Transferring Customers Across Tracks

What is the situation?

Network Rail is a safety critical company and prides itself on focussing on the customer and their safety, ensuring they get home safe every day. At many of our buildings and stations the greatest safety risk for our passengers and staff is through slips, trips and falls. During 2016-2017 there were 3,408 (Rail, 2016-17)slips, trips and fall related injuries to passengers on the mainline railway. It is unacceptable to think that across the network there are approximately 10 people per day going home injured due to slips, trips and falls.

There is significant use of safety signage at stations and various safety messages over the personal address systems advising passengers to be careful at our stations and to use the appropriate method of transportation, i.e. lift, escalator or stairs, depending upon the need of that person.

Despite these methods, however, slips, trips and falls are still prevalent and still remain the highest cause of accident on the infrastructure. The main cause of these incidents is when passengers use the stairs to change levels when accessing the platforms and concourse - if this can be mitigated then it will help to reduce the overall risk of slips, trips and falls.

As stations become busier and serve a larger, ageing population, the need to find more innovative ways to transport customers around our buildings and stations to prevent accidents is increasingly relevant.

Priority problems

Specific priority problems
- Slips, trips and falls pose the greatest risk to passengers at our buildings and stations.
- Changing levels to access the platforms and concourse is the main cause of these accidents.
- High numbers of injuries due to slips, trips and falls on our infrastructure gives Network Rail a poor reputation with regards to passenger safety.

Analysis of causes

Benefits
- Reduce the number of slips trips and falls in buildings and stations.
- Create a safer mode of transport for moving passengers around building infrastructure.
- Improve passenger flow and use of building infrastructure.

Related goals
- Reduce the number of accidents, injuries there are on Station infrastructure.

Scope

The aim of this project is to develop technology to reduce the need for pedestrians to change levels at Network Rail’s buildings and stations.

This means reducing the risk of slips, trips and falls to passengers in Network Rail’s buildings and stations, therefore reducing the overall number of accidents on the infrastructure.

The aim is to create an innovative solution that will allow passengers to pass between platforms without the need to change levels, whilst reducing the number of decision points in that process, allowing the passenger to reach their destination.

Specific research needs

To address these challenges it is expected that R&D actions will need to focus on the following aspects:
- Create an innovative solution to reduce the need for passengers to change levels when accessing the platforms and concourse.
- Create a solution to reduce the need for passengers to change levels between boarding a train and the platform interface.
- Reduce the risk of slips trips and falls occurring on Network Rail building infrastructure.
- The focus of this will be on two track railway infrastructure, specifically looking at how to get from platform to platform without changing the level. (There may be more than one solution depending on how the layout can be developed).