

*Introduction**WP6**Structure**Formulation**Resources**Timetable*

Brussels Expert meeting, 30 June, 2006

Recommendations structure

- **Overview WP6**
- **Recommendations structure**
 - Topic of recommendations
 - Methods used
 - Level of assessment
- **Formulation of documents**
- **Timetable**



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Overview of WP6 - Synthesis

- 1. To harmonise methods/recommendations from WP 3-5 for the different spatial/temporal scales by coupling WP2 requirements and needs (policy and cities) with WP3-5 recommendations.**
- 2. To specify the criteria and develop the protocols for the case studies: objectives, contents and types of results. (D6.1)**
- 3. To interact with the Application and Experts Groups to ensure user involvement and input, and relevance of results.**
- 4. To formulate final recommendations on best techniques for assessment of air quality at various spatial scales. (D6.2)**

To aid in the above, a recommendation structure was first provided (June 2005) and is now a final proposal, in light of developments in WP3-5, D2.1 and the case studies in progress

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Early clarification of main assessment needs

Topics of Air4EU Recommendations (derived from assessment needs)

- **Main topics:**
 - *Spatial assessment of Air Quality, as a basis for mapping of concentrations and exceedances, on*
 - *regional scale*
 - *urban scale*
 - *local scale*

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Early listing of assessment needs

Additional topics (needs derived from Directives)

- Assessment of source contributions
- Assessment of population affected
- Assessment of the PM_{2.5} exposure indicator
- Scenarios and forward projections
- Information to the public

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Early listing of assessment needs seen from the cities

Ex: Local user needs

- How to assess the local contribution from a city itself?
- How to design an adequate monitoring network?
- How to assess PM properly?
- QA/QC requirements to models?
- How to clarify/explain discrepancies between measurements and models?
- ..
- ..

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Topic of recommendation

The topic of the recommendation is a **selection** of important topics dealing mostly with **spatial assessment** but also with **other types** of assessment and **specific** needs of cities. It includes scale and compound as specifier.

1. Spatial assessment recommendation topics (concentrations and exceedances)

- *Spatial assessment of NO_2 in urban areas*
- *Spatial assessment of PM in urban areas*
- *Spatial assessment of O_3 in urban areas*
- *Spatial assessment of NO_2 at hotspots*
- *Spatial assessment of PM at hotspots*
- *Spatial assessment of O_3 for Europe*
- *Spatial assessment of PM for Europe*

- *Spatial assessment of PAH and $Benzene$ in urban areas*
- *Spatial assessment of CO at hotspots*
- *Spatial assessment of heavy metals*

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Topic of recommendation

The topic of the recommendation is a **selection** of important topics dealing mostly with **spatial assessment** but also with **other types** of assessment and **specific** needs of cities. It includes scale and compound as specifier.

2. Other assessment recommendation topics

- *Assessment of source contributions in urban areas (PM_{10} , NO_2)*
 - *included in the spatial assessment topics*
- *Trend analysis – Case study (Rotterdam)*
- *Scenarios – included in the Emissions cross-cutting report*
- *Communicating information to the public*

- *Emissions of PM from traffic induced suspension of road dust*
 - *Case studies (Rome, Rotterdam, Oslo, London)*
- *Emissions of PM from 2 wheeler exhaust*
 - *Case study, Rome*

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Overview of recommendations structure for D6.2

Topic of recommendation

Overview

Methods used

Monitoring

Modelling

Combining monitoring and modelling

Emissions

Uncertainty analysis

Level of assessment

Basic assessment requirements

Best practise recommendations

Scientific recommendations

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Methods used

This section gives specific details, according to the list of methods, to achieve the assessment. The code on the right is for reference purposes.

Monitoring ***(MON)***

Modelling (incl. Scale interactions) ***(MOD)***

Combining monitoring and modelling ***(COM)***

Emissions ***(EMI)***

Uncertainty analysis ***(UNC)***

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Level of assessment

Within each methods section the recommendations are given based on the level of assessment required. The letters are for coding purposes.

Basic assessment requirements (a)

Best practice recommendations (b)

Scientific recommendations (c)

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Testing of recommendations by case studies

Topic	Comp- ound	Spatial assessment						Other assessments				
		PM urban areas	NO2 urban areas	O3 urban areas	NO2 hotspots	PM hotspots	O3 Europe	PM Europe	Source contributi Urban areas	Trend analysis	Scenarios	Emissions of PM from resuspensi
Region												
Rotterdam I									MON(b)			
Rotterdam II		MOD-BG(b)										
Rome		MOD-BG(b)									EMI(b)	EMI(b)
Oslo I		COM(b,c)	COM(b,c)									
Oslo II					COM(b,c)	COM(b,c)						
Oslo III		EMI(b)	EMI(b)					EMI(b) COM(b)			EMI(b)	
Prague I		COM(b,c)	COM(b,c)									
Prague II		COM(b)	COM(b)									
Paris			COM	COM								
London I					MOD(b)	MOD(b)				MOD	EMI	
SE England			MOD	MOD								
London III		UNC	UNC		UNC	UNC						
Athens		MOD(b)						COM		MOD	EMI	
Europe I		COM(b,c)	COM(b,c)	COM(b,c)				COM(b,c)	COM(b,c)			
Europe II		COM(b)	COM(b)					COM(b)	COM(b)			
Berlin		UNC	UNC		UNC	UNC						

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1. Introduction

- 1.1 Aim
- 1.2 Applications and scales
- 1.3 Structure of this document

2. Monitoring

- 2.1 Network design
- 2.2 Monitoring methods
- 2.3 Data quality and accuracy (QAQC)

3. Modelling

- 3.1 General model types and requirements
- 3.2 Meteorology
- 3.3 Dispersion and transport
- 3.4 Chemistry and aerosol processes
- 3.5 Rural background contributions

Case study Europe I

- 3.6 Interactions between modelling scales
- 3.7 Population exposure

3. Combining modelling and monitoring

- 3.1 Model evaluation/validation
- 3.2 Data assimilation

Case study Prague II

Case study Oslo I

- 3.3 Optimisation of monitoring networks using models and data assimilation

4. Emissions

- 4.1 General recommendations for the generation of emission data
- 4.2 Recommendations for the calculation of emissions of PM on urban scale

5. Uncertainty analysis

- 5.1 Uncertainties in monitoring data
- 5.2 Uncertainties related to representativeness
- 5.3 Uncertainties in modelling

Case study Oslo II

- 5.4 Assessment of uncertainties when combining monitoring and modelling
- 5.5 Spatial mapping of uncertainties

A case study is needed for this!

6. Concluding remarks

References

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Steps for the creation of final recommendation documents

- 1. Define template for recommendation documents*
- 2. Final selection of recommendation topics*
- 3. Extraction of 'methods' and 'level of assessment' recommendations from summary tables in D3.2, D4.2 and D5.2*
- 4. Identification of gaps that still exist*
- 5. Filling of gaps*
- 6. Creation of text from all WP3-5 reports and other sources*
- 7. Inclusion of relevant case study results*
- 8. Feedback from expert group*
- 9. Updates based on any second round case studies or further input*
- 10. Final review of documents*

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Time table for final recommendation documents

15 May:	Completion of D3.2, D4.2, D5.2
31 May:	Completion of template for documents
23 June:	First drafts of some recommendation topics
29 June:	Expert meeting
15 July:	Feedback from expert group
1 Oct:	Second drafts of documents
1 Dec:	Final versions of documents