

Since its inception, Great Western Research (GWR) has set about promoting collaborations between the highest quality research groups and the most forward thinking businesses in the South West, in order to support the growth of the region and to demonstrate just what is possible when academics and businesses collaborate.

Greener Travel through Bike-Rail Integration

Henrietta Sherwin's research, supervised by Dr. Graham Parkhurst, University of West Of England (UWE), Derek Robbins, University of Bournemouth, Dr Ian Walker at University of Bath, and corporate sponsor First Great Western (FGW) has explored how cycling in combination with rail ('bike-rail integration') can give rise to a much wider set of options for travellers who either currently drive to the station, make an entire journey by car or indeed hail a taxi upon arriving at a station when going on to their final destination.

On average, only 2% of rail passengers in the UK access stations by bicycle compared to a figure of 40% in The Netherlands. 'Bike-rail integration', therefore, has the potential to fundamentally change the way commuters travel to work and rail users in general access stations, bringing environmental, health and economic benefits to the South West. Henrietta's research has also investigated existing behaviours in order to establish how more people can be encouraged to make the choice to leave their car at home and adopt cycling as their mode of transport.

Research conducted at Bristol Temple Meads and Bristol Parkway used a range of methodologies to investigate travellers that already bike-rail integrate, and provide insights into the practical, social and, particularly,

psychological barriers to bike-rail integration. The findings were then used to inform the design of two interventions as part of an action research phase.

Henrietta's interventions turned out to be timely in the context of the publication of the Government's White Paper "Delivering a Sustainable Railway" in supporting more sustainable access. Her research coincided with changes to trends in travel planning and has helped to pioneer the concept of 'station travel plans,' with one of the national station travel plan pilots growing out of studies that were carried out at Bristol Parkway station.

Specific practical improvements have been made at Bristol Parkway Station including the provision of new cycle parking that can be locked at night for extra security and peace of mind. In addition, Hourbike, the pay-as-you-go cycle network, implemented as part of Henrietta's research, has provided some of those working in the vicinity of Bristol Parkway with the additional option of hiring a bicycle using a swipe card. Henrietta's second intervention was the design and implementation of a 'workable practice' using social marketing to attract new users to rail who were known to be driving to their place of work near Bristol Parkway station but lived within walking or cycling distance of a railway station.



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Both interventions required building collaborations across institutions and included working with FGW trains, Bristol City Council, South Gloucestershire Council, Hourbike and the University of the West of England travel planner and are applicable in a range of travel environments. A further development of the social marketing exercise is being planned with the Severnside Community Rail Partnership and other employers in the Bristol Parkway area to pilot the sale of carnet tickets for occasional rail commuters so that they can enjoy similar discounts available to more frequent commuters through season tickets.

Andy Saunders, Integration and Partnerships Manager at First Great Western commented ***“We were really pleased with the outcome of the GWR PhD - when we started we were not quite sure where it was going to lead, but it’s been very useful, particularly for making our bike engagement evenings with cyclists at Paddington station a success. Working with Henrietta on our Cycling Policy, has been very useful, especially with regards the pinch points – her input has proven invaluable.”***

Henrietta’s findings have been used to inform government policy, investment decisions within the rail industry and contribute to more sustainable mobility. Her work has been disseminated through the Association of Train Operating Companies integration group and Henrietta has given a lecture on her research to the Chartered Institute of Logistics and Transport and published an article in their magazine ‘Focus’.

Henrietta has also co-authored a chapter in ‘Passenger Road Transport in Transition?’ looking at intermodality as an innovative

development in sustainable transport systems, alongside Graham Parkhurst, supervisor at UWE, and co-authors Rene Kemp and Marc Dijk from Maastricht University. As well as presenting a poster at the prestigious International Annual VeloCity Conference in Brussels, Henrietta has had papers published at the Universities Transport Studies Group Conference and the Cycling and Society Symposium. At Henrietta’s suggestion, UWE hosted the 5th annual Symposium attracting academics and practitioners from the UK and Holland.

Her achievements were recognised by Universities SW at their annual conference in 2009 as an exemplar collaboration between business and academia. Henrietta is now working on a 2-year post partly supported by a Department for Transport project ‘Evaluation of Investment in Cycling’. Whilst contributing to this major evaluation study, it will create the opportunity to further develop her findings from her PhD, evaluating the cost-effectiveness of investment in cycling promotion and facilities in 18 UK urban areas.

The inspiration for the GWR concept is simple - ***“The intention is that it should increase interactions between University research groups and business, and therefore build capacity and attract more money for research”*** said Prof. David Billington, Executive Director of GWR - ***“It is about ensuring the sustainability of internationally excellent research in the South West and preparing the region for the technologies of the future, by investing in collaborative forward looking research programs”***



Bike-rail integration has the potential to fundamentally change the way commuters travel to work

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