/ CLIMATE CHANGE MITIGATION /
TOOLS FOR BUSINESSES
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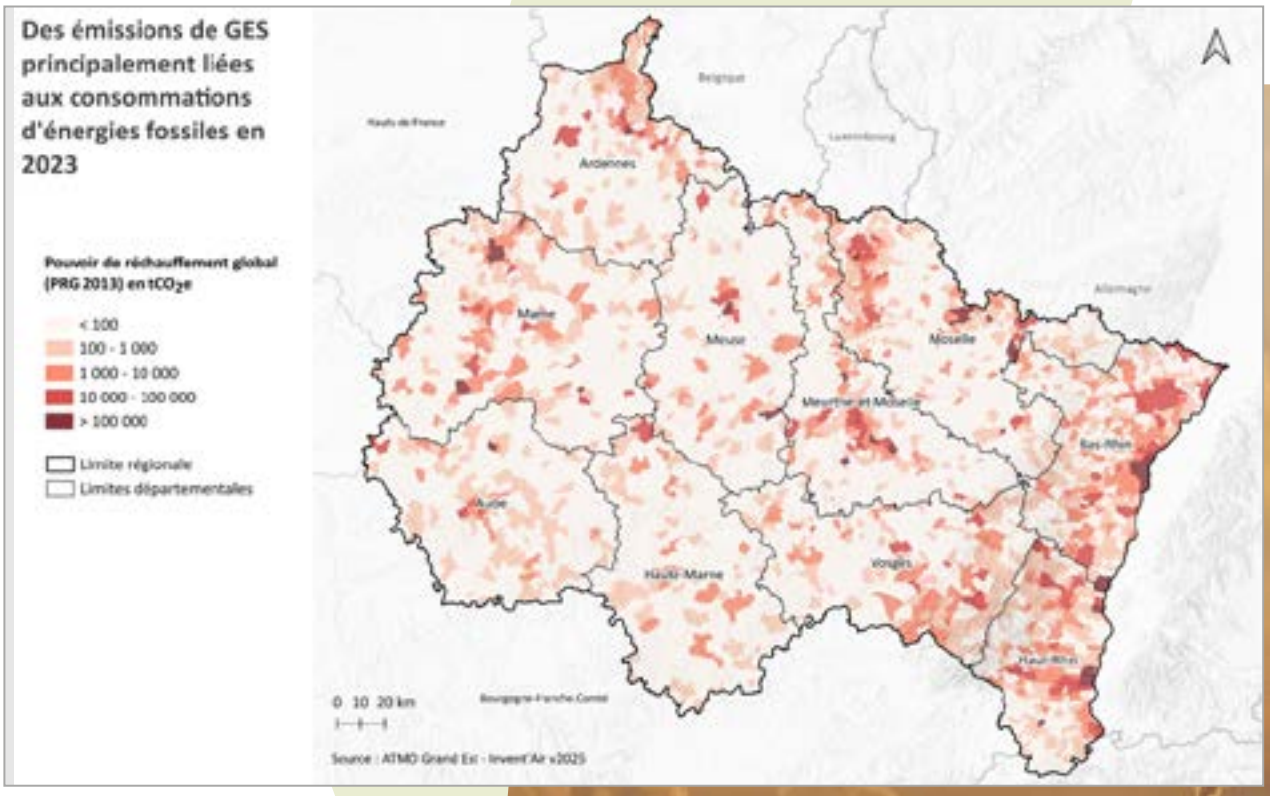
The climate-air-energy compass: a positioning tool for industrial sites



ATMO Grand Est (source Atlas_sectoriel_V2025.pdf).

Data available in the form of maps or charts on the internet: https://lc.cx/industrie_grand_est

Purpose of the compass

The Climate-Air-Energie Compass developed by ATMO Grand Est provides a personalised overview of data on air pollutant emissions, GHG emissions and energy consumption at an industrial site. It is a tool that contextualises emissions from an industrial site over a year in a concise and informative manner.

The compass serves as a basis for discussion between the association and its industrial members, with a view to raising awareness of the environmental impact of sites and encouraging the development of measures to reduce this impact.

Compass deployment

Each time it is updated with the latest available data, the compass is sent to more than 100 industrialists in the Grand Est region by email, along with an explanatory message. This is an opportunity to raise awareness of air quality issues among the association's industrial members.

The compass is also presented to industrialists during ATMO Grand Est visits to sub-sectors such as chemicals, glass production, agri-food, cement works, energy *(including waste treatment with energy recovery)*, etc. Participants *(environmental managers, senior management)* then have the opportunity to ask questions, gain a better understanding of the significance of the various parameters presented, and learn how their emissions compare with other industrial emissions in their region and within their economic sub-sector.

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• Industrial activity results in both channeled emissions (photo) or diffuse emissions, which are taken into account in the Invent'Air database.

Construction of the compass

The compass is based on information compiled by ATMO Grand Est in the Climate Air Energie Observatory and its "Invent'Air" database. This database is updated every year N. The emissions used for the compass are therefore the latest available, i.e. those from year N-2. Thus, in 2025, "Invent'Air V2025" was used to build the compasses based on data from 2023.

For each industrial site, two compasses are available:

- The industrialist's compass within their Public Establishment for Intercommunal Cooperation (PEIC): in relation to other industrial players within the PEIC *(manufacturing, energy, waste),*
- The industrialist's compass in his sector of activity: in relation to other players in his economic sub-sector in the Grand Est region.

Each compass features:

- Emissions of four air pollutants: nitrogen oxides *(NO_x)*, PM10 particulate matter, PM2.5 fine particulate matter, and non-methane volatile organic compounds *(NMVOCs)*.
- Total greenhouse gas emissions *(Global Warming Potential according to the 2013 method – GWP 2013)* and CO_2 emissions from biomass combustion *(bio-CO_2).*
- Energy dependence: all energy consumed *(by sites in the energy sector and by those in the industrial sector)* is considered, including raw material energy. .

Compass presentation and scale:

The indicators for each industrialist are shown in orange on the graphs and are systematically standardised as follows:

- The 15th highest parameter value *(among all sites in the industry, energy and waste sectors in the Grand Est region)* is used to normalise the values for each site: it is positioned at 1 on the compass scale.
- To ensure that the compass is easy to read, the 15 sites whose emissions are greater than or equal to those of the 15th largest emitter are also positioned at 1.
- Other sites are between 0 (low or no emissions) and 1.

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• The Industry-ATMO Grand Est meetings provide opportunities for discussion both in the meeting room and during visits to production sites.

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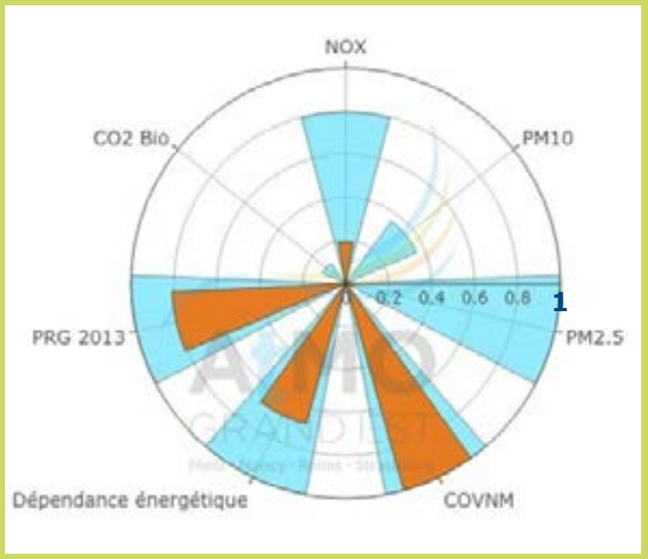
Compass for industrialists in their PEIC

The emissions and energy consumption of the largest emitters or energy consumers among the industrial, energy and waste sites located in the territory (PEIC) are indicated on the compass in blue.

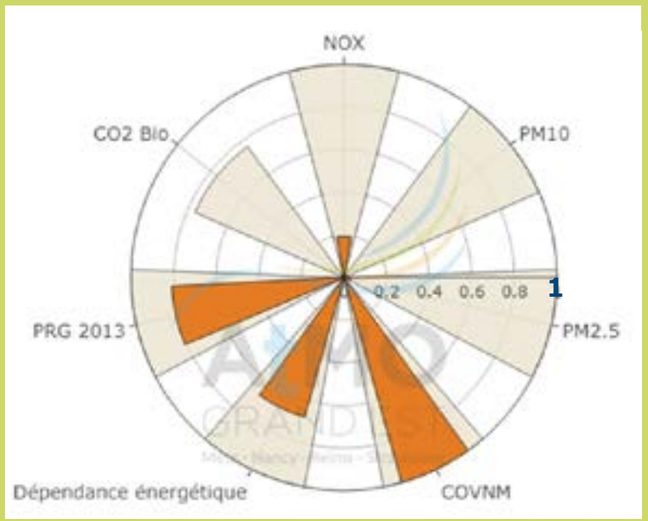


Example of a compass for an industrialist in his PEIC.

- The industrial site is one of the 15 largest NMVOC emitters in the Grand Est region.
- Its energy dependence is significant: it accounts for approximately 75 % of the 15th largest energy consumption for a site in the Grand Est region.
- In addition, the compass indicates that this site is also a significant emitter of greenhouse gases *(GWP2013 = 80 % of the 15th largest emitter in the Grand Est region).*
- The compass also indicates that this site uses little or no biomass fuel.
- Its NOx emissions are relatively low.
- Its PM10 and PM2.5 emissions are zero or insignificant on a regional scale.
- The PEIC on which this site is located includes one or more sites whose emissions of PM2.5 , NMVOCs and greenhouse gases, as well as their consumption, are among the 15 highest in the Grand Est region.

Compass for industrialists in their sector of activity

This compass shows how the site compares to other sites in the Grand Est region with similar activities *(according to the 'NAF' - French nomenclature of economic activities)***. The emissions and energy consumption of the largest emitters among all sites in the Grand Est region in the same sub-sector as the site under study are shown in beige on the compass.**



This compass is similar to the one provided for the compass on PEICs. In particular, it indicates that the sub-sector in which the site under study is located includes sites that are among the 15 largest emitters of all the pollutants presented, with the exception of CO_2 from biomass combustion. This sub-sector also includes at least one of the 15 largest energy consumers in the Grand Est region.

Available on the Observatory's website
> observatoire.atmo-grandest.eu

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Other resources on climate, air, energie in the Grand Est region:

- **Sectoral atlas of the atmosphere :**
  https://lc.cx/atlas_sectoriel

FACT SHEETS also available on the Observatory's website:

- **Industry fact sheets for the Grand Est region:**
  https://lc.cx/industrie_grand_est
- **Haut-Rhin industry fact sheet:**
  https://lc.cx/industrie_haut_rhin
- **Bas-Rhin industry fact sheet:**
  https://lc.cx/industrie_bas_rhin
- **Atmo Grand Est brochure for industrialists:**
  https://lc.cx/atmo_pour_les_industriels

Reference for this fact sheet: Anne-Catherine LEGALL – ATMO Grand-Est and Florence RUDOLF – Clim'Ability Project, Clim'Ability Design, Interreg V, 2016-2023, Climability Care 2026-2030. Layout: BBCOM – Printing: CAR Impression Strasbourg.

TESTIMONIAL FROM :

Yann Martinet,
- Director of La Coopération Agricole Luzerne de France

What do you expect from ATMO Grand Est?

We would very much like it to stand by our side, providing us with technical solutions and practical expertise to help us understand the complex processes involved in the formation and transformation of emissions linked to our agricultural and industrial activities, so that we can work effectively towards reducing them. And by 'effectively', we also mean 'economically'.

Partenaires cofinanceurs / Kofinanzierende Partner

«Dépasser les frontières, projet après projet» / „Der Oberrhein wächst zusammen, mit jedem Projekt"