

# Case Study: Arriva

## Introduction

With a history dating back to 1938, Arriva has continuously adapted and evolved to become a leading provider of passenger transport services. Arriva operates 17,000 buses across 14 European countries.

The ESRC and the Technology Strategy Board co-sponsored a nine year Knowledge Transfer Partnership (KTP) between Arriva Passenger Services and Cranfield University. The research programme aimed to improve bus driver training, safety awareness and safety culture throughout the Arriva organisation.

Three researchers worked on three separate but interrelated projects. The first project led to the development of a prototype bus driving simulator for training novice drivers. The second project involved the design of an online psychometrically based assessment to measure driver attitudes that underpin decision making behaviours. The third project investigated Arriva's safety culture and provided a series of recommendations regarding management and driver supervisor training.





## Bus Driver Risk Index™

The second project resulted in the development of the Bus Driver Risk Index™, an online driver risk assessment that identifies specific behaviours that increase the risk of crash involvement when driving a bus or coach. After completion, drivers receive a personalised report giving tailored advice on how to improve safety. The report is also used for coaching purposes to address behavioural issues in driver risk.

The Bus Driver Risk Index™ is available commercially via DriverMetrics®, a wholly owned Cranfield University company. It is currently being used by leading bus and coach fleets, including Arriva and Greyhound Bus.

## Results

Arriva believes adopting the project's outcomes (the simulator, driver risk assessment, safety guidelines and courses) have helped the company to improve its safety record. It was demonstrated that the Bus Driver Risk Index™ influenced recruitment decisions and training by providing an early indication of each driver's specific training needs. In the three years following the completion of the programme, the number of fault accidents involving Arriva

bus drivers reduced by 6.5 per cent, and non-fault accidents reduced by 3.5 per cent.

The number of fatal accidents fell by 31 per cent. The project has also demonstrated the commercial benefits of improving bus driver training and creating a company culture of safety. In the three years following the project, Arriva's accident claims decreased by over £1 million. Staff turnover reduced from 24 per cent to 20 per cent, and absenteeism decreased from 6.1 per cent to 4.5 per cent.

Arriva and Cranfield University received the International Prince Michael Award for Road Safety for this project.

