EEA activities and priorities on transport emissions

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## EEA transport team and work areas

<table>
<thead>
<tr>
<th>What we work on currently</th>
<th>Who?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CO₂ monitoring and reporting on new passenger cars</strong></td>
<td>Cinzia Pastorello</td>
</tr>
<tr>
<td><strong>CO₂ monitoring and reporting from new vans, TERM indicators</strong></td>
<td>Diana Vedlugaitė</td>
</tr>
<tr>
<td><strong>CO₂ monitoring and reporting from heavy duty vehicles (new reporting obligations)</strong></td>
<td>Rasa Narkevičiūtė</td>
</tr>
<tr>
<td>Reporting under the Fuel Quality Directive, aspects of GHG emissions from aviation &amp; shipping</td>
<td>Stephanie Schilling</td>
</tr>
<tr>
<td>TERM Report, SOER parts on transport sector &amp; mobility system, transport taxonomy under the sustainable finance initiative</td>
<td>Andreas Unterstaller</td>
</tr>
</tbody>
</table>
EEA’s transport activities – context

**European**

*Energy and Climate Change Mitigation:*
- 2030 C&E framework, 2050 low-carbon strategy
- Effort Sharing Regulation
- EU Energy Union (renewables, energy efficiency)
- CO₂ from cars, vans, heavy duty vehicles
- Fuel Quality Directive

*Transport and environment:*
- Air pollution from cars (Euro standards, RDE requirements)
- Air pollution from shipping (Emission Control Areas)
- Noise, road vehicle emission standards
- Urban agenda
- Biodiversity fragmentation
EEA’s transport activities – context

A need for systemic approaches and transition thinking

Source: Trends and Projections report, EEA 2018
EEA’s transport activities – context

Transport

- 21% of total EU GHG emissions
- GHG emissions from transport increasing – road, aviation
- Average CO$_2$ emissions from new cars increased in 2017
- Total CO$_2$ from road transport has increased in each of the past 3 years
- Ambitious measures on transport needed (national energy and climate plans reported in 2018)

Source: EU GHG inventory 2018
EEA’s transport activities – context

Transport – air pollution

• More than 400 000 Europeans die prematurely each year due to PM$_{2.5}$ and NO$_2$ exposure
• NO$_x$ emissions from road transport are slowly falling, but wide-spread exceedences of the EU air quality limit value persist across Europe

Source: Air Quality in Europe 2018 report
EEA’s transport activities – context

Transport – noise

- Road traffic is the most widespread source of environmental noise, with more than 100 million people affected by harmful levels in the EEA-33 member countries.
- Around 14,000 people European’s die prematurely each year due to environmental noise exposure.

Source: EEA Core Set Indicator 051
A systemic approach to transport assessment

ECOSYSTEMS

SOCIO-TECHNICAL SYSTEMS
meeting social needs and providing value

Policy

Energy system

Food system

Urban system

Technology

Industry

Resources and ecosystem services

Air pollution and GHG emissions

Mobility system
Electric vehicles from life cycle and circular economy perspectives
TERM 2018: Transport and Environment Reporting Mechanism (TERM) report.

Monitoring progress of Europe's transport sector towards its environment, health and climate objectives

Briefing — Published 05 Dec 2017 — Last modified 20 Jul 2018 — 12 min read

The 'Transport and Environment Reporting Mechanism' (TERM) includes a number of indicators used for tracking the short and long-term environmental performance of the transport sector in the 28 Member States of the European Union (EU-28). This briefing presents the latest Indicator-based assessment of progress being made towards key transport-related policy targets and objectives.
Monitoring CO₂ emissions from new vehicles

CO₂ emissions from new cars and vans, preparing for HDVs

New vans sold in Europe in 2017: large decrease in annual average CO₂ emissions

Average carbon dioxide (CO₂) emissions of new vans registered in the European Union (EU) in 2017 were 4.7% lower than in 2016, according to preliminary data published today by the European Environment Agency (EEA). This is the highest annual reduction reported since the regulation to reduce CO₂ emissions from light-duty vehicles came into force in 2011.

No improvements on average CO₂ emissions from new cars in 2017

Efforts to improve the fuel efficiency of new cars sold in the European Union (EU) stalled in 2017 compared to 2016, according to provisional data published today by the European Environment Agency (EEA). While past years have seen steady declines, new passenger cars registered in 2017 emitted an average 0.4 grammes CO₂ per kilometre more than in 2016.

Tax breaks and incentives make Europeans buy cleaner cars

Emissions of carbon dioxide from new passenger cars have dropped in a number of European countries where a range of taxes, subsidies and other incentives are used to encourage consumers to purchase lower-carbon-dioxide (CO₂) emitting vehicles. The number of countries offering incentives for electric vehicles in particular, continues to grow, according to European Environment Agency (EEA) data published today. At the same time, emissions from trucks and buses are expected to increase further if new measures are not taken.
**Indicators**

**Exceedances of air quality limit values due to traffic**

The annual EU limit value for nitrogen dioxide (NO₂) — one of the main air quality pollutants of concern, which is typically associated with vehicle emissions — was widely exceeded across Europe in 2015. Some 89% of these exceedances occurred at roadside monitoring locations.

- The EU limit values for the two categories of particulate matter (PM₁₀ and PM₂.₅) were exceeded at fewer locations and at around the same amount of traffic and background stations, in comparison with last year. This indicates the importance of other emission sources for these pollutants, such as commercial and institutional buildings, household heating, etc.

**Electric vehicles as a proportion of the total fleet**

- Compared with 2016, sales of battery electric vehicles (BEVs) in the EU-28 increased by 51% in 2017, the highest increase since 2008. Nevertheless, BEVs continue to constitute only a very small fraction of new vehicle registrations.
- Around 224,000 plug-in hybrid electric vehicles (PHEV) were registered in 2017, a 35% increase compared with 2016.
- The largest number of registrations was recorded in France (more than 26,110 vehicles), Germany (more than 24,350 vehicles) and the UK (more than 13,580 vehicles). Combined, the relative share of PHEV and BEV sales was highest in Sweden, Belgium and Finland, with shares of 5.5%, 2.7% and 2.6% respectively of national car sales in 2017.
By 31st of August each year the Member States must submit a summary of fuel quality monitoring data collected during the period January to December of the previous calendar year, in accordance with Article 8(1) of Directive 98/70/EC as amended by Directive 2009/30/EC. The delivery process is managed by EEA.
Background

The development of COPERT is coordinated by the European Environment Agency (EEA), in the framework of the activities of the European Topic Centre for Air Pollution and Climate Change Mitigation. The European Commission’s Joint Research Centre manages the scientific development of the model. COPERT has been developed for official road transport emission inventory preparation in EEA member countries. However, it is applicable to all relevant research, scientific and academic applications.
Four reflection points – looking forward

- Continued alignment between COPERT and HBEFA as far as practicable
- Improving knowledge on real-world driving emissions from hybrids and non-combustion PM emissions for EVs
- Timeliness of information
- Innovation: Adapting to, and using, new sources of information, including ‘non-official’ sources
Thank you

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