FREE TO BREATHE?

RANKING CLEAN AIR PROGRESS AND POLICY IN 40 EUROPEAN CITIES

EXECUTIVE SUMMARY

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CleanCities

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AIR QUALITY AND TRANSPORT IN EUROPE'S CITIES: NOT THERE YET

Air pollution is Europe's biggest environmental health risk. Nine in 10 Europeans are exposed to levels above the World Health Organization (WHO) air quality guidelines. Cities are where the problem is most concentrated, with road transport being one of the main sources. Cities are also where many solutions lie, and city leaders decide how streets are used and can implement transport measures to improve air quality.

This report examines air pollution in Europe's major cities, how air quality has changed over the past decade, and what cities are doing to make the air cleaner. The ranking compares 40 European cities across four areas:

- **Current levels of air pollution:** Levels of nitrogen dioxide (NO_2) and fine particulate matter ($PM_{2.5}$), two pollutants that harm health.
- **Indicative compliance with 2030 limits:** Whether cities would already meet the EU's new limits.
- **Change over time:** How much air quality has improved over the past decade.
- **Action on transport:** Whether the city has introduced low- or zero-emission zones, protected cycle lanes, electric buses and school streets, which are proven as some of the most effective measures to clean the air.

WHAT WE FOUND

Our research shows that Copenhagen, Greater Stockholm and Greater Helsinki are the only cities that achieved an A grade and the only ones (already) meeting all of the EU's upcoming 2030 legal limits for air pollution. Athens and Bucharest rank lowest, and all 11 cities graded E or F are in southern, central or eastern Europe, while the best performing cities are all in northern Europe. Detailed results can be found in Annex 2 or on the Clean Cities website.

None of the 40 cities meet the WHO guidelines for air quality, and only Greater Stockholm meets the annual guidelines for $PM_{2.5}$. This shows the air we breathe is not yet healthy in any of the tested cities. However, progress is happening. Over 10 years, nitrogen dioxide fell on average by more than a third and by more than a quarter for fine particulate matter. Copenhagen, Stockholm and Stuttgart almost halved nitrogen dioxide, while Kraków and Sofia more than halved fine particles.

Action pays off. Cities with stronger transport policies cut nitrogen dioxide the most. Of the 13 cities that cut annual NO_2 levels by more than 40%, 10 have a low-emission zone (LEZ). Many measures are recent, so their full benefits are still to come.

Geography matters, but it is not a barrier to progress. Coastal cities benefit from sea breezes that disperse pollution, yet cities with less favourable terrain can also improve air quality. Stuttgart, which sits in a basin where polluted air tends to get trapped, has introduced measures including a strict low emission zone, and its NO_2 levels have fallen by almost half.

Ambitious action does not have to be costly. Our research shows that cities with fewer resources have also made gains through low-cost measures, such as new cycle lanes and reallocating street space from cars to people through school streets. Inaction, by contrast, comes at a high price: air pollution reduces the EU's economic output by roughly 4% a year, around €600 billion annually, close to Sweden's entire GDP in 2025.

WHAT NEEDS TO BE DONE?

Cities should:

- **Introduce well-designed, enforced low- and zero-emission zones,** both proven tools for cutting air pollution from road transport rapidly.
- **Set a clear vision, timeline and pathway to zero-emission mobility** by the 2030s, with a strong focus on active mobility.
- **Deliver 100% electric bus fleets by the early 2030s,** in line with the EU's regulations encouraging the purchase of zero emission buses, in particular the Clean Vehicle Directive and the CO2 standards.
- **Roll out permanent school streets** at all suitable schools by 2030.
- **Make full use of the measures listed in Annex VIII** of the revised Ambient Air Quality Directive (AAQD), including zero-emission last-mile delivery, car sharing, differentiated parking fees and compact city planning.

National governments should:

- **Transpose the revised AAQD in full and on time,** involving cities and civil society, and aim to meet the 2030 limit values rather than rely on postponement.
- **Give cities the legal powers to introduce and enforce local measures** such as low- and zero-emission zones and school streets.
- **Provide dedicated funding for clean air,** directing EU funds toward vulnerable households and micro-enterprises.
- **Support cities in developing data strategies** that cover all relevant parts of transport and air quality and expand air quality monitoring.

The European Union should:

- **Enforce timely transposition of the AAQD and compliance with the 2030 limit values,** including against air quality plans that are not quantified, funded and time-bound.
- **Create a common, verifiable standard for projections** used to justify postponement deadlines in the upcoming Implementing Decision.
- **Make air quality a key performance target in Sustainable Urban Mobility Plans**, to ensure cities implement proven transport solutions.
- **Commit to further align the AAQD with WHO guidelines,** which are twice as strict as the 2030 limits for $PM_{2.5}$ and NO_2.

With just over three years until the new limits apply, several cities already show that cleaning the air is achievable. Cities need to step up, act now and take bold measures that will deliver healthier streets and healthier lives, and clean air for all.



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TABLE 1: OVERALL RESULTS

Rank	City name	Grade	Total score (out of 60)	Current AQ levels (out of 30)	Compliance (out of 10)	Relative change (out of 10)	Policies (out of 10)
1	**Copenhagen**	**A**	54.8	27.1	10.0	8.7	9.0
2	**Greater Stockholm**	**A**	50.8	29.8	10.0	6.1	5.0
3	**Greater Helsinki**	**A**	48.9	29.4	10.0	5.5	4.0
4	**Ghent**	**B**	42.0	22.5	5.0	7.5	7.0
5	**Brussels-Capital Region**	**B**	40.8	21.5	5.0	7.3	7.0
6	**Bilbao**	**B**	40.1	23.3	7.5	5.3	4.0
7	**Munich**	**B**	39.4	20.4	5.0	8.0	6.0
8	**Cologne**	**C**	38.9	20.8	5.0	7.1	6.0
9	**Vienna**	**C**	38.8	21.5	5.0	6.3	6.0
10	**Greater Amsterdam**	**C**	38.1	22.2	0.0	6.8	9.0
11	**Berlin**	**C**	36.1	21.1	2.5	7.5	5.0
11	**Hamburg**	**C**	36.1	20.2	5.0	6.8	4.0
13	**Greater Lisbon**	**C**	35.9	21.9	5.0	7.1	2.0
13	**Stuttgart**	**C**	35.9	20.5	2.5	7.9	5.0
15	**Oslo**	**C**	34.9	24.8	0.0	6.1	4.0
16	**Greater London**	**C**	34.1	20.0	0.0	7.2	7.0
17	**Valencia**	**C**	34.0	23.2	2.5	5.3	3.0
18	**Barcelona**	**C**	33.9	18.2	5.0	5.8	5.0
19	**Bratislava**	**C**	33.3	22.0	2.5	6.8	2.0
20	**Dublin**	**C**	33.2	23.6	5.0	2.7	2.0
21	**Antwerp**	**C**	33.1	18.9	0.0	6.1	8.0
22	**Florence**	D	32.5	18.5	5.0	5.0	4.0
23	**Lyon**	D	32.3	18.8	0.0	6.5	7.0
24	**Greater Paris**	D	30.8	17.6	0.0	7.2	6.0
25	**Marseille**	D	30.3	17.4	2.5	6.4	4.0
26	**Madrid**	D	29.9	19.3	2.5	4.2	4.0
27	**Bologna**	D	29.0	16.1	2.5	5.4	5.0
28	**Sofia**	D	28.9	19.0	0.0	6.9	3.0
29	**Ljubljana**	D	27.0	15.9	2.5	6.6	2.0
30	**Budapest**	E	25.6	18.0	0.0	5.6	2.0
31	**Prague**	E	24.2	17.8	0.0	5.4	1.0
32	**Rome**	E	24.0	14.7	0.0	5.3	4.0
33	**Warsaw**	E	23.4	12.9	0.0	5.5	5.0
34	**Wroclaw**	E	22.3	13.9	0.0	5.3	3.0
35	**Kraków**	E	21.7	10.4	0.0	7.3	4.0
36	**Greater Milan**	E	21.3	8.8	0.0	5.4	7.0
37	**Turin**	E	21.0	8.0	0.0	5.9	7.0
38	**Zagreb**	E	19.1	13.6	0.0	4.5	1.0
39	**Bucharest**	F	17.9	10.8	0.0	5.1	2.0
40	**Athens**	F	13.8	10.1	0.0	2.7	1.0

Contacts

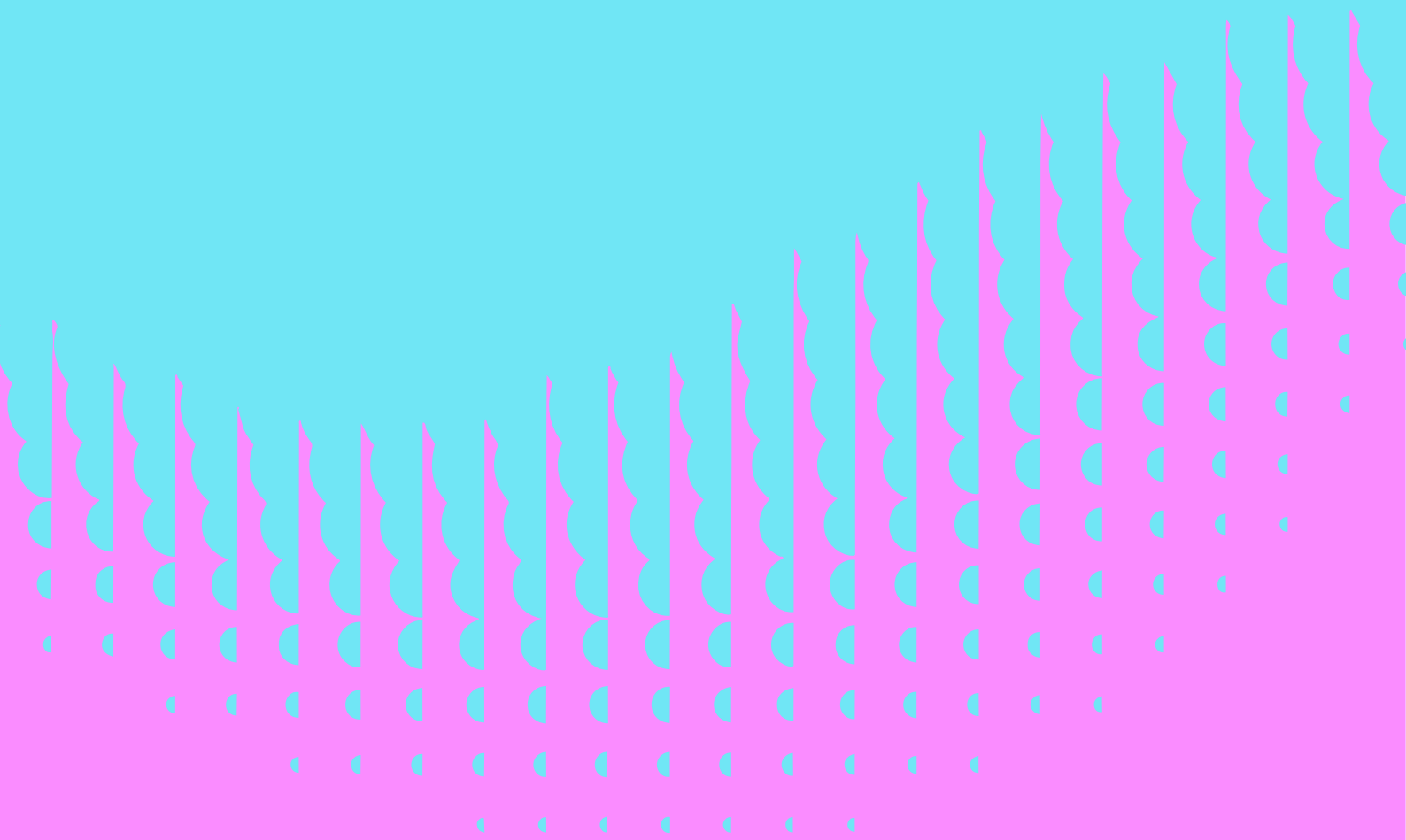
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Find out more

Clean Cities finds, connects and funds
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