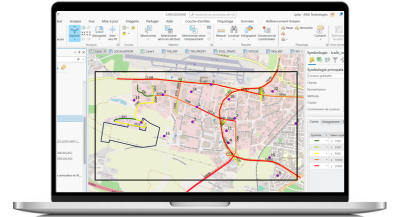# AirAdvanced® Map

The essential tool for assessing and mapping air quality

AirAdvanced® Map **is a unique GIS-integrated air quality assessment software suite, designed to model the impacts of industry and traffic in both 2D and 3D.**

A tool compliant with regulations for complete studies by consultants, industries, local authorities and institutional players

- Assessment of air concentrations and ground deposits induced by an industrial facility during normal operation or accidental scenarios *(health risk assessments, olfactory impact studies...)*

- Assessment of concentrations in 2D or 3D for urban development projects, in both air quality and health sectors

- Modelization and exploration of pollutant dispersion (gaseous and particulate) in 3D while taking into account terrain, building effects and meteorological data

Advanced Output Capabilities

- Advanced (2D and 3D) air quality analysis seamless with GIS-embedded solution *(ArcGIS PRO ou QGIS)*

- Export 3D data in NetCDF format, compliant with Paraview vizualization engine for further 3D analysis and visualization

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✓ **Conduct Thorough Studies**
Perform diagnostics, preparation, and surveillance with precision

✓ **Simulate the dispersion of your emissions**
Simulate the dispersion of emissions over short periods, **(short-term impact, accidental situation, chronic exposure)** allowing you to see the evolution of concentrations over time and numerous statistical results (annual average, percentiles, hourly or daily maxima, threshold exceedance frequencies).

✓ **Assess road traffic emissions**
✓ Estimate road traffic emissions using the European COPERT V methodology, based on vehicle flow and speed data
✓ Integration into **AirAdvanced**® Map of French vehicle fleet projections available up to the year 2050.

✓ **Source contribution analysis**
Simulate the dispersion of pollutants (gaseous, particulate, odorous, radioactive) from several sources simultaneously (channeled, surface, volume or linear). Accurately determine the contribution of each emission source to air quality over an area of interest.

✓ **Simulate meteorological conditions**
Simulate meteorological conditions in a complex 3D environment to study past pollution episodes or forecast future scenarios.

✓ **Define and assess your control plans**
Evaluate the effectiveness of existing regulation strategies and propose improvements.

suez

	TREFIC®	STANDARD	EXTENDED	EXPERT
ASSESSMENT Calculate atmospheric emissions linked to road traffic using ESRI/QGIS with TREFIC®	✔		✔	✔
Conduct complete studies of the **impact of industries** on air quality and odours		✔	✔	✔
Conduct complete studies of the **impact of vehicular traffic** on air quality			✔	✔
ANALYSIS Gaussian model 2D viewer		✔	✔	✔
Full 3D Lagrangien model (PMSS) 3D viewer				✔
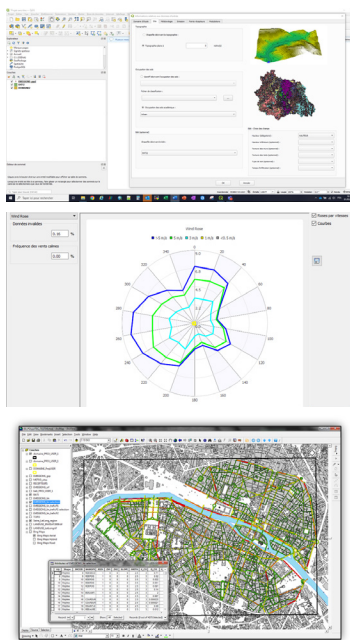
Customers GIS data (2D/3D vector infrastructures), linear mobility,...) and business data (tabular: meteorogical inputs, emissions...)

2D&3D modul ESRI/QGIS
AirAdvanced® Map

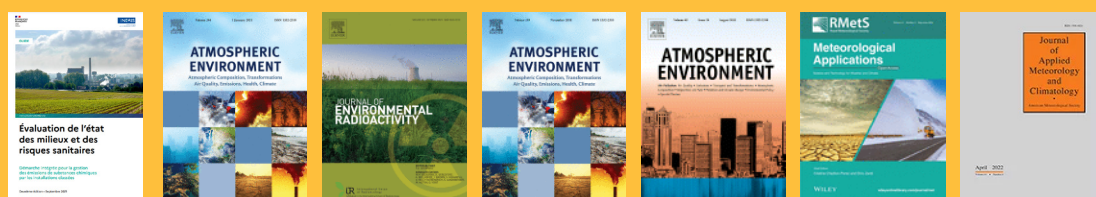impact assessment, accidental situation, chronic exposure,...
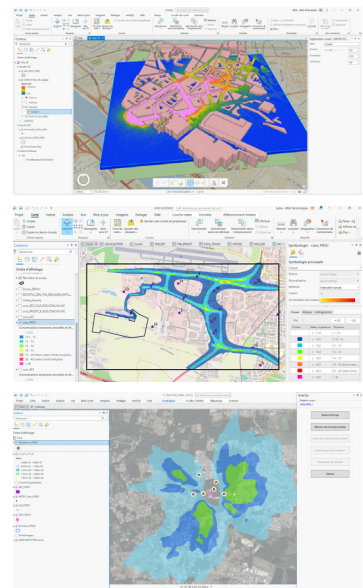
AirAdvanced® Map **your best ally for informed decision-making**

With comprehensive coverage (2D and 3D) coverage of the impacts of traffic and industry on air quality integrated with your existing GIS infrastructure, easily take on the most complex challenges of atmospheric modeling.

THEY TRUST US

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