

AQ trends report : what for

- Support to air pollution decision makers involved in the CLRTAP : **lessons learnt for 20 years**
- Contribution to the future **CLRTAP assessment report**
- A synthesis of input, data, information produces by the EMEP centers and by **national experts**
- For the first time gathering **observed and modelled** AP trends ...
 - Assessment of the « efficiency » of the emission reduction strategies adopted with the protocols
 - Evaluation of trends in long range fluxes
 - Better understanding of the air pollution patterns in Europe
 - Discrimination between contributions from anthropogenic and natural sources
 - Mapped information thanks to modelling

Framework

- **EMEP DOMAIN**
- **PERIOD : 20 years** : 1990-2010 or rather 1992-2012 and 2002-2012 for « new » components
 - Do we keep 2003?
- **POLLUTANTS** : those that are relevant to assess the impact of the protocols
 - EMEP monitoring strategy list : makes sense but too large and sometimes too difficult for policy makers
 - But some compounds are already well-known (e.g. sulfur compounds)
 - Ozone, NO₂, PM₁₀, PM_{2.5}, sulfur and nitrogen deposition, ... information on chemical composition should help in the interpretation
- **TIME RESOLUTION** : year, month, day

METHODS

- Statistical analysis tools for observations -> note to be published by the EMEP centers
- The set of stations for observed trends should be defined with national experts :
 - First set from the EMEP and scientific network (with 20 years time series, QA/QC principles checked...)
 - This list should be completed for each country by national experts, including urban sites if they are considered as relevant
 - The final set of stations is validated by the national experts
- No meteorological adjustment
- Identifying trends by transport sectors seems important
- ... as station clustering
- Modelling work will be mainly supported by EURODELTA and by the current projects from the EMEP-centers

Work plan

- **Wiki page to be opened**, before the end of the year, by MSC-West
 - Minutes of the workshop and decisions (presentations will be published as usually on the TFMM website)
 - Notes and exchanges on the methodology for calculating trends
 - **Agreement on the methodological aspects should be achieved by the end of the year 2014** (for both measurements and model results)
 - Note describing the outcomes, the methods and invitation to participate will be circulated to all TFMM members (and perhaps the EMEP Steering body) by the end of the year
- **Selection of stations**
 - First set from the EMEP, EEA, and scientific networks (with 20 years time series, completeness, QA/QC principles checked...)
 - This list should be completed for each country by national experts, including urban sites if they are considered as "relevant"
 - The final set of stations by country is validated by the national expert
 - Final review will be necessary to ensure that we have a relevant coverage for Europe
- **EURODELTA retrospective analysis launched by the end of 2014**

- **Country contribution**
 - Running the trends and the transport sector analysis
 - Interpretation and analysis
 - Comparison when possible with emission reductions, effects, model results (link with FAIRMODE)
 - For some countries participation to EURODLETA
 - Notes, papers will be provided
- **EMEP centers contribution**
 - Running observed and modelled « aggregated » trends; cooperation with the EEA
 - Work on clustering ?
 - Support to national experts
 - Links with research networks
- **« Editorial » Committee ?**
 - To work on the final report: it will not be a compilation of national contributions. National contributions and results will be used in the report and selection is necessary
 - Could be good to provide a list of key questions to be covered in the interpretation
 - Choice on how to publish results
 - Volunteers ?

Time line

- Next TFMM meeting (5-8 may in Poland) :
 - Presentation of trends obtained from observations in Europe and at the country level
 - Presentation of the first EURODLTA results
 - Meeting of the editorial Committee
- Presentation EMEP Steering body meeting in September
- New TFMM workshop on trend results (and the report) in fall 2015
 - Back to back or joint meeting with WGE?
- First draft of the TFMM trends report by the end of 2015 ??