

# A new device for detecting gas leaks

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Gas detection camera. Credit: UC3M

Sensia, a spin-off company which Universidad Carlos III de Madrid (UC3M) has a share in, has developed a system that detects fugitive gas emissions which are harmful and pollutant to the environment. This technology minimises the chances of gas leaks occurring in industry and can also be used in the home environment.

Industries that use or transport gas run the risk of leaks, with the dangers that this entails. "On the one hand, there may be issues as regards safety, because those gases can be toxic or poisonous; on the other hand, issues may arise at environmental level, given that other gases have a greenhouse effect far greater than that of CO<sub>2</sub>," explains the CEO of Sensia Solutions, Francisco Cortés, who is also a researcher at UC3M's Laboratory of Remote and Infrared Image Sensors.

To detect these leaks, Sensia has developed an innovative product that combines two technologies (Sniffer and Optical Gas Imaging) connected via bluetooth which traces and measures the amount of gas emitted. "To carry out an inspection in a facility, we record a video with our devices, which allows us to ascertain with precision whether a fugitive gas emission is occurring or not. If so, we then use other devices that allow us to measure the amount of gas that is leaking," Cortés adds.

With this technology, Sensia is providing a solution to this problem at an affordable price. In addition, its deployment in operation and maintenance tasks could reduce the carbon footprint that stems from [gas leaks](#) by up to 70 percent.

According to the company, the device is intended for industrial use, although it may be used in the home environment for monitoring potential leaks in boilers or vehicles powered by gas, for example.

One of the factors which have facilitated the development of this product is Sensia's connection to UC3M and its Science Park. This has enabled it to "be at the cutting edge globally," according to Cortés. "Thanks to all the research that has been conducted at the university over many years, ours is the only company in the world providing solutions related to the detection of fugitive emissions which are genuinely affordable," he adds.

After two years of development with European funds, this system is already commercially available. This is one of the most significant accomplishments of Sensia's GaSeS project and the outcome of the project's first year in SME Instrument (reference number 756346), a Horizon 2020 call. Horizon 2020 is a European research programme which provides aid to companies for the development of a project through all its phases, from the evaluation and viability of the concept, to its commercialisation and the application of its findings.

Provided by Carlos III University of Madrid

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