The European Commission's science and knowledge service

Joint Research Centre

Introduction & Scope of the Intercomparison Exercise

to-do list

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European Commission

To-Do List:

1) Finalization of the data analysis:

1a Assessment from the results point of view:

- O. Kracht will finalize overview statistics about the miscellaneous parameters (population, mean concentration, concentration standard deviation) reported by participants in terms of aggregated data within the SR areas.
- Last consolidation of shape-files (CIEMAT)

1b Assessment from the methodological point of view:

- Update, amend and countercheck the Data/Methods matrix table (examples see next slide):
  - It is preferable to split this Data/Methods matrix into traffic and background sites
  - I will start with some smaller adjustments based on the information available from the workshop presentations
  - Include information about integration time scales and evaluation time scales
  - **Each participants group should then update and countercheck their parts**
- Compile **exactly** which of the files of the dataset participants used in the exercise
  - to be completed in an Excel table (template will be provided by O. Kracht)
  - participants will then complete (mostly simple tick-marking)

	FAIRMODE CCA-1 Spatial Representativeness Intercomparison Exercise ---- Overview Table											
	CIEMAT	**ENEA**	**FEA-AT**	**FI** (consortium)	**EPA**	**INERIS**	**ISSeP&AwAC**	**RIVM**	**SLB**	**VITO**	**VMM**	**Totals**
	Spain	Italy	Austria	Finland	Ireland	France	Belgium	Netherlands	Sweden	Belgium	Belgium	
	(CFD-RANS)							(PCA)				
Concentrations												
Monitoring Stations (hourly)	X		X	X?				X				4
Monitoring Stat. (only annual avg)			X	X?		X (only in 1st version)						3
Virtual Monitoring Stations (n=341)		X			X	X		X				4
raw timeseries (hourly)		X			X							2
virtual samplers						X		X				2
noisy virtual samplers												0
Concentration Maps (annual avg)			X	X		X (?)			X	X (?)	X	4 (6)
Raw Model Outputs (annual avg)						X						1
Emissions												
Road Traffic	X					X	X		X		X	5
Domestic Heating			X (for PM_{10})			X	X					3
Industry						X	X					2
Emission Proxies												
Traffic Emission Proxies			road type "motorway"	X								2
Domestic Heating Proxies											from population	1
Industry Emission Proxies			concentration maps									1
Dispersion Conditions												
Building Geometry	X			X (?)			X		X (?)			1 (3)
Street Width	X											1
Corine Landcover Classes			(X)							X	X	3
Meteorological Data												
Wind Velocity	X			X								2
External Information												
Google Satellite Images				X			number of lanes					2
Google Street View Data				X								1
Traffic Network					X							1
Final Results												
Polygons		X	X	X	X	X	X		X	X	X	9
allways contiguous				X	X				X	X		4
also non-contiguous		X	X			X	X				X	5
other types	gridded values							PCA classification				2
3 Primary Stations												
VS 216 (Borgerhout - traffic)												
NO_2	X	X	X	X	X	X	X	X	X	X	X	11
PM_{10}	X	X	X	X	X	X	X	X	X	X	X	11
O_3	no	no	no	no	no	no	no	no	no	no	no	0
VS 7 (Linkeroever - background)												
NO_2	no	X	no	X	X	X	X	no	X	X	X	8
PM_{10}	no	X	X	X	X	X	X	X	X	X	X	10
O_3	no	X	no	(X)	no	no	X	no	X	X	no	4 (5)
VS 17 (Schoten - background)												
NO_2	no	X	X	X	X	X	X	X	X	X	X	10
PM_{10}	no	X	X	X	X	X	X	X	X	X	X	10
O_3	no	X	X	X	X	no	X	X	X	X	no	8
8 Additional Stations												
SR area	no	X	X	no	no	X	no	no	no	X	no	4
classifications	no	no	X	no	no	no	no	X	no	no	no	2

		used for the background stations	used for the traffic station		
		(please insert an **X** for the files you have used)	(please insert an **X** for the files you have used)		**Comments**
Folder 1					
Measurements of the Antwerp monitoring stations for the year 2012					
	bc.csv				
	btx.csv				
	co.csv				
	General_info.csv				
	meteo.csv				
	no.csv				
	no2.csv				
	ozon.csv				
	pm10.csv				
	pm25.csv				
	so2.csv				
Folder 2					
Measurements of of the ATMOSYS sampling campaigns with passive samplers and mobile stations					
	dataPart1_atmosysPM.csv				
	dataPart2_atmosysPM.csv				
	general_info_atmosysNO2.csv				
	general_info_atmosysPM.csv				
	measurements_atmosysNO2.csv				
Folder 3					
Gridded yearly mean concentration data from the RIO-IFDM-OSPM model					
	BC.asc				
	C6H6.asc				
	NO2.asc				
	O3.asc				
	PM10.asc				
	PM25.asc				
Folder 4					
Time series from virtual monitoring points					
	BC_timeseries.csv				
	C6H6_timeseries.csv				
	NO2_timeseries.csv				
	O3_timeseries.csv				
	PM10_timeseries.csv				
	PM25_timeseries.csv				
information on coordinates and SC / no SC classification:					
	virtual_stations.csv				
Folder 5					
Emission datasets in the region					
	CO_OPS_2012_0.csv				
	NH3_OPS_2012_0.csv				

To-Do List:

3) Dissemination:

- Some little input needed from everybody for the HARMO18 contribution. I will come back to you in July/August about the information I need from your side.

4) Collection of conclusions from the workshop:

- I propose that all IC exercise participants (+ others who would like to) prepare a short statement / personal summary of the workshop with
  - conclusions drawn from the exercise results and workshop discussions
  - comments
  - suggestions
- ca 1 pages Word file (≥ 1 pages would be on your own choice ☺)
- This could also include comments / statements about aspects for which during the workshop it has been identified that in fact different points of view exist and which would therefore require a closer look in future working steps (e.g., should SR area be contiguous?, should SR area be exclusive?, etc.)

All participants are requested to prepare a short statement with their conclusions drawn from the exercise results and workshop discussions, including comments and suggestions. O. Kracht will provide a first draft summary in order to streamline this process.

To-Do List:

5) For the preparation of the JRC Report:

- Participants will **update and harmonize the methodological description files**
  These descriptions should be included into the ANNEX of the report.
  - Oliver Kracht will prepare a Word-template that could be used by all participants
- Obligatory slides from the workshop should be included into the report, too.
  - the aforementioned Word-template will be used to integrate **finally updated / consolidated versions of the obligatory slides**. Oliver Kracht will coordinate the process in terms of consistency / consistent understanding of the questions etc.

The To-Do List is probably not exhaustive and we will possibly identify further actions in the upcoming weeks.

Outlook:

Mid Term Future (beyond this current project):

- Sensitivity analysis on parameter values used in the similarity criteria
- Sensitivity analysis on the choice of additional criteria (i.e. should SR area be contiguous or not)
- How can SR methods be inverted in order to find optimal station positions?

- Subsequent (mid-term) objective the SR group should be working towards creating a set of guidelines and guidance for determining of the area of representativeness.
- This objective likely requires first establishing a common framework for SR definitions and SR similarity criteria, and for harmonizing the related terminologies.

This Outlook certainly reaches beyond the current project, i.e. beyond 2017. It is thus **not part of the current to-do list**. I nevertheless listed these topics here, as I have protocolled them as part of the suggestions and conclusions discussed during the workshop.