



- ° October 2013
- R&D driven provider of capacitive sensor technology
- based on research from the VUB Department of Electronics and Informatics (ETRO), in cooperation with iMinds vzw and sponsored by Ethias nv

Milestones

- over 50 years of expertise in the design and development of electrostatic sensors in many application domains
- combining technical expertise in analog electronics, signal processing, and numerical mathematics, with solid business insights
- launch Active Sideguard™

eXia

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Avoiding blind spot accidents with Active Sideguard™

Sensor solutions for safer traffic

About 35% of all incidents involving damage occur when reversing a truck. Even more incidents are related to misjudging the height, width or length of the vehicle. **Blind spot accidents** result in severe injuries or fatality and frequently involve vulnerable young children. Commercial vehicles – only 3% of all vehicles – are involved in 14% of fatal collisions (400 deaths per year in Europe). The legal obligation to implement blind spot mirrors since 2003, has not led to a significant decrease of accidents. Both existing active (radar or ultrasound) and passive electronic systems (cameras) produced disappointing results.

eXia Belgium nv is a spin-off of the Vrije Universiteit Brussel, Department of Electronics and Informatics, in collaboration with iMinds vzw, Belgium and sponsored by Ethias nv. As a Brussels-based fables supplier of sensor solutions, eXia develops a range of **electrostatic safety sensors to prevent these blind spot accidents**. By bringing its novel electrostatic blind spot accident avoidance technology to market, eXia wants to contribute to the European legacy of thriving leadership in high quality, technological advanced commercial vehicles.

Blind spot technology

The heart of eXia's blind spot technology consists of an electrostatic sensor array mounted on the **outside** of the vehicle, which, thanks to its sleek embodiment, easily **integrates into existing as well as new vehicle designs**, and guards the entire sides, rear and front of (school)buses and trucks. Its ultra wide detection field, combined with the 'look-around-the-corner' functionality and excellent short-range sensitivity is unique. Its design is extremely robust with regard to mechanical damage as well as weather influences.

This unique technology **assists commercial vehicle drivers to manoeuvre safely in critical situations**; in dense city traffic, at narrow loading ramps, in cluttered factory yards, or at bustling building sites. Bus drivers have a view not only of the entrances and exits of their vehicles, but are also warned of persons moving around the bus.

eXia's capacitive sensor technology is embodied in a well-defined portfolio of products & solutions:

• Active Sideguard™

Mounted laterally on a vehicle, **Active Sideguard™** is targeted to avoid right turn accidents. The product can be easily installed at any local service point. eXia provides centralized support and training for installation and maintenance. Together with our partner European wide sales and servicing networks, eXia addresses both large and small fleets.

- Sensor concept: warns the driver by means of a visual (LED display) and acoustic signal (varying pitch sound).
- Mechanical design: provides a cost effective solution for both new and existing vehicles.
- Detection range: of 1.20–2.00 m for pedestrian and cyclists. The detection range can be set accurately in software after installation, taking into account the demands of the user.
- Operating principle: works at a single low-frequency, thus unaffected by external noise.
- Robust: against atmospheric disturbances, such as rain, splash water, snow, and contamination.

• Customized solutions

Highly customized and fully integrated embodiments of the capacitive sensor technology are developed in collaboration with the client. The excellent short range sensitivity of eXia sensors makes them particularly suitable for integration into manoeuvring aids for the purpose of damage control. Through customized projects in non-exclusive partnerships, eXia seeks to extend its product portfolio towards proximity detection systems targeting buses and coaches, long-haul distribution trailers, specialty vehicles such, heavy duty machinery, airport vehicles, fire trucks, ... but also industrial applications.



"By tackling a societal problem in a sustainable way, we aim to be a reliable partner for not only a safer but also a more cost effective road experience."

CEO-Bart Truyen