



The revision of EU air quality policy:

An overview

Joint Convention/WHO Task Force on Health

Bonn, Germany, 14 - 15 May 2014

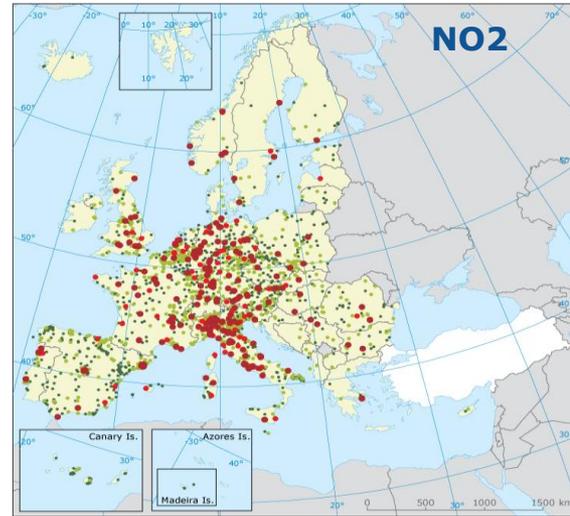
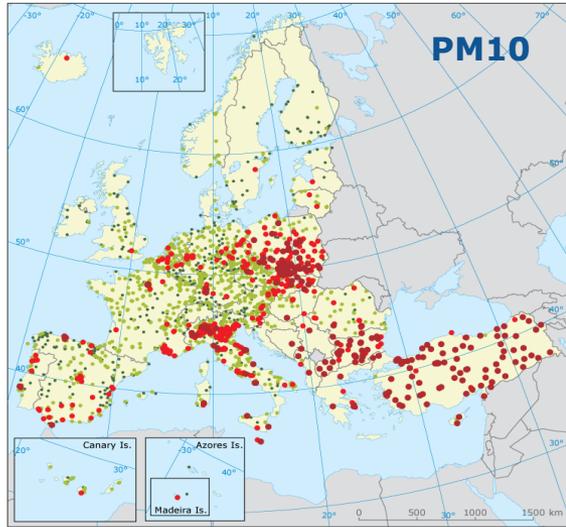
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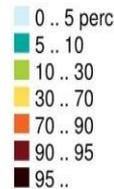
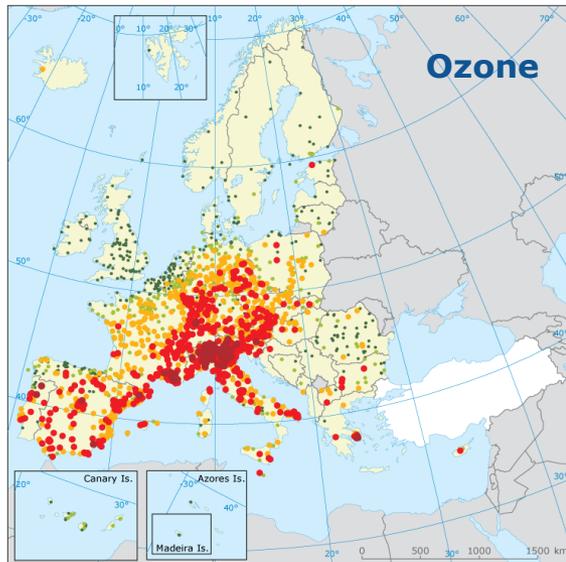
Why do we need a new clean air policy package?

Conclusions from a comprehensive air policy review 2011-2013

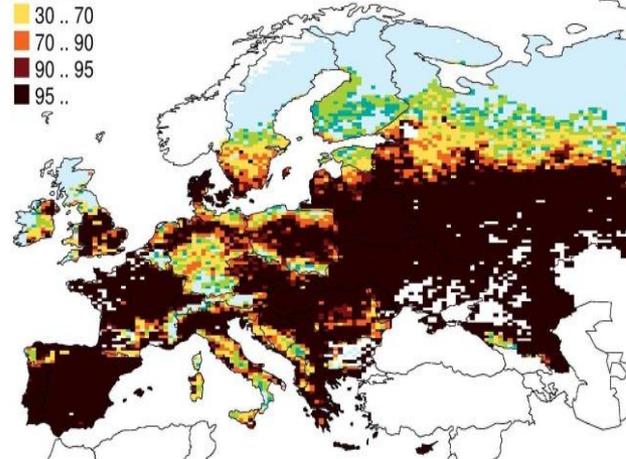
Improvements but significant air quality problems remain in the EU (2010)...



See also EEA Reports



Eutrophication



...and the problems will persist...

Headline Indicator	2010	2020	2025	2030
Premature deaths from chronic PM2,5 and short-term ozone exposure	406.000	340.000	330.000	327.000
Percentage forest area exceeding acidification critical load	9	4	4	4
Percentage ecosystem area exceeding eutrophication critical load	62	55	53	52

...with huge costs for society

External costs (health)	2010	2020	2025	2030
Low estimate (€ billion)	330	243	224	212
High estimate (€ billion)	940	775	749	740

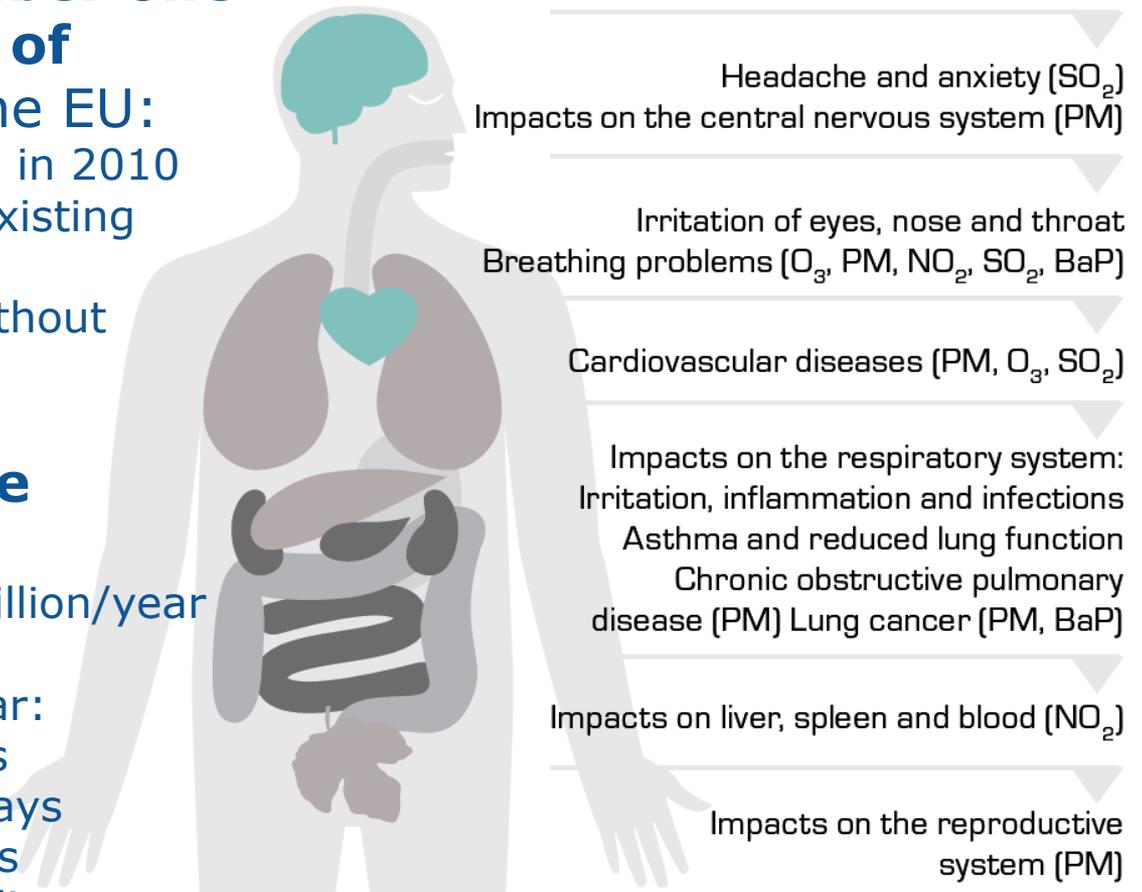
Bad air is very expensive

Air pollution is the **number one environmental cause of premature death** in the EU:

- 406 000 premature deaths in 2010
- 330 000 cases in 2020 if existing legislation is implemented
- 327 000 cases in 2030 (without further measures)

Health impacts can be monetized:

- External costs €330-940 billion/year (3-9% of EU GDP)
- Direct costs €23 billion/year:
 - €4 bn healthcare costs
 - €15 bn lost working days
 - €3 bn damage to crops
 - €1 bn damage to buildings



Main conclusions from the policy review

- Air policy works, **but substantial problems remain**
- **Existing EU air quality standards are not respected** in many countries - with serious health and environmental impacts and considerable economic costs
- Overall air quality objective set out in 7th EAP ("no significant negative impacts on health and the environment") and WHO guidelines will **not be achieved** with existing legislation
- **Main emission sources** are (depending on pollutant):
 - road transport
 - large combustion plants
 - energy-intensive industry
 - small/medium combustion plants (industrial, domestic)
 - agriculture (95% of all ammonia emissions)
 - non-road mobile machinery
- **Lack of coordination** between policies and administrative levels
- **Strong support** from EU citizens and stakeholders to act on air pollution



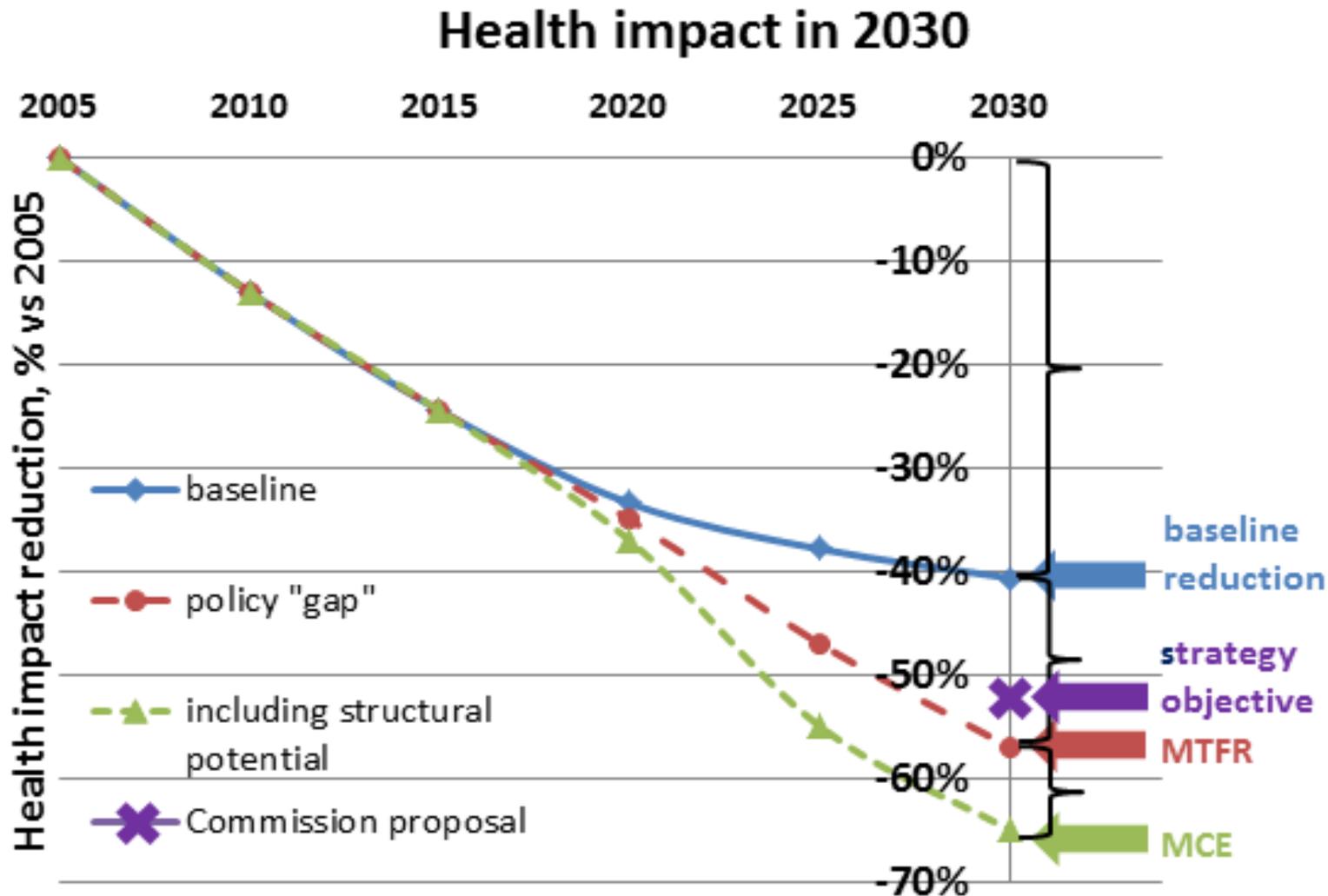
What does the new policy package include?

The Clean Air Policy Package

Tabled in December 2013

1. A new European Clean Air Program (overall strategy)
2. Proposal for a revised Directive on National Emission Reduction Commitments ("NECD")
3. Proposal for a Directive on controlling emissions from Medium Combustion Plants ("MCPD")
4. Proposal for a Council Decision on ratification of the 2012 Gothenburg Protocol amendment
5. Accompanying Impact Assessment
6. Study reports underpinning the policy (IIASA, WHO...)

Options and "Gap-closure"



The new air policy in brief

- **Up to 2020:** Ensure full implementation/compliance of existing air quality legislation
- **Beyond 2020:** New policy to get on track to reach 7EAP air quality objective and WHO air quality guidelines by 2030/2050
- **EU objective 2030:** to reduce PM and O3 mortality by 52% between 2005 and 2030
- **Implementation** through existing and new instruments:
 - A new **National Emission Ceilings Directive** and the UNECE Gothenburg Protocol: emission caps for 2020/2030
 - **Existing EU source legislation:** new Euro 6/VI and NRMM vehicle standards, new BREFs under the Industrial Emissions Directive, new Eco-design standards for stoves, a revised Fertilisers Regulation...
 - **New EU source legislation:** The Medium Combustion Plant Directive
 - **Non-regulatory program:** LIFE and other EU funds, new Clean Air Forum, research and innovation (Horizon 2020), etc
- Reinforced **international/national/local action**



What are the costs and benefits of the package?

Benefits (2030) beyond baseline can be compared to implementation costs

External economic benefits from implementing the package:

€40 -140bn/year

- Estimate based on health benefits only
- Ecosystem benefits not possible to monetise but are substantial

Direct cost savings from implementing the package in 2030:

€2,8 bn/year, due to

- Higher productivity of the workforce (€1900 million)
- lower healthcare costs (€ 550 million)
- higher crop yields (€250 million)
- less damage to buildings (130 million)

Implementation costs for the package: **€ 3,3bn/year**

- Corresponds to 0,021% of EU GDP in 2030
- €2,5 bn if 2030 climate and energy package is implemented

Overall positive effects on society

- 100,000 FTE
- €1.2 bn increase in GDP



The main instruments to implement the strategy

The revised NECD
The new MCP

The revised NECD – general rationale

- Main instrument to implement cost-effective measures across the EU meeting environment and health objectives set out in the 2013 air strategy
- Key instrument for limiting trans-boundary air pollution and contributing to meeting AQ limits through reducing background pollution
- Key instrument to enable decisive and significant steps towards EU long term objectives; EAP, WHO health guidelines and CLRTAP critical loads
- Key instrument to enable transposition of the 2012 amendment to the CLRTAP Gothenburg Protocol into EU legislation

The revised NECD – new commitments

- Staged tightening of commitments:
 - Existing NECD - Annex I: 2010 ceilings remain in force up to 2019
 - Revised NECD - Annex II:
 - 2020 - Gothenburg Protocol ceilings
 - 2030 - 70% "Gap Closure" of technical abatement potential
- Interim targets for 2025 to ensure timely compliance

	2020	2030
SO₂:	59%	81%
NO_x:	42%	69%
NMVOCs:	28%	50%
NH₃:	6%	27%
PM_{2,5}:	22%	51%
CH₄:	--	33%

- New flexibilities (offsetting, joint implementation, IAP)
- CH₄ proposed commitments are based on "zero cost" measures

The new Medium Combustion Plants Directive (MCPD)

- Emerged as a **cost-effective option** in the air policy review to deliver part of the 2030 ceilings (cost/benefit ratio 1:5 – 1:15)
 - Fills a "**legal gap**" for combustion plants between 1 to 50 MW
 - Industrial Emissions Directive covers plants above 50 MW (LCP)
 - Eco-design Dir. covers small installations up to 1 MW (standardized products)
 - Many MS are already regulating MCPs and ask for a more level playing field
 - Key elements of proposal
 - ELVs for PM, SO₂ and NO_x (differentiated for fuels, sizes, technologies, existing-new),
 - Benchmark values for zones not complying with AQLV
 - Notification and registration ("light regime")
 - Monitoring of emissions and compliance checking
 - Reporting by MS
- **compliance and administrative costs are very limited**

The new MCPD contribution to emission reduction efforts

Emission reductions and implementations costs to achieve the overall policy objective

	SO2 (kt)	NOx (kt)	PM2.5(kt)	Impl. costs
Clean Air Policy Package	-681	-452	-396	3334
Contribution from MCP proposal	-135	-107	-23	382
Contribution from MCP proposal (%)	20%	24%	6%	11%



European
Commission

Summary and conclusions

The Clean Air Policy Package...

- ...**Responds to a significant problem** facing EU citizens and the environment
- ...**Makes economic sense**; overall economic benefits are 12-40 times higher than implementation costs; positive net benefit on GDP and employment
- ...Applies a **two-phased approach**; to ensure compliance of existing legislation up to 2020, and further limit emissions at source by 2030
- ...Is based on **state of the art scientific and technical information** and analysis, including WHO guidelines
- ...Targets **sectors where emission reductions are the cheapest**, e.g. small and medium combustion plants and the agriculture sector
- ...Is **cost-effective, feasible, and supportive** of the EU's clean technology sector
- ...Is **consistent** with EU 2020 objectives and the recent Climate and Energy Package

More Information

Clean Air Policy Package:

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

Air policy review:

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

