<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>14:00</td>
<td>Welcome and progress since last year</td>
<td>Chairs</td>
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<tr>
<td></td>
<td>Q&amp;A on Aviation Chapter</td>
<td>Robin Deransy (Eurocontrol) - remotely</td>
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<td></td>
<td>New developments and opportunities for shipping emissions inventorying</td>
<td>Jukka-Pekka Jalkanen (FMI)</td>
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<td>UK Shipping emissions inventory</td>
<td>Anne Misra (Ricardo)</td>
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<td>Coffee break</td>
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<td></td>
<td>Nordic programme on developing air pollutant emission inventories, sVOC and marine BC</td>
<td>Paivi Aakko-Saksa (VTT)</td>
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<td></td>
<td>Recent emission factor and regulatory developments for GHG and air pollutant emissions in road transport</td>
<td>Giorgos Fontaras (JRC), Victor Valverde-Morales (JRC)</td>
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<td>Feedback from the training on Emissions distribution methodology and introduction to EDGAR WEB-based gridding tool</td>
<td>Marilena Muntean (JRC)</td>
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<td>COPERT 5 experiences and issues</td>
<td>Antonella Bernetti (ISPRA)</td>
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<tr>
<td></td>
<td>New developments on road transport chapter</td>
<td>Leon Ntziachristos (ETC)</td>
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<td></td>
<td>2018-2019 workplan</td>
<td>Chairs/all</td>
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<td>17:30</td>
<td>Meeting end</td>
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## Progress since last year

<table>
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<tr>
<th>Item</th>
<th>Key Parties</th>
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<tbody>
<tr>
<td>Secondary PM formation understanding [FUNDING?]</td>
<td>ETC, FR (CITEPA, INERIS)</td>
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<tr>
<td>Further review of new Guidebook chapters (aviation, road, NRMM)</td>
<td>All parties</td>
</tr>
<tr>
<td>Further revisions of the Road transport methodology (L-vehicles, evaporation, ...)</td>
<td>ETC, ERMES</td>
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<tr>
<td>Testing gridding road transport data with EDGAR tool</td>
<td>ETC, JRC</td>
</tr>
<tr>
<td>Continue monitoring diesel NOx situation</td>
<td>ETC, ERMES</td>
</tr>
<tr>
<td>FC real world consumption factors improvement</td>
<td>ETC, JRC, ERMES</td>
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Aviation

- New chapter up and running
- No new methodological changes over 2017
- Parties generally happy
- Missing aircraft types?
- Emissions per airport for earlier years?
- fuelandemissionsinventory@eurocontrol.int
Shipping

- Activities of ESSF (EC, MSs, RES, OEM, NGO, Owners, …)
  - Emission factors
  - Ship emission modeling
  - Primary/Secondary PM, especially BC
  - Impact of emission abatement

- Challenging times for emission factors
  - Dependent on activity (load)
  - New fuels (LNG, Bio, MDOs, …)
  - New pollutants (PM, PN, BC, …)
  - New emission abatement (SCR, Scrubbers)
  - BC/SOx trade-offs
  - sVOC and SOA

Requirements go beyond Tier 3 inventory preparation approach; Activity data affects EFs
UK Shipping emissions inventory based on AIS

- More complete activity dataset for vessels on domestic voyages, including vessel categories not previously covered
- Improved engine emission calculation, and accounts for source not previously covered

- Increased domestic emissions compared to existing NAEI
- Model estimates compare well to leading academics’ European shipping inventories
- Low uncertainty emission calculation for most large vessels (85% of total emissions)
- More robust spatial allocation of inventory

- Results are sensitive to the approach taken to define domestic/international
  - High uncertainty in dom./int. allocation when vessels go out of AIS range

Shipping emissions

LNG ship – Methane slip needs to be controlled as it is a strong climate forcer
**CO\textsubscript{2} and NO\textsubscript{x} from road transport**

- Give Diesel a second (or maybe third) chance?
- What are the implications for national AQ plans?
EDGAR Gridding tool

Setting

Training: “Emissions distribution methodology and introduction to EDGAR WEB-based gridding tool”

Date: 19-20 February 2018

Location: EC/Joint Research Centre, Ispra, Italy

Agenda:

- **Session 1** “Convention on Long-Range Transboundary Air Pollution and EMEP/EEA: reporting requirements on gridded emission inventories”
- **Session 2** “Countries’ Expertise and Perspectives”
- **Session 3** “Emissions inventory and emissions distribution: EDGAR methodology”
- **Session 4** “EDGAR Web-based gridding tool”
- **Session 5** “Practical applications and use the EDGAR Web-based gridding tool”
- **Lesson learned**


Access to the training documents:
ask for password by sending an e-mail to marilena.muntean@ec.europa.eu

COPERT 5 experience in Italy

- Changes also due to Italian inventorying system modifications

### Recalculations

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<thead>
<tr>
<th></th>
<th>CO</th>
<th>NMVOC</th>
<th>NMVOC EVAP</th>
<th>NO\textsubscript{x}</th>
<th>PM EXHAUST</th>
<th>PM10</th>
<th>PM2.5</th>
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<tbody>
<tr>
<td>1990</td>
<td>-0.7%</td>
<td>-9.5%</td>
<td>-37.1%</td>
<td>-1.0%</td>
<td>-0.2%</td>
<td>7.3%</td>
<td>4.2%</td>
</tr>
<tr>
<td>2015</td>
<td>4.4%</td>
<td>-9.4%</td>
<td>-30.6%</td>
<td>-1.9%</td>
<td>-0.3%</td>
<td>20.0%</td>
<td>13.1%</td>
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- Use of country specific summer vapour pressure (RVP) values
- Variations basically due to the implementation of Recommendations from TERT (NECD Review 2017)
- Estimation of emissions also for A3biii Road Transport: Automobile Road Abrasion

Recalculations due to the overall changes applied in 2018 Submission
Revisions on AEIG Road Transport

- Review and uptake of Nordic study results
  - Update of NMVOC emissions profile
  - PAH and HM
- New exhaust emission factors for motorcycles
- New emission factors for electrified vehicles (diesel hybrids, plug-in hybrids, battery electric vehicles)
- Review of non-exhaust PM EFs (PM$_{2.5}$ over PM$_{10}$)
- Conversion of Tier 1 and Tier 2 EFs to kg/MJ
- Consideration of rail abrasive emissions (German study)
One issue for the plenary

• Emissions of lube oil use in 4S engines
  – Due to unintended combustion of lube oil

• AP currently reported under NFR 1.A.3.b i-iv (Road Transport)

• GHG from lube oil consumption (other than 2S) reported under CRF 2.D.1 (Lubricant Use)

• Recommended to shift 4S lube oil consumption derived pollutants under NFR 2.G – Other Product use: Use of Lubricants and retain 2S under NFR 1.A.3.b i-iv
Workplan 2018-2019

• Review and uptake of Nordic study results
  – Update of NMVOC emissions profile
  – PAH and HM

• New exhaust emission factors for motorcycles

• New emission factors for electrified vehicles (diesel hybrids, plug-in hybrids, battery electric vehicles)

• Review of non-exhaust PM EFs (PM$_{2.5}$ over PM$_{10}$)

• Conversion of Tier 1 and Tier 2 EFs to kg/MJ

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