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News

Innovation and Industry

Climate, environment and circular economy | Environmental monitoring

Imagine a solution that could be used not only to photograph air quality, but also to analyze it and implement measures to improve it. IFPEN has developed R-TAMS, a digital advisor capable of guiding public policymakers in the implementation of appropriate environmental policies. A tool designed to address urban environmental needs.

>> Discover our advanced air quality monitoring and environmental impact analysis platform Planet Air

The challenge of air quality in towns and cities

Our cities face major challenges related to air quality as a result of pollutant emissions, the majority of which come from road traffic (50% of nitrogen oxide (NOx), 30% of carbon dioxide (CO_2).
These pollutants, along with fine particles (PM), are damaging to the health of both people and the environment. Therefore, access to effective monitoring tools is essential to guide public policy decisions aimed at improving air quality.

R-TAMS, a complete picture

The fruit of IFPEN's expertise in the numerical modeling of vehicles and productive partnerships with car manufacturers over many years, R-TAMS (Real Time Air Monitoring System) uses an innovative approach that makes it possible to contextualize and visualize air quality in real time and for prospective scenarios.
In addition to monitoring pollutant emissions such as nitrogen oxide (NOx) and carbon dioxide (CO_2) in real time, R-TAMS also tracks fine particles (PM) generated by other sources, such as brake and tire wear, and quantifies road traffic noise emissions.
R-TAMS thus supplements the range of existing static air quality monitoring solutions, with its data providing a detailed and dynamic picture as well as a complete, comprehensive understanding of the environmental impact of urban mobility.

A smart and proactive advisor

Above all, R-TAMS helps policymakers to anticipate and design effective public policies aimed at improving air quality. While existing solutions focus on current pollution monitoring, R-TAMS makes it possible to evaluate various scenarios thanks to its prospective modeling and simulation capacity. Among others, these simulations encompass measures such as the creation of low emission zones (LEZ), the potential evolution of the vehicle fleet and reduced speed limits in urban areas.
This tool supplements the existing range of connected tools, software solutions, impact studies and web services in IFPEN's portfolio of innovative solutions in the field of air quality related to mobility.

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R-TAMS: a new digital advisor to act on air quality
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