European Commission - DG Environment

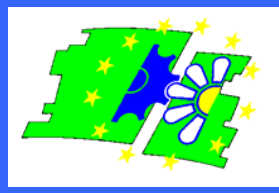
TREMOVE

Link with NECD Review – Further developments

6th TREMOVE Contact Group Meeting
Brussels, 10 Octobre 2004

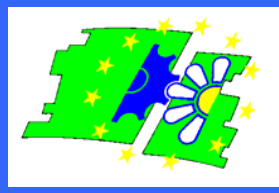
Jacques Delsalle
Unit C1 – Clean Air and Transport

TREMOVE Contact Group



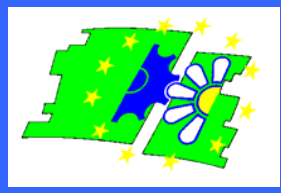
- **Purpose : stakeholder consultation at technical level**
  - **Modelling and data**
  - **Baseline forecasts**
  - **Policy options**
  - **Policy simulation results**
- **Ad-hoc Group of Experts, build for Tremove Assessment + Invitations sent to CAFE Stakeholders**
- **8 meetings in period 2003 – 2006**
- **Today: National representatives only (Focus on the link with national data and forecasts)**

Where are we?



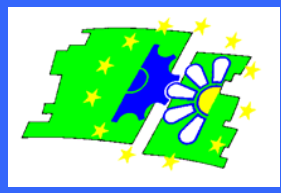
- **Commission adopted Thematic Strategy on Air Pollution on 21/9**
- **Follow-up (i.a.): Review NEC Directive**
  - **Communication and IA ready by end-2006**
  - **New RAINS baseline under construction, with National Projections**
  - **Need to use TREMOVE and RAINS in a co-ordinated way for the analysis of transport emission abatement scenarios**

State of play



- **TREMOVE model v2.32 technically ready, but…**
  - Important differences between TREMOVE and emissions inventories (and RAINS baseline)
  - Impossibility to use TREMOVE and RAINS in a co-ordinated way for the analysis of transport emission abatement scenarios
- **Extension of the RAINS database: easier accommodate inputs from transport-specific emission models**
  - activity data, data on emissions and penetration rates of vehicles equipped with a particular control technology.
- **Tasks (current contract Lot 3)**
  - validate the data set of the model against national statistics and data used for the NEC review
  - integrate the most recent emission factors available at EU level (ARTEMIS)
  - review the baseline scenario and make it fully consistent with the NEC Baseline + variant based on alternative national projections.

NEC Review - Items relevant for transport



- **Bilateral discussions between national experts and the RAINS modelling team at IIASA:**
  - Discrepancies between national and international statistics on energy use and transport for the year 2000
  - Emission inventories for the year 2000 for SO2, NOx, VOC, and PM
  - Potential discrepancies between national and Europe-wide projections on energy, transport up to 2020
- **TREMOVE Contact Group meetings**
  - complement and detail the data and assumptions on transport activity and emissions
- **Input from TREMOVE**
  - emission abatement potential and costs (control strategies and cost curves) as calculated by the RAINS model for the years 2010, 2015 and 2020 for SO2, NOx, VOC, NH3 and PM.
  - Euro 5 (LDV), Euro VI (HDV), Retrofit options, non-technological measures

European Commission - DG Environment

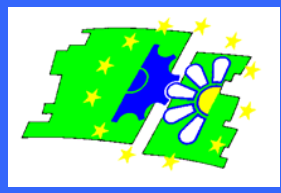
TREMOVE

Further improvements of the model – Next steps

6th TREMOVE Contact Group Meeting
Brussels, 10 Octobre 2004

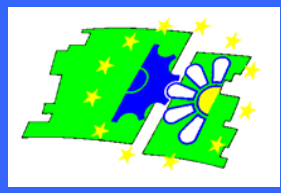
Jacques Delsalle
Unit C1 – Clean Air and Transport

TREMOVE III



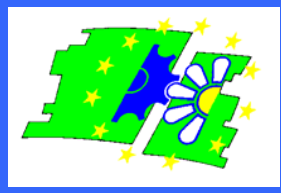
- **Improvement of the quality and scope of the model**
  - Further improve the structure of the model, so that behavioural responses are better reproduced in all modes.
  - Improve dataset (Best available data), implement TRENDS-2 results
  - Possibility of introducing transport baseline from alternative sources.
  - Extend the scope to EU-25, Romania, Bulgaria, Croatia and Turkey.
  - Improvement source code and software structure (run time, user interface, wider range of users)
  - Produce a revised baseline

TREMOVE III



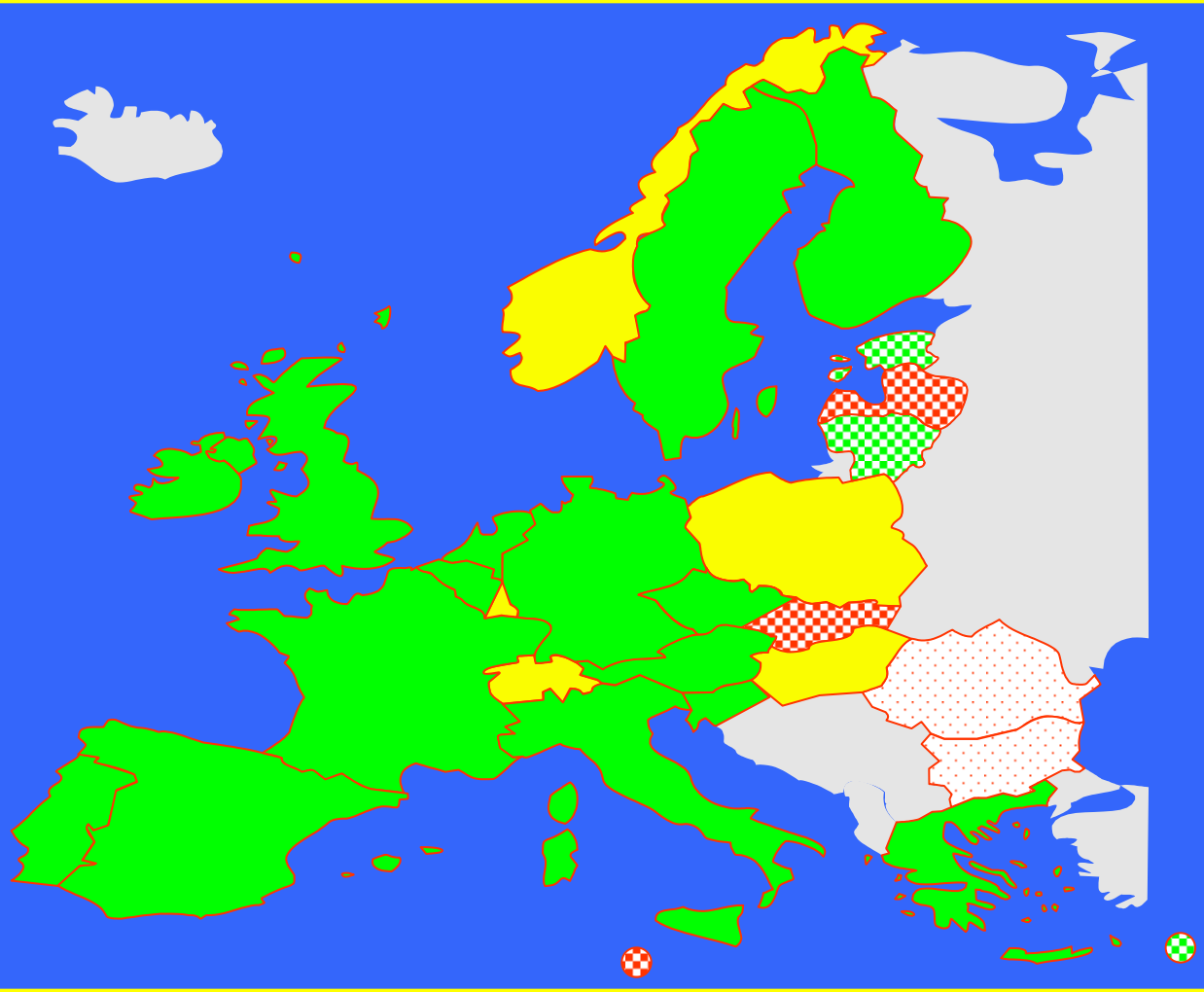
- + Independent and scientific review of TREMOVE
  - Check to what extent the structure of each module of TREMOVE provides a scientifically credible representation of the reality.
  - Define the limitations and the implied system boundaries and explain to what extent may these restrict the validity of the conclusions and policy advice
- + Continue using TREMOVE for Impact Assessments of Policy options at European and National levels (marginal improvements in the model structure)
- Important: Only one version model in use, any improvement should benefit to all users.

Consolidate the role of TREMOVE national co-ordinator

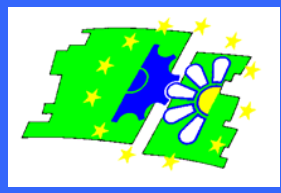


- **A TREMOVE national coordinator to be nominated**
  - within the TREMOVE Contact Group in agreement with national authorities
  - for each EU 25 Member States as well as for Romania and Bulgaria, and Candidate Countries.
- **Role**
  - Check dataset and results of policy scenarios
  - Identify publicly available statistics, data, reports, forecasts
  - Help proposing proxies and defining the scope for further improvements
  - Promote the use of TREMOVE at national level
  - *Become TREMOVE user (optional)*
- **E-mail, website (forum?), Contact Group meetings**

Network of TREMOVE national co-ordinators



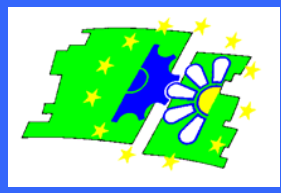
Conclusions – next steps



- **Your contribution is important and complementary to IIASA/RAINS bilateral consultations**
  - **TREMOVE not used for emission ceilings definition, but for building transport cost curves and complement dataset when needed (e.g. lack of national projection)**
  - **Understand where divergences in statistics and forecasts come from**
  - **Need to improve EU-wide sources (SCENES, TRENDS) with national sources**
- **Update in country data sheet to be sent**
  - **+ more detail in excel pivot tables**
  - **Making clearer definitions and concepts (e.g. LDV, regions)**
- **Main issues:**
  - **Load factors/occupancy rates, v.km, mileages, speeds, introduction new technologies**

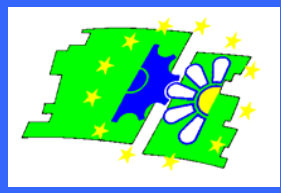
Thank you!

Improvement dataset



- Passenger low cost and Freight Air Transport
- Split up of Maritime Transport in short sea and deep sea by sea regions
- Vehicle stock at EU level for Maritime, Air and Inland Waterways
- Load factors & occupancy rates by vehicle type and age, trip purpose, time and place.
- Splitting of largest trucks (>32 trucks) into more classes.
- Impact of alternative fuels
- Impact of mobile air conditioning and other equipments

Improvement model structure



- Development of the demand module: allowing substitutions (e.g. short see shipping vs. rail or road), endogeneous changes in load factor and occupancy rates for all modes.
- Review and expert validation of the set of elasticities
- Inclusion of congestion/scarcity in non-road mode.
- Calibration and extension of speed-flow relationships
- Improvement road vehicle stock module (2nd hand Market)
- Alternative revenue recycling options.