



MONITORING & EVALUATION

LOCAL SUSTAINABLE TRANSPORT FUND PROJECT FINAL REPORT

Derby City Council
November 2016





FULL LIST OF OUTPUT INDICATORS

As at end of March 2016

NUMBER	NAME	OUTPUT
Primary Output Indicators		
POI 1	No. of workplaces engaged in Travel Advice Service	252
POI 2	No. of workplaces awarded grants	24
POI 3	No. of individuals engaged in personalised travel planning	1,861
POI 4	No. of car share website journey matches	10 ¹
POI 5	No. of Wheels to Work bicycle loans / purchases	372
POI 6	No. of new employment sites occupied	Nil
POI 7	No. of bus services improved	3
POI 8	No. of bus taster tickets issued	1,415 ²
POI 9	Total length of new / improved cycle routes	7.9km
POI 10	No. of adults participating in cycle training	318 ³
Secondary Output Indicators		
SOI 1	No. of workplaces engaged in personalised travel planning	50+ ⁴
SOI 2	No. of unique hits to Connected website	201,168
SOI 3	No. of hits to online journey planner	15,453 ⁵
SOI 4	No. of car share website registrations within target area	220
SOI 5	No. of travel information display users	298,255
SOI 6	No. of Wheels to Work moped loans / purchases	51
SOI 7	No. of bus stops in key corridors with major improvements (e.g. RTP1, MOGO screen, raised kerbs)	39
SOI 8	No. of buses upgraded with WI-FI	44
SOI 9	No. of employers' subsidised tickets (discounted annual passes) issued	3
SOI 10	No. of job seeker / new employee discounted bus tickets issued	2,622
SOI 11	No. of interactive smartphone touch sign uses	17,460 ⁶
SOI 12	No. of led ride participants	150+
SOI 13	No. of cycle parking spaces introduced	472
SOI 14	No. of cycle maintenance workshop participants	220
SOI 15	No. of Bike Back Derby bicycles distributed	706
SOI 16	No. of job seekers engaged in Bike It	180

¹ Members confirmed as sharing a regular journey.

² As at end of March 2015.

³ Figure lower than the 535 adults reported as trained in Connected's March 2015 Progress Update, due to confusion between number of trainees and number of cycle training lessons. 967 cycle training lessons delivered by end of March 2016.

⁴ As at end of March 2015.

⁵ As at end of March 2015. Update not available due to technical fault.

⁶ As at end of August 2016.



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INTRODUCTION

In Summer 2012, Derby City Council was awarded a £4.9 million grant through the Department for Transport's Local Sustainable Transport Fund (LSTF). This was to deliver a comprehensive programme of sustainable transport initiatives, targeting the south-east quadrant of Derby, until March 2015.

Connected: Keeping Derby Moving

The resulting project was Connected, which was delivered by Derby City Council, working in conjunction with a range of local partners. It aimed to enable and inspire more people to use sustainable transport for their journey to work, so that:

- there is less congestion, reducing local carbon emissions and benefiting the local economy; and
- more people can get to work, and local employers have access to the widest possible labour pool.

In March 2014 Connected successfully applied for further funding and was awarded another £960,000 to continue delivering initiatives in 2015/16. The project ended in March 2016.

Monitoring and evaluation of Connected

In its funding bid, Connected's work with commuters and employers aspired to achieve the following outcomes in the target area by March 2015:

1. Reduce car driver mode share for commuter trips by 10% and increase commuting by sustainable modes.
2. Achieve a lower initial car driver mode share for travel to work at new employment sites than the existing average (63%).
3. Increase patronage on improved bus routes serving employment sites by 20%.
4. Increase cycle activity on main cycle routes to employment sites by 6%.

Connected encompassed a wide range of initiatives; of various types, scales and transport modes. Therefore ten **Primary Output Indicators** and 16 **Secondary Output Indicators** were selected to illustrate the scope of the outputs delivered by the project (see inside front cover for a full list of these and outputs achieved by March 2016).



Based on these outcomes and outputs 11 **Monitoring & Evaluation Indicators** were developed to assess the key effects of Connected:

- M&E1** *Commuter trips mode share*
- M&E2** *Workplaces engaged in Travel Advice Service*
- M&E3** *Individuals participating in personalised travel planning*
- M&E4** *Wheels to Work bicycle and moped loans / purchases*
- M&E5** *Mode share at new employment sites*
- M&E6** *Bus patronage on routes serving employment sites in the target area*
- M&E7** *Bus taster tickets issued*
- M&E8** *Employers' subsidised tickets issued*
- M&E9** *Cycle activity on main cycle routes*
- M&E10** *Adults participating in cycle training*
- M&E11** *Bike Back bikes distributed*

Transport for Quality of Life have carried out independent monitoring and evaluation of Connected. In 2014 they conducted an interim assessment of the available data related to each Monitoring & Evaluation Indicator, to record Connected's achievements as of Spring 2014, after the project's first full financial year of operation⁷.

This final report presents the findings of Transport for Quality of Life's assessment of all data related to the Monitoring & Evaluation Indicators up to March 2016. Each of the following sections outlines the key findings pertinent to each Monitoring & Evaluation Indicator, or to a number of these where the monitoring data for them is interlinked.

Did Connected achieve its intended outcomes?

The data relevant to the four target outcomes is discussed in the sections covering the four relevant Monitoring & Evaluation Indicators. Headline findings, as they specifically relate to the four target outcomes, are:

1. Reduce car driver mode share for commuter trips by 10% and increase commuting by sustainable modes: At the ten workplaces studied, there was on average a 6 percentage point decrease in drive alone commuting, with a corresponding 6 percentage point average increase in commuting by sustainable modes. *See more in Section 1.*

2. Achieve a lower initial car driver mode share for travel to work at new employment sites than the present average (63%): At two of the three large employment sites, which expanded and had Section 106 travel plans, drive alone trips reduced by 14 percentage points to 49% (Derby Hospitals NHS Foundation Trust – Royal Derby Hospital) and 10 percentage points to 69% (Rolls Royce Marine Power)⁸. Although baseline mode share varied, these reductions in drive alone trips were larger than those achieved on average (i.e. 6 percentage point reduction). *See more in Section 3.*

3. Increase patronage on improved bus routes serving employment sites by 20%: On Route 73 by 2015/16 patronage was 55% above pre-LSTF levels. On Route 111 patronage was 32% above pre-LSTF levels by 2015/16. A notable improvement on both routes; averaging 44%. *See more in Section 4.*

4. Increase cycle activity on main cycle routes to employment sites by 6%: Most of the automatic cycle counters do not show a strong change compared with the pre-LSTF baseline cycling levels. However, on the Riverside Route, which was the focus for significant improvement works and had a relatively robust dataset, cycle flows increased by about 200 cyclists per day during the working week by 2015 – a rise of over 20% in the summer months. *See more in Section 5.*

⁷ Local Sustainable Transport Fund Project: Monitoring and Evaluation Progress Report: Spring 2014 (2015) Transport for Quality of Life for Derby City Council.

⁸ Post-intervention data was not available from the third site.



M&E1 / M&E2



1

COMMUTER MODE SHARE
AND WORKPLACE ENGAGEMENT



COMMUTER MODE SHARE AND WORKPLACE ENGAGEMENT

{M&E1 / M&E2}

By March 2016 the Travel Advice Service (TAS) had contacted 391 local workplaces. Of these 252 (64%) actively engaged with TAS, taking action to make themselves more accessible by sustainable transport, for the benefit of their 33,326 staff and other visitors.

As part of this TAS helped 229 workplaces prepare travel action plans and 195 to carry out staff travel surveys.

Connected Accreditation Scheme

In April 2016, 107 workplaces were endorsed by the Connected Accreditation Scheme (compared to 58 in 2014), recognising businesses' achievements in improving sustainable transport.

- 14 were awarded Recognition
Joined Connected for Business network and expressed an interest in receiving support.
- 49 were awarded Bronze (Engaged)
Completed a Travel Action Plan, conducted a staff travel survey and secured senior management support.
- 31 were awarded Silver (Active)
As Bronze, plus: promoting sustainable travel and sustainable travel incentives.
- 6 were awarded Silver + (Active)
As Silver, plus: active throughout the past three years and initial reduction in car use.
- 7 were awarded Gold (Advanced)
As Silver, plus: reduced single occupancy car use, independently marketing & incentivising sustainable travel, participating in smarter travel campaigns and independently updating & maintaining Travel Action Plan.

Workplace grants

Connected's workplace grant scheme helped to fund sustainable transport improvements at workplaces. Grants were awarded in all three years of the programme.

- 24 grants were awarded between 2013 and 2016, totalling £198,951 and releasing £287,311 in match funding from the workplaces themselves.
- Showers, changing facilities and cycle parking were the most commonly funded improvements.



How did we monitor changes in sustainable commuting?

We analysed staff travel survey data from ten workplaces that Connected engaged with, in order to assess the level of mode shift on their staff commute from drive alone to sustainable modes. These ten workplaces were selected because they:

- a) Had data from both before, or at the start of, their involvement with Connected (i.e. pre-intervention); as well as data from a follow-up survey a year or more afterwards (i.e. post-intervention).
- b) Had a good response rate for these surveys, i.e. more than 50 members of staff had participated in both their pre- and post-intervention surveys⁹.

While the survey timings and methodologies for each workplace were not always identical¹⁰, their results can be aggregated to provide a snapshot of the mode shift achieved by workplaces engaged with Connected.

Overall, although some of the numbers for individual modes are small, this analysis gives an indication of the positive shift towards more sustainable commuting achievable by workplaces that engaged with Connected. It also illustrates the magnitude of change the Connected approach to workplace engagement is capable of achieving at individual workplaces.

Did Connected help workplaces get more staff commuting sustainably?

Figure 1.1 shows the percentage point change in drive alone and sustainable modes commuting trips for each of the ten workplaces. **Overall eight achieved an increase in sustainable commuting.** One workplace remained broadly the same and one workplace experienced a reduction in sustainable commuting.

At these ten workplaces **drive alone commuting trips decreased by 6 percentage points on average** – from 65% at baseline to 59% at follow-up. **Commuting trips by sustainable modes¹¹ increased by 6 percentage points on average** – from 34% at baseline to 40% at follow-up.

Car sharing trips accounted for half (3 percentage points) of this increase in sustainable commuting, with walking, cycling and public transport trips accounting for a further 1 percentage point each.

What do we know about the scale of change for individual modes of travel?

- At the eight workplaces where drive alone commuting trips fell, the decrease ranged from 3 to 14 percentage points, and was on average 9 percentage points.
- At the eight workplaces where sustainable commuting trips increased, the increase ranged from 3 to 12 percentage points, and was on average 8 percentage points.
- More workplaces were successful at increasing active travel (8 workplaces) than passenger transport use (6 workplaces). However, where positive changes in passenger transport mode share were achieved, these were of the same order as positive changes in active travel use (i.e. an increase of 4 percentage points).
- Average percentage point increases in the use of individual sustainable modes were low, however this is in proportion to their small baseline mode share. In some cases individual workplaces achieved quite significant increases in these modes, as high as 8 percentage points for car sharing, 7 percentage points for bus, 6 percentage points for train, 4 percentage points for walking and 6 percentage points for cycling.
- Car share was the mode with the most significant impact on sustainable mode shift – accounting for half of the overall increase (3 percentage points). At workplaces' experiencing a positive shift in car sharing the average increase was 5 percentage points.

See Table 1.1 for more detail.

⁹ Total number of survey responses n=6,825. Number of survey responses per survey ranged from 53 to 2,556. Response rate per survey ranged from 3% to 45% of staff. Only three surveys had a response rate of less than 10%, but these were completed at large workplaces, so the number of responses was still notable [n:ranging from 72 to 612].

¹⁰ Surveys were carried out at different times, with different intervals between pre- and post- intervention surveys. The context, level of activity and level of engagement at each workplace was unique. Some surveys used in-house survey forms with bespoke wording for the key mode share question.

¹¹ Including bus, car sharing, cycling, Park & Ride, train and walking.



What do we know about sustainable commuting at individual workplaces?

The workplaces achieving the largest shift in each category are shown in Figure 1.2. Notable amongst these are:

- Rolls Royce (Raynesway) and Webhelp (both +12 percentage points) and Derwent Living (+11 percentage points), who had the biggest shifts towards more sustainable commuting.
- Derbyshire Healthcare NHS Foundation Trust (-14 percentage points), Derwent Living (-12 percentage points) and Webhelp UK (-10 percentage points), who had the biggest reductions in lone drivers.
- Derbyshire Healthcare NHS Foundation Trust, whose 8 percentage point increase in car sharing was the biggest increase in any single mode.

What was the overall impact?

Using data on the scale of these ten workplaces (i.e. the number of employees) and the effect size (i.e. the change in car use and car sharing, from survey data), it is possible to estimate the order of magnitude of car mileage and carbon savings resulting from the shift to more sustainable modes at these workplaces. The estimate is based on the following assumptions¹²:

Average distance to work (miles)	5.9
Trips to / from work per year	480
Car mileage conversion factor to CO ₂ equivalent (kg CO ₂ e for an 'average car')	0.304858

The Travel Advice Service is estimated to have reduced car mileage at these ten workplaces by 5,437,000 miles per year, and to have achieved carbon savings of 1,658 tonnes CO₂e per annum¹³.

¹² Average distance to work figures based on PTP one month post intervention survey; trips to / from work assume 48 working weeks per year; car mileage conversion factor based on passenger vehicles' tab of a 17.02.2015 download of the dataset (2014) of conversion factors from the DEFRA Greenhouse Gas Conversion Factor Repository at www.ukconversionfactorscarbonsmart.co.uk as recommended in DEFRA's Greenhouse Gas Emissions Reporting Guidance: 0.18943 kg CO₂e per km (0.304858 kg CO₂e per mile) for an 'average car'.

¹³ The eight workplaces which reduced drive alone commuting trips (i.e. excluding the two workplaces where drive alone commuting increased) are estimated to have collectively reduced car mileage by 5.6 million miles per year, and achieved carbon savings of 1,704 tonnes CO₂e per annum.



Table 1.1:
Mode share changes by mode and mode category (10 workplaces)¹⁴

Mode	Number of workplaces where mode shift occurred			Baseline mode share	Average mode shift		Mode shift range
	Positive change	Stayed the same	Negative change		All workplaces	Workplaces experiencing positive mode shift	
Drive alone	8	1	1	65%	-6% points	-9% points	-3-14% points +7% points
All sustainable modes	8	0	2	34%	+6% points	+8% points	+3-12% points -1-7% points
All passenger transport	6	1	3	14%	+0.5% points	+4% points	+1-9% points -2-12% points
All active travel	8	-	2	13%	+2% points	+4% points	+2-5% points -2-8% points
Car share	7	1	2	8%	+3% points	+5% points	+2-8% points -1-3% points
Bus	5	1	4	10%	+0.5% points	+4% points	+2-7% points -1-9% points
Train ¹⁵	4	3	2	4%	+1% points	+3% points	+1-6% points -1-3% points
Walk	7	1	2	6%	+1% points	+2% points	+1-4% points -2% points
Cycle	7	2	1	6%	+1% points	+3% points	+1-6% points -9% points

■ Workplaces where change is positive

■ Workplaces where change is negative

Base: respondents to workplace-specific pre-a and post-intervention staff travel surveys (N=6,835 people; response rate=3%-45%). See Footnote 9 for more detail.

¹⁴ For all column headings, 'positive' and 'negative' change indicates where percentage point changes are respectively beneficial or not beneficial for an overall shift towards sustainable commuting. Therefore a negative percentage point change in drive alone mode share is a 'positive' change.

¹⁵ Only data from nine workplaces was analysed for train use, as one workplace survey did not disaggregate train mode share.



TRAVEL ADVICE SERVICE

252
WORKPLACES

worked with the Travel Advice Service to become more accessible by sustainable transport.



229

Travel Action Plans

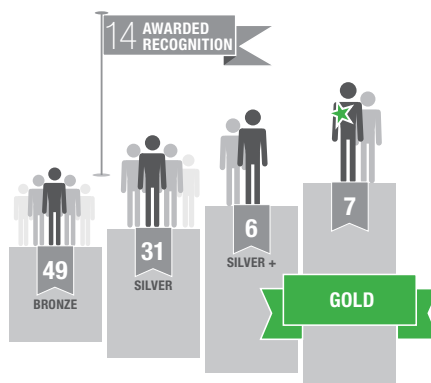
195

Staff Travel Surveys

CONNECTED ACCREDITATION SCHEME

107
WORKPLACES

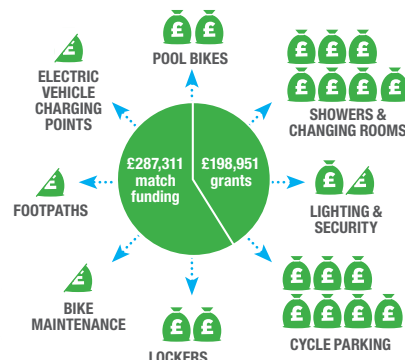
endorsed in April 2016 for improving sustainable commuting.



WORKPLACE GRANTS

24
AWARDED

to March 2016, with showers, changing facilities and cycle parking the most popular improvements.



COMMUTING TO WORK

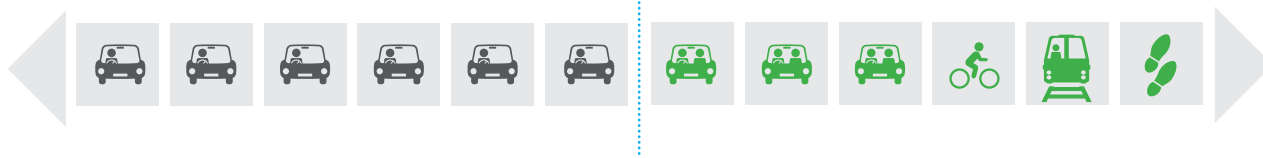
MODE SHIFT

-6pp

DRIVE ALONE commuting trips

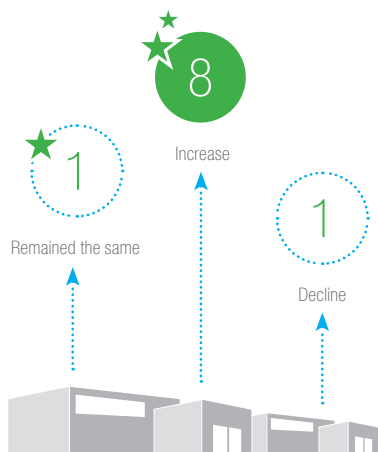
+6pp

SUSTAINABLE MODE commuting trips



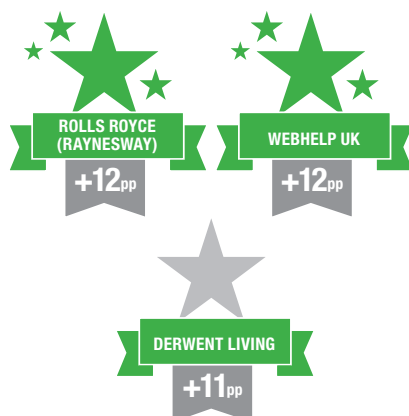
SUSTAINABLE COMMUTING

The majority of workplaces got more people commuting by sustainable modes.

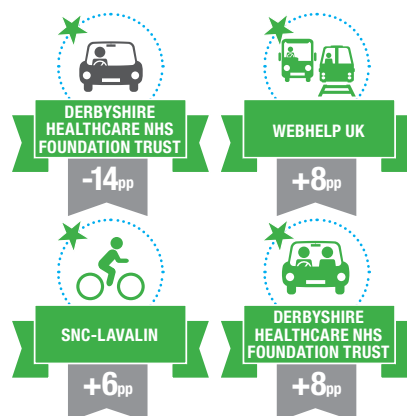


MOST SUSTAINABLE WORKPLACES

Biggest shift to sustainable modes



Individual modes



Based on 61,825 employees at ten workplaces, with more than 50 employees completing pre and post intervention travel survey. pp = percentage points