



Report to:	Cabinet	15 May 2023
Lead Cabinet Member:	Councillor Henry Bachelor (Lead Cabinet Member for Environment)	
Lead Officer:	Bode Esan, Head of Climate, Waste and Environment	

Collection Changes - The future of waste collections

Executive Summary

1. Greater Cambridge Shared Waste Service (GCSWS) is responsible for collecting domestic waste from 131,000 households and Commercial waste from more than 2,000 businesses across Greater Cambridge.
2. Due to growth in the number of households served, collection rounds have expanded at a significant rate since they were last reviewed in 2017 and are forecast to increase further, resulting in the need to review and optimise routes.
3. Reduction, reuse, and recycling are the top priority choices in UK government policy for waste. The Government has published a recycling target of 64% by 2035 in its Resources and Waste Strategy. This presents a challenge to Waste Collection Authorities due to the stagnation of recycling rates¹, and increased pressure because of impending legislation designed to increase recycling (see Appendix A). It is therefore essential that collection services are efficient prior to implementing these national changes.
4. Results from a route optimisation exercise conducted by GCSWS demonstrate that the Council has an opportunity to deliver efficiencies and improvements by consolidating waste collections into four days, reducing travel and overtime, and simplifying the service that residents receive.
5. Appendix A sets out further information on the emerging policies affecting the UK waste industry and GCSWS contexts.

Key Decision

6. No

¹ The recycling rate for Greater Cambridge Shared Waste was 50.5% for the 2021/22 financial year.

Recommendations

7. It is recommended that Cabinet:
 - a. notes the round optimisation process and revised number of routes as set out at paragraph 33.
 - b. notes the impact that past and future growth and legislative changes will have on the collection service.
 - c. approves the trial of a four-day week waste collection service for three months from Summer 2023 to be funded by existing operational budgets within the service, with a report on the outcome of the trial presented to Cabinet in the Autumn of 2023.
 - d. notes that any agreement to trial a four-day week will need to be approved by Cambridge City Council (part of the GCSWS.)

Reasons for Recommendations

8. Consolidating routes prior to the introduction of national legislation to eliminate avoidable waste and increase recycling rates will improve operational effectiveness and productivity by re-balancing existing collection rounds. It will enable the service to better accommodate past growth and future proof waste collections prior to future growth.
9. The cessation of Monday waste collections would contribute to an increase in recycling rates due to less confusion for residents when collections coincide with bank holidays. A reduction in overtime incurred by bank holiday catch-up work will result in less staff commutes to work and shorter vehicle journeys.
10. A four-day collection service would increase staff rest days and test whether this increases staff well-being and reduces sickness levels and injuries by consolidating the number of days staff commute and work. It should increase recruitment and retention rates and reduce the reliance on agency staff to operate the service.

Detail

11. The 25-year Environment Plan was launched in January 2018 and sets out how the Department for Environment, Food & Rural Affairs (DEFRA) will seek to improve the environment over a generation by creating richer habitats for wildlife, improving air and water quality, and reducing plastic in the world's oceans.
12. Following the announcement of the Environment Bill, DEFRA launched 'Our Waste, Our Resources, a Strategy for England' in December 2018.

13. The Strategy provides a clear, long-term policy direction in line with DEFRA's 25 Year Environment Plan and is the blueprint for eliminating avoidable plastic waste over the lifetime of the 25 Year Plan, doubling resource productivity, and eliminating avoidable waste of all kinds by 2050.
14. The strategy includes several measures due to be implemented by local authorities in the future including improving recycling rates by ensuring a consistent set of dry recyclable materials is collected from all households and businesses and reducing greenhouse gas emissions from landfill by ensuring that every householder and appropriate business has a weekly separate food waste collection.
15. Whilst it is expected that financial burdens to implement changes will be met by the Government, the measures will present further challenges to Waste Collection Authorities including contract changes, resource requirements, and recruitment and retention of additional staff.
16. Combined with the expected growth in the number of households in Greater Cambridge, this level of change is significant for GCSWS.
17. To tackle these challenges, the service has conducted a route optimisation exercise to ensure that existing and future collections are streamlined prior to the introduction of new legislation. Further, issues of staff wellbeing, sickness and injury, recruitment and retention are proposed to be addressed through a four-day week trial.
18. Whilst the data from the proposed three month four-day week trial is assessed, and then reported back to councillors in the Autumn, waste collections would continue to be carried out under the optimised collection pattern. The Head of Climate, Waste and Environment will continually review the operational effectiveness of the optimised routes throughout this period.

Route Optimisation and Growth

19. There are currently 32 domestic waste collection rounds working across Greater Cambridge. Typically, a round will service around 900 bin collection points per-day. Over the past 5 years, about 13,400 homes have been added to the existing rounds however increases in vehicles and staff has not kept pace with the level of growth with only one extra vehicle being added since 2017.
20. A route optimisation exercise would typically be carried out about every three to five years, to rebalance and add rounds in line with housing growth where necessary. This is to ensure waste collections are as efficient as possible, and carbon emissions are kept to a minimum.
21. Until detailed routes are available it is difficult to estimate the number of households that would require collection day changes.

Four-day week

22. For the past two years the GCSWS has only been able to fill around 133 of its 148 driver and loader posts. Whilst the Service has worked hard to reduce reliance on agency staff, there remains an average of 15 agency staff covering driver and loader positions at extra cost.
23. If posts currently filled with agency staff were filled by permanent staff this would reduce the cost of additional agency fees and staff retention schemes such as the 'Golden Hello' which will no longer be required to attract new recruits.
24. Increasing permanent staff improves local knowledge which impacts positively on round completion time and a reduction in missed bins.
25. Furthermore, it is anticipated that a reduction in working days should reduce sickness levels (musculoskeletal injuries) and improve the health and wellbeing of all colleagues.
26. The desk-based four-day week trial took place between January – March 2023 involving all colleagues whose work was primarily desk-based. The quantitative and qualitative results from the trial were presented to Employment & Staffing Committee on 3 May and will be presented to Cabinet on 15 May at South Cambridgeshire District Council, and Strategy and Resources Committee at Cambridge City Council.)
27. The two metrics being measured – Performance and Health and Wellbeing, are both positive. Performance has been maintained and Health and Wellbeing has significantly improved as shown in the dashboards² below:

August 2022 data (pre-trial):

² The scoring on these dashboards is explained at Appendix B

See how all your results compare against the benchmark.

Your scores

3.90 / 5

Good Days at Work

Impact on behaviours

Intention to leave

-3

>

Productivity

0

>

Advocacy

-2

>

Your Drivers

78

Resilience

Adaptability	+2
Confidence	0
Social Support	+1
Purposefulness	-2

67

6 Essentials

Resources & Communication	-2
Control	+2
Balanced Workload	+5
Job Security & Change	-1
Work Relationships	-1
Job Conditions	0

55

Health

Physical Health	-3
Mental Health	-6

65

Engagement

Motivation	-2
Organisational commitment	+1
Employee commitment	-4

61

Subjective Wellbeing

Positive Emotions	-5
Sense of Purpose	-1

KEY:



Positive



Typical

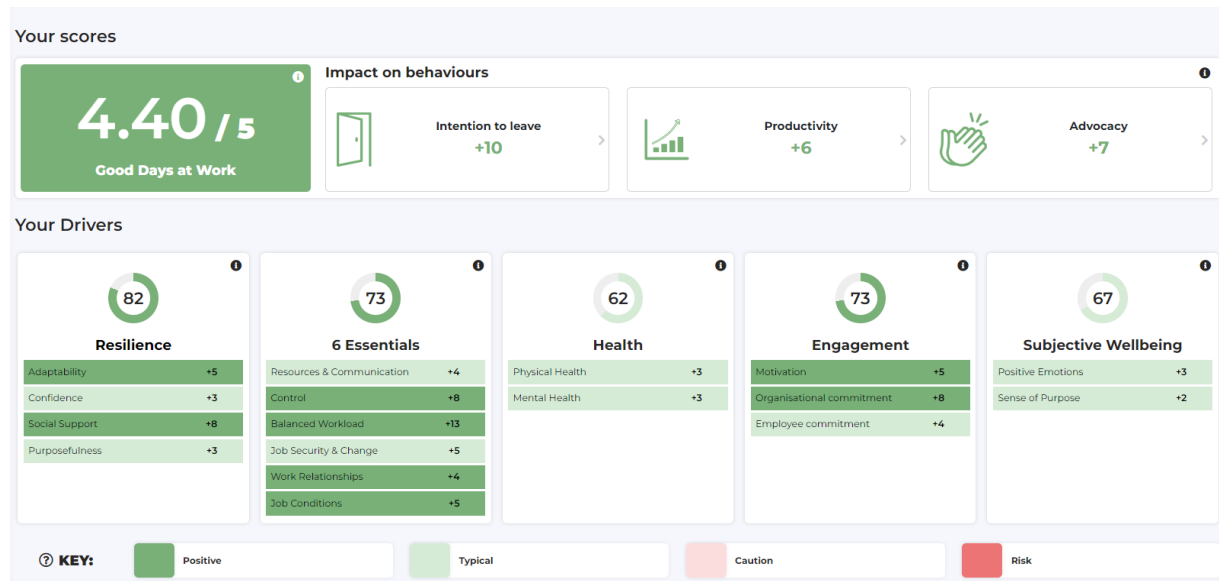


Caution



Risk

April 2023 data (post trial):



28. Of note, the three 'impact on behaviour' scores at the top of the dashboard are very positive. Intention to leave has moved from -3 to +10 (meaning that in August 2022 the intention to leave was identified as 'caution' when compared to the whole cohort (90,000 employees) and in April 2023 it is identified as 'positive' – a significant shift. As far as the Shared Waste Service is concerned, this is a potentially positive indicator for a trial, as a reduction in agency staff in the service would deliver a range of benefits (see next paragraph).

29. While the four-day week trial in the Shared Waste Service is more complex to organise, due to the reliance on waste collection rounds optimisation, there are several clear expected benefits in undertaking a trial (and moving to the implementation phase) as summarised below:

Benefits for residents

- Improved service to residents by eliminating the need to change collection days when a bank holiday falls on a Monday.
- A reduction in agency recruitment should decrease missed bins due to greater round familiarity of permanent staff.

Benefits resulting in service efficiencies

- Reduced vehicle journeys, maintenance and fuel costs.
- Increased operational reliability and resilience: a non-working day during the week would provide an opportunity for some vehicles to be serviced, inspected, MOT carried out etc, rather than during the working week, thus reducing the need for substitute (spot-hire) vehicles
- The potential to recruit a more diverse workforce, due to the reduction in overall working hours.
- Improved overall efficiency of service delivery and reduction in over-stretched rounds resulting in the ability to better respond to changes: non-

working day will provide operational flexibility for the introduction of new routes and crews to meet the demands of forthcoming legislation changes.

- Increased recruitment and retention due to attractive working arrangements - given the acute shortage of HGV drivers, the Service has struggled to fill all posts over the last few years, with use of agency crew running as high as 20% in the past and now at about 10% of total workforce.
- Reduction in overtime costs by eliminating Saturday catch-up work due to bank holiday Mondays.
- Increased flexibility to grow the commercial waste service without significant capital expenditure due to availability of vehicles on domestic stream non-working day.

Benefits for employees

- Expected increased health & wellbeing for all staff, resulting in reduced sickness due to increased recovery time.

Benefits for the environment

- Improved recycling rates due to an increase in bins being presented for collection on the correct day.
- Improved grouping of properties for bin collections results in reduced fleet mileage, contributing to the Council's Net Zero Carbon targets.

Insights from other council areas

30. Several councils across the country already successfully operate four-day week waste collection services.
31. Locally Ipswich Borough Council have operated Tuesday – Friday collections since 2010, Peterborough City Council have operated Tuesday – Friday collections since 2014, and Fenland District Council has operated 4 days, over 5 collection days (i.e., Monday –Thursday, Tuesday – Friday shift patterns), for several years.
32. When researched these Councils reported that they experienced fewer disruptions and financial savings from a reduction in overtime costs. Fenland crews work 37 hours over a four-day period on a rota basis. Peterborough and Ipswich work longer days (up to 10 hours a day) as full-time hours are condensed into a shorter week. The longer days have resulted in some negative feedback from staff.
33. From a residents' perspective, once new routes embedded these councils reported a positive impact from the changes, as bins were still collected at the same frequency and there was less confusion caused due to a reduction in bank holiday changes.

Summary of changes proposed

34. The impact of growth over the next two years, combined with the proposed four-day week trial, results in a need for four new vehicles as set out in the table below (two of the four new vehicles are due to growth, whilst the remaining two are due to a four-day working pattern):

Waste Stream	Current vehicles	Vehicle requirements with optimised routes (including housing growth and excluding 4DW)	Vehicle requirements with Optimised routes (including housing growth and 4DW)
Recycling (Blue Bins)	12	12	13
Refuse (Black Bins)	11	12	12
Organic (Green Bins)	9	10	11
Total Rounds	32	34	36

The resulting financial impact is set out in the financial section below.

Commercial (Trade) Waste Service

35. The Commercial (Trade) Waste Service serves more than 2,000 businesses across Greater Cambridge, many of whom have multiple collections including weekends (restaurants, pubs, etc). Due to the nature of some businesses (e.g., filled bins from night operations to be emptied before their new working day starts) and traffic restrictions in the City, the collection crews work to a slightly earlier start and finish schedule. The service currently deploys 12 vehicles across the three main collection streams (recycling, food waste, residual waste).

36. The Commercial Waste Service will adopt the same four-day week working pattern as the domestic service, except for maintaining the existing level of weekend working which is currently serviced by three crews. The baseline models for the existing waste collection rounds are being finalised at present, but the collection arrangements and vehicles / crew capacities are such that we expect to be able to transition to a four-day week pattern for all crews, Mondays – Fridays, without any change to the levels of service currently provided to customers. It is unlikely additional resource will be required for this.

Environment Operations Team (services for SCDC only)

37. Four-day week preparations have been concluded for the Environment Operations teams (Awarded Watercourses, Envirocrime and Streets.) The three teams working patterns and scheduled duties have been arranged to ensure that services are maintained at current levels. Changes to working patterns will continue to ensure that colleagues are available to cover the standard five working days through a four-day week rota. Vital service provision for flooding and running of the pumping station remain in place 24 hours per day over seven days.
38. The trial is completely cost neutral and is predicted to have no impact on services to residents. Service levels will be measured throughout the trial using existing departmental key performance indicators and service benchmarks (thereby having comparator data from pre-trial). Service adjustments can be made throughout the trial if required.
39. It is possible to trial these services by making changes to the way service functions are managed. These changes employ the use of modern technologies. Drones will be used to assist with surveying watercourses and identifying maintenance requirements as well as a new program of works that provides single visit solutions. Mobile auditing applications will be used in the streets service to monitor service standards and demands, enabling resources to be targeted more effectively and proactively.

Options

40. The Council could decide not to undertake a trial of the four-day week in the GCSWS. Given the benefits that have been identified in this report, this is not recommended.
41. The Council could delay a decision on the growth expansion, although given that the service is already operating at full capacity, this is not recommended.

Implications

Financial

42. The capital and revenue costs of various options were modelled to guide the selection of the most cost effective and least disruptive scenario. The separate impacts of growth and four-day week have also been quantified.
43. The four-day week element would be chargeable proportionately to SCDC and CCC using the established cost sharing formula between CCC and SCDC.
44. Indicative costs have been established based on Tuesday-Friday collections; however, these may differ slightly if further analysis of modelled routes shows that a Monday-Thursday collection would prove more efficient.

Four-day week financial implications

45. The estimated revenue costs for the preferred option of a 32-hour baseline for four-day week (including staffing costs, additional payments to crew, vehicle maintenance, fuel, insurance etc) are:
- £132,000 in Year 1 (rising to £207,000 in Year 2 due to replacement costs for additional vehicle required) to be charged proportionately to South Cambridgeshire District Council and Cambridge City Council using the established cost sharing formula agreed by both Councils.
46. Four-day working would require the use of two additional vehicles. Initially, these will be absorbed within our inventory of spare vehicles which is expected to increase by four in the summer with the delivery of new collection vehicles in line with the replacement programme. By retaining and extending our current vehicle fleet beyond the typical seven-year lifetime we can mitigate the otherwise necessary capital investment until after the new service delivery model has embedded and the impact of the four-day week has been assessed. Should the trial be successful, £55,000 has been included in revenue costs as an annual contribution to the vehicle renewal and replacement fund. Capital costs of £430k will be required across both councils in year 2 (in advance of the annual contribution building up over the course of eight years).
47. These estimated costs are net as savings associated with a four-day week such as bank holiday catch up and the removal of the staff retention schemes have been offset. These figures are for a full 12-month financial year – the costs for the trial period would be proportionate to the full year estimates.
48. The proposed trial is planned to run for three months, starting from July / August 2023, subject to completion of detailed route optimisation assessments. The estimated costs for the four-day week trial, circa £16,500 per council would be funded from the Service's operational budget underspends for the 2022/23 financial year (largely arising from a better-than-expected outturn for the sale and income from recyclables due to a relatively buoyant market over the year, and increased revenues from the commercial waste business) - subject to approval of the GCSWS Councils (South Cambridgeshire District Council and Cambridge City Council).

Growth financial implications

49. Revenue costs due to growth would be met from the existing cost per household formula and funded from Council Tax generated by the growth. Growth expansion would require a further two vehicles which will be funded from Section 106 contributions.
- £194,000 / year for expected growth in Year 1 (including contribution to the R&R Fund), rising to £250,000 / year as growth fully materialises and new

rounds are deployed – funding to be sourced from Council Tax in accordance with growth.

50. A summary of costs for both elements is set out below (for the whole service, and split by council:)

	3-month trial (£' 000)	Year 1 (£' 000)	Year 2 (£' 000)	Comments / Notes
Estimated revenue costs to deliver 4DW (Both Councils)	33	132	207	Year 2 includes replacement costs for 2 new vehicles
Estimated contribution for each Council	16.5	66		
Estimated additional costs to meet requirements for housing growth (Both Councils)	Not Applicable	194	250	Revenue costs to be funded from Council Tax; Figures include replacement costs for 2 new vehicles
<ul style="list-style-type: none"> • 4DW will require capital expenditure for 2 vehicles in Year 2 • 2 vehicles required for growth to be funded from S106 contributions (capital expenditure) & Council Tax (revenue) 				

Legal

51. Prior to extending the trial or making the four-day week pattern more permanent, the potential legal implications of changes in working patterns will be more fully reviewed. There are no legal implications for running a trial.

Staffing

52. As the desk-based trial has shown, the four-day week has the potential to deliver significant benefits to staff health and wellbeing, and both councils have indicated their desire to ensure that these benefits can be tested across the GCSWS. The inherently different nature of work between the two cohorts of staff means that it is impossible to predict the outcome of the trial without undertaking it.

53. There is a possibility that some staff might choose to undertake additional work elsewhere on their days off resulting in an increase in sickness and injury levels. Levels will be monitored, and work undertaken with HR and the four-day week project team to gain insight into year-on-year changes and fully evaluate the impact of the trial on health and wellbeing.

Risks/Opportunities

54. The most significant risk proposed in this report relates to route changes. Waste collections are potentially the most important universal service that Councils provide, and it can be disruptive to introduce changes to the day on which someone's bin is collected, even more so if that new collection date is not introduced smoothly. Mitigations to reduce this risk are as follows:

- Pre-live and post-live contingency plans have been developed.
- A housekeeping exercise is underway to check that bin store keys and codes are correctly recorded and labelled to ensure transitions are smooth.
- New rounds will be added to a test environment before review and launch.
- Heatmaps will be produced showing old and new rounds so that changes are highlighted and can be refined where necessary.
- Local knowledge from crews will ensure changes are viable.
- All rounds will be tested by drivers before they are placed into a live environment.
- Routes will be monitored daily to ensure tonnages and finish times are in-line with expectations.
- Three additional temporary support rounds will be deployed during the first month to ensure collections are completed.
- Daily feedback sessions will be held with crews to highlight rounds that require adjustment.

(More than 300 new waste collection rounds / routes will be developed over the next few months. The proposed start date for the trial will be subject to completion of the new rounds and the above mitigation measures put in place).

Equality and Diversity

55. As with the desk-based trial, an Equality Impact Assessment will be carried out at the end of the three-month trial, to ensure all impacts can be properly captured.

Climate Change

56. The Council has set targets to reduce the organisation's carbon emissions by 45% by 2025 and by 75% by 2030 and support carbon reduction by 2050. The route optimisation exercise will aim for consolidation of journeys and improved grouping of properties for bin collection to reduce mileage and could make a modest positive impact to the Council's direct / Scope 1 emissions for diesel/fuel usage. The carbon emissions associated with commuting to work would decrease with a four-day week pattern, however commute mileage is not currently monitored within the Council's Scope 3 indirect emissions. This is considered displacement of emissions from non-work-related personal travel rather than a full reduction, although obviously the impact will be unknown until it is trialled. It should also be noted that provision of additional non-

working time can lead to more sustainable lifestyle choices and reduction on convenience consumption choices which are more carbon intensive.

Health & Wellbeing

57. As set out in paras 26 and 27 above, the desk-based four-day week trial had a transformational impact on the Health and Wellbeing of those in the trial, and it is therefore important to undertake a Shared Waste Service trial to test whether similar results could be achieved.

Consultation responses

58. Staff consultations were held on 12 April 2023 supported by Unions and Human Resources (HR) representatives. Approximately one third of drivers and loaders attended to ask questions and complete questionnaires.

59. Feedback from staff and Unions was positive. Frequent questions related to pay, unbalanced rounds and whether existing arrangements such as 'Task and Finish' would remain.

60. Further presentations and question and answer sessions were delivered on 20 April 2023. Sessions were supported by Unions, HR, and a representative from the four-day week project team. One third of drivers and loaders attended the sessions. Feedback was again positive with the majority of attendees being keen to undertake the trial.

Alignment with Council Priority Areas

Being green to our core

61. The Council has set targets to reduce the organisation's carbon emissions by 45% by 2025 and by 75% by 2030 and support carbon reduction by 2050. The route optimisation exercise will aim for consolidation of journeys and improved grouping of properties for bin collection to reduce mileage and could make a modest positive impact to the Council's direct / Scope 1 emissions for diesel/fuel usage.

A modern and caring Council

62. A trial will be a significant exercise in understanding whether we can achieve the benefits outlined above, thus maintaining services to residents, and improving the health and wellbeing of employees.

Background Papers

[Trialling a four-day week at the Council - Report for Cabinet.pdf \(moderngov.co.uk\)](#)

Appendices

Appendix A: Background UK and GCSWS context

Appendix B: Dashboards Explained

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Appendix A

Background Context (UK)

The UK waste industry is going through a period of significant change in response to the Government's Resources and Waste Strategy (RAWS) published in December 2018) and subsequent legislation. The way waste is generated from households, businesses and other institutions and the methods for handling, collection, transportation, recycling, treatment and disposal are being radically overhauled to promote a more "circular economy" where the use and re-use of resources is prioritized and optimised, in preference to disposal of materials after single use.

Some of the imminent changes include:

- separation of household generated food waste at source and weekly collection by councils, by 2025/26;
- DRS (deposit return schemes) requiring return of containers, bottles etc to the point of sale;
- EPR (extended producer responsibility) regulations with more controls on packaging;
- a consistent collections regime which will stipulate the method of collection and types of receptacles for kerbside collection of recyclables and residual waste.

The implication for waste collection authorities (WCAs) such as the GCSWS is the need to run an efficient service that is agile and readily capable of responding to the forthcoming changes, whilst also seizing the business opportunities that may arise, i.e., via the commercial waste service.

GCSWS Context

Greater Cambridge is one of the fastest housing growth areas in the UK with continued significant growth (up to 2,000 new housing units per year) expected over the next few years. With so many new houses being added to the Service area, it is essential to undertake a route optimisation review about every three to five years to ensure waste collection operations are being delivered in the most optimum manner. The last review was carried out in 2017.

Considering the above context, the waste collection rounds optimisation is very timely. It will enable the Service to optimize existing operations, better cater for and respond to housing growth, and explore options for implementing a four-day week working pattern trial.

Appendix B Dashboards Explained

General Working Population (GWP) Benchmark

How is my score on the dashboard calculated?

Everyone's answers to the survey are converted to a 0-100 scale, where a higher score is always better. The mean of your questionnaire scores is shown on the dashboard.

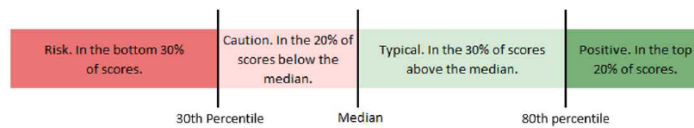
How is the benchmark calculated?

For all the core questions, the benchmark is created by taking the median of the scores in our general working population norm group, taken from the surveys we have run in the last five years. The benchmark is, therefore, the score where 50% of those in the norm group have a result below it and 50% have a result above it. The benchmark is the boundary between **pink** and **light green**. If your score is below it, we colour it **pink** or **red** and if your score is above it, we colour it **light green** or **dark green**.

How are the other colour boundaries calculated?

The boundary between **red** and **pink** is the 30th percentile of the scores of our previous surveys, i.e. it is the score where 30% of our surveys have a result below it and 70% have a result above it.

The boundary between **light green** and **dark green** is the 80th percentile of the dashboard scores of our previous surveys, i.e. it is the score where 80% of our surveys have a result below it and 20% have a result above it.



GWP norm group is made up of ~90,000 employees from a wide range of organisations (across the private and public section)