WWW.FRONTIER-ECONOMICS.COM

CYCLING AND WALKING INVESTMENT STRATEGY (CWIS) EVIDENCE REVIEW

A report for the Department for Transport

26 JUNE 2024

Contents

Executive Summary 4

1 Introduction 13

1.1 Overview 13

1.2 Purpose and scope of this report 15

1.3 Methodology 18

1.3.1 Framework 18

1.3.2 Collating the data on spending and what is delivered 23

1.3.3 Preliminary assessment of potential outcomes 27

2 Findings 29

2.1 Objective 1: Comparing projected, allocated and delivered investment 29

2.1.1 Revisions made to original projected investment 30

2.1.2 Comparison of revised projected investment and allocated investment 31

2.1.3 Comparison of allocated investment, delivered investment and future planned investment 32

2.1.4 Analysis of capital and revenue investment for CWIS1 and CWIS2 37

2.1.5 Analysis of dedicated and non-dedicated funds for CWIS1 and CWIS2 39

2.1.6 Analysis of investment by the largest funds in CWIS1 and CWIS2 41

2.1.7 Future planned investment for CWIS3 42

2.2 Objective 2: Collate outputs and preliminarily assess outcomes 43

2.2.1 Outputs reported by projects 43

2.2.2 Preliminary outcomes assessment 46

2.3 Objective 3: Data and evidence recommendations to inform the development of CWIS3 60

2.4 Conclusion 64

Annex A Data limitations and assumptions 66

A.1 Limitations with investment data 66

A.2 Limitations with deliverables (outputs and outcomes) data 69

frontier economics

A.3 Assumptions to derive share of non-dedicated funds' active travel investment 69

Annex B Detailed output and outcome tables 75

Annex C Details on previous evaluation materials 80

EXECUTIVE SUMMARY

Background and purpose of report

The first and second Cycling and Walking Investment Strategies (CWIS1 and CWIS2) published by the Department for Transport (DfT) in 2017 and 2022 respectively, set out the ambition '…to make cycling and walking the natural choices for shorter journeys, or as part of longer journeys' in England.[1] CWIS1 covers the period from April 2016 to March 2021, and CWIS2 covers the period from April 2021 to March 2025. The CWIS2 document announced that £3.2 billion had been invested in CWIS1 and that £3.6 billion of investment was expected for CWIS2.[2] This funding is to support progress towards four objectives for 2025:

- Increase the percentage of short journeys in towns and cities that are walked or cycled from 41% in 2018–19 to 46% in 2025;[3]
- Increase the number of walking stages per person to 365 per year;
- Double the number of cycling stages from 0.8 billion in 2013 to 1.6 billion in 2025; and
- Increase the percentage of children (aged five to ten) that usually walk to school from 49% in 2014 to 55% in 2025.

The government is required to submit periodic reports to parliament on the progress of each CWIS in line with the Infrastructure Act (2015) and has committed to report back to parliament on the progress of CWIS1 and CWIS2 to date alongside the publication of CWIS3. To inform DfT in preparing its report to parliament, DfT and Active Travel England (ATE) jointly commissioned Frontier Economics and SYSTRA to carry out an evidence review of both CWIS1 and CWIS2.

This report summarises the findings of this review with the intention of meeting the following project objectives:

1. Compare projected (original and revised), allocated and delivered investment on each of the relevant CWIS1 and CWIS2 funds. For the purpose of this evidence review the following definitions are used:
    - *Original projected investment*: the value of the projected active travel investment for CWIS1 and CWIS2 (together covering the period from April 2016 to March 2025) as laid out in the Cycling and Walking Investment Strategy Report to Parliament 2022 (for CWIS1) and the Second Cycling and Walking Investment Strategy (for CWIS2);

1 DfT (2017) *Cycling and Walking Investment Strategy*.

2 Projected investment was originally £1.2 billion for CWIS1, but it was revised up to £2.4 billion in February 2020, and then to £3.2 billion in the release of the CWIS2 document. DfT (2022) *The Second Cycling and Walking Investment Strategy.*

3 In line with the National Travel Survey, 'walking' includes all travel on foot. It is also used when people use non-motorised wheelchairs, non-motorised scooters, prams, pushchairs, toy bicycles, roller-skates and skateboards.

- *Revised projected investment:* the value of the active travel investment laid out in or calculated from published allocations for each fund, covering both CWIS1 and CWIS2 (together April 2016 to March 2025). Where available, the publicly announced funding allocations have been used; otherwise this is based on revised projections from fund representatives;[4]
- *Allocated investment:* the value of active travel investment that DfT and ATE have provided to local authorities and delivery partners covering both CWIS1 and CWIS2 periods (April 2016 to March 2025);
- *Delivered investment:* the value of active travel investment that has been spent by local authorities and delivery partners on active travel interventions, from the start of CWIS1 (April 2016) to date, taken as December 2023 (CWIS2);[5,6]
- *Future planned investment*:
  - The value of investment that is expected to be spent by funds on active travel interventions from January 2024 to the end of CWIS2 (March 2025)
  - The value of investment that is expected to be spent by funds on active travel interventions in CWIS3 (April 2025 to March 2029).[7]

2. Collate available evidence on what has been delivered to date by those funds (referred to as 'outputs' in this report) and synthesise published evaluation work relating to those funds (and others where relevant) to provide a preliminary assessment of outcomes that are likely to be observed.
3. Provide observations in relation to the data currently available and offer recommendations for DfT to consider to improve the data available for CWIS3.

This report is therefore not intended to be a process or impact evaluation of CWIS1 and CWIS2 or any of the associated funds. Its focus is on synthesising the relevant data and evidence currently available. Some of the CWIS1 and CWIS2 funds have been, or are likely to be, subject to evaluation and that work is separate to this report.

As CWIS focus on England, the evidence base underpinning this report excludes Northern Ireland, Scotland and Wales. Funding for active travel in London is not included in CWIS1, reflecting funding arrangements between DfT and Transport for London. However, recent changes, including the Emergency Active Travel fund during the COVID-19 pandemic and the

4 Fund representatives were key stakeholders from within the relevant departments and organisations, including Department for Transport (various internal teams); Active Travel England; Department for Levelling Up, Housing and Communities; Department for Environment Food and Rural Affairs; Department of Health and Social Care; Department for Digital, Culture, Media and Sport; National Highways; Sport England; and Transport for London.

5 Actual delivery or construction on the ground spent 'to date'.

6 Where possible, end dates have been aligned across funds to be December 2023. However, some funds could only report delivered investment up until an earlier end date, and therefore delivered investment is likely to be slightly underestimated.

7 This is the assumed timeframe for CWIS3 at the time of writing.

provision of funding settlements between DfT and Transport for London (TfL), mean that funding for London is included in the CWIS2 evidence.[8]

The scope of the evidence review focuses on direct walking and cycling interventions including e-cycling. Where detail was available, interventions such as public realm improvements which indirectly improve the environment and facilitate active travel have also been incorporated.

Framework and typologies used

This evidence review is underpinned by a robust framework based on the concept of the theory of change. A theory of change is a tool used to explain how an intervention is expected to meet its intended objectives.[9] For the purpose of this report, the theory of change framework describes the channels through which:

- Resources go into an intervention (inputs);
- Resources are used in various activities to result in deliverables (outputs);
- Changes are expected to result from those deliverables in the short term (short-term outcomes); and
- Changes are expected to follow in the medium to longer term (dependent outcomes).[10]

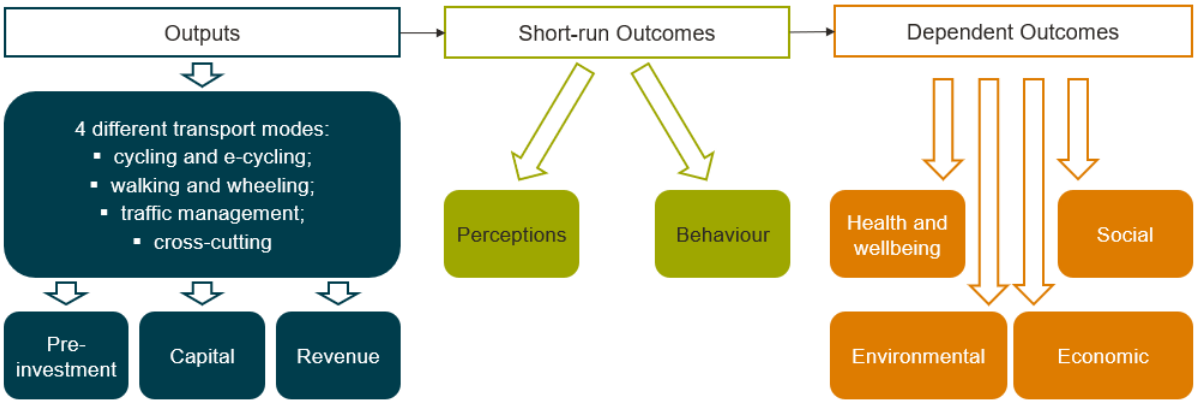
Within this theory of change framework, CWIS funds deliver a variety of outputs and outcomes. These have been categorised into typologies (Figure 1) which were agreed with ATE and DfT and reflect the typologies used in relevant guidance for DfT, other government departments and local authorities.

8 Funding for London is included on a scheme-by-scheme basis where the location information is available. In addition, funding is estimated through the TfL Healthy Streets Programme.

9 As DfT has established a theory of change for the strategy to achieve the CWIS aims and targets, developing a theory of change was out of scope for this report. This is laid out in DfT's first report to parliament: DfT (2020) *Cycling & Walking Investment Strategy Report to Parliament.*

10 In this report, dependent outcomes refer to both the second-round outcomes that follow short-run outcomes (and are therefore dependent on short-run outcomes being realised) and longer-term impacts as defined in the Magenta Book (HMT, 2020). For active travel investments, examples of second-round outcomes could include increases in physical activity. Examples of the longer-term impacts could include improvements in health or reduction in carbon emissions.

Figure 1 Active travel output and outcome typologies[11]



Source: Typologies designed by Frontier Economics and SYSTRA, and agreed with ATE and DfT

As Figure 1 shows, active travel outputs are split into four 'transport modes' and within each transport mode there are three different output categories:

- Pre-investment: plans and business cases that have been developed;
- Capital: expenditure either on new facilities or on improving existing facilities (including replacements); and
- Revenue: day-to-day spending on interventions such as campaigns or events.

For the purpose of this review, short-term outcomes refer to changes in outcomes that are expected to be seen soon after the intervention. These are split between outcomes that affect perceptions (such as confidence in cycling) and outcomes that affect behaviour (such as the number of people cycling). This review defines dependent outcomes as medium- to longer-term outcomes that can only be achieved if short-term outcomes are observed. These are split into four main categories: health and wellbeing, economic, environmental and social. Section 1.3 provides more detail on what is included in the typologies of outputs and outcomes.

Data collected to inform this evidence review

At the time of this review, there was no readily available source of data on investments across CWIS1 and CWIS2. A comprehensive data collation exercise was therefore undertaken from October 2023 to March 2024 to identify relevant funds and collate data, which involved working with the relevant fund representatives and teams responsible for each fund.

[11] Wheeling includes people who use wheelchairs and mobility scooters, who may not identify with walking. This definition is set out in DfT (2022) *The Second Cycling and Walking Investment Strategy*.

This evidence review covers 45 funds. Investment data was reported from funding organisations relevant to 39 funds.[12] Data on outputs was recorded by 18 funds (whether already delivered or planned to be delivered).[13] Data on outcomes was recorded by seven funds.[14] Gaps in the data were addressed by agreeing and validating a set of assumptions with ATE and DfT. These are explained in Annex A. Limitations in the data are discussed below.

Key findings of this evidence review

Total (revised) projected investment: Across the combined periods of CWIS1 and CWIS2, (revised) projected investment in walking and cycling interventions is estimated to be £6.6 billion. Just under 40% of this (£2.5 billion) was projected to be within CWIS1 (April 2016 to March 2021) and the remaining £4.1 billion is projected to be invested in CWIS2 (April 2021 to March 2025).[15]

Total allocated investment: Whereas the (revised) projected investment of £6.6 billion reflects what was anticipated to be invested, the value of active travel investment that DfT and ATE actually allocated to local authorities and delivery partners over both CWIS1 and CWIS2 periods (April 2016 to March 2025) – referred to here as allocated investment – was £6.4 billion.[16]

Total delivered investment: £2.4 billion of investment was delivered in CWIS1 and £1.8 billion of investment has so far been delivered in CWIS2 (which runs to March 2025). Another £2.0 billion of investment is expected before the end of CWIS2. Therefore, the total investment to be delivered across CWIS1 and CWIS2 will be £6.2 billion.[17]

Across the funds, some have delivered more than was allocated, and for others the reverse is the case. A detailed breakdown of investment data is only available for a subset of funds and

12 The six funds that were not able to provide investment data in time for this review are: Air Quality Grants, Brownfield Infrastructure and Land Fund, Brownfield Land Release Fund, HS2 Connectivity, Major Roads Network and NHS Healthy New Towns.

13 Fourteen funds were able to share information on outputs that had been delivered, whereas four funds were only able to share information on outputs that were planned to be delivered in the future.

14 Six funds were able to share information on outcomes that had been delivered, whereas one fund was only able to share information on outcomes that were planned to be delivered.

15 The revised projected investment (£6.6 billion) is lower than the original projected investment (£6.8 billion). This is partly related to shifts in investment between CWIS1, CWIS2 and CWIS3 as well as external circumstances that have impacted active travel and its investment, such as the COVID-19 pandemic and higher rates of inflation in the 2021–23 period.

16 Data on allocated investment was only available in time for this review for five funds. Without further evidence, this research assumes that allocated investment was equal to revised projected investment for the remaining 34 funds. This assumption was validated with DfT.

17 Data on delivered investment was only available in time for this review for 18 out of the 30 funds that invested in CWIS1 and 25 out of 30 funds that invested in CWIS2. Without further evidence, it was assumed that for the remaining funds delivered investment was equal to allocated investment. This assumption was validated by DfT.

is shown in Table 1 below. As this table is for a subset of funds, the total allocated, delivered and future planned investment shown does not cover the full CWIS1 and CWIS2 investment.

Table 1 shows that for this subset of funds,[18] across both CWIS1 and CWIS2, the investment delivered was some 4% lower than the allocated investment. This is split into a 12% underspend in CWIS1 and less than 0.1% underspend in CWIS2.

Table 1 Comparison of allocated and delivered investment for the subset of funds for which detailed data is available[19]

	CWIS1 [18 funds]	CWIS2 [25 funds]	CWIS1 & CWIS2
Allocated investment (£m) [1]	£1,168m	£2,730m	£3,897m
Delivered investment (£m) [2]	£1,027m	£1,162m	£2,189m
Future planned investment (£m) [3]	-	£1,565m	£1,565m
Delivered + future planned (£m) [4] = [2] + [3]	£1,027m	£2,727m	£3,753m
Difference (£m) [5] = [4] – [1]	-£141m	-£2m	-£143m
Difference (% allocated)	**-12%**	**<0.1%**	**-4%**

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

Notes: Numbers may appear incorrect due to rounding. £2m represents a difference of 0.078%.

Analysis of the investment data shows that the vast majority (90%) of investment delivered over CWIS1 and CWIS2 is capital investment (i.e. delivering capital assets, such as infrastructure, to support the uptake of walking and cycling). Also, around 80% of investment derives from funds that are not dedicated exclusively to active travel but have wider objectives, of which supporting walking and cycling is one part. Moreover, investment tends to be concentrated from a relatively small number of funds. The top five funds were responsible for 84% of investment delivered in CWIS1 and 79% in CWIS2.[20]

Outputs: Data on what outputs have already been delivered was available for a portfolio of 14 funds at the time of this review, representing 29% of delivered investment across CWIS1 and CWIS2. The outputs from this portfolio are shown in Figure 2. Given that this analysis is

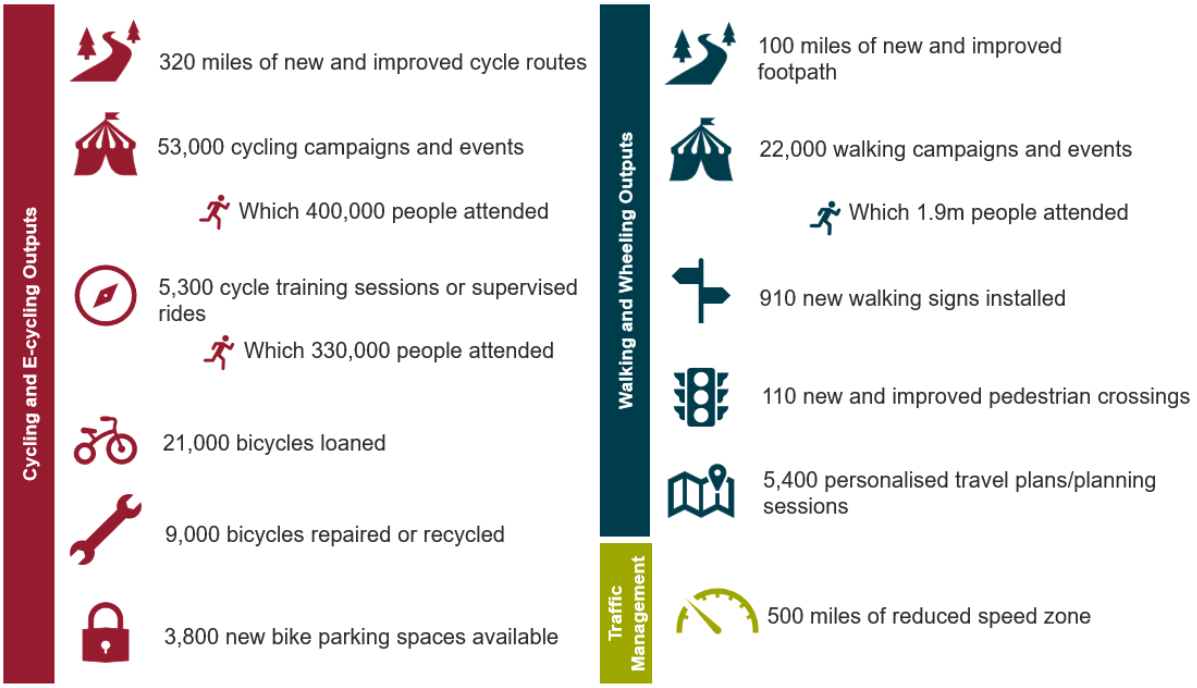
18 Data on delivered investment for CWIS1 is available for 18 out of the 30 funds that invested in CWIS1 and 25 out of the 30 funds that invested in CWIS2.

19 A comparison of allocated and delivered investment is provided only for funds for which sufficiently detailed relevant data was available. For the funds not included in this comparison, the data available within the timeframe of this report was not sufficiently detailed to enable robust analysis.

20 For CWIS1, the largest five funds were: Local Growth Fund, Active Travel Fund, National Highways Designated Funds, Access Fund and Transforming Cities Fund. For CWIS2, the largest five funds were: Transforming Cities Fund, Levelling Up Fund, Towns Deal, City Regional Sustainable Transport Settlements and National Highways Designated Funds.

not for all funds (due to a lack of available data at the time of this review), these outputs are likely to materially underestimate the total outputs delivered as a result of CWIS1 and CWIS2.

Figure 2 Headline outputs from a portfolio of 14 funds in CWIS1 and CWIS2



Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Notes: Value of 14 funds that delivered these outputs across CWIS1 and CWIS2 is £1.2 billion.

Outcomes: Data on the outcomes of CWIS1 and CWIS2 investments was available for only six funds at the time of this review, which represent 14% of investment delivered, and is shown in Figure 3.

Given that data on outcomes was available for only six funds at the time of this review, the data shown in Figure 3 is likely to underestimate the total outcomes delivered as a result of CWIS1 and CWIS2 investments. To complement the data available, a review of published evaluation evidence relating to CWIS1 and CWIS2 funds was therefore undertaken. The evidence synthesis revealed the variation in outcomes observed across different funds, depending on the local context of the intervention. It found that most evidence was related to short-term outcomes of CWIS1 and CWIS2 funds, and therefore evidence on dependent and sustained outcomes remains of interest for future research.

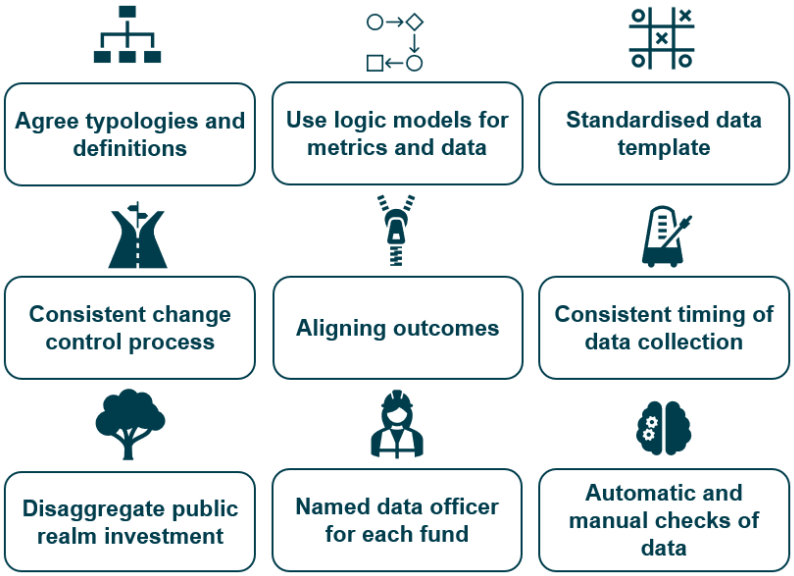
Figure 3 Headline outcomes reported by a subset of six funds

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Notes: Value of six funds that delivered these outcomes across CWIS1 and CWIS2 is £0.6 billion.

Data collection recommendations: The evidence review carried out for this report provided a deep understanding of the range of data available on CWIS1 and CWIS2 funds at the time of this review and highlighted the challenges in coordinating data from fund representatives over different time periods.[21] This report therefore offers nine recommendations on data collection and analysis that DfT may wish to consider as it shapes the development of CWIS3. These data-related recommendations are outlined in Figure 4 and explained in more detail in Section 2.3.

[21] Fund representatives were key stakeholders from within the relevant departments and organisations, including Department for Transport (various internal teams); Active Travel England; Department for Levelling Up, Housing and Communities; Department for Environment Food and Rural Affairs; Department of Health and Social Care; Department for Digital, Culture, Media and Sport; National Highways; Sport England; and Transport for London.

Figure 4 Summary of data and evidence recommendations to inform CWIS3



Source: Frontier Economics and SYSTRA.

Data limitations

The best available data was used to inform this evidence review. It was collated over the period from November 2023 to December 2023 from fund representatives across central government and delivery agencies. In some cases, gaps in the data were identified and these were addressed using assumptions agreed and validated with DfT. For transparency, these are outlined in detail in Annex A. Some of the main assumptions relate to the following:

1. Some CWIS1 and CWIS2 funds have objectives that are wider than walking and cycling, although they are still expected to deliver walking and cycling interventions. In some cases, the data on exactly what has been, or is expected to be, invested in walking and cycling is not available. In these cases, an assumption was made in collaboration with fund representatives about the share of total funding that has been (or is expected to be) invested in walking and cycling. Where possible, these assumptions were developed using available evidence including previous estimates and scheme descriptions.
2. The data recorded by different CWIS1 and CWIS2 funds varies in its level of detail. In some cases, data on investment delivered was not available at the time of this review. Where this was the case, it was assumed that the original funding allocation was spent in full (or a proportion was assumed to have been spent, commensurate with the timescales of the fund). This assumption was agreed with the fund representatives where possible.

This evidence review reports the evidence and data currently available (to December 2023) and the project team is grateful to all of the fund representatives who kindly shared information and data on the CWIS1 and CWIS2 funds for which they are responsible.

1 Introduction

1.1 Overview

The first Cycling and Walking Investment Strategy (CWIS1) was published in 2017 by the Department for Transport (DfT) and set out the ambition '…to make cycling and walking the natural choices for shorter journeys, or as part of longer journeys' in England.[22] The strategy articulated the government's objectives for 2020 and 2025, alongside a projection of £1.2 billion of funding across government to support achieving them.

CWIS1 covered the period from April 2016 to March 2021, and the projected level of investment was revised up to £2.4 billion in 2020 and eventually to £3.2 billion in 2022[23] as the original projected level of funding had already been invested by March 2019. Further funding was identified from a range of sources, as new funding streams such as the Gear Change plan were developed over the remaining period.[24] This complemented the funding allocated to walking and cycling from other government sources.[25]

CWIS2 was published in July 2022 and covers the period from April 2021 to March 2025; hence it is still ongoing. This updated the 2025 targets from the previous strategy (shown in Box 1 below), supported by a projected investment across government of over £3.5 billion to 2025.[26] This spending comprises:

- DfT and ATE funding for active travel;[27]
- Wider DfT programmes; and
- Other central government funding that delivers active travel infrastructure or behavioural change.

The exact time period of CWIS3 is still to be confirmed but, for the purpose of this research project, it is assumed to run from April 2025 to March 2029.

22 DfT (2017) *Cycling and Walking Investment Strategy*.

23 DfT (2022) *The Second Cycling and Walking Investment Strategy*.

24 DfT (2020) *Gear Change – A Bold Vision for Cycling and Walking.*

25 These include the Transforming Cities Fund, Future High Streets Fund, Towns Fund and Getting Building Fund. DfT (2022) *The Second Cycling and Walking Investment Strategy.*

26 DfT (2022) *The Second Cycling and Walking Investment Strategy.*

27 DfT funding was delegated to ATE following its establishment in August 2022.

Box: 1 DfT's CWIS objectives[28, 29]

DfT laid out four main objectives for 2020 and three targets for 2025 as part of CWIS1:

- By 2020 (objectives):
  - Increase total number of cycling stages;
  - Increase total number of walking stages;
  - Reduce the number of fatalities or serious injuries per billion miles cycled; and
  - Increase the percentage of children (aged five to ten) that usually walk to school.
- By 2025 (targets):
  - Double the number of cycling stages from 0.8 billion in 2013 to 1.6 billion in 2025;
  - Increase the number of walking stages per person to 300 per year; and
  - Increase the percentage of children (aged five to ten) that usually walk to school from 49% in 2014 to 55% in 2025.

The CWIS2 2025 objectives incorporated some elements of the CWIS1 targets but increased the ambition of the walking target to make them even more ambitious:

- By 2025:
  - Increase the percentage of short journeys in towns and cities that are walked or cycled from 41% in 2018–19 to 46% in 2025;
  - Increase the number of walking stages per person to 365 per year;
  - Double the number of cycling stages from 0.8 billion in 2013 to 1.6 billion in 2025; and
  - Increase the percentage of children (aged five to ten) that usually walk to school from 49% in 2014 to 55% in 2025.

DfT is required to submit periodic reports to parliament on the progress of CWIS in line with the Infrastructure Act (2015). The first report was submitted in February 2020 and was an interim report covering progress to date from April 2016 to March 2019.[30] The second report was submitted in July 2022 and covered the full CWIS1 period.[31] It is anticipated that the next report to parliament will be in 2025 on the progress of CWIS1 and CWIS2.

Therefore, to support this third report to parliament and to inform the forthcoming development of CWIS3, DfT and Active Travel England (ATE) commissioned Frontier Economics and SYSTRA to carry out an evidence review covering both CWIS1 and CWIS2. The aim of this was to understand projected, allocated and delivered investment on walking and cycling

28 DfT (2017) *Cycling and Walking Investment Strategy*.

29 DfT (2022) *The Second Cycling and Walking Investment Strategy*.

30 DfT (2020) *Cycling & Walking Investment Strategy Report to Parliament.*

31 DfT (2022) *Cycling and Walking Investment Strategy Report to Parliament 2022.*

initiatives across the CWIS1 and CWIS2 periods to date, including all dedicated and non-dedicated funds within central government.[32] This was to be complemented with information on what had been delivered with that funding (outputs), to the extent that data was available. Evidence was also to be synthesised to describe the potential effects of those investments so far (outcomes) for the different CWIS1 and CWIS2 projects.

This report presents the findings of this evidence review.

1.2 Purpose and scope of this report

The objectives of this report are to:

1. Compare projected (original and revised projected), allocated and delivered investment on each of the relevant CWIS1 and CWIS2 funds. For the purpose of this evidence review, the following definitions are used:
   - *Original projected investment*: the value of the projected active travel investment for CWIS1 and CWIS2 (together covering the period from April 2016 to March 2025) as laid out in the Cycling and Walking Investment Strategy Report to Parliament 2022 (for CWIS1) and the Second Cycling and Walking Investment Strategy (for CWIS2);
   - *Revised projected investment*: the value of the active travel investment laid out in, or calculated from, published allocations for each fund that covers both CWIS1 and CWIS2 periods (together covering April 2016 to March 2025). Where available, the publicly announced funding allocations have been used; otherwise this is based on revised projections from fund representatives;[33]
   - *Allocated investment:* the value of active travel investment that the DfT and ATE have provided to local authorities and delivery partners which covers both CWIS1 and CWIS2 periods (April 2016 to March 2025);
   - *Delivered investment:* the value of active travel investment that has been spent by local authorities and delivery partners on active travel interventions from the start of CWIS1 (April 2016) to December 2023 (CWIS2);[34, 35]
   - *Future planned investment*:
     - The value of allocated investment that is expected to be spent by funds on active travel interventions from January 2024 to the end of CWIS2 (March 2025)

[32] As CWIS2 does not end until March 2025, not all planned investment for those projects has been delivered. This is reflected in the analysis, noting the progress made to date.

[33] Fund representatives were key stakeholders from within the relevant departments and organisations, including Department for Transport (various internal teams); Active Travel England; Department for Levelling Up, Housing and Communities; Department for Environment Food and Rural Affairs; Department of Health and Social Care; Department for Digital, Culture, Media and Sport; National Highways; Sport England; and Transport for London.

[34] Actual delivery or construction on the ground spent 'to date'.

[35] Where possible, end dates have been aligned across funds to be December 2023. However, some funds could only report delivered investment up until an earlier end date, and therefore delivered investment is likely to be slightly underestimated.

   - The value of allocated investment that is expected to be spent by funds on active travel interventions in CWIS3 (April 2025 to March 2029).[36]

2. Collate available evidence on what has been delivered to date by those funds (referred to as 'outputs' in this report) and synthesise published evaluation work relating to those funds (and others where relevant) to provide a preliminary assessment of outcomes that are likely to be observed.
3. Provide observations in relation to the data available at the time of this review and offer recommendations for DfT to consider to improve the data available for CWIS3.

While this report builds on previous reviews of active travel investment, it has a broader scope because it includes an assessment of planned investment compared to what has actually been invested and includes more funds. It is therefore not directly comparable with previous reports that informed earlier reports to parliament on CWIS progress,[37] or with the recent National Audit Office report on Active Travel.[38]

The list of all funds that are included in this work is given below and was developed and verified by DfT. It covers central government funding but does not include any separate local investments in cycling and walking made by private developers or local authorities:

- DfT funds
  - 2017 National NO_2 Air Quality Plan
  - Access Fund
  - Active Travel Fund
  - Big Bike Revival
  - Bikeability
  - City Region Sustainable Transport Settlements
  - Cycle City Ambition
  - Cycle Rail
  - Cycle Safety
  - Cycling and Walking to Work Fund
  - E-Cycle Support
  - Fix Your Bike Voucher
  - Highways Maintenance Block
  - Integrated Transport Block
  - Local Cycling and Walking Infrastructure Plans Support
  - Local Highways Maintenance Challenge Fund

36 This is the assumed timeframe for CWIS3 at the time of writing.

37 NatCen (2019) *Cycling & Walking Evidence Review: Outputs and Outcomes from a Portfolio of Projects – Full Report (2004–2019).*

38 NAO (2023) *Active Travel in England.*

- Major Road Network
- National Cycle Network
- National Highways Designated Funds
- Safer Roads Fund
- Sustainable Travel Transition Year Fund
- Transforming Cities Fund
- Walk to School Outreach

- ATE
  - Active Travel Ambassadors Pilot Programme
  - Active Travel Social Prescribing
  - Capacity Fund
  - HS2 Connectivity
  - Modeshift STARS
  - Mini Holland Pilots
- Department for Levelling Up, Housing and Communities
  - Brownfield Infrastructure and Land Fund
  - Brownfield Land Release Fund
  - Future High Street Fund
  - Garden Communities
  - Getting Building Fund
  - Housing Infrastructure Fund
  - Levelling Up Fund
  - Local Growth Fund
  - National Productivity Investment Fund
  - Towns Fund
  - UK Shared Prosperity Fund
- Other
  - Air Quality Grants
  - Healthy Streets Programme
  - NHS New Healthy Towns
  - Public Health Grant to Local Authority
  - Sport England

1.3 Methodology

1.3.1 Framework

This evidence review is underpinned by a robust framework which guides the collation of data, provides a clear and transparent process for organising the data to enable its analysis (while also identifying gaps) and informs the appropriate forms of analysis, aligned with the objectives of this evidence review. The framework used is the theory of change.

A theory of change explains how an intervention is expected to meet its intended objectives and deliver the anticipated impacts. It describes the channels through which the resources invested (inputs) are used in various activities to result in the deliverables (outputs), and then describes the changes that are expected to result from them in the short term (short-term outcomes), as well as those that follow in the medium to longer term (dependent outcomes). A theory of change can take many forms and is often visually represented in a logic model. Figure 5 represents the logic model framework we use in this report.

Figure 5 Logic model framework

Source: Designed by Frontier and SYSTRA, and agreed with ATE and DfT.

The CWIS theory of change developed by DfT[39] underpins this evidence review and data collection. The framework is described below, drawing on a real example project: the Fix Your Bike Voucher scheme. This project, which was delivered during the pandemic, invited individuals in England to apply for £50 vouchers that could be used in cycle shops to fix or improve cycles. Over the ten months that the scheme ran, 400,000 vouchers were issued. The Energy Saving Trust administered the scheme and recruited service providers to carry out servicing and repair work for voucher users; managed the application process; issued electronic vouchers; managed claim, verification and payment processes; and provided information to participants about how to use a voucher, including a telephone support line. The theory of change can be described as follows:

- **Inputs** refer to the resources required for each fund. They generally include funding inputs, human resources (staff time, effort), existing capital resources and infrastructure, and knowledge inputs (existing research, expertise and know-how). *Example: The Fix Your Bike Voucher project involved £10.5 million of DfT funding in CWIS1 and drew on human, administrative and IT resources from the Energy Savings Trust.*

[39] DfT has established a theory of change for the strategy to achieve the CWIS aims and targets. This is laid out in DfT's first report to parliament: DfT (2020) *Cycling & Walking Investment Strategy Report to Parliament.*

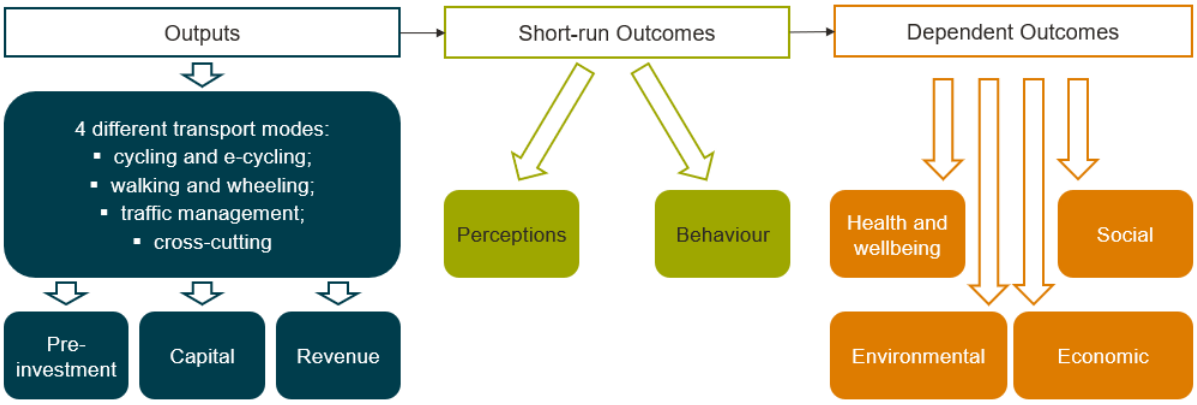
- **Outputs** are what organisations deliver as a result of activities which make use of their inputs. These are the immediate, tangible and observable deliverables of an organisation's activities, and are generally within the organisation's control. Data on outputs may be related to outputs that have already been delivered ('delivered') or those that have not yet been delivered ('planned'). *Example: With the £10.5 million funding, the Fix Your Bike Voucher scheme offered 400,000 vouchers and had 397,000 people register. Of these, 46% of people who applied for a voucher used it.*
- **Short-term outcomes** represent changes in perceptions and behaviour that are induced by the outputs and that are likely to be observed soon after the interventions are delivered. *Example: The Fix Your Bike Voucher scheme led to an increase in cycle trips for voucher users of 0.9 trips per person per week compared to non-voucher users. This contributes to the CWIS2 objective of doubling the number of cycle stages to 1.6 billion by 2025.*
- **Dependent outcomes** are outcomes that occur later in the logic chain and are conditional on short-term outcomes being realised.[40] *Example: If voucher users were to report an increase in overall physical activity as a result of the Fix Your Bike Voucher scheme, then this would be considered a dependent outcome.*[41]

Given the complexity and variation of the CWIS1 and CWIS2 funding streams, more detailed output and outcome typologies have been developed to enable more nuanced analysis. These – shown in Figure 6 – were derived by reviewing both the data collection methods used by ATE and typologies in similar studies. They were then iterated and agreed with ATE and DfT. These output and outcome typologies are therefore consistent with other relevant categorisations used across national and local government.

40 In this report, dependent outcomes refer to both the second-round outcomes that follow short-run outcomes (and are therefore dependent on short-run outcomes being realised) and longer-term impacts as defined in the Magenta Book (HMT, 2020). For active travel investments, examples of second-round outcomes could include increases in physical activity. Examples of the longer-term impacts could include improvements in health or reduction in carbon emissions.

41 In self-reported accounts of physical activity, Fix Your Bike Voucher users were 20% more likely than non-voucher users to record that cycling made a contribution to their physical activity. However, as users were not specifically asked about overall levels of physical activity, this information is not available in the data.

Figure 6 Output and outcome typologies



Source: Designed by Frontier and SYSTRA, and agreed with ATE and DfT.

Outputs

Outputs are firstly divided into four different transport intervention types; for the purpose of this report, they are referred to as active travel 'transport modes'. These are:

- Cycling and e-cycling;
- Walking and wheeling;
- Traffic management; and
- Cross-cutting.[42]

The final cross-cutting intervention type is for outputs that cut across multiple transport modes; for example, the Port of Poole Infrastructure project within the Local Growth Fund delivered five miles of wide shared cycleway and footway.

Once divided into transport modes, outputs are then further separated into three categories. These categories are common across each of the four transport modes. These are:

- Pre-investment: plans and business cases that have been developed;
- Capital: expenditure either on new facilities or on improving existing facilities (including replacements); and
- Revenue: day-to-day spending on interventions such as campaigns or events.

Table 2 includes a list of output categories used, split by transport mode and output category.

[42] This included where interventions did not specifically target walking or cycling (e.g. active travel grant or campaign, personalised travel planning or accreditation) or where the intervention consolidated walking and cycling interventions (e.g. 'improved shared cycling/walking path' or 'active travel hub').

Table 2 Granular outputs

Transport mode	Pre-investment outputs	Capital outputs	Revenue outputs
Cycling and e-cycling	Cycling strategies and studies	New segregated cycling route; New cycle parking spaces; Improved cycleways and roads for cycling; New / improved cycling signage; New / improved pedal cycle hire facilities; New / improved e-cycle hire facilities.	Cycle training and rides; Cycle campaigns and events; Cycle maintenance / refurbishment.
Walking and wheeling	Walking strategies and studies	New footway; Improved footway; New / improved walking signage; New / improved road crossings.	Pedestrian training sessions; Walking campaigns and events.
Traffic management		New / improved junctions; Removal of car parking spaces; Neighbourhood traffic calming schemes.	
Cross-cutting		New / improved shared cycling and walking path; Wider area improvement for cycling or walking.	Personalised travel planning; School streets; Street audits; Staff appointed to support activities.
Other[43]		Other (not split between capital and revenue) – examples include community facilities such as community or health and wellbeing hubs.	

Source: Designed by Frontier and SYSTRA, and agreed with ATE and DfT.

Short-term outcomes

Short-term outcomes are split between outcomes that affect perceptions and outcomes that affect behaviour.

[43] These were not included in the database exhaustively and were only captured where distinctively noted by funds. In the case of this evidence review, 'other' outputs were only shared by the Garden Communities fund.

Outcomes that affect perception generally relate to perceptions of safety and confidence in undertaking an activity (such as confidence in cycling) but can also include satisfaction or enjoyment of an activity. *Example: The Fix Your Bike Voucher project improved the confidence of 70% of voucher users and improved the enjoyment of cycling for 83% of voucher users.*

Outcomes that affect behaviour predominantly focus on the number of people partaking in an activity (such as the number of people cycling) or the number of trips of a given activity. *Example: As well as increasing the number of cycling trips per person per week (discussed above), the Fix Your Bike Voucher project led to a mode shift[44] among voucher users that was 26% higher than among non-voucher users.*

Dependent outcomes

Dependent outcomes are categorised by the type of outcome that is enabled as a result of the short-term outcomes having been realised. The four types of dependent outcomes are:

- Health and wellbeing – outcomes that relate to changes in the quality of life or life expectancy of individuals, for example improvements in mental or physical health;
- Economic – outcomes that relate to changes in the productivity or employment prospects of individuals;
- Environmental – outcomes that relate to changes in greenhouse gas emissions and other air pollutant emissions; and
- Social – outcomes that relate to changes in the leisure activities of individuals, for example increases in recreational cycling.

Table 3 provides a list of the more granular outcomes, broken down by the outcome type – short-term or dependent – as well as by the different outcome categories.

Table 3 Granular outcomes

Outcome type	Outcome category	Outcome
Short-term outcomes	Perceptions	Change in perception of cycling / walking; Change in perception of safety of cycling / walking; Change in safety of cycle storage and parking.
	Activity	Change in number of people walking; Change in number of children walking to school; Change in number of people cycling; Change in number of children cycling to school; Change in number of people driving;

[44] In this instance, modeshift refers to switching the mode of a trip to cycling from another transport mode.

Outcome type	Outcome category	Outcome
		Change in number of walking stages; Change in number of cycling stages; Change in number of car trips; Change in use of public transport (with walking / cycling part of the journey); Change in active travel mode share.
Dependent outcomes	Health and wellbeing	Change in physical activity per week; Change in mental wellbeing; Change in physical health; Change in cycling safety (injuries, collisions, etc.); Change in use of healthcare.
	Economic	Change in productivity; Change in access to employment / job opportunities; Change in access to education; Change in sickness absence days.
	Environmental	Change in greenhouse gas emissions; Change in air pollutant emissions.
	Social	Change in recreational opportunity of cycling.
Other		Other

Source: Designed by Frontier and SYSTRA, and agreed with ATE and DfT.

1.3.2 Collating the data on spending and what is delivered

DfT originally proposed to commission this research at the end of CWIS1 to assess the delivery of CWIS1 and the projection of CWIS2 funding. However, due to the pandemic, this research was delayed.

At the time of commencing this evidence review, the original projected funding for CWIS1 and CWIS2 was only available at a high aggregated level. Therefore, there was no data on what funding had been allocated (i.e. funding sent from government departments to delivery partners) or actually spent (i.e. funding spent on the ground on delivery and construction). A comprehensive exercise was therefore undertaken to identify the relevant funds and to collate data from each of them to build an evidence base to underpin this analysis. This focused on obtaining and consolidating the most up-to-date data in a relatively disaggregated form over the CWIS1 and CWIS2 periods to December 2023.

As the strategy focuses on England, the evidence base reflects this and excludes Northern Ireland, Scotland and Wales from the data collection exercise. Funding for London is not included in CWIS1, reflecting funding arrangements between DfT and Transport for London

(TfL). However, recent changes, including the Emergency Active Travel fund during the COVID-19 pandemic, mean that funding for London is included in the data for CWIS2.[45]

The scope of the evidence review focuses on walking and cycling interventions including e-cycling. Where detail was available in time for this review, interventions such as enhancements to public realm – which indirectly improve the environment for active travel – were incorporated. The process to develop the evidence base involved:

- Reviewing existing data and information from DfT and ATE;
- Liaising with fund representatives in central government departments and delivery agencies to establish the data that could be shared in time for this review;
- Processing existing and new data and evidence into a consistent and auditable format across all funds;
- Collaborating with the fund representatives to address queries and data gaps;
- Where there were gaps in data or evidence, working closely with DfT to agree and validate appropriate assumptions; and
- Capturing the evidence sources and assumptions necessary to ensure transparency in the analysis.

Investment data (inputs)

The evidence review focused on collating investment data across the CWIS1 (April 2016 to March 2021) and CWIS2 (April 2021 to March 2025) periods, reflecting the primary objectives of this report. Planned delivery of some CWIS3 investment (April 2025 to March 2029) was also included where this occurred as a result of delayed delivery by funds due to a variety of factors (including the COVID-19 pandemic, global conflicts, supply chain and inflationary pressures). However, as this was only captured where available, it is likely to be an underestimate of total investment in CWIS3.

To build the evidence base, it was necessary to bring together data from different sources and validate this with DfT and ATE to ensure that it was appropriately accurate for inclusion in this review. The sources of data included:

- Annual fund evaluation reports;
- Local authority evaluation reports;
- Local authority and delivery partner quarterly or annual survey responses;
- Original bidding documents;
- Direct data inputs by fund representatives; and
- Data sourced from government and local authority websites.

[45] Funding for London was included on a scheme-by-scheme basis where the location information was available. In addition, funding was also estimated through the TfL Healthy Streets Programme.

The available data on each fund varied significantly, in part reflecting the variety in the interventions being delivered and over what timeframes, as well as the different parties involved in the delivery chain. For the purpose of this review, one distinction between funds is those that have funding only for the purposes of investing in walking and cycling interventions (referred to as 'dedicated') and others which have wider objectives, of which investing in walking and cycling interventions is one part (referred to as 'non dedicated').

Some of the data variations that were accounted for in how the evidence base was built include:

- **Availability of investment data.** Some funds were able to provide both allocated investment (the investment sent from internal government departments or executive agencies to local authorities and delivery partners) and delivered investment (the investment spent by local authorities and delivery partners on active travel interventions), whereas others were only able to provide allocated investment or delivered investment, but not both.
- **Timescales of the data.** Some funds reported data on a quarterly or annual basis, while others could only provide cumulative totals across the length of the fund. Additionally, some funds reported in calendar years, whereas others used financial years.
- **Disaggregation of the data.** Some funds were able to report investment at the individual project level, whereas others were only able to report data at the overall fund level. Moreover, some of the funds that were not dedicated to active travel were able to provide data on investment that was for active travel interventions, while others were only able to provide investment figures for the fund as a whole.

Due to these variations, assumptions were necessary, and these were discussed and agreed with DfT. The key assumptions used in this review were:

- **Missing investment data.** Where data on investment delivered was not available in time for this review, it was assumed that the allocated investment was spent in full (commensurate with the time period of the funding); and
- **Missing active travel allocation.** Where a fund was not dedicated to active travel and had wider objectives, available supplementary evidence (such as investment plans) was used to estimate the percentage that could reasonably be attributed to active travel. Where supplementary evidence was not available, assumptions were based on fund descriptions and used professional judgement to provide a conservative estimate which was validated by fund representatives and DfT.

Further detail on the data and assumptions incorporated within the evidence review is provided in Annex A.

Output and outcomes data

Data on outputs and outcomes, including what had been delivered ('delivered') and what had been planned but not yet delivered ('planned'), was also requested from the CWIS1 and

CWIS2 fund representatives. This data was not available for some funds. The following was available and therefore included in this analysis:

- Fourteen funds recorded at least some data on outputs that had been delivered to date;
- Four funds recorded only data on planned outputs, not what had been delivered;
- Six funds recorded at least some data on outcomes that had been delivered to date; and
- One fund recorded only data on planned outcomes, not outcomes that had been delivered to date.

The information and data on outputs and outcomes was classified in line with the respective typologies (as discussed in Section 1.3.1). As with the investment data, there are some limitations in the data that was available in time for this review. The key limitations included:

- **Availability of data**. The data was not complete, or was not available at all, for a majority of CWIS1 and CWIS2 funds. Therefore, what can be reported in this review is an underestimate of what has been, or will be, delivered; and
- **Difference in the level of detail of the data**. The data recorded by funds varied significantly, meaning that comparisons or summation across funds was challenging. It was necessary to apply assumptions based on information and clarification from the fund representatives and from the expert advice of ATE and DfT. For example:
  - The units, such as 'm of urban on-road cycle track', were not clear in some cases. This measurement was assumed to be metres.
  - Output descriptions, such as 'new cycleway', were unclear. The type of cycleway was not stated, so a segregated cycleway was assumed.
  - It was not clear if some investments were new or were enhancements were – for example 'km segregated cycle track' did not state whether this was new or improved cycle track. Therefore, the typology combines all new and improved together in one category.

Further detail on the data limitations and assumptions incorporated within the evidence review is provided in Annex A.

Data quality assurance

The complexity and variability in the availability and quality of the data required an extensive process of quality assurance to be applied. In the first instance, this included assessing the data availability and completeness, data quality and extent to which assumptions were being relied on. This is transparently described in this report and its annexes where appropriate. The quality assurance process involved several steps, as follows:

- Reviewing previously published projections of active travel investment including from the CWIS1 and CWIS2 publications and the National Audit Office's Active Travel in England report;[46]
- Using data sourced only directly from the fund or from trusted published information (for example, government websites) to enhance validity;
- Making data assumptions based on previous evidence to ensure consistency;
- Confirming with fund representatives the assumptions being used and validating all assumptions with DfT (and ATE where appropriate);
- Checking the accuracy of the data by carrying out thorough automated and manual checks within the data processing steps and spot checks of data entries; and
- Utilising independent data sense checks to ensure accuracy.

Following the collation of all data, two workshops were held with DfT policy officials to validate the information presented in this report. These involved going through the information and data on every CWIS1 and CWIS2 fund, along with the assumptions used.

1.3.3 Preliminary assessment of potential outcomes

A preliminary assessment of potential outcomes was undertaken to provide an indication of what outcomes some of the funds across the CWIS1 and CWIS2 periods might have contributed to (or could be expected to contribute to). At this early stage in the process of delivery of walking and cycling initiatives, it is important to recognise that not all of the funds have yet been delivered in full and, for several of the funds, no data is available on outcomes. Hence this analysis is indicative and is intended to synthesise the available robust evaluation evidence on the outcomes observed to date (where feasible) and suggests the types of outcomes that may also be expected going forward.

Six funds provided data on short-term outcomes that had already been delivered. As this was a limited number of funds, this evidence was complemented with published evaluation evidence from ten further active travel funds. This was reviewed and synthesised. Four pieces of published evidence related to CWIS funds, and six related to active travel funds that pre-dated CWIS1.[47]

Emerging from this evidence review is the observation that all funds deliver a package of combined outputs, and so there is no straightforward relationship between a specific type of output (such as miles of new cycleway) and specific outcomes (such as an increase in cycling activity).

[46] https://www.nao.org.uk/reports/active-travel-in-england/

[47] The summary of published evaluation evidence draws out key information, such as the nature and scale of outcomes that were observed following the delivery of different types of outputs. This information, the details of which are in Annex C, was collated systematically.

Research is being carried out locally and nationally to further bolster the evidence base on the outputs and outcomes realised from active travel interventions and broader local interventions that involve active travel elements. For example, DfT has commissioned a five-year evaluation of the active travel portfolio of funding that is supporting local authorities across England to implement a range of schemes to help deliver on the aims of Gear Change. This will help with understanding how active travel interventions are being delivered, what impact they are having on encouraging people to cycle and / or walk, whether interventions are value for money and how they are contributing to the department's cycling and walking targets.

2 Findings

2.1 Objective 1: Comparing projected, allocated and delivered investment

The first objective of this review was to analyse the investment on active travel across funds included within CWIS1 or CWIS2. There are multiple different types of investment referred to throughout this section:

- **Original projected investment:** the value of the projected active travel investment for CWIS1 and CWIS2 (together covering the period from April 2016 to March 2025) as laid out in the Cycling and Walking Investment Strategy Report to Parliament 2022 (for CWIS1) and the Second Cycling and Walking Investment Strategy (for CWIS2);
- **Revised projected investment:** the value of the active travel investment laid out in, or calculated from, published allocations for each fund that covers both CWIS1 and CWIS2 periods (together covering April 2016 to March 2025). Where available, the publicly announced funding allocations have been used; otherwise this is based on revised projections from fund representatives;[48]
- **Allocated investment:** the value of active travel investment that the DfT and ATE has provided to local authorities and delivery partners which covers both CWIS1 and CWIS2 periods (April 2016 to March 2025);
- **Delivered investment:** the value of active travel investment that has been spent by local authorities and delivery partners on active travel interventions, from the start of CWIS1 (April 2016) to December 2023 (CWIS2); and [49, 50]
- **Future planned investment:**
  - The value of allocated investment that is expected to be spent by funds on active travel interventions from January 2024 to the end of CWIS2 (March 2025)
  - The value of allocated investment that is expected to be spent by funds on active travel interventions in CWIS3 (April 2025 to March 2029).[51]

For six of the 45 funds outlined in Section 1.1, data was not available within the project timelines.[52]

---

48 Fund representatives were key stakeholders from within the relevant departments and organisations, including Department for Transport (various internal teams); Active Travel England; Department for Levelling Up, Housing and Communities; Department for Environment Food and Rural Affairs; Department of Health and Social Care; Department for Digital, Culture, Media and Sport; National Highways; Sport England; and Transport for London.

49 Actual delivery or construction on the ground spent 'to date'.

50 Where possible, end dates were aligned across funds to be December 2023. However, as some funds could only report delivered investment up until an earlier end date, delivered investment is likely to be slightly underestimated.

51 This is the assumed timeframe for CWIS3 at the time of writing.

52 These six funds are: Air Quality Grants, Brownfield Infrastructure and Land Fund, Brownfield Land Release Fund, HS2 Connectivity, Major Roads Networks and NHS Healthy New Towns. None of these is a dedicated active travel fund.

2.1.1 Revisions made to original projected investment

CWIS1 originally projected investment of £1.2 billion across April 2016 to March 2021. This was then revised in the 2020 report to parliament to £2.4 billion.[53] Finally, in the 2022 report to parliament it was revised upwards again to £3.2 billion.[54]

This evidence review aims to be more comprehensive than previous similar active travel investment reviews as it covers all CWIS1 and CWIS2 funds from original projections and their revisions to allocations and then delivered investment. The methods for estimating projections (and their revisions), along with the allocated and delivered investment, were developed for this evidence review to be consistent where feasible with similar research, although in some cases they were not directly comparable.

For the purpose of this report, the original projected investment for the CWIS1 period is considered to be £3.2 billion, as outlined in the 2022 report to parliament.[55] The original projected investment for the CWIS2 period is considered to be £3.6 billion, as outlined in the updated CWIS2 strategy (March 2023).[56] The data collated for this evidence review suggests that across the CWIS1 and CWIS2 periods, revised projected investment is estimated to be £6.6 billion, compared to the combined £6.8 billion of original projected investment.

This difference between original and revised projected investment may result from changes in investment profiling and from significant external circumstances that impacted active travel investment over the time period.

Firstly, when split by CWIS period, analysis of projected investment reveals a change in profiling of active travel spend over time. The data shows:

- The current revised projected investment for the CWIS1 period based on data collected for this review is £2.5 billion, which is lower than the original projected investment of £3.2 billion. This difference can be explained by a shift in funding allocations for some funds from CWIS1 to CWIS2.
- This resulted in the revised projected investment for the CWIS2 period totalling £4.1 billion compared to original projected investment of £3.6 billion. As explained later in this report, the change in funding profile was particularly impacted by a change in allocation profile for the Transforming Cities Fund and the Housing Infrastructure Fund.

Secondly, the COVID-19 pandemic had a significant impact on CWIS2, delaying the publication of the second Cycling and Walking Investment Strategy from 2021 to July 2022.

53 DfT (2020) *Cycling & Walking Investment Strategy Report to Parliament.*

54 DfT (2020) *Cycling & Walking Investment Strategy Report to Parliament.*

55 DfT (2020) *Cycling & Walking Investment Strategy Report to Parliament.*

56 DfT (2022) *The Second Cycling and Walking Investment Strategy.*

Moreover, it meant that CWIS2 included both Spending Review 2020 and Spending Review 2021 settlements, which led to changes to the timing and availability of funding streams.

Thirdly, a number of events have further impacted the delivery of CWIS1 and CWIS2 programmes by changing or delaying funding streams and delivery approaches. These events are:

- Inflation;
- Elections and changes of Prime Minister;
- Establishment of ATE; and
- Long-term impacts of COVID-19 on travel behaviour.

2.1.2 Comparison of revised projected investment and allocated investment

Data collected for this review suggests that the revised projected investment across both CWIS1 and CWIS2 is estimated to be £6.6 billion. Just under 40% of this revised projected investment (£2.5 billion) was part of CWIS1 (April 2016 to March 2021) and the remaining £4.1 billion relates to CWIS2 (April 2021 to March 2025).

Specific data on allocated investment was only available in time for this review for five funds. Without further evidence, this research assumes that the allocated investment was equal to revised projected investment for the remaining 34 funds – i.e. that the lead executive agency allocated the same value of funding to local authorities and delivery partners as was outlined in published allocations or revised fund representative projections. This assumption was validated with DfT.

Table 4 shows the five funds for which data on allocated investment was available and compares this to revised projected investment. This shows the difference between the revised projections for active travel investment and the investment that DfT has allocated to local authorities and delivery partners.

Table 4 Comparison of revised projected investment with allocated investment across CWIS1 and CWIS2 subset of five funds

Fund	CWIS period	Revised projected investment	Allocated investment	Difference
Cycling and Walking to Work Fund	CWIS1	£3.8m	£5.4m	£1.6m
Access Fund	CWIS1	£80.0m	£80.7m	£0.7m
E-cycle Support	CWIS2	£9.5m	£9.8m	£0.3m
Fix Your Bike Voucher	CWIS1	£25m	£21.7m	-£3.3m

Fund	CWIS period	Revised projected investment	Allocated investment	Difference
City Region Sustainable Transport Settlements (CRSTS)[1]	CWIS2	£778.2m	£532.4m	-£245.8m
TOTAL across listed funds	CWIS1 & CWIS2	£896.4m	£650.0m	-£246.4m

Source: *Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.*

Notes: *CRSTS appears to have a substantial underinvestment in this table, but that is due to a significant change in the data outlined below.*

Table 4 shows a substantial underinvestment by CRSTS. However, this can be explained by a shifting of funding profiles and is not a true underinvestment. The Mayoral Combined Authorities (MCAs) were given the opportunity to re-baseline their original proposals as a result of the challenging economic climate (i.e. inflationary pressures). The re-baselining exercise captured changes to MCA programmes, which included rescoping of individual projects (including cancellation in some instances) and changes to expected delivery timescales. The revised projected investment value therefore accounts for a realistic shift in delivery from CWIS2 to CWIS3 and estimates the active travel proportion on a more disaggregated project-by-project level.

As there are only a small number of funds, it is not clear that the differences between revised projected investment and allocated investment in Table 4 are related in any way to fund size or transport mode, or to whether the fund was dedicated to active travel.[57]

2.1.3 Comparison of allocated investment, delivered investment and future planned investment

Data on investment delivered was available in time for this review for 18 out of the 30 funds that invested in CWIS1 and for 25 out of 30 funds that invested in CWIS2. Without further evidence, for the remaining funds it was assumed that the investment delivered was equal to allocated investment – i.e. that local authorities and delivery partners spent all the funding that they received from central government. This assumption was validated with DfT.

Across all 30 funds that invested in CWIS1, the estimated investment delivered over that period is £2.4 billion and an estimated £1.8 billion of investment has so far been delivered in CWIS2. Another £2.0 billion of investment is expected to be delivered before the end of CWIS2, which would bring the total investment delivered across CWIS1 and CWIS2 to an

[57] As two of the funds invested exclusively in cycling interventions, while the other three invested in multiple transport modes, there is not enough evidence to suggest that the size of the underspend or overspend is linked to intervention type. While all the funds listed in Table 4 are dedicated to active travel investments except CRSTS, there does not seem to be clear evidence of a link between whether a fund was dedicated to active travel and the size of the underspend or overspend.

estimated £6.2 billion. This is below the £6.6 billion of revised projected investment across the two periods.[58] Table 5 provides a summary.

Table 5 Estimated delivered and future planned investment across all CWIS1 and CWIS2 funds

	Investment		
CWIS period	**Delivered**	**Future planned**	**Delivered + future planned**
CWIS1	£2.4 bn	-	£2.4 bn
CWIS2	£1.8 bn	£2 bn	£3.9 bn
TOTAL	£4.2 bn	£2 bn	£6.2 bn

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Notes: Numbers may appear incorrect due to rounding.

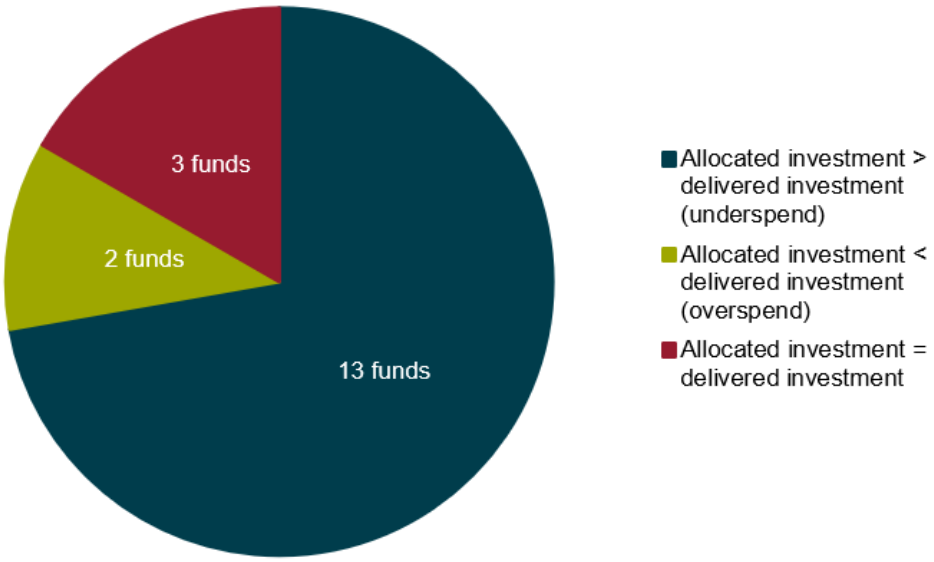
As the CWIS1 period has ended, the allocated investment can readily be compared with the investment delivered over that period for the 18 funds for which relevant data was available. For those 18 funds, the allocated investment was £141 million greater than investment delivered – this could be interpreted as 'underspend'. As the total allocated investment for these funds was £1.2 billion, this represents a 12% underspend.

The data shows that out of the 18 CWIS1 funds for which output data was available:

- Thirteen funds had allocated investment greater than delivered investment (i.e. suggesting an underspend);
- Two funds had allocated investment less than delivered investment (i.e. suggesting an overspend); and
- Three had allocated investment equal to delivered investment.

[58] The difference is explained by underspend within individual funds (this is examined further in the following sections) and by some delayed delivery into CWIS3.

Figure 7 Allocated investment compared to delivered investment across CWIS1 (for the 18 funds for which data was available in time for this review)



Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Note: This reflects data for 18 funds only.

Figure7 shows information for the top funds that underspent and overspent in CWIS1, for which data was available in time for this review. Table 6 builds on Figure 7 to show the difference between allocated investment and delivered investment, the value of the underspend or overspend in absolute terms, as well as the underspend or overspend as a proportion of the value of allocated investment for that fund.[59]

Table 6 Net underspend of CWIS1 funds, split by largest fund

	Fund	Value (£)	Value (%)
Underspend	Active Travel Fund	-£83m	-38%
	National Cycle Network	-£27m	-67%
	Fix Your Bike Voucher	-£11m	-52%
	Bikeability	-£8m	-13%
	Cycle Rail	-£4m	-24%

[59] A negative value means that allocated investment is greater than delivered investment and there has been an underspend. A positive value means that delivered investment is greater than allocated investment and there has been an overspend.

	Fund	Value (£)	Value (%)
	Remaining 8 funds (with underspend)	-£12m	-
	TOTAL UNDERSPEND	*-£145m*	-
Overspend	National Highways Designated Funds	£4m	+5%
	Sustainable Travel Transition Year Fund	£50,000	+<1%
	TOTAL OVERSPEND	*£4m*	-
	NET UNDERSPEND	**-£141m**	**-12%**

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Notes: Numbers may appear incorrect due to rounding. £50,000 represents a value of 0.478%.

From looking at all 18 funds for which data was available in time for this review, there does not seem to be clear evidence of a link between the scale of the underspend or overspend and the size of the fund, the type of intervention, or whether the fund was dedicated to active travel.[60]

Unlike CWIS1, the CWIS2 period is not yet complete. While allocated investment covers the entire CWIS2 period (April 2021 to March 2025), delivered investment for the purpose of this analysis covers the period from the start of CWIS2 (April 2021 to December 2023). Therefore, to enhance the analysis, future planned investment for the remainder of CWIS2 must be added to the estimates of investment delivered to create a measure that is comparable to allocated investment (which reflects the whole of CWIS2).

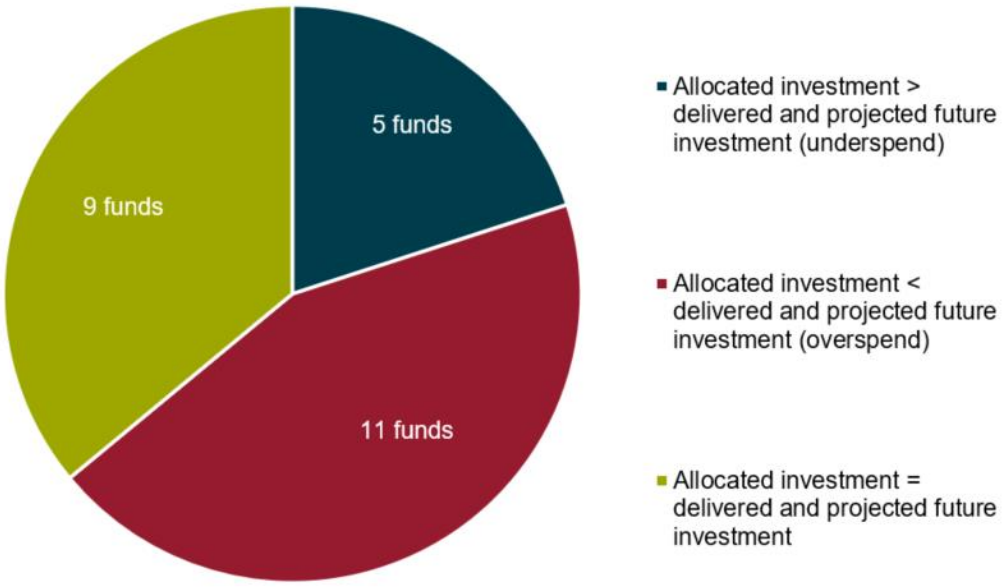
Allocated investment can be compared with delivered + future planned investment to estimate the total underspend or overspend. This suggests an estimated £1.8 million of underspend across the 25 funds, based on data available in time for this review. As there was £2.7 billion of allocated investment for these funds, this represents an underspend of less than 0.1%.

When looking in more detail at the different funds, as shown in Figure 8, it can be seen that:

- For five funds, allocated investment was greater than the sum of delivered investment and future planned investment for the remainder of CWIS2 (i.e. suggesting an underspend);
- For 11 funds, allocated investment was less than the sum of delivered investment and future planned investment for the remainder of CWIS2 (i.e. suggesting an overspend); and
- For nine funds, allocated investment was equal to the sum of delivered investment and future planned investment for the remainder of CWIS2.

[60] The underspend comes from a mix of funds that have invested in only cycling interventions, as well as those that have invested more broadly – this does not indicate a strong link between investing in a specific transport mode and a fund's likeliness to underspend or overspend. A mixture of dedicated and non-dedicated funds have underspent, whereas only dedicated funds have overspent – however, the small sample size means no inference should be taken from this.

Figure 8 Allocated investment compared to delivered investment across CWIS2 (for the 25 funds for which data was available in time for this review)



Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Notes: This reflects data for 25 funds only.

Table 7 gives information for the top funds (for which data was available at the time of this review) that are expected to underspend and overspend in CWIS2. As with Table 6, this table shows the value of the expected underspend or overspend in absolute terms, along with the proportion of the value of the allocated investment this represents for that fund.

Table 7 Net expected underspend of CWIS2 funds, split by largest fund

	Fund	Value (£)	Value (%)
Underspend	Transforming Cities Fund	-£118m	-15%
	Getting Building Fund	-£14m	-23%
	Active Travel Social Prescribing	-£7m	-41%
	Bikeability	-£6m	-6%
	National Highways Designated Funds	-£3m	-4%
	TOTAL EXPECTED UNDERSPEND	*-£148m*	-
Overspend	Town Deal	£58m	+25%

	Fund	Value (£)	Value (%)
	Active Travel Fund	£28m	+7%
	Levelling Up Fund	£20m	+6%
	National Cycle Network	£20m	+57%
	Capability Fund	£8m	+10%
	Remaining 6 funds (with overspend)	£12m	
	TOTAL EXPECTED OVERSPEND	*£145m*	
	NET EXPECTED UNDERSPEND	**-£2m**	**<1%**

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Notes: Numbers may appear incorrect due to rounding. £2m represents a net underspend of -0.078%.

In Table 7, the Transforming Cities Fund (TCF) appears to have a significant underspend. However, this is explained by a change in funding flows. Some £124 million of allocated investment for TCF in CWIS2 was shifted into CRSTS, either as investment delivered in CWIS2 or as future planned investment. Once this is taken into account, TCF has a £16 million overspend in CWIS2 rather than a £118 million underspend.

For the 25 funds for which data was available at the time of this review, there does not seem to be clear evidence of a link between the size of the underspend or overspend and the size of the fund or whether the fund was dedicated to active travel.[61]

2.1.4 Analysis of capital and revenue investment for CWIS1 and CWIS2

In Section 1.3, the following definitions were given for three categories of outputs.

- Pre-investment: plans and business cases that have been developed;
- Capital: expenditure either on new facilities or on improving existing facilities (including replacements); and
- Revenue: day-to-day spending on interventions such as campaigns or events.

These definitions describe the types of financial investment used to deliver walking and cycling outputs. For example, capital investment is the type of financial investment to deliver walking and cycling capital outputs such as capital assets or infrastructure. Due to data limitations, for the purpose of this section, revenue investment covers the financial investment required to produce both revenue outputs (such as campaigns or events) and pre-investment outputs (such as business cases, development of strategies or feasibility studies).

In CWIS1, 90% of the estimated £2.5 billion of revised projected investment was capital investment (£2.25 billion), while only 10% was revenue investment (an estimated

[61] The funds with both the largest overspend and the largest underspend were a mixture of dedicated and non-dedicated funds, which does not suggest a strong correlation between whether a fund is dedicated and the size of its underspend or overspend.

£247 million). Of the £2.5 billion (revised) projected investment in walking and cycling, some £2.4 billion of investment was delivered, 91% of which was capital investment (£2.2 billion) and 9% was revenue investment (£203 million).

In CWIS2, 92% of the £4.1 billion of projected investment was capital investment (£3.78 billion), and 8% was revenue investment (£319 million). Of the £4.1 billion (revised) projected investment in walking and cycling, some £1.8 billion of investment has been delivered so far in CWIS2 (April 2021 to December 2023). Ninety-three percent of this was capital investment (£1.7 billion), and 7% was revenue investment (£104 million). There is expected to be a further £2.0 billion of investment delivered in walking and cycling interventions throughout the remainder of CWIS2 (January 2024 to March 2025), 89% of which is expected to be capital investment (£1.8 billion) and 11% of which is expected to be revenue investment (£216 million).

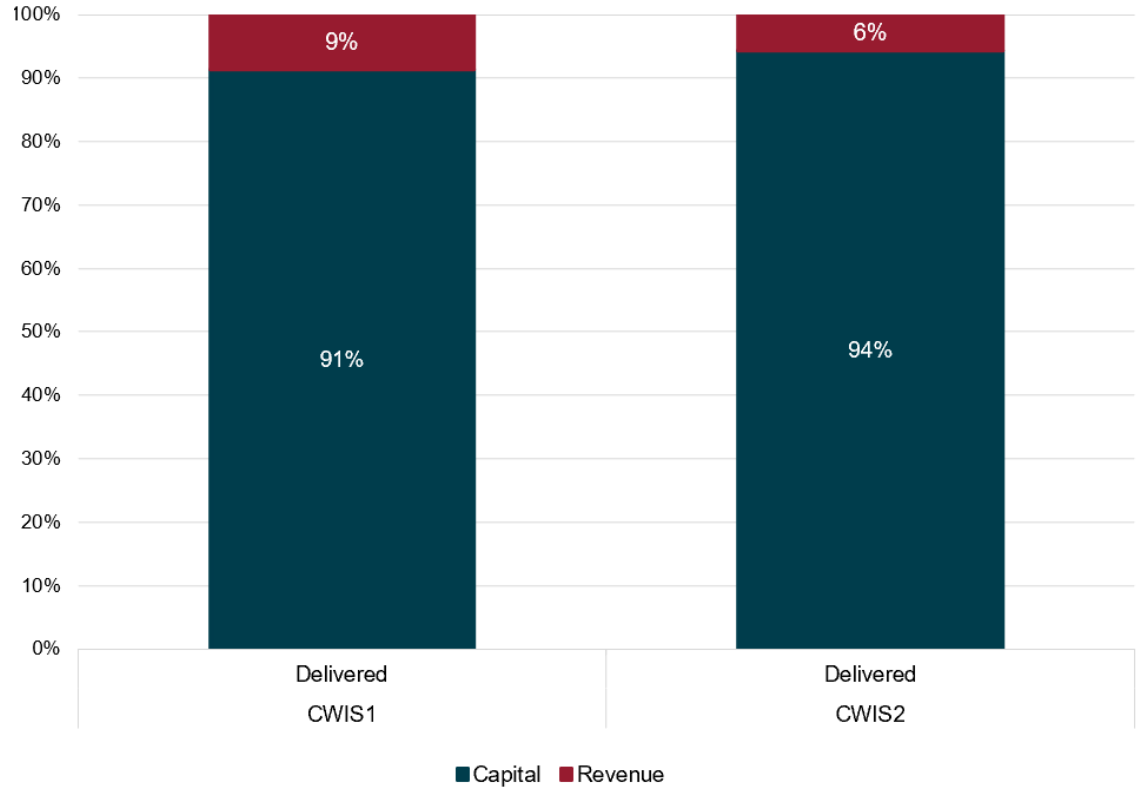
This information is set out in Table 8 and Figure 9.

Table 8 Estimated capital and revenue split of CWIS1 and CWIS2 investment

	Revised projected investment (£ million)		Delivered investment (£ million)		Future planned investment (£ million)	
	Capital	Revenue	Capital	Revenue	Capital	Revenue
CWIS1	£2,253m (90%)	£247m (10%)	£2,154m (91%)	£203m (9%)	N/A	N/A
CWIS2	£3,784m (92%)	£319m (8%)	£1,742m (94%)	£104m (6%)	£1,794m (89%)	£216m (11%)
TOTAL	£6,037m (91%)	£566m (9%)	£3,896m (93%)	£307m (7%)	£1,794m (89%)	£216m (11%)

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

Figure 9 Estimated proportion of capital and revenue investment delivered across CWIS1 and CWIS2



Source: *Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.*

Note: *This chart displays delivered investment only and does not include future planned investment for the remainder of CWIS2.*

2.1.5 Analysis of dedicated and non-dedicated funds for CWIS1 and CWIS2

Across CWIS1 and CWIS2, the majority of the investment has derived from funds that are not dedicated only to active travel ('non-dedicated') but have wider objectives, of which facilitating walking and cycling is a part. This is compared to funds dedicated only to investing in active travel ('dedicated').

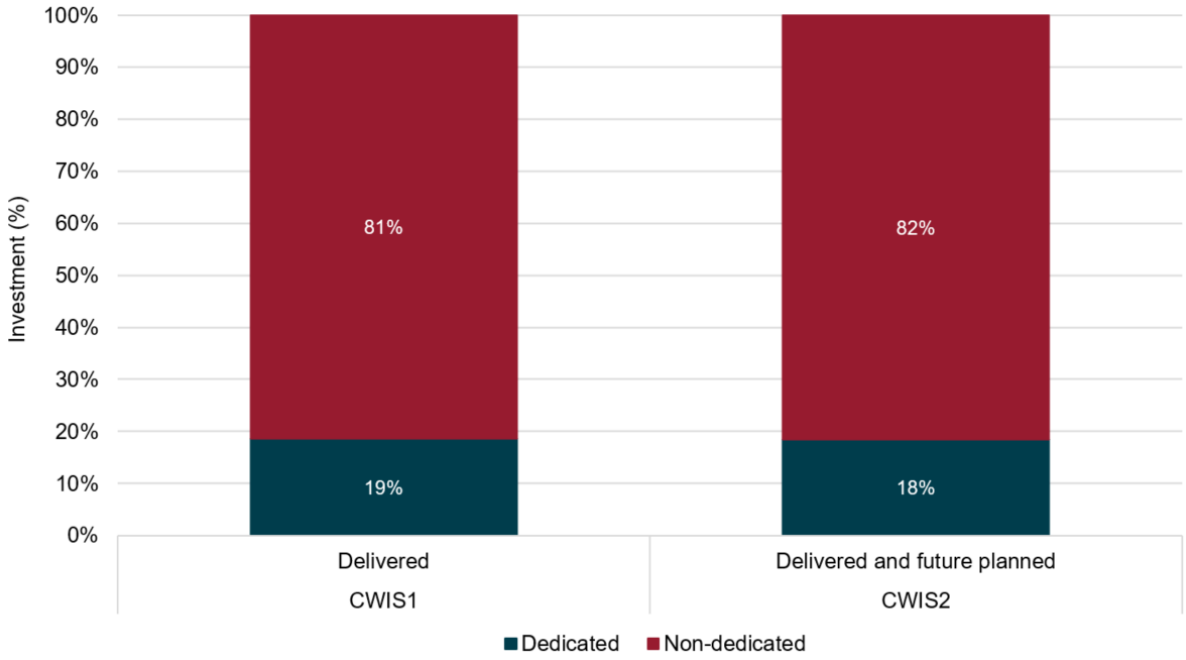
Of the investment delivered in walking and cycling interventions, an estimated 14% is from dedicated funds across CWIS1 and CWIS2. However, this rises to 19% when planned future investment for the remainder of CWIS2 is included. This is displayed in Table 9 and Figure .

Table 9 Estimated investment from dedicated and non-dedicated funds across CWIS1 and CWIS2

	CWIS1			CWIS2			CWIS1 & CWIS2
	Dedicated (£m)	Non-dedicated (£m)	Dedicated (%)	Dedicated (£m)	Non-dedicated (£m)	Dedicated (%)	Dedicated (%)
Delivered	£439m	£1,918m	19%	£161m	£1,684m	9%	14%
Future planned	-	-	-	£551m	£1,460m	27%	-
Delivered + future planned	£439m	£1,918m	19%	£712m	£3,144m	18%	19%

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

Figure 10 Estimated proportion of dedicated and non-dedicated investment across CWIS1 and CWIS2



Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

2.1.6 Analysis of investment by the largest funds in CWIS1 and CWIS2

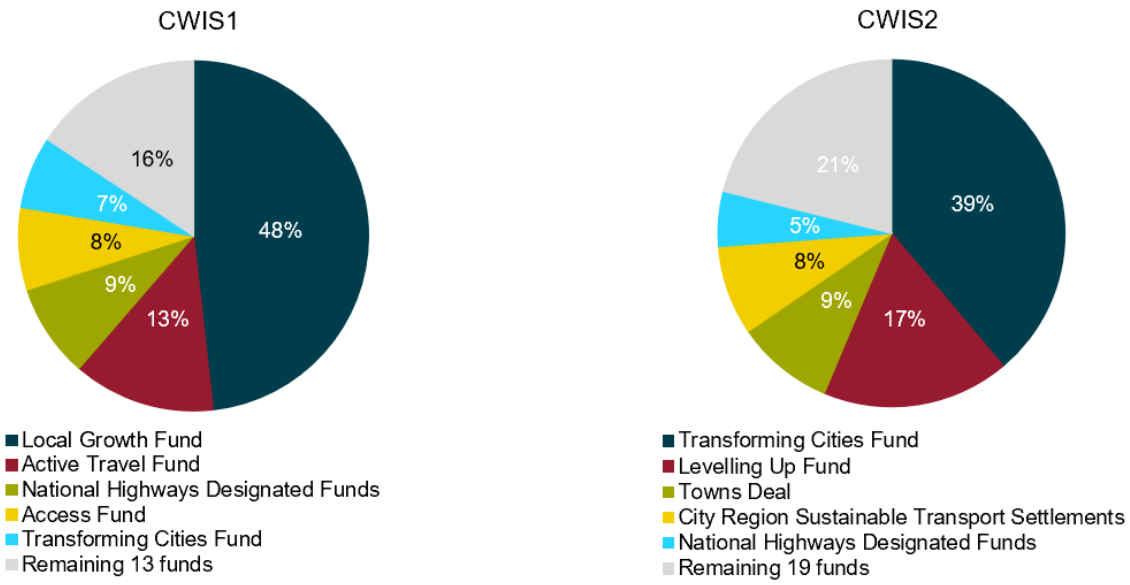
Across CWIS1 and CWIS2, a large proportion of delivered investment has been accounted for by a small number of funds. Table 10 shows how the largest five funds (for which data was available in time for this review) delivered 84% of delivered investment in CWIS1, and 79% in CWIS2. This is also demonstrated in Figure .

Table 10 Estimated investment delivered in walking and cycling from the five largest funds across CWIS1 and CWIS2

		Delivered investment	
CWIS period	**Fund**	**£**	**% of total (where data available)**
CWIS1	Local Growth Fund	£495m	48%
	Active Travel Fund	£135m	13%
	National Highways Designated Funds	£89m	9%
	Access Fund	£78m	8%
	Transforming Cities Fund	£68m	7%
	Remaining 13 funds	*£161m*	*16%*
CWIS2	Transforming Cities Fund	£452m	39%
	Levelling Up Fund	£203m	17%
	Towns Deal	£106m	9%
	City Region Sustainable Transport Settlements	£97m	8%
	National Highways Designated Funds	£60m	5%
	Remaining 19 funds	*£245m*	*21%*

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

Figure 11 Investment delivered in walking and cycling across the largest funds in CWIS1 and CWIS2



Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

2.1.7 Future planned investment for CWIS3

As noted above, for the purpose of this review, future planned investment consists both of the planned investment for the remainder of CWIS2 (January 2024 to March 2025), and the planned investment for CWIS3 (assumed to be April 2025 to March 2029). Future planned investment for CWIS3 is currently estimated to be £554 million. However, this is only for the subset of eight funds for which this data was available in time for this review, and it accounts for some original CWIS2 projection which has shifted into CWIS3 due to delivery delays. This is therefore likely to be a substantial underestimate of total investment in CWIS3 across all 45 CWIS funds.

It may prove insightful to examine the original funding periods in isolation, which would involve redistributing where delivered investment is currently accounted for. This would permit a reasonable assessment of the successes of each CWIS period against the original objectives and targets. However, a caveat with this approach would be that delivery needs to be completed and confirmed for it to provide a rigorous assessment of investment across periods, and this is likely to be an issue for funds where delivery has slipped into CWIS3.

2.2 Objective 2: Collate outputs and preliminarily assess outcomes

2.2.1 Outputs reported by projects

For 14 of the CWIS1 and CWIS2 funds, fund representatives reported information on the outputs that had been delivered to date (December 2023).[62] This portfolio of funds is shown in Table 11.

Table 11 Portfolio of CWIS1 and CWIS2 funds for which data on delivered outputs was available in time for this review

	Delivered investment	
Fund	**CWIS1**	**CWIS2**
Access Fund	£78.3m	-
Active Travel Ambassadors Pilot Programme	-	£0.4m
Big Bike Revival	£1.4m	£2.1m
Bikeability	£54.8m	£41.0m
Cycle City Ambition	£98.6m	-
Cycle Rail	£13.9m	£1.0m
E-Cycle Support	£1.6m	£9.5m
Fix Your Bike Voucher	£10.5m	-
Levelling Up Fund	-	£203.1m
Local Growth Fund	£495.1m	£16.3m
Modeshift STARS	£0.4m	£0.4m
National Highways Designated Funds	£89.0m	£59.6m
Sustainable Travel Transition Year Fund	£10.8m	-
Walk to School Outreach	£4.6m	£4.0m

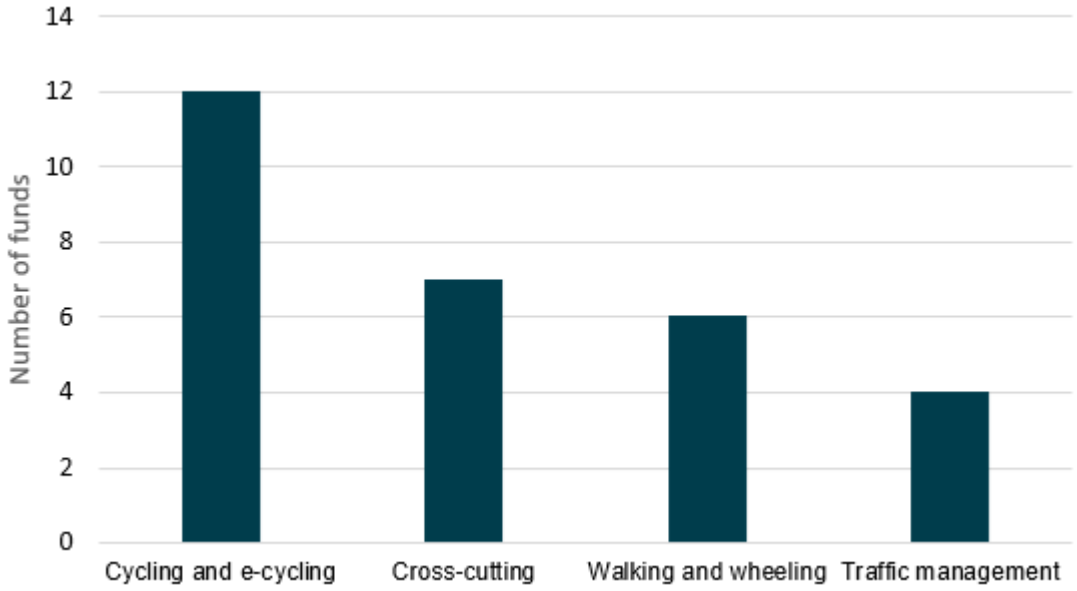
Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

[62] Eighteen out of 45 funds were able to provide data on outputs in time for this review, representing £1.3 billion of the total £4.2 billion of delivered investment by CWIS1 and CWIS2 funds (approximately 31%). This data covers both outputs delivered and outputs that are planned but not yet delivered. Fourteen out of 45 funds were able to provide data on delivered outputs in time for this review, representing £1.2 billion of the total £4.2 billion of delivered investment by CWIS1 and CWIS2 funds (approximately 29%). Therefore the findings in this section outline the findings from a portfolio of 14 funds, and it cannot be guaranteed that this is representative across all CWIS funds.

Of the portfolio of funds that had data available on delivered outputs in time for this review, around half of the funds – seven out of 14 – had invested in outputs across multiple active travel transport modes ('cross-cutting' outputs),[63] whereas the remaining seven funds had invested in outputs from only one active travel transport mode.

Funds in this portfolio of funds tended to have predominantly invested in cycling and e-cycling outputs, compared to the other CWIS transport outputs (listed in Section 1.3).[64] This can be seen in Figure 12, where 12 of the portfolio funds had invested in cycling and e-cycling outputs, but only six funds had invested in walking and wheeling outputs and four had invested in traffic management outputs.

Figure 12 Delivered outputs of the portfolio of CWIS1 and CWIS2 funds for which data is available, split by CWIS transport mode



Source: *Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.*

Note: *The total value of the bars sums to more than the 14 funds with data on delivered outputs. This is because some funds have invested in multiple outputs from multiple transport modes.*

As noted above, these outputs relate only to the funds for which data was available in time for this review. There are many other funds under CWIS1 and CWIS2 for which no output data was readily available in time for this review. Furthermore, there are likely to be many funds that contributed towards the objectives and ambitions of CWIS1 and CWIS2 but are not explicitly recognised as such. This is especially true for interventions that could increase the level of walking. For example, relevant interventions could include improved street lighting and

63 As outlined in Section 1.3, cross-cutting outputs are those that cover multiple transport modes, such as a seminar that encourages school children to walk and cycle.

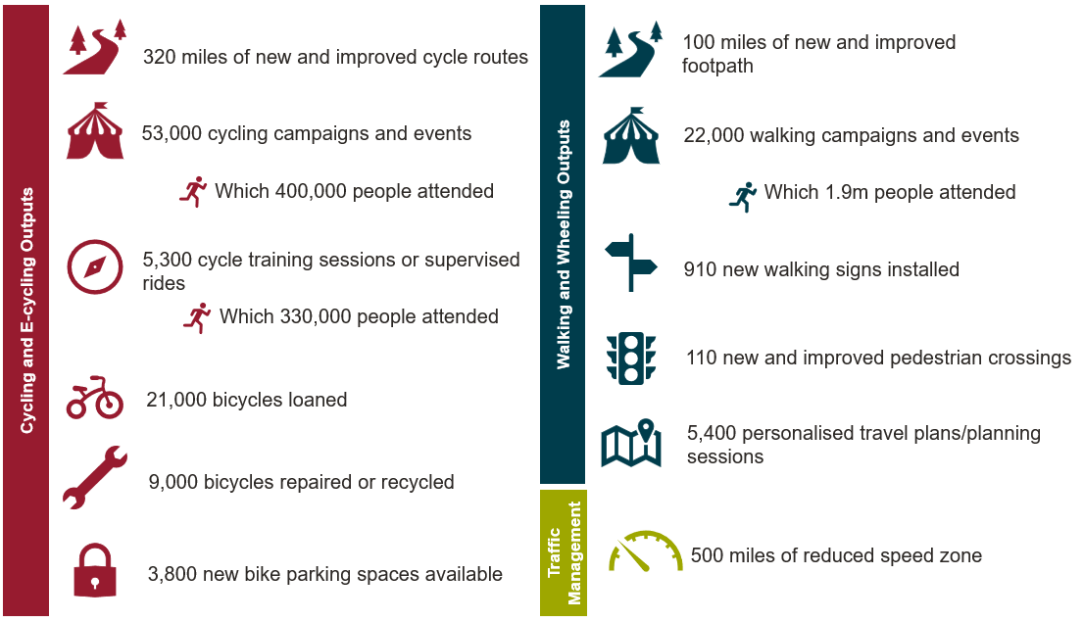
64 CWIS active travel transport modes are outlined in Figure : cycle and e-cycling, walking and wheeling, traffic management and cross-cutting.

investments in other aspects of the public realm such as parks, canal pathways, pedestrianisation zones, urban green spaces and pavement enhancements. Therefore, at this stage it is not possible to say that these outputs are definitely representative of all CWIS outputs. However, they are illustrative of the types of outputs that are expected across all CWIS funds.

In terms of the category of outputs into which the portfolio of funds have invested, only a small number of the funds in the portfolio have made investments in pre-investment outputs such as strategies and business cases. The majority of funding has been capital spending rather than revenue spending, though most funds in the portfolio contain both categories of outputs.[65]

Looking at the more granular level of outputs delivered by the portfolio of funds, a summary is reported in Figure . These outputs are likely to materially underestimate the full extent of what has been delivered (or will be delivered) across all CWIS1 and CWIS2 funds, given that the CWIS2 period is not yet complete, and these outputs are only from a portfolio of funds. However, this is presented here to demonstrate the range of outputs already delivered, even if only for this portfolio of funds.

Figure 13 Summary of outputs from a portfolio of CWIS1 and CWIS2 funds for which data was available in time for this review



Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Notes: Value of 14 funds that delivered these outputs across CWIS1 and CWIS2 is £1.2 billion.

65 As outlined in Section 1.3, capital outputs represent the outputs of investment in creating new facilities or restoring older ones, whereas revenue outputs relate to revenue spending, such as information campaigns and events.

Improved cycleways were the most prevalent individual type of output – eight of the funds in the portfolio have together delivered 320 miles of new and improved cycleway so far.[66]

Cycling training sessions and supervised rides were also a commonly delivered output. Four funds – Access Fund, Bikeability, E-Cycle Support and Sustainable Travel Transition Year – delivered approximately 5,300 cycling training sessions or supervised rides to 330,000 participants. The vast majority of participants (more than 290,000) were school children associated with Bikeability.

The portfolio funds delivered a significant number of cycling campaigns and events. Five funds – Access Fund, Big Bike Revival, Bikeability, Modeshift STARS and Sustainable Travel Transition Year – together held 53,000 events from April 2016 to December 2023, which 400,000 people attended. In comparison, four funds – Access Fund, Modeshift STARS, Sustainable Travel Transition Year and Walk to School Outreach – delivered 22,000 walking and wheeling campaign events over the same period, attended by 1.9 million people, predominantly children.

Other walking and wheeling outputs include:

- 910 signs for pedestrians – delivered by Access Fund and Sustainable Travel Transition Year Fund;
- 100 miles of new and improved footpath – delivered by Access Fund, Levelling Up Fund, Local Growth Fund and Sustainable Travel Transition Year Fund; and
- 110 pedestrian crossings – delivered by National Highways Designated Funds, Levelling Up Fund and Local Growth Fund.

The most prevalent traffic management output was the introduction of reduced speed limits (typically 20 mph) on 500 miles of road. This was predominantly completed by the Cycle City Ambition Fund.

2.2.2 Preliminary outcomes assessment

The outputs detailed in Section 2.2.1 would in turn be expected to lead to outcomes, both short-term and dependent, as defined in Section 1.3.[67] Understanding and estimating the nature and scale of CWIS1 and CWIS2 outcomes is not currently feasible, not only because some of the outputs themselves have not yet been delivered (CWIS2 runs until March 2025) but also because data on outcomes is not consistently recorded. In the absence of this data, it is challenging to develop estimates because of the complex link between outputs and outcomes. For example, investment in any given output does not necessarily lead to a

66 This figure does not include new shared walking and cycling routes.

67 As outlined in Section 1.3, intermediate outcomes relate to the perceptions and behaviour of active travel, including increases in walking and cycling trips. Dependent outcomes relate to health & wellbeing, environmental, economic and social benefits. These could include improvements in physical activity as well as reduction in carbon emissions.

particular set of outcomes because of the important influence of contextual factors on what is actually observed.

Data on short-term outcomes was reported by fund representatives from a subset of the portfolio funds examined in Section 2.2.1.[68] The funds that could provide the data in time for this review are listed in Table 12.

Table 12 Subset of funds with data on delivered outcomes

	Delivered investment	
Fund	**CWIS1**	**CWIS2**
Access Fund	£78.3m	-
Big Bike Revival	£1.4m	£2.1m
Fix Your Bike Voucher	£10.5m	-
Local Growth Fund	£495.1m	£16.3m
Sustainable Travel Transition Year Fund	£10.8m	-
Walk to School Outreach	£4.6m	£4.0m

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

For this subset, the outcomes are summarised in Figure . These outcomes are likely to be a significant underestimate of the full extent of what has been delivered (or will be delivered) across all CWIS1 and CWIS2 funds. This is partly driven by the CWIS2 period not being complete but is mostly a result of the data only coming from a subset of CWIS funds.

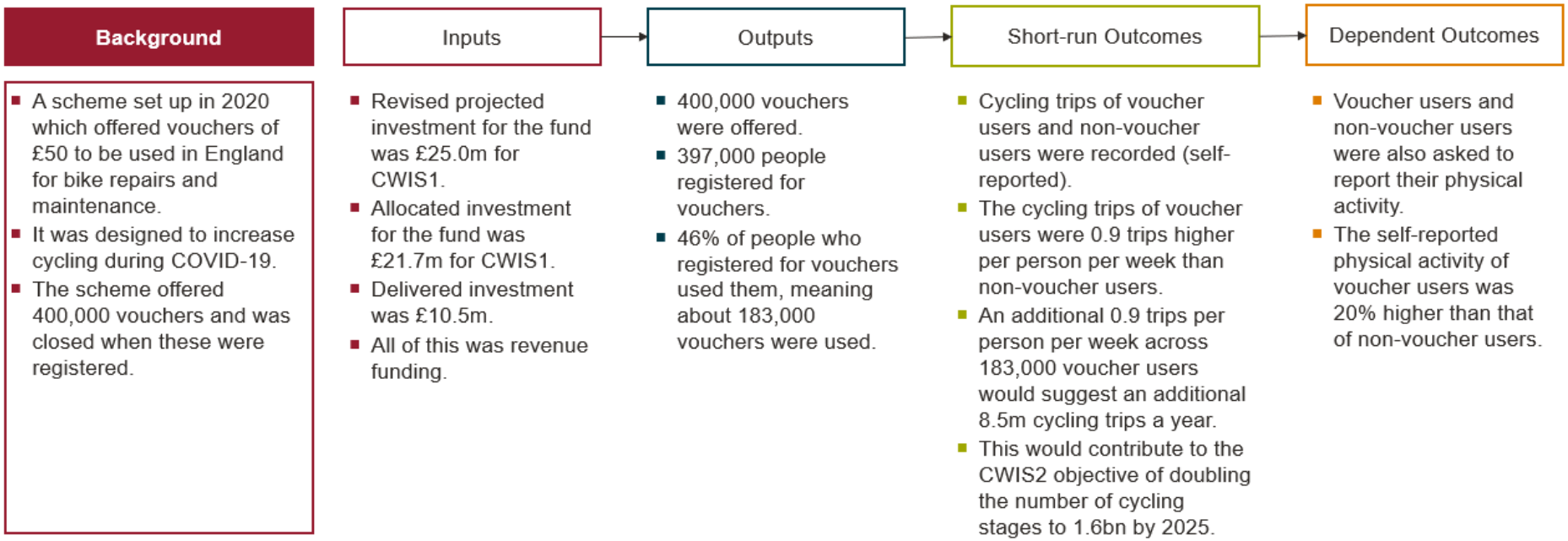
[68] Seven out of 45 funds were able to provide data on outcomes in time for this review, representing £0.6 billion of the total £4.2 billion of delivered investment by CWIS1&2 funds (approximately 17%). This data covers both outcomes delivered and outcomes that are planned but not yet delivered. Six out of 45 funds were able to provide data on delivered outcomes in time for this review, representing £0.6 billion of the total £4.2 billion of delivered investment by CWIS1 and CWIS2 funds (approximately 14%). Therefore the findings in this section outline the findings from a subset of funds and do not represent all CWIS funds.

Figure 14 Headline outcomes from a subset of CWIS1 and CWIS2 funds for which data is available

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Notes: Value of six funds that delivered these outcomes across CWIS1 and CWIS2 is £0.6 billion.

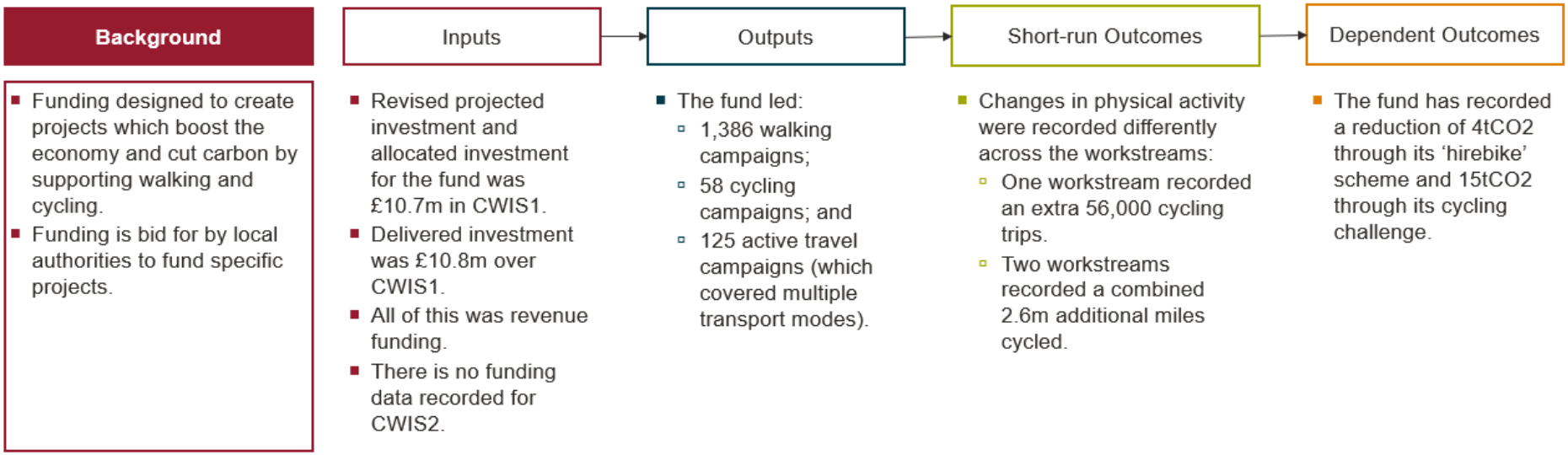
As it is not yet possible to quantify all the anticipated outcomes across CWIS1 and CWIS2, Figure 15 and Figure 16 outline two case studies for projects for which more data was available in time for this review. Each case study places the project in the logic model framework used throughout this report to demonstrate the potential impacts of the investment.

Figure 15 Case study: Fix Your Bike Voucher



Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

Figure 16 Case study: Sustainable Travel Transition Year Fund



Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives

To complement the summary of the data reported by fund representatives and provide a flavour of the potential outcomes that may result from CWIS1 and CWIS2, Table 13 presents a rapid evidence review of evaluation studies. This review is from four studies that evaluate CWIS projects – Big Bike Revival, Walk to School Outreach, Bikeability and Cycle City Ambition.

These four funds are in the portfolio of funds for which fund representatives were able to report output data in time for this review. However, fund representatives were only able to report outcome data in time for this review for the Big Bike Revival and Walk to School Outreach evaluations. It is important to note that the evaluation studies in Table 13 are for specific evaluations periods (as outlined in the table), which differ from the CWIS periods. More information on the methodology and limitations of these studies can be found in Annex C.

Table 13 Summary of rapid evidence review of CWIS evaluation studies

Project	Time period	Total spend[69]	Outputs	Outcomes
Big Bike Revival	Intervention: 2014–present Evaluation: May–November 2022	£668,000	3,700 cycling events delivered to 66,000 participants: ■ Cycle maintenance training (attended by 41% of total project participants – 18,000);[70] ■ Beginner cycle training (11% of total project participants – 7,300); ■ Cycle safety training (18% of total project participants – 12,000); ■ Bicycle servicing (44% of total project participants – 29,000); ■ Led rides (24% of total project participants – 16,000).	Survey results found: ■ 18,000 out of 66,000 participants increased their levels of cycling. 9,000 of these were non-regular cyclists who became regular cyclists;[71] ■ Overall, 55,000 new cycling trips were created between the baseline and the follow-up survey three months later; ■ A 20 percentage point decrease in participants reporting that safety concerns stopped them cycling; ■ 59% reported improved physical wellbeing.[72]
Walk to School Outreach	Intervention: 2011–present	£2.1m	Engagement events, competitions, activity sheets and free online resources to promote walking to school.	At least a 16 percentage point increase in the proportion of pupils walking at least part of the way to school (from 62% to 78%). This was estimated to have created 13.4 million new

69 'Total spend' refers to the total delivered investment over the evaluation period.

70 As some participants attended multiple events, these percentage figures sum to more than 100%.

71 Regular cyclists are those who cycle at least once every two weeks. Non-regular cyclists are those who cycle once a month or less.

72 The study did not provide a definition of physical wellbeing.

Project	Time period	Total spend[69]	Outputs	Outcomes
	Evaluation: April 2021–March 2022		Delivered to 340,000 children across 973 schools.	walking trips over the evaluation period of April 2021 to March 2022, and removed 2.5 million km of car travel from the road.
Bikeability	Intervention: 2006–present Evaluation: Autumn 2017–autumn 2018	£50m (over four years)	Cycle training delivered to 350,000 primary-aged children (4–6 hours of training).	Survey results found: ■ A 9 percentage point increase in pupils who cycled at least once in the term over the control group (65% compared to 56%); ■ A 12 percentage point increase in pupils who cycled on roads in the last week over the control group (34% compared to 22%).
Cycle City Ambition (CCA)	Intervention: 2013–18 Evaluation: 2013–18	£191m	■ 90km cycle routes (18 routes segregated); ■ 100km canal towpath; ■ New cycle parking at 206 locations; ■ Three cycle bridges; ■ 641km of 20mph speed limit zones; ■ 7,000 cycles donated to disadvantaged areas.	Automatic count data found the increase in cycling levels in intervention towns was 14–40% for four out of 12 schemes.[73] However, there was no evidence that this increase in cycling levels came from an increase in the number of cyclists.

[73] One scheme (Canal Towpaths in Birmingham) found an increase of +158%. The remaining schemes have ambiguous or conflicting results.

Most of the funds in Table 13 focused on delivering revenue outputs:

- Big Bike Revival delivered a mixture of cycling events and found that more than a quarter of participants increased their cycling. Half of these were non-regular cyclists who became regular cyclists. The events also reduced by 20% the number of survey respondents who reported that safety concerns were preventing them from cycling.
- Bikeability delivered cycling training events that increased the number of children cycling regularly by 12 percentage points (from 22% to 34%) and the number of children cycling less frequently by 9 percentage points (from 56% to 65%).
- Walk to School Outreach also found revenue spend on walking effective, where £2.1 million of revenue spend on engagement events and competitions is estimated to have led to 13.4 million new walking trips.
- CCA is the only fund in the table that focused on capital outputs. This had varied results, but because methods for data collection and reporting varied across the intervention areas, it is not possible to use this variation to demonstrate the efficacy of different intervention types.

The evaluation studies do not consistently measure cycling or walking rates over time. While CCA measured cycling activity for up to four years after the intervention in some areas, in general, the evaluation studies measure closer to the end of the intervention period. This means it is not possible to know whether the increases in cycling or walking are sustained. However, there is some evidence from the Transport for Quality of Life literature review that increases in cycling levels from cycling infrastructure and cycling training are sustained one to two years after the intervention.[74]

Other studies look at active travel investments that pre-date CWIS ('non-CWIS funds'). These provide evidence on the potential nature and scale of outcomes from similar walking and cycling interventions to those that are being delivered in CWIS funds. This can be helpful for informing the types of outcomes that we might expect to be delivered by CWIS funds. Table 14 represents a rapid evidence review of six evaluation studies. More information on the methodology and limitations of these studies can be found in Annex C.

[74] Hopkinson, L., Cairns, S., Heinen, E., Schuller, Z., Stoddart, I., & Sloman, L. (2019). CWIS Active Travel Investment Models: Model Structure and Evidence Base, p.6, p.7, p.11. Note this study uses the term 'decay rates' to refer to the outcomes of interventions dissipating over time

Table 14 Summary of evidence review of pre-CWIS evaluation studies

Project	Time period	Total spend[75]	Outputs	Outcomes
Bicycle Skills	Intervention: June–September 1995 Evaluation: June–September 1995	Unknown	Two-hour bicycle skills and safety training programme delivered to around 3,000 children.	No increase in cycling safety behaviour.
Walking Works[76]	Intervention: 2008–12 Evaluation: 2009–11	£450,000	In-depth support for five individual workplaces – providing 'Walking Champions' skills and training to put on walking activities at their workplaces, online walking quizzes, and photo competitions.	According to survey data, no significant changes in walking levels to, from or at work, but some insignificant increases were reported However, there was a significant increase in the self-reported proportion of respondents being in good health.
Fitter for Walking	Intervention: 2008–12 Evaluation: 2008–12	£2.2m	Infrastructure – including street lights, dropped kerbs, path resurfacing, removal of litter and installation of benches and bins.	Manual route user count data found both increases and decreases in walking levels on different improved routes after 12 months. However, consistent increases of 5–59% in walking across five of the seven improved routes after 14–20 months.[77] ■ Survey results found:

75 'Total spend' refers to the total delivered investment over the evaluation period.

76 Walking Works runs a series of national campaigns and challenges to promote walking to work. These national campaigns were run from 2008 to 2012 and were estimated to have reached 28,000 employees. The most notable campaign was the annual 'Walk to Work Week' every spring, where pedometers were issued to employees. These national campaigns were not part of the evaluation study, which instead focused on the more in-depth support provided to five employers over the same period.

77 Follow-up data was not collected on the other two routes. See the limitations section of Table 13 in Annex C for the authors' hypothesis on why mixed evidence was observed at 12 months compared to consistent increases at 14–20 months.

Project	Time period	Total spend[75]	Outputs	Outcomes
			Revenue activities – including led walks, awards and promotional activities.	■ Up to 25% reported having used the route more in the last 12–18 months; ■ 35.7% of users felt less stressed and 42.9% reported increased physical activity; ■ 25% reported feeling an increase in community cohesion.
Cycling Demonstration Towns (CDT)	Intervention: 2005–11 Evaluation: 2005–to 2011	Total unknown – £17 per head spent (70% capital; 30% revenue).	Infrastructure – including cycle parking, cycle lanes and cycle signage. Revenue activities – including 'Bike It' officer (at 139 schools),[78] cycle training, after-school cycle clubs and other cycling events.	Automatic count found the annual growth rate of cycling trips was 2–3% higher after the intervention (from 3% per annum before the intervention to 6% per annum after the intervention). Survey results found: ■ A 3 percentage point increase in the number of adults who cycled once a week or more (24% to 27%);[79] ■ A 1.1 percentage point increase in proportion of secondary school children 'usually' cycling to school (2.2% to 3.3%);[80] ■ A 0.7 percentage point increase in proportion of primary school children usually cycling to school (1.0% to 1.7%);[81]

78 A 'Bike It' officer works intensively with the schools over one academic year to increase uptake of cycling through events, projects and activities.

79 This is across 2006–11. This is a significant increase since 2006 ($p<0.05$)

80 This is across 2007–11.

81 This is across 2007–11.

Project	Time period	Total spend[75]	Outputs	Outcomes
				■ A 5.6 percentage point increase in proportion of pupils in 'Bike It' schools cycling to school every day (from 4.1% to 9.7%); and[82] ■ Similar increases in cycling across age ranges and gender, but lower increases amongst social grade DE compared to other social groups, and higher increases for households with children compared to adult-only households.[83]
Cycling City and Towns (CCT)	Intervention: 2008–11 Evaluation: 2008–11	£43m	Infrastructure – including cycle parking, cycle lanes and cycle signage. Revenue activities – including 'Bike It' officer (at 219 schools), cycle training, after-school cycle clubs and other cycling events.	Automatic count found the annual growth rate of cycling trips was 2–3% higher after the intervention (from 3% per annum before the intervention to 6% per annum after the intervention). Survey results found: ■ In Bristol, a 7 percentage point increase in the proportion of adults who sometimes cycled for over 30 minutes (from 13% to 20%);[84] ■ A 3.5 percentage point increase in the number of secondary school children 'usually' cycling to school compared to control (4.2% to 7.8%);[85]

82 Time period unclear.

83 Time period unclear.

84 This is across 2007–11.

85 This is across 2007–11.

Project	Time period	Total spend[75]	Outputs	Outcomes
				■ No increase in cycling amongst primary school children;[86] ■ A 5.6 percentage point increase in proportion of pupils in 'Bike It' schools cycling to school every day (from 4.1% to 9.7%).[87]
Local Sustainable Transport Fund	Intervention: 2011–15 Evaluation: 2011–15	£1bn	**Infrastructure:** ■ 537 cycle routes;; ■ 10,282 cycle parking spaces; ■ 323km pedestrian-only routes; ■ pedestrian crossings; ■ 20mph speed limit zones; ■ 257 bus services; ■ 2,344 bus stop improvements. **Revenue activities:** ■ 17,312 adults cycle trained; ■ 25,353 adults cycle maintenance trained; ■ Led walks / rides; ■ Child road safety training; ■ Cycle loans and promotional activities.	Survey results found: ■ A 6.6% increase in the number of adults who cycled in the last month relative to the comparator group; ■ Only weak evidence of increases in walking; ■ A 7% decrease in car driving levels; ■ A decrease in transport-related CO2 emissions of 1.5–3% relative to control areas.

86 This is across 2007–11.

87 Time period unclear.

Two of the funds in Table 14 – Bicycle Skills and Walking Works – focused solely on revenue spending, but unlike the CWIS funds in Table 13 there is only minimal evidence of successfully changing behaviour. It is possible this could relate to the size of the intervention, as the total spend for Walking Works is relatively low compared to other funds but the size of funding is not known for Bicycle Skills.

The other four funds delivered a mixture of capital and revenue outputs. This may have been motivated by the strong consensus from academic research and evaluation that the most effective approach to increase cycling and walking is to implement a complementary package of measures.[88] The studies show that these combined measures have generally had positive effects on cycling – reported in three studies – but the effects on walking were more mixed:

- CCT, CDT and Local Sustainable Travel Fund all reported increases in cycling levels. However, context is important, as the table demonstrates ways that impacts on cycling levels can vary:
  - The studies may indicate that the impact of interventions on cycling levels is lower amongst primary school children. CCT found no increase in cycling by primary school children but a 3.5 percentage point increase amongst secondary school children. The gap is narrower for CDT – with interventions leading to a 0.7 percentage point increase amongst primary school children and a 1.1 percentage point increase amongst secondary school children – but the increase amongst secondary school children is still larger.
  - Schools that received a greater level of intervention (referred to as 'Bike It' schools) had greater impacts on cycling levels. CCT and CDT both found an increase in the level of children at Bike It schools to be 5.6 percentage points, which is greater than the average increase amongst all school children reached.
  - CDT found an average increase in the annual growth rate of cycling trips of 2–3 percentage points – cycling rates were increasing at 3% per year before the intervention and increased at 6% per year after the intervention. However, there was some evidence that the increases in cycling were greater for adults who had children in the household than for adults in an adult-only household.
  - Unfortunately, the studies do not consistently measure cycling rates over time; in general, outcomes are measured at the end of the intervention period. This means it is not possible to know whether the increases in cycling are sustained.
- Fitter for Walking saw self-reported increases in walking, although this was not corroborated by evidence from the manual counters. The Local Sustainable Transport

[88] DfT (2017) *Cycling and Walking Investment Strategy*.

Fund also saw only weak evidence of increases in walking despite the spending on pedestrian routes, pedestrian-only crossings and supervised walks.

2.3 Objective 3: Data and evidence recommendations to inform the development of CWIS3

Building on the extensive review of both published evaluation evidence of relevant walking and cycling schemes and the available data from CWIS1 and CWIS2 funds, this section aims to offer recommendations on data collection and analysis that DfT may wish to consider as it shapes the development of CWIS3.

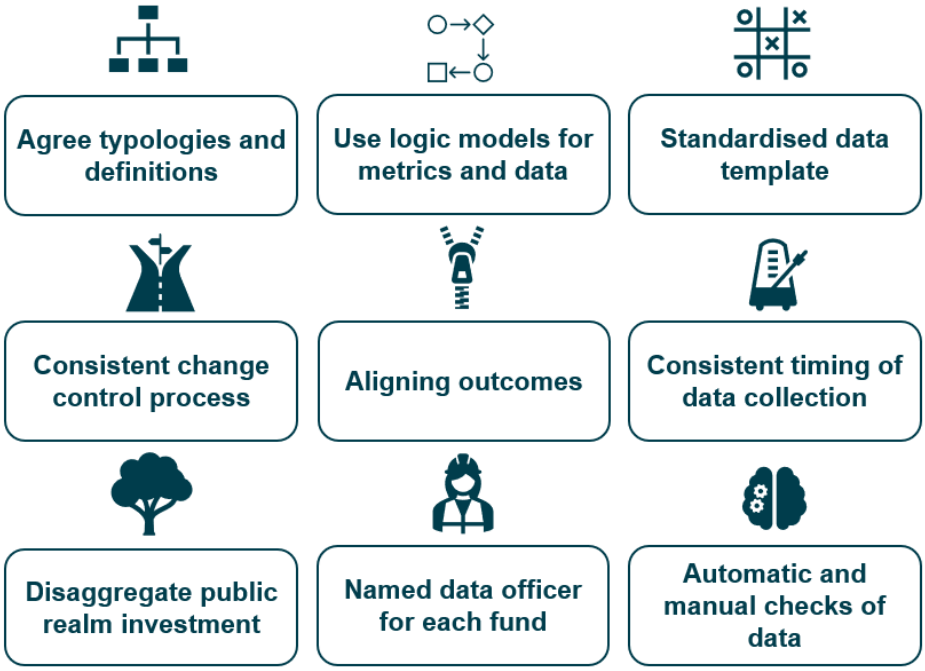
In particular, this section provides some suggested options that aim to:

- Facilitate future analysis of spending data;
- Ensure the collation of consistent and relevant spending and monitoring data to track progress over time; and
- Ensure that all documentation and data are appropriately stored ready to inform any future CWIS progress reports or evaluation activity.

These suggestions are intended to provide options that DfT may wish to implement in part or in whole. The suggestions – summarised in Figure – would also sit alongside existing activities being led by DfT and ATE in relation to CWIS investments and future planning and the recommendations of the National Audit Office report on active travel.[89]

[89] NAO (2023) *Active Travel in England*.

Figure 17 Summary of data and evidence recommendations to inform CWIS3



Source: Frontier Economics and SYSTRA.

The recommendations for DfT and ATE to consider are intended to be flexible in terms of whether or when DfT would like to implement them. They aim to acknowledge the need for proportionality, so that efforts can be targeted to where they add most value, as well as for pragmatism, recognising the complexities involved when funding is distributed to many organisations which may in turn allocate it to delivery bodies or other authorities.

The recommendations for consideration are:

1. **Agree a set of walking and cycling typologies that are common across projects.** These typologies can build on those set out in Section 1.3. Agreement would articulate consistent definitions and categories for spending, outputs (what is delivered) and outcomes (what changes occurred following the investment) – for example, to make sure that the split between capital and revenue is used consistently by different projects and can hence be compared across projects. Consistent typologies and definitions would allow data to be aggregated and compared across funds, and would save time reconciling across datasets that use different definitions. Therefore, alongside the typologies, some short guidance could be developed to describe a common set of requirements for how spending data should be defined and reported (e.g. projected, allocated, spent etc.).

2. **Use a logic model framework to determine the metrics and data that should be collected.** ATE has an overarching logic model for all active travel interventions. Logic models describe the channels through which funding is translated into activities, outputs

delivered and then changes in outcomes. This structure is valuable as it enables analysts to identify the metrics that would be useful for measuring and tracking progress at every stage of the logic model (inputs, outputs, outcomes etc.) and therefore can help to identify what data should be collected. This helps to ensure that only relevant data is collected as its purpose is clear. It may be useful to complement the overarching logic model with further, more granular logic models for different intervention types (aligned with the typologies suggested in recommendation 1. above), given the breadth of active travel interventions (e.g. separate logic models for capital and revenue interventions). Given the importance of context to the success of interventions, more granular logic models may allow DfT and ATE to identify potential enablers and barriers (e.g. location, existing schemes, etc.) that affect interventions, and therefore the associated data that would be useful for monitoring them.

3. **Trial a standardised template for monitoring data on active travel interventions** that can be used by all government departments and local authorities that have spending above a threshold on active travel.[90] ATE has developed a template, used at regular intervals for ATE-controlled funding, that could easily be adapted for wider use. This could ensure that outputs and outcomes are categorised consistently, using the same metrics where feasible and in the same units. For example, currently, some funds are collecting data on the length of different types of cycleways (e.g. segregated cycleways, shared-use cycleways, on-road cycleways), while others combine the length of all types of cycleways together into one metric. Similarly, engagement levels for campaigns and events are recorded by some funds at the level of individuals, and at the level of schools or businesses by other funds. A standardised template could enable data to be more easily compared and aggregated across funds. As the template may be challenging for relevant funds to move to or apply, and some parts of it may not be relevant to some funds, the template could be trialled across a few funds and departments before being finalised to gain feedback on the optimal format and the associated guidance for users that would be helpful. A sample of funds with different transport modes and spending on capital vs. revenue should ideally be used during the trial stage to get a sense of what the template should contain across a range of different funds.

4. **Consistent change control process.** Projects may decide to intentionally deviate from the original allocation plans for justified reasons. This may be as a result, for example, of changes in the cost or timeline of the project delivery, or in the number or type of outputs delivered. Once agreed with relevant parties, these changes need to be officially logged with a consistent change control process, so it is clear to all teams what has changed relative to the original plan and why. This could help with keeping track of how initial plans and projections might need to change, and the reasons, so that patterns can be identified to inform future planning.

[90] A threshold could be chosen by DfT and ATE so that this is proportionate.

5. **Aligning outcomes used in evaluations of walking and cycling interventions.** There are many evaluations of walking and cycling interventions being undertaken. While it is necessary for every evaluation to have its own design appropriate for the data available, questions to be explored and context in which they are being delivered, aligning the outcomes used in evaluations where possible could facilitate comparisons of findings across studies. This could also enable some data collection to be undertaken and shared with more than one evaluation team so as to streamline data collection processes. Not only would this save on research costs but it could minimise the burden on participants (e.g. through survey fatigue).

6. **Consistent timing of monitoring data collection.** DfT and ATE may wish to provide guidance on when monitoring data should be collected by the different funds and align monitoring data collection, where feasible, across funds. This would help to facilitate appropriate data being available to support delivery progress and to inform future evaluation activity. For some funds, DfT and ATE may wish to compile data across funds so that a dashboard can be developed periodically (e.g. every six months).

7. **Disaggregate public realm investment to identify active travel interventions.** Where funds have material investments in 'public realm', DfT and ATE may wish to provide guidance to disaggregate public realm investment data into more granular categories, so that investments that increase active travel can be more easily identified. This would enable development of a more comprehensive picture of interventions that facilitate walking in particular.

8. **Named data officer for each fund.** Given the importance of data and document recording, for relevant funds, DfT and ATE may wish to support the identification of a named data officer responsible for compiling and sharing monitoring data for each fund. The officers could also play a valuable role in safely storing all relevant documentation, such as businesses cases, business plans, appraisal modelling, impact assessment, etc. that would be useful for a future evaluation. The recommended approach would involve creating a log of the data officers across the relevant funds and updating this when team members change. This would make asking questions and gaining information about the data and data collection, monitoring and evaluation processes for each fund more efficient.

9. **Automatic and manual checks of data.** When aggregating and centrally processing monitoring data from different funds, DfT and ATE may wish to consider building automatic sense checks into the process. For example, this could be to highlight funds where actual spend is very different to that predicted, and therefore where more detailed validation of the incoming data might be needed. This would not necessarily require sophisticated software as relatively simple checking formulae in Microsoft Excel can be an effective tool. On top of the automatic data checks, DfT and ATE may want to undertake a manual 'check and challenge' process for certain funds to ensure that the data is being interpreted correctly. This additional manual process could be for key funds,

those that have been flagged by automatic sense check, and could include random spot checks to make sure the filtering systems are working effectively.

2.4 Conclusion

The focus of this report is the data on investment throughout CWIS1 and CWIS2. This shows that across both periods the revised projected investment in walking and cycling interventions is estimated to be £6.6 billion. Taking future planned investment for the remainder of CWIS2 into account, total investment delivered across CWIS1 and CWIS2 is an estimated £6.2 billion. This level of investment delivered represents a 4% underspend compared to allocated investment across both periods.

Over 90% of investment delivered was on capital outputs, with only 10% on revenue investment. Most (80%) investment delivered came from funds that are not dedicated exclusively to active travel but have wider objectives, of which supporting walking and cycling is one part. The majority of investment delivered came from a small number of funds, with 84% of investment delivered in CWIS1 and 79% of investment delivered in CWIS2 coming from just five funds.[91]

Some funds were able to report future planned investment for CWIS3. This is currently estimated to be around £1.1 billion. However, this reflects only eight funds, and further work will be carried out to develop CWIS3.

To complement this analysis of spending, fund representatives shared information on what has been delivered by a number of CWIS1 and CWIS2 projects to date. The outputs from this portfolio of 14 funds were described earlier and show that:

- Most funds have delivered a combination of outputs. Seven funds have spread these outputs across multiple transport modes, whereas for seven funds a variety of outputs that all related to one transport mode have been delivered. These outputs very often combine capital (infrastructure) spend with revenue spend (such as engagement activities or training).[92]
- The most prevalent type of cycling outputs are delivery of new and improved cycle ways, where 320 miles have been delivered by eight funds. Moreover, 5,300 training sessions have been delivered to 330,000 people, and there have been 53,000 cycling events which have been attended by 400,000 people.

[91] For CWIS1, the largest five funds were: Local Growth Fund, Active Travel Fund, National Highways Designated Funds, Access Fund and Transforming Cities Fund. For CWIS2, the largest five funds were: Transforming Cities Fund, Levelling Up Fund, Towns Deal, City Regional Sustainable Transport Settlements and National Highways Designated Funds.

[92] Across all CWIS funds, actual capital spending was £4.5 billion and actual revenue spending was £468 million. Across the portfolio funds for which output data was available, actual capital spending was £1.2 billion across CWIS1&2 and actual revenue spending was £245 million.

- Twenty-two thousand walking and wheeling events have been attended by 1.9 million people. There have also been 100 miles of new and improved footway, over 100 new pedestrian crossings and over 900 new pieces of walking signage delivered. However, this is likely to be a material underestimate of the full range of interventions that affect walking.

It is important to note that this will materially underestimate the total outputs that have been delivered in CWIS1 and CWIS2 because the CWIS2 period is not yet complete and data was only provided by a portfolio of the total CWIS funds (within the timeframe of this review).

Changes in outcomes that come directly from these outputs may be observed (e.g. changes in cycling rate), or changes in outcomes may be dependent on other outcomes happening first and therefore may only be observable in the longer term (such as changes in health). Fund representatives reported information on delivered outcomes across six CWIS funds. This information showed that the funds have led to 1.2 million additional cycling trips, 44 million additional walking trips, and almost 10 million fewer car trips. However, as with outputs, it is important to note that this will significantly underestimate the total outcomes that have been delivered in CWIS1 and CWIS2 because the CWIS2 period is not yet complete and data was only provided by a subset of the total CWIS funds (within the timeframe of this review).

To complement this, a rapid evidence review of evaluation studies of CWIS interventions suggests that, in one case, cycling training for school children was found to increase the proportion of children who cycle regularly by 12 percentage points (from 22% to 34%), and that, in another case, wider cycling events and campaigns led to more than a quarter of attendees increasing their level of cycling (especially amongst non-regular cyclists).

Furthermore, a rapid evidence review of evaluation studies that pre-date CWIS found evidence that a mixture of capital and revenue outputs can be effective in increasing cycling levels but it had more mixed results for increased walking levels. To some degree, this supports the strong consensus from academic research and evaluation that the most effective approach to increase cycling and walking is to implement a complementary package of measures.[93] Again the importance of context was seen, as impacts on cycling levels varied across groups. CDT found no impact on cycling levels amongst primary school children but an increase by 3.5 percentage points (from 4.2% to 7.8%) in the proportion of secondary school children usually cycling to school.

Due to data limitations, it is not possible to infer the full range of expected outcomes from delivered investments and associated outputs in CWIS1 and CWIS2. However, available evidence from similar interventions to those delivered or planned suggests that the £6.2 billion of delivered investment across CWIS1 and CWIS2 will make a significant contribution towards DfT's objectives (Box 1).

[93] DfT (2017) *Cycling and Walking Investment Strategy*.

Annex A Data limitations and assumptions

This report has been informed by data and information collated from published sources, internal documents and as provided by CWIS1 and CWIS2 fund representatives across DfT, Active Travel England, other government departments and government agencies. In order to manage the variety and complexity of the data and evidence recorded by each respective fund representative, a process was undertaken to process the data so that it could be standardised into a common format, to the extent feasible. However, the data shared by fund representatives for this analysis had several limitations, as described in Annex A.1 and A.2. To address these limitations, a range of assumptions and calculations had to be undertaken, as detailed in Annex A.3.

A.1 Limitations with investment data

Limitation	Potential Implication	Assumptions/solution adopted
Incomplete data - no viable data on investment and deliverables for some funds	Incomplete picture of those CWIS funds	Assumptions made were based on previous evidence if available and re-validated with DfT team. If not, entries recorded as £0. All assumptions are in Annex A.3.
Inconsistent data disaggregation – level of detail and disaggregation varying considerably across the funds	Not all funds had inputs on a scheme/project level and are therefore only recorded at a higher level	Data has been categorised based on the information provided and validated with DfT.
Lack of information on allocated investment - some funds lacked data on the funding allocated to delivery partners	Incomplete information on internal financial transactions	To address evidence gaps, the assumption was made that the £ value of revised projected investment was allocated (and therefore equivalent in value) to the delivery partner
Missing delivered investment data – no further disaggregation to allow comparison between revised projected, allocated and delivered investment	Incomplete picture of delivered investment to date	Where delivered investment data was not available, the assumption used was that the revised projected investment was delivered in full (i.e. revised projected investment (£) was equivalent in value to allocated investment (£) and to delivered investment (£))

Different time periods – data shared by fund representatives on delivered investment covered different time periods (final cut off for this analysis was December 2023)	Inconsistency in time periods covered by the data shared by fund representatives. The full period to December 2023 was not available for all funds, wish consequent potential for under-estimation of the delivered investment	Delivered investment data has been reported as shared by fund representatives. If the data reported related to a period ending before the final December 2023 cut off used for this analysis (e.g. to the end of Q3 2023), no adjustment was made to extrapolate the profile to December 2023
Incomplete delivered investment profile – particularly an issue for funds which spanned multiple CWIS periods	Incorrect assignment across the CWIS1 and CWIS2 periods	A delivered investment profile was derived based on published information on expected financial years the fund covered, using the anticipated construction/delivery months (e.g. if a fund was expected to run from 2020/21 to 2022/23, 1/3 was attributed to CWIS1 and 2/3 to CWIS2)
Incomplete information on the proportion of wider funds used for active travel investment	Potential for under- or overestimating the amount of active travel investment	All dedicated funds (i.e. those who primary objective related to active travel) assumed all investment to be 100% active travel. For non-dedicated funds which had wider objectives and therefore active travel features as part of a broader set of investments or projects, a percentage related to active travel was estimated using: a) evidence from previous rounds, bid documents and assumptions used in previous analysis; b) professional judgement based on scheme descriptions. These are discussed further in section A.3 below. Fund representatives were offered the opportunity to check and challenge the data inputs and

		assumptions. All assumptions were agreed and validated with DfT.
Missing project status – whether projects had been cancelled, in progress or completed	Potential for under- or overestimating the amount of projects which have been completed (i.e. delivered investment)	Where no data was provided on project status, status was cross referenced against the original funding periods (e.g. if the original fund projected investment in 21/22 and 22/23, all projects were assumed to be completed)
Conflicting data sources – opposing information for various sources	Uncertainty over which data source is most accurate or most up to date	Conducted sense checks against original projected investment (if available) and confirm most recent source with fund representative or DfT team for confirmation
Discrepancies between projections and received data – i.e. data inputs indicate a lower level of investment	Potential for underestimation of investment figures	Sense checks undertaken and corroborated with fund representatives where possible, and DfT otherwise.
Inclusion of CWIS3 investment data	Incomplete picture of all relevant CWIS funding for CWIS3	Data consolidated for CWIS3 where easily available and accompanied with a caveat that the value is likely significant underestimation of the fund's full CWIS3 value. For some multi-year funds, investment in active travel will be delivered in CWIS3. This has been captured where feasible.
Incomplete data for non-government funding – where available this data was captured	Incomplete picture of all non- central government funding	Capture non-central government funding where available and accompanied with a caveat that the value is likely significant underestimation
No confirmation of price values used by fund representatives to report the data	Potential for incorrect and inconsistent presentation of values	Assumed nominal unless stated otherwise.

A.2 Limitations with deliverables (outputs and outcomes) data

Limitation / Problem	Potential Implication	Assumptions/solution adopted
Limited data – Limited number of funds capturing output and outcome data	Incomplete picture of CWIS outputs and outcomes	Online sources were used where possible to supplement data gaps. All data are reported transparently, noting the sub-set of funds for which the data is available.
Lack of consistent detail – different levels of output disaggregation used by different funds	Inconsistent definitions used or aggregation of outputs and outcomes	For the purposes of this analysis, data has been aggregated into a set of output typologies agreed with ATE and DfT (e.g. new cycleway and improved cycleway combined into "new / improved cycleway" category)
Conflicting datasets – opposing information for various sources	Uncertainty over which data source is most accurate or most up to date	Conducted sense checks and confirmed with fund representative or DfT team
Non-quantifiable data - not all data was quantifiable or had unit measurements confirmed	Potential for incorrect data	Include high-level assumptions where possible Data was validated with fund representatives to the extent feasible. Other non-quantified data has been described in the text where feasible.
Outputs not labelled - Differences in presentation of planned versus delivered	Potential for inaccurate presentation of planned versus delivered status	Assumption that unless stated otherwise, the output was delivered

A.3 Assumptions to derive share of non-dedicated funds' active travel investment

The funds referred to in this analysis vary from those that are dedicated to supporting active travel objectives, and others that have wider objectives but deliver investment in active travel, alongside their other investments. For funds dedicated to active travel, this analysis assumes that 100% of the original projected, revised projected, allocated and delivered investment are

for active travel, unless evidence suggested otherwise[94]. For non-dedicated funds, the percentage of the respective types of projected investment assumed to be directed for active travel have been estimated using:

- evidence from previous bid documents and assumptions used in previous analysis;
- professional judgement by the project team based on scheme descriptions and verified by the DfT and / or fund representatives.

The table below provides further clarification on the approach and assumptions used to derive the value of revised projected investment for CWIS1 and CWIS2 for each non-dedicated fund referred to in this analysis. Funds for which no investment data were available are excluded from the table as no assumptions were required.

Fund Name	Value of revised projected investment CWIS1&2	Assumption on % of total fund investment considered 'active travel'	Justification
2017 National NO2 Air Quality plan	£8.69m	100%	Evidence provided by fund representative related to active travel schemes only
City Regional Sustainable Transport Settlements	£778.17m	26% [95]	Detailed scheme level evidence provided by fund representative enabled identification of active travel schemes. Active travel percentage therefore estimated based on sum of detailed breakdown of individual schemes.
Future High Streets Fund	£365m	44%	Previous methodology re-adopted. This used an extrapolation of first wave of allocations to identify projects with substantial walking and

[94] Sustainable Travel Transition Year Fund assumed 52%, calculated from project specific detail provided. The local authority projects were not solely focused on active travel and incorporated wider sustainable transport activities and interventions, including public transport, travel planning, wider marketing, promotion and branding events/ activities.

[95] This presents the aggregated value (i.e. the estimated active travel investment from the total fund value). This is derived from a detailed breakdown of each individual scheme which has an individual percentage applied (ranging from 0 to 100%)

			cycling (this showed 32 out of 72 areas = 44%). Re-baselining and M&E plans analysis forthcoming by DLUHC
Garden Communities	£2.45m	9% [95]	Detailed scheme level evidence provided by fund representative enabled identification of active travel schemes. Active travel percentage therefore estimated based on sum of detailed breakdown of individual schemes
Getting Building Fund	£78.30m	52% [95]	Detailed scheme level evidence provided by fund representative enabled identification of active travel schemes. Active travel percentage therefore estimated based on sum of detailed breakdown of individual schemes.
Healthy Streets Programme	£945.64m	48%	Evidence provided by fund representative. Each individual programme estimated a percentage for active travel (e.g. bus priority 0%, cycle superhighways 100%); weighted average across all programmes was then generated
Highways Maintenance Block	£706.98m	5% of total funding in 2016/17 and 2017/18; uplifted to 9% from 2018/19	Estimations provided by fund representatives and reconfirmed with DfT (this is consistent with previously used methodology).
Housing Infrastructure Fund	£37.59m	2% [95]	Detailed scheme level evidence provided by fund representative for relevant

			projects representative enabled identification of active travel schemes. Active travel percentage therefore estimated based on sum of detailed breakdown of individual schemes.
Integrated Transport Block	£231.25m	11% assumption of total funding	Estimations provided by fund representatives and reconfirmed with DfT (this is consistent with previously used methodology).
Levelling Up Fund	£349.61m	25% [95]	Detailed scheme level evidence provided by fund representative for relevant projects representative enabled identification of active travel schemes. Active travel percentage therefore estimated based on sum of detailed breakdown of individual schemes.
Local Growth Fund	£512.31m	30% [95]	Detailed scheme level evidence provided by fund representative for relevant projects representative enabled identification of active travel schemes. Active travel percentage therefore estimated based on sum of detailed breakdown of individual schemes.
Local Highways Maintenance Challenge Fund	£0.95m	0.2% [95]	Detailed scheme level evidence provided by fund representative for relevant projects representative enabled identification of active travel schemes. Active travel percentage therefore estimated based on sum of detailed breakdown of individual schemes.

National Highways Designated Funds	£175m	Direct input from fund representative	Evidence on relevant schemes provided by fund representative
National Productivity Investment Fund	£29.16m	12% [95]	Detailed scheme level evidence provided by fund representative for relevant projects representative enabled identification of active travel schemes. Active travel percentage therefore estimated based on sum of detailed breakdown of individual schemes.
Public Health Grant to Local Authority	£1.5m	Direct input from fund representative	Evidence on relevant schemes provided by fund representative
Safer Roads Fund	£47.57m	100%	Evidence on relevant schemes provided by fund representative
Sport England	£11.7m	100%*	Evidence on relevant schemes provided by fund representative. Full list included breakdown of funding recipient, project title, funding source (i.e. lottery or treasury) and sport type used to determine inclusion or exclusion*
Town Deals	£234.31m	12% CWIS2 22% CWIS3	Evidence provided by fund representative
Transforming Cities Fund	£834.76m	41%	Active travel estimated based on average of 8 local authority programme breakdown. Evidence for local authority programme was provided at scheme-level enabling active travel schemes to be identified

UK Shared Prosperity Fund	£11.83m	Direct input from fund representative	Programme level evidence provided by fund representative. Active travel estimated based on breakdown of investment priority areas

Annex B Detailed output and outcome tables

This annex contains detailed tables that show the different outputs and outcomes produced by the CWIS1 and CWIS2 funds that were able to provide data on outputs or outcomes. This information comes directly from fund representatives and does not include information from previous evaluation studies in the rapid evidence review.[96] The key findings that build on the information in these tables can be found in Section 2.2 and Annex C, and are summarised in Figure 2 and Figure 3Table 16.

These tables only include the funds for which fund representatives shared data on what had been delivered to date (December 2023). Therefore only 14 funds are included in the output tables and six funds are included in the outcomes table. As outlined in Section 2.2, this data is likely to represent an underestimate of what the funds will deliver across CWIS1 and CWIS2. This is because CWIS2 is not yet complete, and because not all funds were able to provide data on outputs and outcomes.

Given the number of funds and the number of different types of outputs, the outputs tables have been separated into the different types of outputs in the typology described in Section 1.3. Table 15 and Table 16 cover cycling and walking outputs, while Table 17 covers traffic management and cross-cutting outputs. Table 18 covers all outcomes that projects have reported so far.

[96] Big Bike Revival, Cycle City Ambition and Walk to School Outreach are three studies included in our rapid evidence review. The evaluation studies we reviewed for these funds include slightly different outputs and outcomes to those indicated in the tables below. Where there was a difference between the outputs and outcomes reported directly by the funds and in the rapid evidence review, we report the outputs outcomes given to us directly by the funds.

Table 15 Cycling and walking outputs across funds (1/2)

Transport mode	Spending type	Output	Access Fund	Big Bike Revival	Bikeability	Cycle City Ambition	Cycle Rail	E-Cycle Support	Fix Your Bike voucher
Cycling and e-cycling	Capital	New cycling route				X			
		Improved cycling route	X			X			
		New / improved cycle grant / loan / purchase	X			X		X	
		New / improved cycle hire / hub	X			X		X	
		New / improved cycling signage				X			
		New cycle parking spaces / storage	X				X		
	Revenue	Cycling training sessions and led rides	X		X			X	
		Cycling campaigns / events (incl. promotion materials)	X	X	X				
		Cycle refurbishment	X		X				X
Walking and wheeling	Capital	New permanent footway							
		Improved footpaths							
		New / improved walking signage	X						
	Revenue	Pedestrian training sessions and led walks	X						
		Walking campaigns / events (incl. promotion materials)	X						

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Note: ATAPP refers to the Active Travel Ambassadors Pilot Programme.

Table 16 Cycling and walking outputs across funds (2/2)

Transport mode	Spending type	Output	Levelling Up Fund	Local Growth Fund	Modeshift STARS	National Highways Designated Funds	STTYF	Walk to School Outreach
Cycling and e-cycling	Capital	New cycling route	X	X		X		
		Improved cycling route	X	X		X	X	
		New / improved cycle grant / loan / purchase					X	
		New / improved cycle hire / hub					X	
		New / improved cycling signage				X		
		New cycle parking spaces / storage	X				X	
	Revenue	Cycling training sessions and led rides					X	
		Cycling campaigns / events (incl. promotion materials)			X		X	
		Cycle refurbishment					X	
Walking and wheeling	Capital	New permanent footway	X					
		Improved footpaths	X	X			X	
		New / improved walking signage					X	
	Revenue	Pedestrian training sessions and led walks					X	
		Walking campaigns / events (incl. promotion materials)			X		X	X

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

Note: STTYF refers to the Sustainable Travel Transition Year Fund.

Table 17 Traffic management and cross-cutting outputs across funds

Transport mode	Spending type	Output	Access Fund	ATAPP	Cycle City Ambition	Levelling Up Fund	Local Growth Fund	National Highways Designated Funds	STTYF
Traffic management	Capital	New / improved road crossings				X	X	X	
		Neighbourhood traffic calming schemes			X				
Cross-cutting	Capital	New shared cycling / walking path			X	X		X	
		New / improved active travel hub	X						X
		New / improved public realm or public space							
		Improved shared cycling / walking path					X	X	
	Revenue	Active travel campaign / event / engagement (incl. promotional material)	X	X					X
		Staff appointed to support activities	X						
		New / improved active travel grant / loan / purchase	X						X
		Personalised travel planning	X						X
		Active travel grant	X						

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.

Note: ATAPP refers to the Active Travel Ambassadors Pilot Programme. STTYF refers to the Sustainable Travel Transition Year Fund.

As outlined above, Table 18 covers all outcomes of projects reported by the funds so far, rather than all outcomes that we would expect to see from CWIS1 and CWIS2 projects.

Table 18 Outcomes across funds

Outcome category	Outcome type	Outcomes	Access Fund	Big Bike Revival	Fix Your Bike voucher	Local Growth Fund	STTYF	Walk to School Outreach
Intermediate	Perception	Change in perception of safety of cycling / walking		X	X			
		Change in satisfaction or enjoyment			X		X	
		Change in perception of cycling / walking	X	X	X			
	Activity	Change in number of people walking				X		X
		Change in active travel mode share	X		X		X	X
		Change in number of people driving						
		Change in number of people cycling	X	X	X		X	
		Change in number of car trips		X				X
Dependent	Health and wellbeing	Change in physical health			X			
		Change in physical activity		X				
	Environmental	Change in greenhouse gas emissions					X	

Source: Analysis of data shared by ATE, DfT, CWIS1 and CWIS2 fund representatives.
Note: STTYF refers to the Sustainable Travel Transition Year Fund.

Annex C Details on previous evaluation materials

As outlined in the main report, the rapid evidence review consisted of studies related to ten active travel projects or funds. Four of these funds are CWIS funds and the remaining six pre-date CWIS. These are outlined in Table 19.

Section 2.2.2 contains the findings of these studies, drawing out the results that are most relevant for CWIS. For completeness, Table 20 below provides more details on the methodology and limitations of each of these studies.

Table 19 Summary of funds and studies in the rapid evidence review

Fund	Time period	Total spend	Scale	Description	Documents reviewed
Big Bike Revival	Intervention: 2014–present Evaluation: May–November 2022	£668,000 (All revenue spend)	66,000 participants	A cycling events project at Cycling UK cycle recycling centres and community cycling clubs. Delivered cycle maintenance, cycle safety training, and local cycling route information to around 66,000 participants in 2022.	We are cycling UK (2023) *The Big Bike Revival. Annual Report 2022/23*[97]
Walk to School Outreach	Intervention: 2011–present Evaluation: April 2021–March 2022	£2.1m (All revenue spend)	340,000 children across 973 schools	An intervention by the charity 'Living Streets' to motivate children to walk to and from school more frequently.	Living Streets (2022) *Walk to School Outreach 2021/22 Final Impact Report*
Bikeability	Intervention: 2006–present Evaluation: Autumn 2017–autumn 2018	£50m over four years (All revenue spend)	350,000 children	Projects providing cycle safety training to around 1m primary school children.[98]	SQW (2019) *Bikeability Impact Study Final Report. A study commissioned by the Department for Transport*

97 We included an earlier study of Big Bike Revival as part of our rapid evidence review. However, we report only the findings from the later study, as it is more relevant. The previous study pre-dates CWIS. The previous study was: We Are Cycling UK (2016) *The Big Bike Revival, Summer of Cycling. Evaluation Report 2016.*

98 UK Government (2022) Bikeability receives record £20 million government investment to improve access to cycle training https://www.gov.uk/government/news/bikeability-receives-record-20-million-government-investment-to-improve-access-to-cycle-training

Fund	Time period	Total spend	Scale	Description	Documents reviewed
Cycle City Ambition Programme (CCA)	Intervention: 2013–18 Evaluation: 2013–18	£191m (All capital spend)	Eight cities – total population unclear	Large-scale, cycling-focused intervention across eight cities between 2013 and 2018. Grants provided to cities by the DfT. Funding was infrastructure (capital) spend only.	Sloman, L., Cope, A., Kennedy, A., Crawford, F., Cavill., and Parkin, J., (2017) *Summary and Synthesis of Evidence: Cycle City Ambition Programme 2013-2018*
Bicycle Skills	Intervention: June–September 1995 Evaluation: June–September 1995	Unclear (All revenue spend)	3,000 children	A small-scale bicycle skills and safety training project aiming to improve safe cycling behaviour, knowledge and attitudes in primary school-aged children.	Macarthur, C., Parkin, P.C., Sidky, M., and Wallace, W., (1998). *Evaluation of a Bicycle Skills Training Program for Young Children: A Randomised Controlled Trial*
Walking Works	Intervention: 2008–12 Evaluation: 2009–11	£450,000 (All revenue spend)	Over 28,000 employees	A project by the charity 'Living Streets' to motivate employees to walk to, from and at work more frequently. Includes optional campaigns targeting specific employers over a medium- to long-term period and organises 'Walk to Work Week' every spring, a week-long campaign to encourage walking.	Living Streets (2012) *Evaluation of Living Streets' Walking Works Pathfinder Employers Scheme* Living Streets (2012) *Paving the Way for Everyday Walking: Living Streets' Interventions and Public Health* Adams et al (2017), *Evaluation of the Implementation of a Whole-Workplace Walking Programme Using the RE-AIM Framework*

Fund	Time period	Total spend	Scale	Description	Documents reviewed
Fitter for Walking	Intervention: 2008–12 Evaluation: 2008–12	£2.2m (Capital and revenue spend)	150 communities across 12 local authorities	An intervention by the charity 'Living Streets' to improve local environments and promote walking for short journeys.	Living Streets (2012) *Evaluation of Living Streets' Fitter for Walking Project* Adamas and Cavill (2015) *Engaging Communities in Changing the Environment to Promote Transport-Related Walking: Evaluation of Route Use in the 'Fitter For Walking' Project* Adams et al (2017) *Evaluation Of The Implementation of an Intervention to Improve the Street Environment and Promote Walking for Transport in Deprived Neighbourhoods*
Cycling Demonstration Towns (CDT)	Intervention: 2005–11 Evaluation: 2005–11	Total unclear – £17 per head spent (70% capital; 30% revenue)	Seven medium-sized towns – totalling 1m people	Large-scale, cycling-focused intervention across seven medium-sized towns, with populations of between 65,000 and 245,000 people.	Sloman, L., Cope, A., Kennedy, A., Crawford, F., Cavill., and Parkin, J., (2017). *Summary of Outcomes of the Cycling Demonstration Towns and Cycling City and Towns Programmes*
Cycling City and Towns (CCT)	Intervention: 2008–11 Evaluation: 2008–11	£43m (80% capital; 20% revenue)	12 towns and cities – totalling 2–3m people	Large-scale, cycling-focused intervention across one substantially larger city (Greater Bristol), one significantly smaller town (Leighton Linslade) and a	AECOM (2012). *Evaluation of the Cycling City and Towns Programme. Qualitative Research with Residents.*

Fund	Time period	Total spend	Scale	Description	Documents reviewed
				further ten towns of medium size, with populations ranging from 75,000 to 240,000.	Sloman, L., Cope, A., Kennedy, A., Crawford, F., Cavill., and Parkin, J., (2017). *Summary of Outcomes of the Cycling Demonstration Towns and Cycling City and Towns Programmes*
Local Sustainable Transport Fund (LSTF)	Intervention: 2011–15 Evaluation: 2011–15	£1bn (Capital and revenue spend)	77 local authorities	Large-scale intervention across multiple transport. Funding split between 12 'Large Projects' (£5m to £50m, receiving 46% of total funding), and 84 'Small Projects' (£5m or less, receiving 54% of total funding).	DfT (2017) *Impact of the Local Sustainable Transport Fund Summary Report.* Sloman, L., Cairns, S., Goodman, G., Hopkin, J., Taylor, I., Hopkinson, L., Ricketts, O., Hiblin, B., and Dillon, M., Transport for Quality of Life (2017) *Meta-analysis of Outcomes of Investment in the 12 Local Sustainable Transport Fund Large Projects: Final Report.* DfT, *Local Sustainable Transport Fund Projects – Summaries*

Source: Analysis of published studies.

Table 20 Evaluation methodology, results and limitations for funds in the rapid evidence review

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
Big Bike Revival	Intervention: 2014–present Evaluation: May–November 2022	3,700 cycling events delivered to 66,000 participants: cycle maintenance training (18,000 participants);[99] beginner cycle training (7,300 participants); cycle safety training (12,000 participants); bicycle servicing (29,000 participants); led rides (16,000 participants).	Survey results found: ■ 18,000 out of 66,000 participants increased their levels of cycling. 9,000 of these were non-regular cyclists that became regular cyclists;[100] ■ Overall, 55,000 new cycling trips were created between the baseline and the follow-up survey three months later; ■ A 20 percentage point decrease in participants reporting that safety concerns stopped them cycling.	**Methodology:** Survey measured at baseline (at each event) and at follow-up 3 months post intervention **Limitations:** ■ Evaluation cautions that survey participation is self-selecting, and that people who already cycle might be over-represented, while people with disabilities and those whose first language is not English, amongst other groups, may be under-represented. ■ There is no control group, so it is assumed all changes in survey responses are from the intervention.
Walk to School Outreach	Intervention: 2011–present	Engagement events, competitions, activity sheets, and free online	■ At least a 16 percentage point increase in the proportion of pupils walking at least part of the way to school (from 62%	**Methodology:** Walking trips are logged by schools throughout the intervention term.

99 As some participants attended multiple events, these percentage figures sum to more than 100%.

100 Regular cyclists are those who cycle at least once every two weeks. Non-regular cyclists are those who cycle once a month or less.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
	Evaluation: April 2021–March 2022	resources to promote walking to school. Delivered to 340,000 children across 973 schools.	to 78%). This was estimated to have created 13.4m new walking trips over the evaluation period of April 2021 to March 2022 and to have removed 2.5 million km of car travel from the road.	**Limitations:** ■ No control group used. ■ Children and schools may mis-record trips logged.
Bikeability	Intervention: 2006–present. Evaluation: Autumn 2017–autumn 2018	Cycle training delivered to 350,000 primary-aged children (4–6 hours of training).	Survey results found: ■ A 9 percentage point increase over the control group in pupils who cycled at least once in the term (65% compared to 56%); ■ A 12 percentage point increase over the control group in pupils who cycled on roads in the last week (34% compared to 22%).	**Methodology:** Outcomes are measured using a survey comparing cycling levels at the end of the school year between a group of pupils who received Bikeability cycle training and a control group. Results for the control group are regression-adjusted. This means the control group results are adjusted to what would be expected if they shared the same characteristics as the Bikeability group (e.g. gender, cycling behaviour within family and school index of deprivation). **Limitations:** ■ The control group contained a small proportion of pupils who also received the training, so outcomes may be an underestimate.
Cycle City Ambition Programme (CCA)	Intervention: 2013–18 Evaluation: 2013–18	90km cycle routes (18 routes segregated); 100km canal towpath;	Automatic count data found the increase in cycling levels in	**Methodology:** Automatic cycle counters placed at scheme locations. Counts recorded prior to or at the start of the intervention (i.e. 2013) to 2019.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
		New cycle parking at 206 locations; Three cycle bridges; 641km of 20mph speed limit zones; 7,000 cycles donated to disadvantaged areas.	intervention towns was 14–40% for four out of 12 schemes.[101] No evidence of increased number of cyclists.	Control sites were used. **Limitations:** ■ Although not stated explicitly by the evaluation study, the use of matched towns may be subject to the same limitations as in other studies. These include difficulties in finding towns / cities with sufficiently similar socio-economic characteristics to be a helpful control, and the fact that other cycling or walking interventions unrelated to the intervention may have been taking place in the matched towns, meaning the matched town is not a true control.
Bicycle skills	Intervention: June–September 1995 Evaluation: June–September 1995	Two-hour bicycle skills and safety training programme delivered to around 3,000 children.	No increase in cycling safety behaviour.	**Methodology:** ■ Cycle safety behaviour was observed before and after the training. ■ Data on knowledge and attitudes was collected via a survey also pre and post intervention. Follow-up survey response rate was relatively high (81%). ■ Intervention was randomly allocated to children. **Limitations:** ■ Because children in the same class received the intervention or not, there was the potential for information sharing.

101 One scheme (Canal Towpaths in Birmingham) found an increase of +158%. The remaining schemes have ambiguous or conflicting results.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
				■ Only evaluated a brief (two-hour), one-time education intervention, and therefore not necessarily indicative of more sustained / in-depth cycle training for children.
Walking Works	Intervention: 2008–12 Evaluation: 2009–11	Living Streets ran a programme of in-depth support for five individual workplaces. This included providing 'Walking Champions' skills and training to put on walking activities at their workplaces, such as led lunchtime walks, online walking quizzes, and photo competitions, where employees would take photos of their walk to work.	No significant changes in walking levels to, from and at work, but some insignificant increases were reported in survey data. However, a significant increase in the self-reported proportion of respondents being in good health,	**Methodology:** ■ Survey measured walking levels to, from and at work prior to the intervention and 18–22 months post intervention **Limitations:** ■ Self-report measures were used to assess walking levels, which may have resulted in an over-reporting of activity levels. ■ The authors state that the low response rate to their follow-up survey limits the interpretation of their findings. ■ There was often a change in the average distance between an employee's home and work between the baseline and follow-up surveys, which distorts results. ■ The study did not use controls and other health and wellbeing programmes were being delivered at the same workplaces. It is therefore not possible to ensure changes observed are solely attributable to Walking Works activities.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
				■ Baseline and follow-up data was collected at different times of the year, meaning seasonal differences may have positively or negatively influenced the findings. ■ Some programme components were not delivered as planned, due to lack of management support and difficulties communicating information about the activities and challenges, embedding the programme into normal business activities. ■ Non-walking related changes took place in some organisations including restructuring, financial constraints, cutbacks, staff redundancies and moving office location, which may have affected the outcomes of the project.
Fitter for Walking	Intervention: 2008–12 Evaluation: 2008–12	Infrastructure – including street lights, dropped kerbs, path resurfacing, removal of litter and installation of benches and bins. Revenue – including led walks, awards and promotional activities.	Manual route user count data found mixed evidence – both increases and decreases in walking levels – on improved routes after 12 months across the case studies, but consistent increases in walking after 14–20 months in five out of seven routes (with no follow-up data on the other two routes).[102] The increase ranges from 5% to 59% compared to the baseline.	**Methodology:** Manual count data at routes taken at baseline and at multiple follow-ups 12–20 months post intervention. **Limitations:** ■ The authors hypothesise that the lack of an increase at 12 months could be because of ongoing works on the route at 12 months, or that previous works had led some individuals to use alternative routes, and they had not yet returned at this point in time. However, the authors were unable to confirm this.

[102] See the limitations section for the authors' hypothesis on why mixed evidence was observed at 12 months and consistent increases at 14–20 months.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
			Survey results found: ■ Up to 25% reported having used the route more in the last 12–18 months; ■ 35.7% of users felt less stressed and 42.9% reported increased physical activity; ■ 25% reported feeling an increase in community cohesion.	■ The authors had a limited number of case studies and no control group. ■ In many locations, route-improvement activities had taken place before the baseline was conducted. ■ Some community groups that took part had already made steps towards promoting walking prior to the intervention, implying minimal scope for further increases for those participants. ■ Individual route users were not identified, and the baseline and follow-up survey data was treated as independent samples. ■ Survey response was low, which may have over-represented specific types of journeys (e.g. those who were not in a hurry). ■ Authors state that there are other material factors that affect walking and cycling, alongside the interventions that are not controlled for in the survey or count findings. Examples include the weather and roadworks. ■ Conducting surveys and counts at baseline and then 12 months later means changes in walking immediately after improvements may have been missed. ■ Route users' awareness of environmental improvements made to routes varied across case

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
				studies and was very low for some of the improvements which had been made.
Cycling Demonstration Towns (CDT)	Intervention: 2005–11 Evaluation: 2005–11	Capital – including cycle parking, cycle lanes, and cycle signage. Revenue – including 'Bike It' officer (at 139 schools),[103] cycle training, after-school cycle clubs and other cycling events.	Automatic count found a 2–3% increase in the annual growth in cycling trips (from 3% per annum before the intervention to 6% per annum after the intervention). Survey results found: ■ A 3 percentage point increase in the number of adults who cycled once a week or more (24% to 27%);[104] ■ A 1.1 percentage point increase in proportion of secondary school children 'usually' cycling to school (2.2% to 3.3%);[105] ■ A 0.7 percentage point increase in proportion of primary school children	Note that CDT and CCT were evaluated together and therefore the methodology and limitations are the same across both programmes. **Methodology:** Automatic cycle counts (generally located on safer off-road cycle paths)[109] were taken pre and post intervention. Manual counts were taken at on-road locations (with no intervention) to confirm that, where increases were observed on automatic cycle counters at off-road sites (where interventions had taken place), these increases were not simply due to 'route reassignment' (cyclists switching from on-road to the new off-road routes). Survey data from the Active People Survey, Pupil Level Annual School Census and 'Bike It' hands-up surveys. Matched towns used as control. **Limitations:**

103 A 'Bike It' officer works intensively with the schools over one academic year to increase uptake of cycling through events, projects and activities.

104 This is across 2006–11. This is a significant increase since 2006 ($p<0.05$).

105 This is across 2007–11.

109 'Off-road' refers to cycle paths that take cyclists on alternative paths to car traffic, as opposed to 'on-road' cycle lanes, which refers to lanes for cycle traffic alongside car traffic.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
			usually cycling to school (1.0% to 1.7%);[106] ■ A 5.6 percentage point increase in proportion of pupils in 'Bike It' schools cycling to school every day (from 4.1% to 9.7%);[107] ■ Similar increases in cycling across age ranges and gender, but lower increases amongst social grade DE compared to other social groups, and higher increases for households with children compared to adult-only households.[108]	■ The evaluation cautions against its findings in terms of being able to differentiate the effects of the intervention from wider trends due to 'insufficiently robust data'.[110] ■ Evaluation states difficulties in finding towns / cities with sufficiently similar socio-economic characteristics to be helpful controls. ■ Other cycling or walking interventions unrelated to the intervention may have been taking place in the matched towns, meaning the matched town is not a true control. ■ Survey data collected on regular schools is described as having limitations and said to potentially underestimate changes in travel mode. ■ Before and after surveys at the 'Bike It' schools were conducted at different times of year (September and July). This could distort findings as weather and other differences lead to seasonal patterns in cycling. ■ The number of automatic counters used at control towns / cities was often small.

106 This is across 2007–11.

107 Time period unclear.

108 This is across 2006–11.

110 The authors state difficulties inherent to cycling as an active travel mode which make it a difficult task to measure changes – subject to weather changes and daylight hours, and undertaken by a limited proportion of people over an area which is geographically spread.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
				■ The evaluation authors note that manual counts are less robust compared to automatic counters because they are undertaken only four times a year, and so are affected more severely by weather variation.
Cycling City and Towns (CCT)	Intervention: 2008–11 Evaluation: 2008–11	Capital – including cycle parking, cycle lanes, and cycle signage. Revenue – including 'Bike It' officer (at 219 schools), cycle training, after-school cycle clubs and other cycling events.	Automatic count data found a 2–3% increase in the annual growth of cycling (from 3% per annum before the intervention to 6% per annum after the intervention). Survey results found: ■ In Bristol, a 7 percentage point increase in the proportion of adults who sometimes cycled for over 30 minutes (from 13% to 20%);[111] ■ A 3.5 percentage point increase in the number of secondary school children 'usually' cycling to school compared to control (4.2% to 7.8%);[112]	Note that CDT and CCT were evaluated together and therefore the methodology and limitations are the same across both programmes. **Methodology:** Automatic cycle counts (generally located on safer off-road cycle paths) were taken pre and post intervention. Manual counts were taken at on-road locations (with no intervention) to confirm that, where increases on automatic cycle counters were observed at off-road sites (where interventions had taken place), these increases were not simply due to 'route reassignment' (cyclists switching from on-road to the new off-road routes). Survey data from the Active People Survey, Pupil Level Annual School Census and 'Bike It' hands-up surveys. Matched towns used as control. **Limitations:**

111 Time period unclear.

112 This is across 2007–11.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
			■ No increase in cycling amongst primary school children;[113] ■ A 5.6 percentage point increase in proportion of pupils in 'Bike It' schools cycling to school every day (from 4.1% to 9.7%).[114]	■ The evaluation cautions against its findings in terms of being able to differentiate the effects of the intervention from wider trends due to 'insufficiently robust data'.[115] ■ Evaluation notes difficulties in finding towns / cities with sufficiently similar socio-economic characteristics to be helpful controls. ■ Other cycling or walking interventions unrelated to the intervention may have been taking place in the matched towns, meaning the matched town is not a true control. ■ Survey data collected on regular schools is described as being of 'dubious quality' and said to potentially underestimate changes in travel mode. ■ Before and after surveys at the 'Bike It' schools were conducted at different times of year (September and July). This could potentially distort as weather and other differences lead to seasonal patterns in cycling. ■ The number of automatic counters used at control towns / cities was often small. ■ The evaluation authors note that manual counts are less robust compared to automatic counters because

113 This is across 2007–11.

114 Time period unclear.

115 The authors state difficulties inherent to cycling as an active travel mode which make it a difficult task to measure changes – subject to weather changes and daylight hours, and undertaken by a limited proportion of people over an area which is geographically spread.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
				they are undertaken only four times a year, and so are affected more severely by weather variation.
Local Sustainable Transport Fund (LSTF)	Intervention: 2011–15 Evaluation: 2011–15	**Capital:** ■ 537 cycle routes; ■ 10,282 cycle parking spaces; ■ 323km pedestrian-only routes; ■ Pedestrian crossings; ■ 20mph speed limit zones; ■ 257 bus services; ■ 2,344 bus stop improvements. **Revenue:** ■ 17,312 adults cycle trained; ■ 25,353 adults cycle maintenance trained; ■ Led walks / rides;	Survey results found: ■ 6.6% increase in the number of adults who cycled in the last month relative to the comparator group; ■ Only weak evidence of increases in walking; ■ 7% decrease in car driving levels; ■ Decrease in transport-related CO2 emissions of 1.5-3% relative to control areas.	**Methodology:** Automatic cycle counts. Survey data taken at baseline during intervention (2010–12) and post intervention (2013–15). Control areas used and outcomes presented as relative to control changes. **Limitations:** ■ The evaluation notes that the automatic counters used are likely to have been preferentially located in places where improvements to cycle infrastructure were more likely to be observed, and so are not necessarily indicative of area-wide changes.[116]

116 Other studies do not note a limitation in this respect.

Fund	Time period	Outputs	Outcomes	Evaluation methodology and limitations
		■ Child road safety training; ■ Cycle loans and promotional activities.