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Cascade Technologies to speak at Optonics Photonics Conference in Security and Defence in Stockholm

Cascade Technologies, the world leader in the application of quantum cascade lasers, will attend the Optonics Photonics Conference in Security and Defence on September 11 in Stockholm to speak about its groundbreaking new technology.

Via a proof of concept Cascade Technologies has demonstrated the potential of a real-time technology for the detection of vapour traces of explosives through its revolutionary use of quantum cascade lasers (QCLs).

This technology offers previously unprecedented levels of sensitivity and the ability to quickly analyse complex gases, whilst its highly portable and robust nature has opened up a number of new and previously unavailable areas of application.

Cascade will show a live demonstration of simultaneous, real-time ambient air monitoring of air water and Nitrous Oxide, using Mid IR Quantum cascade lasers at the upcoming conference.

The instrument will be configured to demonstrate 300 Parts Per Billion of Nitrous Oxide along with 10,000 Parts Per Million of Water H₂O . Both are typical measurements in the atmosphere and by adding moisture will demonstrate changes to the water measurement while keeping the N₂O static.

The demonstration will showcase the key attributes of the technology developed by Cascade, including:

- Simultaneous measurements of different gases in a single instrument utilising a single laser
- A large dynamic range (from PPM to PPB),
- Low cross interference and unambiguous fingerprinting of multiple gases
- A small portable unit which operates at room temperature and uses no consumables.
- Applications vary from trace level emission monitoring to defence & security, explosive, chemical and narcotics detection and identification

Press Release

The conference and exhibition aims to cross the divide between fundamental optical science and the application of the underpinning technologies in advanced defence and security systems.

Leaders from the defence industries from both Europe and North America will gather to share topics and photonics technology developments as they relate to this critical industry.

Erwand Normand – Chief Scientific Officer at Cascade Technologies, who will be speaking at the conference – says: “It is apt that the conference will take place on the fifth anniversary of the attacks on the World Trade Centre. Since this time there has been a pressing need for a strengthening of security, and we have to explore different and advancing technologies in order to combat this ongoing threat of terrorism.

“We have reached a very exciting stage in the development of Quantum Cascade Lasers. Their shift out of the laboratory and into real world applications has been accelerated by the vast range of uses and markets for this technology.

“The potential for this technology is huge, it is already being used for emissions monitoring and in addition to security and defence, it can be applied to various other sectors including, health and safety and medical diagnostics.”

The four day conference and exhibition will take place in the Stockholm International Fairs & Congress Centre, Sweden from September 11 – 14.

Ends.

Notes to editors

- **Cascade Technologies** uses its revolutionary, patented core technology – based around the application of Quantum Cascade Lasers – to design, develop and supply innovative solutions for a wide range of global markets. These include the monitoring of greenhouse and general industrial emissions, hazardous gases, and explosives and drugs.

Based at Stirling University Innovation Park, Cascade Technologies currently has world-class scientists and engineers working under development and supply agreements on several revolutionary products for key blue chip clients, whilst further bespoke product development, manufacturing, marketing and distribution agreements are being sought with customers worldwide.

The company’s technology provides highly specific and sensitive measurement, whilst its portable size offers cost savings compared to competitive offerings. It is also immune to many outside influences that typically affect sensors of this type.

Issued by Beattie Communications (www.beattiegroupp.com) on behalf of Cascade Technologies

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