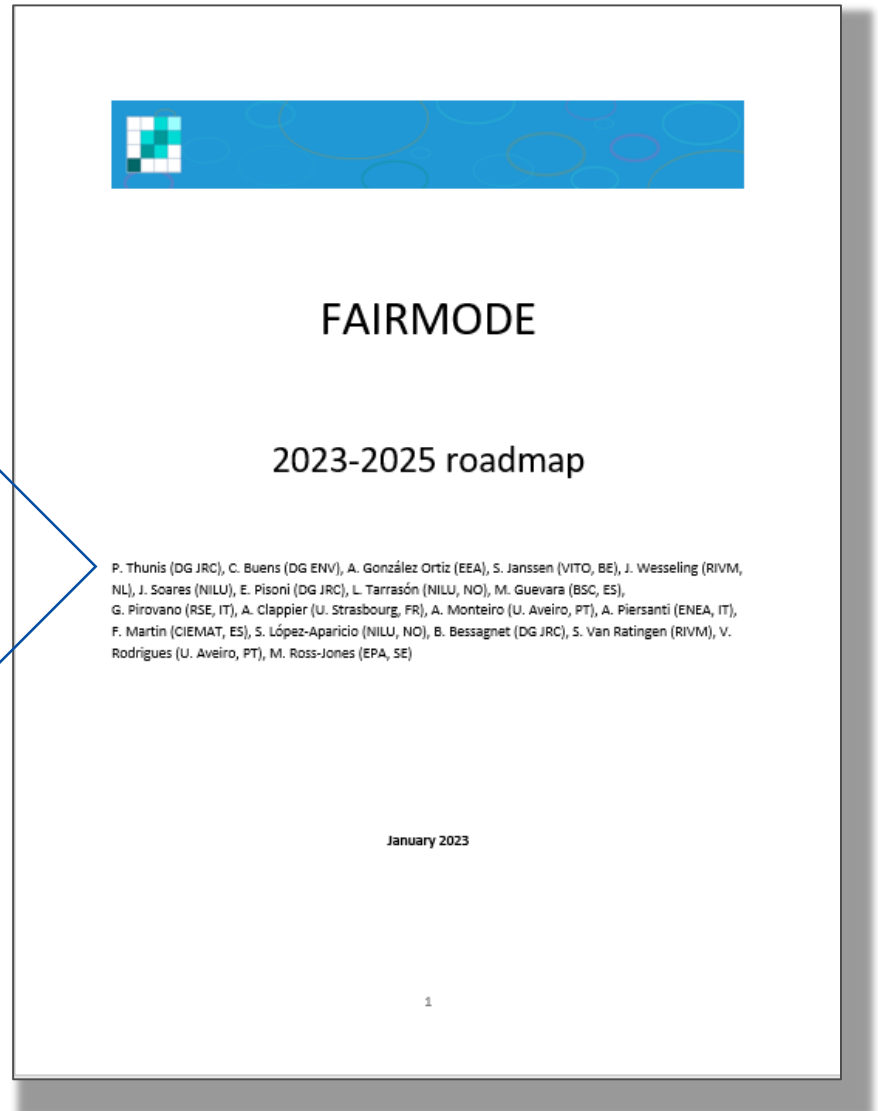
FAIRMODE roadmap 2023-2025

P. Thunis

EC-JRC

Background



Aim: Detail the FAIRMODE work-plan for the years 2023-2025.

Background

- This roadmap should be seen as transitional.
  - It keeps the same structure of work as in the previous roadmap but
  - It recognizes the need for further cohesion between activities in order to better respond to the requirements under the AAQD proposal.
- FAIRMODE provided recommendations to support the revision of the AAQD and will keep on its support during the upcoming phases. This might influence the development of this roadmap.

Terms of reference

FAIRMODE is a Forum for **Air Quality Modeling** chaired by the JRC created for **exchanging experience** and results from air quality modeling in the context of the **Air Quality Directive** and for promoting the use of modeling for regulatory purposes in a **harmonized** manner between Member States.

- To provide a **permanent European Forum** for air quality modelers, to address modelling issues
- To set-up a system (protocols and tools) on the **quality assurance** at different **spatial scales from national to urban and local**.
- To provide **guidance**, support the **standardization** and evaluate the **fitness-for-purpose of air quality models** within the framework of implementing the EU's Air Quality Directives.

A process should be initiated to identify necessary changes derived from the final form of the revised AAQDs.

FAIRMODE structure

- Source apportionment to support AQ management
- Development of a QA/QC protocol for AQ assessment
- Quality control indicators for AQ forecast
- Micro-local scale air quality modelling
- Best practices for local and regional AQ management
- Near real-time assessment with low-cost sensors
- Urban scale emission inventories
- Exposure and exceedance model indicators and network optimization
- Effectiveness and robustness of air quality projections

Cross Cutting Activity

Working Group

European Commission

FAIRMODE structure

Pillar 1: Assessment

WG2: QA/QC and fitness for purpose of AQ assessment modelling applications

WG3:Quality control indicators for AQ forecasts

WG4: Microscale assessment

WG6: Sensors and data-fusion

WG7: Compilation of high resolution emission inventories

WG8: Monitoring design, spatial representativeness and associated exceedance situation indicators

Pillar 2: Planning

WG9: QA/QC and fitness for purpose of AQ planning modelling applications

WG5: Efficient and robust AQ measures

WG1: Source apportionment to support AQ management

Scale

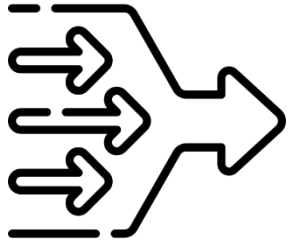
Approach

Purpose

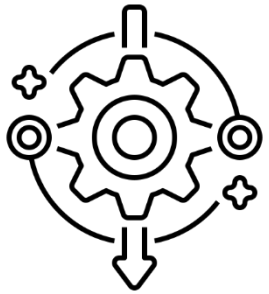
Country

Region

City



Simple



Complex

WG2: QA/QC Assessment

WG3: Forecast

WG4: Microscale

WG6: Sensors & data fusion

WG7: Emissions

WG8: Exc, sp. Rep & network design

Assessment

WG1: Source Apportionment

WG5: AQ measures

WG9: QA/QC Planning

Planning

Benchmarking

COMMON

Evaluation Methodology

Evaluation Tools

Evaluation Datasets

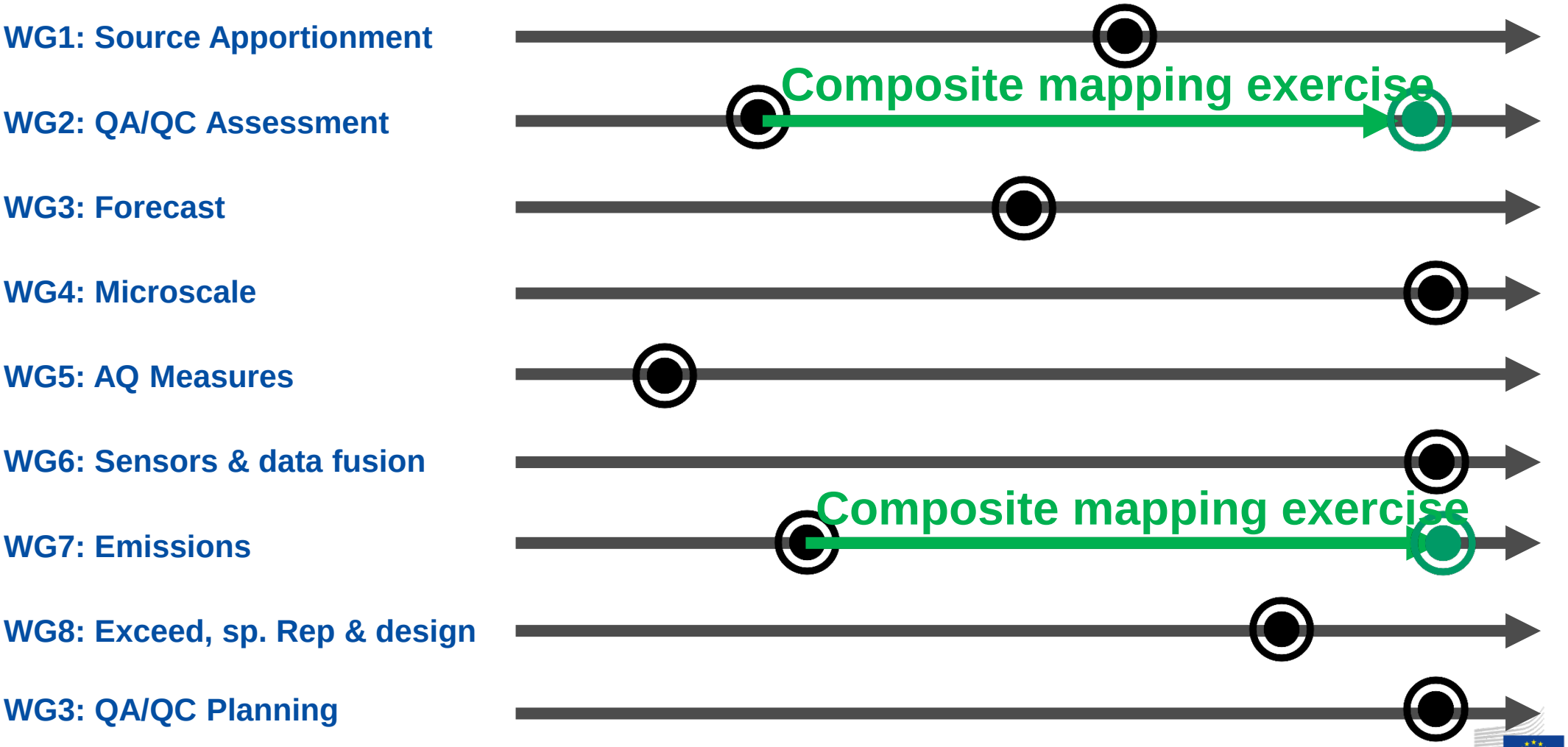
Evaluation Protocols

Best Practices

Capacity building

Guidance

Benchmarking: present & future



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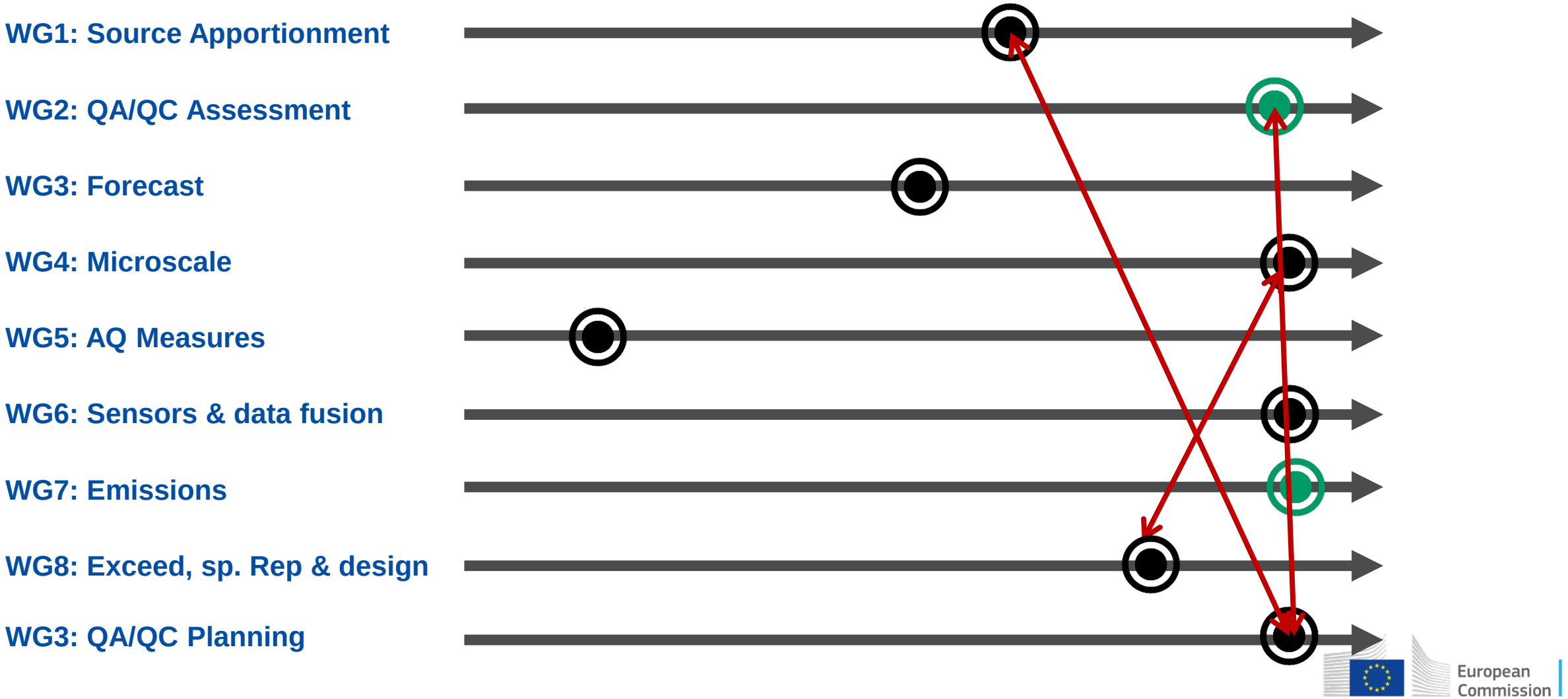
Benchmarking: Building synergies



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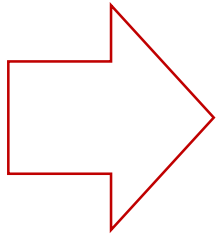
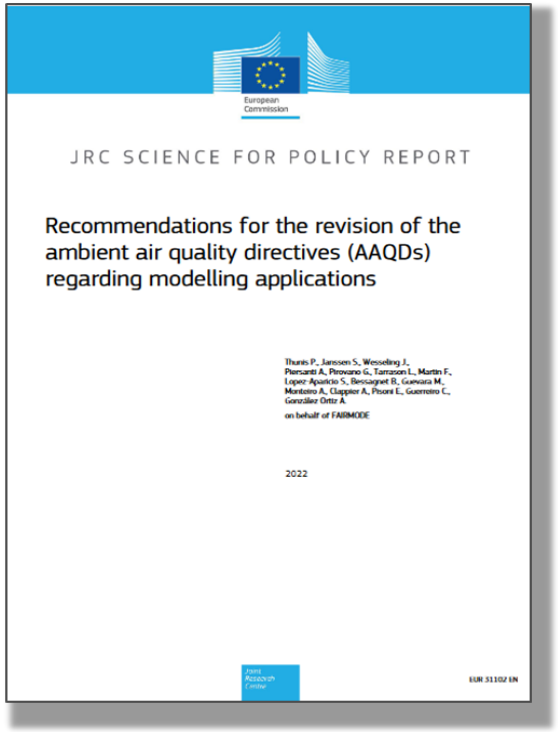
Guidance

2022 / 2023 FAIRMODE technical guides





- SG to ensure consistency of guidance at pillar level, **Assessment** & **Planning**
- Provide **support to AAQD guidance** related to modelling

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FAIRMODE governance

Steering Group: P. Thunis, E. Pisoni, S. Janssen, L. Tarrason, A. Monteiro, G. Pirovano, A. Gonzalez-Ortiz, C. Buens

Pillar 1: Assessment

- WG2 P. Thunis, L. Tarrason
- WG3 A. Piersanti, A. Monteiro
- WG4 F. Martin, V. Rodrigues
- WG6 S. Van Ratingen, J. Wesseling
- WG7 S. Lopez-Aparicio, M. Guevara
- WG8 L. Tarrason, M. Ross-Jones

Pillar 2: Planning

- WG9 S. Janssen, B. Bessagnet
- WG5 E. Pisoni, J. Soares

- WG1 A. Clappier, G. Pirovano

Meetings

Plenary meeting:

Audience: NCP and local policy makers

- Review progress made
- Review recommendations
- Discuss strategic options
- Endorse the workplan

Technical meeting:

Audience: model experts

- Develop common methodologies
- Carry out benchmarking
- Establish good practices
- Develop guidance.

WG progress meetings

Capacity-building workshops

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Agenda

02/03	Source Apportionment (WG1)		o CEN WG44 o QA/QC of CAMS policy products
	Forecast (WG3)		o QA/QC of CAMS policy products
03/03 AM	Emission inventories (WG7)		
	QA/QC of assessment app. (WG2)	o Status o Future activities & links to AAQD o Discussion	o MQO & AAQD o QA/QC of CAMS policy products
	Microscale assessment (WG4)		
	AQ measures (WG5)		
	Sensors and Data fusion (WG6)		o JRC AQSens & modelling
03/03 PM	Monit. design, spat. repres. and exceed. indicators (WG8)		o Cooperation with CAMS on natural source deduction to exceedances
	QA/QC of planning app. (WG9)		o QA/QC of CAMS policy products

Thank-you

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