Ambient Air Quality Directives

Fitness Check

February 2018

European Commission
Clean Air

Air pollution in Europe - Overview

Europe's air quality is slowly improving, but fine particulate matter and nitrogen dioxide in particular continue to cause serious impacts on health.

Estimates point to about **400.000 premature deaths** in EU-28 each year due to particulate matter and 75.000 due to nitrogen dioxide

Air pollution is estimated to causes at least **€ 24 billion per year** in direct costs; add to this estimates of €330 billion to € 940 billion per year in indirect costs (e.g. related to reduced life expectancy or broader societal impacts).

63%

Air pollution exceeds **eutrophication limits** in 63% of ecosystem area, and in 73% of Natura2000 area.

Source(s): EEA Air Quality in Europe (2017), SOER (2015)

Air pollution in Europe

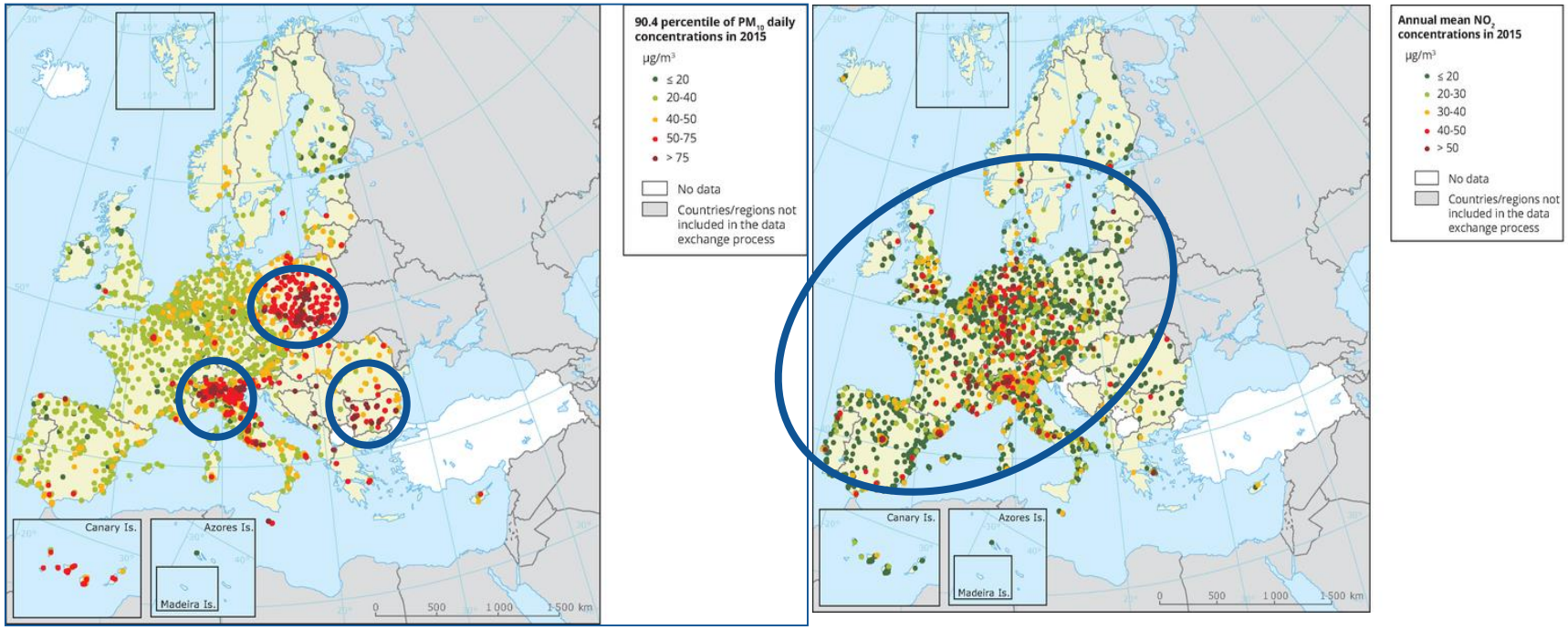
	EU urban population exposed to air pollution **above EU standards**	EU urban population exposed to air pollution **above WHO guidelines**
$PM_{2.5}$	7–8 %	82–85 %
PM_{10}	16–20 %	50–62 %
O_3	7–30 %	95–98 %
NO_2	7–9 %	7–9 %
BaP	20–25 %	85–91 %
SO_2	<1 %	20–38 %

Source(s): For 2013-2015; EEA Air Quality in Europe (2017)

Air pollution in Europe

PM10 exceedances: often linked to fuel combustion (i.e. energy, heating)

NO2 exceedances: often linked to traffic, in more than 130 cities in EU.

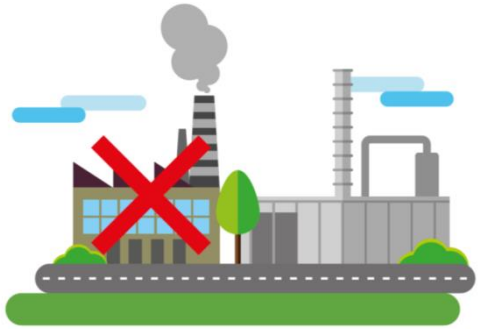


Source(s): EEA Air Quality in Europe (2017)

Improving Air Quality – Effective Measures

Boosting **energy efficiency** by refurbishing buildings

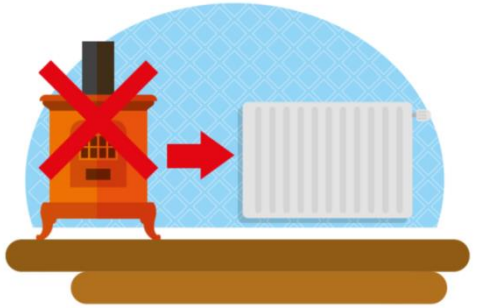
Examples for PM_{10}



Implementing **cleaner industrial processes**

Reliable, affordable and clean **public transport** such as electric buses and trams and new Euro VI

City or district heating, using heat from existing industry or renewable energy sources



Promoting substitution of old, dirty **stoves and boilers** with clean models, and banning **dirty fuels for household heating/cooking**

Improving Air Quality – Effective Measures

Reliable, affordable and clean **public transport** such as electric buses and trams and new Euro VI

Examples for NO_2

Extensive and safe **cycling networks**, abundant bike-parking facilities with easy access to public transport

Traffic restrictions such as low-emission zones, reduced speed limits and congestion charges

Implementing **cleaner industrial processes**

Cleaner transport such as electric cars or buses and **retrofitted dirty vehicles and ships**

Improving Air Quality – Success Stories

Example – **Urban vehicle access restrictions (UVARs)**

- Low emission zones or other types of UVARs in several cities limit access for polluting cars
- So far, focussed on PM_{10} emissions; they have been successful
- Option also for NO_2?

Example – **Retro-fitting (or new) city bus fleets**

- Several cities achieved NO_x emission reductions with new electric buses of retrofitted buses
- Simple, cost-effective solutions exist (e.g. by adding special filters)
- Option for more cities?

Example – **Promoting more efficient boilers**

- EU funding is available and being used to replace thousands of boilers every year
- This measure helps improve air and reduce heating cost for citizens
- Option to accelerate?

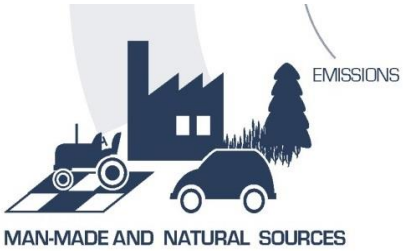
EU Clean Air Policy – The policy framework

Air Quality Directives

Maximum concentrations of air polluting substances

CONCENTRATIONS

EMISSIONS



National Emission Ceilings Directive

National emission totals (SO_2, NO_x, VOC, $PM_{2.5}$, NH_3)

Source-specific emission standards

- IED Directive
- MCP Directive
- Eco-design Directive
- Energy efficiency
- Euro and fuel standards

EU Clean Air Policy – Links with other policies

Climate and energy policies … e.g. by promoting the use of renewable energy, by reducing use of coal, by fostering low emission mobility;

Industry policies … e.g. by agreeing and promoting best available techniques;

Agriculture policies … e.g. by using low-emission fertilisers, by focusing on better livestock and manure management practices;

Transport policies … e.g. by reducing emissions from vehicles, by setting standards to improve fuel quality, by encouraging sustainable mobility options;

Fiscal policies … e.g. by taxing air pollution, by aligning fuel taxation;

Urban policies … e.g. by investing in cleaner mobility and public transport.

EU Clean Air Policy - Implementation support

Environmental Implementation Review

- Country specific analysis, and targeted EIR dialogues
- Additional tools and funds to improve Peer-2-Peer exchange of good practice

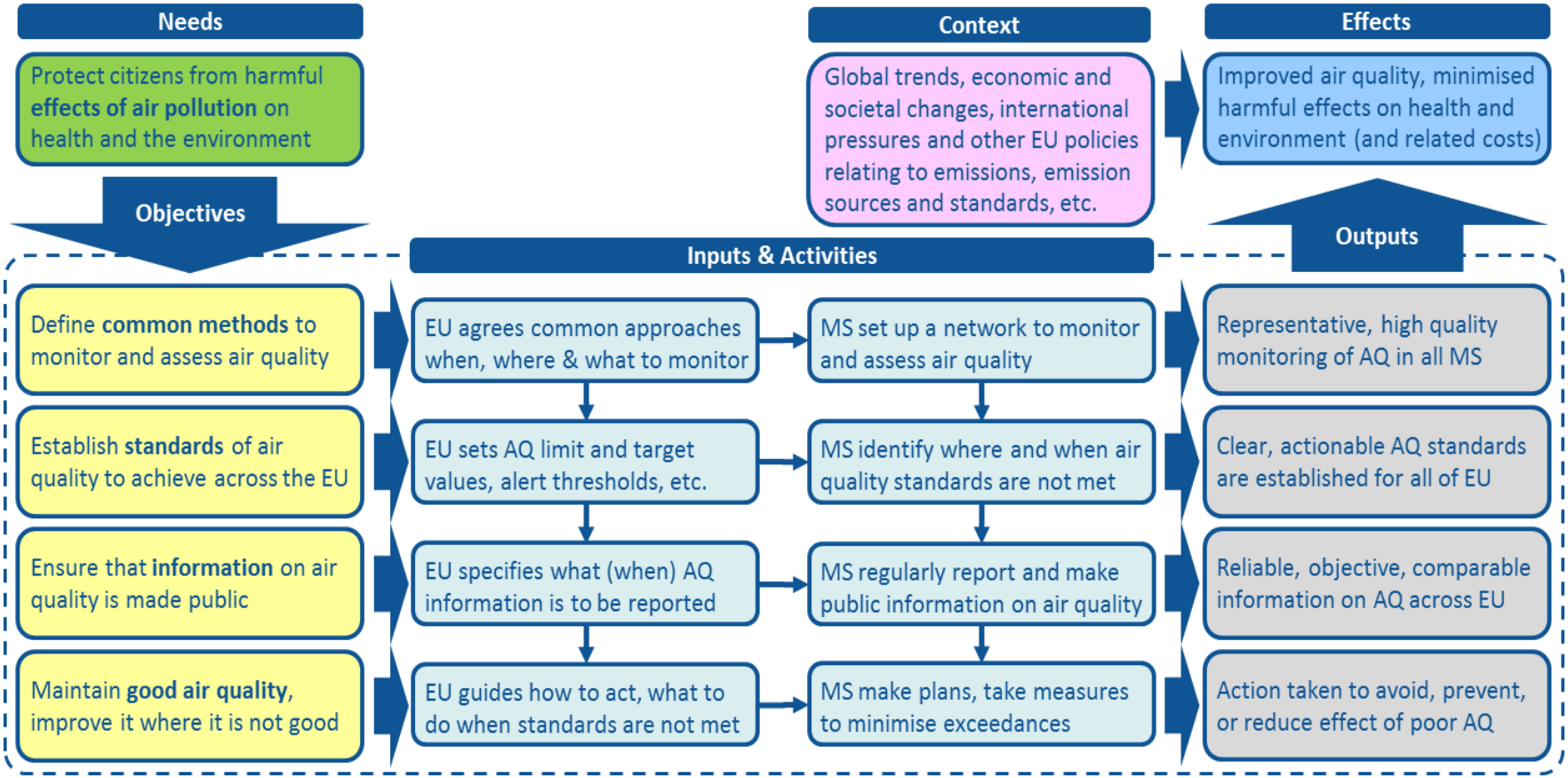
Clean Air Dialogues & Clean Air Forum

- In 2017, Dialogues with 3 Member States: Ireland, Luxembourg, Hungary
- Forum in Nov 2017, focused on measures in cities, by agriculture, 'clean tech'
- Eco-Innovation Forum in Bulgaria in Feb 2018 focussed on air pollution

Regular contact with Member States

- Air Quality Expert Committee / Expert Group
- At political level, via package meeting, with technical level and experts

EU Clean Air Policy – The Air Quality Directives



Source(s): AAQ Fitness Check Road Map

Fitness Check – Focus

This fitness check will look at two complementary EU Ambient Air Quality Directives, i.e. Directives 2008/50/EC and 2004/107/EC – see Roadmap of August 2017.

Important: A fitness checks is a retrospective exercise – to assess what has happened and looks at what caused any change and how much might reasonably be credited to EU action. This particular fitness check will focus on the period 2008 to 2018.

Key question of this evidence-based critical analysis is whether EU actions are fit for purpose and delivering as expected – to identify learning points to guide future action.

Fitness Check – Ambient Air Quality Directives

Four overarching topics to be addressed: to what extent have the AAQ Directives …

1. … successfully defined methods to monitor and assess air quality, to ensure that representative and high quality assessment regimes are in place?
2. … established clear and actionable air quality standards in accordance with scientific advice to minimise harmful effects on health and ecosystems?
3. … helped ensure that reliable, objective and comparable information on air quality and air quality standards is reported / made public?
4. … facilitated action to avoid, prevent or reduce the adverse effects of poor air quality, and triggered measurable improvements of air quality?

This evaluation process will also include identifying any excessive administrative burdens, overlaps and/or synergies, gaps, inconsistencies and/or obsolete measures.

Fitness Check – Five evaluation criteria

Relevance: e.g. to what extent do the Directives (still) set appropriate objectives, and set air quality standards to protect health in accordance with scientific understanding?

Coherence: e.g. to what extent are the Directives coherent internally, between each other, as well as with the overarching EU air quality policy approach?

Effectiveness: e.g. to what degree have the Directives acted as an incentive to implement effective and cost-effective measures to improve air quality?

Efficiency: e.g. to what degree do the benefits of improved air quality justify the costs, and have been significant differences in costs (or benefits) between actors?

EU value added: e.g. to which degree have common EU air quality standards and comparable monitoring, reporting and assessment regimes enabled better action?

Stakeholder consultation

Stakeholders will be consulted in line with the Better Regulation Guidelines:

(a) to confirm the topics and issues covered by this fitness check,

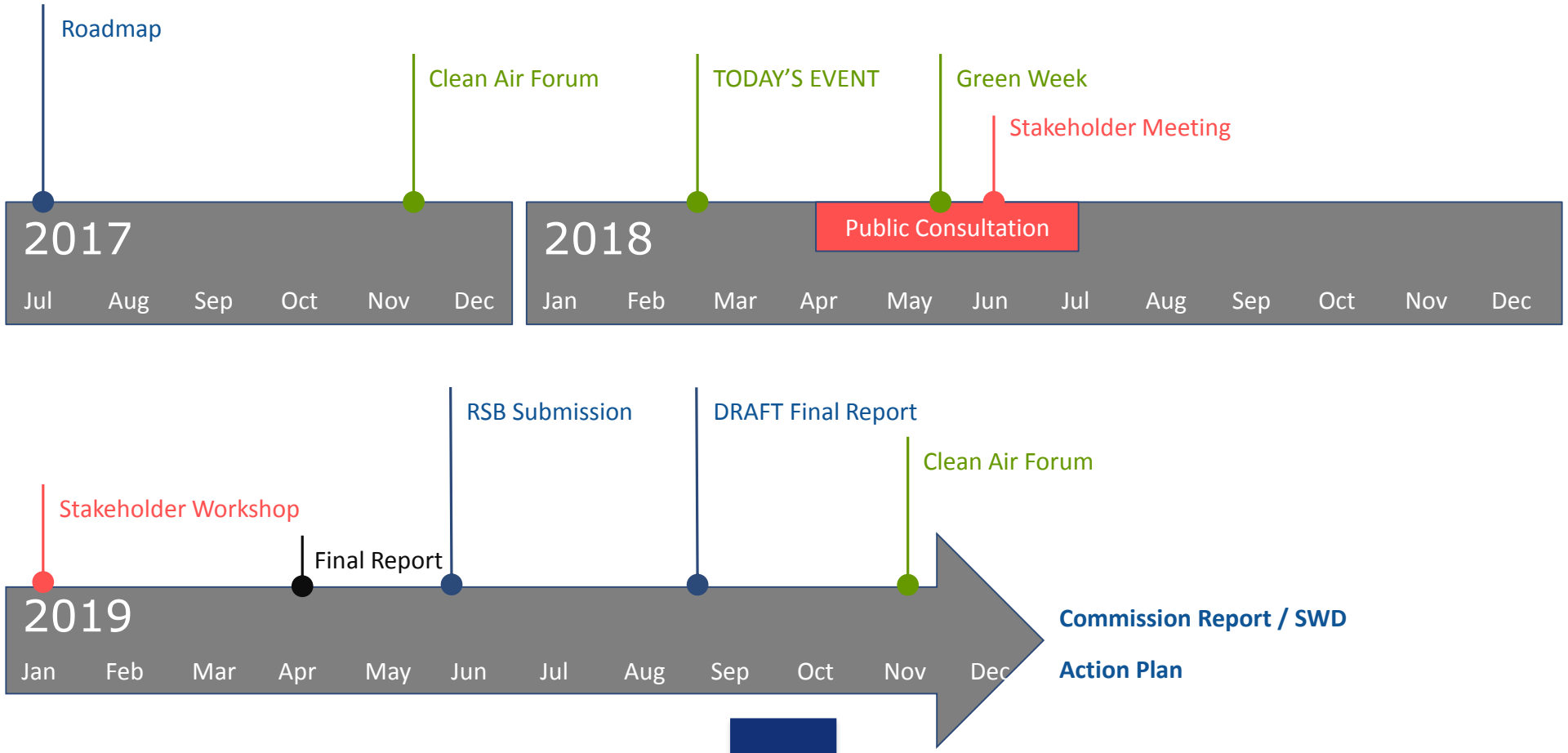
(b) gather factual information, data and knowledge about the implementation, and

(c) to solicit views and opinions on the extent the Directives have met their objectives.

Key stakeholders include the Member States' competent authorities at all relevant levels (i.e. national, regional and local), civil society and non-governmental organisations, lobby organisations representing industry and trade, researchers and scientific community, as well as international organisations (such UN, UNECE, OECD, WHO).

Wider stakeholders, including citizens, will also be able to contribute their views.

Fitness Check – Our timeline



Some concluding reflections

Public (and political) awareness of **air quality challenge** has increased – but substantial implementation and compliance gaps remain across the EU.

Reducing air pollution effectively requires **close cooperation** between different societal actors and across governance levels (EU, national, local).

Air quality management, spatial planning and traffic management play a key role in improving local air quality – **cities require support to implement**.

With the on-going Fitness Check we are seeking to understand what works well, and what could work better: **whether the Directives are fit for purpose**.

More Information

http://ec.europa.eu/environment/air/

Feedback

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Thank you!

European Commission

Clean Air