

Airbag Bicycle Helmet



POC | **Autoliv**

Whole helmet concept

Together with the helmet brand POC we launched a new airbag bicycle helmet concept in 2022.

Head injuries alone account for half of the deadly bicyclist injuries. Although it is established that helmets are beneficial to head safety, the latest Bicycle Safety report by Swedish insurance company Folksam makes the case that helmet absorption efficiency could still be greatly improved, especially when collisions occur with a car at speeds above 20 km/h (12 mph).

POC and Autoliv have been working together to assess the potential of using airbag technology in helmets. The airbag would act as the initial energy absorber while the underlying helmet would be the following energy absorber.

Boosted by the increased environmental consciousness and the emergence of e-bike commuting, the number of bicycle riders worldwide is increasing rapidly. This growth needs to be supported by an improved helmet protection, especially at higher speeds enabled by e-biking.

During the pre-study, Autoliv and POC developed the initial concepts by advanced simulation tools and conducted correlated physical crash tests.

The successful outcome of the pre-study will now lead to further testing and refinement with the objective of developing the concept further and potentially bringing a product to the market.

Contact for inquiries

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