

2012 Award, UK



TrackSafe by Bombardier Transportation

Theme Embedded and critical systems

Altran UK has a partnership with the Institution of Engineering and Technology (IET). Sharing and advancing knowledge, the IET and its members seek to enhance people's lives around the world. Altran UK bases its national Award on the winner of the IET Award, which is nominated automatically. <http://www.theiet.org/>

Laureate TrackSafe

In the United Kingdom, the 2012 Altran Foundation Award has been awarded to Bombardier, for its TrackSafe system. The system is designed to improve safety and productivity for railway track workers. Since the advent of subway operations, the task of inspecting and maintaining track, signals and related wayside infrastructure has been essential to moving millions of people every day. It has also been one of the most hazardous jobs in the rail industry. Track workers need advance warning of an approaching train, and train operators require advance warning of workers' presence.

TrackSafe is a Bombardier turnkey solution that creates improved location awareness for track workers and train operators. TrackSafe offers an additional element of protection by providing highly relevant alerts to track workers and train operators in real time.

TrackSafe has the potential to have a major social impact because on a global scale it would improve both trackside worker safety and urban transportation productivity.

The TrackSafe system combines developments in radio frequency identification (RFID) technology, communications/networking, microcontrollers, computing, LED technology and solid state audible devices to produce warnings to train operators that they are approaching track workers and vice versa. The innovation lies in the way in which all of these technologies are combined into a system with enormously valuable capabilities. It also provides "real time" visibility of track worker deployments through a transit/railway system.