Lagom. STRATEGY

Local Authority and Transport Operators Data Collection System Discovery report

Department for Transport

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1 Discovery overview

1.1 Executive summary

The discovery was conducted by Lagom Strategy between November 2023 and February 2024.

The discovery focussed on exploring the ways the Department for Transport (DfT) collects data from local authorities and other transport operators.

The goals of the discovery were to:

- Understand the *context and strategic objectives*, to define the problem (to solve)
- Understand the *technology and data ecosystems* the surveys operate within
- Understand the current *end-to-end survey service journey*
- Understand the *user needs of data providers* (local authorities and transport operators)
- Understand the *user needs of system and data users* (DfT), and their business needs
- Understand what works well, and the *current constraints, issues and burden (and opportunities)* for surveys
- Understand any *accessibility and digital exclusion* considerations
- Articulate the service as a prioritised backlog of *evidence-driven, validated user stories* (ready to develop in an alpha)
- Learn from how *others are solving comparable problems* / meeting user needs
- Identify *metrics* (to benchmark and improve)
- Explore *options for a new solution for data collection*
- Evaluate the suitable *high-level technology options* to pursue

- Provide *clear, actionable recommendations* / options to progress (e.g. for alpha / beta phases)
- Provide a *roadmap for a new data collection service* (e.g. revise business processes, deliver an MVP)

The scope of the discovery research was focussed on users of 13 surveys named in the discovery brief. However, the brief also described a desire to explore the ability to collect new data collections, in addition to the 13 surveys.

The discovery focussed on data collection, ingestion and storage. Examination of existing data analysis processes, including statistical production, was out of scope.

The discovery has concluded with a set of research findings, a prioritised user needs backlog, a set of concept prototypes that have been tested with users, and recommendations for the Department for Transport to consider.

The context for the recommendations

- There are raised expectations for data collection
- There is increased demand for data
- Our discovery research revealed processes that are effective
- Our user research revealed burden on users throughout the process
- The research identified an opportunity for increased quality of data collected (with improved service design)
- The technology, and service management falls short of DfT standards
- There may be some reluctance to change

Overarching recommendations

- Take a user centred approach to collecting data
- Shift to a centralised approach to data collection
- Develop the tools (and rules) to do new data collection

- Prioritise understanding data providers and enabling their workflow
- Explore ways to better meet data user needs (across collections)
- Develop a roadmap for a modular service, using the best tools for the jobs
- Use an alpha phase to confirm (or disprove) our big discovery assumptions

User experience

- Prioritise (enable) features that meet user needs
- Shift the language away from “surveys”
- Develop new user management tools and processes
- Explore data provider workflow and collaboration
- Test alternative ways to incentivise behaviours of data providers
- Act on our inclusivity assessment
- Do the research to iterate individual question design
- Develop your bank proven (and user tested) exemplar question patterns
- Explore how far it is possible for this to be a self-service experience for system users

Service management

- Meet your own standards
- Set high standards for service management
- Develop the rules and processes to make decisions about data collection
- Settle on meaningful ways to measure the success of data collection (and justify investment)

Technology

- Consider our technology options evaluation
- Don’t pursue Kenda as the technical solution
- Enable SmartSurvey’s unused functionality for short term benefit for existing collections
- Use GOV.UK Forms patterns, but not the platform
- Use an alpha to experiment reusing and expanding the Road Haulage surveys into a centralised DfT data collection platform service (for all data collections)
- Use modern technologies designed for the purpose of managing and communicating with contacts
- Conduct alpha experiments for managing contacts
- Also experiment with GOV.UK Notify in alpha for sending emails
- Experiment with GOV.UK One Login in alpha as part of any DfT data collection platform

Suggested roadmap

- Consider the full range of discovery recommendations
- Prepare for an alpha phase
- Assemble the multidisciplinary skills needed for an alpha phase
- Make the case for change (and use discovery evidence to embrace assurance)
- Make a practical plan for migration
- Plan the internal communications and engagement to deliver change

The research activities were conducted in line with the definition and guidance of a digital service discovery phase mandated by the Government Service Standard.

All publicly funded digital services are subject to such a discovery phase before proceeding to the next phase of technical development and design, and passing subsequent service assessments.

1.2 Background to this discovery

Department for Transport statisticians use two main survey tools to collect data from around 300 local authorities and approximately 500 bus and other transport operators.

The collections collected via these survey tools include:

- Public service vehicles survey
- Quarterly bus fares survey
- Bus punctuality survey
- Concessionary travel survey
- Bus service operators grant survey
- Taxi and private hire vehicle survey
- Light rail and tram survey
- Winter resilience survey
- Highways inventory survey
- Highways maintenance self-assessment
- Road condition surveys

The department wanted to explore the possibility of a new data collection service to enhance and modernise an existing process deployed on both an ad-hoc and routine basis with local authorities and small transport operators.

The department was aware that the current tools have numerous issues and restrictions for both internal and external users, and commissioned this discovery work to gather evidence on these issues, and to discover if a more modern, efficient process could be used to meet the needs of all parties.

1.3 Project team

Discovery team

- Dr Helen Taylor, Delivery Manager
- Emma Davis, User Researcher
- Dr Charlotte Jais, User Researcher
- Dr John Gribbin, Service Designer
- Liam King, Digital Strategist (Technical)
- Stephen Hale, Discovery Lead and Quality Assurer

Department for Transport

- Kayley Martin, Head of Active Travel Statistics
- John Wilkins, Deputy Director and Senior Responsible Owner

1.4 Discovery phase activities

The Discovery was conducted between November 2023 and February 2024.

These activities allowed us to generate the insights and recommendations in this report and the other discovery outputs:

1. **Kick off workshop** with key project stakeholders.
2. Reviewed **10** online and documentary sources.
3. Conducted **14 stakeholder interviews.**
4. Conducted **29 one-to-one user interviews.**
5. Analysis of a **user experience survey** with 5 responses.
6. Developed **6 user proto-persona.**
7. Developed **user journey maps.**

8. Conducted a **user experience review** of the surveys.
9. Created and prioritised **53 user needs** with the Department for Transport team.
10. Performed a **user needs gap analysis.**
11. Performed an **inclusivity assessment.**
12. Presented a findings **show-and-tell.**
13. Developed a **service journey map.**
14. Performed a **landscape analysis** on 5 services (including 5 service one-to-one interviews).
15. Ran a **co-design workshop** with 2 users.
16. Developed a set of **concept prototypes** and tested these with 5 users.
17. Developed a **service roadmap.**
18. Presented a recommendations **show-and-tell.**

1.4.1 User research participation levels

Participation from users across most research activities was to a satisfactory level required for a robust discovery.

We did not get a sufficient number of responses to the user experience survey for us to complete any in–depth quantitative analysis and this also meant that we did not validate the user needs with a wider group of users.

However, we did conduct a sufficient number and range of user interviews to be confident in the evidence supporting the findings and recommendations outlined in the report. We have also been able to provide an indicative level of need for each user need based on our research findings.

We also did not conduct any interviews with maritime data providers, due to difficulty in recruiting these users. However, they were sufficiently represented by the responses provided in the survey to support the findings and recommendations outlined in the report.

Where the participation level in this research is particularly relevant, it is mentioned within the report.

It is important to consider the discovery as the start and not the end of ongoing user research.

1.5 Research methods

1.5.1 Stakeholder perspective analysis

We conducted semi-structured interviews with stakeholders to ensure that their needs and views were understood and accounted for in the research process.

We completed 14 interviews with stakeholders, including senior figures responsible for policy, statistics, data and digital in the department.

Our analysis of stakeholder perspectives is presented alongside our analysis from the user research in the findings section of this report (Section 2).

The stakeholder interviews took place in November and December 2023.

See Annex 1 for a full list of participants.

1.5.2 User research

Qualitative research

- 29 one-to-one interviews
- Co-design workshop with 2 user participants
- 5 concept feedback sessions

Quantitative research

- 5 respondents to an online experience survey

1.5.3 User roles

Our research addressed the following user roles, as defined in a user research planning call at the inception of the discovery:

1.5.3.1 Data providers

- End users of the current surveys who are responsible for collating, completing and submitting the data to the Department for Transport, across the 13 surveys.
- Working on behalf of:
  - Local authorities
  - Transport operators (including bus and tram operators and maritime providers)
- Including users who are responsible for completing one survey and those completing multiple surveys
- Exact number of data providers is unknown, although our research indicates approximately 3 data providers are involved for each survey response the DfT receives, which works out at a total of 3,390 potential users across the 13 surveys.

1.5.3.2 Data users

- These are the users who the data is collected for, who make use of the end data. They include:
  - DfT analysts and statisticians
  - Economists
  - Social researchers
  - Treasury data users

1.5.3.3 Internal system users

- These users are directly involved in the creation and distribution of the surveys

- Also includes DfT statisticians, as well as other DfT employees involved in the chasing of contacts and responses
- There are currently fewer than 20 of these users

1.5.4 Prioritising the user needs backlog

1.5.4.1 Identifying user needs

Our qualitative research identified *user needs.*

A user need is something that a person has to get done.

This need is present regardless of any existing products or services in place that they might have to interact with.

User needs are written using the syntax below:

> *As a... [the type of person/role that the user is]*
>
> *I need to... [the task that the user wants to do]*
>
> *So that... [the end goal that the user wants to reach]*

1.5.4.2 User needs gap analysis

We completed a user needs gap analysis to explore any gaps where the current service is not meeting user needs.

Each of the user needs were assigned a status of met, partially met or not met, based on how well they are met by the current service. These ratings were informed by evidence from the user research activities.

- Needs were rated as *met* if they are well met by the current service - users can complete these tasks with little to no difficulty
- Needs were rated as *partially met* if users can complete the task that is described, but experience some difficulty in doing this
- Needs that were rated as *not met* describe tasks that users are unable to complete, or tasks that they are likely to experience significant difficulty in completing

1.5.4.3 Prioritising user needs

The Department for Transport team were invited to a session to prioritise the user needs on 15 January 2024.

The team used research evidence to inform their initial round of prioritisation of user needs using the MoSCoW (Must, Should, Could, or Won't) method.

ID	As a... [user role]	I need... [user need]	Theme	Validation (indicative)	Gap analysis	Prioritisation
UN01	Internal system user	to monitor survey completions so that I know which data providers we need to chase	Monitoring submissions	High	Partially met	MUST
UN02	Internal system user	to have an up to date list of the relevant contacts for each survey so that I know we will reach the right person to complete it	Contact management*	Very high	Partially met	MUST
UN03	Internal system user	to be able to make changes to existing surveys (eg. question wording) so that I can quickly get the survey ready to send out	Survey set-up	Very high	Partially met	MUST
UN04	Internal system user	to be able to set up a new survey so that I can so that I can easily respond to a need for new data	Survey set-up	Medium	Partially met	MUST
UN05	Internal system user	to be able to draw on a bank of best practice questions and formats, so that my survey will generate the highest quality response	Survey set-up	Medium	Not met	COULD
UN06	Internal system user	to be able to export data in the format I need so that I can easily complete my analysis	Analysis	Very high	Met	MUST
UN07	Internal system user	to be able to update contact details on behalf of a data provider so that we can ensure the details are up to date	Contact management*	Medium	Met	SHOULD
UN08	Internal system user	to be able to update data on behalf of a user so that I can ensure the return is completed accurately	Data accuracy	Low	Partially met	SHOULD
UN09	Internal system user	to flag data providers whose return is a priority so that I know where to focus our efforts	Monitoring submissions	Medium	Partially met	COULD
UN10	Internal system user	to test a survey to ensure it is working as expected	Survey set-up	Very high	Partially met	MUST
UN11	Internal system user	to request data providers provide contextual information to explain the data they submit, so that we can be confident in the data that is provided	Data accuracy	High	Partially met	MUST
UN12	Internal system user	to be able to use a standard option set for relevant questions so that data is consistent across different entries and data sets	Survey set-up	High	Partially met	SHOULD
UN13	Internal system user	to request a data provider re-submit relevant data so that any errors can be corrected	Data accuracy	Very high	Partially met	MUST
UN14	Internal system user	to know who is responsible for providing the data at an organisation so that I can direct any follow-up queries to them	Contact management*	Very high	Partially met / not met	MUST

Image: Screenshot from the backlog of prioritised user needs. The backlog is available as an output.

1.5.5 Concept development

We developed a set of low-fidelity concept prototypes informed by the discovery's user research and user needs.

The concepts explored:

- Managing data providers - allowing data providers to manage the details of those that input into the data collection.
- Collaborative data input - allowing data providers to assign specific questions for a specified person to answer
- Overview of DfT data collections - allowing data providers to see the deadlines and status of data collections within their organisation
- Review data collection - a workflow to allow data providers to submit the data collection to a nominated reviewer for sign off, before submitting to the DfT

We facilitated concept feedback sessions with data providers. Each data provider was asked to assess the viability of these concepts and suggest where further improvement could be made for the designs to better fulfil their user needs.

An exported Miro board of collated feedback from these sessions is included as an output of this discovery.

1.5.6 Service journey mapping

We developed a service journey map to document the steps and touchpoints involved in a *current* service. It was informed by a service walkthrough with the DfT team, as well as interviews with survey owners.

The service map documents the:

- Steps (including notes and screenshots)
- People involved
- Technologies and channels involved
- Possible pain points

Across the following phases:

- New survey commission
- Generate survey
- Survey completion

- Data processing
- Analysis
- Publication

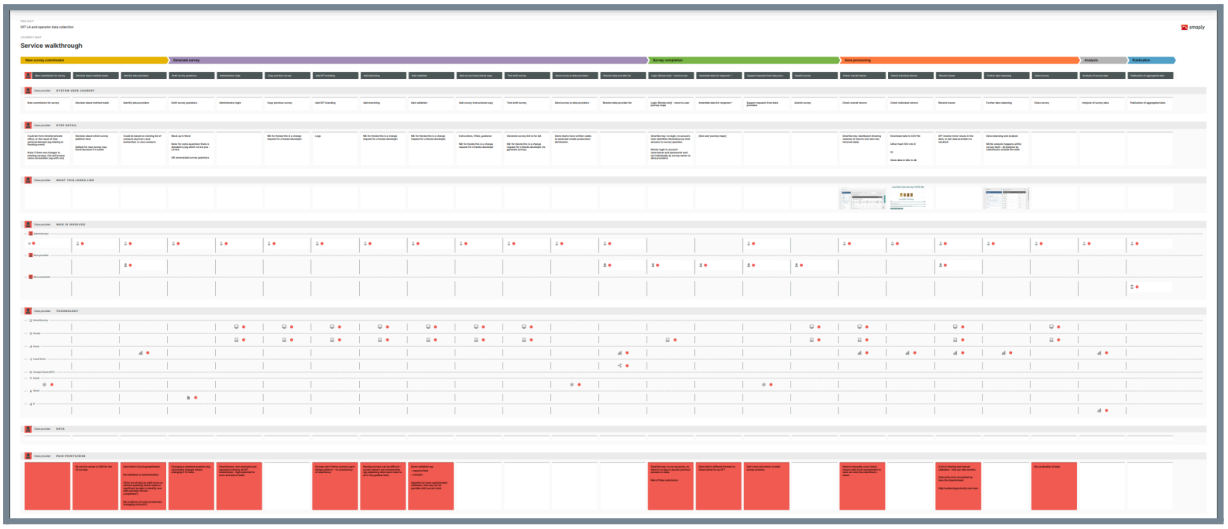


Image: A screenshot of the completed service journey map

1.5.7 Service blueprint

We developed a service blueprint to describe a hypothetical, optimal journey through a prospective future service.

It is not restricted by the boundaries of the current service and represents an ideal that a new service can aim towards.

The service blueprint plots:

- Activity
- What happens
- Who is involved
- Features needed to support activity
- Possible technology/platforms
- Concept prototypes

Across the following phases:

- Establish and maintain data providers

- Edit/design collection
- Gather and validate data to submit
- Review and submit data
- Analyse and report data

Image: A screenshot of the completed service blueprint

1.5.8 Technology review method

We've conducted a technical review of the SmartSurvey and Kenda systems that are used for the surveys in scope.

We've run a thorough technical questionnaire for each system with 32 questions that probe the current technical situation.

Those questions are mapped against the Government's Technology Code of Practice and the Service Standard, both of which the department holds itself too, plus the department's Digital Service Architecture Principles.

We've collated the questionnaire responses, with findings from the stakeholder interviews and document review, service walkthrough observations, and our own investigations into the systems.

The technology questionnaire sheets are a discovery output.

1.6 Key associated documents

- Proto-persona profiles
- User needs backlog
- Prototypes

Note: all project documentation has been gathered and shared. A full list of outputs is available in Annex 2.

2 Findings

2.1 Purpose and context

2.1.1 There seems to be broad consensus on the problems (to solve)

We heard similar things from stakeholders about the problems that are faced at the moment. Stakeholders told us that data collection methods need to be brought up to date and that the variety of current data collection methods may be unhelpful.

> "Data collection methods are too varied, with too many logins, with outdated interfaces." **Stakeholder**

We heard that this was likely to be a shared view amongst the people that are responsible for the current surveys.

People told us that the data collection methods work, but they could be better, or more modern.

> "Most stats teams know that what we have is a little bit rubbish." **Stakeholder**

2.1.2 Previous work has described the problem, but not from a user perspective

We heard that this is a known set of problems that is well rehearsed amongst those involved. And we heard that this discovery is not the first piece of work to explore the issue.

In fact, a previous piece of work 3 years ago, had identified a set of requirements for a new data collection service.

> "User forms, authenticated users, getting data into DfT, automated reminders." **Stakeholder**

Albeit, this previous work had not included research with end-users, or got as far as articulating the need for a service

that would meet the needs of its users and it did not lead to any new or changed service or tools at the time.

2.1.3 Data is valuable to the people who use it (albeit this value seems a little remote to the collection)

Importantly, we heard that the data that is collected is worth collecting.

When we asked stakeholders about the purpose of data collection people did not *always* reflect on the strategic purpose.

> "We collect data for statistical publication." **Stakeholder**

But we heard from our research with *data users*, how they make use of the data to inform policy and funding decisions.

> "I put data into models, and analyse policies and their outcomes." **Data user**

And we heard that the data informs decisions about millions of pounds of funding by the department.

2.1.4 The demand for data has changed

We heard that the people who make use of the data, inside and outside the department, want access to the raw data so that they can use their own software to do their own analysis.

> "More consumers want data for their own analysis. More consumers (including academics and think tanks) want machine readable data." **Data user**

And we heard that there is an increased expectation for more timely data. Data users have higher expectations for data that is close-to-real-time, and that is not as affected by the lag between collection and publication.

> "The demand is for more timely, more frequent data." **Stakeholder**

We heard these things in response to our questions about current data collection, and the 13 surveys that were in scope for our research. But we also heard that those 13 surveys

cannot answer all of the questions asked by ministers and others.

There are expectations about the need to collect new types of data, for example in response to a new question from a minister or another stakeholder.

> "[We need to] respond when a minister or private office, or an external stakeholder, has a new question." **Stakeholder**

2.1.5 There are raised expectations for more automated collection of data

We heard that people now expect data collection to be more automated and that these expectations are influenced by data collection that stakeholders have seen elsewhere.

People referred us to the Road Haulage surveys service and National Travel Survey as examples of more improved digital services in the Department for Transport and the collection of data from Ticketer as an example of more automated methods.

We heard that the aim should be to automate how data is collected and used, as far as possible, rather than relying on surveys, and manual validation of data.

> "To easily get data in and out. To collect data in a format that we can parse and store easily." **Stakeholder**

We heard this view in relation to reducing the time lag, and reducing the burden on the people who provide the data. But we also heard about expectations that more automated collection would increase the *quality* of the data collected: more automation should lead to *better* data.

> "I'm interested in ways to automate data collection in order to make it easier to provide data, and for us to get better data." **Stakeholder**

2.1.6 The demand is for new data AND continuity of existing data collection

We heard about responding to new requests for different data, and collecting data in new, more automated ways. But we also heard about the importance of the time series.

We heard about the importance of the continuity of the answers to the questions in the annual collections.

> "We need to continue to collect the data we already collect." **Stakeholder**

2.1.7 It's hard for anyone to see wider view of DfT data (because of the way data is collected and held)

We heard that the way data is collected *may* be an impediment to the value that the department gets from the data.

In particular, stakeholders told us that the current variety of data collection methods and storage, means that it can be hard to see the bigger picture, across data sets.

> "At the moment, there's no relationship between data sets." **Stakeholder**

And some of the *user needs* refer to this issue. These *data user* needs all refer to the need to see trends across surveys, rather than just the published statistics from an individual survey.

> *UN23: As a data user I need **to access data from different surveys in one place**, so that I can see trends across different surveys and compare and combine the data*
>
> *UN27: As a data user I need **to see data from multiple surveys in one place**, so that I can see how a local authority is doing across the things the department funds*
>
> *UN31: As a data user I need **to have the data in one place**, so that I can run my own query on the data collected*

We heard that it is difficult to meet these types of needs at the moment. Stakeholders told us that it can be hard to make full

use of the data that the department collects, because it is collected in different ways, and not in one place, or linked.

> "We don't have the data in one place. So it's quite hard to use [all the data the department collects] to answer questions." **Stakeholder**

Some stakeholders told us that this is a broader problem, and that standardised methods are needed across the department, if it is to get full value from the data collected.

> "We need standardised data collection across the department." **Stakeholder**

2.1.8 Low expectations may undermine some of the aspirations we heard

We heard a lot about the *ambition* for improved data collection. But we did also hear some reservations about the ability to act on those ambitions.

> "We may not have the skills or resources to do this in DfT." **Stakeholder**

These reservations, about the skills or capacity to change the way the department collects data, may partly explain why previous work on this didn't progress.

Note: We have *no evidence* that the department does lack skills or capacity. We mention this because this *view* may be a barrier to acting on this discovery.

2.1.9 The current service design for data collection feels safe, but presents some significant risks

Some stakeholders told us that data collection could be modernised and improved, but some told us that the current methods worked well enough.

We did hear about some quite *risky* practices that have the potential to go wrong. For example, we heard about the routine

use of shared logins (by both *internal system users* and *data providers*).

> "We have a shared login, but that's only used by me and [x]." **Stakeholder**

And we heard about recent issues with lost data, that has the potential to undermine all the efforts made to collect and provide the data.

> "We had an issue with deleting data, that meant we lost data and had to ask people to resubmit." **Stakeholder**

2.1.10 Everyone would benefit from reduced burden (of manual tasks) and freeing up capacity

We heard about the burden involved in manual tasks. And in particular, we heard an ambition to reduce burden on all involved, and make data collection as frictionless a process as possible.

> "We are trying to make the process as frictionless as possible, both for the data providers, and for those doing the analysis." **Stakeholder**

We heard about this from statisticians, who said that it would be a better use of their time and skills to be analysing data, rather than chasing contacts in local authorities.

> "I want to do analysis, not data collation." **Stakeholder**

(See Section 2.3 for findings on this issue from the perspective of other use roles.)

2.1.11 Stakeholders have some concerns about the quality of collected data

We heard an ambition from stakeholders to ensure that the data collected is of the highest possible quality.

We know that some of the data collected is mandatory to provide. But some data users told us that they sometimes

doubted the quality of data because of the ways that data is collected.

In this case, the data user wondered whether data providers are incentivised to provide the highest quality data.

> "I'm always apprehensive of data. Sometimes I think: 'are operators incentivised to give us the correct data?'" **Data user**

2.1.12 We heard different views on what the scope of this work should be

We heard different views on what the scope of our research should be.

The brief directed us towards 13 existing surveys. But stakeholders told us about wider challenges, including the need to collect different, new, and more frequent data.

We heard that making 13 surveys a bit better might actually be quite easy.

> "If it was just the 13 surveys, this would be an easy project." **Stakeholder**

But doing only that might not solve the wider problems that stakeholders and users face.

Some stakeholders started to describe a solution that might start with the 13 surveys, but with a broader ambition in mind.

> "A solution might start with TRENDS, and the digital team could roll it out to others (e.g. rail and aviation)." **Stakeholder**

Our user research has been with users of the 13 surveys (not rail or aviation users). But we note this ambition to solve a wider problem.

Some of the other data collection that we've heard about in stakeholder interviews is at the edges of the scope of our research.

We heard about ad hoc data collection by policy teams (that might currently be done with an Excel spreadsheet attached to

an email); or project or programme reporting; or the ability to set up a new survey, to help respond to a new request from a minister; or automating data collection (e.g. from Ticketer).

Importantly, our research has enabled us to hear about all of this from the perspective of the end user.

We've heard from stakeholders, what they imagine users in bus operators and local authorities need.

> "If I was a bus operator, I'd want to use the same link and login to submit statistics, submit returns to policy, and check my funding." **Stakeholder**

See Section 2.3 for what we've actually learned from our user research in this issue.

2.2 Governance

2.2.1 The current surveys don't all meet (government or DfT) standards

When we asked stakeholders what the experience of using a survey should be like, they described something that would meet government standards.

In fact, they described something that would be a bit like doing a tax return, and be recognisable as a government service.

> "I'm imagining something that looks like those nice government pages, where you could also upload a table. More like a tax return, with checks and validation of what you enter." **Stakeholder**

We heard that if this discovery work does lead to a new or standardised service, it would be expected to comply with the digital standards set by the department.

> "It would have to comply with: the Service Standard, DfT data strategy, the Technology Code of Practice. It would have to go through digital spend controls (through CDDO)." **Stakeholder**

The current surveys don't all meet all of these standards at the moment. See Section 2.5 for our technology findings.

2.2.2 The governance around data collection is not recognisable as service governance

We learned that the way the surveys are managed at the moment, isn't recognisable as service governance in the way that the Government Service Standard describes it.

The Service Standard provides a blueprint for government service, including the ways services are managed. And we heard that the department is committed to following this approach.

> "We are moving to a model of having: Information owners, Application owners, and SROs." **Stakeholder**

But the management of the 13 surveys does not follow this blueprint, and that may explain some of the technology findings.

It may also partly explain the historic variety of data collection methods in use, or why some stakeholders simply don't know what methods are used for data collection.

> "I haven't heard of SmartSurvey or Kenda." **Stakeholder**

2.2.3 Responding to new requests for data collection is an unsolved problem

We heard about the changing demand for data, and the difficulties when faced with a new request for data collection.

We heard that there isn't a defined process for managing this at the moment.

> "Currently, it's quite daunting to be faced with creating or changing data collection." **Stakeholder**

As a result, new requests for data collection often result in non-standard, imperfect methods.

We heard that this is why a lot of data collection is done in Excel spreadsheets at the moment, even though the department is paying for 500 SmartSurvey licences.

Some stakeholders told us that this is the main problem that they would like to see solved.

> "[I'd like] it to be easy to build new surveys with a rapid turnaround. For example, by drawing on a bank of exemplar/template questions." **Stakeholder**

2.2.4 Stakeholders describe inadequate user and and contact management

We heard from stakeholders about the challenges of managing users of the survey tools (including the routine use of shared logins).

We also heard about the importance of adhering to strict rules around access to unpublished data.

> "We are the only people who should see and access the data. It's effectively embargoed until we publish." **Stakeholder**

We note the apparent contradiction in these observations.

2.2.5 Stakeholders are mindful of (and obligated to consider) the burden on data providers

We heard about the need to manage the burden on data providers, and note this a challenge for any potential solution.

Despite the demands for more data to be collected, you cannot just increase the burden on data providers.

> "[Local authorities] are mandated to provide data for the Single Data List. But we need a compelling case to request more." **Stakeholder**

We heard that there is potential to decrease burden on some data providers through a more standardised approach.

> "A transport team in a Mayoral Combined Authority might be getting funding from CRSTS and the DfT rail team, and our templates might be completely different." **Stakeholder**

And some stakeholders imagined how the current burden might be felt by those responsible for providing the data.

> "Local authorities just see us as the department. They might ask: 'why have I got 15 different requests from the department?'" **Stakeholder**

2.3 User experience

2.3.1 Data providers report that the current data collection processes and systems generally work for them

Overall, we heard from data providers that the systems and processes used to collect data generally work and they are able to complete the surveys.

> "I cannot find fault with your survey. To be honest, it's very, very simple." **Local authority, taxi and private hire vehicle survey**

> "It's definitely efficient and generally works very well." **Transport operator, multiple surveys**

Although most users had some suggestions for minor improvements, some struggled to come up with anything they would like to see changed.

> "I hate to say this, but I don't really have any complaints about it and I can't think how you would make it more accessible than it already is." **Local authority, multiple surveys**

Some users reflected on their experience of completing other data collections and told us that the DfT surveys compared favourably.

> "We do get a lot worse surveys than the DfT." **Local authority, multiple surveys**

> "It's not the most complicated return we have to do. Some of them can take days and days." **Local authority, taxi and private hire vehicle survey**

This finding is further supported by the completion rates, which are 100 percent for the majority of the surveys, with 78 per cent the lowest completion rate, which is for the road conditions surveys.

However, we did also hear that there are some factors that can drastically affect the user experience and create a significant burden for users, which we will cover within these findings.

2.3.2 Data providers are generally happy to share data with DfT, if it is easy enough for them to do so

Although the main motivation to complete the surveys is that it is a mandatory data collection, overall data providers expressed a willingness to share any data they have, as long as it was easy to do this.

We heard that they were generally happy to support the work DfT were doing and many spoke positively about their interactions with the DfT, especially those that had had contact with individuals either over the phone or via email.

> "It's a joy to work with DfT [...] it's the right thing, what they are doing and I will support it all the way" **Local authority, multiple surveys**

We see this finding also reflected in the response to optional questions, where people often go out of their way to try and provide the data.

> "I know they were only optional questions, but [...] if somebody's asking me a question, I'm going to be one of these people that will go and answer it." **Local authority, multiple surveys**

Overall data providers could understand the importance of the DfT collecting data from them.

> "I see it as being very important to help with future guidance or calculators or policy" **Transport consultancy, concessionary travel survey**

> "Despite how painful it is actually to put together and how much time it takes, [the annual bus survey] does bring a greater good overall." **Transport operator, multiple surveys**

However, we did hear that some data providers would like a better understanding of why specific data is requested and to see evidence of how it is used (see Section 2.2.20).

2.3.3 The type of data requested in each survey is one of the most significant factors on the user experience

Where data providers reported a quick and straight-forward experience, it was almost always because the data requested was readily available to them within the organisation, in the format required.

This was usually because they either used the data already for their own purposes, or they had configured their systems to gather and report the data for them, in the format required.

> "I don't feel like we have to go out of our way to report anything that's not that useful because it's all stuff that I'd collect and use anyway." **Local authority, multiple surveys**

> "We've got a custom data extraction that pulls the data we need and organises it according to the licence." **Transport operator, annual bus survey**

Data providers told us time and time again that burden is often created when trying to gather data they either do not hold on their systems, or do not have in the format it is requested by DfT.

> "What tends to be a problem is where we're asked for information that we don't collect for any reason. And a lot of the stuff in the DfT survey is things that we don't necessarily have to collect for any other reason." **Local authority, taxi and private hire vehicle survey**

> "I would say that most of the data was gathered bespoke for this purpose. Because none of our reports would include the whole year's range of the data. And I had to ask other people to gather the data together and compile and prepare a report and summary specifically for this survey." **Transport operator, public service vehicles survey**

We heard about the burden that additional optional questions can cause, as this can often be data that people may not readily have to hand and don't already have their systems set up to collect or workarounds in place.

> "I've chosen not to do it because either I'm not quite sure how on earth we would extract the information or because I know that extracting it might be possible, but it would just take forever to do." **Local authority, multiple surveys**

We heard, in the case of additional questions that got added to one of the road conditions surveys, that the person completing this survey was not the right person to answer the additional questions and so, even if the data was held elsewhere in the local authority, they chose not to return the information.

> "I think if they would have just directed a separate questionnaire to those people they'd get a better response because I do think the response I give on those was [...] just a little bit vague and I think the DfT perhaps deserved a little bit better." **Local authority, multiple surveys**

This suggests there may be better ways to get the answers to those optional questions than including them in the mandatory survey.

Whether data providers are likely to have the mandatory data readily available differs between the 13 surveys, although even

within the surveys we found significant variation between data providers.

2.3.3.1 Highways related surveys

The data providers who completed the two road conditions surveys said they generally had the data available for their own purposes, in a format that was easy to convert for the DfT survey.

The more challenging surveys for this group of users was the highways inventory survey, due to the way the DfT measures carriageways.

> "The inventory one's a bit more tricky because the way the DfT record length compared to how we do length." **Local authority, multiple surveys**

We also heard that for some users, some of the data for the winter resilience survey was kept by manually keeping a tally.

> "It's just in there at the start of the winter, then we just keep a soft tally." **Local authority, multiple surveys**

2.3.3.2 Taxi and private hire vehicle survey

For the taxi and private hire vehicle and bus survey, users often told us that some data was not readily available and we heard about data wrangling and manual workarounds to try and return the necessary data.

> "If your system isn't set up to collect the information that the DfT wants, you've got to find some other way of doing it and that's the biggest problem with doing the survey." **Local authority, taxi and private hire vehicle survey**

> "We had to get occupational health to notify us every time they'd given out a new [exemption] and just keep a folder with the paper records, but it's far from ideal." **Local authority, taxi and private hire vehicle survey**

2.3.3.3 Bus related surveys

We frequently heard from the users of the bus related surveys that data was not available, or not available in a format that could be easily converted to fulfil the DfT request.

For example, for the concessionary travel survey we heard that there is a lot of variation in how the schemes are set up and therefore how data is recorded by the local authorities.

> "Some of the questions don't naturally fall in terms of the way that we would work things and you have to sort of shift things around and sort of try and recalculate it." **Local authority, concessionary travel survey**

The bus operators, particularly the larger ones, often grouped the data differently to how DfT requested it and therefore often have to do a lot of wrangling to get a representative figure to enter in the survey.

> "We end up with a really specific process that pulls the data for the entire organisation and then we have to split it up into the individual spreadsheets so that we've got even a fighting chance of being able to key the stuff in." **Transport operator, public service vehicles survey**

2.3.3.4 Light rail and tram survey

The research with the tram and light rail data providers suggests that some data may be more difficult for them to access and format for the survey, but the user we interviewed had a well established work around.

> "I've set up a spreadsheet [...] and I've got a lot of the calculations ready. So I just input the new figures and it does the calculation for me. So, way back when, it probably took quite a lot of extra time, nowadays, not so much." **Travel consultancy, concessionary travel survey**

2.3.3.5 Maritime sea passenger survey

The two maritime sea passenger data providers who responded to the survey did not mention data not being available in the

requested format as an issue in their survey responses, and generally reported a low overall burden to complete the survey (22 out of 100 average).

2.3.4 Many users are used to the current surveys and express some resistance to change

Since many of the data providers have configured their systems, or have spreadsheets or other workarounds in place, in order to gather the data requested, it is no surprise that consistency in the questions being asked for is important to them.

Whilst users often spoke about not wanting the questions themselves to change, there was sometimes a wider resistance to change that it is important to be aware of when making any changes to how this data is collected.

> "I think the surveys are generally ok. Maybe I don't like change [...] I'm used to them, I know what's in them. I get a little thrown when they decide to ask a different question." **Local authority, concessionary travel survey**

> "I collect what's asked for and I don't really sit down and go well, that would be easier if it was different this or if I didn't have to do that. [...] I guess I've gotten used to the format over the last few years." **Local authority, concessionary travel survey**

Many of the data providers we interviewed had been doing the job for years, know when to expect the surveys, and like to prepare ahead of time.

> "We know what's happening and we can repeat it year on year [...] It's the things where it's a new thing and it comes out of left field and we're not quite sure what the rules are [...] Those are the ones that really give us challenges." **Local authority, multiple surveys**

We also heard there may be a similar resistance to change from the internal system users, who told us that often the decision to use a particular tool for a particular survey seemed to be because it has always been done that way.

> "It's often a legacy thing [...] They've been doing it for so long this way, it's very difficult to change." **Internal system user**

2.3.5 Some users have ideas about data they already hold that they believe could be useful to share with the DfT

Some users spoke to the fact that DfT only collects relatively high level information, which was often appreciated as this usually limits the burden of the user.

> "DFT tend to only want the high level data. We go into a lot more detail DFT request from us." **Local authority, multiple surveys**

However, one user of the tram and light rail survey spoke about data that they believed all tram and light rail operators would have readily available, that is not currently collected.

> "I think it is more important to understand energy, especially for light rail, total energy usage, stuff like that. [...] We've got all the data here, everyone in light rail will know that." **Transport consultancy, light rail and tram survey**

Their opinion was that this data would be more valuable to the DfT than the data they currently provide and would therefore be a better use of their time as a data provider.

2.3.6 Some users expressed a desire for better coordination of data collection within DfT and with other organisations

For some, completing multiple surveys to the DfT, as well as providing information for funding applications created, what they felt was, an unnecessary burden.

We heard many examples where people are submitting data for multiple different surveys, although this didn't seem to cause too much burden if it was data already easily accessible, as was often the case for the highways-related surveys.

> "The one that takes the longest is either the road length one or the work's done, but it's stuff that we need to collate anyway.I don't feel like we have to go out of our way, because we would still collate it internally anyway." **Local authority, multiple surveys**

However, where we did hear about the desire for better coordination of DfT data collection, it was often related to the bus service operator grant (BSOG) survey, concessionary travel survey and other DfT bids for funding.

> "It can feel like this never ending cycle of writing a bid, securing the funding, spending the funding, telling everyone how you're spending the funding, [...] give us some decent funding and let us get on with our jobs" **Local authority, multiple surveys**

Some users told us of examples where they had multiple surveys all due back in the same week.

> "When you've got three surveys all due back on the same date, that's not helpful. And I do wonder whether there could be more coordination within DfT sometimes." **Local authority, multiple surveys**

We heard of data requests for other organisations, that data providers are also required to respond to.

> "The Active Travel England Capability self assessment is another survey return that's got a deadline in December." **Local authority, multiple surveys**

> "I had an ATCO [Association of Transport Coordinating Officers] survey that had the same deadline as the BSOG survey." **Local authority, multiple surveys**

> "We have to do a lot of returns for various different things. For example, there's the DEFRA one that we have to do weekly, about the clean air zone data. " **Local authority, taxi and private hire vehicle survey**

> "We have the National Street Gazetteer, 'cos that's another thing we need to submit to central government." **Local authority, multiple surveys**

We also heard examples where data providers were regularly providing data to the DfT outside the scope of these surveys, for example, the maritime sea passenger survey respondents also reported providing monthly port data.

2.3.7 The term “survey” may have unwanted implications for some users, particularly transport operators

Although not directly reported by data providers, we heard from an internal system user how using the term “survey” can negatively impact the response from data providers, particularly bus operators.

> “The word survey is problematic. The moment you put the word survey out there people go, ‘I've got a choice and I'm not doing it.’” **Internal system user**

We also heard that using the word “survey” in an email can also lead to the email getting caught in spam filters.

> “The other problem with the word survey is you can get blocked by a bus operator’s firewall.” **Internal system user**

This was reflected in our recruitment of bus operators, where we received the following response to an email request to take part in the research.

> “Our bus operators do not encourage taking part in surveys” **Transport operator, multiple surveys**

2.3.8 Often multiple people are involved in collating and submitting the survey data

Whilst there is usually one central contact who has the responsibility for ensuring the survey is completed, for most survey responses there are often multiple people involved in the gathering and submission of the data.

In the majority of cases, the contact who the DfT request goes to, will not have access to all the data needed to complete the

request and they have to liaise with others in order to complete their survey response.

For some, this involves speaking with colleagues in other departments to get the information they need.

> "I do also have to go to the enforcement team and check what their stats are and make sure that we've got an up to date information with regard to guide dog and wheelchair complaints." **Local authority, taxi and private hire vehicle survey**

For some data providers, the person who completes the statistical data will be different to the person who provides the narrative and contextual information for the data provided.

> "Most of the statistical stuff is done by one of my colleagues who knows the systems that we use [...] I tend to fill in the narrative where it's required and the things that we can't actually extract from the system." **Local authority, taxi and private hire vehicle survey**

Some data providers have external providers they have to liaise with in order to get the data, for example, we heard multiple examples where concessionary travel schemes are administered external to the local authority and so the local authority do not hold the data themselves.

> "We've got four operators in our borough. So we have to request data from all four and we have to plate it and present it back in the survey in a format that the DfT want." **Local authority, multiple surveys**

We also heard examples where it is external contractors who are completing the surveys on behalf of a local authority or bus operator.

> "As the administrator for the concessionary fares, we have a lot of the data required for the survey. And therefore, be it as part of our contract for the authority or for a supplementary fee, we complete it on their behalf." **Transport consultancy, concessionary travel survey**

Some users spoke about the requirement to get the survey response signed off by a senior manager before it is submitted, although this was a minority of users we spoke to.

> "I'll take my laptop and go and sit with somebody and just quickly flick through it and just say, 'are we comfortable?'"
> **Local authority, multiple surveys**

This finding is reflected in a number of the user needs for this discovery, which are all either *not met* or only *partially met* currently, including:

> *UN34: As a data provider, I need **to allow multiple people to contribute to the survey**, so that the relevant person can provide information they hold*
>
> *UN40: As a data provider, I need **to be able to complete any section within a survey**, in any sequence, so that I can complete each question when I have the data available*
>
> *UN49: As a data provider, I need **to get the response reviewed before it is submitted (e.g. by a senior manager)**, so that it can be confirmed that the information is ready to share*

The survey responses from the maritime sea passenger survey data providers suggest that the experience of this group of users may be different, as both respondents reported that they completed the survey on their own, with no input from others in their organisation.

2.3.9 There is very little consistency in the systems used by data providers

As well as multiple people, there are often multiple systems accessed to gather the necessary data for each survey response, and there was very little consistency between data providers in the systems being used.

We heard multiple examples of bespoke systems being used to gather data for each survey, particularly for contract management and licensing:

> "It will be our contract management system. We currently use an in-house one." **Local authority, multiple surveys**

> "The licensing systems tend to be bespoke. The software system was not used by anybody apart from ourselves." **Local authority, taxi and private hire vehicle survey**

Where off-the-shelf solutions were named, we rarely heard the same names come up consistently.

One exception to this was for systems used to collect some of the bus passenger data, where Ticketer was mentioned frequently, but even this system is not used by all the transport operators.

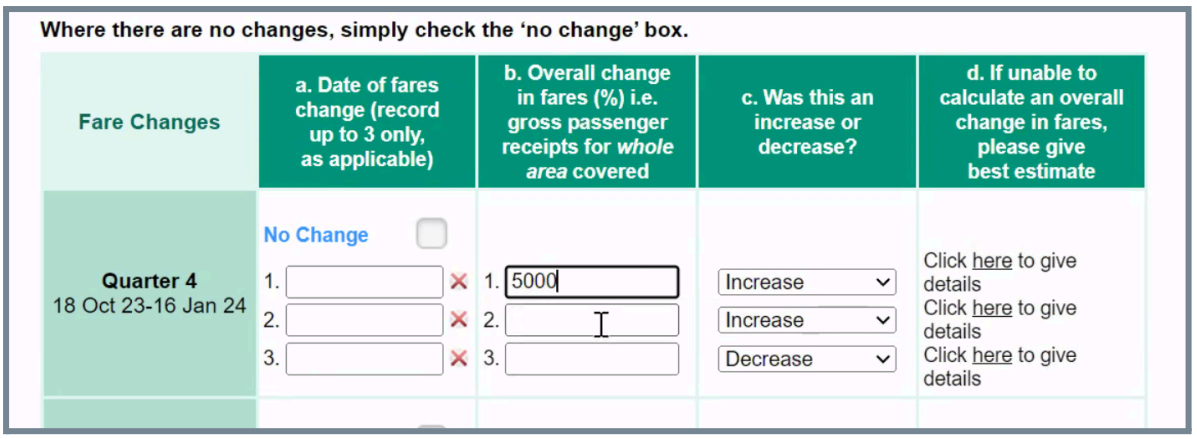
2.3.10 We heard some examples of the current survey systems contributing to user errors

We heard some examples where the current systems, particularly Kenda, might be contributing to a more frustrating user experience and even user errors.

Some users spoke about how the layout of the Kenda surveys could result in data being entered incorrectly.

> "I might have filled in this year's information in the previous year's boxes by mistake [...] but that's going back to what I was saying about the forms being a bit jumbled up with where the information needs to go for recent years and previous years." **Local authority, multiple surveys**

> "I know I have to sort of double check and look at the questions quite a few times. Because it's a huge page [...] so you have to pay attention to which boxes you're filling in [...] it would be nice to have it clearly defined." **Local authority, multiple surveys**



Where there are no changes, simply check the 'no change' box.

Fare Changes	a. Date of fares change (record up to 3 only, as applicable)	b. Overall change in fares (%) i.e. gross passenger receipts for *whole area* covered	c. Was this an increase or decrease?	d. If unable to calculate an overall change in fares, please give best estimate
Quarter 4 18 Oct 23-16 Jan 24	No Change 1. 2. 3.	1. 5000 2. 3.	Increase Increase Decrease	Click here to give details Click here to give details Click here to give details

Image: Screenshot of an example Kenda survey question

We also heard something similar about using Excel for the light rail and tram survey.

> "You've got about five different boxes and, if you don't read it properly, you'd type in everything wrong. They need to remove some confusing bits." **Transport consultancy, light rail and tram survey**

One user suggested a solution would be to have the surveys formatted like other GOV.UK services.

> "The user interface design should be more like [GOV.UK services], they're incredibly simple, really quite easy and straightforward to use. It just makes it a lot simpler to work through it and you're quite clear on what's being asked." **Local authority, multiple surveys**

Image: An example of a GOV.UK service

We also heard that it wasn't always clear to users whether or not the data had been submitted in Kenda.

> "I just kept missing a box on one page. Clearly it didn't stand out to me and I was scratching my head thinking how do I submit this? [...] Someone came back to me and said 'you've not submitted your data yet' [...] clearly there was an error in there but it wasn't telling me that this box needed to be filled." **Local authority, concessionary travel survey**

Internal system users told us that data providers not ticking these boxes at the end of the survey is a frequent occurrence, that leads to the DfT having to chase for a response, even when all the actual data has been completed.

> "They are tiny little boxes right at the end of an arduous survey, so we get a high percentage of people who do not tick that box and then we have to go back to say 'are you submitting more data?'. There must be a better way than those little boxes." **Internal system user**

2.3.11 The current method of managing survey contacts presents challenges for both internal users and data providers

In order for the surveys to be completed, they have to reach the right person and this currently relies on DfT having the correct contact details for the responsible data provider.

Overall, we heard that the survey request usually reached the correct person to deal with it, but we did hear of instances where it took some time to reach the right person within an organisation, or didn't reach them at all.

> "I don't know where it went to in North Yorkshire, but it had been somewhere. But it never quite made it to me. I don't think it even made it into passenger transport." **Local authority, multiple surveys**

> "It was going to the director and it just wasn't coming back down to the people it needed to come down to." **Local authority, multiple surveys**

We also heard about how contact checking takes a significant amount of time for internal users, time which they could be spending on other things.

> "It is part of the process that really takes resource away from doing other things, other work, other projects." **Internal system user**

For example, one internal user spoke about how, for the annual bus survey, they start contact checking in February and the process takes up the best part of a couple of months.

Some internal system users imagined a digital solution could help with this.

> "I think what would be useful is if the portal could dynamically update, with operators maintaining [contact details] from their side, to have the correct person, or at least a principal contact and then could have other contacts as well." **Internal system user**

One system user suggested that the contact checking could be improved by giving more detail as to what would be included in the survey, to make sure that the contact is the right person to be answering those questions and to give them a heads up so that they can prepare better ahead of time.

> "All we say is, 'are you the right person for this kind of area?' We don't say 'are you the right person for these 40 pages of questions that we're gonna be sending you?'" **Internal system user**

2.3.12 There is no clear or consistent process for data providers to update or manage contact information

The current process for managing contact information relies on DfT staff reviewing the contact details that were sent with the previous survey response and completing a 'contact check' ahead of the next survey being sent.

This means that the DfT will not be aware of any changes to those details since the previous survey, for example, due to people changing or leaving their role.

> "If I was leaving and doing a handover, [...]I guess there is a very real danger that those emails could just fall into the ether or bounce back." **Local authority, multiple surveys**

The contact information is managed and checked using different processes for different surveys, using emails and spreadsheets.

For some surveys, it is the analysts themselves completing these tasks, for others there are dedicated 'contact checkers', who also help chase up unsubmitted responses.

> "We have a shared mailbox and various other team mailboxes. And essentially we just have to move emails from one to the other." **Internal system user**

Not only does chasing contacts take significant time before the survey gets sent out, but having the correct contact details has a knock-on effect throughout the whole survey journey; not

having the right contact details in the first place makes it impossible to follow up on submissions that are not returned and also to reach the right person to get validation queries answered.

> "You've got a pre-contact check [...] You've got another process where you're dealing with bounce backs or unobtainables, then the survey goes out, you might get [the] same kind of issues and chasing." **Internal system user**

Although some internal system users speculated that allowing data providers to update their own contact information more easily would save time, some reflected that there would likely always be some need for direct communication to get a response from some providers.

> "Human direction is needed to get difficult returns. Whatever system is going to need to build that in." **Internal system user**

2.2.13 The amount of time spent completing surveys varies, even on the same survey

We heard significant differences in the amount of time data providers spent completing surveys. Some of this variation was between surveys, but we also found this was the case even on the same survey.

> "Your survey takes me 15 minutes to do it. That's about it." **Local authority, taxi and private hire vehicle survey**

> "It's probably a couple of hours, spread over a couple of days. " **Local authority, taxi and private hire vehicle survey**

Users often said it was difficult to put a time scale on the time spent actually working on the survey submission, as they were often dipping in and out, waiting for others to get back to them.

> "If I did it flat out, it's maybe a day's work, but obviously it's very spread out with waiting for people to get back to

you and things like that. ” **Local authority, multiple surveys**

This relates to the following user need, which we heard consistently throughout our research.

> *UN39: As a data provider, I need **to save a partially completed response** so that I can complete it at my own pace*

It was also the case that users could only speak for the amount of time they spent, they often didn’t know how long other contributors were spending working on the survey response.

> “That's just my time, not including anybody else's time that you've had to go out to and they've then had to do work to get those figures back.” **Transport operator, multiple surveys**

The main factors that seemed to impact how long it took to complete a survey were:

- Whether data was already available, and in the correct format (See Section 2.2.3)
- The number of people involved in collating the data and how responsive other contributors are to the request (see Section 2.2.8)

Generally, it was the bus surveys which were likely to have more of these factors, so often took longer than the taxi and private hire vehicle survey and the highways surveys.

In particular, transport operators reported that the public service vehicles survey took a significant amount of time to complete.

> “I would say it was several man weeks, if not months, if you add up the amount of time and effort that all the people involved spend on it.” **Transport operator, public service vehicles survey**

> “The first time it took me at least a good 4 to 5 days worth of work.” **Transport operator, multiple surveys**

Although the users of the maritime passenger survey reported a low burden rating in the experience survey, it should be noted

that this is a monthly survey and so any time burden is compounded.

The maritime passenger survey users reported spending between 30 minutes and 2 hours on the last submission, which equates to between 6 hours and 24 hours worth of work annually.

2.3.14 Some users find it difficult to meet the submission deadline

In light of the amount of time taken to complete the survey, users often reflected on the deadlines they were given. Most said it was enough time and some even commented that they wouldn't want to be given longer:

> "I don't think I'd want to be given six weeks or eight weeks to do it [...] If you can't do it in a month, it's not gonna happen." **Local authority, taxi and private hire vehicle survey**

> "There's plenty of time for you to do what you need to do." **Local authority, multiple surveys**

But some users, particularly those who completed multiple responses for a survey, such as the external contractors and some bus operators, did report that they would prefer to have more time.

> "We have to deal with 800 buses from this particular office and therefore time can be a little bit stretched. We've got 15 depots that we plan for. Sometimes I found the requested timescale for completion to be unmanageable." **Transport operator, multiple surveys**

> "I think if we had a couple of months that would be ideal." **Transport consultancy, concessionary travel survey**

2.3.15 We heard some instances where data accuracy is likely being compromised

We heard examples of data accuracy being compromised, particularly when mandatory survey data is not available, or not available in the format it is requested (see Section 2.2.3).

> "That information is hard to get from that external supplier [...] So when it asks for actual cards in circulation, we just guessed. I don't know whether I should say that or not." **Local authority, concessionary travel survey**

> "I do feel as though some of that data [we've submitted] in the last few years has been a little bit sketchy. I know what we've spent, but what I haven't really had clarity on is actually how many units were being issued." **Local authority, multiple surveys**

> "Sometimes it does need to be manipulated to get the actual true figure, and even then I'm not too sure it is a true figure, I probably shouldn't say that." **Local authority, taxi and private hire vehicle survey**

Some users spoke about the systems they use not being able to give accurate information for the time period requested in the survey, unless this had been pre-configured or prepared ahead of time.

> "I don't know if everybody puts their hands up to it, but I would be very surprised if everybody is giving you information for the 1st April because most of the systems won't let you do that unless you've specifically run the reports in anticipation." **Local authority, taxi and private hire vehicle survey**

And again, we heard about the compounding effect of having to gather data from multiple different people and sources, and the possible impact this may have on the accuracy of the data provided.

> "There are opportunities for me to get calculations wrong if I'm trying to amalgamate data from four different sources." **Local authority, multiple surveys**

The accuracy or quality of the optional data returned was also questioned by some users, because they are seen as less important than the mandatory questions.

> "I feel that they're not always as accurate as the mandatory questions because it's deemed just an optional path." **Local authority, taxi and private hire vehicle survey**

For internal system users, data accuracy is a concern when it comes to the robustness of the data and we heard of instances where data is collected but not published due to concerns about data accuracy.

> "There's information that we asked [...], but not actually published any data on just because we are a bit wary of the comparability and the robustness of that data. So we've collected it but not done anything with it." **Internal system user**

So whilst the completion rates are high for most of the surveys, some internal users suggested that a better measure would be to look at how many of the responses are complete and robust enough to be published.

> "The bigger question is not so much about completion, it's about how many we essentially have to write off where perhaps the data isn't quite as locked down." **Internal system user**

2.3.16 It is not always clear to users exactly what data is being requested

Many of the users we interviewed had been completing the survey for a number of years, and generally they said that they understood the survey questions and what data they needed to provide.

However, these users noted that the phrasing of the questions can make it difficult to understand what data is being requested, particularly for newer users.

> "I've done it for three years now, so I'm kind of familiar with the questions. But I think that the phrasing of the

> questions is not the easiest to understand. And I think if somebody was starting, I think they would struggle because of the manner in which the questions are phrased." **Local authority, concessionary travel survey**

> "Most of the questions are very technical, so if you don't understand the surveys, if you don't understand the UKPMS, you won't be able to answer them." **Local authority, multiple surveys**

> "Simpler questions would be nice. Plain English." **Local authority, multiple surveys**

Other users spoke about misinterpreting the questions and wanting more clarity about what should be included in the data for specific questions.

> "The last time we had a challenge, it was because we'd misinterpreted the questions." **Local authority, multiple surveys**

> "I also think there's possibly been a little bit of a misunderstanding or lost in translation about what should, and what shouldn't, be included in some of the categories." **Transport operator, annual bus survey**

> "They replicate some bits. So they'll ask you for total boardings, then they'll ask you for the boardings without concessions. But then they ask you for the concessionary boardings [...] There's replication there and that confuses people." **Local authority, concessionary travel survey**

Data providers often said the accompanying guidance notes were useful, but some said they would like more guidance at the point where they are inputting the data.

> "The only thing would be to have some additional notes actually on the portal." **Local authority, concessionary travel survey**

The experience of internal system users when carrying out validation checks with data providers also confirms the finding that there are some users who do not understand the questions.

> "By talking to them, we've actually found that [...] they actually didn't understand what the question was."
> **Internal system users**

Some users spoke about the frustration of the validation checks (see also Section 2.3.19), and suggested the DfT could do more to reduce the work required at the validation check stage by being clearer about what data is needed at the point of submission.

> "There needs to be much clearer instructions and questions wording on what actually is required; that then saves the queries being raised and having to come back and then some of the work having to be redone."
> **Transport operator, public service vehicles survey**

2.3.17 Data providers often aren't requesting support from DfT when they need it

We heard that it is not always clear to users that there is the facility to reach out to DfT for support and clarification when completing a survey.

Those users that have requested support from DfT often gave very positive feedback.

> "I'd email back to DfT themselves. I've always found them very helpful and approachable and we know they want to get the right answers." **Local authority, concessionary travel survey**

> "I'm happy with the people that we deal with at the DFT who send it out. They are excellent. This year in particular they have been so helpful." **Transport consultancy, concessionary travel survey**

Most users are aware of the email address that sends out the survey and say they would reply to this if they needed support but, in practice, many users don't take this step when they need support, or turn elsewhere in order to get clarification when completing the surveys.

> "I'll go and take advice from [a colleague] and say, 'do you think I should exclude the grant?'" **Local authority, multiple surveys**

> "We've got a networking group [...] that would be my first port of call, probably to go back to them and ask." **Local authority, concessionary travel survey**

> "If there is something that I'm a bit unsure of, I'd probably just expect lots of people to be asking the same question and then I'd probably get issued with some sort of revised guidance." **Local authority, concessionary travel survey**

Some users told us that, if they're not sure about the data they are submitting, they just submit an answer and wait for the validation queries to come back.

> "If I'm not sure, I put in the answer that I think is right and then wait for them to come back to me [...] I've put an answer knowing that they'll then come back to me." **Local authority, taxi and private hire vehicle survey**

> "I think the only support that I tend to have is when, after I've submitted the data, and somebody calls me or wants some clarity." **Local authority, multiple surveys**

2.3.18 Data providers often use previous year's data to help them complete the surveys

Many of the data providers said they used last year's data to help them complete this year's survey.

For some of them, this is because there are figures that don't change.

> "The frustrating thing about that is, that's a survey we fill in every single year and some answers to some of the questions don't change or they change very little." **Local authority, multiple surveys**

More commonly, it is used to check the consistency of the answers they are giving this year.

> "I sort of sense check it against previous years [...] just to make sure I haven't made some fundamental error in there somewhere." **Local authority, concessionary travel survey**

The following user need reflects this behaviour:

> *UN32: As a data provider, I need **access to the data we submitted the previous year** so that I can use it to help with completing this year's survey*

This is currently being met by some of the Kenda and Excel surveys and, where this is happening, users report this as useful.

> "The good thing is that usually your survey form comes back with last year's data on it, which is quite handy." **Transport consultancy, light rail and tram survey**

> "It's quite useful having the previous year's answers there [...] Just as a kind of guide as to what reasonable with what I've submitted last year. Again, I do have that information on my spreadsheet, but it's nice as a double check" **Transport consultancy, concessionary travel survey**

On surveys where this is not happening, and even on some surveys where it is, users often refer to their own spreadsheets to see what they did last year.

> "We just need to access my spreadsheets, which I will have readily available because I keep all the data anyway." **Local authority, concessionary travel survey**

We did hear from some internal users that there is a concern that this could lead to more inaccuracy.

> "You need to really look at the data, you're getting back because it's very easy for people just to copy and paste from the year before." **Internal system user**

2.3.19 Post-submission validation queries create a significant burden for both internal and end users

We heard that the post-submission validation stage of the survey journey causes significant burden for both internal system users and data providers.

We heard for most of the surveys, once the data has been submitted and validation checks are run by statisticians, nearly all the responses are flagged.

> "I'd say that nearly all responses will get flagged for something. It's very rare, I think there were only about half a dozen that literally returned nothing." **Internal system user**

Not all of the flagged responses will require a follow-up query with the data provider but a significant number will do. For example, we were told that of the 400 bus operator survey responses for the public service vehicles survey, around 350 will require the DfT to go back to the data provider to query it.

Although user error accounted for a significant portion of these validation checks, we heard that the majority of checks were usually for another reason, such as getting more contextual information for an answer.

> "User error [is the] more unlikely scenario." **Internal system user**

> "We only see how many cases we've flagged, a lot of those may not be genuine errors. As a rough guess, maybe 20% of authorities have done something that's genuinely wrong, as in they have inputted something that they shouldn't." **Internal system user**

We also heard just how much time is spent by internal users following up on these validation queries.

> "The DfT team spend months going through the surveys, checking all the data." **Stakeholder**

Answering the queries can also take significant time for the data providers themselves.

> "Going in to try to validate those became a bit of a tiresome task because we were constantly trying to look at the numbers, trying to make it fit and then re-submitting time and time again to try to get those to balance." **Transport operator, public service vehicles survey**

This can be compounded by the fact that there are multiple people involved in gathering the data (see Section 2.3.8), so the person who gets the query is often not able to answer it themselves.

> "If they come back to me with questions, I'm usually like, 'I don't know, I'll have to go and ask someone.'" **Transport consultancy, light rail and tram survey**

> "The honest answer to that is when it arrives in my inbox, I forward it to the finance manager and say, have a look at this and tell me what the answer is." **Transport operator, public service vehicles survey**

We also heard some users are frustrated that they give some contextual information and then have to repeat this when they get a validation query.

> "Sometimes it's a little bit irritating that you've explained why there isn't an entry up here in your notes, but you still get the validation query about it. So you end up explaining it twice." **Local authority, taxi and private hire vehicle survey**

> "What's the point of me putting that in the extra notes if they're just going to ask the question, which I've already answered?" **Transport operator, multiple surveys**

Other users gave us examples where the data doesn't change and every year they get the same query.

> "A lot of the details I put in a zero and every year I get queried from the people behind the scenes. Why is this zero? [...] The fact that we don't do hackney carriages

> confuses them." **Local authority, taxi and private hire vehicle survey**

However, some data providers told us that the validation queries did reassure them that the data was being looked at and used.

> "It reassured me that these numbers were getting looked at and it wasn't just something you send off and then is just cut and paste into a report [...] that someone was looking at it and was trying to make sense of it." **Local authority, taxi and private hire vehicle survey**

2.3.20 It is not always clear to users why DfT needs the data or what it is used for

We heard that some data providers would like more clarity on how the data collected by the DfT gets used.

Some directly related this to the work that they put into completing the survey, to know that this effort is worthwhile and valuable.

> "I'm filling all these in, is anyone actually observing this and using it? What's the point of it all?" **Local authority, multiple surveys**

> "It'd be interesting to understand what this information is used for. Who gets the benefit of all this work? It might well be that all this work is really valuable and worthwhile but I haven't seen any evidence that any of this stuff is being used." **Transport operator, public service vehicles survey**

Another user said they would like an explanation as to why each question in the survey is asked.

> "There should be an understanding of why something has been asked. Why do you want this information? [...] We want this because we're gonna include this in the paper. We want this because there's a focus on this." **Transport consultancy, light rail and tram survey**

Other users wanted to understand more specifically how the data gets used to inform policy and decision making.

> "They are receiving this and they can see the financial pressure but it doesn't seem like anybody is paying any attention to that aspect, which makes me wonder if you're gathering this data and there is a clear issue there and you're not addressing it. What's the point?" **Local authority, multiple surveys**

Some internal users also reflected that the DfT could be clearer why the data is being requested.

> "We need to explain why we want the data. I don't think we're very good at doing that." **Internal system user**

2.3.21 DfT publications were sometimes viewed by data providers but could be more valuable

Some data providers have been sent the publication when it was released, with an acknowledgement of work done, which was well received.

> "I'll always read through the report and one of the people over at DfT was kind enough to send it directly to me this year, which was nice." **Transport consultancy, concessionary travel survey**

Some data providers use it for benchmarking, for example, we heard from this user that the councillors at their authority liked to be able to use the data in this way.

> "It is actually really useful that [DfT] do ask for the data and that they do report it because our members love league tables and our members love being able to say our roads are better than average." **Local authority, multiple surveys**

Others spoke about the potential for shared learning between data providers as a result of what is shown in the data.

> "Are there good practices in place or are there little things that are done in other councils that actually might benefit

> all readers of the survey [results]?" **Local authority, taxi and private hire vehicle survey**

> "Can the operator come back and say,I'm interested to know how Birmingham, for example, has managed to improve this thing. There's an opportunity for a bit of shared learning from that." **Transport operator, light rail and tram survey**

This finding informs the following user needs, although the indicative level of need based on the research is that this is a low level of need compared to many of the other user needs in the backlog.

> *UN45: As a data provider, I need **access to relevant insights from the published data**, so that I can use this to support my own work*

> *UN46: As a data provider, I need **access to benchmark data** so that I can see how our organisation compares to others*

2.4 Inclusivity and accessibility

2.4.1 Users who have less confident digital skills may find it challenging to complete the data gathering for the surveys

The majority of the users we engaged with in the qualitative research were confident in their digital skills and said the survey completion was fairly straightforward.

> "I would have thought anyone who's in a position where they're responding to this survey would be able to [...] handle the online survey. I can't imagine that the interface is going to stop someone from completing the survey." **Local authority, multiple surveys**

However, some speculated that those who were less confident might find it challenging to gather and submit the data, particularly that the amount and type of data they were being asked to gather and format might require higher levels of digital skills.

> "I think it could be a bit of a challenge. I'm gonna use the word daunting because there's a lot of pages, there's a lot of information across the entire business that's required." **Transport operator, multiple surveys**

Although there were limited responses to the experience survey, a number of these users self-reported having basic digital skills (see Section 3) and we heard of examples from internal users of some data providers who are reluctantly online.

> "Some small bus operators do not like online collections. So they say things to me like 'we don't know how to use a computer'." **Internal systems user**

There is a clear need to ensure that any solution is meeting the needs of users with basic digital skills and it is not assumed that all users are confident in the digital skills needed to collate the data they need to submit.

2.4.2 The current surveys may not be meeting access needs and expectations

Although we had limited engagement with users who disclosed access needs, it is likely that there are a number of users of the service with a range of access needs (See Section 3).

Our research suggests that accessibility could be an issue for some of these users, particularly for the surveys on Kenda or Excel.

The UX review revealed it is unlikely that the Kenda system is meeting the WCAG 2.1 (or 2.2) AA accessibility standard and some of the user experience findings may also present accessibility issues for those with certain cognitive impairments or who use screen readers.

It is also clear that many of the users we engaged with had an expectation that the surveys would meet a certain accessibility standard. For example, in the concept feedback sessions, multiple users offered the following unprompted comments:

"I'm guessing you've got to run it through accessibility checkers, that will happen as standard." **Local authority, multiple surveys**

"Not for me personally, but it will need to be accessible and screen reader-friendly, so that people with disabilities can use it just as easily." **Local authority, multiple surveys**

2.5 Technology

Our technology review revealed the following headline findings about the current systems.

2.5.1 The system technology

2.5.1.1 Kenda

Not meeting standards

- The current Kenda system is entirely custom built by the supplier
- It has remained largely similar since 2018, with some functionality improvements made during that time
- There's no published documentation about the frameworks and languages it is built with
- We understand that the complex, legacy code base is going to be rewritten this year, to resolve known problems, including accessibility shortcomings

2.5.1.2 SmartSurvey

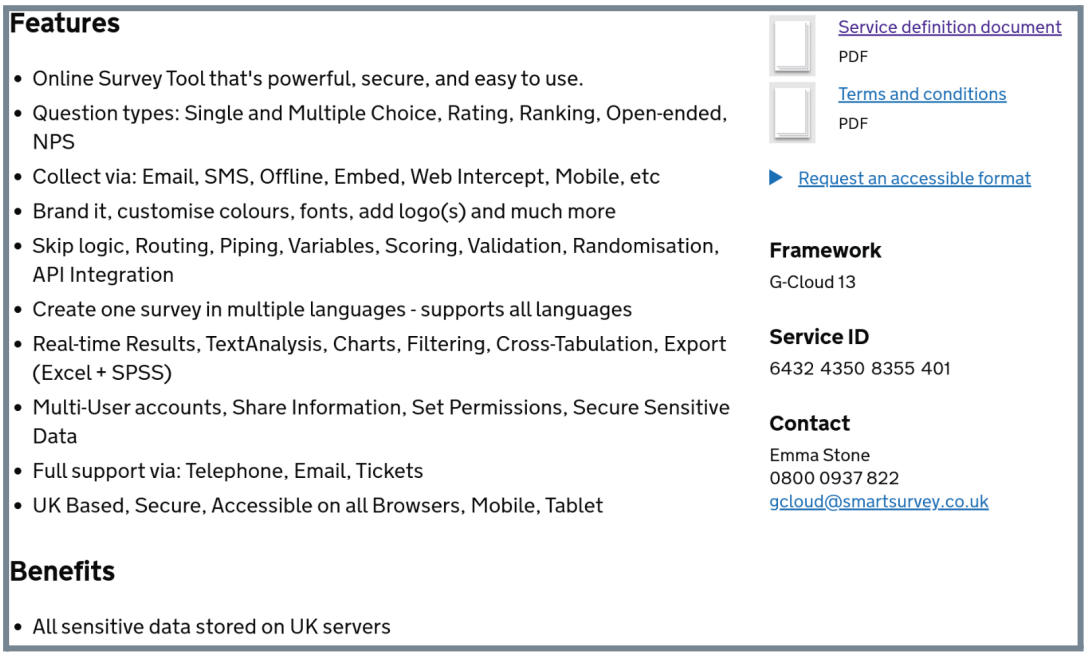
Partially meeting standards

- SmartSurvey is a proprietary, Software as a Service (SaaS) tool

- It appears to be largely used *out of the box*, with minimal customisation for the DfT surveys, beyond the set up of the specific questions, text, and validations per survey
- We've heard from stakeholders that SmartSurvey is a limited tool, that may not meet their needs and aspirations

> "I'm not sure that SmartSurvey could do what we need."
> **Stakeholder**

However, from our own investigations around SmartSurvey on the Digital Marketplace and its product website, we believe it can do much more than stakeholders think.



Features

- Online Survey Tool that's powerful, secure, and easy to use.
- Question types: Single and Multiple Choice, Rating, Ranking, Open-ended, NPS
- Collect via: Email, SMS, Offline, Embed, Web Intercept, Mobile, etc
- Brand it, customise colours, fonts, add logo(s) and much more
- Skip logic, Routing, Piping, Variables, Scoring, Validation, Randomisation, API Integration
- Create one survey in multiple languages - supports all languages
- Real-time Results, TextAnalysis, Charts, Filtering, Cross-Tabulation, Export (Excel + SPSS)
- Multi-User accounts, Share Information, Set Permissions, Secure Sensitive Data
- Full support via: Telephone, Email, Tickets
- UK Based, Secure, Accessible on all Browsers, Mobile, Tablet

Benefits

- All sensitive data stored on UK servers

Service definition document
PDF

Terms and conditions
PDF

Request an accessible format

Framework
G-Cloud 13

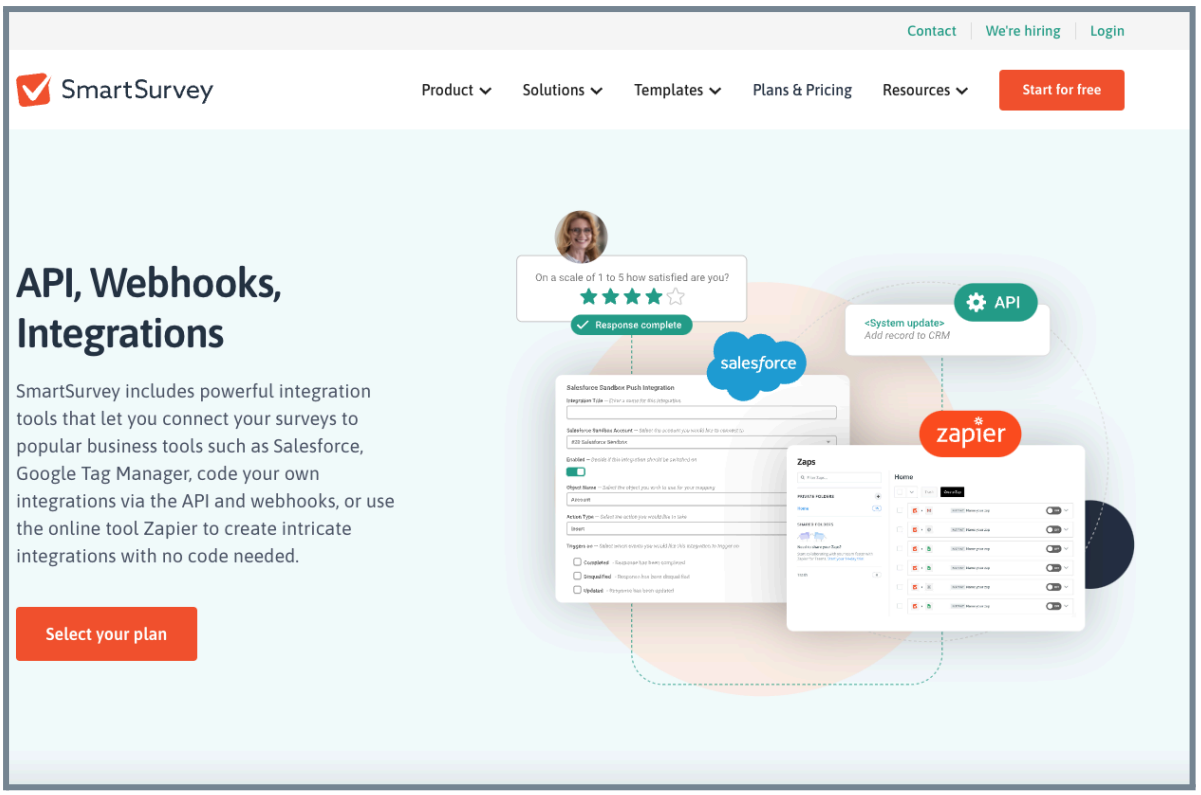
Service ID
6432 4350 8355 401

Contact
Emma Stone
0800 0937 822
gcloud@smartsurvey.co.uk

Caption: screenshot of the features list on the Digital Marketplace profile for SmartSurvey.

For instance: it apparently supports multi-user accounts, Single Sign On (SSO) and multifactor authentication and functionality to save and return to a partially completed survey.

The SmartSurvey website also boasts API and webhook integrations to automate the extraction of data.



Caption: Screenshot of the product website that describes SmartSurvey's API and webhook integrations.

These features appear to be available out of the box, under the Enterprise level licences we understand the Department is already paying for.

2.5.2 Hosting and data

2.5.2.1 Kenda

Partially meeting standards

- Kenda's hosting is the responsibility of the supplier
- There is a back up procedure, but some uncertainty around the specific process
- Survey data is inputted in browser web forms - there's no API, or bulk upload options for data providers to submit their data
- Survey data is exported as an Excel download

We've heard from stakeholders about technical issues with Kenda:

> "It [Kenda] has had issues deleting data, it doesn't pre-populate data in the way I need it to, and it's not user friendly." **Stakeholder**

2.5.2.2 SmartSurvey

Meeting standards

- SmartSurvey is hosted on the cloud with modern practices around backups and scaling availability
- It has high reliability and capacity
- It has preview and testing options
- Survey data can be viewed in the browser, or downloaded in a summary report [PDF, Word, XLSX] or an export of raw data (XLSX, CSV, TSV, and SPSS formats) - DfT survey owners download the raw data in XLSX format
- There appears to be functionality for data providers to login and access surveys and to save and return to surveys - although this functionality is not being used at the moment

2.5.3 Security and data privacy

The surveys in scope don't collect personal data, but some of the data is commercially sensitive.

We've also heard that the statistics are embargoed, and should not be accessed by people other than the people working on them.

The DfT architecture principles say: 'Users and services are to be given the minimum levels of access or permissions needed to perform their job as this minimises the attack surface and reduces risk'.

2.5.3.1 Kenda

Partially meeting standards

- The Kenda supplier is responsible for maintaining system integrity and data privacy
- Accredited to ISO 900:2015 standard
- Uncertainty about which jurisdictions data is being stored in
- Access to the system is managed with usernames and passwords - there is no multifactor authentication
- Unique username and passwords are generated per survey and sent to the respective data provider contact - although this may be shared as there is often more than one person that completes a survey

2.5.3.2 SmartSurvey

Partially meeting* standards

Concerningly, we've heard about the routine use of shared admin level logins for SmartSurvey which means system users have access to surveys they don't need access to.

This seems to be happening, despite our understanding that the department has an ample 500 licences for SmartSurvey, so it is unclear why logins are being shared.

There is a super administrator level account that is used to control permissions for the other system user accounts.

- SmartSurvey is ISO/IEC 27001 certified
- Annual penetration tests are carried out on SmartSurvey by a qualified third-party
- All data is encrypted during transit and at rest

** The SmartSurvey system is capable of meeting the standards around security and privacy, but the sharing of user accounts means this is only being partially met.*

2.5.4 Technical team

For both systems, the technical roles are entirely provided by the respective suppliers.

2.5.4.1 Kenda

Meeting standards

- There are no technical roles in DfT for the Kenda system
- The relationship with the Kenda supplier is owned by the DfT statisticians

2.5.4.2 SmartSurvey

Meeting standards

- The DfT's digital team owns the relationship with the SmartSurvey supplier

2.5.5 Meeting user and business needs

2.5.5.1 Kenda

Not meeting standards

- Kenda is not a self service tool - the survey owners are dependent on the Kenda team to make even small changes to a survey (e.g. question text)
- Survey owners email Kenda supplier to report system issues
- Changes and improvements have been made to Kenda to meet business need, but this has sometimes been onerous and the supplier has been a bottleneck
- The lead time for making changes varies depending on scale: anything from a few hours to a few weeks

> "We're dependent on the availability of the [Kenda] contractor, but it can be quite quick. Bigger changes take longer." **Stakeholder**

2.5.5.2 SmartSurvey

Partially meeting standards

- The core SmartSurvey product is regularly updated and improved by the supplier, including security patches
- SmartSurvey is evidently a user friendly system, but user experience feedback is not being systematically collected by DfT to understand the experience and needs of data providers
- The survey owners appear to use SmartSurvey out of the box and no evidence it is configured beyond the actual set up of the survey questions and text, and some basic brand styling
- The supplier has not been asked to configure or augment SmartSurvey beyond the core product to meet specific DfT survey needs

2.5.6 Accessibility

2.5.6.1 Kenda

Not meeting standards

- Unlikely that the Kenda system is meeting the WCAG 2.1 (or 2.2) AA accessibility standard
- Not mobile device friendly
- No knowledge of any formal, independant accessibility audits on the system
- Work is planned in 2024 to improve the accessibility of the system

2.5.6.2 SmartSurvey

Meeting standards

- Supplier claims SmartSurvey meets the mandated WCAG AA standards and has been audited for accessibility.
- Tested to work with various assistive technologies
- Supplier claims all forms (surveys) created within SmartSurvey will automatically work on any device

2.5.7 Monitoring and performance

2.5.7.1 Kenda

Partially meeting standards

- The Kenda system does not appear to have SLAs around metrics like uptime
- The system appears to cope with demand - the number of people using the system at one time is a few hundred at most

2.5.7.2 SmartSurvey

Meeting standards

- SmartSurvey has SLAs and procedures in place to monitor performance (as expected of a modern cloud, SaaS product)
- Uptime has been 99.9% for the past 5 years
- The system does not appear to struggle with demand - the supplier claims 'At present we are only using 10% of our capacity'

2.5.8 Contracts and costs

2.5.8.1 Kenda

Partially meeting standards

- Kenda is coming to the end of a 4 year contract this March [2024], and an extension has been put in place as far as the end of 2025/26
- Kenda costs the department ~£10k pa: approx 75% is for hosting and 25% is for setting up the surveys
- Major changes are charged on a per case basis. These are priced by the supplier for DfT to decide whether to proceed - no major changes have been made in the last few years
- Small changes tend to be included in the cost of the contract

- From 2024/25 the surveys are being redesigned to improve functionality and accessibility for a cost of ~£30k (and ~£8k per year thereafter once initial set-up work is done)

2.5.8.2 SmartSurvey

Meeting standards

- The DfT digital team manage an enterprise level licence for SmartSurvey for the entire department
- We understand this costs the department ~£35k pa for 500 licences
- Costs are based on the amount of licences and not on the number of surveys, survey respondents, or transactions

See more info about the *SmartSurvey Public Sector Plus Licence [prices]* on the Digital Marketplace G-Cloud framework.

2.5.9 Technology review conclusions

Our indicative RAG rating against aspects of the Technology Code of Practice and the Service Standard shows that Kenda is largely noncompliant and SmartSurvey is largely compliant.

	SmartSurvey	Kenda
The system's technology	Partially meeting	Not meeting
Hosting and data	Meeting	Partially meeting
Security and data privacy	Meeting	Partially meeting
Technical team	Meeting	Meeting
Meeting user and business needs	Partially meeting	Not meeting
Accessibility	Meeting	Partially meeting
Monitoring and performance	Meeting	Partially meeting
Contracts and costs	Meeting	Partially meeting

This won't come as news about Kenda as several stakeholders have told us that they didn't expect it to meet the department's

standards, and by extension the Service Standard and Technology Code of Practice.

> "Kenda is bespoke and a bit clunky. It will not meet DfT digital standards." **Stakeholder**

SmartSurvey is a better tool, from a technical perspective, and on first inspection, meets DfT and government standards.

We've also seen that the DfT Digital Team's discovery into citizen facing form solutions, identify and evaluate SmartSurvey as the go to solution for the department. That is a good sign from a technical perspective.

2.6 Possible opportunities (to explore)

We heard lots of ideas about how the department might act on these discovery findings.

Note: this section presents the views we heard from users and stakeholders about what they imagine a solution might include. See Section 6 for our *recommendations* on what to explore (including our assessment of merit and feasibility).

Idea #1: A survey form wizard

Some people said that changing surveys, or creating new surveys is a big problem to solve.

They imagined a quick, standardised way to do this, enabling survey owners to draw on a bank of exemplar questions and formats to compile a new or changed survey.

Idea #2: More upfront validation

Some people told us that the validation needed after surveys have been submitted is the big source of time lag, and user burden.

They described more upfront validation, at the point that data is entered, to ensure that more of the data submitted is right first time.

Idea #3: User management

We heard a lot about the problems with user management within DfT, and contact management for the people who respond to surveys.

Some people told us that this process and tools for better management of users should be the focus of an improved service.

Idea #4: Automated collection via API

For some, finding ways to automate data transfer from local authorities and transport operators should be the focus of further work.

They imagine that this will be the way to produce more timely data, and improve the quality of the data collected.

Idea #5: New sources of data

Similarly, we heard several ideas for ways to collect new types of data.

For example, we heard that more use could be made of mobile phone data, or CCTV data.

Idea #6: Central data store (to query)

For some, the most important issue was getting the data into one place.

They described a central database that could be queried by data users looking across the range of related data the department collects.

Idea #7: Data standard

Some people described a slightly different solution to the same problem: a set of standards that would enable the data from different collections to be linked, whether it was all stored in the same database or not.

Idea #7: Engagement programme

Some people said that whatever the solutions, improvements would depend on some behaviour change, so some sort of engagement programme and internal communications would be needed to support any other technology or design changes.

3 Inclusivity and accessibility assessment

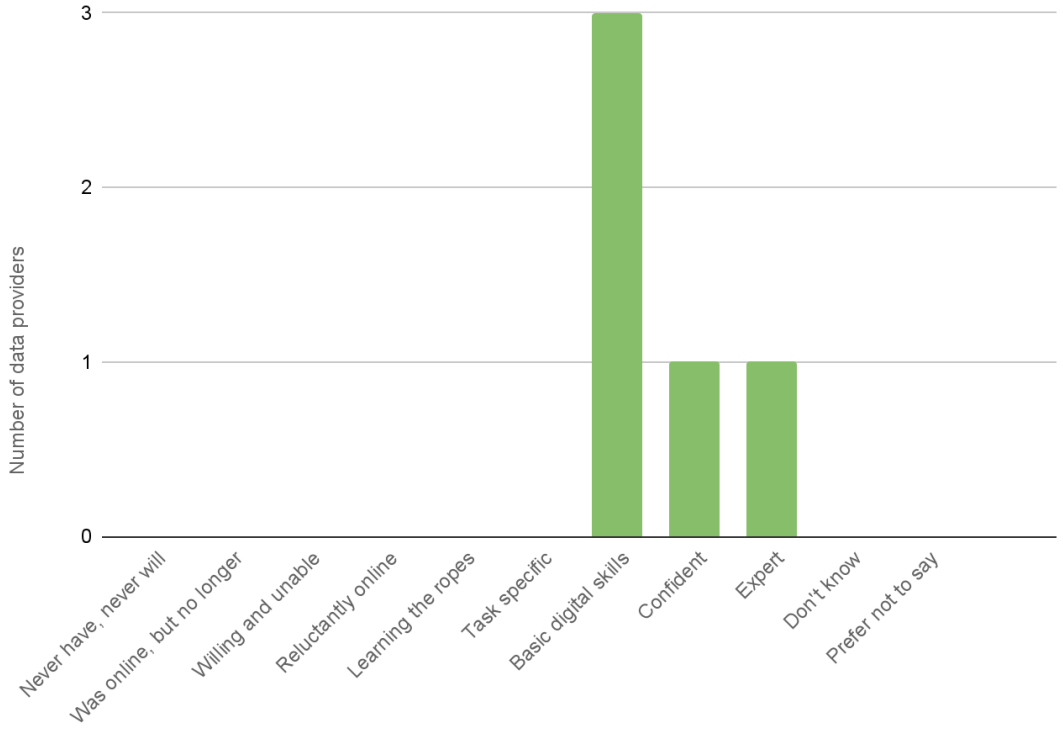
3.1 Digital skills

User research was conducted with all key roles that make use of the current service (see Section 1.5.3).

GDS Digital Inclusion Scale

Respondents to the user experience survey (data providers) were asked to self-assess their digital skills using the GDS Digital Inclusion Scale. Respondents were also provided with the options of Prefer not to say and Don't know.

Their responses are presented in the chart below.



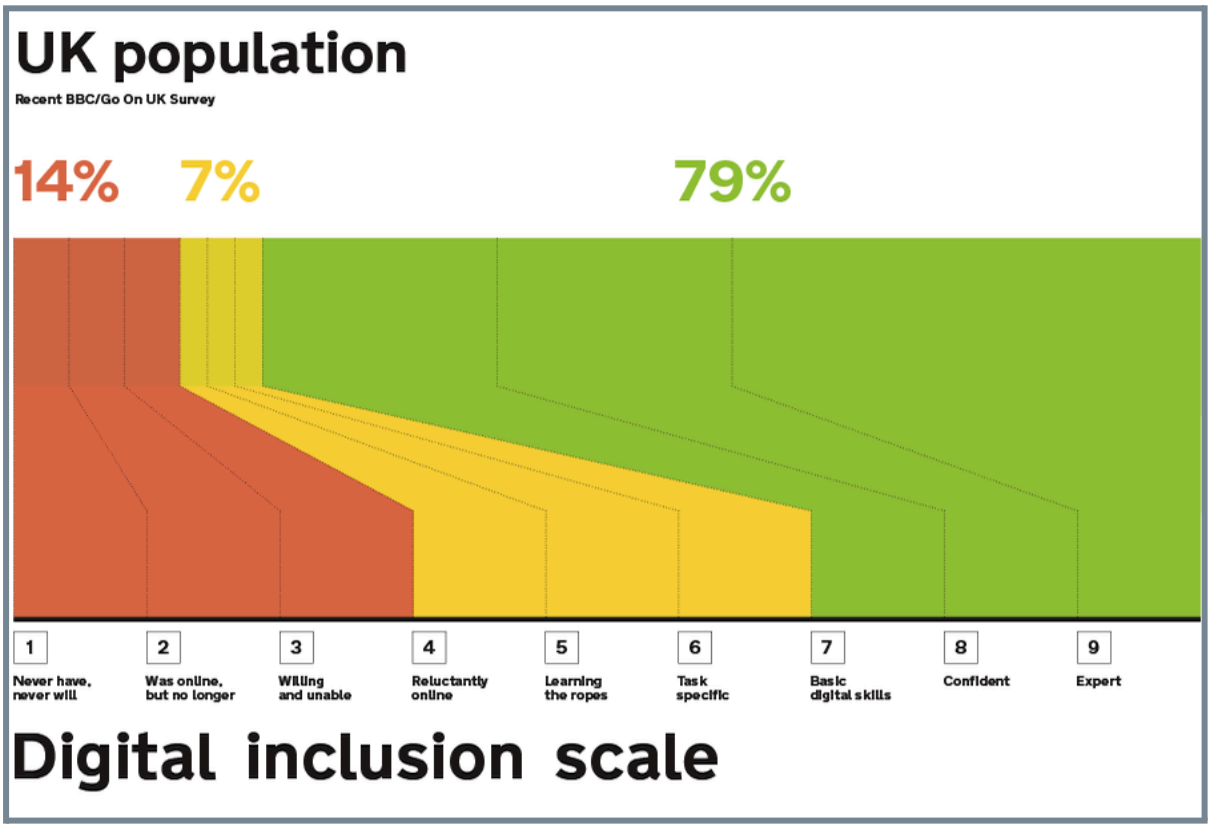
Bar chart: Survey respondents self-assessed level of digital skills.

Important: Important: Points 1 (never have, never will) to 3 (willing and unable) of the Digital Inclusion Scale were not included as options in the survey due to the likelihood that anyone falling within these categories would be unable to complete an online survey. It is appreciated that this is likely to risk a bias towards users with a higher level of digital literacy.

This has been considered when interpreting results, however there is no reason to suggest that the individuals recruited to participate in user research were not representative of users in terms of digital skills.

Given that data providers and internal system users are likely to be required to regularly use digital services as part of their role, it is unlikely that people within these groups would fall between points 1 and 3 of the Digital Inclusion Scale.

To give some idea of what the digital skills of the general population are, the latest Digital Inclusion Scale figures on the UK population are taken from the Government Digital Inclusion Strategy, updated in December 2014 and presented in the visual below:



Caption: The Government Digital Service's Digital Inclusion Scale

Basic digital skills to ***Expert***

79% of the UK population are a 7 (basic digital skills), 8 (confident) or 9 (expert). This segmentation should be capable of using any Service Standard level digital service offered to them if they have internet access.

100% of survey respondents and qualitative user research participants who were questioned on this identified within this group, which is higher in comparison to the avg. UK population.

Never have, never will to ***Willing and unable***

14% of the UK population are a 1 (never have, never will), 2 (was online, but no longer) or 3 (willing and unable). This segment of the UK average population **will have an assisted digital need.**

No survey respondents and no qualitative user research participants identified within this group.

Reluctantly online to ***Task specific***

7% of the UK population are a 4 (reluctantly online), 5 (learning the ropes) or 6 (task specific).

None of survey respondents identified within this group. However, we did hear anecdotally from internal system users that there are likely to be some data providers who are reluctantly online or task specific, which suggests that some users **may have a level of assisted digital need**.

While there may be some expectation for data providers and internal system users to use digital processes and technology in their professional capacity, there will be individual users who do require assisted digital support and must be catered for.

Essential Digital Skills

Insights from the Essential Digital Skills survey were also used to assess likely levels of digital skills amongst data providers. More

detail on the Essential Digital Skills survey can be found in Annex 5.

Data providers

In 2022, the Essential Digital Skills survey found that 94% of respondents who worked full time and 84% of those who worked part time achieved the Foundation Level.

96% of full time workers and 92% of part time workers achieved Life EDS, and 86% of full time employees and 73% of part time employees achieved Work EDS.

Given that data providers will either be working full time or part time, these figures suggest that a number of these users will require some level of support with tasks that relate to Work EDS, particularly those working part time.

From the findings of this research, we estimate that there are approximately 3 data providers involved for each survey response the DfT receives, which works out at a total of 3,390 potential users. This means that there could be between 475 and 900 users who are likely to need support, depending on how many work full time and how many work part time (so ~687 if we take the midpoint of this range).

Internal system users

There were fewer than 20 internal system users who currently use the service and many of the current internal system users are statisticians, who are highly digitally proficient.

However, it is still important to ensure any solution to meet the internal system user needs is user friendly and it is possible that the number and type of users for this service could change, depending on how a future service is used.

Next steps

We recommend that future research be carried out with users who identify at the lower end of the digital inclusion scale, to further explore their needs and to help confirm requirements for effective assisted digital support.

3.2 Connectivity

Internet access

Data providers described having the ability to work from home at least some of the time, and many took part in research activities from home. Those living in areas with weaker internet coverage may be at risk of connectivity issues which could impact on their user experience.

Next steps

We recommend that user research is conducted to further explore the impact of any connectivity and security issues and how to resolve these for affected users.

3.3 Accessibility

According to The Big Hack, 19% of working age adults in the UK have a disability.

Their research also shows that disabled people are more likely to encounter barriers to accessing digital services and lack the skills they need to get online.

The NHS also suggests that a similar proportion of the UK population (1 in 5 people) have a disability of some kind.

As part of the user research participant recruitment process and the user experience survey, respondents were provided with the opportunity to disclose whether they had any access needs.

One participant disclosed access needs that likely impacted their use of the DfT surveys.

> "I have dyslexia which means I can struggle if the text is tiny or if there's too much information in a small space on the page." **Local authority, multiple surveys**

Next steps

Based on the Big Hack's statistics, there could be approximately 644 users (19% of 3,390) with some form of access need. Or potentially 678 users if referring to the NHS' 1 in 5 statistic (20% of 3,390).

Government digital services are expected to meet at least level AA of the Web Content Accessibility Guidelines (WCAG 2.2), therefore the future iteration of this service should comply and meet the access needs of its users.

We recommend that future research be carried out with users who identify as having an access need, to further explore their circumstances and to help confirm requirements for effective accessibility support. This includes those with:

- Visual impairments
- Auditory impairments
- Motor impairments
- Cognitive impairments

This should be achieved through qualitative, in-depth studies with users, as well as testing prototype designs with individuals who use different types of assistive technologies (e.g. screen readers, voice recognition software) to ensure that a future service is accessible.

4 Gap Analysis

We have conducted an assessment of each user need in the backlog to identify which needs (and which groups of needs) are met, unmet or partially met by current systems and processes.

The gap analysis is documented in the backlog of user needs which is an output of this discovery - see Annex 2: Discovery outputs.

Below are the key findings by theme, with example user needs and overall status (whether current data collection methods meet the groups of user needs):

User need theme: Access to historic data

- Example user need: *I need access to the data we submitted the previous year so that I can use it to help with completing this year's survey*
- Overall status: Partially met

User need theme: Analysis

- Example user need: *I need to be able to export data in the format I need so that I can easily complete my analysis*
- Overall status: Partially met

User need theme: Collaborative completion

- Example user need: *I need to allow multiple people to contribute to the survey, so that the relevant person can provide information they hold*
- Overall status: Not met

User need theme: Communication

- Example user need: *I need advanced notice of what type of data will be requested so that I can prepare ahead of time*

- Overall status: Partially met

User need theme: Completing survey

- Example user need: *I need to save a partially completed response so that I can complete it at my own pace*
- Overall status: Partially met

User need theme: Contact management

- Example user need: *I need to have an up to date list of the relevant contacts for each survey so that I know we will reach the right person to complete it*
- Overall status: Partially met

User need theme: Continuity

- Example user need: *I need access to time series data, so that I can compare this years data with directly comparable data from previous years*
- Overall status: Met

User need theme: Data accuracy

- Example user need: *I need to be able to update data on behalf of a user so that I can ensure the return is completed accurately*
- Overall status: Partially met

User need theme: Data insights

- Example user need: *I need access to relevant insights from the published data, so that I can use this to support my own work*
- Overall status: Not met

User need theme: Guidance and support

- Example user need: *I need to get support (e.g. phone or email contact) if I need it to complete my response, so that I can accurately complete my submission*

- Overall status: Met

User need theme: Monitoring submissions

- Example user need: *I need to monitor survey completions so that I know which data providers we need to chase*
- Overall status: Partially met

User need theme: New data

- Example user need: *I need to access a granular break down of the data (e.g. bus operator, as well as local authority), so that I can make the best funding and policy decisions*
- Overall status: Partially met

User need theme: Quality

- Example user need: *I need to access high quality, validated, data so that I can trust it when analysing policies and their outcomes*
- Overall status: Met

User need theme: Reporting

- Example user need: *I need to access benchmark data, so that I can compare how a local authority or operator is doing in comparison to others*
- Overall status: Partially met

User need theme: Review

- Example user need: *I need to get the response reviewed before it is submitted (e.g. by a senior manager), so that it can be confirmed that the information is ready to share*
- Overall status: Not met

User need theme: Store

- Example user need: *I need to access data from different surveys in one place, so that I can see trends across different surveys and compare and combine the data*
- Overall status: Not met

User need theme: Survey set-up

- Example user need: *I need to be able to make changes to existing surveys (e.g. question wording) so that I can quickly get the survey ready to send out*
- Overall status: Partially met

User need theme: Timely

- Example user need: *I need to access data with minimal time lag between collection and reporting, so that I don't have to rely on estimates when making funding or policy decisions*
- Overall status: Partially met

User need theme: Validation

- Example user need: *I need to know if I've entered data incorrectly so that I can correct any errors before I submit*
- Overall status: Partially met

5 Concept development

5.1 Overview

We developed a set of low-fidelity concept prototypes informed by the discovery's user research and user needs.

The concepts explored:

- Managing data providers - allowing data providers to manage their contact details and the details of others who input into the data collections
- Collaborative data input - allowing questions to be assigned to others for completion
- Overview of DfT data collections - allowing data providers to see all data collections they complete for the DfT and the status of each one
- Review stage - allowing data to be reviewed by another before being submitted to the DfT

5.2 User roles

This concept development and testing was focussed on the following user role:

- Data providers

5.3 User needs

This sprint addressed the following user needs:

- to **directly receive any relevant request for data**, so that I can complete the survey without delay
- to **allow multiple people to contribute to the survey**, so that the relevant person can provide information they hold

- to **specify which questions other users need to complete** so that they know which questions are relevant to them
- to **get the response reviewed before it is submitted** (e.g. by a senior manager), so that it can be confirmed that the information is ready to share

5.4 Co-design

We held a co-design workshop which included the following users:

- Data provider - local authority, unitary authority, concessionary travel survey
- Data provider - local authority, unitary authority, multiple surveys (including road condition - carriageway work done, road condition - skidding resistance, highways maintenance self-assessment)

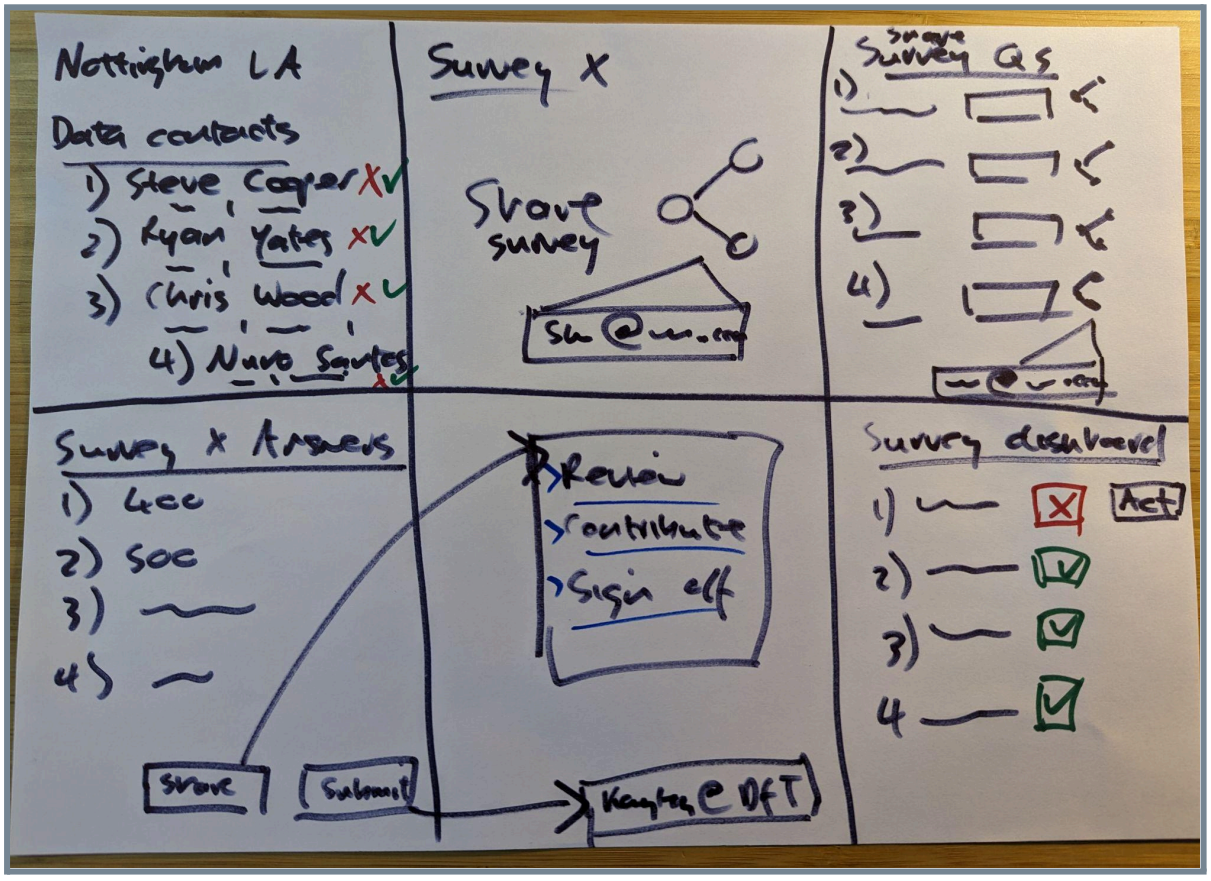
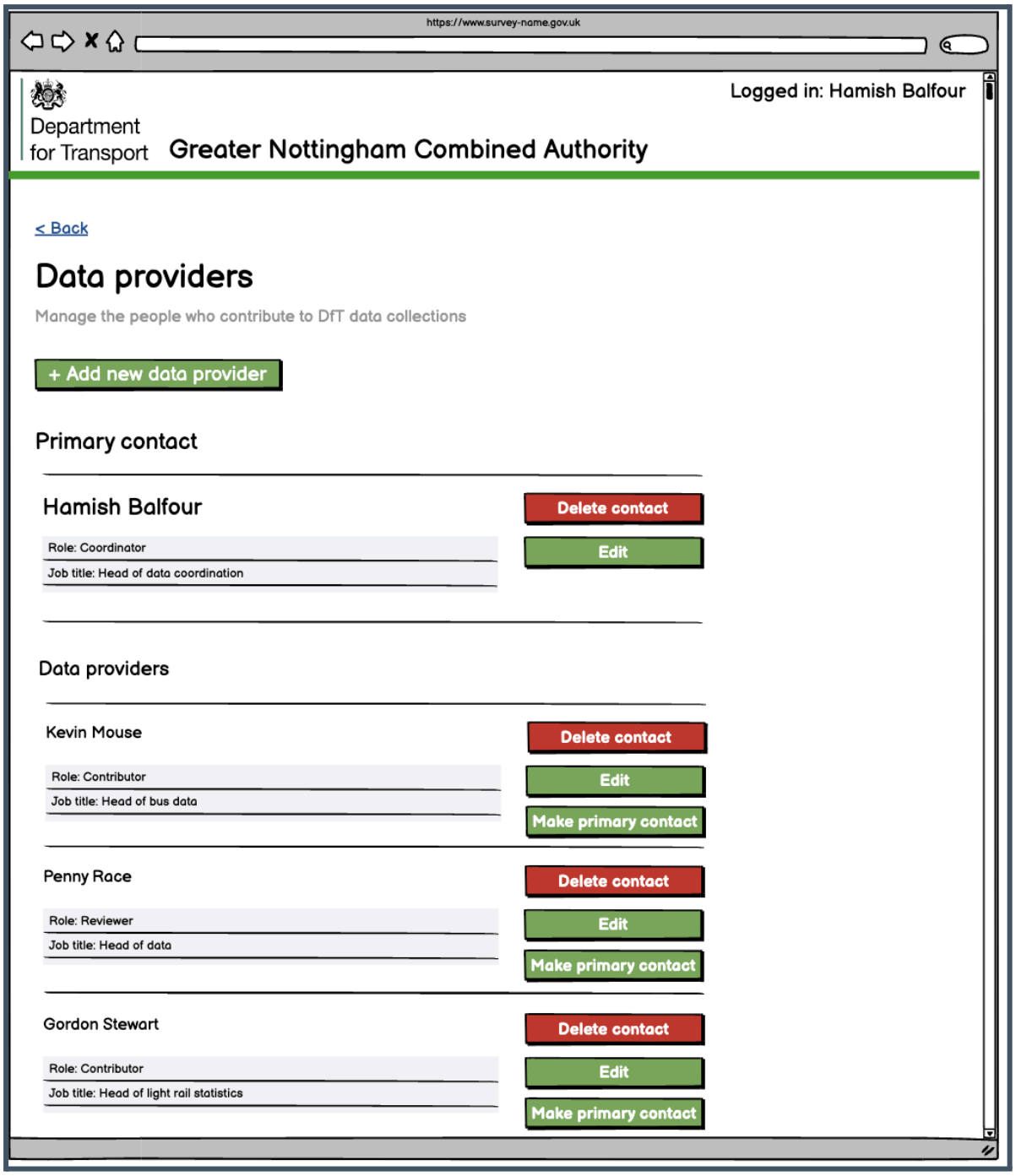


Image: Example of sketches from the co-design session

5.5 Concept development

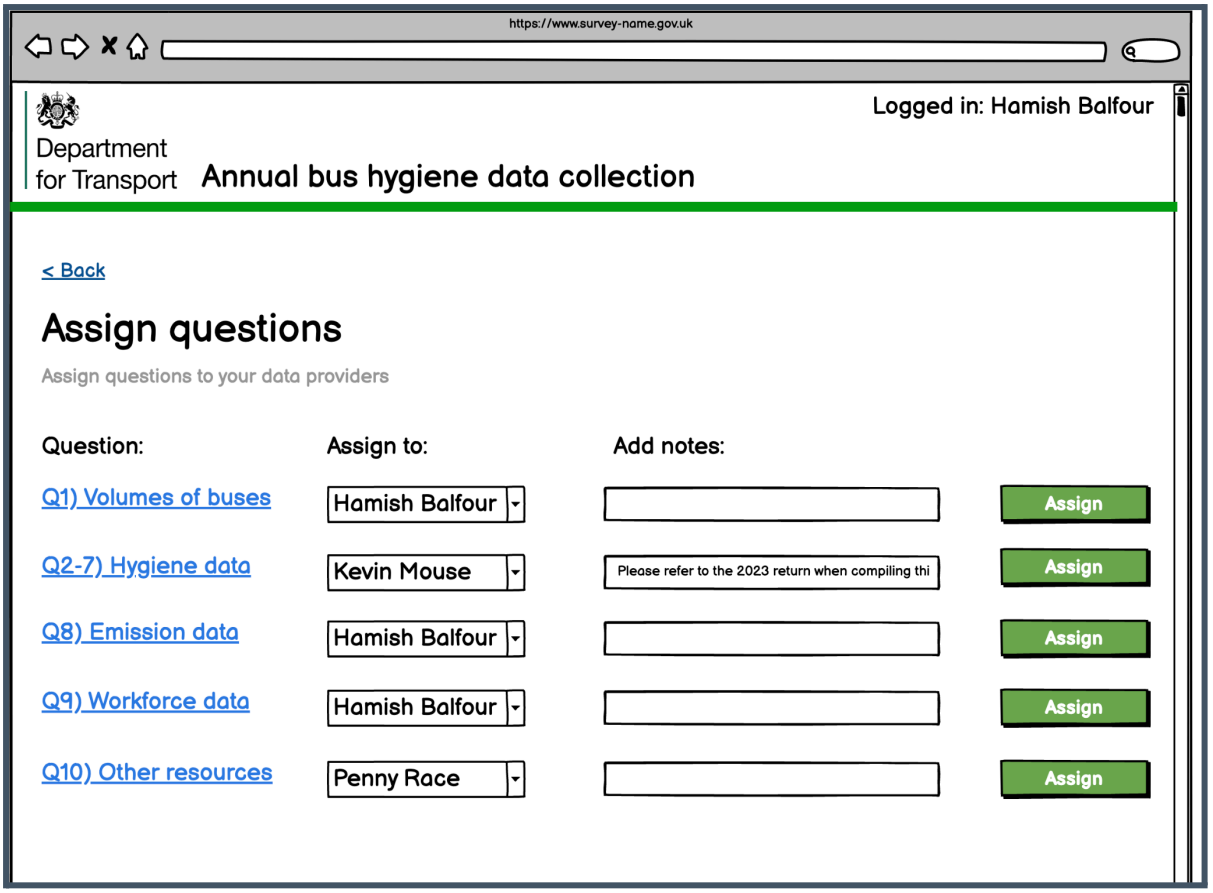
The service designer used the sketches and feedback to develop a set of low fidelity concept prototypes to test with users.

Manage data providers:



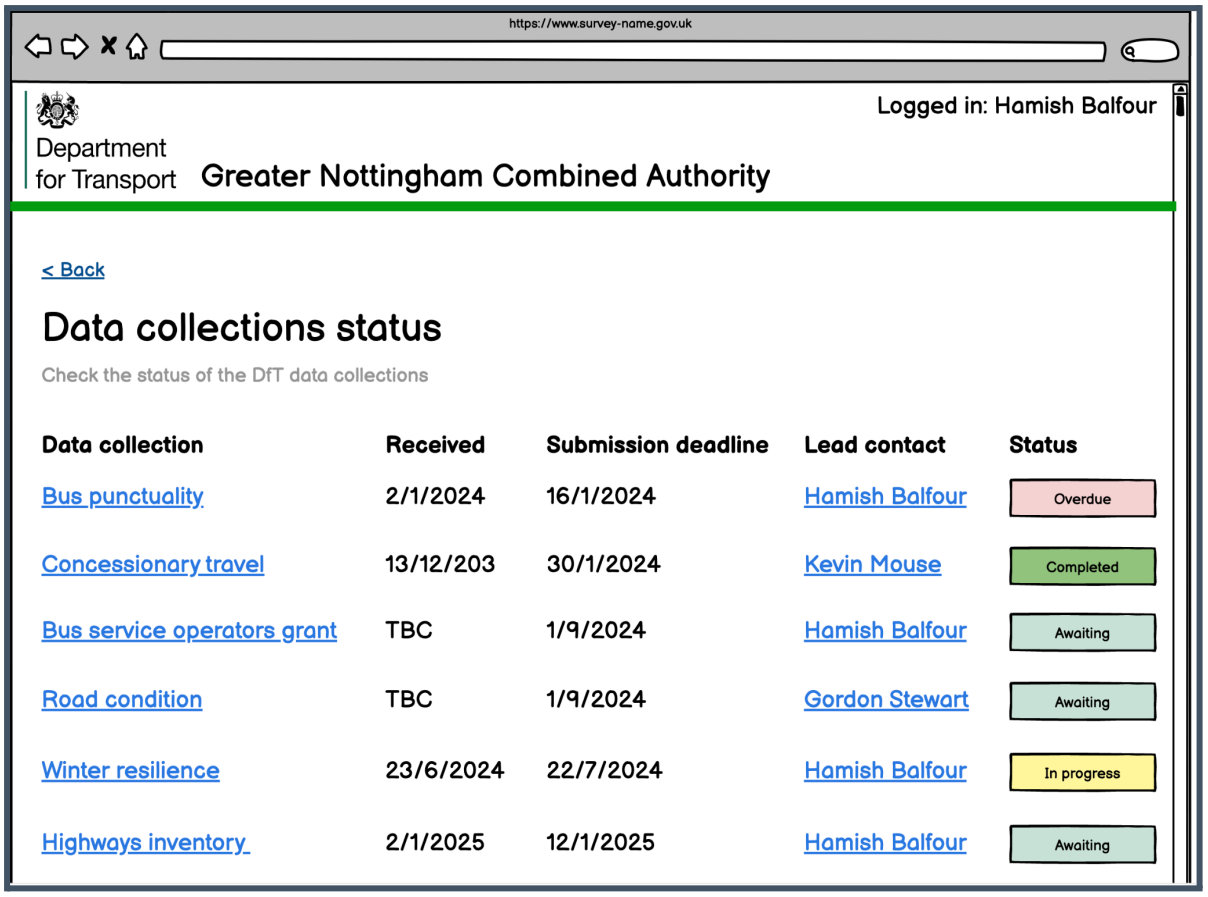
Caption: Prototype to manage data providers

Collaborative data input:



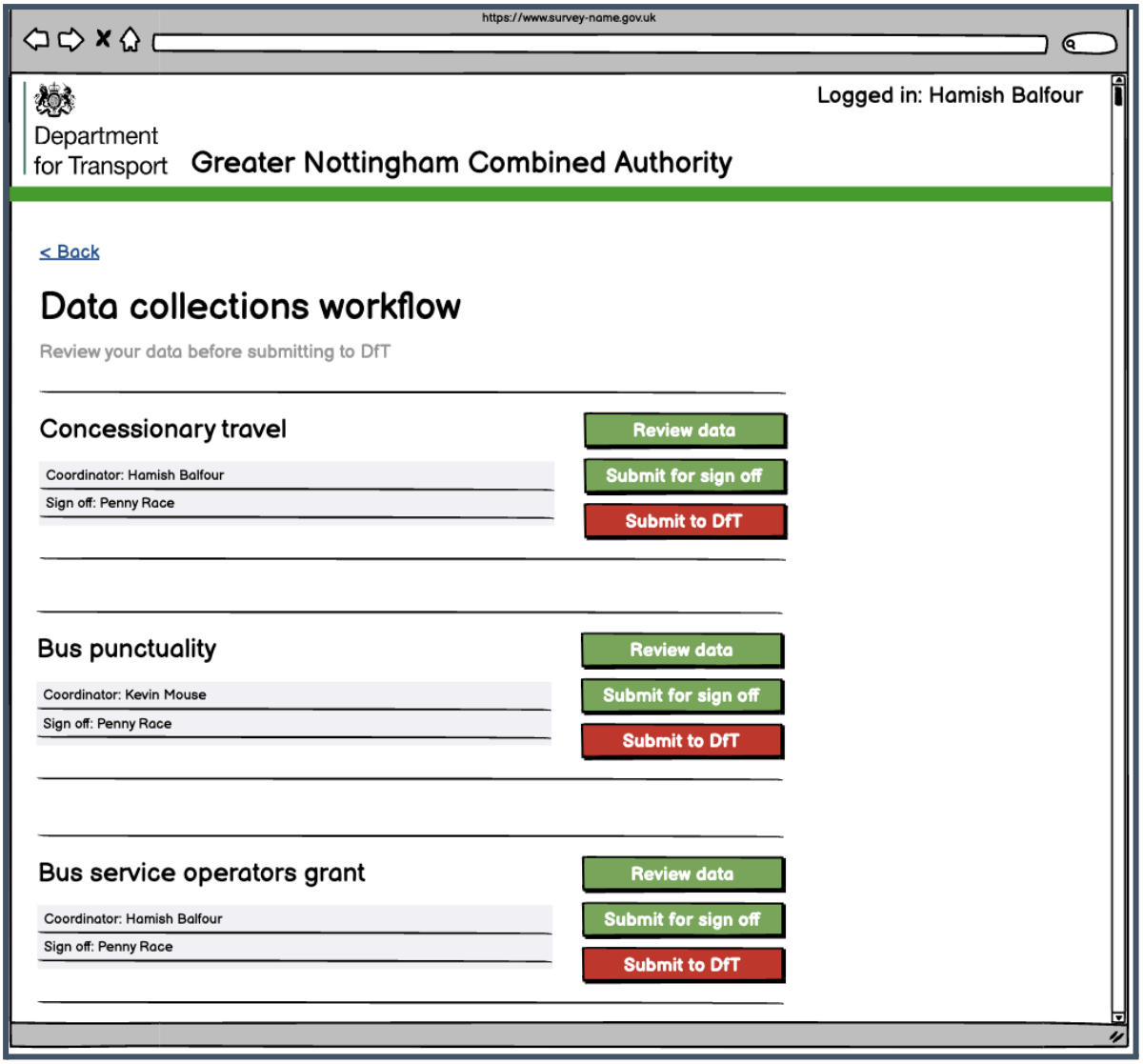
Caption: prototype to assign questions for collaborative data input

Overview of DfT data collections:



Caption: Prototype showing the status of DfT data collections

Review data collection:



Caption: Prototype showing the review stage of a data collection workflow

5.5 Concept feedback

We tested the concept prototypes with five users with the following attributes:

- Data provider - local authority, county council, concessionary travel survey
- Data provider - local authority, metropolitan borough council, taxi and private hire vehicle survey

- Data provider - local authority, unitary authority, multiple surveys (including public service vehicles survey, concessionary travel survey, bus punctuality survey)
- Data provider - local authority, county council, multiple surveys (including road condition - carriageway work done, highways maintenance self-assessment)
- Data provider - transport operator, large bus operator, multiple surveys (including public service vehicles survey and bus service operators grant (BSOG) survey).

5.5.1 Managing data providers concept feedback

5.5.1.1 Users imagined benefits to both the DfT and their organisations of managing their data provider details

Overall, the data providers we tested the prototype with saw the value in being able to manage the data provider details.

Some spoke about the benefits to them, as coordinators of the data collection, to be able to have others directly input into the data collection system.

> "If I can just add them as a data provider, and they can fill it in directly, then that would be great. A real timesaver." **Local authority, multiple surveys**

Others spoke about the expectation that notifications would go to all the data providers listed so they can prepare and ensure the details are all up to date.

> "I would expect an automated email to go out a month or so before the survey to all the data providers listed here to check that this is all up to date." **Transport operator, multiple surveys**

Some also spoke about the wider benefits to their organisation of having a list of data providers that they could access, particularly if they personally were no longer around to share their knowledge of who provides what data.

> "If I wasn't around, if I was off sick, and somebody else had to do it, then it would probably be useful for them to see this, and see who they need to go to, to get that

information." **Local authority, concessionary travel survey**

Some imagined the benefits to DfT of data providers being managed in this way, including the saving time reaching the relevant contacts and also improved data accuracy.

> "Without this, if people leave, then there's more work for the DfT to find the right contact or things might get missed." **Local authority, multiple surveys**

> "It saves [data providers] having to email me the data, then me having to copy and paste the data into the survey. There's a risk of errors in that sort of transposing of data." **Local authority, multiple surveys**

However, those who had fewer people involved in their data collection said they would likely just enter their own details, as a primary contact, and then a back-up contact, rather than adding all the data providers to this list.

> "I don't really think there would be any need to have any additional contacts on there because, even though someone would help me gather the data [...] it would just be me that would be submitting it." **Local authority, taxi and private hire vehicle survey**

5.5.2 Collaborative data input concept feedback

5.5.2.1 Users confirmed the need to assign questions to others but imagined alternative ways to meet this

Testing this prototype validated that there is a need from the primary data coordinator to ask others to provide data for specific questions.

> "I like the ability to send it to other people to say 'Here you go. Can you do questions, X, Y and Z?', that's really useful." **Local authority, multiple surveys**

However, users noted that this might be a more complicated process than what was presented in the prototype, for example, multiple people might need to provide data in order to answer one question.

> "It could get quite complicated if we're having to go to multiple sources for each individual question." **Local authority, multiple surveys**

Others spoke about the need for educating other data providers, to ensure they understand what is being asked of them, and a need to control and review what is being entered directly into the survey.

> "There's a completely separate step that involves me, or someone, educating that person and them understanding all the questions." **Transport operator, multiple surveys**

> "I would prefer to just email them and say 'this is what I need' and control it that way." **Local authority, concessionary travel survey**

Some users imagined alternative ways that the data collection system could help facilitate collaborative data input.

> "It would actually be really useful if you could have a small comments box within the survey to make notes for yourself [...] or you could even tag them in the note and assign it that way." **Transport operator, multiple surveys**

5.5.3 Overview of DfT data collections concept feedback

5.5.3.1 An overview feature may be useful for specific users, including those who complete multiple data collections

Data providers who completed multiple surveys fed back that they would find an overview of data collections useful.

> "At the moment I have a white board up there and I have a number of surveys with deadlines in red pen. So something like this would be much more useful and helpful." **Local authority, multiple surveys**

> "I can see this would be useful to have an overview of the surveys that have been requested in the past and might be requested in the future to help with planning ahead." **Transport operator, multiple surveys**

We heard from other users that, although they wouldn't necessarily find this useful, they could imagine others in their organisation might.

> "I don't know what other surveys my colleagues are doing, but I guess maybe, for our Head of Transport, this could be useful information, so she knows what's coming in and deadlines." **Local authority, concessionary travel survey**

5.5.3.2 Some users told us that automated notifications might be more useful to them as data collection coordinators

Some users reflected on the need to be aware of upcoming data collections and deadlines and suggested automated notifications could be a way to meet this.

> "I would prefer, after you submit the survey, for an option to be emailed to all the data providers to put the reminder in their calendar for next year." **Transport operator, multiple surveys**

> "It would be useful if the system could send me a reminder a week before the submission deadline." **Local authority, multiple surveys**

5.5.4 Review data collection concept feedback

5.5.4.1 Users would find the ability to review inputted data useful

The data providers spoke about how the ability to review the data that has been inputted would be a useful feature and made suggestions about how they would like this feature to work.

> "I like the facility to have an overview of what people have put in before it goes off. That's really crucial for me." **Local authority, multiple surveys**

> "I would want to see [...] the questions and what my answer was, so that I can see that I've definitely completed all of them and the response is the expected response." **Local authority, taxi and private hire vehicle survey**

> "With review data, it would be good to have the previous year's data next to it, so you can compare." **Local authority, multiple surveys**

5.5.4.2 A separate sign off contact should be optional

Users told us that often it was them, as the coordinator, who would sign-off a completed data collection.

Only one out of the five users we tested the concept prototypes with said they currently shared the completed survey with another person to review before it is submitted.

Some imagined potential issues if it became mandatory to introduce an additional person to sign off the data collection before it is submitted.

> "It doesn't create me any problems at all apart from if there was a deadline and that it just created an unnecessary delay." **Local authority, taxi and private hire vehicle survey**

> "My boss is gonna get annoyed if I keep running to him saying, oh, I need a signature for this." **Local authority, multiple surveys**

6 Recommendations

Our recommendations cover 6 broad themes:

1. The context for these recommendations
2. Overarching recommendations
3. User experience
4. Service management
5. Technology
6. Suggested roadmap

6.1 Context for these recommendations

6.1.1 There are raised expectations for data collection

We learned that there are raised expectations for data collection. People expect to be able to do data collection very well to inform the work of the department.

In part, these expectations are influenced by what people have seen others do. The stakeholders we spoke to referred us to data collection they had seen elsewhere, and compared the experience of those services to the DfT surveys we were asking about.

Our landscape analysis (See Annex 3) explored how other organisations had responded to raised expectations

- Department for Energy Security and Net Zero
- Office for National Statistics
- Department for Levelling Up, Housing and Communities
- Active Travel England
- DfT Road Haulage surveys service

We were interested to learn what you might learn from what has worked well elsewhere, and what you might learn from what has worked less well. The lessons inform these recommendations, and the notes about each service are in Annex 3.

Department for Transport stakeholders expect the experience of submitting data to the department to be similar to the best modern government digital services (see Section 2.2.1). And the services we looked at in our landscape analysis were designed with the same aspiration in mind.

The beta Active Travel England scheme app reuses the familiar design patterns of other government digital services. Our discovery research found that people expect this kind of experience when interacting with the department.

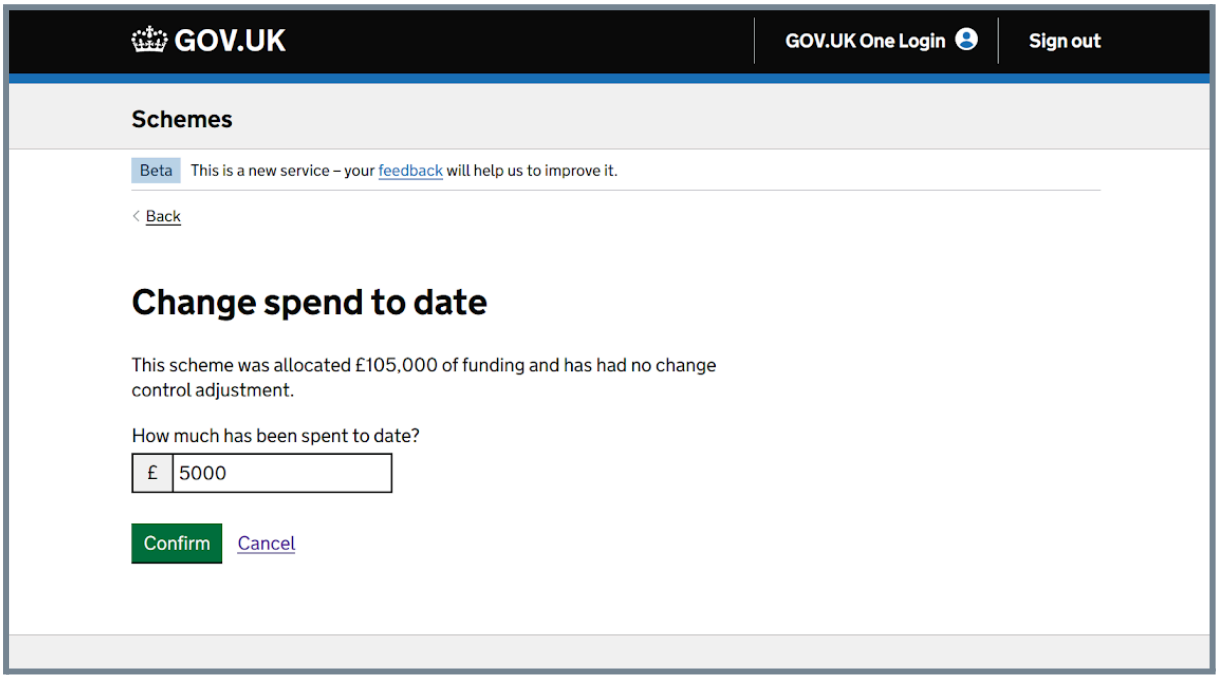


Image: Screenshot from the Active Travel England beta data collection service

6.1.2 There is increased demand for data

We learned about an increased demand for data. The people who use Department for Transport data want more data, more frequent data, and higher quality data.

These data users told us that the solutions that result from this discovery should have this increased demand in mind.

We heard that any future service should be scalable, and should account for how *new* data is collected, as well as how existing surveys are continued.

6.1.3 Our discovery research revealed processes that are effective

We found that the way data is collected via surveys at the moment is effective.

We found that data collection could be better, but this is not a broken process.

Data providers are able to submit data; statisticians are able to process that data; and data users are able to use the data.

6.1.4 Our user research revealed burden on users throughout the process

We did find quite a lot of burden in the process. For example, *data providers* gather data from various sources, and various other people, and sometimes struggle to wrangle that data from their systems into the formats that are needed.

And statisticians struggle to stay on top of who in a local authority or transport operator should be responding to a survey.

6.1.5 The research identified an opportunity for increased quality of data collected (with improved service design)

We learned that validation of data is a time consuming manual process, with burden on data providers and statisticians.

We heard that improved service design could help increase the quality of the data collected.

That might mean

- Acting on user research findings to ask clearer questions
- Doing more sophisticated validation upfront, so reducing the need for retrospective validation
- Providing features or guidance that would respond to some of the other needs of your data providers to help them to submit the right data first time

6.1.6 The technology, and service management falls short of DfT standards

Our technology review revealed some parts of the current process that work well. But also, parts of the service that would not meet the Government Service Standard, or the department's own expectations.

Addressing this will be partly about technology choices. But it will also be about governance and the ways technologies and services are managed.

6.1.7 There may be some reluctance to change

We think there is a compelling case for an improved service.

But we also recognise that change is hard, and note that some people may be comfortable with the way things are, and reluctant to change.

6.2 Overarching recommendations

6.2.1 Take a user centred approach to collecting data

Our first, and most important, recommendation is to shift to a more user-centred approach to collecting data. This recommendation is agnostic of technology choices.

The overriding finding from doing research with the people involved throughout the process, is that the process could be improved if it was designed to better meet their needs.

But taking a truly user centred approach is easy to agree in principle, but much harder to do in practice.

An output of the discovery is a backlog of user needs, which will be helpful to identify how to make the service user centred. But acting on user needs may mean doing things that are quite hard to do, like changing the ways questions are asked.

Interestingly, this was the strongest theme from our landscape interviews. We asked service owners about how they had led digital transformation. They did tell us about their technology setup, and their interaction design. But they also told us about how they had reduced burden on users and collected better quality data by taking a user centred approach to question design, reducing the time it takes to complete a survey, by asking better questions.

> "We ask questions that don't align to the data held on LA systems." **Landscape analysis case study**

> "Average survey time has reduced from 45 minutes to 27 minutes." **Landscape analysis case study**

6.2.2 Shift to a centralised approach to data collection

We did discovery user research with data providers who used a few different methods to submit data, including SmartSurvey, Kenda and spreadsheet returns.

But the brief for this discovery implied a centralised approach, or "a new solution". We agree that this is what is needed.

The current diversity of data collection methods creates a burden on data providers, who may have to learn multiple ways to interact with the department. And it creates a challenge for those processing the data collected, and managing the service.

We agree with the logic of the department shifting to consistent methods to do very similar things.

Interestingly, this is exactly what we heard about others doing in our landscape analysis

- The Department for Energy Security and Net Zero has a Data Management System that is used for more than 30 data collections
- ONS has a Survey and Data Collection platform which is used for 50 data collections from businesses, among other things
- The Department for Levelling Up, Housing and Communities has a data collection platform called DELTA which is used for 300 data collections

They all told us about the benefits of a consistent, central approach to data collection, both for the people providing data, and the people collecting data.

> "A centralised place for managing statistical stuff is a good thing for the department AND a good thing for local authorities." **Landscape analysis case study**

We recommend working towards something similar. One service owner talked about the shift in mindset this required for them.

> "Previously the approach was to develop individual surveys. Now the approach is to deliver capabilities rather than individual surveys. This makes it possible to scale." **Landscape analysis case study**

6.2.3 Develop the tools (and rules) to do new data collection

We recommend that the 13 surveys we have been looking at as part of this discovery *should all* be part of a future centralised approach.

But we know that they are not the limit of your ambition for data collection. So we recommend also providing a way to create new data collections.

That will be partly about the technology: it has to be possible to create a new survey, and scale the technology.

But it will also be about governance: how you manage the service; how you make decisions about what to do and what not to do; what the rules are.

We have developed possible decision flow that could be adapted for use when faced with a need for new data collection.

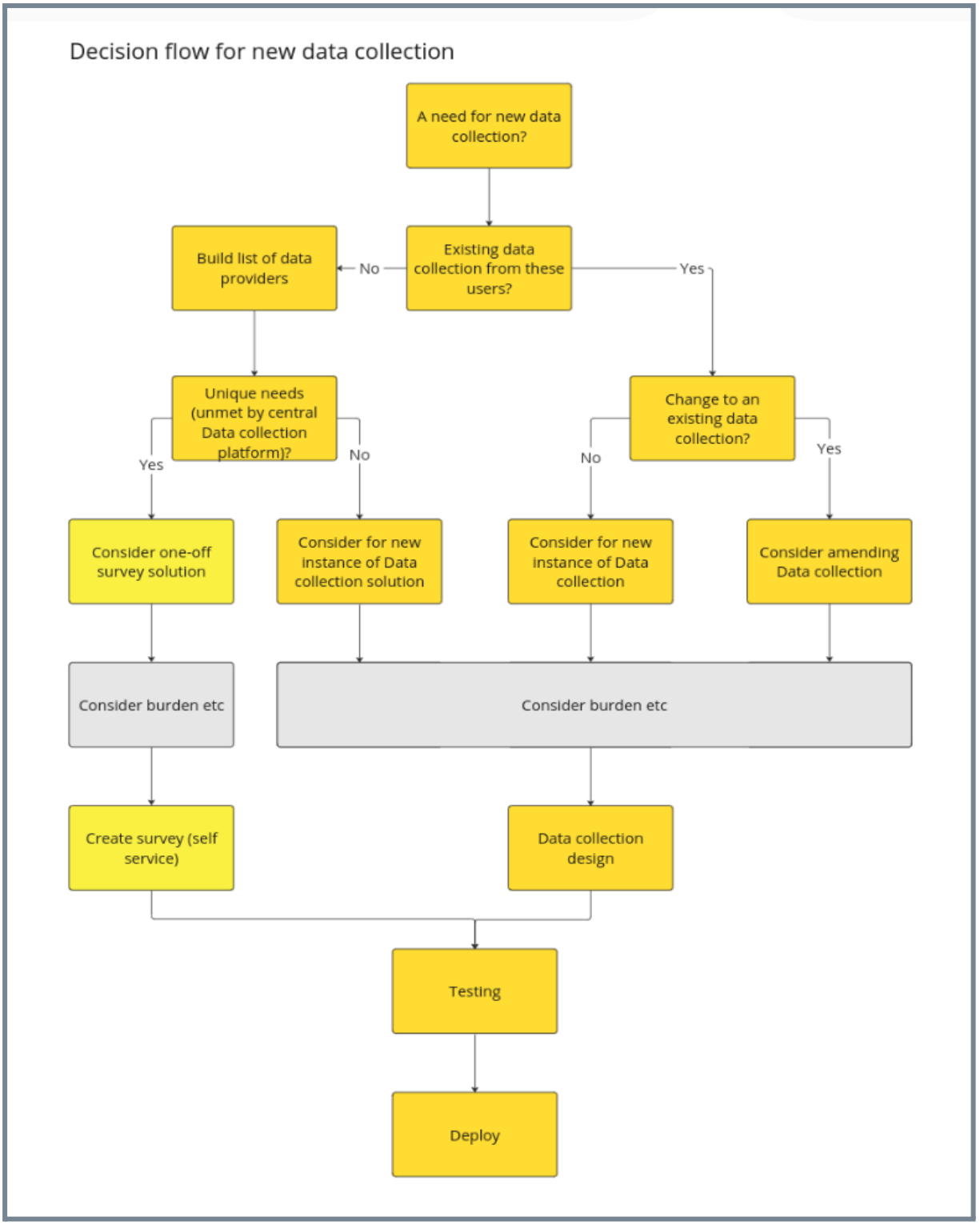


Image: Suggested decision flow for a new data collection

6.2.4 Prioritise understanding data providers and enabling their workflow

We recommend prioritising, and acting on, the big themes from our user research.

One of those themes was the work involved by data providers to assemble and submit data. The number of users involved in submitting data may be much larger than imagined.

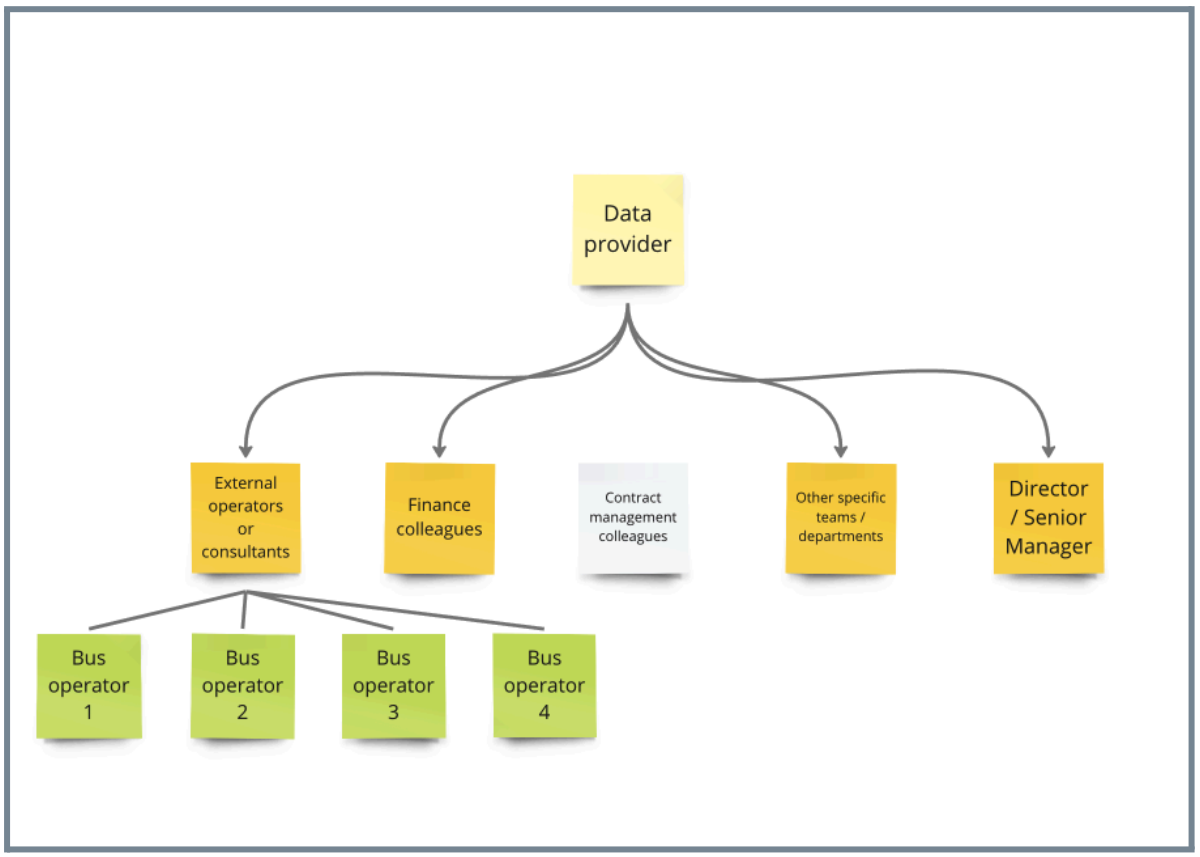


Image: Diagram showing the roles involved in responding to a survey

One survey, sent to one organisation, might actually involve multiple users, sometimes in multiple organisations.

This might not be very visible to the department now, but it is the source of a lot of the burden on data providers, and *may* be the source of problems with data quality.

We recommend exploring ways to *enable* the workflow of data providers, and we've tested some ideas for ways to start to do that (see Section 4).

6.2.5 Explore ways to better meet data user needs (across collections)

Our backlog of user needs includes the needs from the people who ultimately make use of the data collected: the *data users*. We recommend prioritising these needs as well as the other needs in the backlog.

Importantly, we think that a centralised service should open up more possibilities to meet the needs of data users.

For example, the more that data is collected in consistent ways, the easier it should become to see trends across collections.

6.2.6 Develop a roadmap for a modular service, using the best tools for the jobs

We do not recommend attempting to buy or build a single system that will do everything, and our landscape analysis confirms that this was not the approach others have taken.

> "Don't try to do all singing all dancing if there are better ways to do some things" **Landscape analysis case study**

Rather, we think you should work towards a modular service, using the best tools for particular jobs.

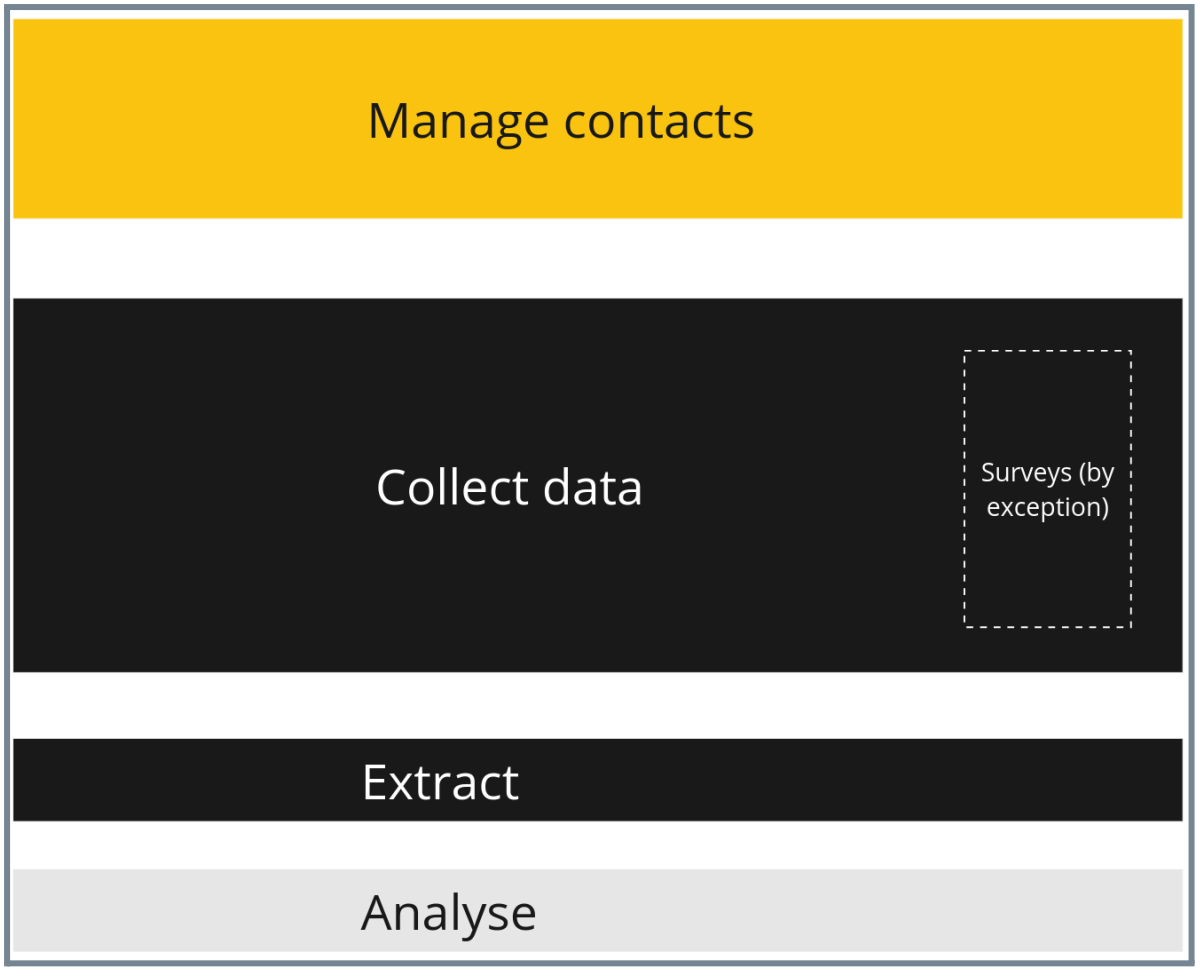


Image: Diagram of a prospective modular service

We think that your modular service might look something like the above diagram.

With tools to *manage contacts* at the top. There are no digital systems for this at the moment, so this part of the service would be new.

It would include a database of data providers, and mechanisms to keep it up to date, and ways to communicate with them.

Then a consistent way to *collect data*, to bring together the current surveys, and other similar data collection.

We do not think Kenda or SmartSurvey are suitable to use for a centralised service in the long term. But nor do we think you need to build something entirely new from scratch.

Rather, we recommend exploring how an existing data collection service could be transformed to meet the needs of a wider set of collections.

We have considered a few options for this, including the data collection service currently being developed by Active Travel England. But we think the strongest contender to consider for reuse is the current *DfT Road Haulage surveys service*.

In addition, one of the things we learned from the landscape analysis is that, even if you do have centralised service, there will be *exceptions* - surveys that aren't good fit, for whatever reasons.

We think an improved use of SmartSurvey could fill this gap for you. We don't think Kenda is a viable option for this. We think these exceptions should be relatively rare.

And then the other parts of a modular service would be: the ways data is *extracted*, and the way the department *analyses* the data collected (which has not been part of the scope of our discovery, but is part of the whole service).

In summary, a modular service with:

- Tools to manage contacts (which are not part of the service at the moment)
- Tools for data collection (which exist, but would need to be adapted)
- Ways to extract the data
- And tools for analysis (which are already in place)

6.2.7 Use an alpha phase to confirm (or disprove) our big discovery assumptions

To further explore all of this, we recommend using an alpha phase to conduct experiments to explore and test the biggest assumptions we have made in the discovery recommendations.

Possible alpha assumptions to test

1. User centred design can reduce form completion time AND increase data quality
2. CRM-like technology is needed to meet user management needs (in addition to offline service design)
3. Existing DfT services can transform (and scale) to become a centralised data collection platform (for the 13 surveys +)

These are things we think are true based on our discovery evidence, but could be explored further in an alpha, either to confirm, or disprove.

Note: We are confident about the rigour of our discovery research, the validity of our findings, and the resulting assumptions and recommendations. But there is no obvious, neat single solution, and we recognise that some of our recommendations have wider implications. So we recommend using the alpha phase to do the extra work to validate the discovery findings and the recommended direction.

6.3 User experience

6.3.1 Prioritise (enable) features that meet user needs

An output of this discovery is a backlog of user needs, based on the discovery of user research (see Annex 2). These user needs represent things that our researchers have observed that users need to be able to do.

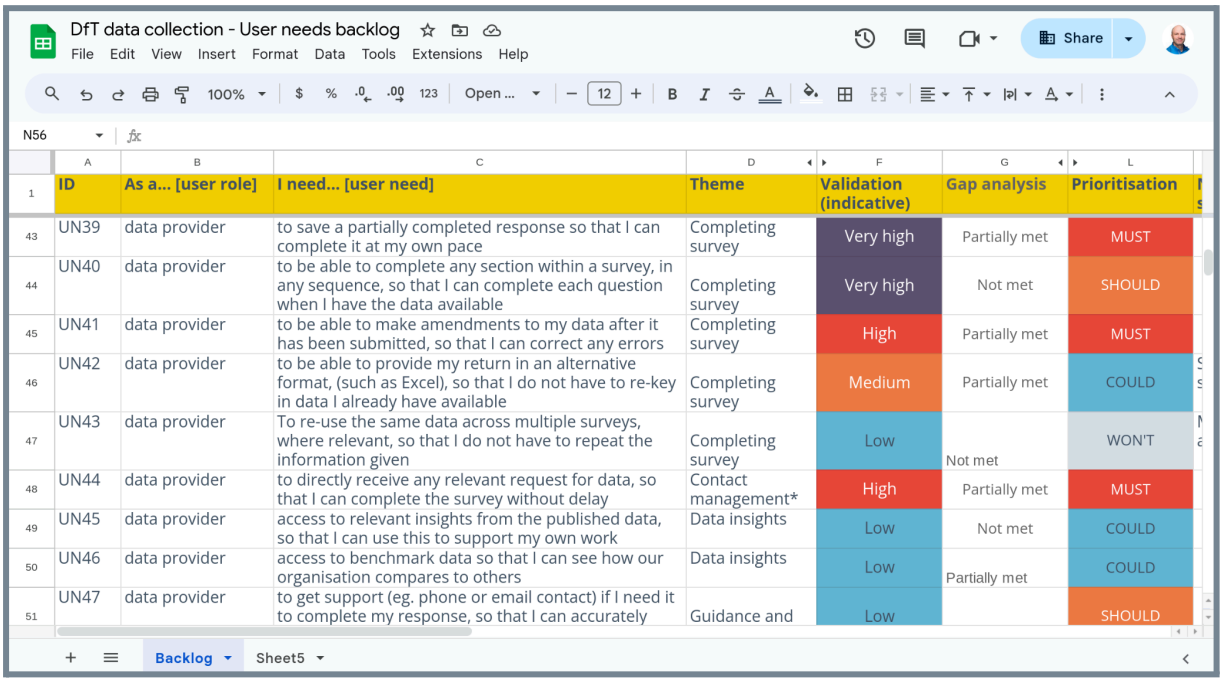
We have given an indicative level for the strength of each need, based on our qualitative research. And then informed by that, the service owner has prioritised them as needs that the department either Must meet, Should meet, Could meet, or Won't meet.

We have also conducted a gap analysis, so you know which of the needs are unmet by your current systems. An interesting

finding for this discovery was that there are some needs that could be met by the tools that you use, but just are not enabled.

The backlog of user needs might be the most practically useful output of this discovery as this work moves forward.

In an alpha phase, we recommend focussing effort on the things that have a high level of need from your users, and are a high priority for the department.



	ID	As a... [user role]	I need... [user need]	Theme	Validation (indicative)	Gap analysis	Prioritisation
43	UN39	data provider	to save a partially completed response so that I can complete it at my own pace	Completing survey	Very high	Partially met	MUST
44	UN40	data provider	to be able to complete any section within a survey, in any sequence, so that I can complete each question when I have the data available	Completing survey	Very high	Not met	SHOULD
45	UN41	data provider	to be able to make amendments to my data after it has been submitted, so that I can correct any errors	Completing survey	High	Partially met	MUST
46	UN42	data provider	to be able to provide my return in an alternative format, (such as Excel), so that I do not have to re-key in data I already have available	Completing survey	Medium	Partially met	COULD
47	UN43	data provider	To re-use the same data across multiple surveys, where relevant, so that I do not have to repeat the information given	Completing survey	Low	Not met	WON'T
48	UN44	data provider	to directly receive any relevant request for data, so that I can complete the survey without delay	Contact management*	High	Partially met	MUST
49	UN45	data provider	access to relevant insights from the published data, so that I can use this to support my own work	Data insights	Low	Not met	COULD
50	UN46	data provider	access to benchmark data so that I can see how our organisation compares to others	Data insights	Low	Partially met	COULD
51	UN47	data provider	to get support (eg. phone or email contact) if I need it to complete my response, so that I can accurately	Guidance and	Low		SHOULD

Backlog Sheet5

Caption: Screenshot of the user need backlog

6.3.2 Shift the language away from “surveys”

We found that for some data providers, the word “survey” implied that submitting a response was optional.

This is not a major finding, but we do think that a shift to a centralised way of managing data collection is an opportunity to adjust the service language and content.

And an alpha is a good opportunity to test this finding, and we recommend including a content designer as part of an alpha team to lead this part of the work.

The Service Standard is the starting point for advice about how to name a service, and the type of language to use.

But testing what works with *your* users is the key to this. You can do that in an alpha phase.

6.3.3 Develop new user management tools and processes

The brief for this discovery suggested a *known problem* around keeping track of the people responsible for providing data.

Our discovery research confirmed this as a big pain point in the current service. There is not an effective digital way to manage contacts.

We also learned that there has been some pilot work involving the concessionary travel survey, to explore better processes for contact tracking and communications, and that the work has proved a success.

Our co-design workshop explored how some of these contact management needs might be met in a future system. And we developed (and tested) prototypes based on some of the co-designed sketches.

The prototype below tested an idea for self-service contact management.

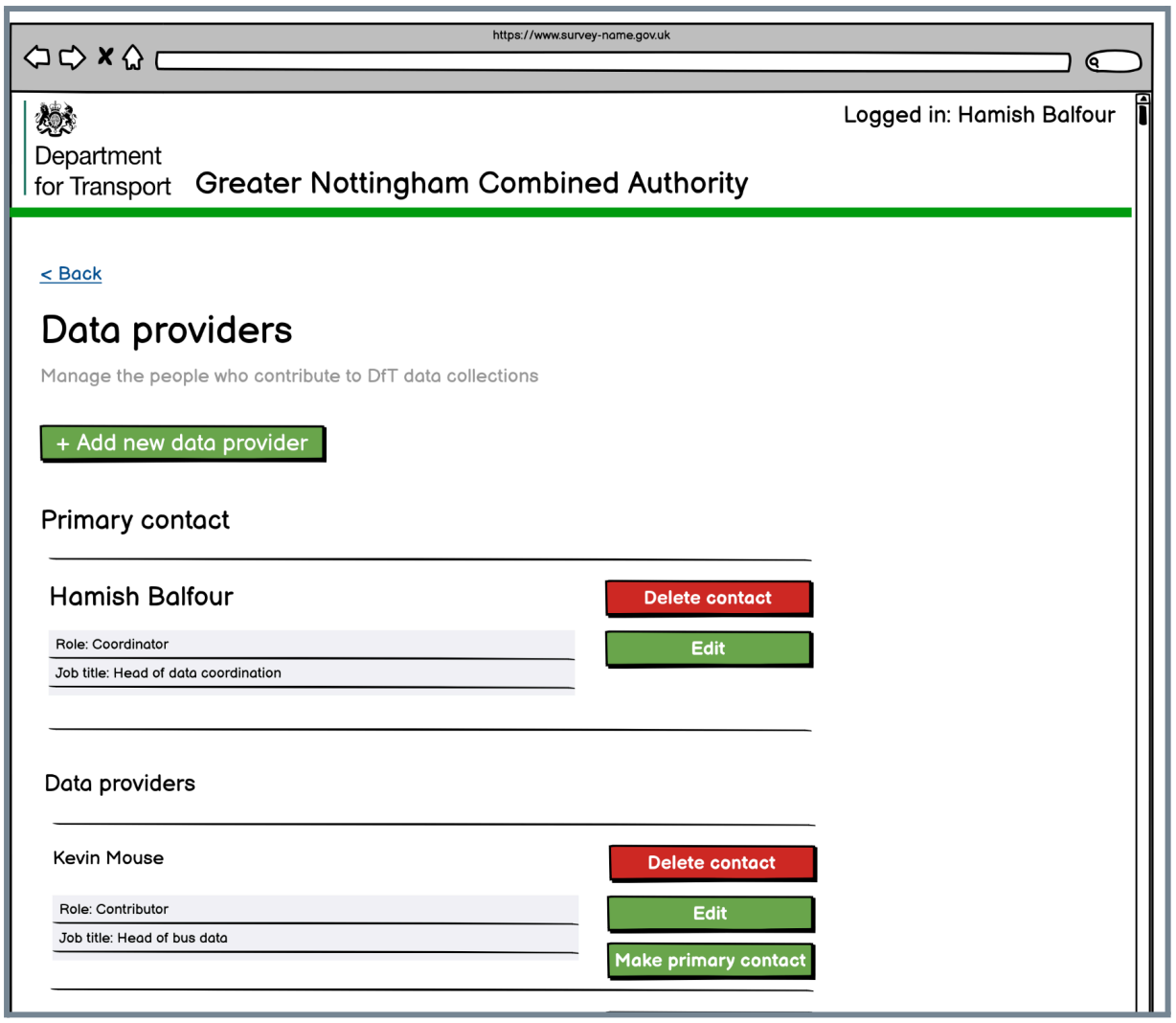


Image: Discovery concept prototype

This tested quite well with users. They recognised that something like this might help solve some of the current problems they experience.

An alpha phase could further explore how these digital interfaces might complement the offline processes from the pilot work.

6.3.4 Explore data provider workflow and collaboration

We learned from our research that data collection is not as straightforward as one-to-one contact with a single individual in a local authority. Our user research revealed some complexity,

with multiple people gathering data from multiple sources in order to respond to a survey.

So we recommend exploring how a future service might address some of the burden placed on data providers, and *enable* some of their workflow.

This was another of the issues we explored with users in our co-design workshop. The below sketch suggests how a future service might enable multiple people in an organisation to be involved in assembling data, and then reviewing it, before it is submitted to the department.

Image: Sketch from a co-design workshop

From the co-design sketches, we developed some prototype interfaces to test with users.

The below prototype includes buttons for “review data” and “submit for sign off”, based on the above sketch.

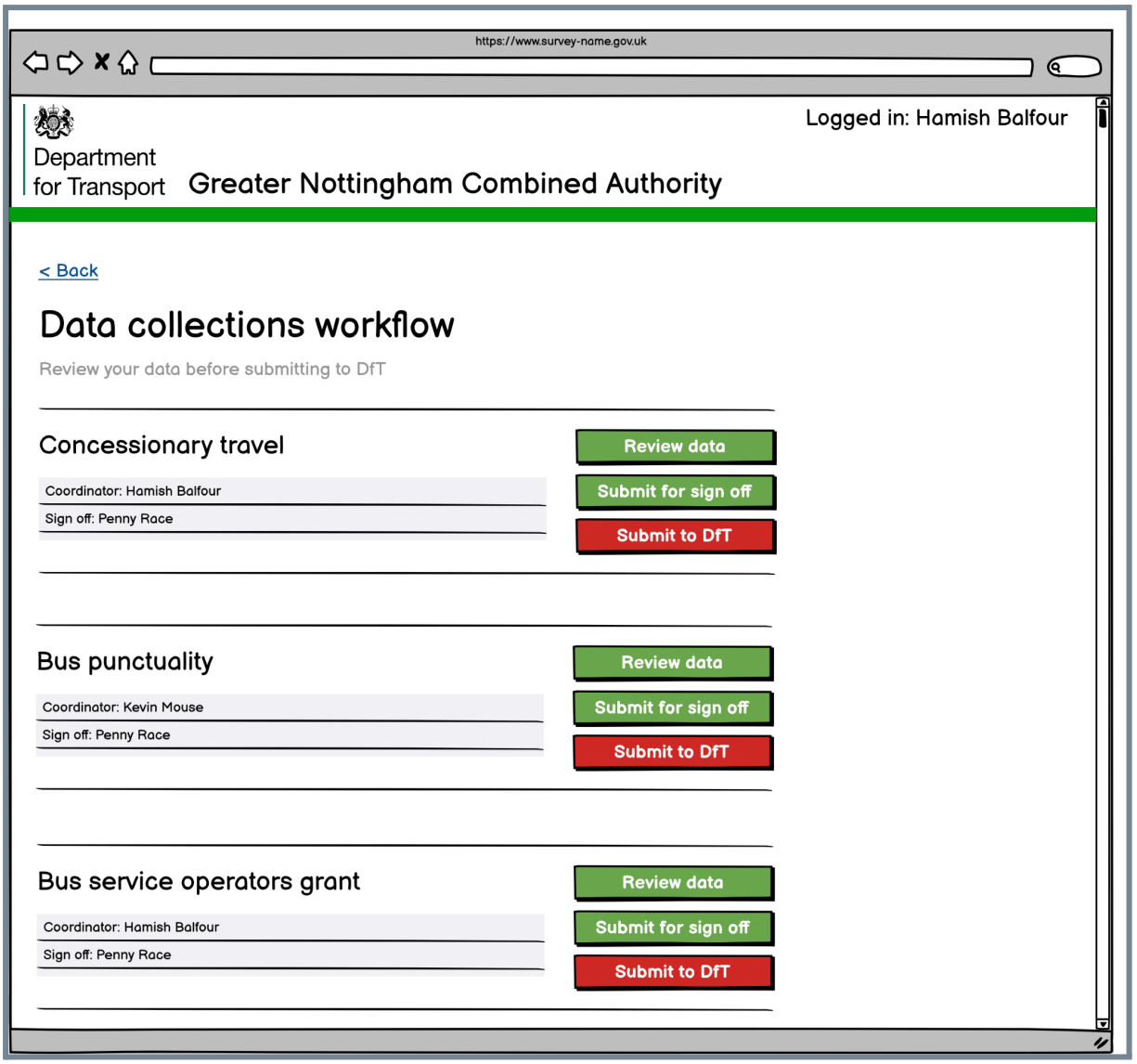


Image: Discovery concept prototype for user workflow

And the prototype below shows how sections of a survey, or individual questions, might be assigned to an individual to complete, with some notes.

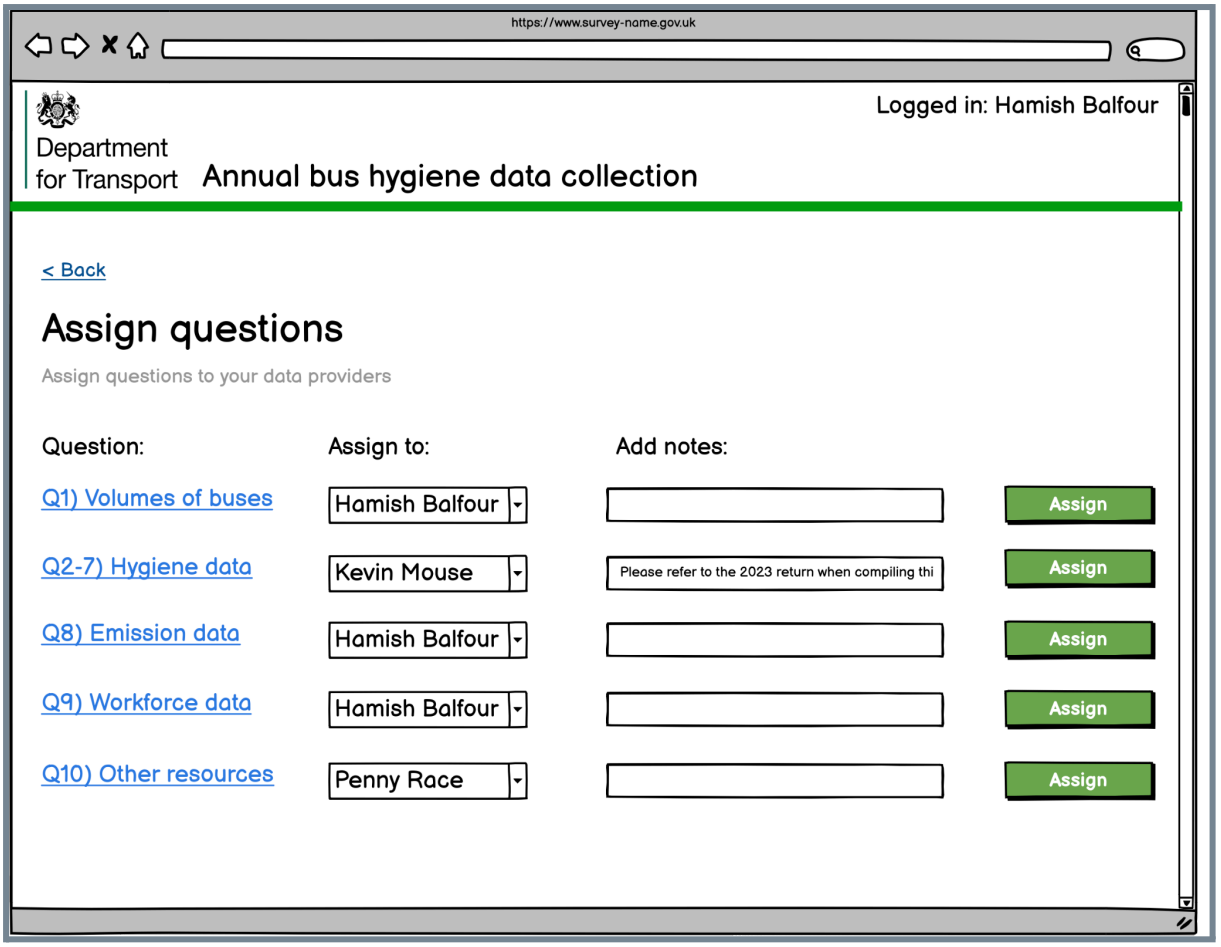


Image: Discovery concept prototype for assigning questions

This prototype tested reasonably well with users who are responsible for several surveys, in big organisations.

But it tested less well with users who had a less complex workflow to manage. For them, it represented an unnecessary layer of complexity.

These prototypes do not provide a clear solution to the problem. But the ideas are worthy of further exploration in an alpha phase.

6.3.5 Test alternative ways to incentivise behaviours of data providers

We found that some data providers feel remote from the purpose of the surveys.

Users submit data because they have to, rather than because they see the benefit, and this may have an impact on the quality of data they submit.

So we recommend testing alternative ways to incentivise data providers, possibly by helping them to benefit from the data they submit.

For example, one of the user needs in the backlog is about having easy ways to view benchmark data.

> *UN28: As a data user I need to **access benchmark data**, so that I can compare how a local authority or operator is doing in comparison to others*

One of the prototypes we tested following co-design, shows how a future interface might provide some simple feedback to data providers, so that they can see the *status* of their various data returns.

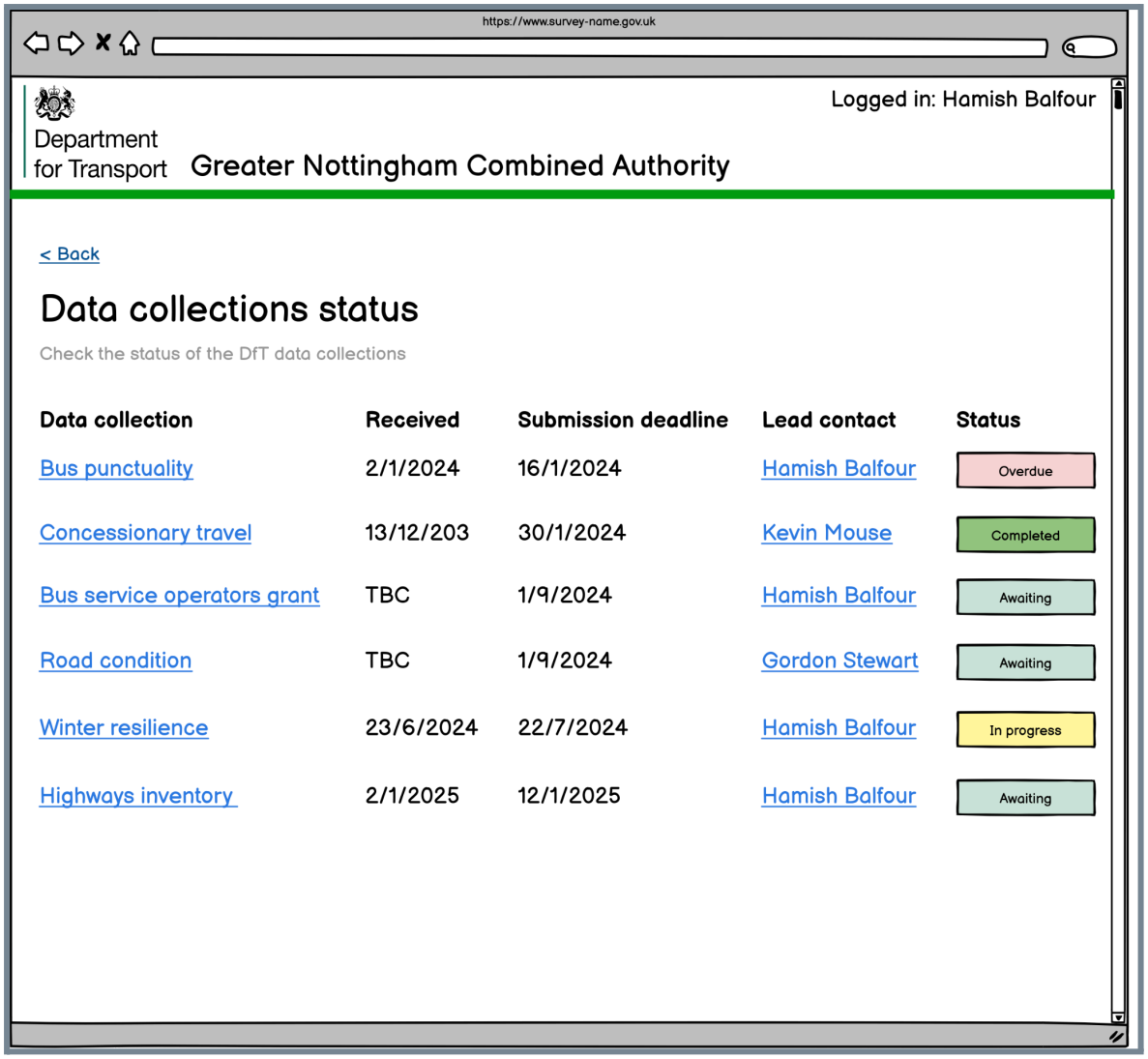


Image: Discovery concept prototype for showing status of data collections

Interestingly, this dashboard is a very similar idea to one of the screens that the Active Travel England team shared with us from their beta data collection service.

Here you can see the dashboard screen, showing which data needs updating, from their beta service.

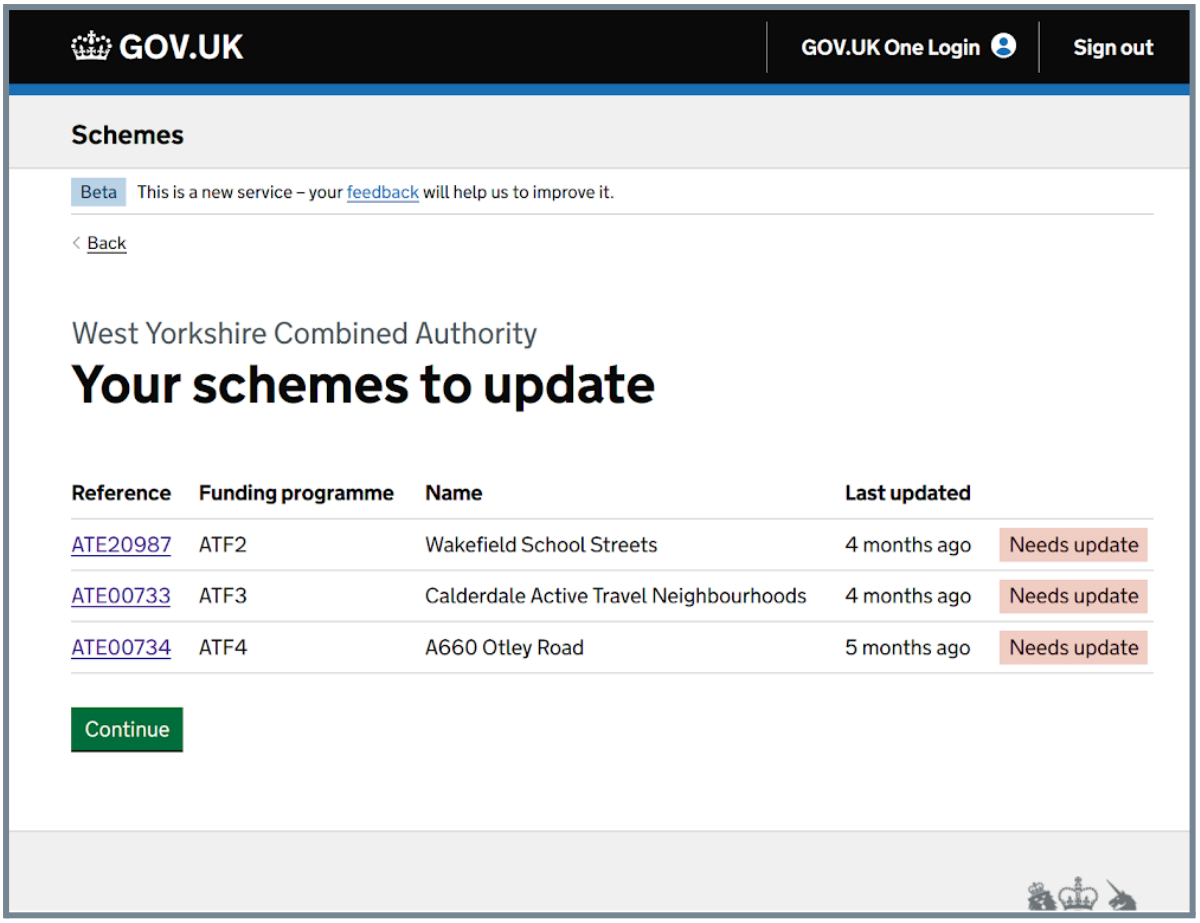


Image: Screenshot of the Active Travel England schemes service

6.3.6 Act on our inclusivity assessment

We have conducted an inclusivity assessment as part of the discovery (see Section 3). Acting on this will be important to make sure nobody is excluded in a future service. This is also something that will need to be demonstrated as you move through digital assurance processes.

Our findings show the possible problems users might face with the current surveys, particularly those on the Kenda service (see Section 2.3).

We recommend making sure your future service is technically accessible. And we recommend testing your service with users who have access needs, and users of assistive technology in future development phases.

In addition, we recommend taking further steps to make sure the future service is as inclusive as possible. Because if it isn't

easy for everybody to use, that could affect the quality of the data you are able to collect.

If people find it difficult in any way to use the tools, they might submit the wrong data, or make more errors.

Based on our assessment of the user base, estimate that ~687 of your users have lower levels of digital skills and confidence, according to the DfE Essential Digital Skills framework, based on typical patterns of the digital skills of people who work.

> *Total estimated number of data providers: ~3,390*
>
> *= ~**687** data provider users with lower levels of digital skills*

And regardless of their skills, we estimate that there are about 450 *new* data provider users each year, just based on the turnover of staff.

> *Total estimated number of data providers: ~3390*
>
> *Average LA workforce turnover: 13.4%*
>
> *= **~454** new data provider users per year*

So that means ~454 people learning their way each year, submitting data for the first time. It is in your interests to make the service as inclusive (and as easy to use) as possible, with these new users in mind.

6.3.7 Do the research to iterate individual question design

Our first discovery recommendation was to take a user-centred approach to collecting data (see Section 6.2.1) , and that includes question design.

So we make some specific recommendations about how to do that as a key part of an alpha phase. Because it won't be enough to have better technology, or better designed interfaces, if users struggle to answer the questions that they are asked.

Our landscape case studies reinforce this recommendation. When we asked service owners about their data collection

platforms, they often told us instead about the work they've done to improve their question design.

So we recommend survey-by-survey, question-by-question user research and iteration.

Note: While we have done a lot of user research as part of this discovery, we have not this *type* of question-by-question research.

We recommend a few methods to prioritise as part of an alpha phase, and as part of the roadmap.

Alpha methods to test and iterate question design

- Pair writing: content designers and statisticians working together to review and iterate survey language
- Interaction design: create prototypes for question formats, drawing on design system patterns
- Lab-based user research: observe how users behave when faced with alternative questions
- A/B testing: Test alternative language and formats at greater scale, to measure possible improvements to comprehension

6.3.8 Develop your bank of proven (and user tested) exemplar question patterns

By doing that, it should be possible to learn a lot more about the behaviours of data providers to add to the bank of discovery findings.

And it should be possible to develop a bank of patterns that are: tested with users, proven to work well, reusable as the starting point for new data collection.

Note: This is one of the themes of user needs we identified from system users:

> *UN05: As a system user I need to **be able to draw on a bank of best practice questions and formats**, so that my survey will generate the highest quality response*

6.3.9 Explore how far it is possible for this to be a self-service experience for system users

We recommend exploring how far it is possible for a future service to provide a self-service experience for system users. Several of the system user needs in the backlog refer to this theme.

At the moment, SmartSurvey seems to better meet these needs than Kenda, because users of SmartSurvey are less reliant on a supplier to make changes to a survey.

6.4 Service management

6.4.1 Meet your own standards

We recommend working towards meeting government and DfT service standards.

Our discovery outputs set the service up well for meeting the Service Standard, and any future assessment against it.

6.4.2 Set high standards for service management

Meeting standards will be about the technology choices for a future service AND governance and behaviours.

For example, our findings show the common use of shared logins throughout the service journey.

This can be addressed through better contact and user management tools. But it can also be addressed through governance processes.

The governance of a future service *should* become less complex as you move towards a centralised approach, because it will become clearer where responsibility and accountability sits.

The Government Service Manual provides a template for the roles and responsibilities you should have in place to run a live centralised data collection service.

6.4.3 Develop the rules and processes to make decisions about data collection

We have recommended working towards a centralised data collection approach to provide a consistent way of collecting data from your data providers.

But we know that there will be a need to collect *new* data, in addition to the existing surveys. So we recommend working towards a service that can accommodate new data collection.

We recommended developing simple rules and processes to help make *decisions* about new data collection.

We have suggested a decision flow to capture how a decision about *new* data collection should be made, and the factors to consider.

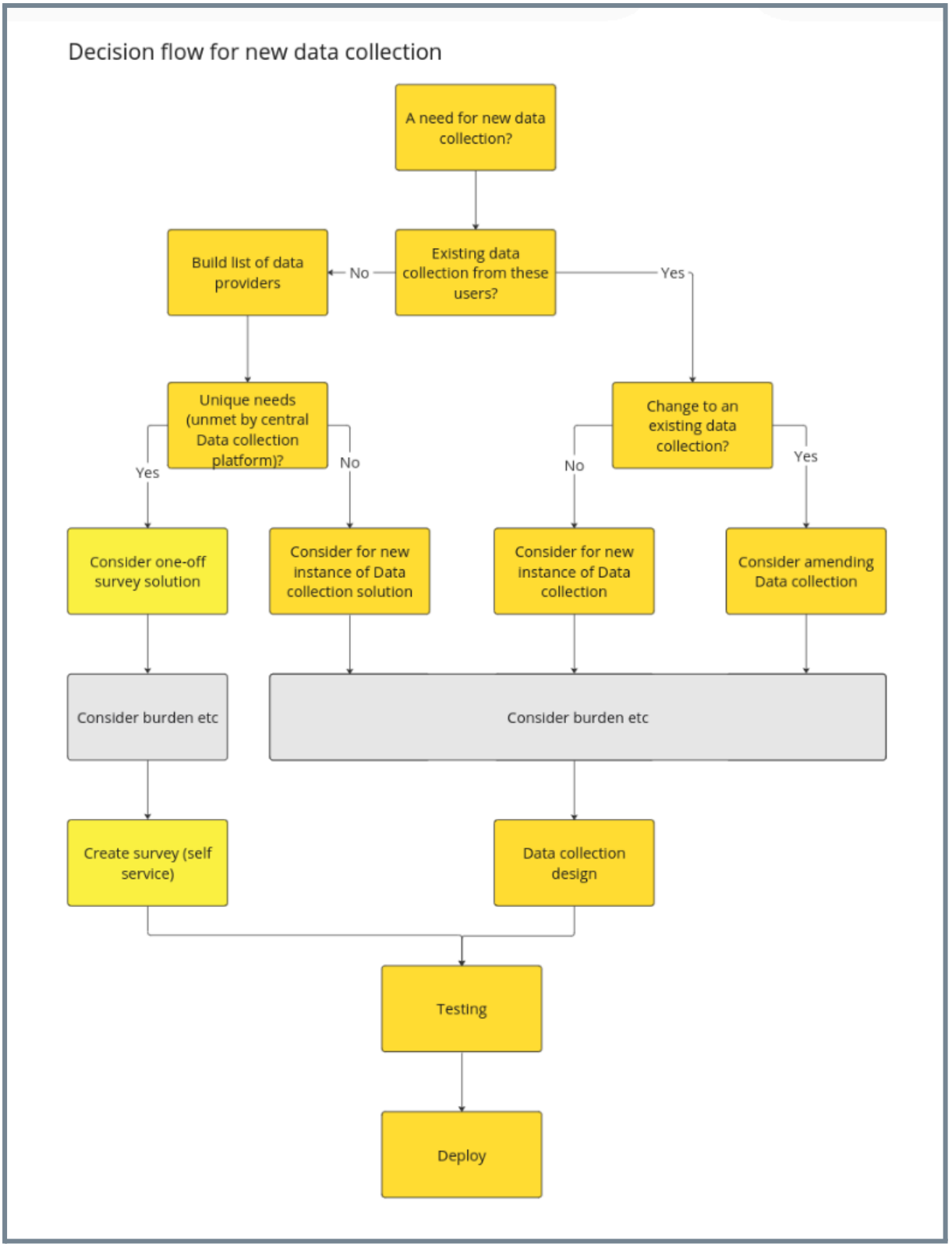


Image: Suggested decision flow for a new data collection

6.4.4 Settle on meaningful ways to measure the success of data collection (and justify investment)

We have made some assumptions about the improvements you can expect to make by acting on the discovery recommendations. But we recommend testing those assumptions, and then routinely measuring the *performance* of your data collection.

That will mean identifying:

- Performance indicators (things that you can measure to indicate the success of your service)
- Benchmarks
- Targets

Many of the suggested metrics below are already in use in some way. But a centralised service provides an opportunity to measure them more systematically. And importantly, to use them to drive improvement to the service.

Performance indicator	Target
Completion rate	[100%]
Completion time	[↓]
Data quality (e.g. volume of post submission validation)	[↑]
Time from collection to publication	[↓]
User satisfaction	[78%]
Cost per transaction	[]

Table: Draft KPIs for a prospective centralised service

6.5 Technology

6.5.1 Consider our technology options evaluation

We've conducted a high-level technology options evaluation to make technology recommendations for you to pursue, test, and validate further in an alpha, before committing to any technology solution.

We used our **Keep > Reuse > Buy > Build** approach to work through potential technical options to meet the priority user needs in a systematic and prudent way.

Firstly, we evaluated incumbent technology that may still be viable to *keep*, perhaps with some changes. In this case: Kenda and SmartSurvey.

We then looked at what technologies could be *reused*. Particularly technology already owned or paid for by the department, or free, or largely free, for public sector services.

Then we looked at technology options to *buy*, typically off-the-shelf platform and software as a service options.

And finally, we considered the options to *build* something. For instance: Kenda is an example of a bespoke build approach.

We entered this with an open mind that a combination of keep, reuse, buy, and build technology options may be appropriate to meet all the priority needs.

User needs evaluation criteria

We evaluated options against the validated and prioritised needs backlog to emerge from the discovery research. They fall into these groups:

1. Manage contacts
2. Collect data
3. Extract data

Note: we didn't focus on the Analyse data group of user needs, as that part of the service is largely out of scope for this discovery.

Wider evaluation criteria

We also evaluated the options against these criteria for a rounder view of the viability and fit:

- Compliance with the Government Service Standard and Technology Code of Practice
- Fit with DfT's technology standards and policies
- Accessibility and user experience
- Scalability
- Costs (to implement and ongoing)

Technical options evaluated

This table shows our work to map out relatively high-level, technology options to meet your priority user needs.

<table>
<tr><th></th><th>Keep</th><th>Reuse</th><th>Buy</th><th>Build</th></tr>
<tr><td>Manage contacts</td><td rowspan="2"></td><td rowspan="2">GOV.UK Notify</td><td>CRM/comms platforms (e.g. Dynamics 365, HubSpot, Mailchimp)</td><td rowspan="3">Low/no code data collection platforms (e.g JotForm)</td></tr>
<tr><td rowspan="2">Enterprise survey platforms (e.g. SmartSurvey, Qualtrics, SurveyMonkey)</td></tr>
<tr><td>Data collections</td><td rowspan="2">Kenda

SmartSurvey</td><td rowspan="2">Government data collections (e.g. DfT Road Haulage, Active Travel England)

GOV.UK Platforms as a Service (GOV.UK Forms, GOV.UK One Login)</td></tr>
<tr><td>Extract data</td><td></td></tr>
</table>

Under *keep* we included the incumbent **Kenda** and **SmartSurvey** options.

Under *reuse* we included GDS Platform as a Service options including **GOV.UK Notify**, **Forms**, and **One Login**. Plus other government data collections from our landscape analysis, including the **DfT Road Haulage surveys**.

Under *buy* we mapped enterprise survey platforms, including **SmartSurvey**. In this sense SmartSurvey is both a *keep* and a *buy* option as you would continue to buy it. And we added Customer Relationship Management (or CRM) such as **Dynamics 365** platforms as a *buy* option for managing contacts.

And finally low and no code data collection platforms such as **JotForm** as a *build* option.

We focussed on the options highlighted in yellow to better understand their potential.

We added those to a matrix to evaluate them against the criteria set out above. We ticked criteria they are likely to meet [green] and noted partially met criteria [yellow].

Criteria	Kenda [Keep]	SmartSurvey [Keep]	DfT Road Haulage Surveys service [Reuse]	GOV Forms
Features (in target service blueprint)				
Manage data provider users [contacts]				
Access / update contact lists of data providers (primary and secondary)		Has basic mailing list features		
Check / validate accuracy of provider contacts				
Email data providers (manual and automated)		Has basic mailing features		
Manage data collections				
Authenticate internal system users and data provider users [roles, permissions]	✓	✓	✓	Coming by A
Multi-Factor Authentication / Single Sign-On (SSO) (using LDAP for system users)		✓	Requires further investigation	Further inve required
Multiple data provider users per response [roles, permissions]				
Create new data collections [self service]	Requires supplier	✓	Requires supplier	Limited que no matrices
Edit / add questions in data collections [self service]	Requires supplier	✓	Requires supplier	Limited que
Set up conditional routing logic for questions	Requires supplier	✓	Requires supplier	Prob not so enough (yet coming by S
Set up data validation rules	Requires supplier	✓	Requires supplier	Generic vali prob not so enough (yet
Test / preview (before making live)		✓	✓	
Provide data				
Manage guidance content (instructions, support contacts)	Requires supplier	✓	Requires supplier	Editable ins
Pre-populate / make available previous [historic] data	✓		Can reopen previous submissions	On roadmap
Coordinate / assign collection questions to individual users				
Enter and validate data (highlight errors)	✓	✓	✓	
Bulk enter / upload data				
Save and return (to unfinished submission)	✓	✓	✓	By Septemb
Review data (before submitting)	{How much does it let you review it?	Requires further investigation	✓	
Submit data to DfT	✓	✓	✓	
Keep / retrieve record of submitted data	Print answers feature	Requires further investigation - can certainly download	✓	

Caption: A partial screenshot of the matrix.

The Technical Options Evaluation matrix sheet is a discovery output.

6.5.2 Don’t pursue Kenda as the technical solution

We recommend that you do not pursue Kenda as your technical solution to meet your priority user needs.

This should not come as a surprise as it is falling well short of the Service Standard and Technology Code of Practice.

Instead, expect to phase out Kenda and migrate its data collections to the new technology solution.

6.5.3 Enable SmartSurvey’s unused functionality for short term benefit for existing collections

SmartSurvey has features to better meet user needs, but not enough to be your data collection solution

Although we now understand SmartSurvey has unused features that can probably better meet priority user needs, we don’t think that is enough to make it your long-term data collection solution.

We’ve looked closely at SmartSurvey as it came through the technical review well against the Service Standard and Technology Code of Practice, and is already DfT’s preferred tool for public facing collections - with plenty of licences for departmental use.

But we also heard stakeholders’ concerns that SmartSurvey can’t do enough of what you need it to do.

Upon closer inspection of the features available on SmartSurvey’s enterprise level package it probably can meet some needs assumed unmeetable.

For instance: to save, leave, and return to a survey. This is apparently just a setting to be toggled on during survey setup.

Plus its mature API and webhooks could be used to automatically pull data, rather than manually downloading Excel files.

There's also functionality for:

- System user management and collaboration, including permission management
- Multi-factor Authentication (MFA) and Single Sign On (SSO) for improved security
- Question library and default survey templates - to quickly set up best practice, pre-configured surveys
- Managing contact lists
- Emailing invitations and reminders
- Emailing a record of submitted data to providers

SmartSurvey's gaps

However, some significant gaps still remain with SmartSurvey to meet some priority user needs:

- Pre-populating collections with historic data or making that data readily available to data providers
- Enabling multiple data provider users controlled access to a single response
- Coordinating/assigning specific questions to individual users (e.g. to colleagues)
- Bulk uploading data
- Automated collection of data (from data providers' systems)
- Reviewing answers before submitting
- Editing answers post-submission

In fairness, gaps should be expected for an off-the-shelf technology that has not been bespoke built to meet your specific needs.

The obvious question is: can other enterprise survey services meet these unmet needs?

We've looked into SmartSurvey's competitors, including SurveyMonkey and Qualtrics, and they don't appear to offer that level of core functionality either. So we are not recommending you further explore those technologies instead.

Benefit from unused SmartSurvey features

Realistically, SmartSurvey will be used for some of your data collections for a while yet, until a new solution is in place and they have all been migrated.

So we recommend you try and benefit from some of the unused SmartSurvey features that come with the enterprise licences the department is already paying for.

To be clear: we are not recommending SmartSurvey as your target technology solution for your data collections, but that is no reason to continue missing the opportunity to improve your current SmartSurvey collections in the interim.

We recommend you test out and introduce these features:

- Set up individual user accounts for DfT staff that need to access the surveys (to stop sharing login details)
- Set up teams with specific permissions to control who can access what
- Enable Multi-factor Authentication (MFA) or Single Sign On (SSO) with Lightweight Directory Access Protocol (LDAP) for improved security
- Enable save and continue functionality on collections
- Use the survey template/s and question library

Remember that your enterprise level package also gives you access to SmartSurvey's Customer Success Team. Talk to them if you need any support to do this.

6.5.4 Use GOV.UK Forms patterns, but not the platform

GOV.UK Forms is not sophisticated enough for your data collection needs

We have also evaluated the nascent GOV.UK Forms platform to meet needs around data collection and extraction.

However this service is not sophisticated enough yet for your needs. For instance, form responses are still sent in the body of an email.

Fortunately, their form interface components and patterns are already available on the GOV.UK Design System for you to adopt as you require.

6.5.5 Use an alpha to experiment reusing and expanding the Road Haulage surveys into a centralised DfT data collection platform service (for all data collections)

The technology case for reusing and expanding the Road Haulage Surveys service

Firstly, this is a DfT-led and owned service. We understand that the department owns the IP for this.

The bespoke built service is already live and meeting similar needs to facilitate user-friendly data submissions.

It has been through its Service Standard assessments, and should therefore be compliant with the Tech Code of Practice. Which means it should be secure, accessible, and scalable.

It incorporates accessible and consistent GOV.UK patterns.

Plus it has already been expanded to accommodate the Roll on Roll off data collection, so there is a precedent for using the technology and infrastructure for managing several collections.

Technology gaps with the Road Haulage Surveys service*

However, we already know of existing functionality gaps that would need to be addressed to meet all of your priority needs.

We've captured some here, but there may be others when you fully explore this approach.

Firstly, we understand that the service does not yet have **self service functionality** for system users to independently do things like add or edit questions, conditional routing logic, and validation rules.

That also means no self-service for creating new data collections.

System users have to request the supplier, Ghost, make such changes. This is similar to the arrangement with Kenda and could be perceived as a backwards step for the collections that already use SmartSurvey's self-service functionality.

Nor does it have the functionality to enable **multiple users per response** or the ability for data providers to **coordinate and assign specific questions** to their colleagues to answer.

And we don't believe there is currently the functionality to **pre-populate collection forms with previous/historic data** submissions or to **bulk upload data**.

To be fair: these are sophisticated features and SmartSurvey and its off-the-shelf enterprise peers also lack these.

Nor do we believe there is an **API to automate the extraction** of data.

In summary, there are currently too many gaps to meet your priority needs. However, it is a relatively new, bespoke build that you own; it is in the department's gift to invest in it and introduce the functionality needed to meet your priority needs.

In this respect it actually represents both a ***reuse*** and ***build upon*** technology option.

** We have not conducted a deep technical review of the service's technology and these findings are based on conversations with the*

service owner. We recommend you engage with the service owner and their technical supplier pre-alpha to clarify these assumptions.

Alpha experiments

We recommend using the alpha to properly dig into the potential of building on the investment, effort, and lessons learned with your Road Haulage Surveys, to move towards a centralised DfT Data Collection that over time can host all your existing data collections, and collections to come.

Remember that an alpha (on the Government Service lifecycle) is the space to try things and learn before committing to a beta build. This *failing fast* approach is particularly important here.

Conduct these technology focussed alpha experiments towards understanding the viability, approach, and challenges of pursuing a centralised DfT data collection platform service:

- Can the system users easily self-serve their needs without the supplier's input (e.g. a form builder for editing questions or creating a whole new collection)
- Can previous data be provided and pre-populated
- Can there be multiple users per data collection response
- Can data providers coordinate specific questions for their colleagues to answer
- Can collection data and meta data be extracted via an API
- Can it be expanded and scaled into a platform for multiple DfT collections
- How much is actually reusable, and how much needs to be built and rebuilt

If you get to the end of the alpha and you have learned this approach won't cut it, you will have a much better idea of what technology option to pursue instead. For instance, you may then opt for a more flexible no code platform to build the functionality you still need.

6.5.6 Use modern technologies designed for the purpose of managing and communicating with contacts

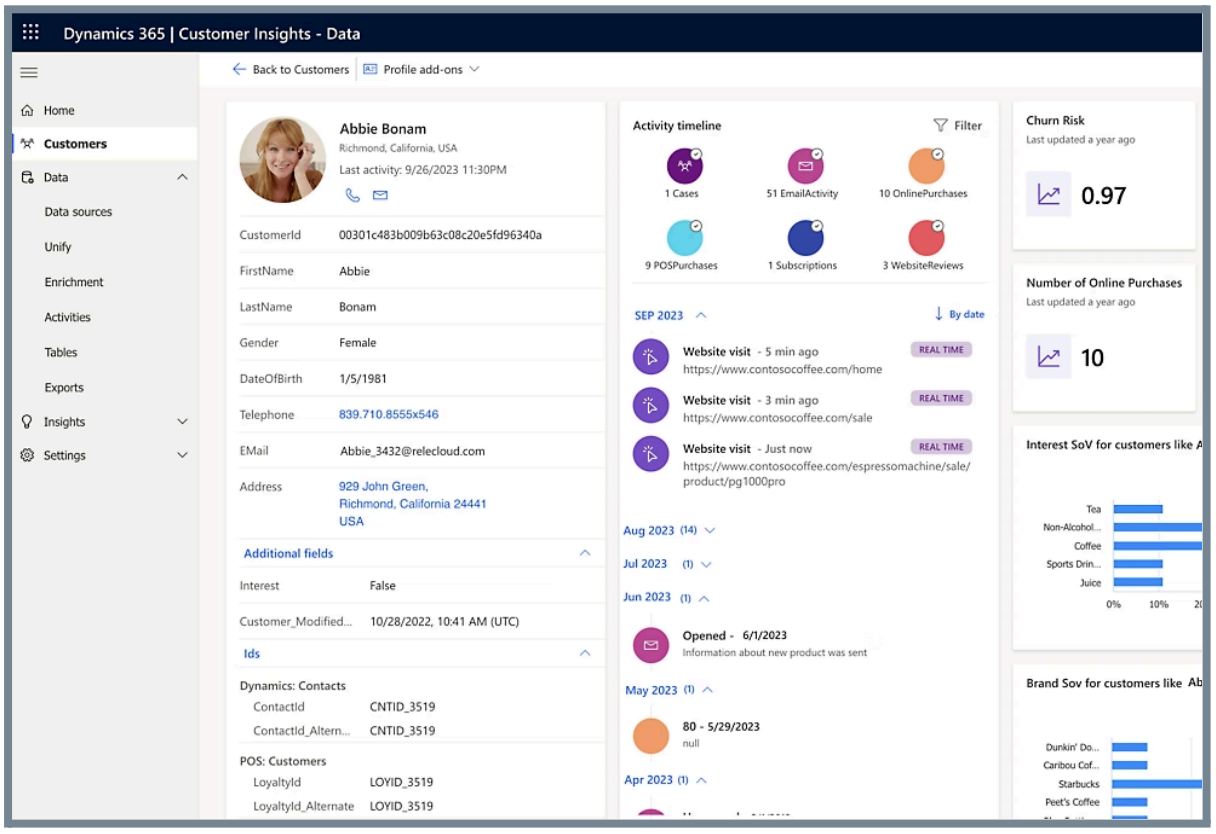
The incumbent technology to meet these needs is largely made up of spreadsheets and emails, so we progressed to look at *reuse* and *buy* technology options.

Start with Microsoft Dynamics 365

We have learned that the department is already using Microsoft Dynamics 365 for other business applications.

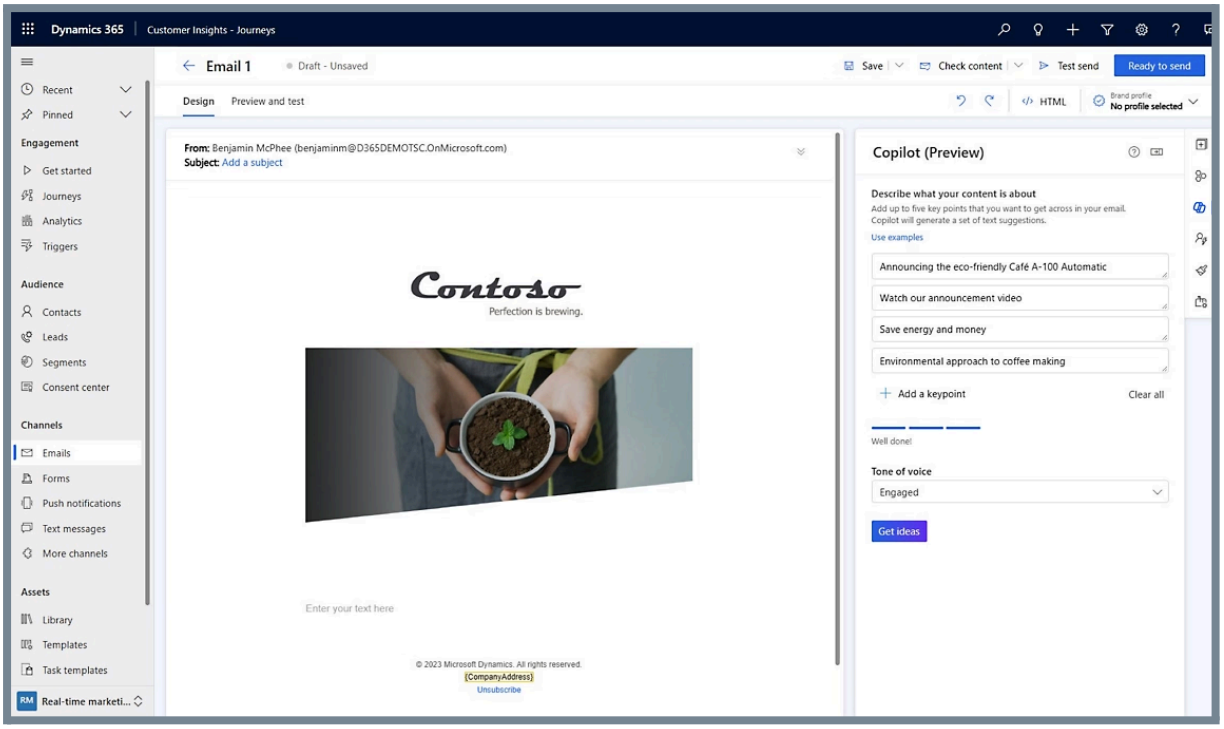
Dynamics 365 can be used as a Customer Relationship Manager (CRM) solution to:

- Bring together and readily accessing intelligence on contacts
- Understand their relationships with one another
- Capture and measure their performance and behaviour



Caption: This example customer insights dashboard on Dynamics 365 shows the potential functionality to help manage the contacts across your collections.

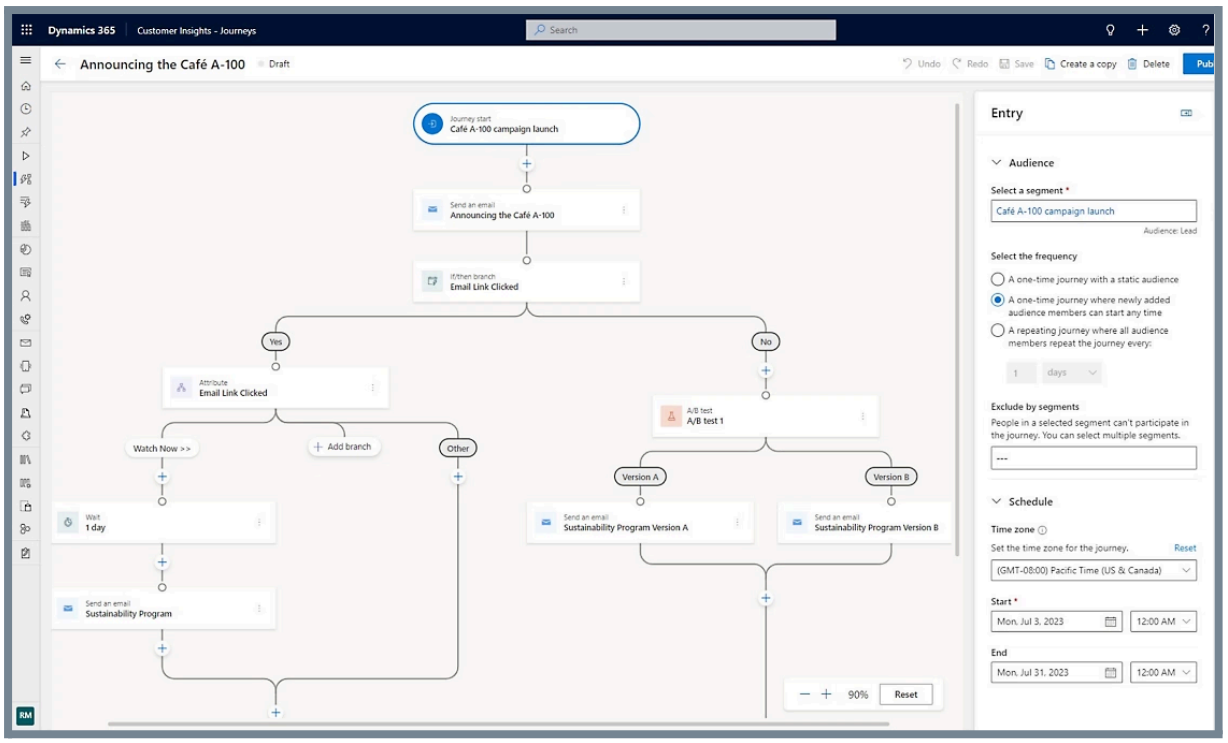
A technology like Dynamics 365 also allows service teams to create, template, and reuse emails.



Caption: Email templates can be composed and edited, to be used as automated system emails or manual emails.

CRMs can also be used to send the emails, rather than using a regular email client with all the associated risks of that method.

Plus they provide lots of insights about how contacts interact with the emails, e.g. open rates.



Caption: A screenshot of Dynamics 365's workflow journey editor.

A workflow journey, like the one in the image above, could be set up per collection, with business rules to automate actions (e.g. email reminders) and to trigger human interventions (e.g. phoning a contact).

> **Example scenario:** the configured workflow sends emails in advance of a data collection opening to confirm if the held contact details are up to date. If there is no confirmation within X days, that could trigger a follow up phone call.

It is important that any CRM type technology is integrated with the data collection part of the service to enable these benefits.

> **Example scenario:** the workflow could use data that comes via the data collection's API to check if a data provider has started or completed their submission. If they haven't by a set point an automated reminder email is triggered and sent to them. This is also reported on a dashboard of 'late completers' for follow up phone calls.

There are several off-the-shelf options that should meet these needs: services like HubSpot, and SurveyMonkey. Plus there are plenty of suppliers on the Digital Marketplace that are certified to install and configure them properly.

But we recommend you start by testing out Dynamics 365 in the alpha if it is already being used in the department.

Speak to the DfT Digital Service team pre-alpha for more information and guidance about the use of Dynamics 365 in the department.

6.5.7 Conduct alpha experiments for managing contacts

Use the alpha to experiment and learn these things about managing data provider contacts:

- Can it deliver the concepts for meeting the user needs around managing contacts
- Can it integrate and syndicate data to and from the data collection technology
- Can it handle the communication with data provider contacts
- Can it enable and support valuable human interactions with contacts
- Can it automate activities that are not an effective or efficient use of humans
- Can it ultimately reduce the burden of managing contacts

6.5.8 Experiment with GOV.UK Notify in alpha for sending emails

We recommend also experimenting with GOV.UK Notify in the alpha as another technology option for sending out emails.

It is already used by over 1,000 organisations on nearly 8,000 services.

- You can send unlimited bespoke emails for free
- It has an API to automate sending emails
- It meets the Service Standard (as you would expect for a GDS built service)

However, it does not let you store or manage contact mailing lists. This would need to be used in conjunction with a CRM-like technology, like Dynamics 365, to handle such lists.

6.5.9 Experiment with GOV.UK One Login in alpha as part of any DfT data collection platform

We have also looked at GOV.UK One Login as an option to meet the user needs for managing access and authenticating data provider users.

It offers multi-factor authentication and allows users to sign in at the start of a service, and to return to that service later. That could enable the priority user need to save and return to responses.

It is increasingly being adopted in public sector services, including business-context services such as this.

Note: there are questions to explore in alpha around individuals interacting with One Login in a professional capacity, rather than as citizens.

We also recommend that you engage the DfT Digital Services team in pre-alpha to better understand the department's position on adopting GOV.UK One Login in its services.

6.6 Suggested roadmap

6.6.1 Consider the full range of discovery recommendations

We recommend you first take your time to consider the full range of our recommendations, across user experience, governance, and technology.

For a discovery with a range of recommendations like this, we'd expect you to to prioritise some of our recommendations over others.

We recommend that you consider and prioritise what to:

1. Act on now (pre-alpha, e.g. that might include a few smaller packages of work to run in parallel with your planning for a larger piece of work)
2. Explore in an alpha phase (see Section 6.6.2)
3. Consider in the longer term

6.6.2 Prepare for an alpha phase

Alpha assumptions to test

We have made suggestions for what to include in an alpha phase, based on the themes of our discovery research, and the prioritised user needs.

An alpha should be about testing the biggest, riskiest assumptions. We recommend using the alpha phase to satisfy yourselves on these big questions before committing to make a bigger investment in a solution.

> ***Assumptions to test:***
>
> *User centred design can reduce form completion time AND increase data quality*
>
> *CRM-like technology is needed to meet contact management needs (in addition to offline service design)*
>
> *Existing DfT services can transform (and scale) to become a centralised data collection platform (for the 13 surveys +)*

We think our discovery assumptions are sound, based on our discovery research. But alpha experiments can be designed to either confirm that our assumptions were correct, and confirm the recommended direction of travel for the next phase of work.

Alpha experiments may prove our assumptions to be wrong, which would be just as valuable a thing to learn.

An alpha phase should address these prioritised themes, and explore them in short sprints of work.

Example: 2 week contact management sprint

Hypothesis: *We believe that using CRM-like interfaces in the service journey will lead to increased capacity for data analysis, because it will reduce the time involved in contact management*

- *Offline process review*
- *co-design with data providers*
- *High fidelity prototypes*
- *Content design*
- *User research*
- *Data/tech investigation (into Dynamics 365)*

Suggested alpha experiments

Assumption: User centred design can reduce form completion time AND increase data quality

Possible experiments:

- Pair writing: content designers and statisticians working together to review and iterate survey language
- Interaction design: create prototypes for question formats, drawing on design system patterns
- Lab-based user research: observe how users behave when faced with alternative questions
- A/B testing: Test alternative language and formats at greater scale, to measure possible improvements to comprehension

Assumption: CRM-like technology is needed to meet contact management needs (in addition to offline service design)

Possible experiments:

- Explore CRM options (Microsoft365)

        - Can it deliver the concepts for meeting the user needs around managing contacts
        - Can it integrate and syndicate data to and from the data collection technology
        - Can it handle the communication with data provider contacts
        - Can it enable and support valuable human interactions with contacts
        - Can it automate activities that are not an effective or efficient use of humans
        - Can it ultimately reduce the burden of managing contacts
    - Experiment with GOV.UK Notify in alpha for sending emails
    - Experiment with GOV.UK One Login

Assumption: Existing DfT services can transform (and scale) to become a centralised data collection platform (for the 13 surveys +)

Possible experiments:

- Explore DfT Road Haulage surveys service
    - Can the system users easily self-serve their needs without the supplier's input (e.g. a form builder for editing questions or creating a whole new collection)
    - Can previous data be provided and pre-populated
    - Can there be multiple users per data collection response
    - Can data providers coordinate specific questions for their colleagues to answer
    - Can collection data and meta data be extracted via an API
    - Can it be expanded and scaled into a platform for multiple DfT collections
    - How much is actually reusable, and how much needs to be built and rebuilt

Service and product ownership

We recommend that you decide who will be your *service owner and product manager* and ensure that these people have sufficient time to dedicate to an alpha phase.

Note that leading and delivering an alpha can be more intensive and time-consuming than carrying out a discovery phase, and the success of an alpha phase is often largely dependent on the active involvement and decision making of these key roles.

Service standards

We recommend familiarising yourself with standards you will need to meet throughout the delivery of the work. The Service Standard, Technology Code of Practice and alpha phase in particular.

It is also important to identify what the assurance and service assessment process will be.

6.6.3 Assemble the multidisciplinary skills needed for an alpha phase

You will need a range of skills to do the work to test those assumptions.

So we have recommended the roles you would need to assemble in an alpha team to do the type of work we've described.

- Some roles (including the service owner, product manager) will need to be hands-on, and close to full-time
- You will need expert digital roles to lead and deliver particular alpha experiments and investigations
- You will need to draw on some subject matter experts (including statisticians) to contribute to some of the experiments

- And you will need access to others, including the suppliers and team responsible for delivering the Road Haulage surveys service

Suggested multidisciplinary team roles

Role	Where from	Notes
Service owner	DfT	Overall decision making responsibility for the service
Product manager	DfT	Day-to-day ownership and responsibility for the product
Subject matter experts	DfT	Statisticians, and those with particular relevant responsibilities (e.g. for the Road Haulage surveys service)
Delivery manager	DfT/Supplier	Lead the delivery of the alpha, monitor risks/milestones
Service designer	DfT/Supplier	Responsible for the end-to-end service design
Technical architect	DfT/Supplier	To lead work around the technical design of the service
Content designer	DfT/Supplier	Lead content design experiments, with subject experts
User researcher	DfT/Supplier	Plan and conduct user research
Developer	DfT/Supplier	Develop prototypes and tech/data experiments

Devise a research plan

Good quality user research will underpin the success of any alpha phase.

We recommend developing an outline plan for how user research will be carried out during alpha (based on the discovery recommendations, and what you prioritise for an alpha phase), and how participants will be recruited.

You should expect a user researcher to lead this work during an alpha phase. But we recommend thinking about how you might do this in advance of that work starting.

Having said that, the discovery evidence suggests that there is a receptive user base who will be willing to take part in alpha user research.

Identify an appropriate route through assurance processes

It will be prudent to engage with the DfT assurance process following discovery. In particular to help understand and plan for how the work will be assessed at the end of an alpha phase.

6.6.4 Make the case for change (and use discovery evidence to embrace assurance)

We recognise that we're recommending a significant change in approach.

And all the service owners we spoke to as part of our landscape analysis emphasised the change programme they had led as much as the technology.

Our discovery outputs will help provide the evidence to make the case for change. Practically, you will need to make the business case to proceed.

Typically, alpha phases are procured as an outcome via the DOS6 framework. And an alpha might last ~8 weeks (depending on what you prioritise to explore).

Discovery evidence mapped to DfT assurance headings

- Standard 1: Pipeline
  - Discovery evidence:
    - Purpose and content findings (Section 2.1)
    - Suggested roadmap (Section 6.6)
- Standard 2: Build on user research

        - Discovery evidence:
            - User experience findings (Section 2.3)
            - User experience recommendations (Section 6.3)
    - Standard 3: Engagement governance and scrutiny
        - Discovery evidence:
            - Governance findings (Section 2.2)
            - Service management recommendations (Section 6.4)
    - Standard 4: Adherence to Technology Code of Practice
        - Discovery evidence:
            - Technology findings (Section 2.6)
            - Technology recommendations (Section 6.5)
    - Standard 5: Resources & capability
        - Discovery evidence:
            - Suggested roadmap (Section 6.6)
    - Standard 6: Context & collaboration
        - Discovery evidence:
            - Landscape analysis (Annex 3)
    - Standard 7: Identify & monitor benefits
        - Discovery evidence:
            - Service management recommendations (Section 6.4)
            - Suggested KPIs (Section 6.4.4)

6.6.5 Make a practical plan for migration

You will also need to make a practical plan for migration of the existing surveys.

We think there are practical reasons to address the surveys that use Kenda first. But there will be other considerations, including your data collection schedule.

We recommend focussing effort on 2 or 3 surveys during an alpha phase including those that have more complex workflow for data providers.

By the end of the alpha phase, you should have a much better understanding of the pattern and resources needed to migrate each survey.

6.6.6 Plan the internal communications and engagement to deliver change

Given the nature of the possible change, and the range of stakeholders and user community, we recommend that you prioritise planning how you communicate with them following this discovery, and through an alpha phase.

We see no reason why you shouldn't work in the open as far as possible.

Based on the experience of delivering the discovery, we think there is a receptive audience. Data provider users in particular have been willing to take part in our research, open to the changes suggested by our work, and keen to take part in, and help shape, further work.

Annex 1: Discovery research

Research sources

The following materials have been reviewed during the discovery phase:

- 230421 AIG MONTH - Delivery Monitoring Data Collection and Visualisation in BEIS (PDF)
- ACB Submission Template (Word)
- Architecture Principles November 2023 (PowerPoint)
- Assessment against pipeline standards template (Word)
- Digital and Technology Assurance, A guide to assuring your project (Word)
- Citizen Facing Forms, Discovery Report, October 2020 (PDF)
- Citizen Facing Forms, Alpha Scope (PDF)
- Data Collection Architecture Action Plan (Word)
- DfT stats data collections (Excel)
- Improving Local Transport Data Collection and Management, December 2022 (Word)

Stakeholder interviews

A range of stakeholders were interviewed during the discovery phase, including:

- Kayley Martin, Head of Active Travel Statistics, Department for Transport
- Chris McKee, Trends, Head of Bus and Local Transport Statistics, Department for Transport
- Helen Lucas, AIMS, Head of Maritime Workforce and Environment Statistics, Department for Transport

- John Wilkins, Deputy Director, Senior Responsible Owner, Department for Transport
- Tom Andelon, Data Architect, Department for Transport
- Laura Murphy, Head of Road Network Statistics, Department for Transport
- Isabella Image, Head of Analysis, Local Transport Portfolio and Levelling Up Mission, Department for Transport
- Fran Bryden, Head of Statistics Automation, Innovation and Dissemination, Department for Transport
- Linda Bennett, Head of Bus and Local Transport Statistics, Department for Transport
- Jo Welsh, Senior Delivery Advisor, Department for Transport
- Jenny McCurry, Research and Evaluation lead, Department for Transport
- Umair Malik, Digital Business Partner, Department for Transport
- Tom Westlake, Head of Data Engineering, Department for Transport
- Stephen Fidler, Co-Director, Roads and Local Group, Department for Transport

Landscape stakeholder interviewees

- Laurence Mallows, Service Owner for Data Collection as a Service, The Department for Levelling Up, Housing and Communities
- Barry Jeffreys, Digital Programme Manager, Office for National Statistics
- Nick Joyce, Head of Data and Development, Department for Energy Security and Net Zero
- Lucy Mills, Head of Road Freight Statistics, Department for Transport

- Alex Coleman, Lead Developer, Data and Digital, Active Travel England

User participants

All the users below were involved in interviews, the co-design workshop or concept feedback sessions.

User interviews

- Data provider - local authority, combined authority; multiple surveys (including concessionary travel survey and bus service operators grant (BSOG) survey)
- Data provider - local authority, unitary authority; multiple surveys (including concessionary travel survey and bus service operators grant (BSOG) survey)
- Data provider - transport consultancy; concessionary travel survey
- Data provider - local authority, unitary authority; multiple surveys (including public service vehicles survey, bus punctuality survey,concessionary travel survey and bus service operators grant (BSOG) survey)
- Data provider - local authority, metropolitan district; concessionary travel survey
- Data provider - local authority, county council; concessionary travel
- Data provider - local authority, metropolitan district; multiple surveys (including highways inventory survey, highways maintenance self-assessment, road condition - carriageway work done and road condition - skidding resistance)
- Data provider - local authority, unitary authority; multiple surveys (including winter resilience survey, highways inventory survey, highways maintenance self-assessment, road condition - carriageway work done and road condition - skidding resistance)

- Data provider - local authority, london borough; multiple surveys (including winter resilience survey, highways inventory survey, road condition - carriageway work done and road condition - skidding resistance)
- Data provider - local authority, metropolitan district; multiple surveys (including winter resilience survey, highways inventory survey, road condition - carriageway work done and road condition - skidding resistance)
- Data provider - local authority, county council; multiple surveys (including highways maintenance self-assessment and road condition - carriageway work done)
- Data provider - local authority, district council; taxi and private hire vehicle survey
- Data provider - local authority, metropolitan district; taxi and private hire vehicle survey
- Data provider - local authority, district council; taxi and private hire vehicle survey
- Data provider - transport operator, medium-sized bus operator; public service vehicles survey
- Data provider - transport operator, large-sized bus operator; public service vehicles survey
- Data provider - transport operators; medium-sized bus operator; multiple surveys (including quarterly bus fares survey and public service vehicles survey)
- Data provider - transport operator, large bus operator; multiple surveys (including public service vehicles survey and bus service operators grant (BSOG) survey
- Data provider - transport operator, small-sized bus operator; public service vehicles survey
- Data provider - transport consultancy; light rail and tram survey
- Internal system user - bus team
- Internal system users - contact management

- Internal system user - local transport team
- Internal system user - road conditions team
- Internal system user - maritime team
- Internal system user - contact management
- Data user - analysts
- Data user - analysts
- Data user - Economist

Co-design workshop

- Data provider - local authority, unitary authority, concessionary travel survey
- Data provider - local authority, unitary authority, multiple surveys (including road condition - carriageway work done, road condition - skidding resistance, highways maintenance self-assessment)

Concept feedback sessions

- Data provider - local authority, county council, concessionary travel survey
- Data provider - local authority, metropolitan borough council, taxi and private hire vehicle survey
- Data provider - local authority, unitary authority, multiple surveys (including public service vehicles survey, concessionary travel survey, bus punctuality survey)
- Data provider - local authority, county council, multiple surveys (including road condition - carriageway work done, highways maintenance self-assessment)
- Data provider - transport operator, large bus operator, multiple surveys (including public service vehicles survey and bus service operators grant (BSOG) survey).

Annex 2: Discovery outputs

These artefacts have been delivered in accordance with the project proposal:

- Notes from stakeholder interviews
- User research notes and analysis from user interviews
- User experience survey results and analysis
- User proto-persona profiles
- Technology questionnaires
- User journey maps
- Service journey map
- User needs backlog
- Concept prototypes
- Target service blueprint
- Concept feedback boards and analysis
- Findings show and tell presentation slide deck
- Tech options evaluation
- Discovery report (this document)
- Recommendations show and tell presentation slide deck
- Executive summary

These other distinct outputs have also been delivered in accordance with the project proposal but captured elsewhere:

- Inclusivity and Accessibility assessment (Section 3)
- Discovery concept development (Section 5)
- Landscape analysis case studies (Annex 3)

Annex 3: Landscape analysis

We took a detailed look at 5 comparable services, at various stages of their development to see what lessons could be learned:

- Department for Energy Security and Net Zero
- Office for National Statistics
- Department for Levelling Up, Housing and Communities
- Active Travel England
- DfT Road Haulage surveys service

Detailed notes on each of the comparable services are available as a separate output (Annex 3).

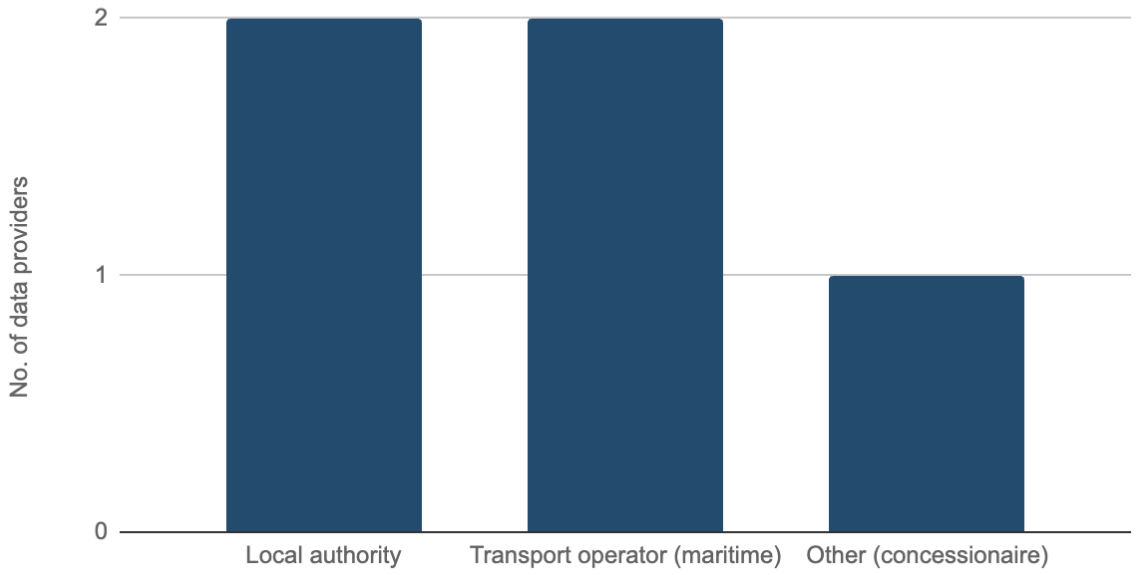
Annex 4: Surveys

User experience survey data

The user experience survey was promoted directly to data providers via email by the DfT team.

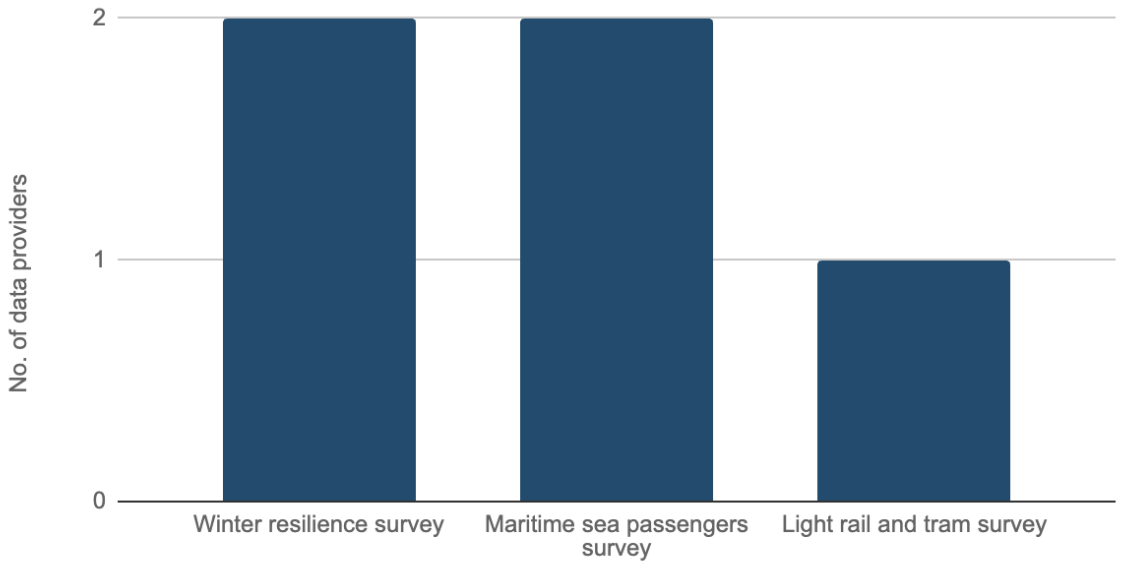
5 users completed the survey and further data about their responses have been included in the summaries below.

Which of the following best describes the organisation you work for?



Bar chart: organisation breakdown of data providers (n=5)

Which of the Department for Transport data collection surveys were you last involved in completing?



Bar chart: last survey completed by data providers (n=5)

Annex 5: Essential Digital Skills

Lloyds Bank's Essential Digital Skills survey provides a more up to date picture of digital skills across the UK. This is based on the Department for Education's Essential Digital Skills Framework, and accounts for a range of different demographics including region, personal income, and age.

The survey measures skills which are fundamental to using online services, known as Digital Foundation Skills. Examples of Digital Foundation Skills include:

- Being able to turn on a device
- Understanding that the internet allows the user to access information and content and that they can connect to it through Wi-Fi
- Understanding that passwords and personal information need to be kept safely as they have value to others

The survey also assesses essential digital skills for life and work, known as Life EDS and Work EDS. These cover five areas: communicating, handling information and content, transacting, problem solving, and being safe and legal online.

Examples of Life EDS include:

- Communicating with others digitally using email and other messaging apps
- Accessing information and content from different devices
- Upload documents and photographs when this is required to complete an online transaction
- Using online tutorials, FAQs and advice forums to solve problems and improve skills in using devices, software and applications
- Recognising suspicious links in email, websites, social media messages and pop ups and knowing that clicking on these

links or downloading unfamiliar attachments could put a user and their computer at risk

Examples of Work EDS include:

- Communicating in an appropriate way for the organisation by using email, online and collaborative digital tools
- Understanding and conform with the organisation's policy for IT use
- Complete digital records for absence, holidays or expenses online
- Using the Internet to find information that helps to solve problems at work
- Following organisational guidelines and policies for choosing login information including choosing secure passwords and changing them when prompted

Respondents are said to have achieved the Foundation Level if they are able to complete the eight foundation tasks. To achieve Life EDS, they must be able to complete one task from each of the five life skill areas.

To achieve Work EDS, respondents must be able to complete one task from each of the five work skill areas.