

# E-bikes: the power for change

A case study from the Workplace Engagement Project in Dumfries and Galloway. The e-bikes are used in two ways in the project:

## 1. Electric Pool Bikes

Since 2019, 11 e-bikes have made up a fleet of bikes in various locations across Dumfries and Galloway. These bikes are for staff use during work time, for short journeys such as travelling between nearby sites and house visits to patients.

E-bike usage between July 2019 and June 2020 saved **1,171kg of CO<sub>2</sub>** if the same journeys had been made by car.



The bikes' on-board computer automatically records the distance travelled with the 11 e-bikes. CO<sub>2</sub> saved was calculated as the difference between the estimated CO<sub>2</sub> production of miles in an average car (at a rate of 182g of CO<sub>2</sub>/km), and the estimated CO<sub>2</sub>e (CO<sub>2</sub> equivalent) value of riding an e-bike for the same amount of miles (at a rate of 22g CO<sub>2</sub>e/km).

The sources for these values are:

- [European Cycling Federation \(2020\)](#)
- [Greenhouse gas reporting: conversion factors 2018 – UK Government](#)

## 2. Individual Loan Bikes

During the pandemic, use of these pool bikes decreased as so many staff were working from home and not making trips for meetings. This freed up some of the bikes to be loaned to individuals for commuting. This was so successful that we bought an additional four bikes to be available to loan to staff to try on their commute.

Many e-bike loan beneficiaries discussed the benefits this has had on their wellbeing, physical activity and confidence.

***“Having a bike makes you feel better mentally as you can go out on beautiful roads and enjoy the calmness, and it acts as stress reliever from a busy job routine.”***

***“I loved being able to do some form of exercise again. I had never been on a bike for years but the e-bike gave me the confidence to try and ride a bike again.”***



Two Dumfries NHS workers, one of whom had never cycled and the other recovering from heart surgery, say cycling to work is one of the best decisions they've made. [Watch here.](#)

One staff member has gone on to buy their own e-bike after participating in an e-bike loan.

***“I am also really happy to see that the bike can be loaned to staff to take home for a few days and really try it out. This is great as well and I know many of them hope to be able to take advantage of that.”***

92% of key workers who loaned an e-bike stated the loan helped increase their levels of physical activity and 67% of key workers who participated were intending on purchasing their own e-bike after the loan.