Concrete road barrier preventing vehicle ramming attack available for licensing

Development status

Phase 2

Feasibility study. There is a realistic design of the technology and the initial tests in the laboratory are leading to the specification of the technology requirements and its capabilities.

IP protection status

Czech Utility model granted. Czech patent application pending but not yet granted.

Partnering strategy

Co-development, Collaboration, licensing

Institution

Challenge

A team of the Czech researchers have developed and successfully tested new barrier against vehicle ramming attacks. The barrier consists of individual components with weight of no more than 50 kg so it can be easily removed when not needed. The material used was Ultra-high-performance fibre-reinforced concrete (UHPFRC) in order to create flexible barriers for increased protection. The research shows that similar products already exist – concrete or steel crash barriers, concrete panels, etc. However, there is no effective solution against the passage of a vehicle that can be transported and fitted without the use of heavy machinery in the city.

Description

The barrier´s element has three individual parts, two are 900 mm in length and one is 1500 mm in length, creating an asymmetric design. At the ends, there are steel plates which are welded to the reinforcement bars in order to strengthen the segments' ends for better interaction with the surface. - Very fast deployment on site (about 3 minutes) - Manually assembly of individual components - Using emerging material with enhanced energy absorption and dissipation capacity - Reasonable production costs and technology that is available in most countries in the world.

Commercial opportunity

The researchers are looking for manufacturing partners interested in a licensing agreement. The subject of the licensing will be know-how (barrier principle, detailed scheme of working) as well as know-how for manufacturing of the barrier device.

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