

New technology gives truck drivers all-around visibility

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Volvo Trucks has developed new technology specifically to protect pedestrians and cyclists. The unique technology enables a vehicle to do a 360 degree scan of everything that happens around it. Much like a human mind works, the vehicle can interpret its environment and suggest

actions to avoid any incidents. The technology is in the test phase and may become a reality five to ten years from now.

Volvo Trucks' research shows that limited visibility is one of the main causes of heavy truck accidents with unprotected road users in Europe. Such accidents can now potentially be drastically reduced with Volvo Trucks' newly developed technology, which is the result of a unique research project called Non-Hit Car and Truck, in cooperation with Volvo Cars.

Unprotected road users such as pedestrians and cyclists are especially vulnerable in urban areas where a lot of large vehicles move around. For the first time ever it is possible to enable a vehicle to see its complete surroundings and feed information to the driver on how to avoid accidents. The technology receives information via sensors, radars and cameras placed around the vehicle. If the driver does not respond to the suggested actions, the steering or braking system can be activated autonomously.

"Today's Volvo trucks are designed to eliminate any vehicle blind spots. But in situations with heavy traffic it is easy for a driver to miss something important such as an approaching cyclist on the vehicle's passenger side. Now we can solve this issue and help the driver see and understand everything that is happening around the [vehicle](#)", says Carl Johan Almqvist, Volvo Trucks' Traffic and Product Safety Director.

Market introduction can take place within five to ten years according to Carl Johan Almqvist.

"We have the main components in place but we need to do a lot more testing in order to make sure that the system is fault-free. If we manage to solve these challenges, a future without truck accidents is within reach."

Facts, the Non-Hit Car and Truck project:

- It started in September 2010 in collaboration with Volvo Car Corporation, the ÅF Group, HiQ, Mecel and Chalmers University of Technology.
- The main objective has been to develop technologies that reduce accident risks for both passenger cars and commercial vehicles, particularly focusing on situations in which today's active safety systems are not sufficient.
- It will end in December 2014 and the results of the research will allow the development of new active safety systems which are expected to be ready for commercial introduction in [trucks](#) within 5 to 10 years' time.

Facts, Volvo Trucks' current active safety systems:

- Collision Warning with Emergency Brake – an advanced emergency braking system equipped with early collision warning to help prevent severe accidents caused by inattention.
- Lane Changing Support – detects vehicles in the blind spot on the passenger's side.
- Lane Keeping Support – monitors the truck's position on the road. When it detects the truck drifting or swaying outside its lane, a warning alerts the driver so that he or she can resume control before a serious accident takes place.
- Driver Alert Support – warns tired drivers and advises them to take a break.

Provided by Volvo

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