

# NMR Condensables Workshop



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# NMR Condensables Workshop



## Aims of the workshop:

Suggest how to harmonise and improve approaches to PM inventory emissions and modelling, accounting for so-called condensable compounds

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## POA emissions

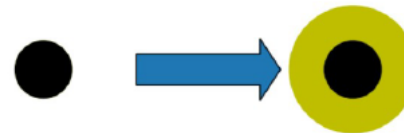
- Problems of OA emissions by now well known...
- SVOC – IVOC - condensables
- Europe: Denier van der Gon et al., ACP, 2015, Simpson and Denier van der Gon, EMEP 2015, Ots et al., ACP, 2016, Jiang et al, 2019
- Basically, countries report apples and oranges!

Dilution



(a)

Cooling



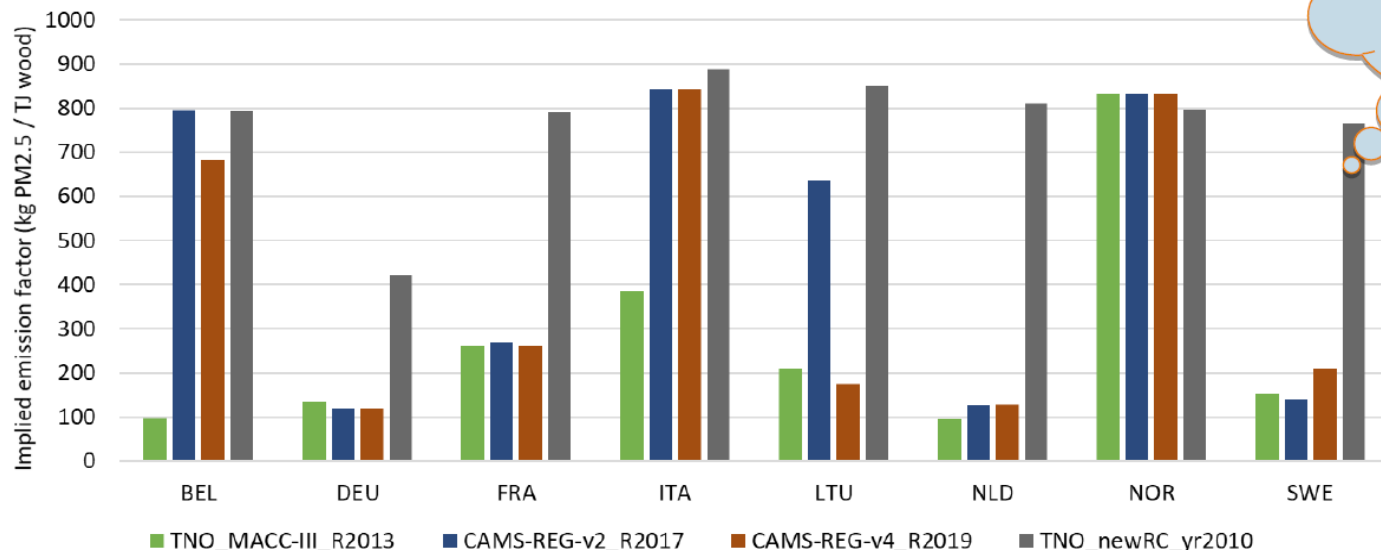
(b)

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## EMISSION PER UNIT OF WOOD

PM2.5 emission per unit of wood derived from 2010 emission reported in different years



Best to burn wood in SWE, NLD, DEU?

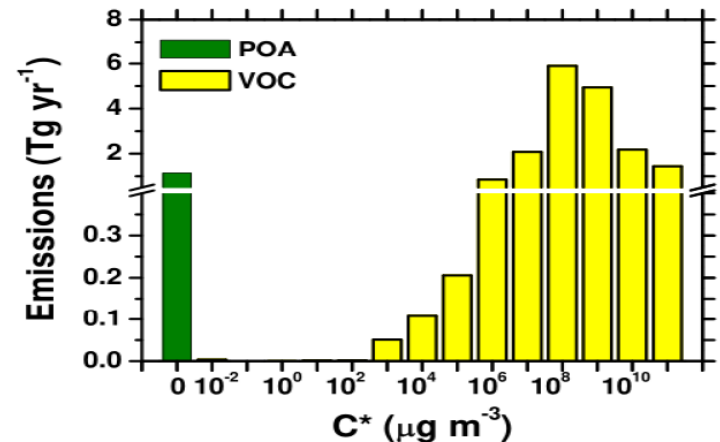
Implied emission factors show range of 3-8 difference ("crude" analysis)

Bottom-up (TNO\_newRWC) more or less consistent (Germany higher % modern stoves)

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NEI 2002



VBS - emissions

Old concept:

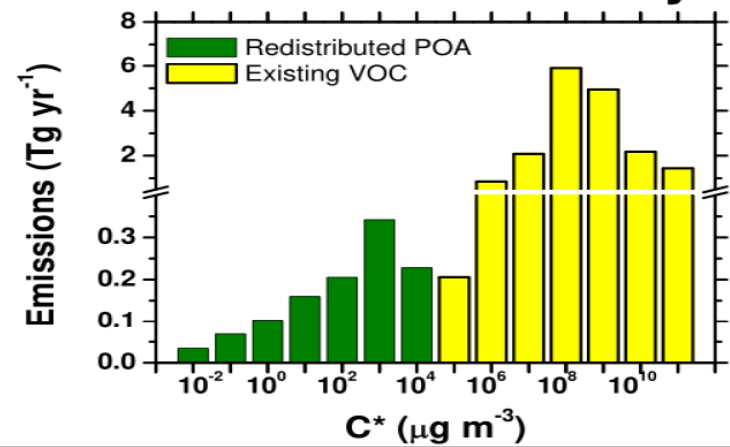
PM emissions - inert

VOC emissions - gaseous

New concept:

Organics cover whole range of volatilities, from non-volatile to gas. No clear gap! Some compounds potentially missing from PM and NMVOC inventory.

Revised Inventory





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## Key take-away messages

Work is on-going... report in the Autumn

What can be achieved in < 1 year?

- Agreement to use TNO “Ref2” estimates for scientific purposes
- There is a need for more transparency regarding the content of national inventories
- **Need to agree a roadmap (with realistic ambition)**

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## What can be achieved beyond 1 year?

- Recognize different demands of science vs compliance inventories
- **Measurement experts to propose definitions/standards**
- Agree what should be included in the Guidebook, and in what formats
- GP review - changes in reporting requirements?
- A project to **collate emissions information into a database**

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## Decision-making with the CLRTAP

- Policy issues will be endorsed by the WGSR (May)
  - Review of the Gothenburg
  - Constraints due to sectoral or domestic legislations
  - Impact on the current and future objectives for PM2.5 ceilings
- **Session during the WGE/EMEP SB joint meeting (Sept). Adoption of the road map and implementation plans**
- Discussion at the EB (Dec), making the links between science & policy issues. Decision regarding the review of GP



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## What should/can we agree within the TFEIP at this stage?

- Do we have a view on the definition of condensables?
- **Do we have a view on inclusion/exclusion from different sources when reporting national emissions?**
- **Do we have a view on what “pollutants” should be included in national inventories?**
  - Filterable PM and conden. PM, or just conden PM total
  - Organic aerosol, inorganic aerosol, sulphate, nitrate...