

# University of Birmingham rail experts on board with the 2021 Transport Decarbonisation Plan

July 15, 2021



Rail experts at the University of Birmingham have welcomed and backed the government's Transport Decarbonisation Plan announced on 14th July 2021.

The plan, [Decarbonisation Transport: a better greener Britain](#) outlines commitments and actions set by the government to achieve Net Zero Transport by 2050.

## **The report headlines the below priority areas:**

- Vision: Clean transport is better transport
- How will we deliver this?
- The impact of this plan on transport's emissions
- Decarbonising all forms of transport
- Multi-modal decarbonisation and key enablers

[The Birmingham Centre for Railway Research and Education](#) (BCRRE) at the University of Birmingham is a global leader in railway research, education and innovation with a world-renowned reputation. The

government's Decarbonisation plan includes a great focus on Rail for both passenger and freight, of which BCRRE are well-placed to support and are already leading the way in developing solutions for the railway in the UK and across the world.

The plan highlights the development of battery and hydrogen trains and the deployment of these to achieve a decarbonised network. Particularly, referencing HydroFLEX, a ground-breaking collaboration project between Porterbrook and the University of Birmingham.

Dr Stuart Hillmansen, Reader in Railway Traction Systems and HydroFLEX lead says, "the use of hydrogen is key to helping to decarbonise our railways. We are working with industry to develop and apply the technology for the next generation of rail vehicles.

It is very exciting to see that HydroFLEX has been referenced in the plan and more importantly has received recognition across the industry. It is the perfect example of how industry and academia with government backing can work together to achieve cleaner, greener railways."

BCRRE is home to the Centre of Excellence in Rail Decarbonisation, underpinned by six core capability areas that will help deliver the government's decarbonisation plan for transport across the UK. These core areas are: Sustainable Traction Systems; Aerodynamics; Power Electronics and Energy; Geotechnical Engineering and Asset Management; Sustainable Infrastructure; and, Climate Adaption and Rail Resilience.

Alex Burrows, Director of BCRRE says, "decarbonisation is one of three railway grand challenges (along with digitalisation and innovation) that needs a strategic, whole-sector approach with government, industry and academia working together to utilise all of our knowledge and experience in order to develop the right solutions.

"These ideas will exploit developing technologies combined with academic R&D expertise and practical experience to generate innovative solutions that will, in turn, help us achieve the outcomes we seek to achieve Net Zero. Here at BCRRE we are rising to the challenge, demonstrated by a number of cutting-edge projects including HydroFLEX, the UK's first hydrogen train.

"Our experts within the Centre for Excellence for Rail Decarbonisation are guiding the global industry on the most effective and appropriate way to achieve net zero and full decarbonisation".