ATMO France, the AASQA network

ATMO France encompasses the **AASQA** network which is spread throughout the French territory.

Through its activities, it pursues a common interest goal : along with the other national actors, it wants to contribute to equipping France with a device that can monitor and measure air quality as well as evaluate the actions and public policies aimed at improving it.

Air pollution presents :

- Public health issues
- Environmental issues
- Economic issues

Air quality and health :

- Humans breathe in **15 000 litres** of air per day.
- Air pollution has been classified as **carcinogenic** by the IARC / WHO.
- Chronic exposure has more effects than episodic **pollution** (ANSES - French agency for health and safety in the environment and in the workplace).
- Air pollution is responsible for cadriovascular and respiratory **diseases**, even cancers.
- The inhalation of fine particles is responsible for **42 000 premature deaths** per year in France (Clean Air For Europe programme) and represents an estimated cost of **20 to 30 billion euros per year.**

A cross-cutting approach for Air, Climate, Energy

It is the best way to reconcile air pollution issues with those of greenhouse gas emissions. Indeed, actions aimed at reducing atmospheric pollutant emissions and greenhouse gases rely on the same instruments but can actually have contradictory impacts.

- energy efficiency
- traffic reduction (road, air, etc)
- replacement of heating equipment
- insulation of buildings
- alternative energy, ...

For example :

- Wood-heating systems are encouraged as being renewable, but can actually pollute the air.
- The bonus/malus system relies solely on the CO2 factor and impact on climate, but does not take atmospheric pollutants into consideration.

Evaluating actions' impact on air quality

Numerous steps are taken to improve the quality of air and the atmosphere, both at the national and regional level.

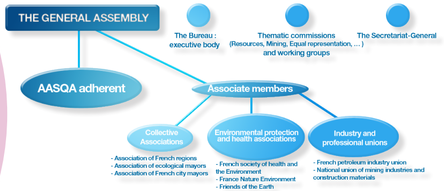
AASQAs' expertise contribute to **evaluating** and **ranking** them.

AASQAs propose to estimate the efficiency of some actions adopted: reduction of speed limits, renovation of infrastructure, urban planning (the impact of a tram on an urban area for example).

Regional observatories for Air, Climate and Energy would guarantee global coherence of actions and projects and provide indicators for follow-up and evaluation of progress by region.

The governance and activities of the ATMO France Federation

are supported by :



ATMO France's main goals

- **Represent and promote AASQA** : strengthen their position, role and sustainability.
- **Lead the AASQA network :** organise exchanges, sharing and mutual support.
- **Identify the key issues** in air quality and take part in debates.
- **Contribute to the dissemination of information** and lead awareness-raising activities with different national stakeholders.

Air monitoring system

Accredited associations for air quality monitoring cover the entire French territory.
They are united under the ATMO France National Federation.

Fédération des associations de surveillance de la qualité de l'air
Atmo France
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7, rue Crillon 75004 Paris
01 44 54 00 86
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ATMO France Federation

The AASQA network

French accredited associations for air quality monitoring

Cleaner air for all

Air
Climate
Health

Fédération des associations de surveillance de la qualité de l'air
Atmo France

AASQAs, air observatories...

Air monitoring system
27 AASQAs

Over 550 experts (engineers, technicians, computer specialists, communications officers...)

Their missions :
To monitor, conduct studies, anticipate and advise on quality of ambiant air.

In addition to regulated pollutants, their scope of work has expanded to emerging issues : **greenhouse gas emissions, odours, pollen, pesticides, indoor air, ...**

The law recognises every person's **right to breathe air that does not harm their health**. In France, air monitoring is relegated by the State to the accredited associations for air quality monitoring (AASQA).

These regional observatories extend throughout the entire French territory and are responsible for measuring and modelling air pollution.

Pollutants regulated

- Sulfur dioxide,
- Nitrogen oxides,
- Ozone,
- Particulate matter (PM_{10} et $PM_{2.5}$),
- Carbon monoxide,
- The heavy metals : lead, arsenic, cadmium, nickel, mercury,
- Organic compounds such as benzene and polycyclic aromatic hydrocarbons (PAHs).

...in the dephts of the country

The particularity of **AASQA's** is rooted in their quadripartite governing system of colleges which unite State representatives, **territorial collectives**, economic activities as well as **environment protection associations and qualified personnel**.

Their funding comes from diverse sources : **the State, colletives, TGAP** (general tax on polluting activities) and the commissioning of studies.These characteristics ensure the **independence** and **transparency** of the **AASQA's** actions, which benefit from a strong **credibility** amongst local decision-makers and citizens.

The **AASQA** network and the originality of its structure make it a perfect venue for **discussion, studies, decision-making and planning-support tools.**

Modelling the population's exposure to air pollution

1 . Monitor and analyse

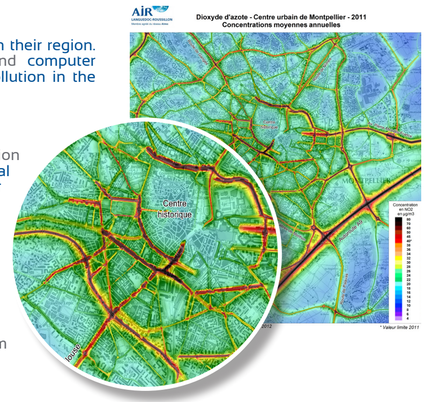
AASQAs conduct a **constant monitoring of air in their region.** They use a **measuring device (metrology)** and **computer simulation tools (modelling)** to **map out the pollution in the atmosphere.**

2 . Anticipate and evaluate

To **understand, evaluate** and **anticipate** pollution phenomena, the observatories carry out **territorial inventories of atmospheric emissions (air pollutants and greenhouse gases).**
Strategic scenarios can be tested and follow-up evaluations established.

3. Daily and emergency information

Predictions are made available to public authorities, media and citizens.
In the event of registered or anticipated air pollution, AASQAs participate in ringing the alarm so that authorities can decide what emission-reducing measures to use.



AASQAs are developing an expertise in indoor air quality

AASQAs help integrate air and health requirements in urban planning

Assisting decision-making : a mission reinforced by AASQAs

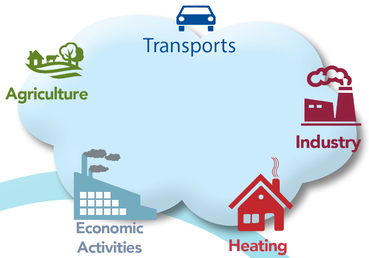
AASQAs are a reservoir of experience, evaluation and perspectives supporting local and national decision makers. Experts in the evaluation of air quality, AASQAs are sollicited during the elaboration, the implementation and the follow-up of French regional and local plans such as :

A crucial role in the elaboration and evaluation of territorial actions

- **Regional schemes for energy, air and climate (SRCAE),**
- **Regional plans for health and the environment (PRSE),**
- **Plans for atmoshphere protection (PPA),**
- **Territorial climate energy plans (PCET),**
- **Schemes for territorial coherence (SCoT),**
- **Local urbanisation plans - zoning (PLU),**
- **Urban transport Plans (PDU),**
- **Local housing plans (PLH).**

To monitor air quality, **French Ministry of Ecology, Sustainable development and Energy** relies on **the AASQA** network with the technical coordination of the **Central Laboratory of Monitoring Air Quality (LCSQA)** and in partnership with **ADEME, INERIS, the Interprofesionnal Technical Centre for the Study of Air Pollution (CITEPA)**

Who pollutes ?



Monitoring Equipment

Approximately 1900 analysers set up in fixed sites (equipped with one or several automatic measuring instruments), spread throughout close to 670 measurement stations.

- Analysers or sample collection devices for the monitoring of pollutants such as metals, **PAHs, VOCs** or other pollutants that may need sampling followed by analyses in laboratories.

- **Analytical equipment** : **459** for **NO_2**, 410 for **ozone**, 388 for **PM_{10}**, 234 measuring stations for **SO_2**, 119 for **$PM_{2.5}$**.

- 4 **types of air quality measuring stations :** urban (or suburban) stations; local traffic stations; rural stations; local industrial stations.

- Every large city is equipped with surveillance systems, and an air quality index is calculated daily in over **80 urban centres.**

- For zones in which the pollution level does not call for local fixed stations, or for the undertaking of studies : measurement campaigns which use truck laboratories or other investigation methods.

- Computer tools and modelling tools (calculation of the spatial distribution of pollution and air quality forecasting).

Source : Assessment of air quality 2012