

## Improving Automotive Passive Safety Protection for an Aging Population

(Stockholm, Sweden, November 8, 2017) – Autoliv, Inc. (NYSE: ALV and SSE: ALIVsdb), the worldwide leader in automotive safety systems, is performing crash tests in order to develop restraint systems for a population that is getting older and more diverse. Now, Autoliv is conducting research on a new crash dummy that represents an elderly female.

Passive safety requirements continue to develop through research. The target in current legislation and rating programs (such as Euro NCAP) are male, with just a few exceptions. To save more lives, Autoliv goes beyond legislations and rating programs. The first tests have been performed to develop restraint systems for a diverse population. In addition to the mid-sized male and small female dummies, there is now an elderly female dummy available for use in crash testing.

In 2030, over 20% of all drivers are expected to be older than 65 years. As the human body ages, bones lose density and connective tissue stiffens. This, among other factors associated with aging, can result in an anthropometry that has a different interaction with the seatbelt and frontal airbag.

In conjunction with the European H2020 SENIORS project, Autoliv is evaluating a new elderly female dummy. The dummy, developed by Humanetics Innovative Solutions, represents a 70 year-old female 161 cm tall and with a weight of 73 kilos. The aim of the SENIORS project is to improve safety for the elderly population using an integrated approach. Based on real life data regarding mobility and accident data for the elderly population the SENIORS-project will provide tools and evaluation methods for enhancing protection for elderly occupants, pedestrians and cyclists. Autoliv is one of the partners in the project together with Humanetics, BASt, IDIADA, TRL, LMU, Ford and FCA

"Traditionally, all restraint systems have been designed for a 45 year-old man. In frontal legal and rating tests today the driver is always a male dummy. Having an elderly dummy with a different anthropometry is a significant step forward in designing protection for older occupants," says Cecilia Sunnevång, Research Director at Autoliv Global Research. "Avariety of physical dummies in addition to scalable Human Body Models provides Autoliv and the rest of the industry with opportunities to continue the work to saving more lives in order to fulfill Vision Zero."

For more information on the SENIORS project check out http://www.seniors-project.eu/





## Inquiries:

Thomas Jönsson, Group Vice President Communications. Tel +46 (0)8 58 72 06 27

## About Autoliv

Autoliv, Inc. is the worldwide leader in automotive safety systems, and through its subsidiaries develops and manufactures automotive safety systems for all major automotive manufacturers in the world. Together with its joint ventures, Autoliv has more than 80 facilities with 70,000 employees in 27 countries. In addition, the Company has 22 technical centers in ten countries around the world, with 19 test tracks, more than any other automotive safety supplier. Sales in 2016 amounted to about US \$10.1 billion. The Company's shares are listed on the New York Stock Exchange (NYSE: ALV) and its Swedish Depository Receipts on Nasdaq Stockholm (ALIV sdb). For more information about Autoliv, please visit our company website at <a href="https://www.utoliv.com">www.utoliv.com</a>.