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“Do slow cars reduce pollution? It’s difficult to say.”

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Does travelling at less than 30 km/h produce less pollution? **It is very difficult to say**. This is what **Giorgio Martini**, a researcher at the Joint Research Centre in Ispra, and an expert in motor vehicle emissions, has said. We contracted the researcher after the measure was adopted by Saronno Town Council to combat pollution. The ordinance, **which limits the speed to 30 km/h**, which has been in force since last Sunday throughout the town, and which will remain in force **until 15 March**, has caused a number of controversies among the people and politicians.

“First of all, I can’t comment on the ordinance itself,” Martini explained. “On the **purely technical-scientific aspect of the ordinance**, whether we can say that reducing the speed leads to a reduction in the emission of fine particles, there **are many factors that must be taken into consideration**. This is because some factors do indeed reduce the emission, but others increase it. Understanding what the effect is, **is very complex**, it needs to be analysed in detail.”

Martini explained to what extent traffic contributed to the emission of fine particles in the air. “The PM10 that comes out of exhaust pipes, **is not what we find in the air**, it undergoes complex chemical-physical transformations. Traffic contributes in three different ways: in addition to the **exhaust emissions**, we should consider the dust **that comes up from the road**, and then **wear on the tyres and brakes**. Even if we could exchange all cars for those with electric motors, we’d still have wear on the tyres and brakes.”

However, the main problem **is still the exhaust emissions**. “If we consider the exhaust emissions, there are the **primary particles** (from the exhaust pipes) and the **secondary particles** (from the chemical-physical reactions in the atmosphere). The latter account for **most of the pollution** at the moment; it remains suspended in the air for several days. This explains why it’s **pointless** to stop the traffic for only one day.”

After this introduction, Martini explained why **he could not give an answer** in favour of, or against reducing the speed. “For some of these factors, reducing the speed will bring the levels down, but for others, it will increase them. For example, it’s been shown that, at a speed of 30 km/h, **Euro 5** vehicles emit as much nitric oxide as **Euro 1 and 2** vehicles. It’s also true that, in the town centre, reducing the speed from 50 to 30 **doesn’t produce such a great difference**. Saying whether or not there are benefits is very difficult. **An analysis should be made, but it’s difficult to give a final answer**, also because this is cutting-edge research. In any case, we should at least make an effort.”

Redazione VareseNews
redazione@varesenews.it