measure emissions and validate current emission factors. Such activities are on going at European level.

Plans for 2006/2007, Expert Panel on Transport

No.	Description	By whom	By when
1	MeditAIRaneo project (a bottom-up and a top-down approach for estimating road transport emissions at national and local levels).	CITEPA (Paper) APAT (Results on Italy)	Final report on the web of CITEPA Final report on the web of CITEPA
2	Input to review procedure by evaluating Input Data used for road transport inventories (comparison of average parameters, such as speed, mileage, fuel consumption and share of mileage).	APAT	Finalisation of the report for the next TFEIP meting in June 2007
3	Revision of the Road Transport Chapter (Snap 0701 to 0706) COPERT 4 - Cold start methodology - Evaporation methodology - Review of HM emission rates - PM split in EC/OC - Emission rates for biofuels - Alternative fuels (CNG)	LAT	Final version on the web of the TFEIP Summer 2007
4	Support in using COPERT 4 for some Parties - Workshop to be held by JRC Ispra (Spring 2007)	ETC-ACC LAT JRC-Ispra	Early spring 2007
5	Chapter 8 guidebook update and non-road - Potential sources for off-road machinery include the IFEU methodology, new information becoming available from JRC Ispra. - Potential sources for air emissions include PsiA consulting (ARTEMIS Project), Manchester Metropolitan Univ. - Potential sources for rail and inland waterways emissions update include TU Denmark (Artemis Project) - Potential sources for ocean shipping include new projects in Sweden	EU Commission, TFEIP, transport expert panel, external consultants	On-going progress in 2007, finalization by the end of the Guidebook restructuring project
6	Emission Reporting Guidelines need to be corrected to include SNAP 0708 (NFR 1a3bvii) on road and vehicle component abrasion	TFEIP	To de defined

Source: Leonidas Ntziachristos, Riccardo De Lauretis, Panagiota Dilara