

FRENCH PLAN TO REDUCE EMISSIONS OF AIR POLLUTANTS

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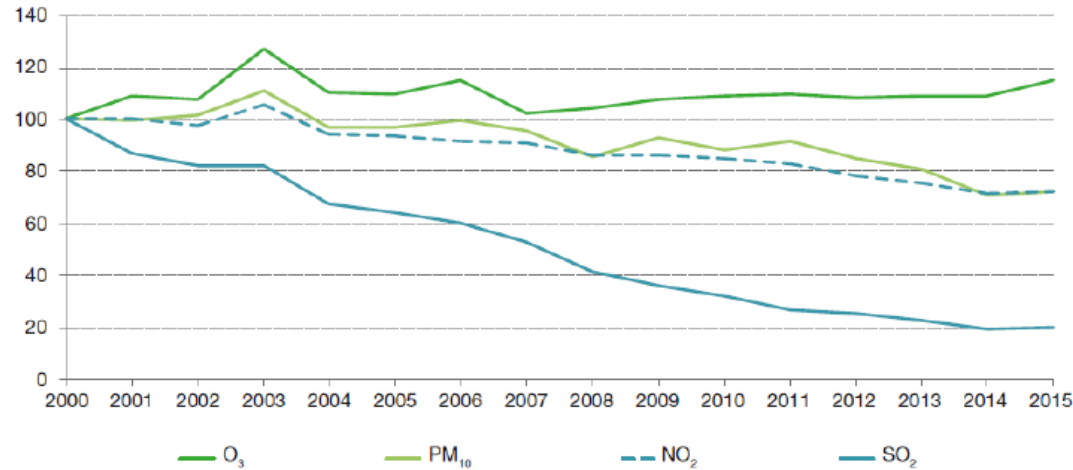
CITEPA

– 2 juin 2017 – WGSR 55



BACKGROUND

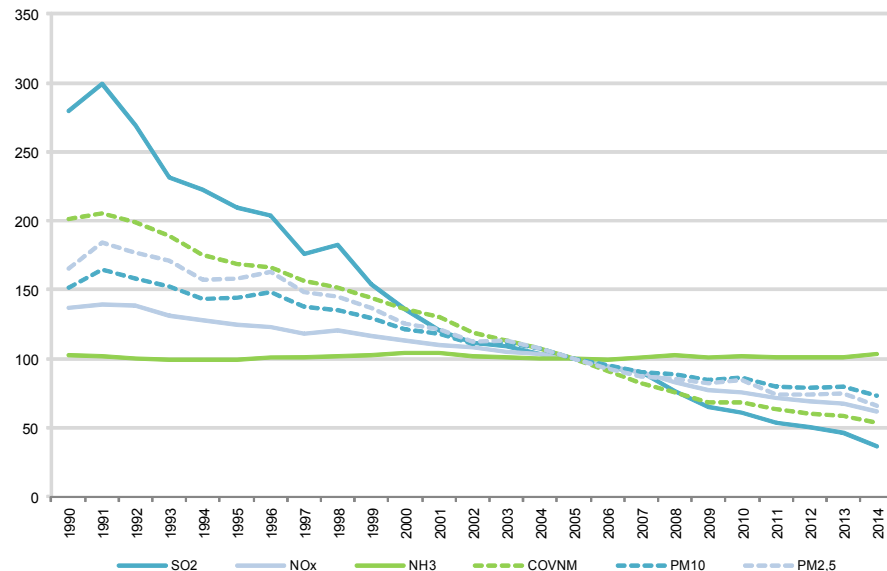
En indice base 100 des concentrations en 2000



Annual average
air quality at
national level
improves

And emissions of
pollutants are
clearly down
except for NH₃

En indice base 100 en 2005



Champ : France métropolitaine
Source : Citepa, format SECTEN, mise à jour avril 2016



RATIONALE AND OBJECTIVES

- The National Air Pollutant Emission Reduction Plan is defined by the law of August 2015 on energy transition and green growth (art. 64 of the law, and codification in art. L. 222-9 of the environment Code)
- Revision of previous action plans:
 - PREPA 2003
 - Plan Particules 2010
 - Emergency Plan for Air Quality (Plan d'Urgence pour la Qualité de l'Air PUQA 2013)
- The plan complies:
 - The objectives of the Gothenburg Protocol and European Directive 2016/2284 on the reduction of national emissions of certain atmospheric pollutant
 - Air quality (AQ) concentration requirements

RATIONALE AND OBJECTIVES

Emissions reduction since 2005	2020	2025	2030	Emissions reduction in 2014
SO ₂	- 55 %	- 66 %	- 77 %	- 63 %
NOx	- 50 %	- 60 %	- 69 %	- 38 %
COVNM	- 43 %	- 47 %	- 52 %	- 46 %
PM _{2.5}	- 27 %	- 42 %	- 57 %	- 33 %
NH ₃	- 4 %	- 8 %	- 13 %	+ 3 %

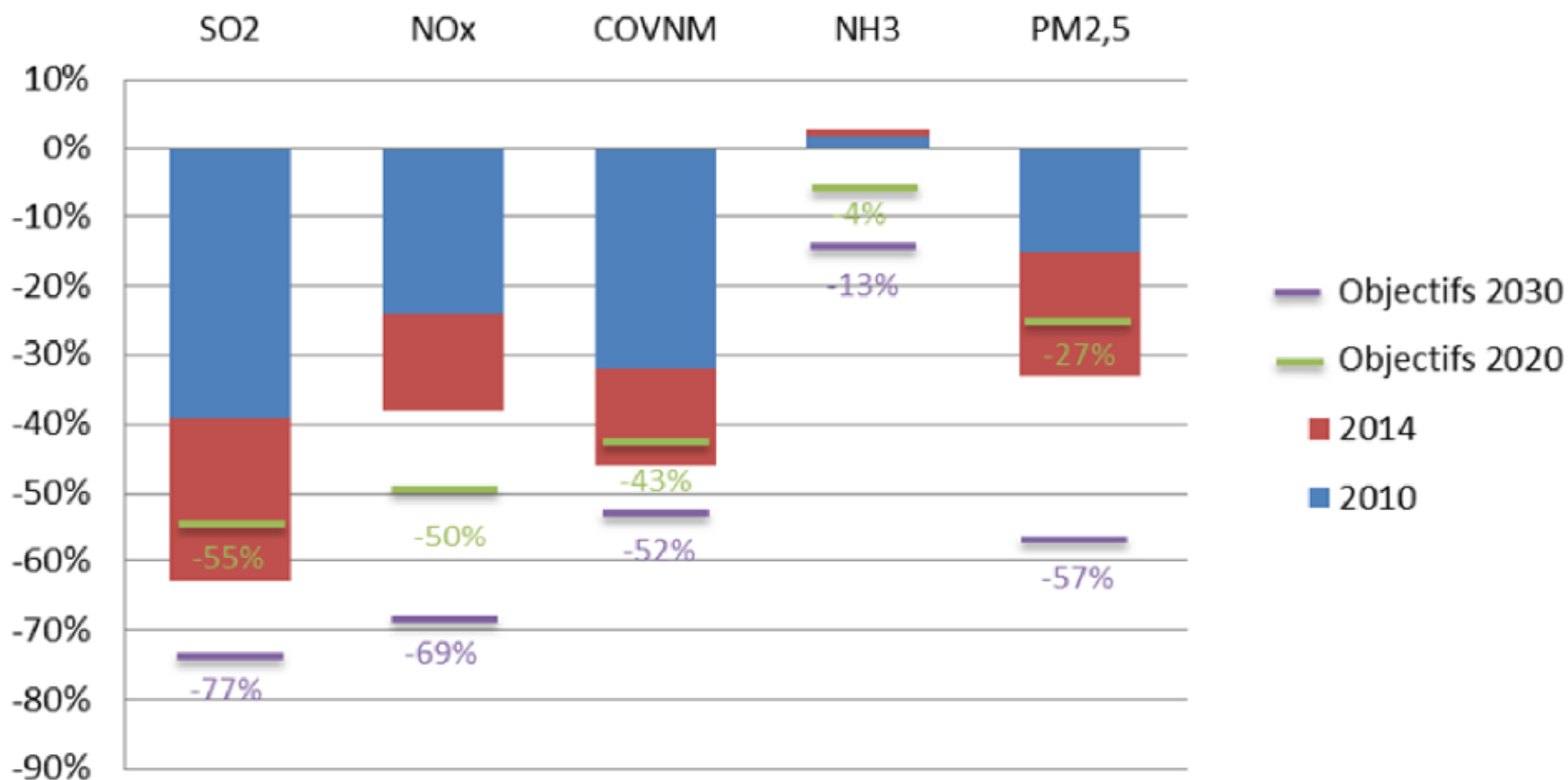


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RATIONALE AND OBJECTIVES



Emission reduction observed in 2010: **blue bar**

Emission reduction observed in 2014: **red bar**

Commitment required by the amended Goteborg protocol in 2020: **green line**

Commitment required by the 2016/2284 Directive in 2030: **purple line**

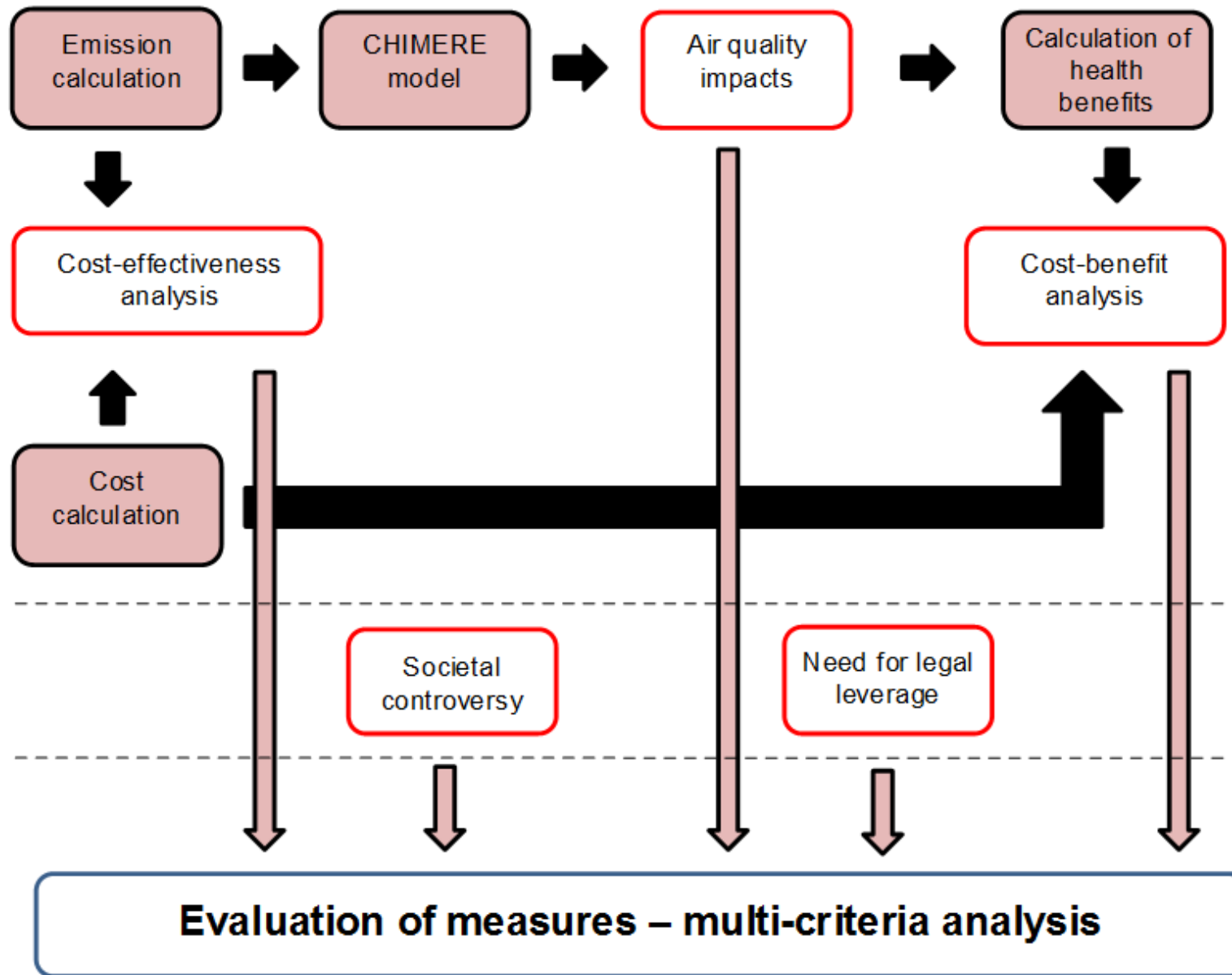
PRÉPA: ELABORATION PROCESS

Considering all sources of emissions

- Taking into account the reduction potentials of measures as well as the associated economic, health, legal and societal challenges
- Evaluating measures in consultation with stake holders
- Measures to be assessed with the multi-criteria analysis:
 - Existing measures (ME), very recent measures whose effects are not yet visible but will be effective from today
 - Additional measures (MA), for which there is sufficient data to carry out the evaluation
 - « Knowledge improvement » measures, to better know the challenges (efficiency, costs, constraints...) of some measures assumed interesting
 - Incentive measures to explain to and engage the population
 - Additional measures with EU or international character to mobilize supranational leverage



METHOD FOR THE MEASURES EVALUATION



WHAT IS PRÉPA?

It is composed of

- a decree of 2017/05/10 signed by 8 ministers: Targeted emission reduction for major pollutants by 2020, 2025 and 2030
- a decree signed by the minister in charge of environnement for 2017-2021 period: priority actions to reduce emissions to be strengthened and implemented + modalities
Annual review by the National Air Council

4 sectors covered: *industry, transport, residential and agriculture*
et **3 specific axes:** *actions to improve knowledge, mobilize local actors and territories, and the sustainability of funding for air quality*

With different types of measures:

- **Consolidation measures** of existing regulations to insure their total efficiency
- **New measures** in favor of air quality
- **Research and development projects** when the identification of appropriate measures is not yet evident



PRÉPA – Measures by sectors

Industry: reinforcement of controls specifically in the field of air emissions and application of BAT (cement works, refineries, combustion plants, etc.)

Transports: continuing petrol-diesel convergence, active mobility, generalization of bicycle mileage allowance, implementation of traffic restriction zones, renewal of fleets by low-emission vehicles, verification of actual vehicle emissions, initiative with Mediterranean countries to set up a low-emission zone in the Mediterranean area

Residential-tertiary: incentives for energy renovation, lower sulfur content in domestic heating oil, co-financing with local authorities to help renewal of poorly performing heating equipment, support for the development of alternatives to the burning of green waste, raising of awareness of public

Agriculture: reduction of emissions of ammonia and particulates, alternatives to burning of agricultural residues, study of plant protection products in the air, update of current French code of good practices (1990) and dissemination, financing Pilot projects and mobilization of European funds



PRÉPA – Specific axes

Mobilisation of local actors: communication (National day for air quality the 1st wednesday of september) and sharing of good practices (network of cities, platform...)

Improving knowledge and innovation: to prepare next actions! Identification of reduction technologies, improvement of emission inventories, knowledge of the pollution origin and its impacts and improvement of modelling, consideration of unregulated pollutants (nanoparticles)

Mobilizing financing for air quality: mobilization of the financing fund for energy transition and future investment programs, consideration for air quality in other state policies



PRÉPA - Impacts

Implementation of PRÉPA will permit :

- To meet the emission reduction targets of 2020 and 2030. PRÉPA measures are especially needed to achieve the goals of reducing ammonia emissions

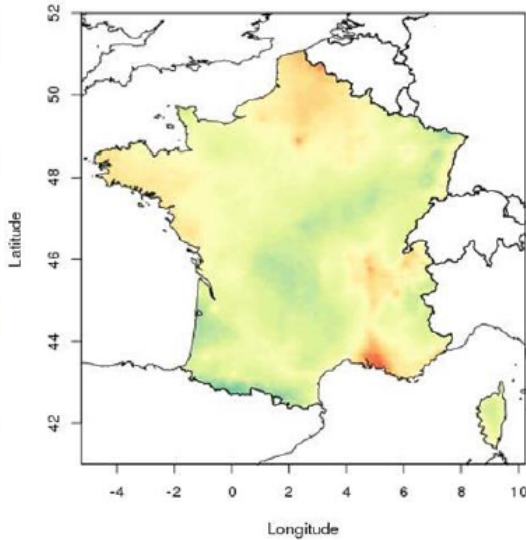
AND ALSO

- To limit the number of exceedances of air quality limit values: there are well reduced from 2020 and almost eliminated by 2030. The average fine-particle concentration will decrease by about 20 % by 2030
- Reduce the number of premature deaths associated with chronic exposure to fine particulate matter by approximately 11 200 cases / year by 2030

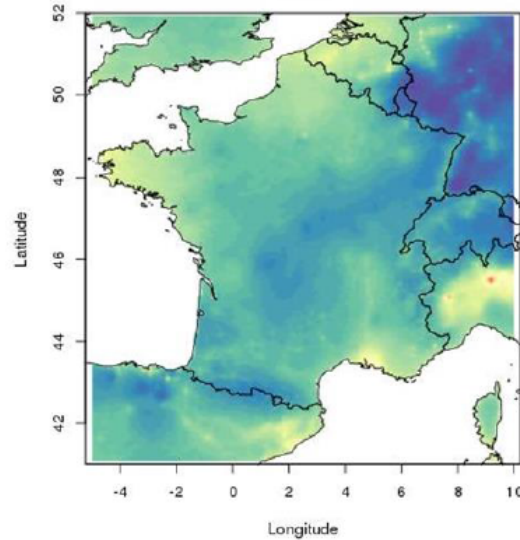


PRÉPA - Impacts

Concentrations PM10 en microg/m3
2010



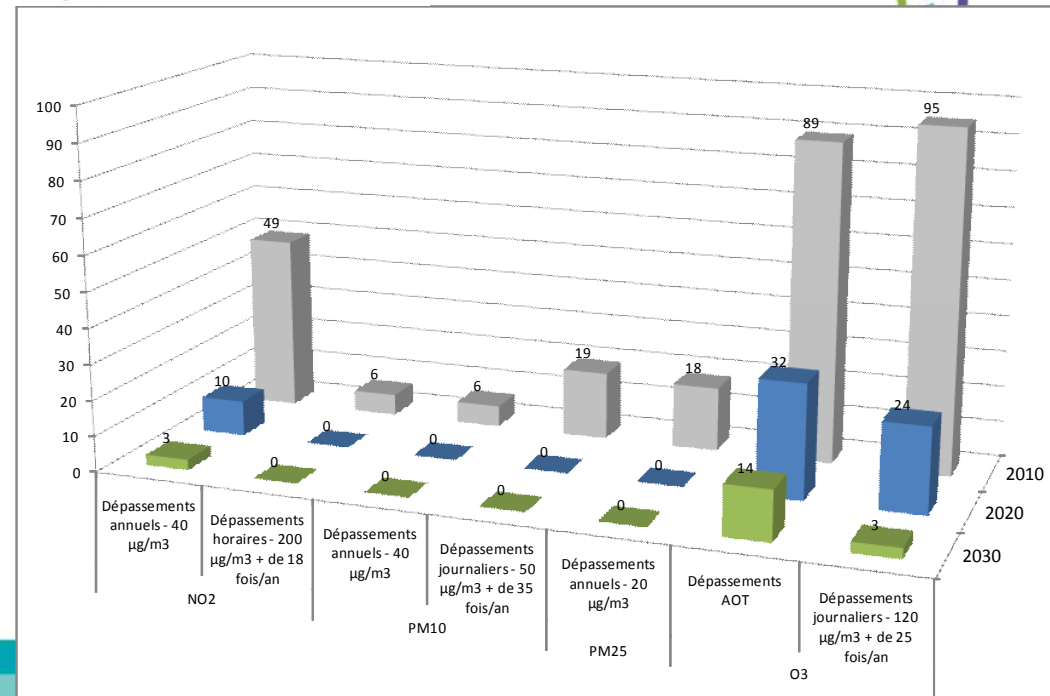
Concentrations PM10 en microg/m3
2030



Trends of PM₁₀ concentrations between 2010 and 2030 according to the prospective scenario

Exceedances numbers of limit values (PM₁₀, PM_{2.5} et NO₂) and target values (O₃)

Source: Evaluation ex-ante du PREPA - Ineris



THANK YOU FOR YOUR ATTENTION!

СПАСИБО ЗА ВНИМАНИЕ!

MERCI DE VOTRE ATTENTION !

To go further:

<http://www.developpement-durable.gouv.fr/politiques-publiques-reduire-pollution-lair#e5>

http://www.iiasa.ac.at/web/home/research/researchPrograms/air/policy/17_Allemand_Schucht_TFIAM-45.pdf

