

NEWS

PROJECT

AIR BREAK- Co-producing healthy clean commuting air spots in town

📍 Ferrara, Italy

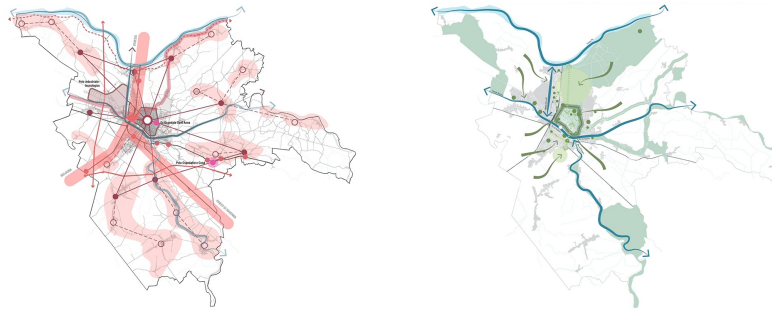
TOPIC

Air quality

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Insights Unveiled: Air-Break Ferrara's Data-Driven Policymaking

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Air-Break's comprehensive dataset transforms Ferrara's urban planning, providing real-time air quality and mobility insights.

In this article, UIA Expert Pietro L. Verga discusses how these insights drive targeted actions, from cutting emissions to pioneering sustainable agriculture and mobility solutions, setting the stage for a proactive, data-driven approach to policymaking.

A comprehensive base of data for sustainable urban development

Air-Break's interventions have significantly enriched Ferrara's data landscape, offering an extensive array of crucial information:

Foremost, the city now possesses [real-time air quality measurements](#) across 14 distinct areas, made possible by an advanced monitoring system. These metrics provide valuable insights into Ferrara's atmospheric health, forming a foundation for informed environmental strategies and urban planning.

Additionally, insights into [commuting dynamics, cycling patterns, and citizen mobility behaviours](#), drawn from Vodafone geodata and the Play&Go platform, offer a nuanced understanding of mobility preferences. This knowledge informs tailored infrastructure development and mobility solutions.

Furthermore, Air-Break's initiatives have evaluated the phyto-absorption capacities of strategically planted vegetal species in the [reforestation program](#). These green allies play a role in absorbing pollutants, aligning with Ferrara's commitment to a greener, more sustainable urban environment.

All in all, Air-Break's multifaceted contributions have significantly enhanced Ferrara's data repository, offering real-time air quality measurements, comprehensive mobility insights, and a strategic understanding of phyto-absorption capacities. These pivotal data sets underscore the city's pursuit of informed environmental strategies, urban development, and a greener, more sustainable urban landscape.

Laying the Groundwork for Strategic Urban Development

The datasets provided by Air-Break have become the cornerstone of the municipality's city-planning office, facilitating comprehensive and insightful analyses. These data have been instrumental in discerning the intricate sources and patterns of pollution, offering detailed insights into the city's air quality dynamics across various timescales. Moreover, these datasets have shed light on the intricate mobility needs of citizens and commuters, providing a nuanced understanding crucial for planning infrastructural enhancements that meet growing demands and augment infrastructure usability.

This wealth of information has allowed the city-planning office to pinpoint critical, location-specific challenges within Ferrara. These in-depth analyses serve as the foundational elements feeding directly into the preparatory stages of the [General Urban Plan \(PUG\)](#). Through this integration, the PUG has emerged with a robust framework, articulating four strategic objectives aimed at sculpting Ferrara into a resilient, polycentric, attractive, and interconnected city. Delving into specifics, these objectives encompass fostering green infrastructure, harnessing

ecosystem services to mitigate heat-island effects, pioneering innovative environmental governance, and fortifying sustainable mobility services and infrastructure.

In essence, these datasets, serving as a catalyst for comprehensive analyses, have propelled Ferrara towards a strategic urban development approach. They've empowered the city to address immediate challenges while aligning the city's vision with sustainable, mobility-centric, and environmentally resilient goals.

Transitioning from Strategic Insights to Actionable Plans

The wealth of insights gleaned from Air-Break's datasets has galvanized the Municipality of Ferrara into action, propelling numerous projects and action plans at various developmental stages. These initiatives are instrumental in translating data-driven analyses into tangible efforts poised to address critical environmental and urban challenges.

Firstly, the municipality embarked on collaborative efforts with local companies, particularly those associated with the city's Petrochemical Plant. The aim is to co-design and implement action plans directed at curbing CO2 emissions, thereby contributing significantly to the city's [Sustainable Energy and Climate Action Plan \(SECAP\)](#). These concerted actions align with the pivotal findings from Air-Break, providing a strategic pathway towards sustainable environmental practices within the industrial sector.

Building upon the significant insights derived from Air-Break, the municipality has initiated an ambitious [Sistema Agricoltura Ferrara Project](#). This multifaceted endeavour encompasses seven core objectives strategically aligned with mitigating agricultural pollution during autumn and winter months while addressing the challenges of large-scale distribution. Central to this initiative is the promotion and preservation of the local agricultural sector, safeguarding geographical indication protected (IGP) crops and promoting local produce to minimize unnecessary travel. The project also envisages the establishment of farmsteads and educational farms, fostering community engagement and education on sustainable agricultural practices, thus intertwining environmental sustainability with farming.

Furthermore, the municipality has actively leveraged the insights on mobility needs derived from Air-Break to inform and contribute to other crucial EU projects. Noteworthy among these initiatives is the [URBACT Action Planning Network S.M.ALL](#), dedicated to tackling urban challenges and crafting comprehensive, inclusive sustainable mobility solutions. These endeavours encompass a spectrum of measures, including safe home-to-school journeys, accessible routes, and tailor-made Sustainable Urban Mobility Plans, addressing the needs of vulnerable groups. Simultaneously, innovative proposals intertwining green infrastructure and shading interventions with novel sustainable mobility services at the neighbourhood level are in the pipeline. Drawing upon real-time air-quality data, city authorities have received critical indications pinpointing areas most impacted by pollution from private heating systems. This data has led to plans for a series of interventions aimed at regulating and modernizing these systems. The aim is not only to mitigate the adverse effects of high pollution but also to introduce modernization initiatives that align with sustainable environmental practices.

Finally, taking stock of the know-how gained from Air-Break reforestation activities in terms of planting technologies and phyto-absorption properties of the different species, as well as of the new air-quality monitoring technologies tested and datasets developed, the Municipality is currently designing a park with specific leisure zones prioritizing dense forestry, wildlife conservation, and Nature-Based Solutions, emphasizing environmental enhancement through intelligent pollution monitoring.

These concerted actions, informed by Air-Break's data insights, manifest a proactive stance by the Municipality of Ferrara. These strategies and plans underscore the city's commitment to transforming data-driven analyses into practical solutions, forging a sustainable, environmentally conscious urban landscape for its residents.

Final Remarks

Air-Break's diverse data contributions have empowered Ferrara's quest for sustainability. The real-time air quality measurements, mobility insights, and understanding of vegetal absorption capacities propel the city towards a greener, more informed urban landscape. These datasets enable Ferrara to tackle immediate challenges while advancing sustainable urban development.

Laying the Groundwork for Strategic Urban Development: Air-Break's datasets are foundational for Ferrara's planning office, facilitating analyses on pollution sources, air quality dynamics, and mobility. These insights shape the city's General Urban Plan, focusing on green infrastructure, ecosystem services, innovative governance, and sustainable mobility for a resilient, attractive city.

Transitioning from Insights to Actionable Plans: Informed by Air-Break's data, Ferrara initiates projects: collaborating with local firms to curb emissions, promoting local agriculture sustainably, and contributing to EU-level innovation in mobility solutions. Real-time air quality data guides interventions targeting private heating system pollution, showcasing the city's proactive stance.

In summary, Ferrara's data integration from Air-Break fuels proactive urban development, translating insights into actionable steps for a sustainable, environmentally conscious cityscape.



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