

# New research unveils an 80% reduction in atmospheric carbon monoxide as a result of car emissions policies

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New research published today (23 May) in *Scientific Reports* has highlighted the success of automotive technologies and policies in cutting atmospheric carbon monoxide (CO) by 80% within south-east England over the last 18 years.

Scientists from the Department of Earth Sciences at Royal Holloway, University of London found that the reduction could be attributed to initiatives introduced in the 1990s to lower petrol emissions.

The successful reduction of carbon monoxide in the UK is also matched

by high percentage reductions across Europe over the same time period. This suggests that recent rises of [carbon monoxide](#) in newly developed countries can be reversed in a 20-year time frame with similar technological and [policy](#) implementations.

Dr David Lowry, said: "CO in very high concentrations means there is a reduced supply of oxygen in the blood and to the brain, resulting in sleepiness and headaches. This can kill people, for example in rooms with poorly maintained heating systems. Outside, CO is only present in parts per billion of the open air, but it is very important in many chemical reactions that create urban air pollution, that is so harmful to health. Reducing CO helps significantly in the battle against air pollution."

He continued, "Our research shows that with focus on specific policies and technologies, particular emissions can be curbed and this has seemed to work in the case of Carbon Monoxide. The challenge now is to translate this success into steps to reduce other harmful pollutants. While our air can be said to be cleaner in terms of CO, Nitrogen oxides and black carbon emissions have soared."

The team used high-precision measurement equipment based at Royal Holloway College in Egham, but also found similar declines in even the most traffic-populated regions of London, including Marylebone Road, show. The authors argue that the clean-up of petrol cars was effective, but recognise the challenge facing diesel vehicles.

Professor Euan Nisbet, said: "It may be another ten years before we see the same kind of positive impact on diesel emissions. Recent events in emissions measurement, with companies such as VW being caught out for inaccurate measurement have brought this issue to the forefront of consumer and policy-maker thinking which we hope will translate into positive action."

Provided by Royal Holloway, University of London

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